Administering Regeneration in Wales:  
Policy and Practice in a Systems View

(Volume One)

David Paget

MBA Dip Est Man FRICS FCMI

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Supervisors: Professor David Brookesbank
Professor Nick Clifton

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Cardiff Metropolitan University
Cardiff School of Management
Western Avenue
Llandaff, Cardiff UK CF5 2YB

ST 20018779
Declaration

I declare that this work has not been previously accepted in substance for any degree and is not being concurrently submitted in candidature for any degree. I further declare that this thesis is the result of my own independent work and investigation, except where otherwise stated. Other sources are acknowledged and referenced. A bibliography is appended. In Volume Two additional material in appendices is provided.

I give consent to this dissertation, if accepted, to be available for photocopying and for internal library loans, after expiry of a bar on access approved by Cardiff Metropolitan University, on the specific recommendation of the constituent university.

Signed:

David Paget (Candidate)

ST 20018779
Acknowledgements

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I would like to thank those of my colleagues at the Welsh Government who gave up their valuable time to assist me in this research and in particular Gillian McGregor and Jayne Stokes whose knowledge, and integrity gave me hope from day one that I would someday finish. I am in the debt of the Welsh Government regeneration team at Swansea, Nick, Emma, Laura, Meurig and Richard for their support and for six years of enjoyable debate. I have valued my time at Swansea greatly.

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Finally, I would like to dedicate this work to my mother Nancy Paget A.L.C.M. and my father Clifford Paget, who, in our valley community, would have been extremely proud that their only son had the resilience to become a candidate for a doctoral qualification during the twilight of a long career. It would have been something that mam would have wanted for me as she and dad gave me the foundations for a happy family and professional life.
Abstract

As a public service in the UK, area-based regeneration is a multi-objective and multi-disciplined approach aimed at developing more equal places. Complexity is a delivery challenge. There are problems with strategic coherence, public value and transparency. Mainstream public services are however improving their understanding of public strategy through embracing complexity. In Wales, with fifty years of experience of regeneration in the field, re-viewing delivery complexity is worthy of similar attention.

In this study, an understanding of complexity and the management of local area regeneration re-thinks public service regeneration as a single system. A first orientation in Wales of regeneration in terms associated with a systems approach to managing change, usefulness to regeneration administration would be the eventual test. A new £100 million regeneration framework for Wales, Viable and Vibrant Places, provides the setting for operational action research, where policy and practice was examined in a systemic inquiry, over an extended period.

With the EU referendum result offering new possibilities, Well-being legislation in Wales in early operation and some form of area-led regeneration reform in prospect, re-viewing regeneration in a single system was found to offer real-time and predictive administrative benefits to local area change: in understanding complexity, in the development of more purposeful, adaptable and transparent strategy, in the evaluation of attribution and sustainable regeneration integration.

The aggregate qualities that make up excellence in delivery in regeneration policy and practice; ethical conduct, necessary knowledge and progressive measures, are appreciated in an arête model structure designed to be able to support improved regeneration conversations and delivery possibilities. Through systemic co-operation and collaboration regeneration leadership in Wales can, in a new era of change, advance citizen involvement and actor professionalism in the field, through new standards, and a plan that starts with imaginative action in conference and other proceedings.
Executive Summary

Context

Wales is a country where inequality and managing place-change is a matter worthy of regular debate. At a time of major upheaval, however, it is a matter for serious policy and practice examination. This is particularly so in the field of place-change known as area-based regeneration (regeneration), which has been practised in Wales for over 50 years, and has now moved on to involve multi-objective and multi-disciplined public service interventions at a local level, towards the delivery of more equal places.

In administering public interventions to achieve place equality, at any one time, no two places are the same; in status, comparison, challenges, opportunity and organisation. Many places are then differentiated in demand in their priorities for public intervention. Differentiation here means an ever present issue in complexity. Executing plans and professionalism in public service as a result is seriously tested.

A key role of government in Wales is to offer potential solutions to the problems of regeneration complexity, in its broadest economic, social, environmental, cultural and public service organisational sense. Additional problems to overcome now also include the challenges and opportunities of Brexit, and the continuous facilitation of public, third and private sector actors’ to be able to respond effectively, when budgets are reducing; to new well-being legislation, results based accountability and their own areas of opportunity, despite the successes of area-based place-change in Wales in the past, causes of criticism are consistent and often relate to deficiencies in intervention effectiveness and public value concerns. There are too many examples of both bottom-up and top-down short-term programme inadequacies, with insufficient attention paid to the pursuit of multi-disciplined integration. It should not be controversial that leading management theory ought to be deployed to deal with the problems of complexity. Management development theory would then suggest further understanding relating to the need to;
• develop more equal places in Wales
• absorb complexity in managing place change
• summarize local area change from all public value interventions
• replace acrimonious after the event evaluation judgements
• raise reasonable expectations and eliminate false hope
• deal with engagement, activity, professionalism and integration

Conceptual Framework

The research opportunity in this context suggested work towards a fair, sustainable and differentiated management solution, tackling regeneration complexity in Wales, applicable both nationally and locally to make sense of all forms of deliverable public interventions, which in real-time could be collectively codified, aggregated and communicated in both local area and national effectiveness and impact.

A “systems view” appeared to be a good place to start. A systems view held out the well documented prospect of something to tackle complexity. Regeneration management in Wales could possibly be explained systemically, creating higher-level, longer-term standards. Given society’s generally limited scope to deal with society’s problems, at least one approach, the systems approach, “offered a clear statement of how to deal with complexity, in order that its opponents may state their opposition and their use of better alternatives” (Churchman 1968).

Critical Systems Thinking (CST) was an approach within the systems family of approaches also professionally practised for over 50 years. With a substantial academic evidence base of significant use in tackling complexity, it was hoped that research based on the CST theory of the management of change would offer a timely addition or alternative to less effective or discontinued regeneration approaches in Wales. Researching administration, or combined policy and practice in a systems view was the goal.

In achieving a required research understanding in context, the research question: What a critical regeneration system ought to be? eventually provided a substantive leading management theory and conceptual framework. The principal aim and objective in the question was an understanding and test of the potential benefits and value of CST to local area-based regeneration in Wales.
Methodology

The term “Arête” was chosen to be utilized throughout the study as its meaning in *excellence and ethical virtue* was appropriate and an ambition of Welsh Government in the pursuit of public service.

Critical literature from the research inquiry advanced a brief pragmatic historical examination of differentiated devolved administrations, in theoretical regeneration and place management. Applied Welsh information focused on regeneration policy and practice contexts, and professional challenges faced daily by practitioners in an iterative approach linked to empirical research in action.

The change management potential of systems thinking and its variety of approaches was however at the forefront of the literature examination in dealing with complexities, knowledge management and ethical administrations. Systemic approaches to change management were being contemporaneously and progressively developed by other mainstream public services. Analogous literature from patient-centred and pupil-centred systemic studies were potentially transferrable to local place-centred change management.

The research methodology was determined by an emerging situational opportunity. As a major regeneration policy and practice change, Vibrant and Viable Places (VVP) was being executed in Wales, the research was completed between 2012 and 2017 through ethnographic operational research within Welsh Government, with evidence from seven regeneration delivery case studies.

The research case studies were completed with purposeful systemic objectives and sampling (Table A) and involved the research author as a contributing senior regeneration practitioner in the participant observation of qualitative behaviours. Quantitative measures were not the priority in a first systemic orientation in the field in Wales. A Vickers (1995) appreciative inquiry relating to public service values, realities and instrumental judgements was used to measure extant and changing policy and practice (VVP) behaviours against emerging higher level standards.
Table A. The Potential Benefits of a Systems Approach; Critical Systems Thinking (CST) to Area-Based Regeneration in Wales

<table>
<thead>
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<th>Case Study</th>
<th>Data-Source</th>
<th>Method-Analysis</th>
<th>Theory-Interpretation</th>
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<tr>
<td>2 Purpose &amp; Boundary Realities</td>
<td>Outgoing Policy/Practice Realities (2012-2014) Operational Policy in Practice WVSRA**, 7 year initiative. 1 area of 7. Top down approach by WG with Local Government, 3rd Sector</td>
<td>(CHS &amp; VSM) Participant observation. Semi-structured interviews-10 leading actors/15years+active program team. **Western Valleys Strategic Regeneration Area, Welsh Government</td>
<td>CST creates greater reasoning skills. Ease of systems terminology used in Ministerial report. e.g. requisite activities missing/policy rhetoric unmatched by delivery/ efficient compliance prioritized over effectiveness/ departmental constraints overwhelm practice.</td>
</tr>
<tr>
<td>4 An (Arête) Logic Model Orientation (Norms+Influences+Values)</td>
<td>Incoming Policy/Practice Realities Vibrant and Viable Places (VVP)**. 2013-2017. 3-year program Local Government lead. Welsh Government principle public funder</td>
<td>Participant observation. Lit Review: Analogous public systems. 5 non-constant critical influences identified impacting on norms. 4 system desiderata policy boundary logic values recognized.</td>
<td>CST offers a fair, intelligent and transparent public service report mechanism. Idealized system design complete. All systemic parts critically defined for structuring orderly systemic interaction; things to measure, control parameters, variables, system state indicators.</td>
</tr>
<tr>
<td>5 The (Arête) Logic Model Coherence Testing</td>
<td>National Policy/Practice Survey Consultation (VVP). 144respondents 17 sectors.</td>
<td>(S/D) (CSH) Feedback in a Systems View. 500 pages analysed through I/P/O model categories, problems, Independent coding.</td>
<td>CST can capture many salient and different views. 95% model coherence first systemic orientation. Systemic content clearly identifiable. Critical system insights recorded.</td>
</tr>
<tr>
<td>6 Values in a Policy Change(VVP)</td>
<td>VVP***2013-2017 Policy style and Arête contribution.</td>
<td>(CT)(CSH) Participant observation Policy attractor patterns. Comparison with 4 desiderata boundary logic values criteria.</td>
<td>CST can summarize periodic patterns of change-replacing short-term only measures. e.g. dominant style; not place orientated/shift of intent to short-term national outputs, Values coherent but personal.</td>
</tr>
<tr>
<td>7 Realities in a Practice Change (VVP)</td>
<td>VVP*** 2013-2017 Operational Policy in Practice VVP**. Arête contribution to delivery norms, influences and values.</td>
<td>(VSM) (CSH) Participant observation Re-classification of 11 area-based case studies and 134 stakeholder interviews.</td>
<td>CST can deal with failures in comprehending delivery realities. VSM rich representation of network practice assurance. Control through resource allocation e.g. Missing local activities. Variability in behaviors. Patchy accountability.</td>
</tr>
</tbody>
</table>
Findings

The two main research findings were that;

1. The potential benefits of a systems approach (CST) to area-based regeneration in Wales was compelling and prodigious. A likely cost-effective system of sustainable area-based regeneration, for the long term, could be promoted in a cogent argument, for the immediate benefit of unequal places in Wales.

2. The rhetoric of responsible collaboration in integrated regeneration at a local level would be unlikely to be matched by the reality of delivery, in the absence of a nationally supported, localized, longer-term public service integrative mechanism.

Analysis and Synthesis

An idealized localized longer-term public service mechanism for responsible collaboration in integrated area-based regeneration at a local level was drawn from the research evidence (Case Study 4), in creating an overall single system design for area-based change in Wales (Model A). The model offered higher-level sustainable standards, which could be used for contributory comparison with all contributing policy, program or practice interventions in any local area, in a modularised form.

Administering policy and practice, both nationally and locally, could be said to be reasonably optimized if any one local area was performing satisfactorily, at any one time, against the model components.

The model A was developed from; an imitation of constant regeneration norms (Box 1), a representation of non-constant essential influences (Boxes 2-6) and critical public values (Box 8). The systemically excellent and ethical (Arête) delivery structure modelling outputs could explain the roles and specifically inputs of all Welsh Government and Local Government departments, and also the roles of public, private and third sector contributors in programs and projects as regeneration stakeholders.
Model A. An Arête Delivery Structure in Area-Based Change

For example, in a comparison with the flagship regeneration programme Vibrant and Viable Places 2013-2017, variance from higher-level standards through normative conceptual modelling in Model A was recognizable in administering policy and practice, based on ten systemic state model questions (Q1-10). The model coherence was tested empirically producing benchmark evidence of emerging real-time operations. Data was analysed in reaching Vickers judgements of values, realities and instrumentation against Model A in:

1 **Demonstrating** ethical and facilitative approaches over time to:
   - Q1 Enhance Co-operation
   - Q2 Create Effective Plans
   - Q3 Deliver Sound Investment
   - Q4 Enable Managed Responses

2 **Utilizing** necessary knowledge, and develop emancipatory knowledge, of boundary, process and evaluation to:
   - Q5 Achieve Good Governance
   - Q6 Make Better Decisions
   - Q7 Develop Capability and Capacity

3 **Promoting** progressive measures through organization, team and individual understanding of (1) practice norms and (2) their policy influences to:
   - Q8 Realize Practice Norms
   - Q9 Reveal Policy Influences
   - Q10 Recognize Failure Risk
The cumulative potential benefits of a systems approach and of CST to regeneration in Wales was seen emerging (highlighted) in the seven case studies shown in Table A, reflecting claims in the literature review.

Subject to the common agreement of re-classified component definitions in Model A, by those involved in area-based regeneration policy and practice in Wales, the output from this research would suggest to Government in Wales a relatively simple and easy to understand rule-based model and idealized potential solution to the problems of complexity in area-based regeneration. The research solution deals with network metagovernance transparently and sustainably, with the delivery of multi-objective, multi-disciplined and integrated regeneration administration in a single modular model.

The research evidence produced a sustainable management solution in a structural form, through modularity, to deal with the problems of complexity in local area-based change management and regeneration. A modular approach based on an overarching model for program and project contributory comparison offered benefits in:

- Tackling complexity through responsible collaboration.
- Coping with making better decisions,
- Giving pluralism in the field a better chance,
- Enabling the shared construction of actions in local area change,
- Involving many disciplines,
- Recognizing dynamics

Figure A explains the situation in Wales where one dominant national organization must have relationships with many autonomous organizations, with many shared regeneration goals. The potential benefits of an Arête Delivery Structure model would at its heart lie in developing the relationships between the component organisations. Although abstract designs the models in Figure A and Model A define what matters in terms of a network organizational form. In Model A, measurable topics such as; ethical, progressive, and knowledge value, contextual adaptability, integrated exchanges, strategic value and public confidence, are topics of real public management importance.
The Arête Delivery Structure principles in the model solutions are independent of domain, substance type or temporal scale and they illustrate the potential for conversations between those actors involved in local area interventions and those citizens affected. The Arête Delivery Structure model in its final form is, however, illustrative only. When considered in a network form, understanding classifications, explaining, designing for better conversations, and integrative transparency, will all be things to be rightly challenged and further agreed.

![Figure A. A Consolidated System Assessment for National and Local Regeneration Relationships from an Arête Delivery Structure](image)

**Conclusion**

The research in this project was considered important because in serving Wales most unequal places, higher level network management standards through a systemic approach arguably offers an improved public value delivery solution, to effectively tackle the management problems associated with complexity in the delivery and execution of area-based change.

The research was relevant because big problems of measurement, performance evaluation, attribution, ethics and effectiveness can be improved in the field of operation through a systemic approach. More equal places are needed in Wales, and they will only be equipped with the necessary skills and means to accomplish something of public value, that offer enough to make a place content, fulfil a need, or be beneficially comparable, if they are supported systemically.
Systemic modelling is a way to achieve joined-up whole-area change thinking rather than just focusing on individual or specific budget based programmes. Moving away from short-term decision making, creating space for preventative thinking, how to put integration, collaboration and involvement into practice, will, however, always be dependent on political and organizational endorsement.

On the 20th July 2017, The Valleys Taskforce (VTF), in Wales sought delivery plan design proposals for its new area-change plan for the Valleys of South Wales, Our Valleys, Our Future, prior to publishing a detailed delivery plan in Autumn 2017. An Arête Delivery Structure proposal in context was put forward in respect of the Welsh Government sponsored area-based regeneration plan, on 13th September 2017 (Volume 2 Appendix1) for Ministerial and Taskforce consideration.

The author would argue in a proposal submission that, as the delivery of public interventions supporting area-based change increase in complexity, caused by greater service demands for the evaluation of management actions, the administration of local area-based change in Wales ought to develop further as an Arête System. A timely opportunity to pragmatically implement the research findings in practice was available.

**Executive Summary References**


Administering Regeneration in Wales:
Policy & Practice in a Systems View

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Chapter One

Introduction; Reviewing Regeneration

This Chapter is a summary of how initial ideas are related as a basis for predictions eventually made in the thesis which follows, with the goal of understanding the potential benefits of critical systems thinking and systems approaches to managing area-based change. The administration of area-based regeneration policy and practice in Wales in context in this Chapter is identified in issues of boundary, professionalism and pragmatism and provides a background for leadership consideration in future strategy development. This Chapter is submitted in fulfillment of the Contextualizing Professional Change and Development Module DBA program requirements November 2011 and includes a brief reflective narrative regarding personal professional development.

1.1 The Context and Study Objectives
1.2 Devolution; Roles, Inputs, Policies, Issues
1.3 Is Regeneration a Systemic Prospect?
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Chapter One

Introduction; Re-viewing Regeneration

1.1 The Context and Study Objectives

The regeneration of local areas in the UK involves a multi-objective and multi-disciplined approach to the development of more equal places. It is administered mainly through public policy and practice, economic, social and environmental interventions and networked organisation forms. The necessarily complex nature of regeneration administration has historically led to problems associated with strategy coherence, (Rhodes et al 2005) and attribution, and this continues. It is acknowledged that responding to complexity through simple change solutions and reductionism can produce sub-optimal solutions (Jackson 2010) and this can be the case in the field in question.

An alternative to reductionism appears however to be available in systems thinking and systems approaches to managing change. Advocates of systems approaches claim successes in reducing complexity, and also the production of better strategy (Jackson 2010). The purpose in this study then is in understanding and examining the potential benefits of critical systems thinking and systems approaches to area-based regeneration (regeneration) policy and practice. A systems approach to change is a novel idea to public policy makers and multiple regeneration actors in the field in Wales.

By using systems thinking approaches to describe and explain how regeneration can be administered systemically in Wales and specifically (a) orientated and administered for stability and growth, (b) operated, managed and led (Rhodes et al 2005), the work will attempt to establish whether emergent policy and practice ought to change, and thus whether this alternative approach to change management could produce better place-based outcomes. The study objectives are therefore to;

- 1 apply theoretical systems thinking approaches purposefully in a bespoke situation (phase 1)
- 2 from this develop a systems based mode of delivery excellence and influence (phase 2)
➢ 3 compare this model framework against the extant Welsh Government flagship regeneration program contribution, Vibrant and Viable Places (VVP), over an extended period (phase 3)

In the development of actions towards the study objectives three broadly defined areas of work are necessary; conceptual, empirical and interpretive. In reality there is considerable overlap between. Two volumes describe the work. In this Volume 1, and in a research methodology and literature review in Chapters 2 and 3 the background for further empirical action in Chapter 4 and for interpretation in Chapter 5 is provided. These Chapters are the basis for leadership recommendations and discussions in Chapter 6. The application of leadership recommendations as a result of the study in a contemporary opportunity (a Valleys taskforce) can be found in Volume 2 Appendix 1. In Volume 2 additional material supports the study’s recommendations

The traditions associated with systems thinking are longstanding and according to Senge et al (2015) a “new dawn of system leadership” seems to be underway. As “a purposeful discipline for seeing the “structures” that underlie complex situations and for discerning high and low level change” (Senge 1997) there are many academic authorities that would support the concept.

The theory of systems focuses on “ensuring parts function together properly to serve the needs of the whole” (Meadows 2009) which seems initially to suit the field in question, described regularly in terms of dealing with “messes”. For systems advocates a system therefore involves “a complex whole, the function of which depends on its parts and the interactions between those parts” (Jackson 2010). Systems approaches are usefully described by Jackson as;

“The variety of creativity enhancing devices which can be chosen to ensure proper attention to the task of highly relevant and co-ordinated change”.

The vast array of connections in area-based regeneration, as a whole area concept, is now more complex than ever. The complex nature of regeneration management activity at both a local and national level, is, however, a required necessity and should be able to call on leading management theory for support. Except, this does not always happen in the course of everyday regeneration work.
On the other hand, in public services including health and education “leaders and managers are claiming successes in embracing complexity, through their development and use of systems thinking and systemic practice” (Timmins 2015).

Systemic inquiry needs an appropriate contextual setting to gather rich data and a new three-year £100m policy and practice judgment, Viable and Vibrant Places (Welsh Government 2013), launched in 2012 to commence in 2014, fortuitously provided an opportunity to test the holistic and strategic value claims of systems thinking advocates and the potential benefits of systems approaches to managing change.

The VVP context presented an important opportunity for three reasons. Firstly, new mandatory Well-Being legislative requirements in Wales in 2016 would place new sustainable development responsibilities in the broadest sense on all public organizations including those involved in regeneration activity. Secondly, a reform of local governance would mean that the deliverers of core regeneration activity would place greater emphasis on area-led change in addition to sector-led change, and thirdly higher level public service standards would continue to be required, despite the challenges of austerity.

Replacing collaboration in the field with competition in some local change programs would also mean that new relationships were being formed and new accountabilities were being required. In a period of mixed delivery approaches and transition from one policy to another a systems view would put the study of the whole before that of the parts. Regeneration in Wales, practised for over 50 years, has regularly been the subject of acrimonious evaluation judgments. The policy change in VVP and its practical implementation would eventually be evaluated and changes made based on criteria yet to be fully identified. New “improved” policies may then be promoted.

The new mixed-delivery policy frameworks would change local and national government relationships and try to secure new local regeneration delivery assurances through new public management principles such as Results Based Accountability (RBA) where “trying hard is not good enough” (Friedman 2005). VVP as a short-term program of intervention would produce cases of interest, which could be examined for specific reasons and hopefully good effect.
Understanding the potential benefits of critical systems thinking to publicly led regeneration in Wales then is this study’s objective. It is a study not necessarily about simple projects or complicated private sector led regeneration schemes (despite a clear link to public initiatives which seek to involve the private sector).

The motivation is the challenge involved in finding out the holistic and strategic value claims of systems thinking and systems approaches to whole area public administration. There is no requirement to be a mathematical expert. The systems in this case are human and as such patterns of meaning are more important than numbers.

In focusing throughout the study on the research question “what a critical regeneration system ought to be?” there will be a continuous thread in public service and value. The study cannot therefore be value neutral. The development of an ideal structure in connections and relationships would be a key challenge in attempting an understanding and explanation of regeneration in systemic terms. The interest in a human system as the driver of science will be the focus, but not exclusively.

I would carry out operational and action research between 2012 and 2017 and would be concerned with the national and local governance of area-based regeneration in Wales and the administration of public policy and practice. With critical challenges in making a reality of regeneration integration, the project concept and “contract” brief would be to assess the benefits to regeneration in Wales of systemic approaches to managing relationships and connections essential to regeneration.

As an administrator of public service regeneration, having worked in the field as a public service practitioner for twenty-seven years, I could learn much from colleagues in operational situations and access to colleagues was available. I would not abuse this access. Colleagues work within organization structures, which can constrain logical actions and there is often not a great deal that can be done to change the way things are. Following Kauffman (1981) I would not therefore publish the details of what would be heard or said and would argue the case for confidentiality of all sources of data or information not intended to be made public.
Systemic regeneration would eventually be about how to keep less advantaged places moving forward within a system designed for managing change. I would ask myself; can a regeneration system be simply and purposefully explained to achieve advances in Wales, such as the production of better strategy? If so, how, and what could it achieve? Public policy here would be recognized as a “significant influence on the practice of local delivery” (Purdue et al 2000).

Analytics could clearly play a part alongside dialectics. Whether a regeneration system or systems can be seen as a whole, would, however be a pragmatic task. Systemic practice by a number of actors in collaborative application would eventually be the only real test of added value. If systemic practice is eventually to be of use to policy makers and practitioners, the test of value would necessarily be a test of public value and of public service.

Policies and practices in the field of regeneration are subject to new judgments and constant change. A review of regeneration is timely. A new Welsh Government manifesto commitment to the Valleys geographical area in 2016 would offer new opportunity. City regions are on the rise. As institutional change in Europe takes place, and public service reform in Wales continues, there is plenty of scope for new thinking.

The hope is to offer assistance to regeneration leadership, and the administrative community of practice in Wales in contributing to the further development in the context of traditions of regeneration understanding that have served the Principality for over fifty years. A key assumption however is that those responsible for leading regeneration administration, as we enter uncharted waters, including a new Welsh Government in 2016, will continue to review their work and think differently in the better recognition, creation and communication of public value (Moore 2013).

In the remainder of this introduction the research question outlined earlier is referenced by the local context; devolution, roles, inputs, the extent of regeneration policy and policy outcomes and issues, through new legislation in Wales on the Well-Being of Future Generations, the new network context in area-led governance, and Local Government reform. The influences which make up a personal context conclude this chapter.
The context of relevant methodology theories and past research, the additional factors that motivated the research and the research activity, can then be considered in Chapter 2. The introduction to a “variety of creativity enhancing devices” (Jackson 2010), which can be chosen from the array of systems literature available “to ensure proper attention to the task of highly relevant and co-ordinated change”, can then also be made.

1.2 Devolution; Roles, Inputs, Policies, Issues

The Devolution Settlement, the Welsh Government and Local Government

The Government of Wales Act 1998 provided for the establishment of the National Assembly for Wales, following the affirmative devolution referendum in September 1997. (Data in this section from the Welsh Government website gov.wales September 2017). The Welsh Government subsequently came into being in 2006 as a devolved administration. Two key elements were implemented in 2007. Formal separation between the Assembly and the Welsh Government to provide clarity between the legislature and executive, and enhanced Assembly legislative powers. Schedule 7 of the 2006 Act defined the scope of the Assembly’s legislative competence within areas where the Welsh Ministers could exercise executive functions.

The Welsh devolution settlement covered twenty areas, known as subjects, in which the Assembly can legislate to cover the delivery of local services. Any area not listed in Schedule 7 is not devolved. Devolved areas now are: education and training, fire and rescue services and the promotion of fire safety, food, health and health services, highways and transport, housing, local government, social welfare, town and country planning (except major energy infrastructure), water supplies and flood defence, agriculture, fisheries, forestry and rural development, culture, Welsh language, ancient monuments and historic buildings, sport and recreation, tourism, economic development and the environment, the National Assembly for Wales, and public administration in general.

The cabinet is the main decision making body of the Welsh Government and gives direction to the work of the whole organisation. A member of the Welsh Government means the First Minister, a Cabinet Secretary, the Counsel general or a Welsh Minister. It discusses matters which engage Ministers collectively, have strategic implications, or impact financially on their programme of work.
There are 11 Welsh Government Ministers each with defined portfolio responsibilities which reflect Welsh priorities and the devolved settlement. The devolved administration is currently restricted to limited tax raising powers.

The Welsh Government receives its budget from the UK Government. A significant proportion is allocated to the public bodies which it sponsors and funds including the NHS. Expenditure for Wales in 2017-18 (£000) is £16,486,443 and comprises a budget of £14,112,900 and Annually Managed Expenditure (AME) of £2,373,543.

Welsh Government propose to use these resources (including accrued resources) during the financial year ending 31st March 2018 as follows (£000): Including accrued resources and excluding central services and administration; Health, Well-Being and Sport £7,223,341, Local Government including Welfare and Care Services £3,311,302 Economy and Infrastructure £1,476,830 Communities and Children £740,162 Education £2,170,111, Environment and Rural affairs £654,710.

The Welsh Government executive organisation is divided into four groups: Office of the first Minister and cabinet, health and services, economy, skills and natural resources, education and public services. In receiving performance reports the 3 operational groups reflect the Programme for Government and its departmental biases. Amongst other accountabilities;

- Education and public services includes reports from, local government, communities and tackling poverty, housing and regeneration.
- Economy, skills and natural resources receives reports from environment and sustainable development, strategy, sectors and business skills higher education and lifelong learning transport culture sport and tourism.
- Health and social services receives reports from workforce and organisational development

A range of grant schemes is provided to deliver Welsh Government policies to create a fairer and more prosperous Wales. There are many hypothecated grants to various bodies to achieve clear deliverables from payments. New grant offers in 2015-16 totalled 418 of which 354 were hypothecated and 64 un-hypothecated. Un-hypothecated grants to health bodies and local government accounted for £11bn out of £13.6 billion in 2015-2016.
Moving funding into un-hypothecated funding is a goal to reduce what is perceived to be a national administrative burden. Welsh Government continues to look for opportunities to transition hypothecated grant funding to local government. This includes funding for area-based regeneration.

The Welsh Government administers Wales European Funding 2014-2020. £1.8bn was allocated to Wales 2007-2013 driving a total investment of £3.4bn. In 2016 65% of the expected value of current programs had been committed. EU funding has been hugely important to Wales in terms of driving economic growth and jobs, enabling Welsh Government to lever additional resources from both public and private sources.

Replacement funding from UK Government as a result of Brexit is as yet undetermined. In the financial year 2015/16 Welsh Government expenditure from the £272m EU grant was £185m, Local Government £41m, Higher and Further Education £35m, third sector £6m, private sector £2m, other public £2m. Payments to the sectors are often the first step in distributing funds to other sectors. Bodies funded in this way, through procurement rather than as sponsors, are allowed to make profits as part of their engagement in a project.

The Welsh Government budget forecast for the next 3 years shows a reduction in expenditure on communities and children, economy and infrastructure, environment and rural affairs, and an increase in health and education. After administration costs the main beneficiaries of the £1.5 billion budget are local government, education, the economy and infrastructure. Local government has a static expenditure profile. As AME is expenditure which cannot reasonably be expected to be subject to firm limits, it remains focused typically on volatile, large and demand led expenditure.

The Welsh Government requirements for good administration results in a departmentalised structure. The government are committed to being open and fully accountable for the work done and regularly publish facts and figures to help people understand how the organisation is run and what the organisation spends doing this. The focus is on national outputs. This does not generally reflect local place-based reporting except on a limited ad-hoc basis.
Since 1st April 1996 Wales has been divided into 22 principal single-tier local government areas. The Local Government (Wales) Act 1994 established the process towards elected councils of these areas who are responsible for the provision of all local government services, including education, social work, environmental protection, and most highways. Elected community or town councils, the equivalent of English parish councils, below the single tier areas administer limited specific applications of local policy. The provision of police and emergency services and the organization of the National Health Service are made up of combinations of principal areas.

In January 2014 the Williams commission recommended the number of Councils be reduced, at a time when the need for public services is outstripping the resources available to provide them. The proposal was believed to offer a radical improvement in the way public services are delivered. The merger plans were however formally dropped in January 2017 with a proposal for the formation of regional bodies to encourage better collaboration between existing local authorities.

In delivering services, including area-based regeneration, local authorities’ performance is increasingly dependent on being free to decide on how much to spend on a particular service. Authorities have a duty to secure continuous improvement in the services they provide. The Welsh Government brings together key performance indicators to give an overview of the performance of local authorities through perception surveys. Topics include population surveys and statistical reporting on community safety, leisure and culture, education, environment, housing, social care transport well-being. Performance reporting of area and place-based change management is, nevertheless, not a regular requirement.

The Roles and Inputs of Public Service Departments and Regeneration Actors

The key actors involved in the delivery of regeneration in Wales was identified in a research project (CREW 2013). The project involved a literature review and interview based survey of 28 regeneration informants, (with no Welsh Government contributors) with a consideration of current and future requirements. The question; who currently undertakes regeneration? led to responses emphasizing the continuing (or not) role of the Welsh Government, Local Government, the private sector, community groups, Registered Social Landlords (RSL’s) - established as a result of local authority housing stock transfer, and other professional groups.
There was an underlying assumption that the sector taking a lead role would vary from circumstance to circumstance. Registered Social landlords were of special note as a grouping with potential wider physical and non-physical regeneration functions, in addition to their core role in delivering social housing quality standards.

There were insightful suggestions in the research that regeneration should be seen as a more generic activity and a “set of responsibilities ought to be determined for all those who expend public money on regenerative type activity”.

The central role of Welsh Government was strongly emphasised, with all but one interviewee arguing for Welsh Government to play a more strategic role in setting priorities. It was recognised that Welsh Government sometimes suffered with conflicting priorities and in particular allocating expenditure. Delivery roles with regard to the Wales Infrastructure Investment Fund, Rail Electrification, South Wales Metro, Enterprise Zones, Targeted Sector Support, were examples of activity beyond a local competence, and appropriate for national management.

The key delivery role of Local Government was also supported although it was suggested that both the level of activity, and the approach and effectiveness of local governments varied considerably.

Delivery roles with regard to City Regions, Local Growth Zones, Housing led regeneration (with RSL’s in an appropriate lead role) were suitable for local delivery. Local delivery of regenerative activity in town centres and seaside towns could be carried out by others such as retail management, business improvement districts, meanwhile uses, events management, however, physical renewal would normally need a significant local authority input.

Associated public professions in regeneration; police, health and educational institutions were singled out for special mention as aids to regeneration programmes. It was argued that the work of these institutions ought to be more locally anchored. In interview responses, there was a need for a more integrated approach by local authorities to regeneration activities and for authorities to be more open and learn from practice beyond their own boundaries. There was a clear appetite on the part of town and community councils for greater responsibility despite limited resources. Much heritage led activity was seen as community led often by newly emerging civic organizations.
The private sector was still seen as central to the delivery of large scale physical projects, and particularly reflected a knowledge of property investment markets and in scale projects pension fund conditions. Profitability here was acknowledged as a factor of necessity. In smaller more localised private sector activity, small business was seen as community wealth creators and particularly in the case of social enterprises. The Sirolli concept was a positive example of clustering business expertise to support local enterprise. Business communities played an increasingly important function in providing community leadership and governance, thought to be a generally untapped opportunity in the foundational economy.

Amongst the CREW interviewees there was a consensus that regeneration approaches were likely to change. The research suggested a major future contextual impact of the potential demise of large scale property and retail led regeneration, the closure of Welsh Government managed regeneration areas (including the demise in 2017 of the longstanding Communities First programme and its community change remit), and emerging policy change, that requires co-ordination of multiple spatial levels of regeneration at a local level. For example, local alternative economic activities, in the creative industries, innovative retail and energy-led initiatives, future food security, the development of local food chains, the supply of green energy, were emerging without the benefit of previous practice to inform strategy and delivery.

A broad general agreement was that if regeneration was to be effective in the future it needed to be mainstreamed. A “whole governance approach” with regeneration outcomes “written increasingly into the remit of all public bodies”. A complete transfer of local accountabilities away from Welsh Government towards local empowerment and decentralised decision making would suggest that skills deficits in local authorities may then however become a more urgent issue.

Cross-cutting occupations and cross-sectoral working (Egan 2004) at both a national and local role level, was a critical skill set, now widely accepted. The ability of communities to respond to the expectations placed upon them within a new urban governance approach required some support and often. The need for more joined up delivery by Welsh Government and within Local Authorities government an essential for the delivery for integrated and sustainable regeneration.
The emergence of stock transfer Registered Social Landlords as potential major agents of change was of note opening up new opportunities but requiring regeneration related training and skills. New skills related to town centre diversification, alternative economic activity, innovative retail, and active citizenship were noteworthy.

The report concluded that where regeneration resources and activities were minimal it was increasingly difficult for potential and existing practitioners to develop experience and to improve professional development in both connective and delivery skills. The interviewees saw a distinctly changing balance between the agencies that deliver regeneration, with, on the one hand Welsh Government leading on major infrastructural investment, and on the other, community leadership at a local regeneration level. Developing synergies between large scale investment in infrastructure and driving local supply chain development, targeted recruitment and training was a worthy integration.

**The Extent of Regeneration Policies, Policy Outcomes and Issues**

In evidence to Welsh Government, published in 2013 by the Centre for Regeneration Excellence in Wales (CREW 2013b) the history of UK Regeneration Policy was summarized alongside international examples of “good” practice. The evidence is comprehensive, fully available from the CREW website [www.regenwales.org.uk](http://www.regenwales.org.uk) and further briefly summarized here. Three “policy periods” in the CREW evidence from the UK are described in the periods pre-1968, 1968 to 1997, and 1997 to 2009.

The period before 1968 is characterized by a regeneration response to spatial differences in economic performance and uneven development in the British economy through a Regional Selective Assistance approach. This approach remained the central approach in Wales of the Welsh Development Agency, established in 1976 until its demise in 2006 and this approach continues in current policies, in attempting to establish strongly favourable conditions for specific sectors of the economy, by investing in skills and infrastructure, and in certain cases in direct assistance to specific companies.

From the mid-1960s an awareness of the partial failure of the welfare state to eradicate social problems, and a concern for public order in the inner cities of the UK established the principle of spatial targeting of interventions. Through a funding stream separate from mainstream government budgets, the Urban Aid programme would direct additional resources to areas of need, and provide the foundation for generalized practice.
The Community Development Programme, which followed in 12 area-based projects throughout the UK was to eventually collapse, riven by differences of opinion about the causes of poverty and inadequate funding levels.

In 1977 the Policy for the Inner Cities and the subsequent Inner Urban Area Act identified key approaches which would now be recognised as standard approaches to area-based regeneration; partnership working between the public, private and third sectors, spatial targeting of interventions to the poorest places, integrated approaches in health, housing, education and employment. In 1979, the new UK government’s faith in market-based strategies, and in the ability of the private sector to provide employment, placed a greater emphasis on trickle-down theories over poverty-alleviation, again a policy riven by differences of opinion.

In the post industrial areas of the UK, where poverty exponentially increased, the numerous market-orientated policies were seen by some as a jumble. Their increasingly recognised failure led by the late 1980’s to calls for a more pragmatic approach, not one solely informed by political ideology. Local authorities and communities were increasingly seen as bringing a dividend in maximising local impact. In the Single Regeneration Budget in England in 1994 the value of effective delivery partnership, private sector engagement, flexibility, more permeable boundaries and a visible role for the third sector was stressed. A framework of core methods and approaches was being developed.

From 1997 tackling poverty would be a clear UK government manifesto commitment and a major component of policy thinking as a cross-cutting programme. Consequently, regeneration would move towards the development of a “holistic approach”, in recognition of the multi-dimensional patterns of disadvantage of people and communities. At the same time the devolution process was assigning these responsibilities to newly elected governments in Wales, Scotland and Northern Ireland.

Importantly, the evidence in the CREW report suggested that in Northern Ireland from 1997, and in subsequent reviews, attempts to develop regeneration through the holistic activities of all government departments, rather than a separate funding stream, identified little additional activity promoted by this approach, beyond the expected actions of each department.
In Scotland the policy platform established a people based approach alongside a place based approach to community renewal, which was also characterised by constant change and a gradual erosion of community participation. Locating regeneration budgets in a non-hypothecated fund would then call into question the skills of local authority actors.

From 1997 to 2009 England experienced the most well-funded and most comprehensively evaluated programme of regeneration experienced in the UK. The New Deal for communities targeted £2 billion over ten years at the 88 most deprived local authorities in 17 pathfinder programmes which was supplemented by a further 22 schemes in 1999. Strong patterns of community engagement and local governance and special purpose vehicles combined with effective levels of funding ensured generally positive evaluations both at local and national levels.

The conclusions of the CREW analysis of policy and policy outcomes in the UK, and internationally, described a variety of policy issues which were identified as re-occurring themes. Of the multiple concerns identified, some of the more important issues were the need for:

Clearly identifiable plans in the targeting of place (not just everywhere) through visioning and long term focused strategy, agreed priorities (and specifically economic), a recognition of the value of local autonomy, capacity and knowledge, and at the same time the need for collective action, partnership roles and responsibilities, effective public sector resource use and longer term funding, spatial scale, time scale, base-line conditions, strong local leadership and community engagement, linking local initiatives to sub-regional, regional and national plans, mainstreaming public service delivery, bespoke interventions, embedded evaluations, high quality places, flexibility both in bottom-up and top-down approaches.

In the delivery of policy to support practice, individual initiative pre-requisites were seen in the CREW report as issues, which included:
Financial under-resourcing, lack of knowledge of successes and failures, repetition in the face of wider structural forces, making places and people worse off, too short programs, political patronage, cross party political support, targeting based on political prioritization rather than a robust democratically endorsed strategy and objective criteria of need, (subject to the critical political imperative of territorial crisis management), flavour of the month followers overlooking key local priorities, short term budget changes, in complete public funding scenarios, a lack of appreciation of the work needed to integrate and join up programmes and projects via vertical and horizontal connections i.e. departmentalism, self-interest, lack of a big picture, of understanding best practice, limited evaluation focus, concentration on product not process, evidence of what facilitated or obstructed management in delivery, inadequate baseline data in anticipating regular monitoring and evaluation, loss of significant expertise with political changes, new political initiatives re-packaged regardless of past successes, non-independent evaluations to accumulate what works, knowledge, skills and movement between sectors, inadequate and untimely practitioner involvement, wider structural forces, inappropriate partnerships, a lack of professional input in favour of political expediency, contributing organizations structurally unresponsive to issues of attention.

Since 2010 the demise of key regeneration programmes in England, such as New Deal for Communities and the closure of regeneration organizations, such as the Regional Development Agencies and Centres for Regeneration Excellence, reflected the austerity driven downturn in physical and social regeneration activity. In 2011 a House of Commons report would chart a reduction of expenditure on regeneration by DCLG in England from £11.18 billion in 2009/10 to an estimated £3.87 billion in 2011-12.

The demise of key regeneration programmes in Wales followed England. The CREW would lose its core Welsh Government funding in 2016. Two flagship regeneration programmes, the Communities First 10 year, £40m per annum program and the 4 year Vibrant and Viable Places £30m per annum program would come to an end. Policy replacements would, nevertheless, be seen developing in a local economic development approaches, exemplified by city regions, enterprise zones and local growth zones (local economic partnerships in England). A key area-based manifesto commitment in Wales to the South Wales Valleys in 2016 would be implemented with a Valleys Taskforce led by Welsh Government Ministers and civil servants. If issues were to be tackled by a local networked organisation far more creative solutions would be expected from local networked organisations active in the field.
A New Legislative Context

The Well-being of Future Generations (Wales) Act 2015 placed new mandatory requirements on the Welsh Government along with 43 other public bodies in Wales, as it come into force in May 2016. All staff, regardless of where they work in public organizations, will need to have regard to all of the Well-being goals. The seven goals are aimed at Wales being more prosperous and globally responsible, resilient, healthier, more equal, with cohesive communities, a vibrant culture, a thriving Welsh Language. Place shaping is not excluded.

Regeneration activity has worked in a number of these areas over the past 50 years and can continue to contribute in satisfying a number of these goals through effective management. The key challenges in the act are seen as ensuring that organizations as a whole use the new framework, and that the implementation of the new legal requirements is seen not as another compliance exercise but as a way of building future capability to deliver.

All public bodies are now (2015) required to;

- Improve economic, social, environmental and cultural well-being by contributing to the seven well-being goals.
- Act in accordance with sustainable development principles, taking into account governance principles (attending to long term impact, prevention, integration, collaboration and involvement) in the setting and meeting of objectives.
- Set well-being objectives that explain how we will contribute to well-being goals, and take steps to meet these objectives
- Report annually on progress and respond to relevant recommendations from the Future Generations Commissioner and from The Auditor General for Wales.

“By establishing a single binding legal framework the act provides a means of directly addressing the over complexity identified by the Commissioner for Public Services” (Welsh Government 2015).
The sustainable development working assumptions of the Act would hopefully be seen being developed in this study in an explanation of “how” sustainable regeneration policy and practice ought to be delivered in a systemic approach. There is little distinction between area based regeneration and well-being goals in real-time activity. The profound changes caused by the Brexit vote will place an increasing emphasis in planning for change and on a changing delivery network.

A Changing Delivery Network

On 18th June 2015 the then Minister for Public Services in Wales identified a potential target of local authority administrative expenditure reductions by approximately one third “if best practice that operates in some sector-leading practice of the UK were applied across the whole of Wales”. A preferred map for the future of local government published by the Minister was set to perhaps reduce the 22 authorities in Wales by one half.

The intention was to introduce legislation to implement the changes following Assembly elections in May 2016 together with a general Power of Competence, self-assessment and peer review performance arrangements to strengthen scrutiny. A reform bill was published in November 2015 that has yet to be implemented. Nevertheless, change of some form is now on its way.

“Adopting how a Council delivers for its communities in innovative ways despite austerity …is something we are all going to have to learn. Councils in England have had to learn how to develop in a context in which councils do not do everything.

They know that the days of command and control are over. Austerity will force all of us to raise our game. We should never forget that Wales has always pioneered co-operative models…and leaders in co-operative solutions” (Welsh Local Government Association 2015)

In developing policies including area based regeneration Welsh Government propose to set strategic direction, provide space and support to enable innovation and excellence in theory without micro-managing or setting out what must be done to the small detail and requiring reports on progress.
Delivery would re-focus towards collaborative regional startups and geographical initiatives. Regionalization and localism would be on the agenda. The challenge for Welsh Government in practice would be to let go; the challenge for local councils would be to step up. Theoretically, Welsh Government in only a small number of key priority areas would set priorities.

Responsibility for regeneration performance would increasingly sit clearly with those responsible for local delivery. Proposals to give new community bodies “community rights” for example the right to be involved in the improvement of services, would also in planning include the counterbalancing responsibility of the proposals relating to openness and transparency. The evidence in regeneration practice is that this does not always happen automatically.

Local government would be free to set the bulk of its priorities. As community leaders would begin to focus on “best practice”, looking outwards at their place-shaping role, the range of activities in the field under the elastic canopy of place-based regeneration would be likely to increase.

**A Continuing Professional Development**

In keeping with the development of a reflexive attitude over many years of regeneration practice and in seeking to enhance a personal awareness of: a “continuous and conscious view of the value or ideological consequences of my actions” (Gergen & Gergen 2014), I have been curious, over time, to find ways to answer the research question, what a critical regeneration system ought to be. The question is the best I can come up with as a practitioner/researcher. I see no conflict between these roles. Leppington (1991) advocates the personal contextualizing of methodology for socio-political-philosophical research and this requires a revealing of my own influences at work.

I therefore admit to seeing public value and ideology as a methodological foundation and as a natural choice for research comparisons. I have earned my living as a regeneration practitioner and public servant over twenty-seven years in quasi-government and government organizations with power and culture sensitivities that demand a careful understanding of political and organizational duties of care. As such I respect fellow professional public servants.
My private practice early career however taught me many business attributes, not least in a customer focus and it to these attributes I draw from in practical actions.

I am not a neutral external commentator in this project, able to stand back over a long period of time without attempting to influence change in the field, even in a minor capacity. As an active member of the system(s) I am researching, I believe that the centrality of structural and functional relationships and processes in the field will always demand dialogue.

In public service it is the case that professional staff in a strict hierarchy are sometimes told what they are allowed to say and I will toe the party line when necessary. I am however not “easily bullied into stepping into a language convenient for pre-ordinated accounting practices and political solutions at the expense of developing professional knowledge and know-how” (Simon & Chard 2014).

In a network form of organization, the creation of effectiveness from general know-how and specific technical knowledge is of constant personal interest. The political setting to this study is however dominated by traditionally narrow ideas as to what counts as research evidence on these key issues.

I see research standards improving processes in the field but in many examples a significant number struggle to have a purposeful impact on long-term policy and practice. In an evidence based public policy environment, policy and practice research is often driven by economics and an un-written need ‘to be complimentary over social need considerations” (Denzin & Lincoln 2011).

As a part time researcher, without a short term deadline there would be a feeling of freedom to explore and reflect on any avenue towards an answer to the research question. A great sense of personal value would be found in disseminating emerging research findings to students in the field and subsequent reflexivity. The hope would be the time to reflect through this study could be used purposefully, personally and for the benefit of others in the field who may have to deal with early stage career complexities.
Reflexivity is known to “create ethical validity and enhances our ability to be accountable” (Simon & Chard 2014). A heightened awareness in late career; in finding better descriptions and explanations for a profession, which, per se is not recognized as a profession, could be aimed perhaps at a new freshness for practitioners to “elicit a new sense of interest that there is something new under the sun,” (Rorty 1980).

In this project, experience with both generalist knowledge in regeneration administration; policy and practice, and also specialist knowledge would be called upon. I am able to call on many years’ experience in both public value and commercial judgments. I believe that the activities involved with area-based regeneration, an accepted description of place-shaping and long-term change in a local area, can play a very significant part in the Well-Being of Future Generations in Wales and in supporting the new local delivery network.

In a regeneration policy forum event in Wales in 2016, one of very many I have attended over a long career in the field, the problems associated with disorganized complexity and attribution were again clearly evident. Every contributor was able to outline the value of his or her own isolated part. There was no solution available to the problem of joining up policies and practice. (Policy Forum for Wales 2016)

In the next section of this Chapter this study will consider the why, where and how critical systems thinking and systems approaches to change could be considered in the research context. We begin by considering the prospect of usefulness of systems thinking to regeneration as a theoretical abstraction.

1.3 Is Regeneration a Systemic Prospect?

The question in this thesis is; what a critical regeneration system ought to be. Regeneration is a place shaping activity targeted at unequal places that have been subject to decline, and is an activity that has been purposefully practiced in Wales for over fifty years. The outcomes can be seen in responses to needs and urgencies in growth and stability in many places.

Regeneration work as a daily practice typically involves a particularly complex array of public interventions aimed at enhancing people’s well-being where they live and work and is formally defined in Viable and Vibrant Places as:
“An integrated set of activities that seeks to reverse economic, social, environmental and physical decline, to achieve lasting improvement, in areas where market forces will not do this alone without some support from government” (Welsh Government 2013)

Regeneration necessarily involves a network form of organization and co-operation between many actors. An understanding of relationships is key and personal relationships between people are undoubtedly critical to regeneration. Relationships however need a framework to enable networked human relationships to be made easier.

The relationship focus in this study is the attributive relationship between systemic parts: between cause and effect, national policy and local policy/practice, ethical approaches and conduct, patterns of power and emancipations, technical and administrative elements and specialist knowledge, knowers and non-knowers, decisions and controls, value demands and failure demands (Seddon 2009).

Of particular interest in place shaping is professionalism. Professionalism creates: things produced and things not-produced, winning competitors and non-winning co-existing competitors, practice norms, influences and standards. In systemic terms things to be learned, as a new language is learned (Jackson 2010).

The intention in gaining evidence to address the research question, is to attempt to describe through various narratives (a) where systemic concepts and methodologies are or could be usefully employed in regeneration administration and (b) where critical systems thinking approaches could possibly be built upon for the purpose of value and public good. Systems’ thinking is interested in the whole, the sum of the parts. The theoretical ideas in system approaches to change are often associated with a hopeful search. I would be hopeful of using systems thinking as a creative and visionary approach, with a positive outlook and a viewpoint towards usefulness. I am aware that promoters of a systems view believe in its power of explanation (Simon & Chard 2014).

I would explore my own practice, in the process of research, with the aim of developing my own practice, and will have suggested changes in the way regeneration could be administered systemically, with my current employer, the Welsh Government, to enable added-value collaborative application. The response would determine whether and how the regeneration community of practice in Wales over the longer term could possibly be engaged.
The value prospect of systems thinking to regeneration remains a novel idea “corporately” in that it can appear contrary to decision making in an organizational hierarchy. As a relevant and sophisticated solution to complex, diverse problems, as a corrective to reducing regeneration to individual topics of study, as a refusal to accept basic solutions in the field, which can be subject to regular promotion, (Simon and Chard 2014) it does however hold out the theoretical prospect of significantly beneficial relationship outcomes.

In the absence of a current clearly defined systemic approach to regeneration in Wales the work in this study would produce a first systemic orientation. The principal learning goal of the research as a consequence would hopefully produce an understanding of structure and functionalism, aimed at excellence, effectiveness, efficiency, efficacy, elegance, emancipation (Jackson 2010).

Amongst the very many change management approaches on offer to a regeneration manager, political, organizational, hierarchical, top down, bottom up, pockets of good practice, pilot based, planned or contingency based, an emergent systems view would seem, at face value, to be very tempting.

The focus in understanding and devising (structural) practices, of usefulness (Simon & Chard 2014), as a foundational orientation to better forms of communication, knowledge and performance, is the initial task. Researching structural relationships begins with an understanding of structure, as without structure there is greater complexity. The regeneration attribution and boundary problem is the place to start.

1.4. An Arête Orientation and Boundary

In terms of evaluation, the regeneration attribution problem in Wales is that too many policies, programs and practices, are subject to constant change, which makes research experiments to test cause and effect impractical. To explain change the question would then be to what extent observed results, positive or negative of any program practice or project are a consequence of a contributing policy design and execution (Mayne 2006).

To begin to address this problem and in anticipating a different way of thinking, a theory of change model is required. In this project a model was not produced at the commencement of study but emerged from the study itself at approximately the half waypoint.
The theory of change model was developed as a result of the continuing analogous research process and was chosen to reflect the primacy of Welsh Government as regeneration policy framework authors, designers and principal funding distributors. Welsh Government control of regeneration administration in Wales ought to as a result directly influence:

**Excellence in place-centered intervention:** using an ethical and facilitative approach to collaboration over time, developing the necessary specialist and emancipatory knowledge of boundary, process and evaluation, promoting progressive organization, team and individual policy and practice measures through the understanding of practice delivery standards and their influences.

The theory of change model presented here and based on evidence from the study is one which appears to be able to be tested over time, in a transition from one regeneration policy to another, between regeneration policies and programs, in an articulation of underlying assumptions, the effectiveness of new policy interventions, statistical information, and a reference to other contextual factors (Mayne 2006, Bossel 2007). The theory of change model given the name “arête” would provide a provisional answer to the research question:

**What A Critical Regeneration System Ought to Be?**

The word arête would be used throughout this study. An important conception in Greek philosophy and a synonym for quality, no English word captures the exact meaning of arête.

The nearest dictionary equivalents are excellence (of any kind) and virtue, that which is good. Human excellence, involving the correct use of reason, principally in connection with moral choice. For the purpose of this study arête uses as its systemic definition “the aggregate qualities making up good character in a setting” which in its application to regeneration functions is based on external phenomenon, depending on outside norms and practices for its substantiation (and the representation in a concrete or tangible example).

With an arête performance story in any future contextual study, assembled new data and evidence could possibly be continuously and consciously sought against the theory of change value model with collective actions hopefully revising the performance story periodically (Mayne 2006).
With the benefit of a theory of change model, at the halfway point in the study, the boundary of the study was becoming fixed. The study would not concentrate on individuals but would provide a foundation to a future pluralistic account of an essential system, its purposes and a hoped for objective account of the system itself.

In a first orientation of a system at work seeking to create public value the task of cooperation and collaboration would be made easier in the future if considerable attention was given to descriptive research in systemic terms. The concept of professionalism in regeneration and place shaping would subsequently be of particular importance to the field of inquiry.

1.5 Place-Shaping and Professionalism

The concept of professionalism and place shaping responsibility in regeneration is a relationship worthy of study as part of a systems approach to managing change through public service, “because of the links with functionality and the central contribution of professionalism to stability and social order “(Parsons 1939).

There are very many challenges to regeneration professionalism and perhaps too many to overcome. There is no generally accepted distinctive professional occupational status for those who are active in the field although actors often come from occupational professions. There are nevertheless many people in a regeneration system with an influential interest in what people in the system are doing.

Decision and policy makers have the power to make things happen; actors will carry out basic tasks, problem owners will worry about the performance of some aspect of what the system does (e.g. end year unused funds), problem solvers or analysts will try to take on board the task of trying to improve systems in the absence of structure, witnesses will be affected by systems but will be unable to influence their behavior (Jackson 2010).

As a public service, the matter of who takes decisions and draws boundaries in the field is currently one for power and politics. Democratic debate, values and ethics are subject to communicative events but sometimes in less than fully transparent approaches. Resources, interests and lively hoods are often at stake, as well as different philosophies. For too many “regeneration is difficult” (Dakin 2004) and not easily explained or understood.
“Organizational dominance and control of work make discretionary decision making increasingly difficult to maintain and sustain”.

The skills, qualities, knowledge and experience needed to deliver it can be in short supply (Dakin 2004). Perhaps through fragmentation, a lack of joined up thinking in public service delivery, barriers to recruitment through inappropriate job descriptions, a lack of recognition of core competencies and a lack of organizations valuing requisite skills, the self-interest of contributory professions, institutions and organizations”.

Egan (2003) considered professionalism at a national level in a place responsibility agenda and considered that a new profession of “developer” should be created to;

“Meet the diverse (place) needs of sustainable communities existing and future residents, their children and other users, contribute to a high quality of life and provide opportunity and choice. They achieve this in ways that make effective use of natural resources, enhance the environment, promote social cohesion and inclusion, and strengthen economic prosperity” (Egan 2003).

The agenda was well meant but would be undeliverable in the absence of a long-term commitment. Although the argument for a new breed of public sector regeneration change managers, possessing both generic and specialist skills is long made the main contributors in the field continue to be found in built environment and organization based occupational professionals and well-meaning community activists.

The discourse of regeneration professionalism can often be used in occupational recruitment in Wales, in organizational mission statements, aims and objectives, however there can be ethical dilemmas and conflicting duties associated with political and place responsibility. The organization of professional work in regeneration organizations generally remains in the hierarchical, bureaucratic and managerial control of public organizations. Those who might consider themselves regeneration professionals legally and naturally owe their first duty of care to their employer, not necessarily to place.
There is then a significant dilemma between organizational and place based professionalism in public service regeneration. Organizational objectives (which are sometimes political) can define practitioner/place relations, set achievement targets and performance indicators, regulate and replace occupational control in practitioner/place work interactions, (Travers 2007) limiting the exercise of discretion and preventing the service ethic important to place professionalism.

Professionalism in this form can be seen as being “controlled from above” (Evetts 2012) a selective discourse, which can be used to promote and facilitate political and organizational perceptions of success in the eyes of the public. Professionalism as “a disciplinary mechanism of autonomous subjects exercising appropriate conduct is then subservient to unwarranted influence” (Evetts 2012). The effects are not the occupational control of the work by the workers but rather control by the organizational supervisors.

When there is a need to trust professionals’ intentions in place based regeneration work, as long as professionalism is founded on the appropriate values, a responsibility to place and to public value, there should however be the opportunity to limit conflict. Education, training and experience are fundamental requirements for regeneration professionalism but once achieved then the exercise of discretion based on competencies ought to be central and deserving of special status.

According to Friedson (2001): “the ideal typical position of professionalism is founded on the official belief that the knowledge and skill of a particular specialization requires a foundation in abstract concepts and formal learning”. The local place based collaborative community principle has been growing more influential in the organization of professionalism in area-based regeneration and shows no signs of changing. In public sector regeneration operations in Wales decentralizing governance with control is increasing. As a result of Well-being legislation there is also intent on demonstrating greater value from public service budgets from measurable local area accountability. A foundation in abstract concepts is the output hoped and in prospect.
The outputs of regeneration are now firmly the responsibility of local delivery organizations. As the range of multi-disciplinary activities increase inputs and processes will demand greater attention. As yet no causal link relationship between local regeneration outcomes and professional delivery standards in Wales can be established by reasonable scrutiny. Citizen scrutiny of professionalism in place shaping in Wales could well be surprised at the lack of link between professional responsibility and outcome. It would certainly be unthinkable in many other public service professions.

The outputs of Well-Being will require place-based entrepreneurial activity and new knowledge of abstract community practice control responsibilities (Adler et al 2008) and in numerous ways: governance, management, external forms of regulation, audit and measurement, targets and performance indicators work standardization and financial control, competition, individualism, stratification. Local control of work priorities offer a possible range of solutions and procedures will need a structured professionalism re-definition as workloads change.

1.6 The Public Service Preparing for Change

Public service in this study is the public service of administering regeneration in Wales, for the benefit of the public. This can include services delivered through the public sector, the body of staff directly employed by publicly funded bodies, the third sector, through social enterprise, through services that are contracted out or through public services that engage with the private sector.

The demand for public services in Wales is growing while resources to provide them are falling. There is “compelling evidence” (Welsh Government 2014 - Williams Commission on Public Service and Delivery) of the need for radical change.

The best estimate is that there are 935 public bodies in Wales, (where housing associations are deemed to be third sector) active for accounting and funding purposes. The range of complexity of the public service is evident from the range of responsibilities and the inter-relationships between the public bodies, their variation in size and “blurred” lines of accountability. The Williams Commission identifies that;
“Public spending will decline in real terms, as the population gets older, and as public expectations of service quality rises. As the major public services, education, health and social services call down the great majority of public spending this will squeeze all other public services”.

Value led change, citizen centered services, new delivery models, clarity of vision and a focus on outcomes is seen as the challenge to public service leadership. Partnership working at the local level largely consolidated under the remit of Local Service Boards (LSB’s) with Single Integrated Plans was originally seen as having great potential to develop, in a drive towards better partnership working. Now, the “radical overhaul (replacement) of LSB “systems and structures” reflect an ongoing, changing and important role in allocating responsibility for delivery” (Welsh Government 2014 - Williams Commission on Public Service and Delivery).

As a result of Williams the consequential change in Welsh Government’s Program for Government has orientated the organization towards outcomes and results based accountability (RBA) (Friedman 2005) and predictive accuracy. As the Welsh Government First Minister said, in June 2015, “If people can’t see and measure the impact we’re having, there’s something wrong” (Welsh Government 2012 Outcomes-based thinking Senior Management Team January)

Results Based Accountability is made up of two parts, population accountability, in regeneration terms i.e. whole place populations and performance accountability for service-based organizations. Both parts add up to a program or projects likely contribution towards a desired change. The seven RBA Welsh Government Program for Government questions about delivery reflect the current project interest in pluralism and participatory monitoring namely;

1. Who are (ought to) be our customers
2. How can we measure if our customers are better off?
3. How can we measure if we are delivering services well?
4. How are we doing on the most important of these measures?
5. Who are the partners that have (ought to have) a role to play in doing better?
6. What works (ought to work) to do better, including low cost and no cost ideas?
7. What do we propose to do?
Regeneration outcomes in RBA inter alia now in theory include healthier, prosperous and learning communities through the appropriate supply of good quality homes, town centers that are accessible places to work, visit and live, improved opportunities for skills and jobs.

Population outcomes and indicators relate to a condition of well-being, measured by quantifying achievements associated with outcomes. Performance measures theoretically include both qualitative and quantitative measures such as; how much did we do? (for immediate reporting) how well did we do it? (for judging ourselves) is anyone better off (in hindsight)? Nationally however qualitative measures are not as much of a focus as quantitative measures.

The front line of regeneration service has shifted theoretically over a number of years to locally determined decision making, in practice a mix of local and national control. It is increasingly acknowledged that local actors ought to understand the difference between delivery failure and success. But this is not always the case. Both good process and people are required for success. Influence should mean that average must be brought up to good. (Bicheno 2008) Good, if identifiable, could be brought up to excellent.

In measuring accountability and regeneration administration in Wales it is now characterized by network policy and practice; by high variety, low repetition, some dedicated resource, high variation between different products in a single area, and similar products across areas. Increasingly measuring results and reporting is becoming standardized through verification reporting (e.g. VVP) with however sometimes minimal place based (customer) contact.

Regeneration network organizations can be considered as having a dual-core at work, a technical core, described by Thompson (1967) and an administrative core. Each core has its own participants, its own goals, problems, activities, technology, and environmental domains. In a useful definition of organizations at work for the purpose of comparison, Daft (1978) argues that technical and administrative cores can be subdivided into major and minor elements. in regeneration policy and practice each core is essential to total organizational functioning.
In this project it is worth subdividing and differentiating the administration core by a lower case “a” in administration, representing bureaucracy overheads and an upper case “A” in Administration representing “corporate governance” and “strategic management” processes. Technical and technical support categories can be found in both cores. The Technical and Administrative cores’ however take responsibility and are accountable for operations, management and leadership within their own working environment.

Despite its organization importance, administration with a small “a” - the activities that take place typically in offices- would not be the focus of study. What is the focus would be the Administrative core and the overlap with regular activities, periodic meetings and non-regular activities, complex cases, change interventions, consequential considerations of not doing something, or not doing it right first time, requiring field service adaptation (Bicheno 2008).

In Vibrant and Viable Places (VVP) the concept of service in regeneration Administration is now a choice in favor of co-operation “following” competition in service provision. The concept can be seen in the process and product service “bundle” (Bicheno 2008) in place regeneration in Welsh Government that relates to all the work related activities associated with regeneration, and the end-to-end measures that provide value to the regeneration of place.

The Administrative core is generally above the technical core in the organization hierarchy and the domain of the Administrative core includes reflecting on and articulating choice. Under certain circumstances the Administrative core can be loosely or tightly coupled with the technical core. In the current scenario the two cores in Welsh Government for example are loosely coupled with weak attachments between them and each core retains an individual and separate identity (Weick 1976). In a previous scenario where the two cores were more tightly coupled the attachments between them were strong and there was a common bond and shared identity.

As the technical core has become weaker in Welsh Government in the change towards Administrating VVP, the Administrative core has become somewhat more dominant (Thompson 1967). Most Administrative changes originate near the top of the hierarchy and trickle down; technical change originating near the bottom of the hierarchy and trickle up is now less prevalent. Organization members who work within a technical area are specialisms no longer required losing their status as local experts in that area.
As a consequence, those likely to be the most knowledgeable people in the organization regarding place-based problems, new ideas, and the suitability of those ideas for use in their task domain have become less available over time.

Technical ideas proposed by Administrators and others outside the technical domain will then tend to be out of synchronization with perceived needs. With regard to Administrative arrangements higher-level senior managers are the experts in their own domain and should be tuned to new developments that apply to new problems (Daft 1978).

In regeneration in Wales governing board members have not shown any appetite to propose technical change. Administrators have a definite role initiating strategic change but it is limited to corporate governance administrative ideas. Administrators get involved with technical change sometimes without technical knowledge or experience. The theory is that lower level managers are less likely to be able to see the big picture Administratively. That their proposals may be less likely to be appropriate is often found in misunderstood hierarchical practice. Technical professionals often tend to see problems because of high aspirations and standards of performance.

Daft (1978) suggests that as the professional level of the technical group decreases, involvement with the initiation of technical innovations decreases. When the professional level of core technical members is low, the core members will tend to be less active as change initiators. Technical core actors should be expected to learn about and propose nearly all the technical change innovations adopted by the collective organization. The Administrator role in technical changes and improvements can then be minimized.

Administrators and technical actors are highly specialized, concerned with changes in their task domain, employed full and part time on Administrative and technical activities in large and small organizations with increasing formalization and less personal contact.

Administrators can be a dominant force in area-based regeneration. Administrative change initiations are adopted because current techniques are perceived as unsatisfactory—often when political requirements frequently change and then when a performance gap is perceived to exist (March & Simon 1958).
A strategy available to regeneration Administrators is collaboration with core Technical members on Technical proposals. If an Administrator and technical professional work together on a change proposal resistance to management initiatives can be reduced. Collaboration would then engage core actors in the change process, and would be an implementation-delivery-strategy similar to the “mutual understanding” strategy for implementing scientific research (Churchman & Scheinblatt 1965).

Place shaping change initiations will depend to a great extent on the professionalism of the actors in the technical core. The professionalism of this group will be associated with participation in professional membership, education and training, exposure to new ideas, autonomy, and the desire for recognition from peers rather from the formal hierarchy (Daft 1978). The pragmatic question then is, in the absence of employer organization support, would technical professionals benefit from an attempt at higher multi-disciplinary professional standards?

1.7 Pragmatism and Assumptions

The ideas in the Chapters that follow and described in the final part of this introduction section, are those which relate to what ought to be controllable through policy and practice in area-based regeneration. There are a number of important research assumptions.

Although individual human relationships are not the principal consideration in the study, control of the relationships that tie a structure together, which make the idea of a system useful, is a key consideration and a central feature. National policy and local delivery is one key relationship, which add up to a consideration of wholeness and is of particular importance. Smaller parts can be identified from this relationship, “and it is in these connections between the parts which make it a system” (Chadwick 1971).

The study focus makes a key assumption that an emancipatory approach in policy and practice is desirable. Seeking to identify system based elements hopefully will go some way to empowering those responsible entrepreneurs active in the field and affected by regeneration policy designs and decisions, but not involved in them. Assumptions relating to audience are worth stating. The audience for this study is both academic and non-academic.
The academic audience includes colleagues, supervisors and thesis committees. Non-academic audiences include actors in the field of regeneration, policymakers, practitioners, place and community leaders and other professionals and entrepreneurs who do not specialize in academic research.

For academic colleagues the connections between the review of literature, methodology and framing theory is shown in cross-referencing topics between Chapters alongside the developing research findings and recommendations. For non-academics the descriptive model design elements are likely to be more important. There are many non-specialists in the field.

Working with many worldviews will eventually be essential as the culture and politics of organizations hopefully become more involved. However, to gain commitment from national stakeholders, Welsh Government policy makers and practitioners, to agree courses of actions, to see what changes are feasible, conventions will need much theory development and description as an initial action.

In a first systemic orientation, there is no requirement for correlations in terms of assumed outcomes or a wide range of contextual variables, as the requirement for a relativist study of human behavior is better suited to a later stage once any agreed future system is pluralistically operationalized. An understanding of the research question will draw on a mix of systemic approaches. The systems approaches concentrated on are systems dynamics, organizational cybernetics, complexity theory, and critical systems heuristics. The purpose is to initially identify the key mechanisms that govern regeneration behavior, that is the most important structural aspects that lie behind system viability and performance.

“A structural approach can enable through the description of a system at work, the determination at a deeper level of what is going (right or) wrong with the present functioning of a system and how to learn to manipulate key design features so that the system can survive and be effective over time by continually regulating itself, and self-organizing, as it adapts to internally and externally generated turbulence” (Jackson 2010)
It is assumed that regeneration policy and practice is not wholly identifiable in contemporary systems terms in the regeneration literature prior to research activity despite a number of quality publications and these will then be necessarily subject to redefinition in systemic terminology.

In the current circumstances reducing variables to their smallest components would lose the real meaning of seeking a course of full detail. All policy and practice parts are nevertheless required to be considered in full in order to provide a whole system determination of organizational performance, and an understanding to what extent practices and effectiveness are situation specific and whether some universal principles could be applied (Teagarden et al 1995)

The ontological assumption (nature of reality) in this project however is that there are commonly used best, good and emergent regeneration practices within public regeneration organizations (applicable also to publicly funded regeneration organizations) which are relevant to aid understanding and action, that can be identified and grouped together in debating better policy and practice.

As a long-term process a single regeneration policy or program is often only part of a broader process of change, which takes place over decades. Attention naturally however focuses on the most recent programs and projects and their effective contribution. This is the case with the current framework for regeneration in Wales, Vibrant and Viable Places (VVP), a £100 million, three-year Welsh Government led task and finish program that offers a current contribution opportunity for comparison. The program can be expected to be discontinuous or continuous for the purpose of research.

It is ultimately assumed that practice based action and operational research used for critical and relational reflections can be completed “in both a respectful and irreverent movement across and between (value judgments) ideology and theory” (Simon & Chard 2014). Following Dalton (1959) and Watson (1994) the study would eventually be considered firmly in the social constructivist tradition. The classical scientific method has not been considered appropriate in this situation.
The format of reporting in this study represents a multiple case report examining the evidence relevant to the research question within each case element to begin to build up multiple case summaries and case comparisons towards a synthesis of description and explanation.

A combination of active and passive voice is used in reporting in this thesis. The guiding principle is clarity, and, as a mostly insider research project, the ethical protection of participants. Only the action is important. The reader has already been explained who the author is. The doers of the case study actions are required to be ethically protected through anonymity as a condition of operational research. The active voice would be useful in the introduction, interpretation and discussion Chapters. The passive voice would be useful in the methods Chapter where the steps taken are more important. The focus in the research is the result, not the researcher or the action doers, and is explained in the differences between systemic research and people research.

The passive voice is also chosen because the recipient “place” is the main topic. The passive voice emphasises “place” as the thing receiving the action and this is the emphasis preferred. The subject I wish to discuss in a sentence often occurs near the beginning in the topic position. The doers of the actions are less important than the action. The passive voice is preferred as the doers of regeneration actions cannot be easily named and are less relevant to the discussion. Attempts to name the action doers would be awkward and unethical. When naming a doer proves difficult or unnecessary the passive voice works well, even if sentences are slightly longer.

Present tense is used in the introduction and discussion chapters, and in the literature, ethically treating established knowledge with respect. Past tense is used for the actual work in methods and results. Most of the abstract is past tense relating to what I did and what I found. It is necessary to move back and forth between past and present tenses. Attribution and presentation is in the present tense. I believe it is necessary only to credit myself sometimes and only where necessary. On review, where necessary, and particularly in Chapter 5 and Chapter 6, the passive voice would be changed to “the author found”.

There are six Chapters in volume one. The structure has regard to the Government Social Reporting GSR format and a standard linear-analytic reporting approach is used with the problem being studied.
This Chapter (1) has summarized how initial ideas are related as a basis for predictions made in the emerging thesis and is followed in Chapter 2 by a review of the research methodology as the foundational driver of the research process. The relevant literature is then (re)defined in Chapter 3. The thesis findings from the data are collected, analyzed and synthesized in Chapter 4 and the conclusions and implications from the findings are then discussed in Chapters 5 and 6 that follow.

In detail, Chapter 2 (and Appendix 2 Volume 2) assesses through a discussion of methodological choices how philosophical issues and opportunities were considered prior to carrying out the research execution. A research strategy to address the evaluative questions is posed there as a strategy defensible in design.

A natural sequence in the application of critical systems thinking ideas was found in system dynamics, organizational cybernetics and viable systems modeling, critical systems heuristics and soft systems approaches. Additional material in conjunction with Chapter 2 and included in Volume 2 Appendix 2 is based on the key research paradigms and the directional relationship with theory. Systems theories, applications and limitations are also identified in this Appendix, for completeness.

Chapter 3 examines through a literature review, what practitioners and scholars have already learnt and written about regeneration policy and practice. In additional material in Volume 2, Appendix 3, a historical literature review is also compiled as a result of an emerging systemic perspective as the research progressed and as a further test of rigor in emerging model coherence.

In Chapter 4 the detailed method of empirical data gathering, analysis and synthesis in context from chosen the methodology is presented in full to demonstrate rigorous conduct in execution through the systematic and transparent collection, analysis and synthesis of qualitative data. Concept modeling, producing findings and recommendations in sequence, develops from the iterative literature review, a historical background, and an appreciative inquiry of unfolding events, relationships and attractor patterns.

The seven linked case studies described in Chapter 4 offers a contributory multi-case opportunity, with the data from each case used to build upon earlier cases, towards a summary format in two principal research findings and recommendations.
Case study evidence is presented in abbreviated vignettes. The detail of personnel involved in participant observation is however not presented fully to maintain confidentiality requirements. This approach follows the research purpose in an attempt at systemic understanding and not the portraying of human issues.

Synthesizing the evidence from multiple cases in a systemic form captures the tools and techniques and draws on appropriate examples from systems approaches and methodologies. Additional material in Volume 2 Appendix 4 and Appendix 5 involves a consideration of systemic model development in contributing program and practice.

Chapter 5 provides an interpretation of the findings, an understanding of the potential benefits of critical systems thinking and practice to the field of regeneration, managerial implications of the research findings and theoretical findings for a wider audience. In Volume 2 Appendix 4 and Appendix 5 the theoretical usefulness of systems thinking and systems approaches to managing change in regeneration is the subject of additional detailed analysis in its contributing potential.

Chapter 6 concludes by discussing the results of the study and presents the overall conclusions offering a number of recommendations for regeneration leadership in Wales acknowledging likely challenges towards a future sustainable regeneration system design and delivery. The model in possible application in a workplace report in action is suggested in Volume 2 Appendix 1.

In Volume 2 Appendix 1 a review of the research is reflected in a summary of the research experience and how the research could be disseminated. In the context of personal professional career development, this submission is considered in line with the final requirements of the Professional Development Portfolio (PDP 3).

Research validity is explained in Volume 1 Chapters 1 to 6 in the development of new ways of seeing in the field in context, theoretical, empirical, and applicability terms. The validity of the research design, through operational and action research is detailed in in Chapter 2 which follows, in authenticity, plausibility and criticality (Golden-Biddle & Locke 1993) against principles of refutability, constant comparison, comprehensive data treatment, tabulations, transparency and believability (Silverman 2006, Easterby-Smith 2008). The next Chapter, on methodological approaches can now be presented.
Chapter Two

Completing the Research; Methodology

In this Chapter, the application of theoretical research approaches purposefully in a bespoke situation is described in five parts, and builds towards the development of a research philosophy aimed at a producing a greater understanding of systemic area-based regeneration policy and practice. A research methodology capable of successful utility within extant regeneration administration policy and practice is the hoped for outcome. A phased, task based strategy to address the evaluative questions is eventually posed as defensible in design. A discussion of key research paradigms, the directional relationship with theory and the application and limitations of systems theories is included as additional material in Volume 2 Appendix 2.

In this Chapter, an assessment, through a discussion of methodological choices, of how philosophical issues and opportunities were considered prior to carrying out the research execution is detailed. Ensuring quality standards in a demonstration of awareness of quality and ethical considerations is to be found in Chapter 3 in a contributory review of the relevant methodological literature. The Chapter is submitted in fulfilment of the Advanced Research; Design and Project Management Module, DBA program requirements November 2011.
Chapter Two

Completing the Research: Methodology

2.1 Introduction; the Situational Opportunity
2.2 Applying Critical Systems Thinking
2.3 Phasing & Method in the Research Design
2.4 Towards a Sustainable Regeneration System
2.5 Multiple-Case Evidence; Merging the Findings

Based on the work of Gobo (2004) this Chapter deals with:

- Translating the philosophy and theory of an approach, to a practical application in context.

- Describing and critiquing/reviewing the theory and practice of the chosen approach. Methodology design for the project; definitions, history, main philosophical tenets, practice in area-based regeneration and analogous practice.

- Differentiating qualitative and quantitative strategies and relationship with data sources in selecting appropriately and deciding what actually to do to generate new knowledge applications and understanding.

The reader may wish to refer to Volume 2 Appendix 2 prior to reading this Chapter, for a detailed background to the theoretical and practical considerations and methodological choices surrounding this project. The clarification of methodology preferred and the issues involved with current and future methodology integration is outlined there. Specifically, why and how knowledge from this project was to be situationally driven and not methodologically driven, contingency and boundary based rather than statistically based.

An ontological and epistemological justification of methodology and method is found throughout Appendix 2, constructivist and interpretivist observations beginning on pages 41 and 44, researcher influence on page 43. Justification of a constructivist-interpretivist position is summarized on pages 45 to 47 with statistical and deductive methodology considered outside the scope of this project in context.
Although both qualitative and quantitative method methods were found to be relevant in the field of inquiry, quantitative methods were considered reserved for further application in a future systemic orientation.

Theory building in this project was the priority in a first systemic orientation in the field, requiring qualitative data to address the research question for external validity (page 51) and not mathematical modelling. Quantitative comparisons were too difficult to overcome. Sensitivity protocols would have impacted on mathematical research in addition. Qualitative data precedes quantitative in this research as a way of establishing normative positions within a sensitive workplace environment. Mixed-method research would however be appropriate for future research over time on the adoption of a systemic approach in the field (page 59).

In this Chapter and in Volume 2 Appendix 2 the aim is to demonstrate a systematic acquisition and understanding of the philosophical approaches available to operational management research in the local context and the role and usefulness of the key research paradigms. The focus here is based on the prioritization of ontology over epistemology.

The eventually preferred overarching model to be applied in this project, Vickers (1995) Appreciative Inquiry, is outlined and justified in part 1 of this Chapter. Methodological choices in supporting the preferred model available through Critical Systems Thinking (CST) is shown to have a longstanding tradition of successful application in practice using normal and natural paradigms that offers the potential for substantial rigor.

In parts 2 to 5 this Chapter various strategies in selecting appropriately and in deciding what actually will be done in generating new knowledge and understanding will reveal the detail of phasing and types of method to be used. Through case study and action research, the differences in qualitative and quantitative enquiry, data generation and analysis will be outlined.

In Volume 2 Appendix 2, positivism, post-positivism and interpretivism are examined together with a discussion of the potential offered through the developing paradigms associated with critical realism. A critical evaluation and appreciation of the directional relationship in the project with methodology, deals with the nature of operational management research in the local situational context. The choices between value free and value-laden philosophies is an important distinction.
The argument for post-project multi-methodology and multi-method pragmatism for contextual sophistication, and specifically data sourcing is made in Appendix 2. Systems theories, applications and limitations are described and critiqued/reviewed. Critical Systems Thinking methodology design for the project in definitions, history, main philosophical tenets, in practical regeneration application and analogous practice are detailed.

Proposals for the maintenance and development of methodological standards are found in Chapter 3, to ensure quality in the project and will deal with relevance, rigor and recoverability in the contextual situation, where the research relationships processes and outcomes will also be key considerations. Ethical considerations will be briefly outlined in this section that will be supplemented by detailed ethical considerations in Volume 2. Throughout the emerging thesis specific evidence of ethical principles being followed will be described.

2.1 Introduction; the Situational Opportunity

The Opportunity and Basic Research Design

The situational opportunity and basic research design is described in this introductory section and the methodological justification in a further two sections. Methodology has at its purpose how to translate the philosophy and theory of an approach to practical application in context (Silverman 2006) and during the early stages of this project a change in opportunity was to lead to a revised prioritization in methodology, towards operational management research in action, and in the sequence of research in operation.

The choices then related to a real-time situational opportunity that presented itself for investigation in early 2012. The situational opportunity, a transition from one national regeneration policy to another, was able to address the research question “what critical regeneration systems ought to be” in as complete a form as could be imagined. Methods of data generation and gathering were then however not all determinable at the outset; forms of data analysis were not all identifiable.
Methodology refers to the choices made about cases to study, methods of data gathering, and forms of data analysis and the developing situational opportunity meant choices in action over a five-year period. In planning a research study Gobo (2004) provided a useful consideration except perhaps in its first component.

Gobo suggests four components; 1 a preference for certain methods, (among the many available listening, watching, observing, reading, questioning, conversing) 2 a theory of scientific knowledge, or a set of assumptions about the nature of reality (the revised priority), the tasks of science, the researcher role, and the concepts of action and the social actor, 3 a range of solutions, devices and strategies used in tackling the research problem; 4 a systematic sequence of procedural steps to be followed once method has been selected. The four components, their potential role and the usefulness of a diverse range of theory to operational management research in action were subject to a changing situational opportunity.

The Situational Opportunity

The research context changed significantly since the project inception and a new situation was to emerge to provide a relatively rare operational action research opportunity. It is necessary to review the changed context before moving on. The situational opportunity and research context involved the development of a new Welsh Government regeneration policy eventually launched on the 22nd March 2013 following a national review of regeneration conducted between the summer of 2012 and spring 2013. The new regeneration policy - for implementation over the 2013-2016 timeframe - proposed an annual competition for funding, in a potentially integrative format not previously formally tested in Wales.

In the new policy situation local regeneration delivery partnerships would either be successful or unsuccessful in a resource competition for regeneration funding in the summer of 2013 (Viable and Vibrant Places 2013 a 3 year £100m fund). New relationships with new delivery standards would be deliberately sought.

Local delivery boards and other governance arrangements responsible for integrating local public sector intervention activities would be encouraged to consider expanding their previously limited roles in the field. New leading actors could be identified.
The capacity and capabilities of the local and national regeneration “industry” in Wales would possibly be able to be determined through the new policy over the research period.

Whether a resource competition strategy was the best that could be done for local area change in Wales was a potential learning outcome. The new-policy framework - Viable and Viable Places – was planned to change national and local actor relationships in a hope of improving standards and provided the opportunity for cyclical policy, strategy and operational research in a structured form.

The new policy would terminate an existing regeneration policy established in 2005. Until the new policy was implemented continuing case study work in an outgoing program could produce evaluative evidence towards supporting conceptual research modelling.

In pursuing a new regeneration policy, national policy authors would seek consultation input from many participants for reasons of thoroughness (and perhaps the self-protection of hierarchies). In developing a new policy transparent government would mean that consultation would be formal and widespread; learning sought from every quarter. It would eventually be possible to influence survey questions and analyze systemic responses to add to many other forms of data generation.

Changing a public policy to predetermined political deadlines would produce frenetic activity in short bursts of effort. Workplace pressures within Welsh Government and other public service regeneration organizations involved policy design by committee to achieve something possible. Decisions and directions would nonetheless be the responsibility of senior civil servants and Ministers.

Where policy change would be directive, alternative options would be capable of being counted or discounted, reflecting the power and control of senior civil servants and Ministers. Administrative and technical professionals then would have a developing role, or not, in executive strategy and operational decisions.

The practical application the new policy theory was then to principally encompass the work of the regeneration branch of the Welsh Government and its national team, tasked with managing the new-policy and practice change processes and specifically the inter-relationships with local regeneration delivery partnerships.
Local delivery partnerships were autonomous yet dependent executive actors responsible for spending targeted regeneration funding in Wales for the next 3-5 years. The national regeneration team formed within the Welsh Government Homes and Places department within the Sustainable Futures division reported to the Minister for Homes and Places, and a cabinet member role that hosted the transition from the old to the new program.

An influential view following the new-policy announcement that “I am not convinced that we have the right systems in place” provided a focused workplace agenda. A new regeneration system, if to be based on planning, action, review and further reflective planning into the future would likely need a firm structure to facilitate professional development and learning than currently existed. The long established traditions of case study research and cyclical action research were well positioned to provide the structural basis for operational research in this situation.

A changing situational context is commonplace in public and civil service organizations and two weeks following the new-policy announcement a Welsh Government cabinet reshuffle resulted in a new Housing and Regeneration Ministerial appointment, and a Minister with new priorities, not an uncommon condition.

During the conduct of this project significant further change would follow, directed by those in power with sharply differing styles and policies. Adapting to circumstances as they appeared in terms of research choices would then be necessary. The choice between research formality and informality suggested the latter strategy.

As its guiding intellectual framework the research eventually drew heavily on the model by Vickers (1995) and the ideas behind Appreciative Systems Modelling. The focus fitted with informality on the nature of human systems and decision-making at managerial and political levels, the nature of inter-relationships and inter-dependencies between national and local actors. The pursuit of improvement in standards through mutually predictable behaviors was to become over time an identifiable goal.

Boundaries were to become of key importance as a way of understanding critical regeneration systems in “is” and “ought” modes. Critical Systems Thinking, (CST) with its associated tools of understanding could be incorporated in a research framework concept to determine normative modelling in both evaluation and design.
An ongoing process of sense making over time could be considered in two basic fieldwork research phases in an action research cycle, a policy phase and a practice/executive phase. Further regulative cycles were likely before the new regeneration policy became fully operational. Further policy changes would be possible but unlikely over the short term. In the policy phase and in anticipation of the new-policy agenda, a value free case study review of outgoing policy and practice could be undertaken throughout 2012 to align with the national review of regeneration in Wales.

Using CST in the Western Valleys Regeneration Area (WVRA) one of seven outgoing “strategic” regeneration areas (SRA’s) in Wales, a case study could contribute to normative modelling in collaboration with internal and external stakeholders. An appreciation of the old system, in policy and practice, could potentially inform both national and local future system design considerations.

Case study data could be generated initially with the multi-disciplinary WVRA local regeneration steering group. Participant observations, documentary analyses, semi-structured interviews and group/team review reporting to influential decision makers could be aimed at generating an informed understanding.

In 2013 supplementary case study evidence was programmed through interviews with key informers in the remaining outgoing SRA’s. Documentary analysis and actor surveys would be able to confirm or contradict initial normative standards in the WVRA case study findings but this was not able to be finally delivered without senior manager support. Indifferent attitudes to evaluative research were eventually found here with both internal and external actors.

In the practice/executive phase research participants, critical friends and validation groups could have been chosen as a result of their status i.e. successful or unsuccessful in the competition process and as a result of their willingness to participate with enthusiasm towards an improvement agenda. However, matters of sensitivity would be particularly important to these groups which would eventually mean the non-participation of this group.
The national review of regeneration policy in late 2012 early 2013 preceded the new policy announcement in March 2013. A new-policy national consultation designed by the national regeneration policy team led to one hundred and forty feedback responses capable of systemic qualitative and quantitative analysis. The consultation questionnaire design was capable of being influenced. Respondents were advised formally that responses were to be made public satisfying potential ethical concerns.

At the appropriate time when new policy is being implemented a qualitative and quantitative survey of those consulted could provide evidence of new system ambitions in enhancing or diminishing capabilities. In the value laden practice/executive phase the action research cycle would then be informed by critical insights from actors in new situations as a result of the new regeneration policy consideration.

The new regeneration policy aimed at allocating targeted resources in a formal competition for the first time in Wales in a modern format. Submissions for Welsh Government resource allocation could be systemically analyzed against systemic regeneration elements required for efficacy, effectiveness efficiency, elegance (Jackson 2010). What ought to be mutually expected between national and local actors and what is deviant could then possibly be tested in practice.

Both actors and areas successful and unsuccessful in securing resources through the new-policy competitive bidding process could have been surveyed and interviewed but again were judged to be beyond the sensitivity protocols of research in context. National and local teams’ new roles, responsibilities and standards were not then able to be challenged.

An Appreciation of the new policy in action could however result in further normative modelling, learning about; the planning of new actions and decisions, the taking of new action, further evaluation. Whether literature supported, disconfirmed or challenged interpretations in terms of organizing complex responses could then be tackled possibly in a group steered review.

**The Basic Research Design**

The project would proceed, based on the situational opportunity available, with case study and action research fieldwork cycles.
The preferred tools to be applied for understanding, planning and organizing actions were those associated with critical and applied systems thinking. Critical Systems Thinking (CST) with a longstanding research tradition within many fields was beginning to be able to be seen as providing a substantial and suitable rigor in a mixed methodology format. There was little literature evidence however of a major application in the field of area based regeneration.

Access and opportunity was a likely significant barrier to social science research through operational action research methods. The usefulness of CST in action towards purposeful regeneration could be the subject of a third interpretive and final research phase.

A range of purposeful systems thinking approaches could be chosen following an extensive systems thinking methodological literature review. Ramage & Shipp (2009) briefly summarizes the history of critical and applied systems thinking approaches in seven system-thinking groupings.

1 Early Cybernetics explored parallels between the behavior of cognitive and engineered systems with a focus on feedback and information.
2 General Systems Theory developed general characteristics of systems with a focus on emergence, boundary, hierarchy and the system in relation to its environment.
3 System Dynamics reveals the underlying dynamics of organizational societal and global systems through computer modelling.
4 Soft and Critical Systems provide methodologies for systematic intervention in organizations and government, addressing intractable problems, multiple perspectives and power.
5 Later Cybernetics applies cybernetics to management, biology, sociology and psychology.
6 Complexity theory, modelling highly complex and interconnected physical and human systems, focusing on self-organization and emergence.
7 Learning systems focus on systems of learning in individual practice, groups and organizations.

In both fieldwork phase’s contributory and relevant CST methodologies could be used and reviewed as to what they could do in the situational opportunity. Methodology driven applications could be applied situationally with procedures to achieve both academic and practical rigor, at key opportunity, leverage and decision points.
Why a particular approach seemed relevant in the currency of the situation would then need to be capable of being justified.

A situational opportunity approach would be of particular relevance to change agency. Although increasing in its acceptance by public organizations there is generally a lack of understanding of change agency in action in the regeneration field. Change however can be introduced at very short notice to comply with political system requirements. Where there is then no time to plan there is significant potential for negative consequences. In the new regeneration policy for Wales, Vibrant and Viable Places (VVP), there was, at least initially, time to plan.

In the pre new-policy rhetoric of VVP the ambition of a national government organization responsible for driving the regeneration agenda was of a new policy based on a local perspective, and an argument based on a transfer of responsibilities to local delivery. What was generally not clear was determined not only by a lack of resource but also perhaps by a lack of ambition of key influencers and the willingness or otherwise of actors to play their part.

The application of CST in a situation driven rather than a methodology driven research approach was to limit choice initially to a basis of use in do-ability, flexibility, and adaptability, with tools and techniques “breaking the surface only occasionally to interact with ongoing ideas and events” (Jackson 2010). Basic questions about the nature of knowledge and validity in context would a research challenge. Successful research in this context would then perhaps be found in the intent to carry out small - and perhaps not so small -system changes, perhaps in a contribution to theories of change in understanding a complex system and perhaps a tangible output in some form towards improved regeneration design and delivery.

2.2 Applying Critical Systems Thinking

An Appreciative Inquiry

The overarching conceptual research model chosen for this project, from a range of possibilities, was eventually found in Vickers original (1965) Appreciative Systems Model.
Appreciation was appropriate to the particular situation and was an appropriate model fit with the research aims and objectives, the current regeneration “regulation” cycle and the potential for greater acceptability in use. Based on reality, value and instrumental judgments the language used was one of the least confusing in the systems research – practice toolbox.

The model incorporated the research themes and intellectual framework originally proposed in the project initiation, and in the area in which to apply the framework. The ways of applying the framework through content, purpose, premise, worldviews were identifiable (Checkland & Scholes 1999).

The appreciative system concept here involves a regulative cycle, a policy phase and a practice/executive phase. There is an opportunity in each phase to read the situation, to notice particular aspects of the situation, to discriminate them in particular ways and to measure them against particular standards through comparison i.e. values, principles, and efforts.

The appreciative setting found in a regulative cycle provides the conditions that create new experiences that can be modified through feedback by new experiences in a common and cyclical fashion (Vickers 1995). The model setting provides the opportunity and tight relationship for the use of a number of Critical Systems Thinking techniques and applications aimed at addressing the specific research question and research goals.

The three forms of appreciative judgement over time; reality, value and instrumental judgments, are both broad and deep in scope, ethical in character.

“Reality judgements can consider cause and effect and what-is questions, value judgements can consider what ought to question - imperatives wants, desires, prudence, self-interest individual and collective goals and norms. Instrumental questions can consider resources, time, attention, passion, money, power, and social resources, influence, command view, communication, coalition and access to social institutions, and the difference between reality and value” (Vickers 1995).
Importantly, appreciative judgements can be measured against standards – against which individual and collective place-based regeneration leaders and actors can determine value and by which deviance from standards can be recognized through normal conceptual modelling. Standards ought to be expected to change in the situation in context with a redistribution of resource.

The change situation in the research context is a major change as it involves dissolution of an old collaborative concept and the introduction of a new competitive (before collaboration?) concept. The policy and practice phase’s natural opportunities would lead to learning, planning and action. Policy decisions would deal with direction, coherence, and continuity.

The practice phase would deal with giving effect to policy and to the development of (mutually predictable?) institutional behaviors and in particular the maintenance or otherwise of qualitative and quantitative relationships (in a strategic system dynamic model). Within each appreciation two standpoints would be of interest, a national actor view and a local actor view - the key relationships in understanding and improving institutional mutually predictable behavior.

National and local relationships to be maintained would be functional-with those responsible for delivery and those not (metabolic) such as finance, hr, procurement, legal, at both national and local levels. Matching resources to maintain and develop relationships would be key considerations.

The new regeneration policy for Wales, VVP, would attempt to align relationships, to aggregate activities and maximize values within the bounds of possibility, through regulative interventions (involving self-regulation) and through complex governance relationships which would often “create” a dynamic system of precarious stability” (Vickers 1995).

The new VVP policy initially would offer a protective strategy, shedding first the relations’ least likely essential to its survival. Nudging this process towards an enhanced strategy and not shedding was an option which could then possibly be suggested for ethical and good business reasons. Practice based executive judgements at the national level would then need to be worked on to be clearer.
What would perhaps be valued in developing policy relationships would be open for discussion but it could be argued that mutual relations involving mutual consistency and mutual predictability was critical in the interests of coherent integration and the implementation of multiple policies successfully. In Vickers words;

“Deviation from the norm beyond a critical threshold would then need rectifying. National control by threshold or norm would perhaps require more or less regulation in the control of resources for audit purposes and of the maintenance and development of relationships over time. Policy and practice judgments would change the opportunities for relating to place-need and would possibly result in the regulation of regeneration as a complex adaptive system” (Vickers 1995).

### 2.3 Phasing and Method in the Research Design

**Case Study and Action Research**

**Qualitative and Quantitative Opportunities**

**Case Study and Action Research**

The conceptual modelling required of the overall research, responding to the research question, focuses on case study work as a strategic choice, taking advantage of a rare workplace opportunity. A case study goal of collecting, presenting and analyzing data would be available addressing what and why questions. There would be little personal control of events but “the focus was possible on a contemporary phenomenon in a real life context” (Yin 2003).

The essence and scope of an empirical case study is often to illuminate a decision or set of decisions, why they were taken, how they were implemented and with what result (Schramm 1971). Case study has been a common research strategy in psychology, sociology, political science and business for many years (Ghauri and Gronhaug 2002).

2.3.3 Traditional criticisms of case study as a weak challenging method or framework for discussion and debate amongst participants would not outweigh its contribution to description and explanation in this project and specifically where the boundaries between the phenomenon and context were not clearly evident at the outset.
The components of a successful case study (Yin 2003) are identifiable in the research question. The research question requires conceptual modelling, to establish a proposition for change and action research, the unit of analysis (place change) was identifiable, logic linking data to the proposition could be explained, the criteria for interpreting the findings was capable of being chosen.

A multiple-case study leading to a synthesis in summary is justifiable under conditions, where-as in this project; the summary case represents a rare circumstance and opportunity to utilize findings in multiple-casework for longitudinal purposes. Each individual case making up the multiple-case could be considered for future replication in a systems view.

Further complimentary case studies could be selected using developed tools, so that cases either (a) predict similar results, (literal replication) or (b) predict contrasting results but for predictable reasons (theoretical replication) (Yin 2003). If all cases turn out as predicted, these cases would provide a compelling support for the initial set of propositions.

If the cases are contradictory, the initial propositions could be revisited and retested. In carrying out a case study the sampling logic in contrast to survey work would require an operational consideration of the make-up of potential respondents and a case study protocol (Saunders et al 2000). Data sources for case studies in this project would be available in documents, archival records, interviews, direct observations and participant observation. The confidential and corporate nature of many data sources would specifically require an ethical duty of care in every case application. Observation would nevertheless be the regular requirement.

During the evolving stages of the research strategy the focus would mainly be on participant observation. Participant observation is especially appropriate where-as in this project insider perspectives are capable of being observed. “Everyday situations and settings are the foundation of enquiry and method” (Jorgensen 1989). Interpreting observations is a necessary form of theorizing in a field setting and amongst involved participants. “The methodology of participant observation is characterized by a contingent, flexible, open-ended strategy which allows the redefinition of the problem in a grounded theory approach”.

Although individually designed surveys were considered as an initial strategy it was felt that better to influence corporate survey questions in planning, being developed and utilized. Reported survey work would provide for dialogue and learning at an early stage essential for positioning change program policy activities. The translation of case study work to action research would benefit from the large-scale external survey carried out nationally in a review of regeneration policy, strategy and operations.

Action research was a term first used by Kurt Lewin in 1946 and has been interpreted by management researchers in a variety of ways. There are three common themes in management literature (Saunders et al 2000). The first emphasizes the purpose of the research and the management of change (Cunningham 1995), the second relates to the involvement of practitioners in the research and the collaboration of practitioners and researchers, the third relates to the implications outside the immediate project-that the findings could inform other contexts.

The project in focus would fulfil each of these three themes to some degree and perhaps in an unconventional way. Action research differs from other forms of applied research because of its specific focus on action, in particular promoting change within organizations (Marsick & Watkins 1997). For “consultant” action/researchers Eden & Huxham (1996) argue that findings result from involvement with others over matters of genuine concern. For academics an explicit concern is for the development of theory.

Organization in this project context is a network form requiring modern foundational frameworks to enable greater practitioner involvement and collaboration. There would be potential in this project for transfer of knowledge from one specific context to another in view of the nature of modelling proposition.

The areas of concern are likely to be genuine modern ones across public service relating to the nature of place-based interventions. “Taking place over an extended period of time, with a research process that would need to be flexible and responsive to change the research process would constantly attempt to take advantage of change in action opportunities to develop helpful patterns of thought about what was being observed. There is a strong relationship here to ethnography and particularly when involved in participant observation”. (Saunders et al 2000)
In attempting to deliver short term research outputs a classical definition of action research provided by Rappoport (1970) “usefully explains a contribution “both to the practical concerns of people in an immediate problematic situation and to the goals of social science by joint collaboration within a mutually accepted ethical framework” (Rappoport 1970).

The ethical interest is on “what happens next rather than any formal account of research findings, whilst investigating and recording how changes are understood and developed over time” (Rappoport 1970). The belief that those most likely to be affected by or involved in implementing short or long-term change should as far as possible become involved (in the research itself) is a fundamental ethical building block of action research. Co-operative enquiry (Reason 1988, Heron 1996) where the subjects become partners in change and in the research process however needs structure in a network context.

The impact of this project in this context would be in the emancipatory possibilities and in the potential for future research through the application of systemic modelling that would be the subject of development in the project. Kurt Lewin in 1948 emphasized changes in behavior, and Government can initiate this change. The cycle of action research (Lewin 1948) means that as research themes are tackled new research themes emerge. The modelling of systemic action can facilitate changes in behavior but only if based on agreement with all involved and affected.

Having now declared the framework, case study and action research ideas and methodology relevant to the research task, potential data can now be identified relevant to the framework, methodologies and action research situation (Checkland & Holwell 1998). Systemic data from national policy consultation in this project would be generated which would be directly relevant to the research question.

Through national consultation processes, surveys, workshops, seminars, interviews, specialist and expert commissions, focus group interventions data would be collected. Text data that would be recorded and retained as representations of reality (without the intervention of the researcher) could then be subject to content analysis against agreed systemic elements.
Open and semi structured interviews would be used at appropriate times to reflect need and opportunity. Purposeful sampling would be necessary to include membership category analysis. The data in this project would naturally occur as part of the routine cycle of policy change, avoiding a single actor point of view, in a complete explanation, as far as possible.

Data would be taken advantage of (Silverman 2010) specifically in addressing the research concept. Synthesizing relevant surveys and published documents through systems based analysis would concentrate on systems relationships and interdependencies and “how the theoretically defined regeneration elements are assembled or mutually laminated” (de Saussure 1974).

Engagement with participants in reviewing the data would focus on future collaborative analysis, if at all possible, as the new policy is implemented –to enable the taking of new actions as appropriate. The vast majority of analysis would however be researcher based. It would be the norm in practice that change reflections formally made would be retained in documentary form. Policy influencers from a current to future state would need to manage the political organization system.

The holistic nature of the research would attempt to address all aspects of organizing regeneration. “The planning of new policy actions could then be scrutinized in future through leadership behaviors, the use of power, group roles and involvement, norms, cultural elements and decision making”. (Coghlan & Brannick 2013). The strategic intention could then be assessed and potential outcomes identified.

What happens in real time in taking action would be recorded as actions are implemented and collaborative change interventions brought forward. They would not however all be publishable for reasons of confidentiality. Inferences that can be drawn will be based on systemic description and judgements of individual and group interventions. What would actually be observed, and documented would however eventually be shared where possible with participants.
Evaluating the action in reporting would take place against values and priorities involved in doing no harm and against the systemic development of substantial development opportunities, to be agreed with organization representatives. (Coghlan & Brannick 2013). The research strategy would involve a prolonged involvement in study, more than one method of data generation and collection, the triangulation of evidence, devoting time and attention to disconfirming data, keeping as complete a record as possible.

The synthesis and display of data for scrutiny and collaborative action would include the drawing of conclusions to eventually be scrutinized and verified (or not) by participants in the field, with the goal of routinely and repeatedly modelling over time to establish patterns of action, reasons, and relationships (Coghlan & Brannick 2013).

As such the strategy would attempt to counter some of the criticisms of action research namely; “susceptibility to researcher bias, insufficient in scale, limited in scope and influence, not generalizable beyond the individual context, subjectivity, over prescription, the use of models that may appear daunting, over confusing and of limited use” (Costello & Hopkins 2002).

During the early stages of the project data collection would begin without the formulation of an initial theory. Theory would be developed through participation and from data generated by a series of observations leading to predictions, which would then be tested over time. Further observations, which may or may not confirm the initial predictions, would thus follow a Glaser & Strauss (1967), inductive to deductive grounded theory building approach.

Continual reference to collected data would be available to support the development of theory. Hussey & Hussey (1997) and Lewin viewed change as “a process of problem solving through social action, essentially dialogue”. Wilson (1992) suggested that this might ignore the reality of politics “both organizational and demographic” In this project it would certainly not be possible to ignore the reality of political or organizational approaches.
Politics and power is the significant influence in the choice of change path in the field in question and in the local context. Carnall argues that “those that are governed often disapprove of at least some of the politics of the policy elite and political views will always differ”. “Policy change and organizational choice rarely can be both successful and satisfy everyone involved” (Balogun & Hope Hailey 2008)

“Powerful individuals can push through directive change or block collective opinion. A powerful sponsor can be a strong facilitator of change. A business division can also be prevented from transformational change because more powerful divisions or even the divisions center block actions” Balogun & Hope Hailey (2008).

It would be possible to identify powerful groups within the network organization whose support and commitment would need to be gathered and retained to eventually promote the project’s recommendations. There would however be no guarantee of current or future support. Drawing on resistance to change management techniques such as through focus groups and workshops (Balogun & Hope Hailey 2008) would however be beyond the scope of this project without significant support.

Historical organization factors including a rivalry between functions and departments, entrenched ways of thinking recipient perceptions in network partners, lack of motivation, the impact of change on individuals, skills shortages, self-interest and politics Balogun & Hope Hailey (2008), would eventually be critical things to overcome.

**Qualitative and Quantitative Opportunities**

In this project qualitative methodologies would precede quantitative methods as a way of establishing normative positions. Quantitative methodologies would be capable of effective use should the application of the model become a reality. The rationale for qualitative precedence would be conceived as “a mapping exercise carried out to inform further research design, the identification of variables for a qualitative and quantitative analysis in their own right, not merely as a pilot “(Brannen 1994).
Qualitative methodology is often concerned with inducing hypotheses from field research (Silverman 2006). Qualitative research stresses the constructed nature of reality, the intimate relationship between the researcher and what is studied and the situational constraints that shape inquiry (Denzin & Lincoln 1998).

Qualitative methodology in this study initially provides the opportunity for contextual understanding and orientation. “Coupled with the potential for (generalizable) externally valid findings, or broad relationships among variables uncovered through a survey, blending the findings, interweaving different types of data” (Bryman 1988).

There is an emphasis on the value-laden nature of inquiry in this project and on balance with a value free approach reflects the dominant nature of the project’s operationalization. Answers to the research question, that stresses how social experience is created, and gives meaning would generally examine people’s worlds and actions in narrative or descriptive ways (Bergman 2008), and closely represents the situation to be experienced (Maykit & Morehouse 1994).

During the national consultation policy review process and middle part of the study the consultation into regeneration would, however, produce a large amount of survey data that could be analyzed both in terms of qualitative and quantitative evidence, not necessarily regarding correlation but more relevantly causation.

Based on six questions that contribute towards addressing the research question responses could be standardized allowing comparison with regeneration system elements. It would be possible to influence the survey question format prior to publication for appropriateness to the research question.

In contrast to qualitative research, quantitative research emphasizes the measurement and analysis of causal relationships between variables, not processes (Denzin & Lincoln 1998).

Inquiry is purported to be in a value free framework based on observations that are connected into discrete units that can be compared to other units using statistical analysis and the laws of positivism. In a first systemic orientation in the field quantitative comparisons would eventually be too problematic to overcome. The relationship between variables would be process led not comparison led.
Despite these two contrasting types of inquiry, two different and competing views of the world and divisions of labor, many texts now focus on combining mixing the methodologies and methods urging the researcher to be pragmatic (Creswell 2003, Creswell and Plano Clark 2007, Tashakorri and Teddlie 1998). Methodological combination however needs to be systematically and carefully orchestrated and would be the subject of something for the future with the support of others. Qualitative data requirements that would address the research question, were to emerge from the study as it was progressed. For ease of description they can now be shown in a task based linear format to correspond with the analytical output from later Chapters.

2.4 Towards a Sustainable Regeneration System

Data Requirements; Tasks 1 and 2.

Towards a Sustainable Regeneration System Design
A Systemic Design for Contributory Comparison
Data Sourcing, Method and Sampling

Data Requirements

What is meant by the term “regeneration system” was to be understood by mainly finding out how discourse led to actions. Watching and recording what was not being put into action was as important to discover as what was put into action.

With the intention of collecting appropriate empirical data a tentative hypothesis to the research question emerged over time. During the research process an idealized and sustainable system description of critical excellence properties in public service, that make up good character in regeneration, was identified in an arête orientation and provided a continuing research thread and theory of change model.

The arête idea, emerging from the grounded data, was captured in three distinctive features; namely (1) ethical conduct, (2) necessary knowledge, and (3) progressive measures, conceivably a combined goal for regeneration administration in Wales.

The concept features were constantly challenged and updated against emerging evidence to a point where they became a structural set. With adaptability in context being an important and constant fourth element, a set of interconnected parts aimed at a defined system purpose provided a concept believed to be worthy of further exploration.
The properties reflected; the effective operation of an emerging system design, which would be impossible if any one of the features was ignored, an inevitable consequence of regeneration policy and practice, given the way that a publicly driven regeneration system can be constructed, and a likely ability to be understood by its users, which could be followed if desirable (Bossel 2007). With the purpose of a regeneration system identified earlier from the literature as;

**The delivery of excellence in place-centered policy and practice interventions,**

a sustainable and idealized arête system description could be seen in a value based “enlarged theory of change model and pattern class of interest for multi case and contribution analysis” (Stake 2006, Mayne 2006).

The purpose was defined further through analogous public service and private sector management literature comparisons in a fuller and challengeable definition where; the delivery of excellence in place-centered regeneration and policy and practice interventions:

- Demonstrates an ethical and facilitative approach over time, utilizes necessary knowledge, whilst developing emancipatory knowledge of boundary, process and evaluation, and promotes progressive measures through organization, team and individual understanding of practice delivery norms and their policy influences.

With the benefit of a systemic purpose definition, a detailed dynamic system imitation and representation of essential influence was an initial interpretive requirement; firstly, through the determination of constant local area regeneration delivery norms and secondly the identification of fluctuating influences, key pattern considerations in terms of systemic understanding.

Regeneration delivery norms reflecting an imitation of regeneration system practice (within an influencing system structure) were pre-requirements to an arête value comparison with extant policy and practice in Task 2 and reflected two fundamentally different Task 1 actions for explaining regeneration system behavior namely:

Task 1 (a) for imitating regeneration norms and Task 1 (b) for defining an essential regeneration influence structure. Both would be requirements in strategic performance analysis and in a systemic approach to managing sustainable regeneration change.
In order to explain data requirements, Bossel (2007) provided the analytical guide to the two different actions required in satisfying Task 1. For Task 1 an overall “grey box” model construction, made up of fundamental knowledge about regeneration components, or elements, and potential influencing relationships in the system must be available.

Imitating system practice and influencing behavior in a logical model had to satisfy the requirement of producing the same behavior. Behavioral observations could then be applied in a triangulated data set. Task 1 and Task 2 data set requirements can now be explained in detail towards a sustainable regeneration system.

Towards a Sustainable Regeneration System Design

Task 1 Action (a):
Imitating Regeneration Norms: Describing Local Delivery

The imitation in these circumstances is of constant local area regeneration practice delivery norms as the first level of criticality. In this action, a construction able to imitate the behavior of an original would be initially be understood as a ‘black box” i.e. its influence structure would initially be of no interest. Since in this case only behavior has to be imitated, observations of past behavior must be available; and the data requirements are merely restricted to these observations.

Task 1 Action (b):
The Representation of an Essential Influencing Structure

Defining and representing the non-constant essential influences on a normative regeneration delivery system in this action, a second level of criticality, would mean a preferred orientation towards a specified system able to satisfy a higher-level arête orientation.

A representation of a preferred system, together with its key influences on the delivery of local area regeneration norms as far as they are necessary for this model purpose, not a model of current behavior, was therefore sought and developed in defining an essential influencing structure.
Non-constant influences on constant local area delivery norms in regeneration must be known and understood, and eventually agreed by all stakeholders in the field if it is to be useful. An understanding recognized in transparency and as a “glass box”.

Data requirements here are system structure and its real boundary parameters, in as much as they are relevant to the model purpose. It is here that higher level arête categorization is developed as the main requirements of national regeneration Administration, with observations of behavior required only later for empirical validity. With the benefit of a preferred behavioral model, it is then possible to provide a comparison in data analysis with the idealized system parameters and the contributory (current) policy and practice behavior and its influences.

Task 2: A System Design for Contributory Comparison
(With a Contributing Policy, Practice and Program)

The research relating to a fundamental knowledge about normative regeneration elements, and the relationship with influence was planned to extend over a period of three to four years of data collection through behavioral observations in a normal situation reflective of everyday life in the field. A value based essential regeneration structure based emerged from Tasks 1a and 1b, which was then utilized as an idealized regeneration system for comparison with the emerging 2014 policy Vibrant and Viable Places (Welsh Government 2013) its programs and projects.

The transition in Wales from a collaborative regeneration policy and program to a competitive policy and program during this time VVP provided a comparative opportunity and a timeline of evidence, which reflected lived experiences of new public management and results based accountability in action. Data requirements provided an opportunity to report rich individual cases within the organizational constraints of workplace operation.

Viewed as a contribution to an abstract arête regeneration system, VVP could be seen in uniformity and disparity to the idealized system description, by identifying regular and variant approaches, differences and similarities, in both policy and practice. In the contribution of VVP during the period of study, appreciations, tentative assertions, findings and recommendations could be identified suggesting progressive and possible system preferences, aimed at overall system stability and growth.
If the behavior displayed by a system consists of “a set of interdependent acts which constitute an operation where interdependent acts are necessary for the occurrence of an (Arête) outcome”, (Ackoff 1969) the nature of this interdependence could be hopefully defined by a set of properties, which could be treated as variables. Arête goals could then be measured. If in future research cases the system state variables could be represented by continuous quantities and qualities, “measures of an outcome of the system could be identified in the product of the set of interdependent acts” (Ackoff 1969).

Until a set of interdependent activities can be determined through the essential fuller participation of actors in the field, an appreciation of the three-arête value principles in this study was considered useful in context if based on 10 system state questions, which emerged from the study as key performance indicators. For a contributory comparison the following question would then be relevant.

**Given the purpose of a Welsh regeneration system is to deliver excellence in place-centered interventions, how well does the policy and practice contribution?**

1 *Demonstrate* ethical and facilitative approaches over time to;
   - Q1 Enhance Co-operation
   - Q2 Create Effective Plans
   - Q3 Deliver Sound Investment
   - Q4 Enable Managed Responses

2 *Utilize* necessary knowledge, and develop emancipatory knowledge, of boundary, process and evaluation to;
   - Q5 Achieve Good Governance
   - Q6 Make Better Decisions
   - Q7 Develop Capability and Capacity

3 Promote progressive measures through organization, team and individual understanding of (1) practice norms and (2) their policy influences to;
   - Q8 Realize Practice Norms
   - Q9 Reveal Policy Influences
   - Q10 Recognize Failure Risk

The ten system state questions relating to the three arête principles were chosen as purposeful and important variables, rated important from the literature and from prominent emerging field data.
The results from an arête appreciation of Viable and Vibrant Places at March 2016, at two-thirds of the way through the new policy and program, in terms associated with these key performance indicators, is reported later, and is subject to further discussion in the Chapters which follow. Data sourcing to satisfy data requirements is now identifiable.

**Data Sourcing, Method and Sampling**

To satisfy data requirements data sourcing broadly followed an emergent chronological plan and was facilitated by the processes of change associated with the development of the new short-term regeneration policy, VVP. The need to filter data towards the research purpose included a conscious effort to mitigate the likelihood of researcher bias.

Data sourcing began with the aim of seeking a fundamental knowledge of regeneration elements. The work started from the ground up, from local delivery to policy influence and back to local delivery, eventually forming a single case study made up from multiple cases. There were three main principles for selecting data and cases; relevance, diversity, and opportunity, (Stake 2006) to learn about the research question in context, “through a representative characterization as far as possible” of the phenomena associated with regeneration behavior.

To explore regeneration system behavior as it appears in the cases studied related to the meaning of policy and practice change and was the test of the contribution of VVP in context in Task 2.

The multiple cases studied involved participant observation as far as possible, the observations of others, studying the records by others of what was happening, describing ordinary happenings, coding and categorizing data, management and interpretation, assurance considerations through triangulation and repeatability “within and across case for credibility” (Lincoln & Guba 1985).

The cases and participants in the study were chosen in respect of individuals and groups, who were all actors involved in or experiencing the events and phenomenon in question, to be able to forge the beginning of a common understanding. Data was collected from primary and secondary interviews conducted during the research period relating directly to the phenomena in action at the time.
Observations of regeneration in action and documentary reading were expected to produce significant statements for analysis. Details are included in the each of the seven case studies that follow.

In Task 1, demonstrating coherence of an emerging description of regeneration system delivery norms was based on looking for the prominence of individual factors specifically from involved actors and from evidence of maintaining and elaborating on topics from critical documents.

Norms could be the subject of interviews, documented evidence and group discussions. Relying on significant statements, sentences and quotes in respect of normative factors, these criteria was utilized together with discourse leading to actions. Where fluctuating discourse/actions were encountered these were noted in confidential field notes.

As VVP commenced its policy delivery phase, clusters of meaning from significant statements were used to describe normative coherence. A structural description could then be based on a “textural description of what participants were experiencing” (Moustakas 1994).

With the benefit of a structural description of constant regeneration norms in systemic terms and a description of the “essence” of the system by those involved, the first task was completed. The normative model was used relatively early in the study process for a constant comparative purposes (Mayne 2006) with the developing contributory program, VVP.

Welsh Government has direct policy influence over regeneration in Wales and through VVP declares itself to be the strategic lead for regeneration in Wales, the focus in this project of decision and control. Sustainability was therefore capable of being tested by an articulation of underlying assumptions by Welsh Government in VVP, and the effectiveness or otherwise of policy and practice interventions. On this occasion statistical information was not the subject of test, being reserved for future analysis. Other contextual factors were however taken into account.
In Task 2, the task was to gain an understanding of the strategic impact of the new policy and practice (VVP) on the normative delivery described earlier. The VVP contributory program was an attempt to overcome to some degree the regeneration attribution problem of too many policies and practices, which are subject to constant change. Too many policies and practices have generally made testing regeneration cause and effect impractical over many years.

The question then would be, in respect of the idealized SR system design; “to what extent were observed results of a contribution a positive or negative consequence of a contributing policy and practice design and execution “(Mayne 2006).

2.5 Multiple-Case Evidence; Merging the Findings

Multiple Case Evidence; Merging the Findings

The Multiple Case Evidence Base; Cases 1 to 7.

Multiple Case Evidence; Merging the Findings

In completing Tasks 1 and 2 an “appreciation” (Vickers 1995) of seven relevant and diverse cases was eventually possible; of issue-related observations, patterns of data, foreshadowed problems. A multi-case format provided for the inductive and abductive construction of tentative assertions from cross-case tentative findings and the eventual deductive comparison with extant policy and practice.

Worksheet 1 reproduced below adapted for the purpose of analysis and synthesis, would be based on the requirements of the tasks and work of Smith et al (2009) Stake (2006) Creswell (2007). Summarizing each case was considered of particular importance in each case building a contribution to a whole system inquiry (Sustainable Regeneration is abbreviated throughout to SR). The worksheet was also a work in progress iteratively matching the process of data gathering.

In data sourcing the opportunities for evidence gathering and tentative findings of situated experience were generally available in maintaining and elaborating on systemic topics. Tentative assertions ordering merged findings, which are the most meaningful in contributing most to system description, could be made. In synthesis, what assertions could be made with some confidence and what needed to be further studied is summarized in Chapter 4.
Title: Case Number

Introduction
(Case synopsis, context, conceptual factors)

<table>
<thead>
<tr>
<th>Box 1.1 The Particular Features of This Case</th>
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Background
(Situational factors, uniqueness)

Method
(How dialogue led/could lead to actions)

Analysis
(Focus On…)

Descriptive Comments
(Significant Statements, Sentences, Quotes from Structural and Textual Descriptions)

Conceptual Comments
(Constants, Fluctuating Influences)

Commentary and Findings
(Abstraction/Polarization/Numeration/Function)

Other

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<tr>
<th>Box 1.2 Findings of Expected Utility from This Case</th>
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Summary
(Themes /Emergence/Prominence)

Worksheet 1 Adapted from Stake 2006

Contributing Case Study Findings of Expected Utility
The overall approach was designed to capture both an ongoing understanding of the modelling of a whole regeneration system, and the contribution in action of a time limited policy and practice (VVP) promoted as being directly associated with excellence in the field. The three arête goals and themes, which emerged during the research process, were continuously modified through constant comparison. Analogous literature here was of significant importance.

Case study data was produced, either through direct or indirect action. Following case completions each case was read and re-read, keeping in mind the research question, and assembled against “progressive task requirements” (Stake 2006). The more a principle theme appeared in a case or cross case reference the more relevant to the principle the case could be. Prominence is only however one indication of relevance and single findings judged worth mentioning were identified as special findings. Remaining data clusters and isolates considered weak in task completion were set-aside after further consideration.

The analysis and synthesis proceeded with an expectation of keeping only the most important conceptual and empirical knowledge. At this stage in a first orientation or “new” value system detailed factors, for quantitative analysis, was not required, as the main emphasis from the study in understanding value was meaning rather than statistical interpretation.

Taking understanding one case at a time the expected utility of each case report was considered until all cases recorded ratings of the estimated utility of the cases and the ordinariness of the situation towards the model whole being considered.

The merged and special findings were considered in order of importance for understanding the value of modelling behavior. Re-ordered merged findings gave rise to the composition of a small number of research findings which could be considered the most meaningful in contributing to understanding the value of modelling regeneration system behavior as a whole.

Working towards an overall appreciation based on the case and study evidence gathered over the four-year study period evolved through merging case findings and moving from the general to the particular and back again. The findings are then both case based and principle based, identifying the most important systemic issues in context.
Issues from the individual cases were not merged too quickly and followed the dialectic advise of Stake (2006) of “each case being heard a while, then put aside a while, then brought out again, and back and forth”.

Following a final reading of the case reports consideration on how each case could be interpreted against the goal of understanding the value of a systemic view of a sustainable regeneration ideal whether typicality or a-typicality was made to extend or limit an assertion to be made in the final interpretation.

Appreciations, from tentative assertions, and merged findings were finally modified, reordered, combined and edited, deleting those out of harmony with the study purpose, through a lack of quality evidence. Some early appreciations were promoted to tentative assertions considered most important for real-time management consideration and a number of recommendations to regeneration leadership in action were made on this basis, during the four years of study.

Recommendations relating to quality improvements were however generally met with non-committal responses in circumstances where suggestions for longer-term systemic improvements were not totally ignored.

The tasks associated with “compelling persuasion” (Stake 2006) moved from analysis to synthesis in findings explaining long-term and short-term regeneration behavior systemically from cross case consideration in comparison with the idealized SR regeneration system evolving design. The multiple-case evidence is shown in the case study evidence in Chapter 4 that follows.

**The Multiple-Case Evidence Base; Cases 1 to 7**

Task 1 is completed in parts 4.2, 4.3 and 4.4 of Chapter 4. In part 4.2 the result of the empirical phase of data collection and analysis is presented as an imitation of regeneration norms (IRN) and in a behavioral model of normative local regeneration delivery. This is based upon an appreciation of past behavior from:

(Case 1) Originating Regeneration and Systems Disciplines,

(Case 2) Outgoing Policy and Practice
(Case 3) A Focus Team Appreciation of the Underlying Regularities of Regeneration Practice (historical & contemporary)

In part 4.3, a representation of the essential influences (REI) on local delivery norms, is described through building on the normative IRN model from part 4.2 with an appreciation of influence on norms.

Based firstly on a construction of essential influences on normative practice from the literature, from an analysis of purposeful boundaries capable of behavioral observations, and secondly on an exploration of the world-views of regeneration stakeholders from a national survey, in coherence testing of the developing model. Two cases here were considered in:

(Case 4) An Arête Model Orientation and Desiderata

(Case 5) Logic Model Coherence testing based on Stakeholder Consultation Feedback

In Task 1, through parts 2 and 3, the IRN and REI model is finally combined together with the interdependent and controlling arête principles in a whole system SR structure, the observable evidence having been secured over the research period 2012-2017.

In part 4.4 Chapter 4, explaining current regeneration values through structure was evidenced in VVP, and based on the new policy and practice was compared with the arête SR idealized and value model output from part 4.3. Behavioral observations made in comparison were finally documented in two final cases involving the contribution of VVP and;

(Case 6) Values in a Policy Change

(Case 7) Realities in a Practice Change

An appreciation of the contribution of Viable and Vibrant Places, at its two-thirds point, summarized from the combined data in parts 4.4 and 4.5 and in Volume 2 Appendices 4 and 5 produces the output from Task 2.
The contribution in this project would be made against; the hypothetical descriptions of the IRN and REI models, the aggregate qualities considered to make up Welsh regeneration excellence, necessary knowledge, ethical conduct and progressive measures, and its ten previously determined system state variables. Although VVP was the policy and program selected, given its ambition, other contributing policies programs and projects could have been subject to similar test. The eventual comparison forms an overall interpretation of the research data in a system description suggesting both required system behavior and an explanation of current VVP regeneration behavior.

In Case study 3 the analysis was to use the input-process-output (IPO) system dynamic, theory of change logic model, by choice as a growing requirement in the public service and:

“A rigorous method of system description, which facilitates feedback analysis, usually via a continuous simulation model, of the effects of alternative system structure and control policies on system behavior” (Wolstenholme & Coyle 1983)

The Input-Process-Output logic in Case Study 3 was used to establish common issues associated with a model needing constant parameters, and as a normative model is most likely to be understood by actors. The tasks in model design did not commence with a prior hypothesis to be tested.
Chapter Three

Reviewing the Literature

A pragmatic examination of what practitioners and scholars have already learnt and written about regeneration policy and practice in this Chapter involves firstly a chronological account and an early framing of the review in context. The development of research issues is then outlined in an iterative approach linked to the research in action and the developing empirical research outputs in Chapter 4.

The critical literature review in this research project could not be restricted solely to an advance activity prior to empirical activity and would evolve and develop as the research itself iteratively evolved and developed. The systematic exploration of area-based literature and systems literature is therefore spread across the various topics in two volumes in this thesis, in accordance with tables (i) to (iii) below. The tables reflect the nature of progressing operational research in practice. In summarizing the literature output, theoretical systems, area-based regeneration literature, and applied Welsh theory are delineated.

Table (i) Volume 1 This Chapter 3, Page Numbers

<table>
<thead>
<tr>
<th>Theoretical Systems Literature</th>
<th>Theoretical Area-based Regeneration Literature</th>
<th>Welsh Applied Literature</th>
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<td>Regeneration and the study of context p 98-104</td>
<td>Regeneration and the study of context p 98-104</td>
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<td>Place and the Regularities of Regeneration Practice (1) p104-107</td>
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<td>Political and Organizational Contexts p 107-114</td>
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<td>The Influence of Policy on Inputs/Process p 114-120</td>
<td>The Influence of Policy on Inputs/Process p 114-120</td>
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<td>Complexity and Knowledge Management p120-125</td>
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<td>Ethical Public Administrations p125-129</td>
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<td>Theoretical Systems Literature</td>
<td>Theoretical Regeneration Literature</td>
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<tr>
<td>Regeneration Policy Outcomes and Issues- Over Time (Chapter 1) s 1.2 p 34-37</td>
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<td>The Government of Wales, Devolution and Local Government (Chapter 1) s 1.2 p 28-31</td>
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<td>Modelling Change Ethical Value (Chapter 5) p 253-258</td>
<td>Modelling Change Ethical Value (Chapter 5) p 253-258</td>
<td>Welsh Government, Departments, Roles and Inputs (Chapter 1) s 1.2 p 31-34</td>
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<tr>
<td>Modelling Change Knowledge Value (Chapter 5) p 260-263</td>
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<td>Modelling Change Progressive Value (Chapter 5) p 267-270</td>
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<td>Integrated Exchange Rewards (Chapter 5) p 285-297</td>
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<th>Theoretical Regeneration Literature</th>
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<td>A Key Debate (Appendix 2) p 17-21</td>
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<td>Systems Theories, Applications and Limitations (Appendix 2) p 56-69</td>
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<td>Operational Research Actions (Appendix 2) p 69-72</td>
<td>Place and the Regularities of Regeneration Practice (2) (Appendix 3) p 86-104</td>
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<td>Modelling Change Ethical Value (Appendix 5) p 125-135</td>
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<td>Modelling Change Progressive Value (Appendix 5) p149-156</td>
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The key consideration and critical value in this literature review Chapter (Table (i)) lies with practice, and the professional challenges associated with the underlying regularities of practice. This focus is critical because regeneration practice or input norms, and the coherence of an emerging model design provides the possible foundation to an understanding by readers (and leadership) of daily practice in systemic terms. The relevance of systemic thinking in the field to leadership begins with this Chapter and would lead to further topics of interest to be developed as the research progressed.

The review is submitted in satisfying the Advanced Doctorate Literature Review Module DBA program November 2011 requirements. Additional material in Volume 2 Appendix 3 a supplementary reflective review from a systemic perspective, is offered as tentative assertions emerged over the research timeline.

A focus on place change and professional challenges faced by practitioners and policy makers, and the change management potential of systems thinking and approaches in meeting those challenges was at the forefront of examination. A conceptual regeneration and contextual systems framework was to emerge, relevant to the systemic challenges under discussion.
Chapter Three

Reviewing the Literature

3.1 Framing the Review

This Chapter sets out the iterative and systematic findings of a review of the literature in local area-based regeneration (regeneration) as it relates to place change and professional challenges faced by practitioners and policy makers, and includes issues relating to the change management potential of critical systems thinking and in meeting those challenges.

It takes a focused, functional and pragmatic approach (Smith & Ovenden 2007); and relies upon material, which is interrelated and interdependent in building a systems view of regeneration policy and practice. The framework would eventually replicate the norms and influences of policy and practice, more precisely described in Chapter 4 emerging from the empirical inquiry.

The aim in this review would be to detail the inter-related, constant and non-constant parts of a developing model, evolving from the study through key theories and concepts. The literature would suggest influences on normative delivery or the underlying regularities of practice in the field under review, to provide an understanding of knowledge about to how best to explain the structure and processes of regeneration in critical system terms.

To be useful the review would need to be relevant to practitioners and decision makers as they plan future interventions for the local areas they serve. Following this introduction, the Chapter is in a further 6 parts that deals with:

3.2 Regeneration & the Study of Context
3.3 Place & Regeneration Practice
3.4 Political and Organizational Contexts
3.5 The Influence of Policy on Inputs/Process
3.6 Complexities & Knowledge Management
3.7 Ethical Public Administrations
Through reviewing regeneration approaches being applied in practice, aimed at creating excellence and integrative local change, the chapter topics are chosen to; provide background theories and a synthesis of relevant discipline topics, highlight policy and execution parent theories in terms of subject matter, advance the research problem in context and aims, provide a consideration of systems thinking as a focus theory and matter of interest.

The topics in this Chapter and in additional material Volume 2 Appendix 3 introduce the conceptual regeneration and systems framework relevant to the challenges under discussion. Web links to the material are set out as far as possible to facilitate access to the source information, but are limited due to much of the research work linking systems to regeneration being foundational. There is nevertheless, a great deal of historical material available in both regeneration and systems disciplines to choose from. The review context begins with a definition of the field under study.

3.2 Regeneration and the Study of Context

Regeneration involves “the holistic process of reversing economic, social and physical decay in geographical areas where it has reached a stage where market forces alone will not suffice” (ODPM 2003, 2007). Principally a public sector intervention activity, studying regeneration is a study in and of context.

As a complex area, research has developed over the past 25 years into an expanded form of enquiry, despite a contested and often ambiguous terminology. Research centres have established in areas subject to regeneration interventions. There is an extensive amount of English based literature to choose from.

The literature indicates that case studies dominate. Beneficiary surveys have been preferred in government sponsored quantitative studies when resources have allowed. Major impact studies have gained data collaboratively from households and businesses in multi method approaches with significant resource commitments from government. Such resources are now however extremely limited, if available at all. Local research, with limited access to public sector change agents, has sought attitudes and opinions from opportunistic partnership groupings and from under-represented local groupings.
In 2006 the state of knowledge in the management of regeneration in England was identified by Diamond & Southern (2006) in the capacity to shape change, structural and organizational frameworks, skills and training, issues considered as relevant today as then.

Others who have studied the field have focused on similar elements. Some of the most interesting overlapping theories is found in work on partnership types and processes (Rowe 2003), dysfunctional partnerships (Carley 2004), changing approaches and new operational competencies (Diamond & Liddle 2005), the primacy of particular regeneration approaches (Williams 2006). Inequality, (Speeden 2006) would currently be acknowledged as being of considerable concern.

There is a general consensus and thread in English regeneration studies in the first decade of the century. Not enough is known about the contextual operationalization, effectiveness and impact of regeneration. The main discussion points, that public intervention; its processes and management activities, structure, capacity and accountability are issues worthy of further investigation, are clear pointers to further work. For a regeneration management practitioner, they naturally would form the focus of work in this study.

In one of the largest and most important studies of regeneration through public intervention carried out that has reported in the last decade, Rhodes (et al 2005) concluded that theories of change behind public intervention is the particular feature that requires attention. The elusivity of evidence - of what works well and why, (Morgan 2008) and the insufficient development of evaluation theory, (Rhodes et al 2005) remains a significant gap in the current regeneration knowledge base and the strongest suggestion for further local work.

In comparing the work of leading Welsh academics in the field, results have focused on community regeneration policy (Adamson 2006), residents’ perceptions (Adamson & Jones 2004), sustainability and regional development (Morgan 2004). A study by Bristow (et al 2008) on the inclusivity of regeneration partnerships, argued that there is “little evidence that recent local networked partnerships have increased regeneration effectiveness.”

In Wales there has been, and are, many places with a regeneration need and in the spatial area under review, regeneration has moved on, from top down interventionist approaches to the flexible networked organizational forms investigated by Diamond & Liddle in 2005.
Networks are of great theoretical and practical relevance (Agranoff & McQuire 2001, Kanter and Eccles 1991) to regeneration working. There is however an acknowledged lack of understanding of networks as an organizational form.

With evidence of continued exceptional local regeneration need (Welsh Assembly Government 2008 - Wales Index of Multiple Deprivation) many national and local commentators regularly suggest a failure of policy and practice in achieving the most important regeneration objectives. The evidence gaps in Welsh regeneration research and specifically in administering regeneration are longstanding. In researching regeneration management, grouping variables from the literature begins to produce features of particular management relevance, and ideas about classification.

The ideas by Diamond (2002) that strategy development, its policies and the management of relationships may be both a major element and a real problem in achieving local transformational change. They resonate naturally with a local setting where little transparent attention has been paid to “the processes of intervention as it is put into operation, managed and led” (Diamond & Southern 2006).

Not enough is known to explain why local area based change initiatives have not produced lasting change (Morgan 2008). Action based operational research is therefore appropriate. Judgments from actors or agents of change, “people who share similar beliefs about their status, their right to manage in a networked multiple matrix structure”, (Rhodes et al 2005) that are involved in the “articulation and delivery” of economic, social and physical change in public, private and voluntary sector organizations is again a focus to be followed.

Theories of change, policies and strategies, organization structure and the operational processes of intervention and its sub-sets are measurable categories that management should have regard to. Subset activities would include (i) spatial market interventions and mainstream public program bending, and (ii) human activities in; co-ordination, responsibilities, accountabilities, projectification, capacity and specifically, delivery standards.

In 2005 the then Welsh Assembly Government published its economic development strategy for Wales, Wales a Vibrant Economy (Welsh Assembly Government 2005), with action by Welsh Government “most effective when carried out in partnership…as part of a local area or regeneration action plan” (Old Bell 3 2016).
In 2007 the Welsh coalition administration published One Wales committing the
administration to “establishing integrating and cross-cutting initiatives aimed at economic
development and regeneration, particularly in areas of high deprivation”.

In 2008 the spatial plan for Wales, People, Places, and Futures was to provide an
integration tool “underpinning the context of regeneration in Wales” to “join up delivery at
a local level “. Skills and capacity to deliver however were in short supply and were also
reflected the demise of Regeneration Centers of Excellence in England disbanded
following the 2010 general election.

In current debates relating to localism and regional development in context, the preferred
intervention mechanisms of choice are principally dependent on debates relating to
funding. As for other areas of the UK, Wales has experienced a severely challenging
economic climate with funding for regeneration across public, voluntary and private
sectors being reduced dramatically. When financial and in many cases human resources are
at a premium in the public sector they nevertheless need to be used as effectively and
efficiently as possible.

Where a large number of geographical areas in Wales continue to experience multiple
levels of deprivation and inequality (WIMD 2014) there will continue to be much to be
done over the long term to combat as far as possible unemployment, economic inactivity,
poor housing conditions, higher crime levels and poor health. Towns and their centers will
require public support to compete against out of town retail attractors and as online trading
gains in popularity. Individuals will require personal support to reverse the effects of social
legacy.

Despite many of these messy issues being outside government control, there are many
commentators in Wales who believe that regeneration could be done better (Morgan 2010),
that the vision for regenerating the Welsh economy is fatally flawed, that European
funding has been squandered, that the private sector has been crowded out and that there is
“an institutional credibility gap in our social and economic systems, stretched too wide,
falling into the abyss of powerlessness and complexity” (Morrison 2010).
These comments have in part their basis in evidence. On the Communities first bottom up flagship £40m per annum program for example the public accounts committee in 2011 stated that weaknesses in the Welsh Governments construction and management of the program had led to public officials being “selective about the reality they accept”. From 2012 there would be significant changes towards anti-poverty measures. The introduction of results based accountability hoped to begin a change program expected to see improved regeneration results. In 2017, the results again were uncertain, eventually leading to the programs demise.

The final round of European funding from the Wales European Funding Office (WEFO) a £300 million per annum major contributor to area-based change in Wales and planned to be utilized for the period 2014-2020, is now available, which will however finally end as a result of the European vote to exit from the EU. A reflection exercise launched in December 2011 on how the earlier programs had worked and what the priorities might be for any future programs pointed to some lessons learned from earlier mechanisms.

At the launch conference, co-ordination and co-working were considered fundamental building blocks. New ways of rolling out regeneration initiatives would be considered for funding with much more emphasis on working holistically, “no investment will be seen as a single issue” at a time when “policies cannot remain unchanged”.

As the professional community embarked on the planning processes, there was meant to be a theoretical consensus on key issues. The Welsh Government wanted to see a whole new level of collaboration, cross-portfolio and cross-boundary working, placing a high value on genuine partnerships.

The Welsh Local Government Association (WLGA 2012), at the same time also saw; stronger partnerships at regional levels addressing problems of access to funding, a focus on integrated strategies, local action groups, a common strategic framework for real integrated delivery on the ground, multi funded operational programs, clearer linkages between local and wider approaches to ensure that activities, interventions and investments complement each other.
Things of interest would no doubt feature physical regeneration, infrastructure, and economic development; housing, social inclusion, combating poverty, connecting people to work. At the same time there would be new major geographical and sectoral relationships in design; city regions, enterprise zones, green deal, renewables investment, as well as the next phase in Welsh local government reorganization. A structural approach was however years away.

Planning challenges, which lie beyond the boundaries of a single organization, would suggest more outcome accountability, and clarification would then be needed. The evidence of what worked and what could work better “should now play a decisive role in the design, implementation, monitoring support and evaluation of an integrated program for targeted geographical areas”. Better approaches to planning for change were considered long overdue (WLGA 2012).

But how would planning choices be determined amongst the plethora of regeneration activities that would be considered relative priorities? Although formal views would be sought from interested parties, would judgments be based on analysis and synthesis? Would current under-performing systems feature? Could future priority systems be brought forward?

The regeneration problems of strategy coherence, continuity, collective improvement, shared measures of success outlined above continued to reflect the complexity of regeneration systems in operation. In 2013 the Welsh Government published Vibrant and Viable Places (Welsh Government 2103), with its dedicated capital program regeneration framework for Wales threatened by continuing funding issues.

Understanding VVP as a policy and practice contribution in operation, its relationship to higher-level change would demand a focus on the whole to achieve a view of the sum of the parts. The local context here would be one of regeneration programs in transition, the end of one set of relationships, the beginning of another, and a change in regeneration administration, policy and practice, which could be the subject of purposeful study. Could the actors involved with their necessary and constraining corporate duties of care replace political and organizational uncertainties with a common agreement around place-centered actions and influences?
3.3 Place and Regeneration Practice

Place and the Regularities of Practice

Regeneration involves the development of place from a multi-disciplinary perspective. Place is not a specialized piece of academic terminology, and is a term that is both simple and complicated. There is a wealth of literature on place. In this project the concept of place is introduced by Tim Creswell and his co-contributors in extracts of relevance to regeneration his 2004 book, “Place” which is cited in this chapter at length (Creswell 2004).

Looking at regeneration as a comparison of places, in some way separate from each other, is both an act of defining what exists ontologically and a particular way of epistemologically and meta-physically seeing the world.

Through the history of the idea of place it is possible to see at least three levels at which place is approached, a descriptive approach, a phenomenological approach and a social constructionist approach (Creswell 2004). All three levels of interest in place are important to regeneration but perhaps one level is more important than the others.

Regeneration in its many forms involves social construction, with different degrees of obviousness, constructed within different but particular societies, with particular, usually hierarchical, social relations (Creswell 2004).

“Looking at social construction of place in particular involves explaining the unique attributes of a place within instances of more general underlying social processes by showing how places are instances of wider social structural processes and conditions. We all seem to know what makes a good place or not so good place but sometimes it is difficult to explain” (Creswell 2004).

Humanistic writers such as Tuan (1977) and Relph (1976) explained the idea of place as a central meaningful component of human life without denying that specific places are the products of society and culture.
The claims of social constructionists - that humans construct both the meaning of place and the material structure of place is important in understanding regeneration processes that go into making a place what it is and which undoubtedly involve processes such as place gentrification or the construction of parks or why social unrest periodically rocks an area.

Most often the designation of place is given to something quite small in scale, but not too small (Creswell 2004). Neighborhoods, villages, towns and cities are easily referred to as places and these are the kinds of places that can be subject to regeneration and upgrading. Harvey (1986) sees place as a conditional form of permanence in the flow of space and time, where attention is focused on the political economy of place construction under capitalism. A reason for area-based regeneration is that capital is relatively mobile. Place on the other hand is fixed.

The permanence of place is a form of investment in fixity and of particular relevance to regeneration activity “where infrastructures have to be built, that cannot readily be moved at a moment’s notice” (Harvey 1996)

“The threat to places makes us more aware of what we value in places. There are considerable efforts at all scales of place to become attractive and safe places for people to live and work. The need to attract and retain businesses and residents to particular places rather than others is seen in regeneration actions in local and large cultural events. Universities compete for students by advertising their location as well as their academic merit” (Harvey 1996).

Pred, (1984), and Massey (1991), remind us that places are never finished products, that places are created by cultural practices; literature, film, music, and the investigation of these forms of producing places are a central strand in contemporary human geography (Burgess & Gold 1985) and should be in regeneration policy and practice but too often are not. But most places are more often the product of everyday practices, the repetition of seemingly mundane activities on a daily basis.

“People are upgrading places at all scales and everywhere at all times in a myriad of different ways producing places of memory with place-identities to attract interest” (Pred 1984).
Tuan’s (1977) observation that “if we think of possibility space as that which allows movement, then place is a pause; each pause in movement makes it possible for location to be transformed into place”.

“At key pauses, when socio-physical things and practices are seen as out-of-place for whatever reason, when movement of places towards upgrading becomes possible, there is an opportunity for a purposeful consideration of what it would take to put acts of place upgrading into action” (Tuan 1977).

Regeneration is not a static exercise. The best places see this as a constant, and more important than local political rivalries Manchester is a current example.

“The tensions between permanent places, and the mobility of capital means that places constantly have to adapt to conditions beyond their boundaries. There is little doubt that places have to sell themselves as good places to live, work and invest (Kearne & Philo 1993).

Promoting economic well-being involves regeneration intervention choices in production and distribution can however sometimes result in political tensions over priorities, often between development, property led projects and social need actions. These choices are made harsher by the competition for funding.

In the light of these competing pressures, localities have understandably supported all approaches, from favoring inward investment to an emphasis on indigenous resources, places and people. (Hill 2000)

Place is important to politicians who want to encourage a sense of belonging and citizenship. The importance of the production of regions (Mcleod & Jones 2001) is becoming increasingly acknowledged. In recent times in Wales politicians have sought to promote particular images of region-as-place. In a city region approach the fight for allegiance of citizens in Wales has begun.
Through the activities of formal and informal politics attempting to institutionalize particular ideas about governance regionalization is a theme that currently warrants attention in terms of delivery over rhetoric. The simple distinction between one region and another is a long way from the deeply meta-physical way of thinking about place as a way of being (Mcleod & Jones 2001).

There is a wide consensus that regeneration requires the connection to be made between physical, social and economic dimensions and that holistic intervention can produce inter-related benefits. Holistic systems ideas are now becoming more identifiable in place narratives. An earlier plea for a reconceptualization of place (Massey 1991) as open and hybrid - a process of interconnecting flows and routes-rather that roots - can be seen as reflecting place as systems.

A system focus on “place-making” can then be seen as a means to integrate factors (Fyfe 2009). The first question then is what makes the right activity? In Volume 2 Appendix 2 the regularities of regeneration practice in systemic terms is described in an additional review of the literature. In the next section political and organizational contexts, as a means of introducing organizational culture to the debate, is the topic for consideration.

3.4. Political and Organizational Contexts

The organizations principally involved in regeneration design and execution in Wales are: The Welsh Government civil service, in their role as policy and practice developers and funders, the network of various Local Authorities in Wales in the lead regeneration delivery role together with Registered Social Landlords as evolving regeneration champions, the third sector and private sector communities of practice as specialist regeneration organizations, some being relatively new in the field. A brief consideration of the challenges impacting on the potential for systemic regeneration in each sector follows.

Politics and the Civil Service in Wales

In Wales, devolution in 1997 had relatively little to say about the civil service (Pyper 1999). The 2006 Government of Wales Act separated civil servants from Assembly members, re-absorbed the principal bodies of Welsh “quangocracy” such as the Welsh Development Agency, the regeneration agency which had attracted political animosity because of its “alleged” unaccountability to local people.
The differing nature and type of work was seen as one of the main civil service problems on devolution. Improving officials’ leadership and program management skills would be of particular importance. Devolution increased both the number of debates and the sheer volume of scrutiny imposed on the civil service in Wales (Kirkpatrick & Pyper 2001). The encouragement of a large role for the third sector and smaller interest groups led to many more increased mechanisms (McMillan & Massey 2004). More regular ministerial questioning in turn brought the need for more background preparatory work by officials and this would continue unabated.

The value associated with enabling officials to move departments to widen their experience, still seen as paramount, was to continue to mean less of a reliance on specialisms and the consequential authoritative reduction in officials’ positions. The new public management reforms of the 1980s aimed at addressing weaknesses it saw in civil servants with new people management skills (Horton 2000) copied private sector management techniques calling for restructuring for efficiency, control and delivery.

A concern to give Ministers more control of their departments to ensure that resources were spent effectively in achieving policy objectives and an effort to economize and increase the efficiency of the civil service, whilst delivering better service, meant adapting work within departments and by publishing performance standards.

However, a deep suspicion of the possible adverse effects of a regime of public or political scrutiny would continue to exist (Horton 2000). An adversarial political system “contributing to a culture of department secrecy reinforced the importance of government keeping to them information that might be used by opposition to undermine the credibility of the government’s case or to crack a façade of collective cabinet government”.

The policy role of the civil service, traditionally described with reference to the works of senior civil servants who surround Ministers, would develop as the official filters and analysts of policy, the authors of papers setting out the options available for the political “chiefs” (Horton 2000) of government departments. Page & Jenkins (2005) describes this work as; “production” (creating drafts, statements, documents) “maintenance” (looking after schemes and initiatives, with no clear end point for the work) and “service” (providing advice to a person or institution regarding the policy on an ongoing basis.)
The problems in the civil service of cutting across traditional policy domains were responded to by promoting “joined-up government” across departments and delivery organizations—public, private and voluntary bodies, to provide citizens with a “seamless delivery of services” (Bevir & Rhodes 2003). New steering controls such as results based accountability (RBA) and performance targets for local government and agencies, public service agreements for departments and strict budgetary control although in progress, remain however mostly in departmentalized senior civil service controlled forms.

Although “steering is not a real job for senior civil servants” an emphasis on collaborating with service deliverers was to reflect a greater commitment to broader societal aims (Parry & Macdougal 2005). There would be evidence of progress but little to suggest that command and control joining up of service through place-centeredness would be something easily delivered. Expensive and withdrawn regeneration interventions would become a regular feature (e.g. Strategic Regeneration Areas, Communities First).

Where individual Ministerial personality was to hold such a strong influence on regeneration activity it could reasonably be expected that this “command-operating model would eventually fail”, (Bevir & Rhodes 2003) and “trusting others would then be a better strategy”. Partnership between the Welsh Government and Local Government in Wales would then be seen as vital to create a Wales fit for the future (Welsh Assembly Government 2009). Over the first ten years of devolved government the relationship aim has been to develop the relationship through complementary understanding, shared goals and joint actions. The politics has now moved on to forms of “mandatory co-operation”.

**Local Government**

Co-production of policy is acknowledged as resulting in better, stronger initiatives, owned throughout the delivery chain and a Welsh Government commitment to co-production and joint working with local Government had been renewed in 2009. In turn, local authorities committed to providing appropriately resourced and sufficiently skilled and experienced people to “conduct policy discussions” and to make decisions on behalf of the sector through a developed relationship protocol.
The role of local government involves providing community and democratic leadership, working with national government to deliver national priorities and programs, and (sometimes conflictingly) determining the priorities for local communities, delivering programs focusing on the needs of local citizens, continually improving on the effectiveness and quality of public services, collaborating with others to make sure that services are delivered by the right organization and at the most economic scale.

In the 2009 publication -a new understanding between the Welsh Assembly Government and Local Government in Wales, alongside the move towards a focus on “outcomes” the Welsh Government introduced a new approach to funding from the assumption that authorities require the maximum flexibility over the use of their resources in order to secure the maximum value for the public purse. Where an authority can demonstrate it has the capability and capacity to deliver its agreed outcomes, the assembly government will reduce the level of control over how funding can be used. This might be aggregating grants or removing grant conditions altogether.

A hands- off policy in area-based regeneration has however not proved that simple. In non-regeneration activities in a report presented by the auditor general to the National Assembly of Wales on 14th October 2011 (WAO 2011) in the context of a worsening economic climate and consequential budget cuts, local authorities were warned that they faced a significant reduction in future funding and also rising demand particularly in respect of older people and vulnerable children.

The audit office in 2015 (WAO 2015) reported a picture of public services; the key financial challenges facing Welsh public services concluded that while there was a focus on reallocating public services for example through an efficiency and innovation program there was little collaborative direction in terms of making cuts to service levels and jobs. The practical reasons for a more collaborative approach remains although may now not be superseded by tougher choices by individual local authority organizations as separately accountable bodies.

The question what services are best delivered where was addressed earlier in 2011. How local government might perform if it were to review and design the commissioning and delivery of some of its functions was reported to the relevant Welsh Government Minister and published in March 2011.
Staff and service providers found that local authority service arrangements were too complex, replicating functions, creating unnecessary duplication of questionable value. The Minister said;

“It is clear that as citizens we are not getting the best service we can offer at lowest cost. We must look at new ways of organizing local authority services and working together”.

Amongst in its twenty-one recommendations a local, regional and national focus was identified across many sectors, recognizing the complexities of local authority business, the pragmatic approach preferred was to eventually examine which aspects of a particular service were best delivered (functionally) at any level.

In fields associated with physical regeneration recommendations involving strategic highways, architectural and specialist engineering, were suggested could be organized at a regional level. In an earlier still report in 2010 by local Government leaders for the society of local authority chief executives in Wales (SOLACE 2010) research found that in achieving whole area working “although there was a clear recognition of the need for change there was no consensus about how best to take this forward”.

“Testing out what might be delivered locally, regionally and nationally was however seen as a fundamental requirement to determine what the wider policy, financial and legislative context to support whole area working needs to look like”.

Whether governance should be based on local, regional or national levels was considered by the SOLACE group with indicative examples of regeneration delivery recommended for localized governance, economic development at a regional or sub-regional level. The criteria used positioning regeneration at the local level accurately reflected high levels of citizen involvement and delivery through multi-agency teams but did not however reflect fully the specialized level of some regeneration services such as sustainable engagement with the private sector.

The Private Sector

The private sector in regeneration is many faceted and very diverse. There is no single source that is able to speak authoritatively on its needs and priorities and the feasibility of obtaining a sustained input of private sector executive time is a main issue.
In April 2000, the Welsh European Funding Office, on behalf of the then National Assembly for Wales, undertook a review of private sector participation in EU funded programs in Wales (essentially area-based regeneration), and engaged Fraser Associates. The purpose was to look at what happened in the past and what should happen in the future. The review identified five forms of private sector participation (WEFO 2000);

1. As applicant for support to meet own development needs,
2. As intermediary in development of revenue support activities, such as enterprise business support, the end beneficiaries being SME’s,
3. As providers of private sector infrastructure,
4. As client to public sector agencies undertaking specific actions,
5 As direct beneficiary of public sector organizations undertaking general actions.

Some of the key findings of the review, which may remain relevant today, are that;

- Community development priorities concerned with economic and social cohesion produced few benefits for the private sector.
- A high level of revenue expenditure devoted to low intensity general advice such as awareness raising produce limited economic impact.
- Appraisal of market demand and response capability of the private sector is weak as is the identification of the market failures that justify public sector intervention.
- For reasons of administrative practicality future programs are likely to continue to rely to a very large extent upon projects led by the public sector and this places a premium upon improving the effectiveness of public sector led interventions.

In Wales in recent years, leveraging non-state sponsored partners in area-based regeneration activity has not been prevalent. Market circumstances and rapidly changing government policy has conspired to restrict private sector contributions.

Urban regeneration agencies, bypassing local authorities, no longer exist in significant forms policy based despite a small number of exceptions, but it remains “expected that under the rubric of partnership the role of the private sector should be capable of growth. Irrespective of market conditions…and the ability to nurture and attract private businesses will continue to be the key to economic regeneration” (Jones & Evans 2008).
The potential role of the private sector in area based regeneration is considerable and can be considered unsatisfied. Increasingly policy makers ought to be interested in how businesses start up and grow as SME’s have been and continue to be important drivers of economic growth. During the twenty-year period to 2005 “businesses had created two-thirds of all new jobs and more than two thirds of innovation in the economy” (Walburn 2005).

However, the trend in Wales is of start-ups in decline and a 26% drop in new businesses over the five years to 2017 (http://www.bbc.co.uk/news/uk-wales-38573052).

The private sector plays important roles in skills and training, driven by the needs of industry, in each sector of the economy. Area based policies have sought to establish clusters of knowledge intensive industries, and recently in activities such as with digital initiatives to encourage entrepreneurial start-ups and to enable local business growth. Private sector organizations such as local companies and financial institutions can play an increasing role in communities through corporate social responsibility actions and sponsorships. For example, Business in the Community is a non-profit organization that brings companies together with third sector organizations and local government to implement programs at local level. Business Improvement Districts are a growing phenomenon.

The private sector role in contributing to governance through controlling partnerships since the 1990’s has been attempted with mixed success. Partnerships requesting private sector contributions are seen as limiting common pitfalls of earlier area-based regeneration practice by sharing expertise, expanding access to financial resources. Some commentators (Dodds 2011) nevertheless suggest there is a question whether there should be more of a critical examination of the efficacy of these types of partnerships in differing contexts.

The Third Sector

The third sector in area-based regeneration encompasses voluntary and community organizations, charities, social enterprises, co-operatives and mutuals, vary in size, has a well-developed infrastructure in Wales that locally and nationally plays a vital role in regeneration (Welsh Assembly Government 2009).
Organizational structures include most forms of entities, unincorporated associations, legal incorporations, companies limited by guarantee, and charitable status community interest companies, industrial and provident societies. Umbrella organizations include Wales Cooperative Centre, Development Trusts Association, and Wales Council for Voluntary Services, Community Housing Cymru are well regarded.

Organizations within the third sector are understood as having the achievement of social goals as their primary purpose, not only in voluntary groupings but also through social enterprise schemes. Larger third sector regeneration agencies especially Registered Social Landlords (RSL’s) have become increasingly important in delivering local area affordable housing projects. RSL’s are the beneficiaries of housing stock transfers from local authorities and are equipped to deliver certain other types of capital projects. RSL’s also have the ability to reach marginalized groups, through tenant engagement.

Community Housing Cymru, the RSL umbrella organization supports the establishment and development of RSL social enterprises in Wales. With aims to invest in local supply chains and in creating strong relationships with smaller third sector enterprises, they are evolving leaders in the field of regeneration. As they have therefore a unique relationship with the most marginalized communities, social enterprises with procurement and financial muscle, their professional leadership is worthy of greater interest and pragmatic development.

3.5 The Influence of Policy on Inputs/Process

Regeneration policy in Wales has been a principal responsibility of the Welsh Government since devolution in 1997. The execution and delivery of regeneration in Wales (together with many other areas of the UK) is now however becoming even more firmly in the hands of local community leaders and actors. Although the actions of individual community leaders as social constructors would be shaped by a wide structure of policy arrangements, regeneration policy would be the main driver, determining the rules and resources for regeneration (Purdue et al 2000). Vibrant and Viable Places (VVP) remains the extant regeneration policy subject to a systems influencing contribution in this project, the subject of analysis in Chapter 4.
A framework for understanding the development, design, analysis, evaluation and influence of VVP policy was found in Mayer (et al 2004), which would be utilized in later Chapters to good effect. The model was derived from a review of 20 exemplary cases in the fields of technology, policy and management and identified six underlying policy styles, with different values, calling for different criteria when it comes to evaluation.

An important claim of the Mayer model would be that in practice, policy analyses could realistically combine six activities and styles. That there is no single let alone one best way of conducting policy analysis is an evidence based research acknowledgement. Structuring would take place by displaying the variety of views of policy analysis and choosing appropriate explanations according to purpose. The model offered insight and an overview, the selection of appropriate methods and tools, the ability to be judged from different perspectives.

Significantly in the context of this project the model would help to formulate the values pertaining to a systems perspective, values from which the criteria for the evaluation of a systemic policy design could be derived and could be used through an appreciation of reality, values and instrumental judgments (Vickers 1995) to look at decisions, choices, acceptance, integration, balance, change, comparisons, culture, commitment and communication.

In terms of pre-process inputs, values eventually selected as most important for policy influence were identified in; requisite activity, viable constructs, enhanced cooperation, reliable delivery and requisite organization. In terms of process values eventually selected as most important for policy influence were identified in; the allocation of resources, satisfying stakeholders, observing rules, arguing reliably and controlling behaviors.

In looking for an understanding of mutual expectations between National and Local Government, in policy and practice inputs and processes in respect of the new and temporary VVP regeneration policy, the ability to find patterns in the most important features would hopefully have the potential to shift choices through a systemic reflection of the evolving situation.
A core objective of a regeneration policy would normally be to enhance sustainable delivery processes by encouraging more partnership working, or bending mainstream government or levering private sector expenditure. Such strategic added value ensures that relatively disadvantaged places can theoretically continue to improve after a regeneration program or project ends so that the need for government intervention is eventually reduced.

Much research has been undertaken to assess the importance and reality of the above factors. Without significant resource regeneration would not produce significant national and local benefits. The rationale for intervention on the part of Government has itself therefore been heavily influenced by the need to overcome market failure and the achievement of an equity objective (HM Green Book 2013 and Magenta Book 2011).

In Wales the allocation of regeneration resources reflects over 50 years of UK and following devolution Welsh Government policy decisions. It is the most significant policy influence and is changed (only) within limits set by government commitments and momentum. In a large government organization these two issues are substantial, far reaching and interlocked. Influences that reflect short-term budget availability, a preference for capital as opposed to revenue expenditure and a short-term process/outcome memory, as specialists are replaced with generalists, are of particular note.

The optimal allocation of resources between competing claims in regeneration requires “allocative policy judgments” (Vickers 1995) and is the key factor in decision-making and control at the local level of required organization. The reconciliation of competing claims will often require a more elegant solution to begin to achieve integrative judgments. The relation between optimizing resource allocation and regeneration integration is a key influence on systemic delivery. There are very many policy statements made in communicative events. For example;

“Regeneration can help us make the best of our assets and our people. It can help areas adapt to new roles, and improve on the distribution of wealth and opportunity. It can restore social justice and reduce community tensions and can play a vital role for communities by fostering a sense of solidarity and hope” (Welsh Government 2010-National Regeneration Summit 2010).
Regeneration guidance at UK level (UK Government 2004-3R Guidance) covering a broad range of public policy, then is essentially about closing gaps and is most concerned with delivering impacts on targeted places; typically, at the sub-district geographical level or for particular groups in society for example those without work such that their prospects are enhanced. There has been general agreement nationally that success in regeneration is about achieving additional economic, environmental and social outcomes that would not have otherwise occurred (or which would have been delivered later or of lower quality), whilst also representing good value for money for the public purse.

Regeneration policy determines whether financial and other resources flows in to a local area, whether in turn community leaders will develop their own distinctive capabilities and relationships with local places and actors in the upgrading process the formation of partnerships, the leverage of further resources the monitoring of outputs and spending.

In VVP local areas would compete for resources. In a competitive bidding process, the writing of local partnership bids and subsequently a delivery plan shaping the distribution of resources to the various participants are fundamental tasks. With the formation of local partnerships, more specific formal and informal rules come into play governing the structural arrangements of the partnerships (Purdue et al 2000). The rules nevertheless will be policy driven, although informal social rules will also manifest in the organization of the local community and neighborhoods.

The systemic insights by Sir Geoffrey Vickers in 1995 in “The Art of Judgment” are of critical importance to this thesis and are repeated here as they provide a thorough guide to public policymaking and are reflective of the field in view.

“Policymaking deals with assumptions and expresses and helps create a whole system of human values. Value judgments together with judgments of reality can reflect falling achievements relative to current standards, feasibilities, givens, regulations; processes, (Vickers 1995) and even those criteria that cannot yet be specified. Whether optimizing values is possible in realizing multiple policy objectives is a key question in a distinction between commitment and satisfaction”.

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Vickers argues for the observation of value optimization on a continuous scale of three points, conflicts (of incompatible views) of groups (or in the mind of the policy maker) with the survival view dominant, compromise, which takes account of relative strength, willingness to fight between the exponents of incompatible solutions and the common interest in avoiding a conflict.

""The sense of common interest is the easiest less conflicting situation as long as each participant regards it as less satisfactory than the one he or she advocates, though better than any other obtainable” (Vickers 1995).

"At the highest point of success lies the integrative solution, “commanding the assent of all contestants, as doing full justice to all their different claims; and it is attained only by changing the way in which the situation is valued, or regarded, by some or all of the contestants”. A change that “enlarges the possibility (space) of future integration, a solution beyond those that existed when the debate began” (Vickers 1995)

“Sometimes these changes in valuation can be achieved merely by reclassifying the situation in a way to which different value attaches; sometimes by assimilating it to a different value schema, sometimes by a more time consuming appreciative judgment of an appreciative setting in a properly constructed dialogue. Appreciation is a mental activity that accepts that time is indispensable” (Vickers 1965).

Integrative judgment in Vickers view depends on an innovative view.

“The innovative characteristic is the highest point of success or in system terms, satisfaction. Innovation is limited not only by natural resistance but also by inertia and the momentum of past allocative judgments”.

Across Welsh Government policies are constantly being made in a range of topics, departments in action are regularly changed, buildings are relocated, and people are moved in mid-career to alternative roles. These dynamic configurations are both resistant to sudden change and memory gathering. At each policy review the possibilities of change are limited and vary with the situation. In Vickers classic guide, optimization is easiest with regular growth but not “the runaway expansion of constant programs”.

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In regeneration, decisions taken cannot be translated into settled outcomes for some years. Their effect however is immediate confirming and changing existing expectations. The role of commitments and communication in the implementation of regeneration policy is of particular importance here as it not only involves advancing a network of commitments to organizations and individuals but an intention to all concerned, contributing to what will be and what should be, influencing amongst other things, choices of career (Vickers 1995).

“When sudden and severe retrenchment or strikingly new or ambitious expansions demand more and different achievement optimization becomes even more urgent and difficult”.

“A communication of change in intent will spread faster and further in its effect than a curtailment of future commitments and will be far harder to reverse. On the other hand, it is generally impossible to speed up or expand a program except within much more extended limits of time. Policies depend on expectations. “Expectations/like walls are improbable structures, intimately self-supporting, and much more easily levered than raised” (Vickers 1995)

At the beginning of this century the main thrust of regeneration policies continues to be to improve or upgrade “place” both physically and economically. The UK government’s objectives set out in a policy statement in 1998 (UK Government 1998a DETR) has been reiterated many times since (Roberts & Sykes 2004, Jones and Evans 2008, Tallon 2010) suggesting that multiple objectives of local regeneration now are to:

- Improve people’s employment prospects, skills and education
- Address social exclusion through community development
- Promote sustainability improving and protecting the environment
- Improve quality of life and people’s capacity to participate
- Support and promote business growth
- Achieve integration of activities through multi sector partnerships

(Department of the Environment Transport and Regions 1998a)

How far the new VVP regeneration policy in Wales VVP contributes towards achieving these multiple place objectives, offers a new system of accountability, a new adaptability. Optimization through the promotion of ideal regularities would be important to determine.
Whether the policy is means driven, goal seeking or goal setting will suggest likely epistemological or ethical evaluations. Whether knowledge judgments and decisions are seen as the best means of reducing complexity and the mismatch between realities and values will be fundamental questions.

3.6 Complexity and Knowledge Management

The preceding review identifies serious complexities in the field in focus. Concepts of complexity originally developed in the natural sciences and biology have influenced social sciences such as organization theory and management, (Stacey 1996, Maguire & Mckelvey 1999) by attempting to understand change, and the dynamics of systems, as a result of the complex interaction of the parts of those systems (Macintosh 1992). Erik-Hans Klizn (Klizn 2008) puts forward the argument that complexity is now a key term in the theory and practice of public administration. In most public administration theories, the dominant assumption was that “government organizations were unified by rational actors” (Braybrooke & Lindblom 1963), but, gradually, researchers paid attention to the fact that this assumption was more the exception than the rule.

Studies stressed the interactive and dynamic character of policy processes and the move from government to governance provided for much attention to be paid to the networks in which public policy is formed and realized (Rhodes 2008, Pierre & Peters 1990, Marin & Mayntz 1991). Most governance processes in regeneration now reflect multiple networks. Multi-actor approaches as introduced to regeneration are a complex endeavor.

Despite the field of public administration having undergone a move to greater complexity there has not been an extensive use of the ideas and concepts of complexity theorists, so that the latter has had little influence on the theories of public management (Klizn (2008).

In response to the familiar critique of complexity and the focus on systems theory, that is “over reliance on armchair theorizing and argument by analogy” the contribution by Rhodes et al (2010) tried to show through twelve case studies how theoretical concepts may be operationalized and analyzed by focusing on quite specific projects bounded by time and space, an examination of the tension between government policy making at a central core level and implementation activity at a local level, and the nature and dynamics of boundaries.
The extensive fieldwork in this study provides a framework to highlight how various situations in terms of size, stage and project complexity might influence systems behavior and system outcomes. There appears to be broad agreement on the phenomena scientists are studying (Teisman & Klijn 2008).

The authors suggest the next stage of this research should be to illustrate how system modeling can be used to better manage real world problems, to which this thesis is a direct response. Complexity theorists tend to focus their attention on the dominance of the dynamics of phenomena they examine (Teisman 2000).

A picture gives information about a certain moment and place. A film in contrast of how phenomena develop under a variety of influences, can be linear (guided by one single dominant force) a powerful causal relationship or non-linear guided by a variety of forces, as when policy leaves the communication phase. “Story- lines through time evolve in often surprising ways”. Teisman & Klizn (2008) here expect complexity theory and dynamic considerations to help scholars in public administration eventually make films of governance processes.

Phenomena do not develop only by external forces in government-sponsored regeneration but also by emerging self-organization capacities and will often be chaotic; “even though not everything is possible in the next period, much is” (Teisman and Klijn 2008). The importance of contexts in regeneration is also broadly accepted in the field, within the metaphor of landscape fitness. The landscape, which changes continuously, determines the effectiveness of actors’ behavior.

In regeneration the behavior of actors “in their search for survival within contextually dynamic self-organizing landscapes can be dissipative, adaptive or autopietic” (Luhman 1986). National and local governments often seem “to perform as self-referential entities, and when things go wrong often blame the other. National policy can be reinterpreted at a local level in a special type of self-organization described as receptivity” (Butler & Allen 2008).
Butler and Allen reflect Vickers 1995 first level receptivity in the ideas at work in learning from past paths (dependency), restricting possibility (space) and anticipating the future (choice). Competing facts, ambitions or interests, frames of reference (Burren & Gerrits 2008) suggest sources for unpredictable policy outputs and outcomes until “tracks” from fact-finding processes evolve to positions of taking standpoints.

New public management associated with regeneration has yet to fulfill its promise to improve significantly on the costs or effectiveness of the public sector. It has nevertheless significantly increased the overall complexity in the field. The delivery of excellent regeneration services continues to pose problems at local and national levels in terms of attribution, outcomes, strategic coherence and overall governance.

In regeneration practice information is a necessary material in constructing knowledge “that aids decision-making is able of changing the receiver’s perception of a situation and affect his judgments and decisions” (Namas 2001, Davenport & Prusack 1998) and provides the receiver “with new ways of interpretation by highlighting unexpected connections and implying unconsidered constraints” (Nonaka and Takeuchi 1995). The creation of knowledge relevant to regeneration based on information needs can be identified through focusing on Davenport & Prusack’s four C’s;

- Comparisons; how does the information received under this context compare to previous situations?
- Consequences; what are the implications the received information has on decision processes or the current situational context?
- Connections; what are the relations of the received information to other bits of information?
- Conversations; what do other people think about this information?

The characteristics of knowledge in regeneration allowing actors to perceive information to adjust their actions accordingly would recognize complexity and adaptability (Bellinger et al 2004) and would therefore be worthy of careful consideration in any regeneration system.
“Knowledge has the ability to deal with complex situations, that don’t fit to what is already known, in a complex way. As a result, and in the light of what is already known, it judges and refines itself in response to new situations and information” (Davenport & Prusack 1998).

The process of acquiring new knowledge through action that is aided by enlightening information (internalization) is considered further in Chapter 5. Abecker (et al 1999) argues for pro-active knowledge delivery and that it is usually the case that users are not aware of the existence of useful information and even if they are aware, they do know where and how to look for it.

“Looking for useful information is not a timeless and effortless process and therefore individuals are not always willing to stop their ongoing work to do so”. Higher-level regeneration system requirements could provide users with;

“Information needed to accomplish individual tasks, (thus acquiring new knowledge), highly relevant information given needs and interests enough information so that possibilities are increased. Confidence in recognizing the usefulness of the information received could produce active support to maximize outcomes. Whilst minimizing individual interaction with the system (minimized interaction means easier system adoption by users, flexibility to enable adjustment in the needs and interests of the user (enabling system learning in underlying mechanisms and regularities” (Namas 2001).

Although personalized information filtering is now an emerging trend, an established discipline in many fields (Namas 2001) with the emergence of information agents and personal assistants with the aim of providing relevant information to users reflecting on decision processes (and thus acquiring new knowledge) the use, direction and potential application of information filtering in regeneration is far from certain. The dominant way of trying to support the individual regeneration knowledge worker in his or her everyday work argumentation tools, structuring discussions, capturing the content, acknowledging frustration is worthy of investigation.

The interest in this project includes learning from an understanding of regeneration dynamics as the dominant force in area-based regeneration governance processes and systems. Rhodes et al (2010) study of urban regeneration processes in Ireland provides suggestions for the treatment of the fundamental issue of network interdependency.
Importantly, Rhodes shows in a field associated with punctuated equilibrium that process identifiable in Complex Adaptive Systems (CAS) is “an unfolding series of events not knowable in advance, but capable of reconstruction in retrospect generating patterns of interaction and relationships between actors and factors”.

The evidence that local networked organizations dealing with regeneration have the characteristics associated with complexity and complex adaptive systems (CAS) (Bovaird & Downe 2008). Pierce 2000, Blackman 2001, Chapman 2002 suggests that CAS has the potential for the development of useful models. Critics however cite the overly general nature of CAS theory, the lack of empirical verifications of claims, and the use of concepts not suited to an organizational context (Rosenhead 2008, Arndt & Bigelow 2000).

It is argued perhaps surprisingly by these authors that there were no examples of how this framework might be operationalized in models of public service systems. At same time Rhodes & Mackechnie (2003) were however addressing the question in their own question; is there a role for CAS theory in understanding public service systems?

The core elements of a CAS framework can be considered as being capable of being studied in this project as they appear at face value to reflect a potential contribution to an explanation of the complexities involved in area-based regeneration knowledge management. Central concepts used to describe a normal governance model in the different contributions are self-organization, landscape fitness (performance) and dynamics.

The course and speed of governance processes, directions and co-evolution are of significant interest. There are 5 elements identified by Rhodes et al (2010) to consider in the next section, when considering ethical public administrations;

1. A description of actors that make up the system in focus.

2. A description of the schemata dynamics, for given actor types, comprised of the inputs to the actor decision processes, along with the filtering rules that the actor applies to decide what information is necessary.
Holland (1998) sees the inputs as; including, “the totality of all possible parts/decisions that actors are capable of taking; transition functions, which are the set of all possible pairings of current and future states of inputs in the system and outputs which is a combination of the concept of desired outcome, or fitness function based on the understanding of the combined activities that will lead to a desired outcome”. Holland (1995) describes, “tagging” of similar observations for the purpose of creating cognitive groupings. “The process for mutation and adaptation of schema is to be defined as part of the schemata elaboration” (Stacey 2000).

3. A description of the fitness (performance) landscape, for actors in the system. How the actors will choose amongst alternative activities?

4. The nature and level of connections among the actors particularly the relational complexity of the information that is exchanged and processed (Boisot & Child 1999)

5. A set of dimensions that describe the state of the system i.e. appropriateness of outcome measures – and its relationship with its environment influencers (my emphasis)

3.7 Ethical Public Administrations

The aim in this project is not to act on the psychology of the individual in a conventional way to improve organization but to suggest possibilities in improving a system in a requisite way (Jacques 2006). Who and what counts (Finnemore 2003) is the deceptively simple question most important to the field of area-based regeneration, which must be decided before any useful calculations of costs, benefits or risks are made.

The “who” that counts are unequal places. No analysis of what counts could consider everything, but it is particularly true to say that the rule in “poor things in, poor things out”, and “arbitrary features considered, arbitrary decisions made” prevails (Shue 2006).

In the choice of policy options, attention must focus sharply on whatever matters most in the area affected by the policy and selective judgments must be made. In deciding what does and does not matter these selective judgments are ethical judgments of value, about relative importance or about fairness. Ethical judgments involve debates that ought to be conducted at the outset of well-grounded policy analysis (Shue 2006).
The choices confronted through debate about inclusion and exclusion is judgments best made that are publicly reasonable (Gutmann & Thompson 2005). In this definition ethics provides regeneration policy design with reasonable grounds. The “goods” that can orient and define ethical systems (Kibert et al 2011) vary widely among different cultures and situations.

People value different qualities and things and their goods in different ways for different reasons. These differences are very relevant to sustainable regeneration “an undertaking which cannot be understood simply as a practical or technical one” (Gutmann & Thompson 2005).

Without careful attention to the ethical dimensions of regeneration and its moral values and goals, not just utility and the usefulness of something, regeneration would suffer. Sustainable regeneration necessarily deals with social, economic and environmental concerns and is an ethical enterprise. What unifies the different schools of ethics is a conviction that it is possible and worthwhile to identify “good” or at least better ways of acting (Kibert et al 2011). It is no coincidence entrepreneurs from religious backgrounds become regeneration practitioners.

The most influential thinkers on Western ethical traditions Immanuel Kant (1724-1804) and Jeremy Bentham (1784-1832) offer contrasting deontological (meaning duty) and utilitarian perspectives that ought to be discussed in relation to ethical regeneration. On the one hand to make ethical judgments for Kant emphasizes rationality, consistency and universality in a moral actors intentions and adherence to the rules where the actual or likely consequences do not affect the moral worth of the action and do not matter in moral decision making.

On the other hand, to make ethical judgments for Bentham ethical decisions about what to do and subsequent evaluations of the morality of an action are based on the expected or actual consequences of a behavior and “the creation of the greatest good for the greatest number of people”.
One of the most prominent philosophers of ethical sustainability Bryan Norton writes from a pragmatist perspective, that “well-reasoned action is the best course in enacting change, and that people must join together to first establish and then achieve practical environmental and social improvements based on the best science and management available”.

The debate between relativism—that values must be defined in the light of context; cultural, historical, political—and objectivism, where value rests on absolute foundations, has implications for regeneration, which in view of a focus on identifying and achieving practical goals - tends to place the field in a preference for pragmatist or utilitarian ethical approaches.

In many concrete situations, different social, economic and environmental goals cannot be integrated harmoniously and choices must be made about which to prioritize. Conflicting goals – social justice, economic efficiency and environmental integrity are not easy bedfellows (Kibert et al 2011). Sustainable decision making processes here are the subject of choice amongst various goods or importantly not seeing choices as either-or alternatives and are rightly subject to democratic processes.

Regeneration decisions are constrained by limited resources and those responsible for choice often have to choose between what goods to prioritize given multiple values. Ethical questions arise not when there is an easy choice between a good solution and a bad one but rather when real values conflict and it is not possible to preserve them all to the extent desired (Kibert et al 2011)

In such situations, the goal of ethics is to help resolve conflicts as constructively as possible. The best decisions ought to be based on a number of factors (Kibert et al 2011) including:

- Good knowledge (scientific, economic, cultural)
- An understanding of the situation and its history
- Accurate information about the likely outcomes of various decisions
- A careful weighting of the different values involved
- Efforts to frame the problem in a way most likely to maximize as many important values as possible
All these factors in turn are facilitated by wide participation by the different individuals and groups affected by the decision. Democratic processes and open fair political institutions are not only goods in themselves but also pre-requisites for achieving a host of other goals (Kibert et al 2011). While no ethic is perfect, an adequate ethic of regeneration must strive to fulfill agreed conditions and principles.

Kibert et al suggest three key features that an adequate ethic of regeneration should possess to some degree include: theoretical coherence, rights or interests, feasibility or practicality.

1 Theoretical coherence means that grounding assumptions, forms of submission and arguments, definitions of key terms, should be consistent and the use of evidence persuasive. The sources and nature of knowledge are both social and scientific.

2 Rights or interests, includes the means of adjudicating between individuals or groups in foundational terms. Individual groups or interests may incur or need to respond to rights and duties such as a duty of care to employing organizations, in relation to the rights and duties as employees in conflict with goal seeking regeneration duties.

3 Practicality is required in the ethic of regeneration to help guide people in their efforts to purposefully address real world messy problems.

An ethic of regeneration ought to address a number of specific principles of justice, formal, distributive and substantive. Justice-ensures that each receives his or her due, neither too much nor too little - through procedures and through establishing rules and standards by which decisions are made (Kibert et al 2011). Standards of procedural justice are crucial for public led regeneration, where openness and transparency, access in participation to decision making are the test of a just political system and the antithesis of individual rule.

Formal and distributive justice – the fair or correct distribution of goods in society through a relative allocation of goods a small amount of resources shared equally and substantive where the absolute amount of resources relative to the local area needs are not with a fair share of an inadequate amount.
Substantive justice is a requirement for regeneration to be sustainable and is necessary to ensure the basic needs of a local area are met over time. An ability to endure for a long period is often required in regeneration practice for stability and growth or indeed managed decline.

It is entirely ethical and appropriate to commit resource to support local areas not capable of growth in the conventional economic interpretation. All ought to be embodied in a society, which can last. (Kibert et al 2011). This will be a key factor to consider in the empirical Chapter which follows.
Chapter Four

Combining the Data

A detailed presentation of data gathering, analysis, and synthesis in context is progressed in this Chapter towards understanding the potential benefits of critical systems thinking and systems approaches to the administration of area-based regeneration in Wales. Building from the literature review and early methodological conceptual modeling this empirical Chapter makes use of an appreciative inquiry, described in Chapter 2, a historical systems view, and a contemporary inquiry based on two tasks and seven case studies (Chapter 2, 2.4 page 80) associated with unfolding regeneration events, domain relationships and attractor patterns.

Including the evolving design of a Sustainable Regeneration System (SR) based on norms, influences and values, the output from this Chapter provides detailed evidence of the potential benefits of critical systems thinking for regeneration leadership consideration. Flagship regeneration policy and practice at work in Wales is matched with the SR model in a contributory comparison. Additional material in Volume 2 Appendix 4 utilizes the SR model further in a comparison with place shaping at work and suggests whether emergent policy and practice ought to change. The chapter is set out in five parts as follows.

4.1 Analyzing & Synthesizing
4.2 Imitating Regeneration Norms
4.3 Representing Essential Influences
4.4 Explaining Regeneration Values
4.5 Combining the Data; Findings & Recommendations
Chapter Four

Combining the Data

4.1 Analyzing and Synthesizing

This Chapter presents an analysis and synthesis of findings from data obtained during the project period November 2011 to March 2017. The synthesizing goal is the further understanding of the potential benefits of critical systems thinking to area-based regeneration. Systems’ thinking in analysis and synthesis is defined usefully as systems science “to refer to the very wide range of approaches which can adopt a holistic approach to analysis” (Lane 2016).

In this Chapter the discussion of methodology choice follows on from the background detailed methodology and justification in Volume 2 Appendix 2. The argument for post-project mixed-method research is then based on a methodology driven rather than situation driven research action. Case study and cyclical action research was well positioned to take advantage of an emerging situation.

The approach holistically involves seeing what benefits can possibly accrue from modeling local area regeneration behavior in Wales, firstly from a sustainable regeneration system design (Task1), and secondly from a comparison, during the period under review, with a new regeneration policy and practice contributing program Vibrant and Viable Places (Welsh Government 2013) (Task 2).

Following this introduction, data from the conceptual phase, parts 4.2, and 4.3 is evidenced towards Task1. Task 2 findings shown summarized in parts 4.4 and 4.5. Interpretive phases sit within each part. Merged findings from the three general research phases, conceptual, empirical and interpretative are reported in part 4.5 and then in Chapters 5 and 6. The process in practice was non-linear, iteratively working back and forth, an exercise in constant comparison (Glaser & Strauss 1967, Lincoln & Guba 1985, Maykut & Morehouse 1994).
The work involved with the two tasks was based on imagining a “contract” between the researcher, “mediating between different meanings” (Van Mannen 1990) and the customer, disadvantaged places in Wales. The credibility in the analysis and synthesis lies in proposing an initial tentative hypothesis, described previously as arête-ness, or excellence in regeneration management, as something which is capable of being repeatedly tested against emerging contributions, cases and situations.

With data from each of the seven case study contributions, a developing model is progressed in construction and the hypothesis revised, moving to claims that are more general. The scientific credibility is based on an analytic inductive approach, on an “attention to detail and unique occurrences” (Hammersley 1989, Robson 2002, Yin 1989).

Task 1 seeks a description and definition of the underlying structure and meaning of the (abstract) SR system, against the arête regeneration hypothesis of a regeneration system for Wales based on excellence, knowledge and ethical virtue. Derived from regeneration literature detailed in Chapter 3 and analogous literature referenced throughout this thesis, the “phenomena in question” (Stake 2006) suggests the system ought to be “viewed holistically” and in an idealized sustainable form.

Task 2 will seek to explore as far as possible, common and shared experiences with actors involved with policy and practice contributing to the (abstract) idealized SR system structure described in Task 1, as if the system was formalized. Although the system does not exist formally, the “object of lived experiences” (Stake 2006) in question is then seen as common to both tasks.

What helps to understand the first task is a holistic view, what helps to understand the second task is a reductionist view, constrained then by the domination of the SR system description, and developed earlier, over the case data. Analysis for model coherence in Task 1 and for contribution to the model in Task 2 is necessary. Evidence of the way problems are articulated and handled (Stake 2006), needs particular attention in both tasks.

The aim is to come to understand better, and as far as possible, relationships connecting ordinary policy and practice in systemic terms. A complete Task 1 and Task 2 in synthesis are considered a single case study for completeness, the variety of data sets used as contributors to the single case study output. Multiple cases, which are somehow “categorically bound together” (Stake 2006) in synthesis, would involve naturally occurring data.
The organizing question, what critical regeneration systems ought to be, is a concept particular to a Welsh context, yet general in the context of local regeneration delivery. As a first orientation of regeneration in Wales in SR systemic terms, there is no over-riding attempt to look for productivity outcomes, which would be a task for further and continuing attention.

The research question and phenomenon is of serious interest to the researcher, and should be an “abiding concern in the locality”, (Van Manen 1990) yet it is without description and agreed hierarchical meaning at the commencement of study. A successful answer to the research question would necessarily involve a constantly revised hypothesis to the research question by actors and communities of practice, in many field conversations over time. The research question is only successfully answered if leadership in the field in future adopts a systems approach to understanding economy, efficiency and effectiveness in area-based regeneration administration.

With a personal re-introduction to regeneration policy and practice in October 2011, data collection was progressed from a position of outsider to insider. Data choices were reviewed at all stages of data collection in terms of applicability and relevance to the two tasks. Necessary and appropriate ethical measures were taken according to the nature of the data sought and collected. Much of the data was naturally occurring, some published, a significant amount restricted in publication to comply with organizational and ethical practice.

The build-up of data in this project shown in Figure 1 is a seven case study construction. Given the purpose of the study it was evident during emerging stages of study that there was little opportunity for the use of covering laws or the deductive logic of classical positivism, as in context the type of data required, available and capable of publication was qualitative. Qualitative rather than quantitative arguments were a more purposeful and useful activity in addressing the research question specifically.
Regeneration & Systems Disciplines

Purpose & Boundary Realities

The Regularities of Practice

Imitating Regeneration Norms

An Arête Orientation & Desiderata

Logic Model Coherence

Representing Essential Influences

Values in a policy change

Realities in changing practice

Explaining Regeneration Structure

Figure 1

The Multiple-Case Evidence Base
A key concern of stakeholders affected by regeneration in Wales, should be with quality as much as quantity. In a first systemic orientation it is “important to understand as many common or shared experiences” (Moustakas 1994) as possible, “to demonstrate the coherence of an emerging model and in order to identify the contributions of individual contributor cases, policies or practices towards a sustainable system”. Developing fuller understandings about the individual features of the system would then however be a task for others who may wish to take the work forward.

In the case studies that follow, an imitation of regeneration norms (IRN part 4.2), and a representation of essential influences on regeneration norms (REI part 4.3) are shown developing sequentially. Task 1 is then capable of being able to explore and explain the values and realities associated with area-based regeneration in Wales in an essential regeneration structure (ERS part 4.4). The higher-level, longer-term ERS model is than aimed at a description of a sustainable, ideal and critical regeneration system for Wales for comparison with contributory actions.

Describing policy and practice at work in Task 2, through contributing program-based activities (4.4), is then possible, and this contributory comparison takes place at two-thirds of the way through the life span of the flagship regeneration program for Wales Vibrant and Viable Places with a successor regeneration policy and program, to be confirmed in 2017. Additional material relating to place shaping at work is found in Volume 2 Appendix 4.

In part 4.5 of this Chapter merging the findings combines the data. The empirical evidence from the constituent case studies is analyzed and synthesized using interpretative phenomenological analysis (IPA) (Smith et al 2009). In the cases that follow, significant statements, sentences or quotes from participants that provide an understanding of how those involved “appeared to perceive an experience” (Husserl 1927, Heidegger 1962) of regeneration are recorded. Quotations in this study are however generally not published, reasons of confidentiality being the overriding factor. Prior to the identification of cases contributing to the whole data set the nature of Task 1 and Task 2 in goal seeking and data requirements can now be explained.
4.2 Practice: Imitating Underlying Norms

The empirical phase in this project followed a substantive literature review: of systems thinking, and systems approaches to managing change (Jackson 2010, Meadows 2009, Reynolds & Holwell 2010) that led to choices that were considered to be the most appropriate for project purposes in operationalization, analysis and development (Case Study 1). In this phase a systems view meant thinking about the verifiable observation of a qualitative conceptual entity that consisted of dynamic interdependent parts, and a controllable human behavioral system (Ackoff 1969), an intermediate step towards a holistic systems view.

Following a brief discipline orientation in Case Study 1, the work would continue with an imitation of local regeneration delivery behavior, through a two-year appreciation of outgoing policy and practice (Case Study 2), and of the underlying practice of regeneration delivery with a focus on purpose and boundary, the fundamental parameters of regeneration action. This case study would include practitioner evidence through interview of the relationship and interdependencies associated with regeneration by national and local actors in the field. A contemporary, practice-based experienced view of underlying regularities, or local delivery norms in Case Study 2 was required to precede the development of a normative local delivery model. With the benefit of a focus team appreciation, a normative delivery behavior model could then be developed (Case Study 3).
Regeneration and Systems Disciplines

Task 1 (a) (Case Study 1)

Systems Approaches and Conceptual Modeling

Introduction

Starting out on an inductive qualitative study of a topic and its links to systems disciplines began in conceptual action with attempts to engage with Welsh Government regeneration colleague practitioners with the objective of conceptually working together on the research project. Over a relatively short period, however, it became clear that the day job for many would not allow prolonged involvement with what was perceived as complex issue, perhaps something for others to deal with. There were many other things more important to do. Time was a commodity in short supply in a busy civil service department. Engagement in imagining and learning the language of systems was to become more personal than collegiate.

Background

Ultimately it was necessary to (mostly) progress imagining the project independently. Decisions were made to progress with theoretical choices to be made from strong and well-documented regeneration and systems thinking frameworks. Four theoretical systems approaches were considered capable of being utilized throughout the study period, either separately or in combination, in eventually coming to a whole policy and practice systems view.

A review of the systems literature provided complimentary perspectives with the field of study. As opportunities arose for data collection and analysis, systems theories for; questioning purpose and boundaries through critical systems heuristics (Ulrich 1983), for structures and functions through system dynamics (Forrester 1968, Bossel 2007), for the identification of practice and policy system organization through organization cybernetics and Viable Systems Modeling (Beer 1972), and for attractor patterns through complexity theory (Morgan 1997), were considered the most suitable, given the conceptual possibilities, data requirements and contextual limitations in the field.
Through the early reading of regeneration literature associated with contemporary regeneration in Wales and the UK, and with a specific focus on the components of regeneration in the field, the beginnings of an alternative way of seeing regeneration field and strategic issues was at the early stages of development. Different in a number of ways than previously offered, and particularly in normative realities these changing ways of seeing would eventually be reflected in the developing literature review.

**BOX 1 F  The Particular Features of This Case**

An early attempt to engage with Welsh Government colleague practitioners in the research project in learning the language of systems was generally unsuccessful. Four systems approaches were nevertheless chosen as potentially useful from strong theoretical frameworks. Early conceptual work in literature reviewing generated different ways of seeing normative realities. Potential ethical problems were considered against the potential theoretical value of modeling and were considered manageable if dealt with in terms of systemic behavior as opposed to personal behavior.

The aim of attempting to stimulate interest in the study idea amongst workplace colleagues was chosen as a way of beginning to understand normative realities, and the degree of acceptance of different ways of working and whether thinking systemically could be of value. Despite the generally unsuccessful outcome in working together on the project, over a long study period, theoretical and practical ideas were nevertheless regularly raised and discussed without intrusion in day-to-day work and with the focus group in action.

In provoking some lively workplace discussion with an emphasis on the normal realities of policy and practice, a discipline review was progressed, as data collection and analysis was progressed, theory and practice being each other’s informant. The case actions and events were to emerge over time and provided a necessary chance to regularly confirm with colleagues that doing no harm was uppermost in the thinking and research process, hopefully providing reassurance where needed. Systems research was ethical in dealing with systems not individuals and this was a message constantly reinforced with research participants.
Analysis

An originating and developing opinion was that explaining regeneration in a systems view could possibly be achieved through modeling, not to provide an exact copy, but something that could be of use if it contained essential features and elements.

Modeling held out the promise of being able to be used to inform a dialogue between actors and interdependent partners seeking to enhance the design and delivery of regeneration in any local area.

Commentary and Findings

In early policy and practice discussion the problem in the field of regeneration in Wales seemed to be what was most important at any one time, or more accurately, what was currently popular in a political and personal view at any one time. Not perhaps what was the most important thing for individually disadvantaged places over the long-term, public value was appearing as often numerical and an immediate consideration.

Although minimum delivery standards in regeneration were generally specified, higher-level quality requirements were generally not the norm. The modeling of higher-level values could possibly be of use to national decision makers and local distributed leadership in the light of a constantly changing context.

In the theory, Donella Meadows (2009) argument that “everything we think we know about the real world is a model but none of these will ever be the real world” was a persuasive early theoretical argument. It seemed to be common sense that “We all rely on models but understand their lack of perfection. If a model is too complicated it is likely to be too difficult to use. If it is too simple, it may mislead” (Meadows 2009). For other leading systemic thinkers:

“Systemic modeling, at the higher level of interpretation, seemed to hold out the prospect of particular relevance to groups and learning” (Senge 1997), to “suggest what changes are feasible and desirable, given the peculiarities of their problem situation” (Jackson 1997).
Modeling in this project would involve a first-generation system state modeling that would require simplified but precisely described definitions of a system or systems. The outputs from analytic modeling with this objective could provide initial tools and techniques for seeing things together in the future, perhaps in-group modeling, levering change and in the identification of development of “next” practice.

Although it would not perhaps be possible in this project to undertake early adopter substantive group work it could be hoped that these tools could be used by distributed leadership and decision makers active in current and future delivery relationships.

In a network form of organization, there are many actors in the field with ambition and sometimes power to be able to shape and reshape their own communities and places to deal with “ever changing threats and opportunities” (Burnes 1996). These actors are faced with many choices and much uncertainty and could be better supported through modeling. To secure significant systemic improvements in a national context would, however, realistically and necessarily take some time and much political will.

To provide help to individuals and groups to elaborate their own models into whole local area system models that reflected a shared social reality and a consensus around the nature of their own problems would need network development and would be far beyond the scope of this study. From the theory of Vennix et al (1996) influential work on group model building, centering on integrating individual mental models, each of which initially offers only a limited perspective on causal processes at work, could then possibly be used to practical effect.

**BOX 1U  Findings of Expected Utility from This Case**

Modeling could possibly be used to explain local area regeneration, more effectively, if essential features and elements making up aggregate measures of quality could be precisely described. Higher- level standards for regeneration in Wales were worthy of attention. Actors considering place-need could be better supported through a national leadership view. Shared work would however take time and would be outside the scope of the current project.
Summary; Case Study 1; Creativity and Imaginative Action

The aim in this case study was to give colleagues the opportunity to participate in research-based activities, and in informal and formal creativity aimed at a better understanding of regeneration using systemic terminology. Shared work on high-level imaginative action and innovation would hopefully follow this project. Although shared working would not be fully possible at this stage, regeneration problems and normative realities were beginning to be collectively understood in systemic terms, and different ways of researching was stimulated with workplace colleagues in conversation over time and through the literature.
Purpose and Boundary Realities

Task 1 (a) (Case Study 2)

Outgoing Policy and Practice

Critical Systems Heuristics and Viable Systems Modeling

Introduction

The precise description and definition of local area-based regeneration in system terms through an appreciation of realities, values, and instrumentation (Vickers 1995) was chosen as the next case study, building on the findings of case study 1. In this case, an example of normative underlying policy and practice values and realities was captured from an outgoing program. Focused on purpose and boundary the case reflected what could be considered the fundamental and foundational parameters for regeneration action.

The question at the commencement of more formal data collection was what could be learnt from studying outgoing policy and practice using systemic approaches and terminology. Critical Systems Heuristics (Ulrich 1983) in “is” and “ought” questioning and trial and error, alongside Viable Systems Modeling of organization issues was of particular usefulness and interest, and was applied to the development of issues, and the detail about selected issues.

Background

The Western Valleys Strategic Regeneration Area was chosen as a strategic regeneration case in operation that was capable of action research in an ethnographic study over a two-year period.

In this case, and in a chronicle of process, activities and events, systemic issues can be seen in a narrative record, and through appreciation (Vickers 1995). Beginning with the key idea of treating purposeful action as a system (Reynolds & Holwell 2010) the activities concerned with achieving regeneration of a disadvantaged area is explored. The language of systemic regeneration in heuristic terms is highlighted in italics.
The Western Valleys area of South Wales was announced as a Strategic Regeneration Area (SRA) on 14 November 2008 as one of seven SRA’s in Wales (Welsh Government 2009). SRA’s formed the core regeneration policy of the Welsh Government between 2007 and 2014 investing many millions of pounds of public funding into targeted localities. The other SRA’s were located in the Heads of the Valleys, Swansea and Barry, North Wales Coast, Mon Menai and Aberystwyth.

The Western Valleys area was nevertheless considered to offer the second greatest potential in South West Wales to realize the benefits of a strategic approach to regeneration (Welsh Government 2010-Ministerial Statement). The area of possibility focused on a geography stretching across 5 local authority (LA) areas the Amman Valley in the West across to the Upper Garw and Ogmore Valleys of Bridgend in the East and extended north to the community of Ystradgynlais.

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**BOX 2F The Particular Features of This Case**

The underlying practice of regeneration delivery 2007-2014, is described in critical systems heuristics terms and viable systems modeling in a case study of one of seven Strategic Regeneration Areas in Wales. A purpose and boundary focus provided learning about; problems and measures, possibility, partnerships, relationships, co-ordination, control, decision making and resource allocation, governance, delivery standards, experts, assurance and program management, actors and collaboration, National and local entities, evaluation and Input-process-output distinctions. A naturally occurring data collection process with participant observation over 2 years, included semi structured interviews.
The overall strategic aim of the WVSRA was to add value through a sub-regional approach to sustainable regeneration (Welsh Government 2009 - Operating Framework May 2009). The motivations in terms of purpose, beneficiaries and measures of place-based improvements were established in strategic start up and policy documentation (Welsh Government 2010) as the key source of influence.

The problem context, acknowledged in establishing SRA’s, was that regeneration approaches which failed to address the skills and employability needs of people and communities alongside physical and improvements may leave longstanding social issues, such as economic activity, poverty and social exclusion untouched.

4.2.26 The boundary criteria in these circumstances called for integrated action. The collective vision in start-up documentation was that:

“The Western Valleys will embrace a network of distinctive vibrant sustainable communities that are confident and secure in themselves and with their relationship with the outside world...by an increasing culture of self-reliance and enterprise in which everyone can fulfill their greatest potential by linking communities with opportunities whilst protecting their first class environment” (Welsh Government 2010).

There was a recognition in Welsh Government, that in order to deliver long-lasting economic and social outcomes, regeneration activities which were required as a condition of success were that “genuine partnership working between communities, across a wide range of public, private and third sector bodies, linked holistically with initiatives in employment, skills, social enterprise, community development and housing” (Welsh Government 2008 Ministerial Statement 14 November)

The delivery relationships were based firmly on collaboration either at the neighboring county levels or at the within town/city level. Core funding to each SRA was allocated uncompetitively to each SRA, in effect a commissioning of change over the long term. Increased co-ordination and control was needed by Welsh Government as decision maker and resource provider in these areas in terms of investment in both people and places (Framework for Regeneration Areas 2010).

“Regeneration aims to make sustainable places over the long term in order to improve the quality of life of the people who live and work in and around those places” (Ministerial Statement 2010)
Strategic governance boards both sub-regional and local were to set the delivery standards agenda. Experts were identified as needed to provide relevant knowledge and expertise in supporting the board. Assurances of successful implementation were a matter for challenges by board members who were there to reconcile differing views, and the interests of those positively and negatively affected by SRA actions.

Actors involved in co-ordination and program management groups known as steering groups were generally Welsh Government civil servants and included some members with previous experience in the field. Steering group members included third sector and in some cases private sector participants who were described as representatives.

In the WVSRA, six public and third sector organizations engaged in collaboration, a higher degree of exchange and a higher degree of interdependency than a “normal” co-operative approach. The partner organizations were charged with working towards a common and shared goal and worked out a formal arrangement relating to authority and responsibility. There were 4 program output and outcome delivery objectives namely:

Objective 1 Transforming the local economy
Objective 2 Research advocacies and lobbying.
Objective 3 Strategy Developments
Objective 4 Co-ordination of all resources.

The main input and output activity themes were identified in advance by the Welsh Government led steering group. They were aimed at physical change to town centers, employment sites, environmental improvements, and tourism attractions. Themes were often decided in advance, with time limited implementation programs.

The SRA process involved added-value discussions between LA and steering group organizations submitting applications for Welsh Government funding with some local authorities acting as agent for community led activities, initiatives and projects. Applications were often received with match funding provision, following local and LA sponsor advocacy. Eventually, Welsh Government funding support of £21.4m was provided to the WVSRA delivering £67m of program expenditure in 243 projects.
Method

The seven SRA regeneration programs in Wales were scheduled to end in 2012. A lead role in the WVSRA program delivery from November 2011 to the eventual project closure in 2013 enabled the participant observation of the naturally occurring events. The SRA’s were in their penultimate year of operation when investigation was commenced. Data collection was helped by attempting to understand the relationships between national and local entities.

It was agreed with the WVSRSA steering group that as a contribution to exit evaluations and a forthcoming Ministerial presentation, evidence from personal semi-structured interviews, of the partnership workings of the team would be appropriate and useful. Formal informed consent was obtained from interviewees in regard to the research objectives who were made expressly aware of the use in ongoing academic study. Interviews were timed to take advantage of outcome reporting requirements.

In total 10 individuals who were leading actors in the national and local relationship were interviewed. The interviews lasted around one hour each. All individuals were experienced front line managers who had been active in the field for more than 15 years in positions of regeneration accountability. The interviews were conducted as informal conversations and were deliberately open ended. Most interviews were taped with the consent of the interviewees.

Open-ended interviews were appropriate to get a more considered response than closed questions and provided better access to interviewee’s views attitudes and values. The interviewees all shared a passion for the work and willingness to talk openly about their normal work and the relationships between national and local organizations. The interviews provided a “causal description of the forces at work” (Miles & Huberman 1994) in regeneration delivery.

Three system dynamic questions were used as prompts with interviewees relating to the existing policy and program in terms of delivery objectives (outputs and outcomes), how the program was making a difference (inputs and processes) and what ought to happen next (critical performance). Pilot interviews were held to establish usefulness.
A performance table was completed with each interviewee of the likely level of evidence of success to be available from the SRA program with evidence rated from unconvincing to convincing. Interviewee responses were analyzed using a grounded theory type approach in comparison with a system dynamic (input-process-output) normative delivery logic model being contemporaneously developed. The evidence that emerged showed commonly held views.

A collaborative report based on qualitative input interview evidence and quantitative program output data was agreed between program team members, to be based on known achievements and pending final evaluation. A quantitatively based report was eventually submitted to the responsible Minister as part of program evaluation material.

**Analysis**

The focus in analysis with the data available from the WVSRA case was on the ease of use of systems terminology in the field and on systemic reporting associated with program delivery. The read across in terms of systemic terminology and understanding with regeneration delivery fieldwork was generally straightforward. In terms of program delivery objectives, there were system dynamic and viable system organizational findings worthy of note.

Against quality program delivery objectives interviewees agreed; there was unconvincing evidence likely to be forthcoming in evaluating the program against the first objective, transforming the local economy and the third program objective, strategy development, some evidence of success against the second objective, research, advocacy and lobbying being successful, more convincing evidence of success in the fourth program objective, the co-ordination of all resources—but only for agreed activities.

The program was seen as having convincing evidence of successful achievement in local area environmental improvements. There was however, unconvincing evidence in added value interventions in health, transport, business/enterprise development, social legacy issues and only some (but still unconvincing) evidence of significant improvements to learning, place promotion, social enterprise - all targeted sectors of interest. It was difficult to see in these circumstances how all resources were effectively coordinated.
Complexity was identified by participants as a contributory factor in missing intervention elements in delivering requisite local activities (inputs), for example in the nurturing of local enterprise development and in limited support to individuals in health improvements, key performance objectives. There was only a marginal alignment of interventions in transport connectivity, with no interventions in new communications technology.

In terms of collaboration there were no long term controlling legal agreements with potentially contributing local and national government departments despite the inherently complex nature of public interventions. There was limited but patchy success in enabling the sustainability of local community organizations.

In a collaborative setting, the interchanges could have been expected to be numerous yet the management arrangements desire was to reduce complex arrangements as much as possible. There was no time to plan activities attributed to annual funding rounds, which was seen as determining intervention boundaries and restricting output and outcomes.

Although the secondary benefits from individual projects were a considerable achievement, entering into a collaborative effort without a continuous examination of goal alignment and the value prospect was seen as leading to a relative lack of success of the collaborative effort to achieve strictly against the primary program objectives.

In terms of the value equation, the benefit of collaboration (primary, secondary or otherwise) was meant to outweigh the extra costs associated with a collaborative effort. There was evidence of strategic added-value in the coordination of expenditure on relatively straightforward environmental projects and a small number of longer-term multi-funded activities. It was accepted however that compliance efficiency was generally prioritized over holistic effectiveness.

An analysis based on regeneration norms and based on developing Input-Process-Output logic model categories, being developed in parallel as part of Case Study 3, suggested that although there was significant collaborative empowerment, there was insufficient attention given to responsibility and authority and as a result to inputs and process.
Activities and actors were not always of a requisite variety, project constructs although viable were constructed on too many occasions to be based on relatively easy solutions, when more difficult solutions would have been thought necessary given the nature of the local areas problems.

Major departmental co-operation in local economic development activities did not generally materialize. Governance arrangements provided little or no strategic direction. The sustainability of local regeneration organizations was not sufficiently advanced through interventions to be described as an elegant solution despite long-term local area strategic management objectives.

**BOX 2U  Findings of Expected Utility from This Case**

There was a straightforward read across in this case study between regeneration underlying regularities and systems terminology/theoretical concepts including regeneration monitoring and evaluation. Norms and influences could be identified in a case study systemic inquiry. Systems techniques were particularly useful in understanding both policy and practice. Sources of motivation, control and legitimization were capable of identification. Evidence of success in the mode of delivery under review was unconvincing in many purposeful objectives with some positive evidence in resource co-ordination. Missing inputs or interventions, too complicated or complex to deliver, led to inadequate outputs. There was no formal commitment from essential potential public service contributors to place-change. There was no time to plan and too few interchanges, which restricted outputs and outcomes. Although collaborative empowerment appeared significant, local governance was ineffective. Effectiveness was not the highest priority in comparison with efficient compliance. Although the commitment of leadership was a significant positive, organizational, political and cultural constraints were too great to provide for a successful long-term outcome.

**Commentary and Findings; A Developing Systems View**

Although organizationally the purpose of the program to be pursued by the WVSRA was relatively clear in start-up documentation, what was confirmed through the evidence in this study was that the program was unlikely to ever make the transformational impact optimistically suggested at program commencement.
At close to the end of the program there was no evidence to suggest anything other than a failure in the overall program to deliver against its main objectives and a lack of take up of more relevant intervention possibilities. There were however many examples of worthy individual yet relatively simple and straightforward projects.

In terms of Ulrich’s (1983) twelve question categories for describing the normative content of a system design (and hence boundary judgments), the sources of motivation could be seen as serving individual public and third sector organizations, with organizations sometimes being client ahead of place. Excessively hopeful statements reflected unrealistic prospects of changing organizational culture. Civil service culture specifically was unable to respond to the challenges. Measures of local area improvements, although limited, were nevertheless very well appreciated locally.

Sources of control by those involved were generally ineffective in decision making over necessary components in delivering stated objectives that resulted in inadequate sources of expertise being utilized in planning and implementation. Sources of project legitimization by those affected were nevertheless beginning to become more developed despite the constraints on operation from organizational cultures and silo working.

In a useful analytical comparison with Stafford Beer’s 1972 five part Viable Systems Model (Figure 2 VSM); although the implementation system (VSM system 1) in focus was generally autonomous, and relatively free to deal with its own environment policy, development, operational control, and co-ordination, the constraints, organizational and to a lesser extent political, on the implementation system were too great to allow the successful delivery of the required outcomes.

Constraints on implementation stemmed from; the general requirement to provide a principal duty of care to employing organizations, and the need to satisfy national policy measurement requirements (VSM system 5) above local requirements. Refined into national targets by operational control mechanisms (VSM system 3) regional control and coordinating actions (VSM system 2), could not be adapted to context, and led to the inadequacies of program development (VSM system 4).

The WVSRA can be seen in figure 2 in a national model as local management 1A, responsive to its own local environment. At the conclusion of the SRA program in 2014 achievement reports for all seven local management areas, were eventually documented.
Achievement studies of the SRA’s were completed in part only i.e. in respect of Town Centre Interventions. The opportunities to share knowledge and learning amongst local area management was limited. Whole area evaluations were not completed and evaluations similar to the WVSRA were not completed during the remainder of the SRA program period.

Figure 2
Outgoing Policy and Practice: A Viable System?
Adapted from Stafford Beer’s Viable System Model

In the WVSRA, the implementation System (1) was less important than its support systems. System 1 was clear in the rhetoric of accountability but not in terms of key performance indicators, which too often did not relate to purpose. Actors did not possess all the skills required to deliver program objectives. Audit was ineffective against the program objectives.
Summary; Case Study 2; Old Realities

The WVSRA case study data in the form of documentary analysis, semi-structured interviews and the recording of participant observations over a two-year period provided an opportunity for comparisons with interdependencies and relationships and between practice, policy and strategic intent. The WVSRA was viable in administrative efficiency but not in enabling sustainable effectiveness or elegance or the delivery of greater community place shaping.

The evaluation of local area regeneration delivery using systems techniques in this case study was particularly useful in attempting to understand the normative and underlying realities of policy and practice. Based on a continuing program, a systems approach could have assisted in levering aspects of necessary change at appropriate times. Collective findings from the naturally occurring data in systems terms from experienced colleagues could have provided the evidence to adapt a continuing program subject to the endorsement of empowering leaders.

In 2014 the nature of regeneration was however about to change. An evolving national policy change was being developed which would radically alter the policy situation and lead to the WVSRA and its sister SRA programs being discontinued and a new experiment in regeneration policy being implemented. In the meanwhile, the highly experienced views of Welsh Government regeneration specialists were capable of being captured. In the next case study, it is to quality and appreciative insights from this experienced focus team that we can now turn.
The Regularities of Regeneration Practice

Task 1a (Case Study 3)

A Focus Team Appreciation; System Dynamics

Introduction

Between March 2007 and March 2014 regeneration activity in Wales experimented in a Strategic Regeneration Area (SRA) approach based on a selected area rationale and public commitment to sustainable long-term integrated change. Becoming surprisingly a legacy program in late 2013, it was possible to consider the success of the approach in systemic terms by becoming a member of the WVSRA team from November 2011 (Case Study 2). Following on from this case, the choice in continuing action was to build on a developing model of underlying practice regularities in the field with the emphasis on a highly experienced practitioner team appreciation of practice and policy.

BOX 3F  The Particular Features of This Case

Aspects of historical practice and policy in place-need regeneration, was brought together in this case with experienced workplace colleagues. Building an initial delivery model with very experienced practitioners focused on an appreciation of values, realities and instruments in a dialogue that brought together a wide knowledge of many (but not all) of the multi-disciplinary and multi-objective activities in the field. The introduction of a system dynamic metaphor as a fundamental process was being developed as critical to place-based delivery. Patterns of norms emerging from real policy and practice enabling detailed description from practitioners well acquainted with many contributing activities.

The capabilities of members of the Welsh Government Western Valleys regeneration team, each member with in excess of 25 years’ experience of direct delivery in the field and with a significantly wide acquaintance and level of boundary knowledge provided a valued and valuable opportunity to “collectively suspend previous assumptions and enter in to a genuine practice based dialogue” (Senge 1997).
The focus team was a team of regeneration specialists who understood that regeneration performance depended both on individual excellence and how well the team worked together. More than a group, this continuing relationship provided an experience in quality insights where “No one had to strain to understand that we had to complement each other’s specialties” (Senge 1997). It was a recognized and collective goal that we all tried to figure out ways to make our combination more effective.

The focus team was able to share and discover insights not attainable individually (Senge 1990). With workstations in close proximity, the practice of dialogue - as opposed to discussion - was critical to being connected not only to a quality learning experience but also to a continually enjoyable experience. Natural dialogue would lead to thoughts of good and not so good policy and practice in many Welsh and UK based regeneration experiments over a timescale that reached back to capture many experiences.

A Vickers (1995) appreciation of reality, values, and instrumentation, on what worked well and what was less successful was reflected in dialogue relating to the underlying regularities and interdependencies of standard regeneration practice and led to the development of a model of delivery norms thought capable of stimulating interest, to be challenged by a range of regeneration actors over time.

A System Dynamic framework was debated as critical to issues of area based regeneration delivery as a first model output. The patterns of interaction between internal and external interdependencies and a focus on norms emerged from real policy and practice examples and would lead over time to the parameters of regularity, necessities and interdependencies shown in Figure 3.
Analysis

Figure 3 An Imitation of Regeneration Norms (IRN)
The Underlying Regularities of Area Based Regeneration

With the benefit of earlier case study evidence, a developing literature review, the participation and involvement of professional colleagues in a historical appreciation of previous regeneration practices, programs, and policies, five constant parameters of high-level archetypes of delivery or practice norms, in each of three logic model Input-Process-Output categories, were identified from a long topic list and eventually settled on.

In the development of a normative and measurable model, given the name an Imitation of Regeneration Norms (IRN) an explanation in fuller description was required for greater clarity. The premise in the IRN model was of high performance and measurement values in prospect. The model as such concentrated on containing potentially all relevant regular normative management variables, and no irrelevant variables. Based on constant regularities, the model necessarily reflected the dynamic nature of delivery in the field, which is subject to constant change and necessary variety.

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Process</th>
<th>Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requisite Activity</td>
<td>Allocating Resources</td>
<td>Assets Contributing</td>
</tr>
<tr>
<td>Viable Constructs</td>
<td>Satisfying Stakeholders</td>
<td>Enterprises Nurturing</td>
</tr>
<tr>
<td>Enhanced Co-operation</td>
<td>Observing Rules</td>
<td>Individuals Benefiting</td>
</tr>
<tr>
<td>Reliable Delivery</td>
<td>Arguing Reliably</td>
<td>Neighborhoods Connecting</td>
</tr>
<tr>
<td>Requisite Organisation</td>
<td>Controlling Behaviours</td>
<td>Communities Sustaining</td>
</tr>
</tbody>
</table>
It was important to the team that the influence of (and on) the model and its object parameters (inputs, processes and outputs) could be seen quickly in heuristic terms. Each system parameter would nevertheless require a variety of values to measure and describe the system state. In a generic yet specialist form, the model principles could be potentially tested against regeneration policy, program and project at different spatial levels. As a tool for value checking against the model could be capable of satisfying ex-ante, process and impact regeneration evaluations.

The IRN model instrument as shown here, based on underlying practical realities and regularities, could support participatory policy and practice monitoring, and could produce management information to produce relevant and measurable evidence across parameters. *Action* words were of particular significance in describing a system state, conditional for measurement and evaluation.

The attributes of characterizing the system parameters as shown were seen as making possible the assignment of values and value in a dimensional and rating description (Stanford Optner 1965). The relationship bonds that link objects and attributes in the system process were able to be demonstrated and visible in the system dynamic process.

The relationship between variables was closely observed, (and particularly over the whole study period, including the contributory case study). In many senses, however the variables are “incompletely described” (Chadwick 1971) and work in description and explanation should without question be expected to continue by actors in the field. If further developed with actors and collaborators the model would eventually have far more resilience. Only if seen and owned together by those involved and affected will the model be of lasting value.

The normative model was then expanded in description for greater clarity and in the following three pages follows the developing logic model, beginning in this description with outputs followed by processes and finally inputs. The model was reflective in outputs based on recent evidence of regeneration activity in area-based regeneration value for money research (Tyler et al 2012).
Local Regeneration Delivery: Output Norms

A. Planned Contribution of Assets

Land and Buildings, Housing Growth and Improvement; New Build, Stock Improvement, Reducing Homelessness, (3 HOU) Demolitions, Industrial and Commercial Property (2 ICP), Environment; open space, community space, nature reserves, public realm, green routes, blue routes, water and air quality, (3 ENV), Heritage…

B. Sophisticated Nurturing of Enterprises

Business Growth, Competitiveness, Inward Investment, Trade Promotion, Start-Ups, Young, Old, Sectors, Spinouts, Research and Development. (1 ENT)

C. Consistent Benefiting of Individuals

Good Contacts, Workless-ness Skills Training, (1 WST) Health Improvement, Education Assistance, Support Plans, Communities First, Childcare, Families First, Tackling Poverty...

D. Sustainable Connectivity of Neighborhoods

Infrastructure, (2 INF) Roads, Highways, Public Transport, Broadband Communications, Marketing…

E. Enabled Sustainability of Community Organizations’

Well Managed Communities; Investment in Community Organizations’ (3 COMM); Capabilities/Potentialities, Accountability. Community Development, Volunteering, Formal Participation, Facilities, Neighborhood Renewal; Crime Reduction, Street/Environment Cleanliness. Cultural change

(Based on Tyler et al 2012 Valuing the Benefits; Value for Money Categories in Area-based Regeneration. Elements in Italics)
Local Regeneration Delivery: Input Norms

1. Requisite Activity
(Justify) The component variety of activities and actors required by the nature of things and informed analysis, essential to the timely delivery of place-need outputs and outcomes (i.e. Output norms A to E).

2. Viable Constructs
(Demonstrate) The reasonable probability that requisite activities are capable of being delivered, in terms of community, market/locational, commercial, funding, public value and implementation viability, and from program and project design disciplines, theoretical assumptions and propositions.

3. Enhanced Co-operation
(Identify) The informal, formal and legal mechanisms, in its different surrounding contexts, that must be contracted to deliver the requisite actions, such as policy and agency arrangements, public/public or gap funding agreements, public/private joint ventures and special purpose vehicles.

4. Reliable Delivery
(Confirm) The ability to achieve requisite actions fulfillment in perfect order by program and project management disciplines determined by robust evidence that components will not be subject to unacceptable risk.

5. Requisite Organization
(Validate) The governance, leadership and managerial accountability hierarchy responsible for decision-making and control, required by the nature of things and the pattern of role connections which ought to exist to achieve mutual trust.
Local Regeneration Delivery: Process Norms

**Process Knowledge**

*(Evidence)* The relevant filtered activity/process body of knowledge and spatial intervention preferences that represent the proceedings as a whole in a sequence/series of actions, events/operations/changes/behaviors:

(a) *Allocating Resources*

“To continue, obtain or bring about Requisite Activities through the beneficial allocation of people and funding” (Response Types/Minimum Interventions Cost Effectiveness)

(b) *Satisfying Stakeholders*

“To fulfill desires, needs or demands of” (Customers/Communities and Funders)

(c) *Observing Rules*

“To observe the principles/regulations governing conduct, actions, procedures, arrangements (Public Values/Compliance/Guidance)

(d) *Arguing Reliably*

“To give coherent real-time reasons for Adopting particular intervention conclusions” (Means, Market Failure Cause and Effect, Cost/benefit)

(e) *Controlling Behaviors*

“To exercise restraint or direction over a range of actions and ways of behaving” (Political/Rational/Organizational)
For organizations to achieve the realization of regeneration benefits the norms were deliberately selected to reflect autonomous local actor choice, albeit justifiable. They are nevertheless interdependent and interconnected and capture the dynamics of real time regeneration intervention.

Based on iteration and subjected to regular review, narrowing categorization to the minimum necessary for descriptive purposes, the norms in Figure 3 at some point could be promoted as part of a developing logic model of public intervention. The use of logic modeling is promoted by central government to public servants (HM Treasury 2013 Green Book, HM Treasury 2011 Magenta book) without however current widespread use in the field in question.

The emerging model was developed mainly in the summer of 2012 and was continuously updated to provide categories that could be utilized as a discipline for beginning to see the complexity of processes required from local capabilities and for discerning “high from low leverage change” (Senge 1990).

The Input-Process-Output logic model was put to use personally in active workplace practice to good effect, simplifying performance reporting within the new regeneration framework for Wales (Vibrant and Viable Places) and was of real-time help in seeing problem details and deeper patterns lying beneath current programs projects and events, and eventually the purpose and boundary of the local delivery system, the network of feedback connections, its relevance to performance (Jackson 2010).

**Summary; Case Study 3: Underlying Regularities; Norms**

The challenge of precisely describing delivery norms and the constant regularities of area based regeneration practice was tackled in this study with the support of experienced colleagues who possessed a wide acquaintance with the variety of practice that made up the field in question.

In routine and non-routine focused team conversations, normative orientations over many years of delivery of regeneration in Wales that lead to actions were identified and these actions formed the base line from which a comparable analysis with the literature was possible.
The advantage of naturally occurring conversations in depicting a normative system in this case was that it was able to produce descriptions of active practitioner methods for “producing orderly social interaction and the structural organization of actions” (Silverman 2006). The benefit of expert conversations regarding regeneration is that they are always “situated” in experience and “come out of and is part of some real sets of circumstances of its participants” (Sacks et al 1974, Silverman 2006).

In coming to a suggested description of norms, from the earliest stage of the research process a consciousness of the need to avoid treating the researcher point of view as an explanation was based on attempting to obtain data from a wide field view as possible.

This was not always possible. However, as the case progressed it was becoming clearer that to share developing but incomplete knowledge further would be premature and possibly counterproductive in the absence of a complete model.

During the period associated with this case study, claims of good practice in policy influences were emerging in national guidance in respect of an incoming short-term policy. In pursuing their own normative actions and goals, competing regeneration actors and practitioners in a competitive process were beginning to orient themselves to their own individual norms, causal processes and response decisions and interactions to make their actions possible. Guidance was available but in a number of ways insufficient for the long-term tasks in hand. As the normative structure in this case concerned sustainable and integrated variables and mostly the relations between actions over the long-term they would perhaps have been less important in a developing a short-term view.

**BOX 3U  Findings of Expected Utility from This Case**

In this case a model of imitating underlying normative regeneration behavior in delivering local area change was developed from a focus group appreciation of historical practice. Capable of deriving and measuring normative system conditions through case study application in a network operational structure and being expanded and developed for greater clarity, the close observation of system parts and interdependencies provided an ongoing platform for structuring a learning system and orderly social interaction. The make-up of contributing activities to group norms were deliberately incomplete to be the subject of a future and much wider view.
It was not necessary to report or repeat conversations from this case study. It would be considered ethical and necessary however to report actions resulting from incoming short-term policy influences and to analyze those influences in beginning to compare intentions with the process of long-term sustainable regeneration. This was the intention in the next case study opportunity, in a Vickers 1995 appreciative systems view of regeneration policy influences, which was substantially based on the question of values and ultimately a question of design.
4.3 **Policy: Representing Essential Influences**

The representation of essential influences impacting on regeneration norms or the underlying regularities of regeneration practice in formal statements and feedback would be the subject of the next two case studies. They are reported firstly as an arête orientation, together with the things needed to achieve an arête orientation and secondly as feedback from the experiences of stakeholder responses to the incoming policy framework Viable and Vibrant Places (Welsh Government 2013).

The arête orientation and desiderata representing essential influences in Case Study 4 was developed contemporaneously with Case Study 5 with evidence to justify an idealized and sustainable system of interest and is presented first for ease of explanation.

The stakeholder responses in Case Study 5 was based on a survey of national interests, organizations and individuals with a view on regeneration policy and practice which was undertaken in 2012 and reflected the standard Welsh Government approach to consultation and a Soft Systems Methods in practice.

The responses were capable of analysis to determine the coherence or not of the developing normative model in Case Study 3. The analysis was used in part to inform the developing IRN model and in part to aid the development of the eventual representation of essential influences (REI). A systems view of the survey data was important in the developing validity of logic model coherence and in understanding the values of an arête orientation in a survey format.
An Arête Orientation and Desiderata

Task 1b (Case Study 4)

System Dynamics and Critical System Heuristics

Introduction

An exploration of policy influences on regeneration norms, that is the influences on local area regeneration normative practice, and consequentially regeneration delivery, is the subject of this case study. Norms are those identified in Case Study 3 described hereafter as (Box 1) practice norms. Influences are the most important, essential or critical influences. How they are connected to norms through policy of particular importance. The output from this case, in summary form, is a representation of essential influences (REI), and when combined with the imitation of regeneration norms from cases 1 to 3 further develops an explanation of an essential regeneration structure (ERS) in an arête orientation.

With the benefit of an explanation of an essential regeneration structure and with the confirmation of a new regeneration policy for Wales and its planned influence, the beginnings of a comparison with contributory policy execution and practice judgments can then be made (Task 2). The evidence identifying policy as the greatest influence on local delivery norms has been identified in earlier case evidence and specifically in Chapter 3.

If designed appropriately, influence model principles, as with the IRN model principles could be applied to regeneration policy, program and project at different spatial levels and should be capable of satisfying ex-ante, process and impact regeneration evaluations.

Background

As for local-area regeneration practice norms, policy influences on norms through object parameters should also be seen quickly in heuristic terms (Bossel 2007). Each system parameter would require, as for normative measurement, a variety of values to measure and describe the system state.
The attributes of characterizing system parameters should make possible the assignment of value and a dimensional description (Stanford Optner 1965). The relationship bonds that link objects and attributes in the system process should be able to be demonstrated and visible in the system dynamic process.

**BOX 4F The Particular Features of This Case**

The new regeneration policy for Wales Vibrant and Viable places was the background to describing critical influences on normative regeneration delivery. In an arête framework influences were identified through this case study as fundamental management and leadership activities to place-need delivery. Becoming integral to an eventual model of an essential regeneration structure, policy was seen as the greatest influence on practice, in a widespread view in the literature. Influences on policy can be subject to measurement in a variety of value, to describe a system state. Non-constant influence groupings were sought to describe analytical groupings for ease of application.

In this case study advantage was taken of the new regeneration policy for Wales entering a development phase between 2012 and 2014. Through discourse suggesting patterns of events describing the values of parameters on policy influence, evidence was becoming available.

With the triangulated benefit of a developing policy, contributing stakeholder survey data analysis (reported in Case 5), and a constant analogous systems literature comparison, the first version of a model representing non-constant influences on norms was capable of being suggested (Figure 4).

**Analysis**

The influence model (Figure 4) on normative regeneration delivery is described in this model as a Representation of Essential Influence (REI) and defines, in an eight box graphic, critical system parts, inter-dependencies, connections and influences necessary for the understanding of constant local area regeneration norms. Critical influences here are defined as “those things with the capacity to have an effect on the character, development, or behavior (Bossel 2007) of local regeneration normative delivery”.

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Influences on stability and growth involving local delivery norms can be considered as essential control parameters, variables and indicators of a system state. Box 2 is the principal controlling parameter basing its actions on evidence from the remaining influence boxes. Within the boundary, the model aims to represent all the most important things that can be controlled by a system and that impact on constant regeneration normative practice.

The model aims to create coherent analytical grouped tasks related to common influences for ease of application. A collective agreement by regeneration actors relating to the system boundary Box 8 would be a major positive in any system strengthening. Changes in the local environment, outside control of the system are represented in Box 7.

There are four indicator boundary groupings influencing policy, which reflects evidence from; the literature, from the case study data, from the historical and contemporary appreciation (Case Study 5), from the design of new public policy (Case Study 4).

**Figure 4  A Representation of Essential Influences (REI)**

On the Delivery of Area–Based Regeneration

**Box 1** Normative regeneration delivery practice was described in Case Study 3.
The five controllable combined and interconnected elements in Boxes 2 to 6 offer an essential system structure representation of the major influences on regeneration practice (Box 1 norms) and involve the nature of practice, the relations of practice, the possibilities of practice, and the constraints on practice.

The REI model would be utilized in Task 2 interpretations to compare empirical evidence observed and recorded during the project period in a simulation of ongoing system behavior. The model could be built on further towards an idealized contextual model of regeneration in Wales for the purposes associated with a first systemic orientation.

The model, developing towards an Essential Regeneration Structure (ERS), is expanded below in description and definition for greater clarity, identifying relevance and importance for actor scrutiny. The descriptive groupings are not however developed further at this stage in the hope of future collaborative debate.

**Box 2. Policy** is the principle and major connecting and control influence on normative delivery practice, which aims to guide regeneration decisions and achieve rational outcomes, a statement of ethical intent, which puzzle to solve, who and what counts, whose interests to serve. Choices are of relative importance, based on reality, value, persuasive and selective judgments, to be implemented as goals, procedures or protocols. The remaining boxes can be seen as influence policy with reasonable grounds.

**Box 3. Nature** comprises the essential properties and causes of things to be what they are, the problems, needs and opportunities, the types and effects, which reflect the local area(s) under consideration requiring regeneration interventions, and the type, effect, quality and timing of regeneration policy and practice responses needed.

**Box 4. Relations** involve the issues surrounding co-operation, collaboration, competition and the co-existence of competitors, and the critical reliance and mutual interdependency of networked organizations and actors, their capacity and capabilities, the departments and constructs required to minimize uncertainty, in the pursuit of regeneration purposes.

**Box 5. Possibilities** cover things that may be chosen and incentivized from a range of alternatives, the potentials at any one time, which provide a reasonable prospect of regeneration policy and practice outcomes and benefits.
**Box 6. Constraints** are the periodic or permanent limitations or restrictions, financial, physical, or social which affect the policy and practice of regeneration at any given time.

**An Arête Model Orientation and Desiderata**

With the development of an IRN model of normative delivery practice, a REI influence on norms model, the inclusion of arête parameters from Case Study 3, and finally a reference to contextual adaptability, a complete form of a sustainable system structure for area-based regeneration can be shown in an essential form (Figure 5).

**Figure 5**

**An Explanation of Regeneration Values (ERV)**

**In a Sustainable Regeneration System Structure**

**Commentary and Findings**

In heuristic and brief terms at this stage and prior to further work, the things needed to achieve an arête model orientation; the desiderata of the system design and its potential benefits to the field in focus are worthy of analytic comment.
The Arête Desiderata 1: Ethical and Facilitative Behavior

As policy analysis activity is based implicitly on values, clarifying values and arguments in this case will come to the fore in a professional reflection of questioning norms and influences. Privileged positions in the field will continue to be more likely to be involved in the future in planning local changes. If the model work is taken forward, the model could carry greater weight for ordinary citizens and nonprofessionals.

**BOX 4U   Findings of Expected Utility from This Case**

In concluding this case all critical regeneration system parts are identified in norms, influences and values enabling actor scrutiny of a first orientation of a “new” system design process providing for contributory policy and practice operations comparisons to be made in a whole government approach to area-based regeneration and place need. The essential regeneration structure provides things to measure, control parameters, variables and indicators of a regeneration system state. Policy is the principal influence on practice informed by the analysis of the nature of need, the choice of relations, the limitation of constraints, the promotion of possibilities. The relevance and importance of the ERS model will be for actors to determine.

Correcting the inequality by democratizing processes, calling attention to views and opinions that could otherwise be overlooked will be an important consideration in model usage. Resolving policy issues may also require mediation. The model design ought to be able to help in this regard. An agreed model by both those affected and involved can play a role as policy and practice supervisor of a process. The rules and procedures in decision-making processes and in negotiating the management, interaction and progress of that process should be of clear concern.

The Arête Desiderata 2: Necessary Knowledge

The model raises questions about causes and effects, calling for specialist knowledge generation, and suggests that scientific and applied research is of greater use in the field, with the benefit of the model, not only from surveys, interviews and statistical analysis but also simulation and extrapolation. Necessary knowledge is not only critical but also generally critically misunderstood, and appears to be becoming much less available.
The Arête Desiderata 3: Progressive Measures

Why a government Minister should adopt a particular strategy in area-based regeneration or support a particular intervention is a client orientation activity that ought to reflect the field of forces that exist in the environment at any one time. The substantive advice, based on what should be done to produce an agreed goal, will be particularly dependent on the categorization of circumstances to further consider.

Summary; Case Study 4; Influences (Non-Constant)

In this study the influences on regeneration normative delivery was determined through analogous public and systems literature, developing policy and survey data. Those things with the temporal capacity to have an effect on regeneration delivery norms were identified and could be measured. Non-constant influences in area-based regeneration; possibility, constraints, relations and the nature of intervention need, ought to be the subject of better explanation and particularly to those affected by public interventions.

The model design process was constantly compared to evolving program and practice activity and numerous adjustments were made in categorization. From the idealized and sustainable system design process, arête principles of a regeneration system in ethical conduct, necessary knowledge and progressive measures emerged and could have possibly helped developing policy.

The sustainability model (figure 5) in construction now shows delivery norms, influences and finally values in an idealized form that can be easily seen by those involved and those affected by regeneration policy and practice, which If designed appropriately can be compared with a variety of policy, program and project contributions and a whole government approach to the field.

Assigning values in terms of control parameters, critical variables and system state indicators can be argued as being more important key performance indicators than currently exist in vast array of numerical indicators.
The idealized and contextual regeneration structure is capable of being improved and challenged. The model will however prove challenging when compared to hierarchical organizational structures and cultures. There are nevertheless many reasons for introducing structural modeling in a high profile public service program, if it is to evolve.

Policy is the greatest influence on local area regeneration and regeneration delivery norms in Wales, and this was emphasized in a cabinet agreement, in October 2011, when a Whole-Government approach to regeneration was to be pursued, prior to the subsequent regeneration policy review early in 2012.

At the time, and through to 2014 structural influence modeling to support a whole government approach was however not available. In one Welsh Government department alone for example there were 82 “business” plans for possible contributory analysis to area-based change in Wales in extant operation. It would not be difficult then to see complexity and joining up departments as an overwhelming issue.

In the Case Study’s 6 and 7, (Task 2), that follow on from the next Case study 5, the potential outputs from this model, an idealized and sustainable system design for regeneration, are utilized in the analysis of new and contributing policy and practice. In Task 2, it is intended to compare this explanation of regeneration structure with the new local area regeneration policy and practice Vibrant and Viable Places. In September 2012, the Welsh Government agreed the publication of a consultation document on “Vibrant and Viable Places, a new regeneration framework for Wales”.

In Case Study 5 however, in an initial test of coherence with the IRN model, 95% of stakeholder responses could be seen clearly in the developing logic modeling categories, and all VVP framework output categories were contained within the IRN 5 category output model. It is to this case study evidence and coherence testing that we now turn.
Logic Modeling; Coherence; Feedback

Tasks 1a, 1b, 2 (Case Study 5)

Critical Systems Heuristics and Soft Systems Methodology

Introduction

The incoming draft VVP national policy framework for Wales in 2012 replacing the outgoing SRA policy approach was subject to widespread public stakeholder consultation and feedback. The consultation document sought responses to messages from an initial policy review, which followed extensive engagement across and beyond government. The review suggested a need for strengthened governance in regeneration, renewed partnership at every level, and learning from past lessons, both in transformative impact and limitations.

The Welsh Government consultation provided an opportunity for coherence testing of the developing IRN and REI systems models through stakeholder feedback and the data from 144 respondents to the national survey was re-analyzed in a systems view of 500 pages of detailed publicly available responses to determine relevance and rigor in developing model parameters. The findings were utilized in Case Study 4. Based on the higher level local delivery norms, identified in cases 2 and 3, a system dynamic focus on outputs, inputs and processes, a re-thinking in analysis was thought to possibly offer potential insights into (a) the detailed influences that ought to be considered in supporting local practice (b) whether those influences then would be able to be explained in a representation of a system structure.

In common with standard practice, the consultation responses were analyzed corporately by Welsh Government. The highest responses were from local authorities (19%) and third sector organization’s (18%), with private sector organizations (13%), housing associations and professional bodies (8% each) health and other public 14%, individuals and others (20%). The corporate analysis overall found that stakeholders welcomed;
(i) Aspirations for a cross government, all sector approach
(ii) Alignment of mainstream programs
(iii) A move to longer term strategies and funding timescales
(iv) More coherency in regional plans within which local regeneration takes place
(v) Allocation of funding based on transparency and an evidence basis

BOX 5F  The Particular Features of This Case

A national consultation on the future of regeneration in Wales in 2012 provided the opportunity to test the developing arête model parameters for coherence through stakeholder feedback. Data from 144 respondents in 500 pages of text was re-analyzed in a systems view. The findings were utilized in designing the evolving Input-Process-Output logic model. A coding frame based on the developing logic model delivered feedback in a systems view. The highest number of responses was from local authorities with 35% of systemic content. The three logic model topics were “seen” in 95% of stakeholder responses, in an independent supervised coding. There were a significant number of valuable insights from respondents, based upon the six survey questions originally put forward.

Background

These findings were of fundamental interest in future model forming and in eventual project recommendations. The corporate analysis when looked at systemically began to suggest a representation of essential influence (REI) on regeneration practice to achieve stakeholder ambitions and in Case Study 4 which enabled further real time explanation and policy comparison.

Method

Six survey questions put forward for widespread stakeholder views were designed in consultation between Welsh Government policy and practice teams namely;

Q1 What is your feedback on lessons learnt from delivery to date?

Q2 Should other national outcomes (other than a long list specified) or principles be considered?
Q3 What more can be done to achieve greater coherence and cross cutting action across departments?

Q4 Do you agree with the national, regional and local approach set out?

Q5 Do you have any comments on our proposals for how we will target and direct our funding?

Q6 We want to ensure effective monitoring and evaluation of regeneration activities, will the approach set out achieve this?

There were 144 written responses to the consultation from organizations and individuals in the following 17 sectors:

Local Authorities
Town Councils
Public Sector
Private sector including retail
Third Sector
SRA Board
Professional Bodies
Higher Education
Registered Social Landlords
Urban Regeneration Company
Health
Transport
Tourism
Church
Finance Organizations
Politicians
Private Individuals
A significant proportion of respondents raised queries about the detail of delivery, why regeneration was difficult, the change of culture of working that would be needed (in the context of the new and previously untried competitive policy). A smaller number of respondents considered that the policy document lacked sufficient ambition, noting (incorrectly) that the new approach was not that different from current approaches.

Those consulted highlighted the need for: cross cutting mechanisms to ensure linkages and joined up actions across all Welsh Government cabinet portfolios, partnership coherence at local and regional levels, less annual budgeting, more strategic planning and long term funding, clearer priorities, using the new program opportunity to lever investment from the forthcoming EU (£2bn) program.

It was noted that there was a significant degree of cross party political support for the principles of the approach and that the overarching message from the consultation was widespread support. The policy direction, which followed the consultation, did not materially depart from the consultation document principles except in particular aspects of strategic importance namely:

(i) Stronger links with tackling poverty through job creation and supporting people into work, leveraging in private sector funding and monitoring how much money is spent in Wales.

(ii) Internal Welsh Government overseeing of senior Welsh Government officials, to ensure the join up of portfolios.

(iii) Utilizing and strengthening existing Regional Partnerships with private and third sector inclusion

(iv) Providing three-year indicative regional funding allocations in support of ten-year business plans for each regional area, integrated with EU next round planning, with notional allocations initially made on a population basis.

(v) Integrating EU projects in Regional plans produced to achieve holistic planning
Three urgent priorities for funding were confirmed in respect of Town Centers, Coastal Communities and Communities First Clusters (the flagship tackling-poverty program for Wales). Importantly the future mapping of area based assets and investment ambitions was seen as facilitating better decision making, including enterprise zones, local growth zones, communities first, flying start, sustainable travel, lottery and other local authority core funding.

The consultation process sought endorsement (or otherwise) to the new policy agenda that promoted national outcomes of prosperous, learning and healthier communities. Its principles were partnership, involving effective joint working between and across all sectors, strategy, underpinned by evidence based spatial planning, combining dynamic leadership, with robust governance including monitoring and evaluation to ensure value for money, and sustainable development, the Welsh Government’s central organizing principle.

The first step tasks for improved regional partnerships was to be made in developing ten-year regeneration plans identified to ensure that regeneration activities were truly integrated as part of effective spatial planning, providing assurance that targeted regeneration investment is directed at places where it could deliver greatest impact and value for money.

**Method: Feedback in a Systems View**

Although the complexities of the incoming framework development and consultation discourse were analyzed systematically the analysis was based on a corporate perspective. The data from stakeholder consultation responses was capable of being revisited to provide a comparison with the Local Delivery normative model criteria and high-level delivery categories being developed as an IRN in Case Study 3.

Stakeholder survey responses comprised 500 pages of text. A coding frame was developed based on the imitation of regeneration norms (IRN) I-P-O model norms to reflect a requirement for future measurement of normative influences. A two-part analysis of the textual narratives through the coding of conceptual units was aimed at identifying the coherence of the IRN model. Coding of the 144 stakeholder responses aimed to record, firstly a stakeholder identification of I-P-O delivery themes, and secondly influential factors such as complications or problems, orientations or actions towards a solution.
Part 1 involved analyzing the overall stakeholder response content, through a diversity assessment of narrative themes based on IRN central norms: outputs, inputs, processes, and also integrated themes and uncategorized concepts.

Part 2 involved an analysis to develop a model of influence factors associated with the IRN model and to test the influence structure against the identified norms. The purpose of coding was to systemically codify the narratives in terms of the level of similarity, diversity and multiplicity of narrative contents.

Contents were:

A Quantitatively analyzed by the number of mentions within each system element, and
B Qualitatively analyzed, by picking out words and sentences, in which mentions were couched.
C Qualitatively/quantitatively analyzed, by rating mentions in a coherence scale.

There were two phases of coding.

Phase 1 Participants’ categorization was analyzed in terms of professionals and non-professionals, individual and group status to coincide with corporate analysis criteria.

Phase 2 The second phase provided an evaluation of the narrative’s coherence against the central organizing themes through a coding system composed of the 5 IPO topic indexes in each theme.

The narrative was read 6 times, with a specific objective for each subsequent reading as follows:

1st Reading A general reading of the subject’s transcript proceeding from the whole to the parts. In all subsequent readings, a brief summary record of significance or importance of the reading was recorded on a Document Summary Form.

2nd to 4th Readings Identification of content through;
A The number of mentions of the 5 output, input, process and other topics, followed by

B A color coding of salient topic mentions, followed by

C a rating of the level of coherence of the color coded theme topics. For C the scoring criteria were based on maintaining/ elaborating on the topic.

5th Reading  Identification of content through;
The inter- relationship and connectedness of theme topics in the narrative by

A comparing reading 2, 3 and 4 topic outcomes, followed by;
B rating the levels of coherence of the combined theme topics;

For B the scoring criterion was based on a performance frontier coding where the narrative includes some or all of the 5 theme topic indexes, a resolution that matches and brings closure to the narrative structure or integrates the relationship between the parts and links to experiences including future occurrences.

6th Reading  Identification of uncategorized data coded as;
1. Complications or Problems (Reality)
2. Orientation towards a solution (Value)
3. Action towards a solution (Instrumentation)

The levels of maintaining and elaborating on the topic were defined as:

**Level 1**
The narrative is substantially off topic and/or is characterized by multiple digressions that make the topic difficult to identify.

**Level 2**
The topic is identifiable and some of the statements relate to it. The narrative may include minimal development of the topic through causal linkages/elaborations of actions.

**Level 3**
The topic is identifiable and a number of the statements relate to it. The narrative includes some development of the topic through causal linkages/elaborations of actions.
Level 4
The topic is clearly identifiable and a number of the statements relate to it. The narrative includes notable development of the topic through causal linkages/elaborations of actions.

Level 5
The topic is clearly identifiable and many of the statements relate to it. The narrative substantially develops the topic, and several instances causal linkages/interpretations/elaborations are included.

Coding referred to the narrative input-output-process categories (in Case Study 3)

Analysis

Across all 17 sectors, the coding analysis (Table 1) produced overall totals of 258 mentions of inputs, and 498 mentions of outputs. Process coding was reserved for local authority analysis only. Out of this total, local authorities (Table 2) provided 35% of systemic content responses with 104 input mentions, (1-5), 160 output mentions, (A-E), the largest contributions in both input/output mentions. Process coding was eventually however considered less than consistent ((b) to (e) only recorded) as the result of poor research assistant instruction. The three I-P-O logic model topics in 15 sub-categories were “seen” in 95% of the stakeholder responses through independent supervised coding.

Given their planned practice implementation role local authority responses were sub coded in the number of process mentions (102 process mentions) and finally against each input – process- output topic, problems and solutions were recorded. Results from the local authority sector were recorded; as local authorities were primarily responsible in a scenario developing results based accountability.

Results from Local Authorities

There were 366 mentions of systemic content in local authority responses to the framework document (Tables 1 and 2), in 42% output mentions (160), and there were 29% each mentions of inputs and processes (104 and 102 respectively Table 2). The levels of maintaining and elaborating on the topics were high in the identification of output solutions and particularly on organizational issues.
## Analysis

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<th>Number of mentions - Outputs</th>
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**Table 1** Overall Stakeholder Responses; Inputs and Outputs
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<th>Local Authority Number of mentions - Outputs</th>
<th>Local Authority Number of mentions - Process</th>
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<td>29 27 28 18 58 160</td>
<td>16 54 32 102</td>
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Table 2 Local Authority Stakeholder Responses; Inputs, Processes and Outputs
The numbers of responses were reasonably balanced in maintaining on I-P–O topics and in the number of mentions in each of the input process and output categories (Table 2) except in topic 3 “enhanced co-operation” (I response) the least mentioned and elaborated on topic. Output responses were well spread with topic E “local organizational sustainability” receiving particular attention and the highest number of mentions. Process category coding was absent from topics A and D that was confirmed after reflection as poor research assistant instruction. The relatively small number of mentions in topic (b) “market failure/minimum intervention” was worthy of further investigation.

Problems or complications (realities) accounted for 22% of responses, and a significant percentage, 69%, were focused on orientations or actions towards solutions (values). The remainders of responses were categorized as non-systemic content, adding value nevertheless to the overall content summary. In the following analysis, critical systemic insights (CSI) are highlighted.

Importantly “Organization” had the most mentions relating to output problems (10 references). Problems focused on national government being too prescriptive, doing more with less, sector representation, consistent and transparent governance in project approval, and the engagement of contributing departments to aligned agendas, the avoidance of duplicated boundaries. The local authority view in their delivery role was as follows.

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**BOX 5U Findings of Expected Utility from This Case**

Model coherence in this case was tested (and at the same time developed) successfully by an analysis of the nature of word mentions and patterns in a national consultation document re-analyzed for the purpose. A wide variety of world-views was captured systemically in a bespoke coding frame based on developing logic model parameters. The coding frame was considered capable of use longitudinally in measuring systemic performance and strategy analysis. A deeper systemic understanding of highly complex issues was possible because regular groupings could be recognized in many contributions enabling the potential for continuing discourse coherence, a strong indicator of joined-up working.
Commentary and Findings: Local Authorities; The Delivery Role

Inputs

There were 104 references to inputs, of which 16 reflected problems, 74 suggested solutions and 14 were considered neither.

Input Problems

Three comments only related to requisite activity. The distortion of markets, missing contribution of private sector involvement, LA’s and LSB’s not always best placed to drive the process, and the third sector still a process in development. It was notable that expectations of LAs to deliver were not based on any comment or assessment of skill sets related to task types.

In terms of viability of program and project constructs, annual funding and lack of flexibility was seen as unhelpful to achieving real value reducing real outcomes. There were no representations regarding enhanced cooperation suggesting that respondents did not see problems or had little experience of the theme.

One half of the problems in the survey related to reliable delivery. Prominent was pointless measurement as change happens during programs, unclear roles and revenue availability. An all Wales view with little achievement overall rather than a view based on local outcomes was reported.

Three comments on requisite organization related to regional control of programs avoiding long decision chains, the very diverse nature of local areas and insufficient governance guidance.

Input Solutions

Although the number of problems reported was relatively small in number, solutions to perceived problems were relatively high at 74 references.
Picking the right projects, requiring strategy to be developed both by a LA and LSB, the alignment of boards and coordinating functions at a local level to engage communities were significant in delivering requisite activity (10 references).

(CSI) “LA’s should develop systems and structures for delivery”

To achieve viable constructs, joining up funding streams, strategically and functionally, developing financial models to access private funding, removing the constraints of annual funding to remove the consequential pressure were suggestions reflecting of the fact that funding was always limited.

(CSI) “Rather than satisfying short term funding horizons, a long term strategy needs to link to community engagement and long term partnerships at the outset to maximize benefits”.

Allowing sufficient time to prepare activities, funding for research and development acknowledging resource constraints was a considered view.

Of note was the comment from one respondent, which seemed to capture the beginnings of a collective interpretation.

(CSI) “Local business plans must be evidenced from national KPI’s but must cover all programs-where each program should demonstrate how they plan against an overall framework”

There were no solutions recorded against the category of enhanced co-operation and reflected the earlier corresponding response and the possibility that the theme was represented by references to “partnerships”.

A large number of responses 28 from 33 in number were received relating to reliable delivery and evaluation; of programs rather than projects, of how funding was allocated, over the long term, to compliment EU activity, through vital monitoring. A significant quote was;

(CSI) “Measure against the delivery logic chain, against a common framework”
Which can be seen over time in the responses as transparent, proportionate, community based, helping to align programs, helping understanding, agree performance indicators, fix criteria and outcome, return on investment, secure complementary funding, avoiding duplication, an accurate record of achievements.

(CSI) “A local performance structure achieving a common approach to the evaluation of regeneration activity and delivering synergy”.

Increasing capability and expertise was a likely consequence of the above and was voiced in a single representation.

There were 19 references to requisite organization in local area regeneration based on decision-making, the clarity and alignment of portfolios (5 References) and Results Based Accountability (5 references)

(CSI) “RBA is for all departments. The MAG terms of reference must fully engage with all departments and needs a national framework with accepted definitions and shared outcomes. The detail of processes must be available for members and officers to determine outcomes”

Input - Others

Fourteen references were originally unclassified and were subsequently re-considered as nine references relating to requisite organization. Prominent was appropriate governance, growing recognition of the LA role in scope and influence, LA leadership as democratically accountable,

Two references related to viability constructs time to prepare to conform to the green book and match funding opportunities and three representations on requisite activity on resource targeting. One contribution on governance arrangements was of particular interest in the question;

(CSI) “How the various partners would be successfully merged to ensure accountability, sustainability and effective scrutiny”. 

185
**Process**

Of the 104 representations relating to process in the regeneration framework 37 were considered problems, 62 solutions and 5 other than the above.

**Process Problems**

Only one reference referred directly to the allocation of resources and this may again have resulted from a poor articulation of research assistant instruction.

Satisfying stakeholders received twenty-one mentions of which one third related to the inadequacies of policy towards rural areas that were “confined to spectators”. Peripherally was an issue in market failure, which needed to be addressed.

The mechanism for engaging the private sector was unclear, the de-prioritization of tourism and heritage a result of the new policy.

Problems associated with observing rules counted for nine responses, four referring to Results Based Accountability as not being embedded in selection criteria, and a resource intensive commitment. Non alignment with EU integrated investment policy, an illogical bias towards communities’ first clusters and a lack of prescription to achieve investment impact were also mentioned.

Arguing reliably was coded in only one response, importantly nevertheless where;

*(CSI) “Being mindful of other changes meant no guarantee of whole plan delivery”*

The largest number of process problems mentioned in controlling behaviors, thirteen in number, connected to issues of unclear roles at the outset, mentoring local communities for outputs, and a better commitment. The role of the MAG interestingly was talked about as possibly being “over-run or unrelated or a framework for certainty”

In contrast to earlier statements co-ordination was seen as a WG role as a check on intermediaries and as a primary requirement to engage more place-shaping Welsh Government departments.
Avoiding “rushed” funding through co-ordination was reported. It was stated that LA’s were not best placed to engage the private sector despite needing support from the market place and was a reason for the lack of private sector investment.

Process Solutions

Four process solutions were recommended on allocating resources; coherence with EU funding, self-sustaining investment, WG team responsibilities and advocacy on WG departments.

Satisfying stakeholders again received a high number of mentions (22) with a number worthy of quoting directly reflecting firstly LA responsibility and secondly communication.

(CSI) “We need a meaningful framework ….a place based structure…as a principle for local delivery within which regeneration can be progressed, to determine which objectives will take precedence…the LA role can grow in scope and influence…and decisions are best placed at local level........With a unique places model........to equip LA’s with capacity (for long term change) ...(Current programs) involve too short a timescale to create meaningful change  ”

(CSI) “Department communication is key to embed regeneration across all departments (of government) means improving communication and coherence in WG…to achieve genuine and equitable collaboration. And perceptions of change”

Observing rules was captured in 4 references; a welcome of treasury green book methodology, where time was needed to follow green book guidance, with WG support from the outset, which must be based on (an understanding of) market failure.

Recurring themes in arguing reliably (9 references) involved WG flexibility to enable shifts in responses to emerging priorities. Planning produced an important range of quotes.

(CSI) “Establish a national framework where each program can demonstrate how they plan against a national strategic improvement plan…. A need based plan for continuity at different levels…. and alignment without the need to refer to a back strategy”
Finally a high number of process solutions (23) could be seen in controlling behaviors where RBA was prominent and where the role of WG was better defined.

(CSI) “MAG in its make-up and strategic role. Should clearly include all departments in RBA for accountability and transparency...RBA in full use at all levels, for all departments (to include WG) at all stages.... not just for performance of individual investments and as a project management tool”

(CSI) “WG should be responsible for developing systems and structures for implementation and measurement of quality changes...translating regional planning and strategy into local delivery...through boards with decision making powers”

Process – Others

In a further analysis of the 5 remaining references three were considered as relating to satisfying stakeholders two were considered controlling behaviors.

The co-ordination role of LA’s and the importance of program and project management were of note, sustainability and the strategic importance of statutory plans also being noteworthy.

Outputs

There were 152 representations coded under the category outputs, by far the most prominent category of responses from the consultation survey, including 26 output problems, 114 output solutions (the highest single category) and 12 responses originally coded to neither problem nor solution.

Output Problems

Output problem responses were coded against:

A. The Planned Contribution of Assets (5 No)
B. The Sophisticated Nurturing of Enterprises (3No)
C. The Benefiting of Individuals (4No)
D. The Sustainable Connectivity of Neighborhoods (4 No)
E. The Enabled Sustainability of Community Organizations (10No)
Assets problems focused on uniqueness of place, and not enough emphasis on culture and heritage assets.

Enterprise problems focused on housing standards and market distortion. Surprisingly and of particular importance was the complete lack of response on local enterprise development and benefiting individuals. A single response noting the problems of local transport and issues associated with rural isolation was noted in respect of connectivity.

Organizational problems were linked to some organizations being too prescriptive, doing more with less, representation, consistent and transparent governance in project approval. The engagement of contributing departments to aligned agendas avoiding duplicated bureaucracies reflected earlier process problems a pointer to tentative assertions in later analysis.

**Output Solutions**

The 114 suggested solutions to the problems of regeneration outputs the largest categorized responses from the IPO model were coded as follows; In terms of Assets (27) the focus was on promoting:

- Public environment, open spaces (11)
- Heritage and Culture (7)
- Housing (4)
- Marketing (1)
- Understanding of a sense of place (2)
- Local priorities (1)
- Social capital (1)

Enterprise development (16) responses concentrated on; supporting business case development, (1) enterprises which develop affordable housing (6), supporting entrepreneurs and social businesses that deal with investment and jobs (3). A number of responses were non-specific (6). The tentative assertion was that regeneration was not seen in a business support initiative.
Ten responses were received relating to people-based outputs reflecting the place nature of VVP. Knowledge and qualifications, the improvement of local links to regional and national institutions were however seen as a priority.

Of the seventeen replies linked to the topic of connectivity one half referred to transport and pedestrian infrastructure with the remainder a mix of modern technological and plan alignment and balanced investment comment.

It was perhaps not surprising given the target audience that the highest number of associated mentions (44) reflected on local community organization and sustainability, which could have been coded as requisite organization in an input systems view but was considered in this category as a long-term necessity rather that short-term requirement.

The primacy of the local authority in whole place local decision-making, the development of and democratic accountability for local strategy to avoid duplication were prominent statements. Benefits were seen as improved communication, strategy alignment, reflection on interventions that deliver, depth of knowledge the extension of powers, replacement of uncertain accountabilities.

Developing a model of regeneration integration further was a key theme “adapting structures for integration, clarifying local and national priorities”, dealing with complexity, in common outcome agreements, not just in capital expenditure, but also in comprehensive monitoring.

With RBA generally welcome, there were strong statements that for “full use of RBA” all government departments including Welsh Government departments should be accountable and not individual departments (as is often the case). In some cases, however special purpose vehicles would be appropriate (RO input model) such as City regions and to assist cross Welsh Government working.

WG role in national consistency and membership, in collaborative policy design, regional governance and strategy fairness, did not generally extend to delivery. The long term and transparent nature of regeneration management requirements were essential in developing capacity and capability and in being fit for purpose.
Summary: Case 5; Coherence Modeling

In this case study the aim was to identify coherence in the developing normative and influence models through the systemic analysis of stakeholder responses to a national survey questionnaire. Stakeholders were keen to express their views, and a number were considered critical system insights in corresponding with developing system theory. Word mentions and patterns were analyzed as a proxy for coherence and insights were captured leading to deeper systemic understanding, through the instruction of a research assistant employed to eliminate unconscious bias as far as possible.

The case study was necessary in context to demonstrate the empirical and applicable validity of the developing model in a longitudinal systems view of feedback. Although instructor mistakes were made, the model was considered viable. A wide variety of world-views was capable of being strategically analyzed.

As a first orientation of systemic understanding in the field with a “new” tool it meant that the steps undertaken were required to be described. The influences on normative practice in the national survey responses were able to be seen; as Case 4 policy influence groupings Boxes (1) to (7), and as Critical Representations of Essential Influence on normative delivery, namely those non-constant systemic influences associated with elements affecting delivery norms through (2) Policy, (3) Nature, (4) Relations (5) Possibilities (6) Constraints, and Environmental Change (7) in its widest sense. For example, they could be seen in (Box Numbers):

1. Cross Government Approach to include all sectors (1, 4, 6)
   New national policy outcomes (1, 2)
2. Alignment of all programs (1, 6)
   A people and place based approach, well evidenced and properly evaluated, (1, 3)
3. Longer-term strategies and Funding (1,6)
   A strengthened national, regional and local delivery structure (1 and 4)
4. More Coherent regional plans (1,6)
   A renewed commitment to cross portfolio working (1 and 4)
5. Transparent Allocation of Funding based on evidence (1)
6 Ideas for how to target the limited investment available, from within the regeneration portfolio. (1, 4, 6)
The normative Input-Process-Output categories were the subject of detailed analysis and recording as problems and solutions for management attention, and 95% of stakeholder responses could be seen in the developing logic modeling categories.

All VVP framework output categories were contained within the IRN 5 category output model. The levels of maintaining and elaborating on the topics were high in the identification of output solutions and particularly on organizational issues. Process responses were however low and generally expected.

The results were consistent with the development of a purposeful model and the findings were generally useful, complete and coherent, with some notable exceptions. The responses were coded relatively straightforwardly with research assistant instruction. Inconsistencies were the responsibility of the research instruction and trial and error played an important and iterative part of the process

The I-P-O model can be used to measure the effect of systemic performance and strategic intent because it uses regular groupings that many contributors can recognize and contribute to. Maximizing the utility of the data ought to be a strategic consideration in improving regeneration consultation over the longer term. Discourse coherence is likely to be a strong indicator of joined up working and common results based accountability and thought to be expected from public service. Coherence features will always be improved by actor scrutiny to achieve higher performance.
4.4 Standards: Explaining Regeneration Values

The further understanding of the potential benefits of systems thinking to area based regeneration in progressive task requirements is detailed in the next two case studies and is based on behavioral observations and a comparison between 2012 and 2016 of a changed regeneration policy and practice in Wales. The two case studies complete the empirical evidence base in this thesis.

The common and shared experiences of actors were explored during the review period as far as possible within the constraints of a civil service employee role. The aim was to come to understand better the interdependent relationships connecting ordinary regeneration policy and practice in systemic terms in the better explanation of regeneration structure.

VVP, promoted, as the flagship policy in the field was an attempt to overcome the attribution problem of too many policies and practices, which are subject to constant change. A Vickers appreciation of values, realities and instrumentation was again appropriate. “The question was “to what extent was the observed results of a contribution a positive or negative consequence of a contributing policy and practice design and execution” (Mayne 2006).

In Case Study 6 the appreciation was based on the critical influences on and of policy-making, and of values in a policy change and in Case Study 7 the appreciation was based on realities in a practice change and the realization of policy change behaviors. Both cases were subject to test against the arête sustainability principles, themes and system state questions from earlier case study evidence.
Values in a Policy Change

Task 2 (Case Study 6)

Contributing Policy Analysis and Attractor Patterns

Introduction

The confirmation of Viable and Vibrant Places (2014 – 2017) as the preferred regeneration policy for Wales on 1/03/2013 set the ongoing comparative context for continuing analysis. In this case study the investigation would be an appreciation of the critical influences on policy-making and design in VVP (including REI Boxes 2 to 6) and their impact on a sustainable regeneration structure. The contribution of VVP to the understanding of the value of a systems approach to regeneration refers in this case to the coherence of policy design in contributing to the higher-level systemic values identified in the arête value model previously identified in ethical conduct, necessary knowledge and progressive measures.

The new VVP policy Appendix 1 replaced the Strategic Regeneration Area (SRA) approach of earlier years in style and contribution and included a requirement for local authorities to enter into a formal competition for targeted funding allocation from Welsh Government, in contrast to earlier policy approaches based on actor-network collaboration.

The new policy involved the capital program funding of local authorities in the lead delivery role and their partners in area-based urban development activities, targeted at town-centers, coastal communities and communities considered in need of support through the Welsh Index of Multiple Deprivation (Welsh Government 2014).

A Welsh Government cabinet agreement in October 2011 to pursue a whole Government approach to regeneration, as a result of a regeneration policy review early in 2012, was meant to bring a “new relationship to regeneration delivery” following the initial selection of areas in which to invest.

“What ought to be the case” (Vickers 1995) in policy change reasoning eventually produced a values based judgment and statement of intentional behaviors and instrumental influences, which included the allocation of £100million of capital resources over a 3-year period.
Between March 2014 and March 2016 two-thirds of VVP was implemented in network operation. With the benefit of a consideration of policy influences from this case study, a further case study (7) would then be able to consider the complexities and variability’s involved in realizing intentional policy behaviors in comparing the theoretical new policy with the realities of practice. To the extent observed results in implementation were positive or negative as a consequence of policy-making and design and execution is dealt with then.

Background

What Vibrant and Viable Places (VVP) is and sets out to do.

VVP is the extant regeneration framework for Wales, which sets out the strategic direction for regeneration in the Principality (Welsh Government 2013).

The principle policy document in the field sets out an agenda, outlining a vision, and an ambition to achieve national outcomes in prosperous, healthier and learning communities, through principles of effectiveness and partnerships, strategy and sustainable development. The use of robust evidence in forming strategy and in investment decisions, the stressing of joined up delivery, in targeting investment, is the requirement in local delivery responsibility and accountability with national support.

The framework in contrast to previous and recent program frameworks, based on collaboration from the outset, set out a competitive process for the allocation of resources from Welsh Government, eventually measured against key national outcome indicators. The new delivery model “must be able to evidence that investment is made to greatest impact”. A more evidenced approach is seen as vital. A place based approach, “integrated and holistic” across local authority area functions, businesses and communities is required. The meaningful involvement of all three sectors, public, private and third is also identified as critical, if difficult.

With full cabinet support towards regeneration as a cross cutting agenda the framework importantly sees a “civil service department owning the regeneration brand” ensuring it acts as a catalyst for the joined-up planning and delivery required across a range of national government departments.
Although the framework sets out to consider co-ordination at a regional level to provide assurances that regeneration activities are fully integrated and focused to maximize impact and value for money, a regional option was not progressed in favor of a local and national relationship.

The Welsh Government role is seen as an enabler and a provider of catalyst funding and human resource to support (regional and) local delivery to achieve planned outcomes, the monitoring of progress and the joining up of Welsh Government activities.

Successful delivery is seen as requiring concerted cross government co-ordination and engagement with partners. The value of research and development is recognized and specifically in the planning of change. A Ministerial Advisory Group to advise Ministers about strategy and delivery, national regeneration summits at key points and when appropriate expert seminars “to educate regeneration professionals in the field”.

Acknowledging mainstream national governments budgets will be used to deliver the majority of regeneration impact the framework provides for targeted regeneration investment to support area-based holistic initiatives in this program in town centers, community first and coastal community clusters.

Results Based Accountability (Friedman 2005) is envisaged as being central to the program and embedded in every project. Through RBA a standard methodology for measuring baseline information to measure place-change progress would be developed.

**Method**

Discourse leading to policy development actions was capable of being experienced over a considerable time. The arête model desiderata were utilized as controlling factors. Policy-making and design is in itself fundamental to explaining regeneration structure.

4.4.16 The critical influences on policy-making, including power and control, and the resulting influences of policy on normative practice and value optimization, in its underlying assumptions and expectations, is then capable of contributory questioning.
The policy change in terms of style and contribution was experienced throughout its design, development and execution stages through participant observation. Policy change analysis was examined from different perspectives and a model for policy analysis (Mayer et al 2004), made it possible to relate various policy analysis styles to the development of VVP.

An understanding of policy style serves three purposes; an understanding of the discipline of policy analysis, a contribution to the design of new policy analysis methods and projects, and guidance for evaluating such methods and projects (Mayer et al 2004). An analysis of the methodology of policy-making ought to be under review in any future systemic view of the design of regeneration policy in the field.

Policy style can deal with the identification of “attractor patterns” (Morgan 1997) and the principal forces locking Welsh Government/Local Authorities and others into power relations, control mechanisms, defensive routines. The model by Mayer et al (2004) identified six activity styles and translated these styles into six underlying policy analytic styles, with each style implying differing values, calling for different criteria in evaluation. The evaluation of style and contribution however needs a starting point.

In earlier Chapters, attribution of cause and effect has been described as the significant problem in the evaluation of area-based regeneration. Contribution analysis in response can provide a starting point in an alternative systemic way of thinking about the problem of attribution in contrast to the traditional positivist approach of attempting to prove causality via a counterfactual (Mayne 2006). It is used in this case as there is no attempt to prove that one factor – a policy in this case- caused a desired outcome. What is being explored rather is the contribution of a policy to an abstract concept, although arguably a desired concern.

With the benefit of a sustainable (arête) model of regeneration as a concern and theory of change, showing the links between desires, relationships and contexts, the aim in this case would be to build a credible performance story in demonstrating whether policy-making was influential or influenced towards sustainable regeneration, perhaps along with other factors (Eirich & Morrison 2009).
The theoretical sub-division of policy styles into six archetypal activities (Mayer et al 2004) makes it possible to relate various policy styles to the evidence available from studying VVP. In a six step approach (Mayne 2006) (step 1) the attribution problem in regeneration the emphasis was set out in Chapter 3. The theory of change/logic model (steps 2 and 3) was set out in earlier parts of this Chapter.

In this task the already developed model could be populated with emerging data and evidence to assemble the performance story (step 4) with the option of and the seeking out of additional evidence (step 5) revising and refining the story if required (step 6).

<table>
<thead>
<tr>
<th>BOX 6F  The Particular Features of This Case</th>
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<tr>
<td>A new regeneration policy for Wales Vibrant and Viable Places was compared in this case with the idealized long-term arête model of sustainable regeneration in development through an appreciation of influences on policy-making and design. The coherence of policy design was considered in both style and contribution. An understanding of style and methodology in policy-making was identified through attractor patterns; contribution analysis was based on policy contributions to the developing idealized arête structure. In the new policy competition was favored. A new relationship to delivery was required in a statement of intentional behaviors. A more evidenced approach to impact included targeting investment and results based accountability.</td>
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Analysis

The VVP policy style conceptual model in this case was based on policy-making evidence, and was seen in both object and subject orientated activities. Initially a responsive place-based policy with objectives to create local area decision making autonomy, an important moment of change (turning-point) occurred shortly before publication with a late leadership influence and preference for a targeted approach towards a specific sector orientation. A housing led regeneration target contributing to the procurement of national output numbers would then alter the balance of earlier values and arguments and the goal of bespoke place-based solutions.
Figure 6 An Arête Evaluation of New Policy Values

Ethical and Facilitative Behavior

The focus from the turning point in policy-making was about providing strategic advice to leadership on what strategy should be adopted as client and problem owner, to allocate financial resources to achieve mostly affordable and social housing outputs in the preferred target areas. Delivering sound investment was to be considered in general terms in delivering sound housing investment.

With “what ought to be good for the political and organizational client” then being the dominant style the original policy analysis in VVP relying on responsive research and analysis had become less relevant to local design solutions. The mediation of competing priorities to produce housing output through competition took center stage. The guiding arête model (above) would then not have been satisfied in this specific action.
Data and information that had previously been successfully gathered in a consultation framework (Case study 5) to compare the effects of different policy alternatives leading to options and design recommendations were less necessary. The resulting approach was an emphasis on short-term goal achievement relying on ethical and facilitative criteria such as competition fairness and acceptance.

Clarifying longer-term values and arguments did not therefore appear, as a result of the turning-point political control decision to translate in VVP, into specific policy requirements of others in a networked organizational form.

Explicit normative and ethical questions would have been important here to deal with issues that can come about through fundamental normative and argumentative differences such as the type and scale of regeneration interventions considered at any one time in any one place. The Welsh Government original policy in strategic intent was empowerment subject to quality requirements.

Delivering local choice and relative local priorities was less assured, as a result of the moment of change. The change would have had the effect of enabling the enhancement of co-operation between local authorities and housing associations (perhaps at the expense of other co-operations) and a limiting effect on creating effective local planning and the enabling of managed local responses. In the original VVP policy a contribution was capable of being seen in subject orientated values and criteria; what was good for democratic society, mutual understanding and process (participation, interactivity).

However, what was less evident post turning point was an orientation and system to determine what was good for debate for the places the policy served, to determine what was good for knowledge, over the longer term and for rational and knowledgeable local efforts. Although the expectation in VVP policy was that a structure for making regeneration more transparent at a place level was needed, for the purpose of resource allocation and the determination of short-term numerical outputs, a long-term knowledge structure based on place based needs was not needed.
Necessary Knowledge

Making regeneration transparent systemically at a place level over the longer term is likely to be unsustainable unless necessary knowledge of boundary, process and evaluation is structured and emancipatory.

The role of knowledge produces greater insights into causes, effects, the nature and scale of possibilities in the field. Systems analysis involving knowledge parameters would have enabled this role to be fulfilled; however, this was not an influence basis in policy-making from which to derive further work.

The original policy, moving more towards a more rational and argumentative style was based to a large degree on assumptions about regeneration practice knowledge in particular, with knowledge possibly being seen as capable of withstanding scientific scrutiny, however these assumptions were not always justified.

The measurement of knowledge towards an assessment of capability, capacity and skills in the field did not become a policy research priority. The results of departmental research activities here ought to have influenced the policy agenda for example in training needs analysis and capacity building. The policy system would have then been able to identify the consequences of policy actions over both the short and longer-term, drawing on conclusions of going further.

An emancipatory and participatory policy, which went further than VVP promoting policy mainly to involving researchers, elites, institutionalized groupings, organizations and politicians dominating policy discussions about regeneration was not enough to be transparent. Promoting equality and openness in regeneration knowledge with laymen and ordinary citizens could have been achieved with more time given to continuous interaction and interpretation (the hermeneutic circle) to enable local insight. Process problems and aspects of regeneration organization can be as much a part of explanation and interactivity as the expectations of outputs and outcomes.
Although in the VVP policy prior turning point evidence there was example of significant and considerable research and analysis carried out by the Centre for Regeneration Excellence Wales to provide policy advice, research and analysis in clarifying implementation and normative operations was not significant. What worked in practice in inputs and processes was consequently less than systematic. Surveys and interviews and statistical analysis where completed were not based on imitation, reproduction, and extrapolation and a systemically scientific basis of research.

This was however the first time a detailed policy analysis had been completed in the field with much to be done in very short timescales. In a field where very many things can be considered as regeneration activity there is a significant scope and requirement for clarity of purpose. Certain subjects and willing actors can often be excluded from debate. Knowledge is their key to participation, the key to capability and capacity.

How unequal places can receive more and better involvement and knowledge about what and how regeneration happens including how decisions are made, to enable informed judgments about sometimes-difficult local questions was not policy specific, and could have been a knowledge development policy objective. Bringing experts and elites to ordinary citizens and laymen can correct place based inequality by calling attention to plans typically overlooked in short term integrative regeneration planning.

Through the consultation process a soft systems style of analysis had performed an important role in the policy design, which was capable of fulfilling an argumentative and interactive style within an agreed repetitive framework. At a place level this would have hoped to produce continuous recommendations for improvements in knowledge activity to make policy and practice easier to understand in terms of justification, logic and richness. This aspect, in achieving good governance, and making better decisions did not become evidenced in practice.

**Progressive Measures**

The policy style was perceived by some actors as deliberately short term to procure short-term national numerical outputs (over £60m was eventually allocated to housing led regeneration schemes from a £100m program, the majority of funding used for social and affordable housing) in preference to wholly locally determined place-based strategic objectives. Quantitative outputs were believed to be preferred to qualitative outcomes.
Idealistic and generic criteria, for long-term sustainability was then largely unsupported in sufficient operational detail to encourage the development of longer-term local delivery standards based on reliability, consistency, fairness, equality or openness. Normative delivery criteria required of local authorities and their partners in delivering local area regeneration was identifiable in VVP policy-making and in the design of policy.

On scrutiny not all elements in line with the developing model were present, however many were. Agreeing more tightly defined format could have helped in delivery management and knowledge development. Making better decisions would have been an outcome of a tighter definition of inputs and processes specifically in addressing variability and failure risk.

The influences on policy-making can be expected to be a mix of political, organizational and rational. In this case, the understandable self-interested and targeted nature of leadership influence would have consequences in systemic terms. The policy-making process was nevertheless able to begin a journey towards more progressive measures in organizational, team and individual understanding and was a model to be built upon.

**Commentary and Findings**

Policy-making and design in regeneration has the ability to stimulate value and argumentation that underpins professional, social and political debate, in addressing the question; what is important to my place right now, and in the future?

This was encouraged in this phase of regeneration policy-making, but not sustainably, by identifying one preferred sector approach over another and by the short-term nature of the policy. Improving the quality of debate was not therefore the highest priority although the coherence of the policy approach had much to commend it.

In terms of degree of influence on the arête sustainable model the policy-design had begun a relationship with coherent sustainable regeneration, which was capable of being developed alongside a longer-term process with other potential area-based contributors. VVP was not the only area-based policy affecting local area change and in its current form was not the whole explanation to area-based change. In respect of the sustainability model REI, the following brief comments and findings were of particular significance during the period under review.
Limiting Constraints (Box 6)

Too rigid boundaries, annualized funding, making funding decisions within agreed timescales (and before strategic planning takes place), timing funding to match opportunity, insufficient private sector involvement, too broad objectives could all be seen in VVP policy terms as important challenges to overcome.

With new challenges for those working in the regeneration field, although solutions were identified in changing the way regeneration work was to be delivered the “how” could have been subject to greater clarity. The VVP framework envisaged enabling public private and third sectors working together to support innovation and share good practice. There was nothing however to suggest by what manner. Joined up delivery to maximize impact was clearly in focus, yet without any explanation of by what means.

The periodic or permanent limitations or restrictions, financial, physical or social which affect the policy and practice of regeneration at any one time was reflected in the VVP policy framework in financial constraints and challenges identified as enduring in unprecedented economic conditions with much less capital available to Welsh Government over the next decade. Property-led initiatives were not seen as likely to return to the speculative levels seen in the past and in addition consumer patterns of behavior were seen as changing permanently.

This may have led to actors turning away from important private sector inputs. Enabling co-operation here was in doubt. Key priorities for public investment should always seek to assess the potential contribution of the private sector to minimize public intervention.

Promoting Possibilities (Box 5)

The Centre for Regeneration Excellence in Wales (CREW) influenced the thinking in VVP policy in promoting possibilities, amongst others. CREW was based on strong linkages with VVP and post-devolution regeneration policy in Wales (Old Bell 32016) and was awarded grant funding by Welsh Government over 3 years ending in March 2016 to “stimulate greater levels of integrated practice across Wales” (CREW 2013).
With the purpose of training, education and skills development, research and dissemination, exchanging experience and excellence, possibilities informing policy and practice were identified through conferences, seminars, events and training sessions, the publication of relevant case studies and toolkits on its website and research activity.

Research output focused on short and specialist research reports and one major report, a Deep Place study (Old Bell 3 2016), the recommendations of which so far have not proved viable or implementable. The focus of the work of CREW was for some considered to be limited in terms of a geographical focus and overly focused on community housing.

The link with its parent Community Housing Cymru intensified this perception. On RBA, valuable training sessions with VVP applicants were nevertheless held. How things that may be chosen and incentivized from a range of alternatives, which provided a reasonable prospect of regeneration policy and practice outcomes and benefits, were also recommended.

For a very small organization the work of CREW in genuinely increasing people’s knowledge of effective regeneration could have been even more valuable in terms of how knowledge could be applied in practice. The strengths of academic and theoretical work as contrasted to the more practical implementation focus and “the how bit” was something under constant consideration. An on-going practical support to particularly younger and less experienced regeneration practitioners in the technical skills needed to promote integrated and sustainable regeneration would have matched well with the organizations innovative horizon scanning.

In a report establishing the CREW in 2008 (Old Bell 3 2016), it said the Centre should “make a significant contribution to the professional development of those involved in regeneration, add to the capacity of those involved in the community, private and public sectors who participate in it and benefit from it” thereby making a long term difference in the outcomes of regeneration work in Wales. It is regrettable that the future of the center, capable of promoting notable practice and knowledge transfer, is now somewhat uncertain.
Choosing Relations (Box 4)

The critical issue surrounding competition versus co-operation and collaboration and the mutual interdependency of networked organizations and actors was dealt with in this policy in co-operation following competition. Success in regeneration delivery was recognized and characterized by short-term delivery partnerships and given capacity issues and the project constructs required to minimize uncertainty were to be expected.

Policy recognized the contribution of the private and third sectors specifically in creating opportunities and whilst acknowledging market difficulties sought to engage with businesses in many sectors in respect of key contributions.

A list suggested private sector participatory roles, and the securing of private sector investment in the delivery of joint projects and services albeit during a recessionary period. Housing associations and Registered Social Landlords were importantly acknowledged as third sector organizations having a unique relationship with more marginalized communities.

Through tenant engagement, the framework sought to ensure the breadth and depth of skills and knowledge within the sector was harnessed not only in delivering physical improvements through capital project development but also in a unique range from volunteering to social enterprise development. A specific goal to work with key third sector organizations reflected the position of the sector who were well placed “on the ground” to deal flexibly with disadvantaged or excluded groups in the provision of a voice for change.

Analyzing Nature (Box 3)

The causes of need in regeneration in Wales, the problems and types of effects, which reflect the variety of local and regional areas under consideration, are increasingly analyzed and well documented in areas requiring area-based interventions. However, they are often focused solely on social issues. Area based programs with regeneration implications such as Communities First, the Rural Development Plan, Flying Start are examples of note taking advantage of national data such as the Wales Multiple Index of Deprivation.
Market failure issues in economic and organizational contributions could have been the focus of valuable influence. Economic issues resulting in Enterprise Zones, Local Growth Zones City Regions therefore give the appearance of no-longer being associated with what would be considered as integrated regeneration.

The documents associated with need very often result in negative league tables published for maximum effect. As place need is becoming more sophisticated in local as well as regional contexts, the type, effect quality and timing of regeneration policy and practice in longer term responses is perhaps less well documented.

In VVP policy design attempts to influence practice is stressed in the importance of an intervention strategy being underpinned by evidenced based programs, dynamic leadership and robust governance to achieve the development of place and its people and is underlined by the importance of measuring “the performance of places”. The reality is however too often analysis of success is of a program numerically and not the unique offer of place. Where key performance indicators ought to relate to place they can too often focus on publicity to promote the original program idea.

**Optimizing Policy (Box 2)**

That the state should intervene in regeneration only where voluntary action produces sub-optimal results has been the accepted principle of government action in regeneration for many years. Such situations are identified with market failures and the VVP Policy recognizes this “where market forces will not do this alone without some support from government”, however the policy offers little evidence as to what constitutes market failure (see above) except perhaps in the field of property-led initiatives.

There are also failures of institutions or of voluntary actions, and of the mechanisms of individual choice. Simply finding a market failure exists does not justify government intervention without further analysis. The costs and risks of regeneration should be serious enough to be able to justify intervention through responsible policy analysis in the recognition and acknowledgment of deference to voluntary action, the scope of departures from the optimal and the pervasiveness of government failure (Kleiman & Teles 2006)
Delivering Normative Practice (Box 1)

In VVP, the delivery of regeneration was fundamentally seen as a local issue and this is recognized in the management argument that states that, “all or most elements of project implementation require some degree of management and accountability at the local level”. Not all elements are however identified including aspects of process. Although plans need not be micro-managed by central government this does not however mean without any accountability at a national level.

The elements described in terms of local holism: spatially focused, integrated and proactive “all service” plans, based on local evidence and clear goals, realistically fundable and capable of being delivered were valuable statements. Available expertise to take into account national objectives, views of community groups, important priorities with the roles of service boards and town and community councils were necessary but time consuming.

In VVP, successful delivery would be seen to require concerted cross –Government coordination and engagement, with partnerships facilitated by a Ministerial Advisory Group with dedicated resources a research budget and regional coordination aim to achieve integration, particularly with economic regeneration activity. A national oversight and wide ranging cross portfolio remit tasked with using evidence from across government departments and beyond to advise Ministers about both strategy and delivery was a positive ambition with eventually however little evidence of realization.

**BOX 6F   Findings of Expected Utility from This Case**

In this case a critical influence on policy making demonstrated the power and control of leaders to alter a policy perception from a place-centered approach to a targeted output approach and a single sector orientation. Attractor realities were short-term national outputs. What was good for local debate and decision- making autonomy although important was less important? Values were coherent but personal. The original policy clarity of purpose would be unlikely to see all its joining-up objectives fulfilled. Policy contributions were however important in a clear attempt to positively influence disciplines which could lead to longer-term outcomes.
The influences on policy-making, and design and its relationship to a sustainable regeneration model, was the subject of Case Study 6 carried out in 2013/14. “What ought to be the case” was subject to widespread consultation, important and progressive policy thinking. There was a clear intent, to positively influence many key parts of a regeneration system in a significant change from previous practice. Responsive place-based policy was capable of being identified in a rational and argumentative style, in participation and interactivity, which could lead to longer-term change despite a policy move in short term results and accountability.

However just prior to publication leadership changes were to change the policy “perception” to a move towards a single sector orientation and this was to skew thinking away from requisite activity in a local area towards securing competitive funding. Earlier value judgments and assumptions for bespoke place-based solutions were then altered. The allocation of funding was to follow a sector preference. A more robust analysis of need may have produced more valued and valuable interventions.

The attractors were short-term national outputs and goal achievements in housing which was a greater relative priority to Ministers. Longer-term values and arguments were then relegated in priority. Therefore, what was good for local debate, progressiveness or knowledge was less important.

In the leadership intervention stage assumptions regarding capability and capacity in the field were not supported by evidence requirements and this could be seen as a cause for practice concern. A description of the range of outputs included in the policy capable of securing funding resource allocation would have avoided confusion. What worked in planning and implementation could have been given far greater priority in terms of inputs and processes.

The values detailed in this case in terms of ethical conduct, necessary knowledge and progressive measures demonstrated a degree of policy coherence in a sustainable contribution but only in a limited form. The value of a systemic approach in this study could have produced an added-value contribution different to that which is normally found. In practice Case Study 7 would look at the realities of changing practice delivering the new policy and in delivering much needed change the particular problem of variability.
Realities in a Practice Change

Task 2 (Case 7)

Attractor Patterns and Organization Cybernetics

Introduction

Policy analysis in Case Study 6 was focused on the critical influence of value judgments on policy-making (Vickers 1995) in Vibrant and Viable Places (VVP) and the potential impact on regeneration practice. Questions of what “ought” or what “ought not” to be? An explanation of extant regeneration policy in context was aimed at a comparison with sustainable regeneration modeling.

In this case study the attention turns to practice and the processes of carrying out the VVP policy intentions, the work and performance of professionals in the field, the usual patterns of repetitive action carried out in order to improve the local situation, the realization, or not, of new policy behaviors, the variations from underlying assumptions and expectations.

The reader should refer to the description of what VVP policy “is”, and what it sets out to do, in Case Study 6, before considering the “how” considerations here as the operative descriptions are not repeated. In this report, analysis, commentary and findings are grouped together for ease of explanation. Findings in the “what we could do” better or “if and then” mode are brief with a fuller explanation in later Chapters.

The systemic practice perspective in this case is in instrumental judgments and operational decision-making and control. Systemic control need not be that of a national government, however, as many would currently assume this is the case, this is the view taken in understanding realities.
Understanding the realities of practice is dealt with by identifying the practice contribution of VVP through Welsh Government organizing regeneration practice, the ground rules of the new “attractors” (Morgan 1997), and the forces locking the network of contributing organizations into the new policy. The transition in changing from one form of controlling practice to another provided a significant comparative opportunity in the realities of regeneration controlling practice.

Background

Local Authorities were unequivocally in the lead in area-based regeneration delivery in the developing policy, having sought a lead role and having been party to cross public sector discussion in advance of new policy determination. Policy determination reflected an underlying assumption and expectation of local authority normative delivery in the following five primary activities. The delivery norms are all seen in the Figure 5 idealized sustainable regeneration system model Box1 Regeneration Norms, Input-Process-Output requirements.

New Delivery Norms: Primary Local Government Behaviors

1. **Ensuring** effective Local Area Regeneration Delivery (Box 1)
2. **Joining up** Local Government, with public, private and third sector actors, in meaningful partnerships and the contextually required variety of programs and projects. (Box 1, Inputs)
3. **Managing** the process/progress of local regeneration delivery to provide national assurances, integration, impact and value for money. Delivering with others a standard methodology for the measurement of place change progress based on RBA principles. (Box 1 Process)
4. **Investment decision making** and local strategy development based on robust evidence, targeting public value interventions. (Box1, Process)
5. **Communicating** to those involved with and affected by local regeneration actions the progress towards delivery, including good and emerging practice, equality and innovation, research and development activities. (Box 1, Process)
Evidence on the ground to note in the new behaviors (but not the focus of analysis in this case study) would be; closing gaps, place impacts, making better use of assets, overcoming market failure, achieving mainstream program bending, levering private investment, enhancing partnerships (Chapter 2). The policy normative examples above particularly reflected the broader regeneration literature and influence Boxes 3 and 5, the Nature of need and promotion of Possibilities.

Policy can not only determine the allocation of resources but also can deal with falling achievements, feasibilities, givens, regulations, processes, and improvement standards and this was sought by Welsh Government through Results Based Accountability. The Welsh Government pledged explicitly in statements of intent to support local government normative behaviors in progressing promises involving 33 acts of influence in the finally approved VVP policy framework document. In summary;

New Delivery Influences; Primary Welsh Government Behaviors

1. **Enabling** effective Local Area Regeneration Delivery
   (Box 2-6)

2. **Joining up** Welsh Government activities in support of meaningful Local Government led delivery partnerships with public, private and third sector actors. 
   (Box 4)

3. **Monitoring** the process, and progress of local regeneration delivery to provide national assurances, integration, impact and value for money. The delivery with others of a standard methodology for the measurement of place change progress based on results based accountability principles. (Box 6)

4. **Investment decision making** and **national strategy development** based on robust evidence, targeting public value interventions. (Box 6)

5. **Communicating** to those involved with and affected by regeneration actions the progress across Wales towards delivery, including good and emerging practice, equality and innovation, research and development activities. (Box 4)

All Welsh Government influences could be attributed to the influence model non-constant parameters as shown in Box numbers 2-6. The new behaviors were not all financial although through the allocation of significant resource needed to overcome market failure, and the achievement of equity objectives, outcomes that would not otherwise occur was to be delivered.
National strategic added-value in enhancing partnerships, mainstream program bending, (Box 4) and levering private sector investment (Box 6) was seen as particularly important goals from stakeholder feedback (Case Study 5).

The new behaviors reflected generic and systemic regeneration delivery norms. In this case variability in practice in comparison with primary and systemic norms and influences is emphasized. The criteria by which reality comparisons are made is the arête model parameters. The comparison of arête parameters with an extant organization leads on to questions of what could be done better, systemically, or organizationally. The potential benefit value of a systems approach at this point is to be found in how a systems view can be utilized to better inform practice.

The realities of regeneration practice judgments in delivering the new VVP policy in this case study concludes the case study process prior to merging all case study findings for further interpretation. In Volume 2 the modeling of the extant VVP practice in actor-network-funding provides additional material for further management consideration.

**BOX 7F  The Particular Features of This Case**

The practice of regeneration in this case is viewed using Safford Beer’s Viable Systems model, the models usefulness is the case study purpose and output as an alternative to the explicit hierarchical model used by national and local governments in the field. Carrying out the policy intentions in Vibrant and Viable Places was studied against what could be done better based on arête-ness, to improve place-need situations. The practice perspective in instrumental operation and reality was the independent view of a national government Administration, the change from one form of controlling practice to another. New behaviors were required of both national and local government.

**Method**

In an alternative model view of VVP in practice, the analysis, commentary and findings of practice is viewed in this case through Stafford Beer’s 1972 Viable System Model (Figure 7). The model was used and trialed in Case Study 2 to good effect. The possibility space in greater excellence, knowledge and ethical virtue in the field in extant practice is the interest. Whether regeneration norms are being realized and revealed is the systemic application challenge.
The model’s usefulness is the key case study output. It is not used in practice in Wales and has not been found in regeneration use in similar contexts. Practice in operation is in the final months of a three-year program. Experience over the whole practice period is reflected upon as a result of participant observation and the recording of how discourse led to action.

As policy decisions and influences, are important determinants of success, in practice, management choices in action in the field were being made and they were able to be seen being made in patterns of responsibility and accountability.

Viable and Vibrant Places is one of a number of geographical area-based Welsh Government Programs that impact on area-based regeneration in Wales. There are also many UK wide and local programs which affect the field. VVP is however of particular interest given its stated intentions in excellence. Management, through Welsh Government Administration of a contributory program, either explicit or tacit, would inherently be based in this case on an understanding of an explicit model.

Of explicit practice models, the most common in use, and used in this case, is the hierarchical model which models formal power, and for some a blame culture (Hoverstadt 2008). What the hierarchical model fails to explain fully however relating to practice is the detail of fundamental things, which is; what practice is and what it sets out to do, what practice does, and specifically how it does it- it’s formal and informal structures and communications, its information transfer and decision making processes. An alternative model would be worthy of consideration of hierarchical relationships, if it were able to demonstrate a way to greater public value.

Analysis, Commentary and Findings

In figure 7 the Viable Systems Model (Beer 1972) is the tool against which organizational reporting context in this case study is considered. The model is shown, in diagrammatic form, as a formal, as a means for communication, decision-making and control. The five-part system was piloted and described briefly in case study 2.
A description of each of the 5 sub-systems and the nature of the model as it applies to the extant policy would be necessary in a whole system view. The five summarized system fields would theoretically deliver the public service an arête framework would seek to provide and the structure of value creation. Local Government for example would be solely responsible for local area operations and inputs in implementation in System 1. In a national context, Welsh Government would then be principally responsible for Systems 2 to 6 in collaboration with local government and representatives of the private and the third sectors.

The analysis in this case study starts with VVP framework operations and local authority implementation of inputs. Hoverstadt (2008) provides a detailed guide used throughout this form of analysis. Operations are the primary and normative delivery activities of the program. In VVP eleven local authorities were selected to participate in implementation.
Local Government Operations circled A to D can be seen in Figure 7 as diagrammatically representing four of the eleven participating areas.

The normative model put forward as the constant requirements of regeneration delivery in Chapter 4 provides a primary local implementation behavior control model capable of being used in local and national reporting. In briefly summarizing positive and negative evidence of implementation into their constituent parts, based on Figure 8 below, they could be decomposed further until broken down to the level of an individual’s action. In this case study however only evidence obtained through participant observation sufficient enough in description to determine model coherence is presented.

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**Figure 8 An Arête Model in Operation - Implementation**

**Implementation (System 1)**

**Analysis, Commentary and Findings**

In what could be seen as “requisite activities” in Figure 8, by a local area, a distinction between simple, complicated and complex activities needs to be made. Complex activities are those activities involving those that relate to area-based change as whole, while complicated activities are those actions that are perhaps more individual and less complex but requiring of specialist or expert attention.
Simple activities are those that are neither complex nor complicated. In following the model category examples, relative local priorities in outputs ought to, for example, be based on informed evidence of need and opportunity. This was nevertheless not always the case in practice.

**Requisite Activity**

The evaluation of complexity at the local area level and its normative activities, was not evidenced fully in practice. In the local area implementation of VVP, complicated activities were promoted in some cases with insufficient and sometimes non-existent specialist supporting information. Despite this, funds were allocated towards their implementation. In other local cases projects collectively were however formed to reflect Welsh Government priorities with strong support from stakeholders.

Programs could be seen as fitting strategically with Government policies and the local areas policy direction documents. Although business cases were developed in line with guidance some were however to lack the clarity of scope required to support ongoing or necessary developments. There would be evidence of programs with the vision critical to securing a ripple effect and an enabler for surrounding areas.

**Viable Constructs**

There was evidence of schemes being financially affordable with contractors appearing to be committed to delivering community benefits over and above contractual commitments. There was however, also evidence of unaffordable schemes with the need to demonstrate value for money and in some schemes requiring funding changes and scheme alterations. Weaknesses in ensuring effective stakeholder engagement would affect viability in some activities over the longer term with the consequential need to stress program level benefits over time.

**Enhanced Co-operation**

There was evidence of an excellent working relationship between local program team members and Welsh Government officers. There was nevertheless little evidence generally of widespread engagement with the private sector in its constituent forms.
In the absence of a program level engagement and stakeholder management plan it would be difficult in some cases to judge consistency. The precise mechanisms legal or otherwise for achieving outcomes were not always certain which would involve regularly defining the nature of this challenge more explicitly.

**Reliable Delivery**

Local areas coped well with a challenging initial delivery period in VVP during which the scope of work was significantly amended to reflect reduced funding. Resources were diverted in some cases to managing changing expectations sometimes involving personnel with limited necessary knowledge. The experience level in some areas was in delivering projects rather than programs. New program and project frameworks were produced. Collegiate and cooperative approaches would be commended, improving confidence, whilst other program and project processes would require redesign.

**Requisite Organization**

There would be examples of the need to strengthen program level governance to ensure program continuity reflecting against its original design and delivery partners with the required confidence in experience and expertise. Neutral challenge of project sponsors in some cases was inadequate. Some program boards whilst strong would need to adapt their focus to ensure a more strategic approach in areas such as the management of risk, and stakeholder engagement and to identify opportunities to maximize outcomes from complimentary activities.

**Monitoring (System 2)**

**Analysis, Commentary and Findings**

Monitoring was the major and strategic organizational change in VVP replacing the old reality of civil servants coordinating collaborative local work in the previous Strategic Regeneration Area policy. The purpose of monitoring (Hoverstadt 2008) is twofold; firstly, an integrity check to allow national government to have confidence in that what they think is happening in System 1, really is happening and enabled by the allocation of resources, and secondly, locally to provide those at a local level governing System 1 the opportunity to neutrally challenge program and project sponsors and steering groups involving professionals and others, within a longer-term evaluation plan.
Monitoring, seen as engaging with the reality of local area delivery, without undermining the autonomy of local area management, means in public service in “sufficient” depth so that the monitor gets a good enough (and audit like) understanding to have confidence in the validity and meaning of regular reports.

Typical monitoring mechanisms in VVP would involve, protocols, scheduling, monitoring reports, risk assessments, guidance instructions. As well as formal mechanisms common language and shared cultures that facilitate communication between national monitoring and local area operational units, mutual agreement protocols between national monitoring and local area units were designed to smooth problems (Peppin et al WLGA 2014).

The annual spend policy in VVP meant that local authority regeneration managers are under considerable pressure to perform to increasingly tight financial targets to achieve annual expenditure deadlines. However appropriate scrutiny and due diligence requirements of public servants should outweigh the emphasis placed on spend at all costs.

Where program and project concepts are unable to be implemented during a short run framework, it can also become difficult to consider the best quality reserve projects to make up any underspend due to project unviability, unless the reserve projects are well advanced. It then becomes a consideration for an authority to consider submitting stock schemes, sometimes perhaps unsuited to achieving original objectives.

Where all projects have to fully expend their funding allocation and deliver by the end of March in any one-year outputs can be counted as achieved in later years. Decisions affected by government time horizons of funding availability, which can be subject to significant changes and political expediency to make single large funding announcements can then lead to falsely suggested objectivity.

Monitoring mechanisms in VVP were not only aimed at identifying and preventing failing local programs but also at: avoiding duplication of effort, the measurement of outcomes. The identification of resource implications on performance (Hoverstadt 2008) was not however a primary national activity. That primary activity within the framework is complimentary to each other and team resources and structural units do not conflict with each other are other local monitoring responsibilities.
Monitoring arrangements from political and executive feedback control would be the main strategy in variation reduction and would require a growing need for more detailed and common reporting. Formal monitoring information provided by grant recipients can disagree with managers’ perceptions of the situation to the point where monitoring managers keep their own informal records of situations.

Control by value standards in VVP was not fully developed. The tools of cost benefit and cost effectiveness analysis were to be used by grant recipients following an award of funding not before award. In treasury cost-benefit terms, or sophisticated social return on investment terms a development opportunity was to emerge in practice in a move towards ideal standards. What was considered appropriate in line with current standards of value for money was to evolve being re-learned as an ad hoc activity.

Although Ministerial control through the establishment of basic principles was an objective in VVP the primary control mechanisms in the program would more accurately be described as control through the foreshadowing of problems i.e. the threat of funding withdrawal if funding allocations and expenditure forecasts are not actually delivered on time.

**Operational Control (System 3)**

**Analysis, Commentary and Findings**

VVP, in a competitive process experiment, did not have at the commencement of the program the benefit of organizational, individual and team collective understanding of delivery norms, which would emerge over time. To enable programs to progress on firmer ground reflective work would be necessary and would be delivered successfully, without which developing outputs may not have been realized.

The need to make better decisions should however be acknowledged in achieving good national governance and delivering sound investment. At the commencement of VVP although the methodology used for primary activity project selection and the allocation of resources paid attention to the scoring of submissions in the appraisal of programs and projects, program and project selection panel members were hindered by inadequate information and a lack of consideration time.
Assessing delivery competencies was not a requirement in VVP in assessing competitive bids in the competition for resources and would be recognizable over time, in the need for key skill statements/interviews related to the specific tasks promoted. Subjective views can occur when assessors are unable to measure the total elements of a submission. In the absence of full information, it is very difficult to expertly challenge submissions, achieve a consensus of relative weighting and make decisions where projects being compared are fundamentally different to each other.

A considered assessment of information satisfying the normative model criteria would likely have led to some submissions being rejected, having being considered unwarranted, non-viable in construction, or undeliverable. A decision focus on numerical outputs would not be enough to be able to determine the required nature of place-need in some project concepts. Promoter assumptions made in the absence of relevant information and specifically relating to input and process were not always borne out.

Primary, operative and normative activities were acknowledged in VVP in dynamic and robust leadership requirements at local levels, to achieve an integrative local program approach and to resolve complexity as far as possible. The national management processes in VVP that would build the primary activities into a greater whole and link sub-systems with the system as a whole, were promised but eventually not fully delivered. Where integrated resource and performance management, communicative participation, agreeing performance measures and targets need to be matched and balanced by a reciprocal allocation of resources at both a national and local level this was not always the case.

A form of consensus on outputs was necessary in VVP and agreed, in determining value for money (Coombs & Jenkins 2002). VVP would also have benefited significantly from desiderata ranking based on a logic model interpretation by specialists well acquainted with the type of projects on offer. Effectiveness of regeneration policy can only be helped in auditable terms with the definition and measurement of logic model criteria including non-financial measures especially inputs and processes.

Desiderata ranking in a goal achievement matrix, from an expert group well acquainted with each planned activity option, are often used by health authorities and some local authorities in sifting a variety of options to arrive at an optimal decision (Coombs & Jenkins 2002).
New staff in regeneration learn their skills over time and through experience. During the VVP program there were very many organizational guidelines and courses available to satisfy civil service needs, which could have been strengthened systemically to include manager training in tools associated with systemic quality parameters. The time taken to ensure quality was however less than that taken in ensuring “spend” in satisfying strong political and organizational pressure.

Front line WG senior professional staffing would be further reduced by one half at the beginning of VVP to allow administrative staff to increase. The new WG demands on monitoring the performance of others and the need to meet critical dates for the return and recording of monitoring information was generally met at the expense of greater quality judgments. There would no longer be a professional qualification requirement for regeneration managers in WG.

Development (System 4) and Policy (System 5)
Analysis, Commentary and Findings

The main problem with regeneration program effectiveness, in attribution, due to the great difficulty in expressing and quantifying multiple goals is longstanding. Audit would be unable in VVP to suggest a positive contribution to effectiveness measurement at the highest strategic level of policy making. Auditors do not question policy, however policy directly influences value for money (Coombs and Jenkins 2002).

The cause of variation in program and project assurance in VVP could be seen systemically in annualized funding, inflexible funding boundaries, a lack of project do-ability, cost-benefit problems, funding allocations before readiness and before strategic planning takes place, timing funding to match opportunity, insufficient private sector involvement, too narrow program objectives.

An emerging argument that a strategy for variability reduction, (Mckay and Steiner 2015) in any regeneration system should as a priority deal with inputs, to determine quality at the commencement of a program and in making the process more robust to dealing with variability and would be the best way to run the process.
Results Based Accountability (Friedman 2005, RBA) would be a theme in VVP, and in a growing number of public service settings. RBA implies control by performance and the setting of non-financial measures and was introduced in VVP as a growing influence on regeneration delivery. The setting of control systems requirements for monitoring performance would have positive and negative effects, which were helped by local actors’ participation in the initial process of resource allocation in motivational workshops and seminars.

VVP would develop a great deal of process knowledge and de-sensitization in its experimental first-attempt from which further good effect could be developed. Variability reduction from feedback control would establish in the monitoring of delivery characteristics adjustments to be made which would have become less complicated with a greater focus on inputs and processes.

The policy function in VVP was the subject of analysis in Case study 6 and has three main linked roles;

- To ensure a proper structure and debate with regeneration stakeholders for formulating strategy and for implementing the regeneration framework
- To understand and manage the identity of regeneration in Wales not just its values but what it is and what it exists for who it stakeholders are and how it relates to them
- To understand and manage how regeneration in Wales fits in to the larger system of which it is part and specifically its politics.

“Where we are now” is a question for delivery management again at national and local levels (March 2017). In a national view this is a question for policy in conjunction with practice based civil service professionals. In a local area delivery network, the question is one for local area leadership.

The ability to change primary activities and Administration, adapting its form and structure, its identity is a question for many levels and depends on scanning the environment for information on current and future needs and trends, strategic risk, innovation, organizational change. The tools found in forward planning, forecasting, marketing, technical and product development are typical development activities. Within the organization financial control, personnel, operations management, financial planning, training and development will all normally be affected by change.
The three-year regeneration budget in VVP with annual spend requirements was not produced to allow for any long-term framework. However, this policy would be seen as focusing the minds of grant recipients to perform. Authorizations to spend were not delegated; with all financial decisions, however small, resting with the responsible Minister.

A wide variety of activities is considered as part of a regeneration program. In VVP there was limited time to encourage good planning in some areas. Increased budgets introduced into the budget process late in a financial year were required to be spent prior to the financial year end, leading to the view amongst some that the function was not considered a core service. A better planned service, demanding flexible budgeting would need to be based on an adequate knowledge of cost options and patterns across a range of disciplines. As value for money auditing becomes increasingly important and necessary there are significant problems in the absence of a systematic, sophisticated and professional evaluation criteria and the scope for political disagreement between public bodies is then considerable where common cause project variations occur.

**BOX 7U  Findings of Expected Utility from This Case**

The Viable Systems Model can provide an extremely rich representation of the practice of a sustainable regeneration organization based on a network organizational form. Carrying out policy intentions in practice are capable of being compared with important indicators built up in use over 50 years of organizational analysis and design. There are short-term snapshots of assurance in audit and Gateway reporting fulfilling important needs but not related to needs of management continuity and systemic control. The behaviors expected of contributing organizations to new delivery norms would benefit from a more collaborative approach to effectiveness reporting that viability modeling would enable.

**Summary; New Realities**

The HM Treasury (2013) OGC Gateway process is held out to be best practice in central civil government, the health sector, local government and defense and was utilized for the first time in the field of regeneration in Wales as part of the Vibrant and Viable Places program assurance.
Although of considerable usefulness as a snapshot of activity in ratings of delivery confidence there was little scope in the process to systemically utilize the process in furthering analysis and design. In the case of audit there was also nothing to suggest during the research period a positive contribution to long-term effectiveness, as there was no policy challenge in practice.

In this case the new behaviors required in VVP were however capable of being seen in a longer-term system view using Stafford Beer’s Viable Systems Model and in the integrated arête requirements associated with sustainable regeneration. In the VSM the template existed against which real organization could be compared with reliable indicators and over time. The VSM diagnosis offered an alternative and valuable method to seeing regeneration organization systemically in comparison with the conventional hierarchical model.

The new delivery norms and behaviors required in Vibrant and Viable Places were not always fully achieved by local and national contributors, resulting in gaps not being closed on the ground, some place impacts not being achieved, mainstream programs not being bent towards targeted places, private investment not being levered.

Control was a function of resource allocation, and was the force locking in the network of contributing organizations into the new policy. In implementation in practice, constraints imposed on the system by higher management could be seen as placing the overall policy objective in some doubt. Accountability at the local delivery level was patchy with variations in performance. In monitoring the sources of conflict could be seen in national government in the circumstances where what started as a hands-off management approach was ending as a hands-back-on approach. The loss of management skillsets only then becoming acknowledged as a problem.

In operational control not all control activities were aimed at clearly facilitating the achievement of purpose and assumptions made were not always borne out. In development and policy there was little to suggest the development and policy continuity into a long-term framework despite a change of Government creating much uncertainty at the end of the policy cycle (which was compounded then to an exponential level by the UK referendum decision).
This case study at the end of the study period was regrettably not carried out in sufficient detail for a robust consideration of its value. Nevertheless, in this limited case the Viable System Model was considered capable of an extremely rich representation (Jackson 2010) of sustainable regeneration. A hierarchy of authority exercising co-ordination and control making up the organization in view would be expected to rely heavily on the hierarchical model (Travers 2007). With leadership support however the VSM model could be utilized to good effect if adopted by regeneration leadership in its entirety to provide meaningful insights in the way it treats organization and network actor relations.

4.5 Combining the Data: Findings and Recommendations

In this Chapter a detailed method of data gathering, analysis and synthesis in the context of a national transition of regeneration Administration was presented. The purpose was a greater understanding of the potential benefits to regeneration policy and practice of a systems view. The outcome was the theoretical design and testing of a sustainable regeneration structure, which could be utilized for comparative contributions in a system of responsible collaboration.

The context was one of massive EU discontinuity, public service reform, new public management; results based accountability and new Wellbeing legislation. Serious concerns at the end of the study, regarding the future of regeneration funding were exacerbated a result of the EU referendum decision. Professional specialisms in the field were continuing to decline. The data, eventually settled in seven case studies were considered relevant in the development of issues for systemic consideration.

The seven case descriptions, making up the creative and comparative empirical work, are summarized in Table A below, and are detailed in terms of disciplines, realities on the ground, the regularities and norms of delivery, the influences on delivery, the coherence of modeling for a specific public service purpose, the value attractors of policy and practice in action and the motivations, control and the legitimization of leadership. CST was instrumental in an appreciative view, a historical and contemporary inquiry, the theoretical design of arête-ness or excellence in delivery. CST was an enabler of scientific creativity, with CST design testing based on a comparing the abstract model in focus in context with an extant contributing policy and program in operation. The series of potential benefits from the case studies together constituted a claim to a significant contribution to knowledge and practice.
Table A. The Potential Benefits of a Systems Approach; Critical Systems Thinking (CST) to Area-Based Regeneration in Wales

<table>
<thead>
<tr>
<th>Case Study</th>
<th>Data-Source</th>
<th>Method-Analysis</th>
<th>Theory-Interpretation</th>
</tr>
</thead>
</table>
| 1 Regeneration & Systems Disciplines | WG internal focus group*,2012>.* (3+ senior managers each with 25 years+ field experience)  
Lit review: Systemic Models considered of practical value. | 4 Applied Systems Approaches. Critical Systems Heuristics (CSH)  
System Dynamics (S/D) Viable Systems Modelling (VSM) Complexity Theory (CT) | Modelling CST is useful for shared debate. Also for pre (and post) empirical research.  
Regeneration generally sector based, conversations not sufficiently place-based. |
**Western Valleys Strategic Regeneration Area, Welsh Government | CST creates greater reasoning skills. Ease of systems terminology used in Ministerial report. e.g. requisite activities missing/policy rhetoric unmatched by delivery/efficient compliance prioritized over effectiveness/departamental constraints overwhelm practice. |
| 3 Regularities of Regeneration Practice (Norms) | WG internal focus group* 2012>. (As above)  
5 non-constant critical influences identified impacting on norms.  
4 system desiderata policy boundary logic values recognized. | CST offers a fair, intelligent and transparent public service report mechanism. Idealized system design complete. All systemic parts critically defined for structuring orderly systemic interaction; things to measure, control parameters, variables, system state indicators. |
| 5 The Arête Logic Model Coherence Testing | National Policy/Practice Survey Consultation (VVP). 144respondents 17 sectors. | (S/D) (CSH) Feedback in a Systems View. 500 pages analysed through I/P/O model categories, problems, Independent coding. | CST can capture many salient and different views, 95% model coherence first systemic orientation. Systemic content clearly identifiable. Critical system insights recorded. |
| 6 Values in a Policy Change(VVP) | VVP***2013-2017 Policy style and Arête contribution. | (CT) (CSH) Participant observation Policy attractor patterns. Comparison with 4 desiderata boundary logic values criteria. | CST can summarize periodic patterns of change-replacing short-term only measures. e.g. dominant style; not place orientated/shift of intent to short-term national outputs, Values coherent but personal. |
| 7 Realities in a Practice Change (VVP) | VVP*** 2013-2017 Operational Policy in Practice VVP**. Arête contribution to delivery norms, influences and values. | (VSM) (CSH) Participant observation Re-classification of 11 area-based case studies and 134 stakeholder interviews. | CST can deal with failures in comprehending delivery realities. VSM rich representation of network practice assurance. Control through resource allocation e.g. Missing local activities. Variability in behaviors. Patchy accountability. |
The CST model of a sustainable regeneration system, within which policy and practice contributions could be measured was an empirical output and was visualized for easier reference, with fuller detail in descriptive purposes. The comparison with a flagship contributory program showed a program principally focused on quantitative national outputs. Place-based qualitative outcomes were desirable at a local level but not as essential as housing numbers. Short-term political goals and organizational spending considerations focused the reporting of issues. Combing the data from the study in two principal findings was found to be straightforward to perceive.

**Finding 1** The potential benefits of critical systems thinking to area-based regeneration in Wales are compelling and prodigious. A likely cost-effective system of sustainable area-based regeneration for the long-term could be promoted in a cogent argument for the immediate benefit of unequal places in Wales to;

- Tackle complexity through responsible collaboration.
- Cope with making better decisions,
- Give pluralism in the field a better chance,
- Enable the shared construction of actions in local area change,
- Involve many disciplines,
- Recognize dynamics,

**Finding 2** In the absence of a meaningful long-term joining up of public service in a local delivery mechanism based on an actor agreed system for sustainable regeneration in Wales the rhetoric of responsible collaboration in integrated area-based regeneration would be unlikely to be matched by the reality of delivery.

**Developing Sustainable Regeneration**

Standards for Regeneration and Well-Being

The two findings in this Chapter was based on case study and contextual evidence from operational research in area-based regeneration over a five-year period. The development of a sustainable regeneration (SR) system benefits from the model set out in Figure 5 and is understood and explained further in this Chapter part, which could be put forward for regeneration actor’s consideration in;
- Developing greater reasoning skills (e.g. Case Study 2)
- Dealing with failures in comprehending realities of delivery (e.g. Case Study 3 and Case Study 7)
- Capturing many different views (e.g. Case Study 5)
- Summarizing periodic patterns of change – replacing an inherent inability caused by short-term programming (e.g. Case Study 6).

Six immediately and potentially beneficial place-based uses of the SR model are identifiable, with a focus on the model in discussion;

1. There would be an opportunity to promote higher-level professionalism in Wales in terms of regeneration in the context of place wellbeing, local government reform and new replacement EU policies and practices. Crediting much of regeneration excellence historically and currently being delivered through contribution programs such as Viable and Vibrant Places, higher-level professionalism can be facilitated in a systems view of policy and practice.

2. A systems view of regeneration could support the development and design of national standards by those actors involved the field themselves, acknowledging and sharing emergent practice.

3. Through conversations based initially on examining and critiquing the model of norms, influences and values set out in Figure 5, standards of most benefit to the sector could be subject to constant and continuous review. The model structure should be considered as a draft towards a thorough, carefully agreed set of whole system standards by those actors themselves who carry out the real work.

4. A higher regeneration standard annual conversation (supported perhaps by the Centre for Regeneration Excellence for Wales working with other institutions and stakeholders) based on a standing conference on regeneration performance would provide local and national actors accountable to the public the platform to demonstrate influence on local place based standards and change programs.
The benefits of making higher level standards in regeneration more transparent at a local area level could, with regular conversations of this kind, demonstrate to those affected by regeneration interventions through other communication events at a local level, a collective understanding of integrative progress and particularly stability and growth in the field.

Model standards can help to justify future place based tailored resource allocation to help underperforming places reach benchmarking thresholds. The draft model values in Figure 5 are suggested to reflect a balance of generic prescription and action based non-prescription to allow individuals and individual organizations the greatest flexibility to develop excellence, knowledge and ethical virtue in their own set up.

Confidence-boosting measures towards local areas over the longer-term would be delivered to counter short term policies and programs which are regularly discontinued. Symbolism is an important issue in periods of gross uncertainty and as humans communicate with each other in the medium of symbols, reified symbols can act as arte-facts for the creation of knowledge (McKay & Steiner 1997).

Re-ified symbols generally refer to making something real, bringing something into being, or making something concrete. Although not knowledge themselves; they are tools that people can use with each other in which meaning and knowledge can arise (Travers 2007) - a notion of knowledge that differs fundamentally from that currently found in mainstream regeneration thinking.

That local area regeneration would benefit from confidence boosting measures over the longer term is a conclusion of this research. The long held view that local government is the logical lead for local area regeneration is a powerful one but only if excellence can be seen as being encouraged and developed locally. Factors contributing to excellence are not always present in local area change and can be attributed to the constraints on regeneration working caused by both national policy, personality preferences and local politics.
In November 2015, Local Authority Council Leaders in Wales published an ambitious manifesto calling on the next Welsh Government to “show confidence and empower local councils to work with their communities to protect local services”. Central to the call was for all political parties to support the principle of localism.

In an interim review commissioned by Welsh Government of 22 local authority areas in Wales in 2012, the evidence of the current situation of joining up local area delivery mechanisms was that “the general governance arrangements in Single Integrated Plans (SIP’s) needed considerable attention”.

The SIP was “not necessarily understood as an opportunity to focus on intervention” with the aim of highlighting to Local Service Boards what worked best to address particular social problems as demonstrated through the analysis of evidence. “It wasn’t (then) always clear how delivery on the ground would be set in motion”. There were significant limitations identified “on the ground”.

In the review very few local authorities went further than providing a story behind an array of existing data sets. Although commonly good at “situation analysis”, detailing priority needs and population indicators, there was far less attention given to “response analysis” leading to necessary intervention.

A response analysis in regeneration fieldwork would be a critical system requirement in an actor-network system that would include an examination of interventions known to impact in some way on the social issues identified.

Of key importance, a response analysis, together with a unified needs assessment, would point to required ways to shape future modes of delivery.

“A greater focus on the effectiveness of interventions in producing their intended outcomes over the longer term would do a great deal to maximize impact and value for money, improve the quality of decision-making and make services more accountable”.

Few Local Service Boards in the review reported deliberate forms of citizen engagement in designing and improving public services with “confusion around what exactly citizen engagement involves”. There was often a lack of understanding of accountability terminology in RBA approaches and capacity issues around staff training.
Information sharing was “limited” and process evaluation and contribution to better outcomes needed a more considered approach alongside a detailed examination of intervention effectiveness.

Since 2012 it is unlikely that many of the issues identified in the SIP’s review will have been resolved. As part of local government reform in Wales, the transition from Local Service Boards to Public Service Boards has been a long while in duration.

While the early adoption of Well Being goals within the mandatory Future Generations Act has offered the potential to tackle these issues and for a more meaningful response to the needs of area-based regeneration, emerging themes from a June 2015 Welsh Local Government Association early adopters analysis (Netherwood & Brow 2015) would suggest that:

- Developing long term strategy across Local Authorities and Public Service Boards is likely to remain a major challenge (with desk based exercises aligning existing objectives to the Act’s well-being goals likely to dominate)

- The re-focus of strategy on place and community resilience will need careful management.

- Long-term policy narratives for an area, that involve future focused needs analysis will need to be communicated as a pre-requisite of strategy development and implementation at a local level.

The experience of working with early adopters shows that many good projects have been designed to address specific issues but importantly;

“Do not necessarily represent a strategic whole-systems approach to achieving shared outcomes across the community”

Guidance and capacity building needed to focus new Wellbeing Public Service Boards on delivering;

“Whole-place outcomes with a strategic long term focus, embracing whole economy solutions, including all sectors”
The early adopter program provided clear messages for the development of guidance issues needed;

- That well-being places are a strategic step change not just an alignment of existing goals to well-being goals
- That there is a strategic shift to focus on communities and distinct geographical areas
- That corporate change is required in public bodies
- That sustainable development principles should be used to shape activity not just to justify it
- That senior officers’ accountability is crucial

Importantly that;

“The Welsh Government, Welsh Local Government Association and Future Generations Commissioner should not underestimate the significant variability of understanding and capacity in public bodies to respond to this Act”, in whatever form of governance is developed by local government as they reform, its governance will be the way the rules, norms and actions are produced”.

Seeking to establish systemic values and norms in governance to shape the governance process as a whole will mean meta-governance would remain part of both the input and output of the governing system (Kooiman 2003). In the field of regeneration Welsh Government can continue to provide hands on meta-governance support and facilitation to self-governing local authority actors (and participation where required) in the process of local area self-governance through principles that shape the governing process.

Perhaps controversially, it should do so by not defining settings or actors who are responsible for governance but should however steer in a particular direction, where “it can be potentially exercised by any resourceful actor” (Sorensen 2006) who wishes to influence the regeneration process.
The evidence from this research project, however, is that Welsh Government is having great difficulty in “letting go” of command and control regeneration functions, despite a serious policy and program attempt through VVP at greater local empowerment in the field. The plan at the commencement of Viable and Vibrant Places, the Welsh Government flagship program for regeneration in Wales was local area autonomy, with a flexibility and freedom to spend allocated resources at a local level and a corresponding reduction in the scale of national and local administrative bureaucracy.

Whether this plan will continue in future programs is yet to be seen. There are reasons for a reluctance to let go regeneration functions and that is to do with politics and trust. Trust to make good decisions, through good governance, to assure better local outcomes, and particularly the delivery of logical and sound local investment.

Despite a significant improvement in regeneration disciplines and specifically because of VVP there are still too many examples of ill thought out concepts being approved without significant scrutiny and challenge. In joining up regeneration delivery there are also major challenges in current local area governance arrangements.

Meta-governance steering positively in VVP included the publishing of delivery principles to make resource bidding easier, the rules of developing integrative geographical strategies (Zonneveld et al 2012) by which the context of longer-term Welsh Government infrastructure and spatial development investment decision making processes could have possibly been developed.

Shared norms can deal with fragmented governance, and relate local strategy and vision heuristically to concrete implementation of projects and interventions (Zonneveld et al 2012). By providing systemic shared criteria in a co-operative national and local strategic framework to assess which programs and projects should be taken up a shared decision and a transparent process is more likely.

In the findings in this thesis the regeneration problem of democratic legitimization is dealt with by communication and conference and through the regular conversations, contributions in content and context of all public departments and actors involved in the delivery of regeneration at any level. A model for area-based collective responsibility co-operation and competition utilizing a sustainable regeneration system is shown in Figure 9.
In Figure 9, P1, P2, P3…is a representation of all national government departments involved in a local area change revealing their influences on delivery norms in a targeted area. A1, A2, A3….is a representation of all local geographical areas affected by delivery norms and influences, understanding and participating in those influences and norms of and in an agreed values framework.

The alternative of thinking about area-based regeneration in terms of a relationship maintaining system (Vickers 1995) in Figure 9 is not being concerned with the satisfaction of numerical targets, as they are impermanent and disappear on attainment, but with “changes in our relations or in our opportunities for relating” meaning the bulk of our activity consists in “relating itself” (Vickers 1995). Consequently, the primary task of those that manage regeneration becomes finding ways of maintaining its relationship with its contributors and its environment (Stowell 2013).
Many early adopter authorities in Well-Being see the 2016 Act as a real opportunity to develop strategic coherence for their area by “fixing” elements of what they perceive to be a dysfunctional system of partnership working at local and regional levels. To do this the meta-governor Minister and local area authority Leader amongst others must reduce an authoritative position and “participate according to the self-constituted rules of the game that exist in any self-governing local environment” (Sorensen 2006).

The design rules of meta-governance in the arête model of regeneration in this Chapter fulfill much of the above criteria and can be potentially seen as an indirect form of governing by Ministers and Council Leaders that is exercised by influencing various processes of self-governance as, “A way of enhancing coordinated governance in a fragmented political system based on a high degree of autonomy for a plurality of self-governing actors, networks and institutions” (Sorensen 2006).

Public service innovation would not be frustrated by the model in Figure 9, and citizen participation and involvement is enhanced by clearer and simpler explanation rules. The model provides for adaptability and flexibility and constitutes an arena for deliberation and dialogue (Engberg & Larsen 2010), channeling ethics, knowledge and progressive values towards a purposeful objective.

**Implementing Structured Collaboration**

Collaborative Governance, Collective Responsibility and Communication

There are five collaborative and structural “human system” potential benefits identifiable from this project, based on the research findings, that can contribute to collaborative governance, collective responsibility and communication, in implementing sustainable regeneration in Wales. They are that; critical systems thinking is of real and predictive value in understanding and explaining regeneration, as regeneration as a brand can be reimagined for well-being design in a systems view, where new conversations can be facilitated within a systems focus, and professionalism and transparent integration significantly improved through local and national standing conferences.
Potential Benefit Number 1 – Understanding and Explaining

Critical systems’ thinking is an approach with significant value potential for place-centered regeneration management in Wales through understanding and explanation: embracing complexity, enhanced ethical conduct, knowledge development, progressive measures and contextual real-time adaptability, the development of stronger and more transparent integrative public strategy. Public service regeneration could utilize systems approaches in change to good effect in achieving greater inclusivity, sustainable development and integrative action.

Increasing and necessary variety in local area regeneration is a permanent factor and a cause of complexity in a field of work seeking to deal with integrative issues. This variety could become even more noticeable as new local place plans are developed and choices are made between relative local priorities.

The management of increased variety in regeneration, now firmly in the hands of local and regional area partnerships, could benefit from considering additional explanation mechanisms to those which currently exist. Regeneration as a brand is particularly aligned with Wellbeing legislation in Wales from 2016.

The future utilization of a systems approach to managing change is a mechanism well worth considering in achieving more focused change; the wider encouragement of professionalism and public entrepreneurship, and greater results based accountability amongst contributing organizations and departments.

Potential Benefit Number 2 - Designing

Within a critical system framework, regeneration as a design brand can be further rebuilt in the pursuit of Well-being interventions from a current position of declining influence. With any more decline in national regeneration budgets regeneration as a brand will lose further significance. The trend of recent regeneration policy to greater co-ordination at the local and regional level will likely continue in its recent momentum. The brand is over 50 years old in Wales with a proud operational reputation and can deal with management strategies relating to trends, preferences and possibilities in common as opposed to merely targeting capital investment.
Although the current use of the brand through the £100m VVP program can be considered an improvement in the disciplines associated with integrative success, more can be done in securing the brands’ full potential. The brand’s flexibility in definition encourages place-based intervention designs in a variety of forms to come forward.

With the change of emphasis to geographical interventions on the horizon, a renewed focus on “one public service” and continued reduction in regeneration budgets; building on the brand as a system could be beneficial. It would come as no surprise to local and national stakeholders to see the brand continuing its recent more disciplined new public management form by increasing its design potential further.

The challenge of design continuity and feasibility in local place plans, where national government is no longer involved in many aspects of direct delivery, provides an opportunity for enhanced co-operation and in particular between national and local government.

**Potential Benefit Number 3 - Conversations**

Within a contextual system for regeneration in Wales, systems approaches can help where there are currently too few conversations on the things that matter to achieve further integrated working.

Conversations are currently too often restricted to administrative accountability rather than quality Administration. The delivery of a contextual system based on excellence is currently subservient to conversations relating to the targeting of reducing regeneration budgets. Without re-thinking the impact of regeneration activity-reducing impact is a likelihood given budgetary challenges in the public services.

To deliver a contextual regeneration system for Wales all public bodies should be willing to discuss their own areas of responsibility to all areas of need, including the constraints to excellence. Conversation aims should be at a more frequent and structured level and aimed at drawing on the creative capacity of everyone involved in delivery, practice and policy.
Real-time and future based conversations need not be burdensome with a structure in place. A means to understand why systemic difficulties occur can be supported for example by the use for example of standing conferences. Valuable common reporting protocols developed through Vibrant and Viable Places should not be lost in a future re-structuring.

**Potential Benefit Number 4 - Professionalism**

Professionalism is a challenging concept in local area based regeneration, which can be significantly improved by adopting an idealized model approach to knowledge development. Regeneration activity in Wales is over 50 years old. A significant number of practitioners and their tacit knowledge has left the field in recent years.

There will be a need to promote further regeneration professionalism to new entrants on a regular basis. There are many examples of good practice, there are also however examples of variation from normative standards which should be addressed and eliminated.

There is an opportunity to undertake further development work on a professional standards framework through the ideas associated with standing conferences. Two types of standing conference; in national and local forms are worth considering. How national and local government might best work together to design and influence standards could offer greater confidence in local area delivery in transparency and strategy.

Building on much good work by the WLGA and CREW there is a constant need to seek higher-level standards in terms of how, where and when regeneration actors are able to develop knowledge and share experiences. Ad hoc arrangements currently in place can be supported by a structured memory. This could provide the opportunity for structuring continuing professional development. No formal recognition of quality practice is currently acknowledged by peer group professionalism and this is an opportunity for change.

**Potential Benefit Number 5 - Integrative Transparency**

National and local annual or bi-annual standing conferences would be a starting point for discussions relating to norms, influences and values for regeneration actors and professionals, the continuous shaping of place-based professionalism in the public service and the facilitation of policy and practice change.
The idea of a national standing conference of regeneration principals, (analogous to that of the UK Universities sector) could be a cost effective intervention towards a professional framework of regeneration standards. There are currently no bespoke and acknowledged higher-level standards in use for comparative purposes. As a standing agenda item, influence on standards provides a structure for continuity in strategy development and the management of local expectations.

Following on from a national professional conference a great deal could also be gained from local area standing conferences where all public service departments contributing policies and programs to the “new” local areas discussed possibilities, reported activities and local area performance. Results based accountability from national organizations held to account by local area scrutiny as much as local organizations a major positive.

The possibility space created by local and national standing conferences would reflect the dynamic nature of change in the field and could lead to follow up face-to-face and electronic learning opportunities.

**Standing Conferences**

With the benefit of more structured place based conversations over the long-term such as through national and local-area standing conferences transparency and inclusivity are more assured. Funding proposals are likely to be more integrated, with a greater focus on inputs at the beginning of programs, essential to achieving successful outcomes and better funding bids.

**National Conferences**

Three Questions at an initial national conference on potential standards -norms, influences and values could take the following form;

Q1 Is the system and its parts set out in --------- appropriate and sufficient to enable the development of a professional standards framework for ongoing discussion?

Q2 How might a framework of standards and their influence be used to support continuing professional development and promote delivery quality whist minimizing the burden on individuals and organizations?
Q3 How could the expectations and benefits of a standing conference on regeneration standards and performance be demonstrated to local area stakeholders?

(Based on Universities UK, Standing Conference on Professional Standards).

The model of a possible standards framework set out in Figure 5 page 192, covers the inclusion of normative threshold standards for a variety of local circumstances, which could link to specialist knowledge, ethical behaviors and progressive measures, and continuous professional development both organizationally and individually. Recognition and reward through successful application is possible based on agreed standards.

Standards necessarily ought to be agreed by all actors as an initial step. The standards are currently limited by the nature of their development and should be open for constant reconsideration. Grouping matters of interest to match a range of actor interest in their own delivery context could then provide bespoke training opportunity.

**Local Area Conferences**

At a local area conference, all National and Local Government departments would be expected to respond to local place-shaping agendas to explain what they can do to influence progress. The events would help to develop further national strategy, local knowledge and delivery, the ethics of sustainable decision-making.

To have a high-quality interaction where participants themselves continue previous dialogues, plan future conferences, allow for recognition and appreciation of complementary roles in a participant-determined system would be the goal. The aim would be intervention in a problem situation, quality checks on model interventions. Exploring implications for system interventions in general and reflecting on specific interventions as the short term default position rather than the longer-term consultations, which currently persist.

A vast number of indicators driven by national statistical requirements currently do little for communicating the reality of change in a local area context. Members of organizations fulfilling particular functions will exhibit the traits of their own professional sub-cultures, clustering factors of interest in their own world-view.
This will include; professional language, traditional work practice, belief system ethics, perceived standing and power. Housing and third sector schemes are examples.

With a neutral model of standards in the field, reporting difficulties could be tackled. Many organizations contribute to local area regeneration outputs and outcomes. There have been difficulties in reporting area-based change in a multiple practice format in a consistent and contributory way by local and national organizations.

Relative organizational potential, size power, and influence in their operating environment can skew important messages to stakeholders. Although there will always be internal political systems involved which will considerably influence communication styles in the field a common systems based language could help to translate progress into stakeholder terms both locally and nationally.

Very few change ideas originate with purely a bid process overseen by governing boards. There is little reason to expect competition on its own to be the source of Administrative learning or technical change. Board members as nonprofessionals cannot be expected to have responsibility for initiating technical improvements.

In this Chapter, a greater understanding of the potential benefits of critical systems thinking to area based regeneration was gained from operational, action and case study research in a pragmatic inquiry, which provided a set of useful techniques on how to look differently at the problems associated with the field of inquiry. In Chapter 5 an interpretation of the two principal findings from this Chapter, together with further detail of the potential usefulness and benefits of applying systemic approaches to area-based regeneration is found in theoretical values, returns and rewards. The interpretation here would use as its benchmark the thesis statement;

As the delivery of public interventions supporting area based regeneration increase in complexity, caused by greater service demands for the evaluation of management actions, the administration of regeneration in Wales can develop further…. as an arête system.
Chapter Five

Interpreting the Findings

A summary interpretation of the research findings in Chapter 4; of the potential value, usefulness and benefits of critical systems thinking and applied systems practice to the administration of area-based regeneration policy and practice in Wales, includes in this Chapter the implications of the research findings managerially, and of the theoretical findings for a wider audience.

With a further reflective interpretation of potential value of systems thinking in Volume 2 Appendix 5, the use of systems thinking approaches to describe and explain how area-based regeneration could be administered systemically in Wales offers an additional approach to change management from that which currently exists that to produce better outcomes in tests of the development of public value.

5.1 Modeling Change; Evaluating the Findings
5.2 Ethical Value in a Systems View
5.3 Knowledge Value in a Systems View
5.4 Progressive Value in a Systems View
5.5 Adapting Contextually in Real-time
5.6 Integrated Exchange Rewards
Chapter 5

Interpreting the Findings

In the context of a national transition of regeneration Administration in Wales between 2012 and 2017, a greater understanding of regeneration policy and practice was found in a systems view. The evidence gained from operational action research enabled findings to be made from the research project. The work progressed from a bottom up consideration of policy and practice. The sequential study logic model was based on;

Observation of Past Behavior
Local Delivery Norms and Regularities

Analysis of Real-Time System Parameters
Representing Essential Influences - Towards
A Sustainable Regeneration (SR) Structure

Literature Based Value Judgments
and Comparison of SR Structure with
Empirical Evidence in a Contributing
Policy and Practice

The Explanation of Sustainable
and Systemic Regeneration Behavior
with Recommendations

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<td>Imitating Regeneration Norms (IRN)</td>
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<td>Representing Essential Influences (REI)</td>
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<td>Explaining Regeneration Structure and Behavior (ERS)</td>
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<td>A Systemic Argument for Regeneration Leadership/</td>
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<td>A basic tool of Responsible Collaboration</td>
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The progressive findings were merged into two principal findings in Chapter 4 and were developed into six model uses and five substantive benefits as recommendations for further consideration. The considerable potential value of systems thinking to area-based regeneration was summarized in the principal management findings as follows.
Finding 1 The potential benefits of critical systems thinking to area based regeneration are compelling and prodigious. A likely cost-effective system of sustainable area-based regeneration for the long-term could be promoted in a cogent argument for the immediate benefit of unequal places in Wales to;

- Tackle complexity through responsible collaboration.
- Cope with making better decisions,
- Give pluralism in the field a better chance,
- Enable the shared construction of actions in local area change,
- Involve many disciplines,
- Recognize dynamics,

Finding 2 In the absence of a meaningful long-term joining up of public service in a local delivery mechanism based on an actor agreed system for sustainable regeneration in Wales the rhetoric of responsible collaboration in integrated area-based regeneration would be unlikely to be matched by the reality of delivery.

Interpretation in this Chapter deals with an interpretation of the findings; in the potential benefits of critical systems thinking and practice to the field of regeneration in Wales, and in the managerial implications of the research findings and theoretical findings for a wider audience. The value and usefulness of a systems view to regeneration in Wales at the current time is considered both pragmatic and practical.

The summary interpretations are in six parts and reflect the ten questions which make up the arête regeneration desiderata principles from Chapter 4, together with the possibilities associated with returns in self–organization and integration. The interpretation uses as its benchmark the thesis statement;

As the delivery of public interventions supporting area based regeneration increase in complexity, caused by greater service demands for the evaluation of management actions, the administration of regeneration in Wales can develop further…. as an arête system.
5.1 Modeling Change; Evaluating the Findings

The response in this project is a response to a hypothetical contract with the brief to develop arête ness (excellence) in regeneration further than is currently the case. It is necessary to have a clear idea of what public service is trying to achieve in regeneration and in its relationship with the new Well-being goals and in a more informed picture of what works, to be able to better inform Ministers and Citizens alike.

Increased complexity and greater public service demands for the evaluation of management actions is the management problem being addressed. In attempting to fulfill the purpose and functions associated with arête ness or excellence based on knowledge, ethical virtue and effectiveness, further than currently exist, modelling combines a generalization of values, reality and instrumentation (Vickers 1995). Modeling is a way to achieve holistic thinking; rather than focusing on individual or specific programs, to move away from short term decision making, creating space for preventative thinking, how to put integration, collaboration and involvement into practice.

The arête principles in this project are independent of domain, substance type or temporal scale and they illustrate the potential for conversations between those actors involved in producing local area change and also communications with those affected. Whether new conversations and communications take place is however beyond the scope of this study, but is a hoped for outcome.

The arête explanation model in its final form in Figure 5 is visualized as relationships between component blocks that have connections drawn between them. Although an abstract design the model attempts to define what matters in terms of a network organizational form, where one dominant national organization must have relationships with many organizations with many links and shared goals.

Sherwood (2009) argues that with hindsight all good models will be self-evident. To aid decision making the purpose of normative and influence modeling is to capture situational reality and accordingly cannot contain anything “new”. In the policy and practice of VVP when faced with dilemmas and difficult choices decisions did not always reflect the model desiderata.
Without a model, how else then could there be an explanation of difficult choices, which with hindsight might be regrettable? In empirical and theoretical validity, the case is arguably strong. In application validity only time will tell.

If modeling does not conform to a desired reality or fails to make intuitive sense it is probably at best incomplete, at worst wrong. On the question of obviousness can the model be criticized fairly? Does the model show nothing new? Are the elements trivial? Are the components self-evident in terms of understanding regeneration policy formulation and dynamic behavior? (Sherwood 2009)

The model developed in this project can be viewed as a sub-set of well-being, dealing with collective responsibility and collaborative governance, both as a strategic and operational tool in contributing to well-being goals. As system architecture the model is capable of being seen from multiple views against the environment super system in which it operates and in responding transparently to the challenge of satisfying the nature of local area need. The Future Generations Act Commissioner and Wales Audit Office will have complementary roles overseeing how the Well-being Act is being implemented. Model standards could form a benchmark to assess the approach being taken in a particular area or for a particular significant project.

Welsh Government and Local Government are capable of a greater contribution to Well-being goals. Within Welsh Government the Corporate Leadership Group focus on the Well-Being and Future Generations Act relates to context, competencies and courage. The issue of politics and the challenges around doing the right things when Ministers may have a restricted and alternatively driven view of regeneration demand will be an important consideration.

The Ministerial Advisory Group (MAG) on Regeneration in Wales and the Centre for Regeneration Excellence in Wales (CREW) ought to be consulted on the future potential for the arête model in operational terms. The main operational recommendations in the project utilizing the model concepts involve public value and the promotion of national and standing conferences on regeneration and Well-being.
The recommendations in this project associated with a national standing conference of regeneration professionals, as a cost effective intervention towards a framework of regeneration standards, and local standing conferences, where all public contributors to local area change discuss possibilities and report activities are recognized however as beyond the scope of this project. The benefits to MAG and CREW could nevertheless involve helping with strategic and operational sustainability, integration and confidence.

Demand from the view of place as customer, a horizontal not vertical focus, is in the creation of public value, buying results, not products, from the system to be mapped, the sequence of processes involved in creating public value end results, relating to economies of time, not economies of scale (Seddon 2008, Sherwood 2009).

In regeneration, demand is as much about failure demand as value demand. Value flow from preparation activity, such as parallel sequencing and pull capacity, responding to signals to reduce forecast uncertainty (Seddon 2008). In a human activity system perfection cannot however be copied and variability in place shaping and process variability and variation analysis such as in the processes involved in decision and control, is required to be amplified.

In the final part of Chapter 4, system considerations of interest were compared in national and local primary categories. In this synthesis the primary service transactions and concerns are those simply that create value to place-based needs and have been identified by grouping similar administrative products and services in an idealized consideration. The complexity in typology in this project has required intense researching over time prior to reintroducing concepts for comparison towards the end of the study process.

Where the system of concern begins with the end in mind -and with those factors, which can be influenced by the organizations involved in the primary transformational processes, system design mapping (Bicheno 2008) in regeneration suggests a high variety process where the system must be designed to “absorb” variety (Seddon 2008).

The idea of back from the future requires a design of an ideal state, moving backwards to understand what barriers are in the way. Implementing an imperfect system has the benefit of being improved over time as problems can be “pinned down” due to the complexity of interacting factors (Ackoff 1974, Checkland 1981).
In addition to demand, the considerations in developing an idealized public service system has dealt with a check of purpose, value flow, variability capacity, constraint analysis conditions and management thinking (Deming 2000, Womack & Jones 2003). The purpose statement developed is an attempt to capture the essence and richness of the current situation. The purpose statement and the purpose of the system in this project is;

**To attempt to deliver Arête regeneration: that is; place-shaping based on excellence, knowledge and ethical virtue, involving local and national actors in change processes, pragmatically dealing over the long term with problems of scale caused by past legacies of industrial decline.**

From these considerations comes the abstract system conceptualization and an idealized design (Checkland1981), put together by asking the question, what are the minimum necessary activities for this purpose? How can this purpose be achieved as simply and directly as possible? An opportunity for creative synthesis or what ought to be? Not a description of what is at the moment but as if there were no restrictions or organizational politics but implementable with current available technologies. What the major influences are, the mapping of people, money, materials, customers, satisfaction, the measure of parts, a full concept - before seeking out specific improvements.

An understanding of place-shaping requiring an understanding of an administrative service “bundle” (Womack & Jones 2003) where hopefully nothing is irrelevant and all is relevant, an idealized repetitive, repeatable and flexible and interactive typology is shown in Figure 5, a large network system design capable of idealized comparisons.

Although service elements will change often over a very short space of time and will produce individual moments of truth (demand/pull) reliability of responsiveness will be a critical factor in maintaining a service. Repeatability refers to similarity in stages, rather than by individual area. Flexibility is an absolute place determinant. Satisfaction is built not through just one transaction but through the accumulation of experiences over an extended period in “moments of truth” (Bicheno 2008). In the Sustainable Regeneration (SR) models in Figures 5 and 9 in Chapter 4;
The nature of administrative regeneration policy and practice activities is referenced to place-shaping and the frequency of interactions and repetitiveness in a customer perspective is taken into account.

A mapping tool based on human system dynamics in an ideal system state is developed for industry challenge.

A rich picture of a system of interest is built.

A comparison of individual programs and projects contributions can be compared with the ideal from the ground up and from the top down.

An appropriate focus of change can be decided upon in a pluralized, feasible and desirable form. The system dynamic format is the appropriate framework for wants and do not wants to support agreements in real time practices and policies, which can be arranged across areas of support in a useful segmentation. Demands can be further segmented into ongoing operational stability basics and performance factors and delighters (Kano et al 1984) and ultimate local and community sustainability growth area needs and wants - for example in technology solutions.

Modeling regeneration and Well-being in this project has been an attempt to represent reality; however different people will always see reality differently. What is important regeneration to some will be very different to others. There is a standing army of special and vested interests in the field of regeneration interventions.

The advocate for example of tourism activity may believe the strongest driver of regeneration is tourism, the advocate of housing may think otherwise. Both of these factors (and many others) of course influence regeneration outcomes in the right places but must be subject to the tests of constant or temporary requirements. Neither of these activities are short-term fixes but one could have a longer intervention plan in one area over another to achieve a satisfaction and optimum policy aim.
The SR model in Figures 5 and 9 can be seen against a Bossel (2007) description of characteristics and potential benefits as follows.

- A structure that defines in a whole form its parts and processes and its connected behavioral relationships

- A boundary of three critical properties in public service regeneration excellence, namely ethical conduct, necessary knowledge and progressive measures, shown within the structure as component elements, to which change through associations with ongoing relationships can be attributed and measured in the determination of cause and effect.

- The functioning inputs, processes and outputs of local area regeneration causing change in some way, adaptable to local decision making, control and feedback.

- The flow and leverage points associated with decision and control, co-operation, collective responsibility, collaborative governance and co-ordination.

- The self-organization leadership competencies required to assess the state of service provision in the combined results based accountability assumption in one public service.

- The encouragement of new definitions, descriptions and working assumptions as a result of design incompleteness and imperfectness.

As such the SR model in Figure 9 (adapted from Bossel 2009) has the potential for;

- Improved conversations as a driving force for better delivery of local area integration, through co-operation, collaboration and competition, to help to inform the way interventions are professionally planned, developed and managed.

- Decomposition in learning and development opportunities and knowledge sharing in supporting organizational and individual behaviors and as an induction tool for newcomers to the field.
Freedom for regeneration entrepreneurs to design their contributions within their own skill base and context in fitting with a structured place based response to regeneration need.

Ensuring all aspects of a program or project development has been considered for the purpose of resource bids and also their assessment to help determine whether proposals being put forward are rounded and deliverable.

The new Public Service Boards and other governance arrangements as they are established in Wales to promote and deliver required consistency and an assurance mechanism to complement that which already exists.

The delivery through standards to assist as a complimentary tool with the delivery of activities aimed at Well Being.

Because the arête conceptualization has been produced from root definitions it should overcome the potential problem of artificial boundaries that may exist. The conceptual model can be broken down into sub-systems that work together more closely than with other systems leading to suggestions for change.

The strength of this methodology is “based on the things themselves” Husserl (1931) and is the disciplined structure that analysis brings, through accurate definition, that the concepts are not random, but are seen in context with other requirements and constraints and subject to the test of utility. An actual situation can be compared with the idealized situation, in a consideration of the correctness of the concept groupings, what things are shown in the concept? What things are found in practice? What’s missing? What changes if any are feasible and practical?

The ideal state in a model of what ought to or should be happening and modeling merely codifies it. Prioritizing demand from within the model would reflect the demand-people mix and should therefore reflect the effective use of skills necessary to respond to demand (or procurement thereof). A people axis ought to reflect the availability and performance of actors and their skill sets that are able to satisfy demand. People aspects including attitudes and behaviors and measurement although of real importance are however not the focus in this project which has been a focus on process before a focus on people.
Deming’s suggests of 94% of problems are to do with process 6% with people. The question really is will a focus on the problems of process be welcomed by Welsh Government, Welsh Local Government and others?

In the next three Chapter parts a systems view of regeneration is briefly interpreted in terms of ethical, knowledge and progressive value. Additional material in each of the three interpretations can then be seen extended by referring to Volume 2 Appendix 5.

5.2 Ethical Value in a Systems View

In this project a systemic focus involved promoting a system which “demonstrates ethical and facilitative approaches over time” to achieve professional practice co-operation and collaboration on a practical level. In this Section it will be argued how norms, influences, values and new conversations and communications based on systems properties can help to make better co-operative and collaborative relationships, create more effective plans, deliver more effective investment and enable more effective management responses to local area change. These issues of sustainability are grouped as ethical values and are essentially part of the role of government and governance in its many forms.

Enhancing Co-operation

Making things happen in the field of local area based regeneration is the centrally critical requirement of a systems approach to change, requiring a manipulationist and interventionist (Woodward 2003) view of causality. The centrality of cause and explanation of interventions is considered later. It is, however reasonable to optimistically assume that to achieve sustainable results in the field, where you cannot do just one thing, co-operation is a fundamental requirement.

There has to be two or more parties involved in co-operative local area regeneration by its nature. The important variable in characterizing the interchange is their degree of their interdependency (Rikerjoe 2010) in achieving outcomes.
The degree of interdependency is a function of the value equation involved, where value equates to benefits compared with costs, and not always financial. To be believable, an optimistic view of co-operation must nevertheless acknowledge the reality of human nature (Axelrod 1984). “We know that people tend to look after themselves and their own first. Yet we also know that co-operation does occur and that our civilization depends upon it”. In Hobbes view (1651) co-operation could not develop without a central authority and consequentially a strong government was necessary. Today nations interact without central authority (Axelrod 1984) with mutually rewarding actions leading to an elaborate set of norms. Reciprocity is amongst the most important norm.

In local area regeneration reciprocity is a key factor between national and local entities, but the problem (and opportunity) of co-operation –the pursuit of self-interest –can sometimes lead to less than optimum outcomes. Self-interest can be represented by political and professional ego’s, sectoral and lobby groupings, departmental and job protectionism. Activity that alters strategic interaction in such a way to fundamentally change the perceived nature of the problem by producing “solutions”, unconnected to problems, is evidenced and acknowledged in this study in a systemic view.

What makes it possible to reduce destructive self-interest and for co-operation to emerge is that actors “might meet again” (Axelrod 1984). “Continuing interaction is what makes it possible for co-operation based on reciprocity to be stable”. Public interaction and systemic approaches recognizing destructive and importantly constructive self-interest here is necessary.

The arête model findings and recommendations in Chapter 4 are reflective of this recognition. The systemic recognition dealing with how mutual co-operation can be secured comes in three categories (Axelrod 1984): making the future more important relative to the present, changing the pay-offs to the actors and developing the actors, (through norms) in values, facts and skills that will promote co-operation.

Creating Effective Plans

Since 1992, the Joseph Rowntree Foundation (JRF) has been trying to discover through place-based research what works in the regeneration of unequal places. The research findings show that each area is different, with its own distinct problems and opportunities.
“Local initiatives must be allowed the room to grow and find their own ways of responding to local needs and priorities” (Taylor 2008).

Nevertheless, JRF research also highlights clear similarities in the creation of effective plans that all regeneration initiatives should address. Logic modeling without inhibiting criteria through systemic approaches can help with this creative work.

Local areas can translate their circumstances in their own settings through systemic terminology into concepts of how to solve, in part, local dilemmas now and in the future (requisite activity) by assessing their situation and by placing it in a larger context (relative priorities) (Greenleigh & Blakely 2013). They can assess groups affected by any potential activity to determine how these will respond to different courses of action (satisfying stakeholders) and in this way provide local solutions in support of national interventions.

They will be aware of dimensions of national interventions (change appreciations) that serve as a basis for local area development; monetary and tax, trade and welfare, health care and employment legislation but will naturally only be able to act within their own sphere of influence. Understanding of plans and planning in systemic terms can facilitate hierarchical system and sub-system thinking as a facilitator.

They will understand the local context and the applicability of local theories of growth, development and wealth creation. Growth-defined objectives will mean different solutions for different places. Exhaustible natural resources, one industry towns or one factory places, more than one industry towns but with a narrow industrial base, will be different but not unusual drivers of change.

A focus on a desired end state rather than a purely growth defined objective (Greenleigh & Blakely 2013) may be appropriate in many parts of unequal Wales. In the Greenleigh & Blakely description of sustainable development, local area regeneration is seen as successful when the standard of living in a place can be preserved or increased over time, through a process of human and physical development that is based on equity and sustainability. These are ethical concerns as much as economic, environmental or social concerns which can be supported by a systems view.
A rising standard of living can be usefully associated with the production and consumption of better goods and services, sustainable encouragement of resource use, quality housing, and job creation that creates greater equality reduction. In this regard intervention constructs should always mean interventions are subject to the process and planned testing of viability (viable constructs).

**Delivering Sound Investment**

The UK Governments approach to public service delivery is that more public services will be outsourced.

“The landscape for public service delivery in this country is changing fast. In the future ever more of our public services will not be delivered by the public sector itself but from the outside, whether by employee led mutual joint ventures, social or charitable enterprises or conventional commercial providers. It’s a new era” (Maude 2013).

Standards of financial propriety will continue to be a dominant system requirement. The media in particular understands the need for regular scrutiny of investment decision making.

“In these tight economic times it is particularly important that maximum value in public spending is achieved” Procurement Policy Note (Public Services Social Value Act, 2012).

Standards in regeneration need describing, and in a form for greater understanding ought to take a model form. The Welsh Governments perspective is that

“markets will continue to combine a balance of services which may be delivered internally by the local authority or secured externally through grants or via a procurement exercise. Local authorities should consider the benefits and risks of the options available and have a clear decision making process for deciding when to use different approaches” (Welsh Government 2012) Fulfilled Lives-Supportive Communities, Commissioning Framework Guidance and Good Practice.
The public sector currently funds regeneration deliverers in Wales through a mixture of grants and contracts. Although grants are often the preferred method of funding to local areas through local authorities there has been a noticeable shift from grants to contracts in recent times (WCVA 2011) in funding the third sector in part due to recognition from Government of the role of the third sector (in particular) in delivering public services.

Grants however remain are very important in Wales and make up a significant sum of annual funding. Specific grant funding is used more heavily in Wales than in any part of the UK (WCVA 2011). The Welsh Government uses grants as a powerful lever for achieving their policy objectives. Grants both initiate and sustain significant economic and social activity by local government and the third sector.

The Welsh Government as grant giver is not contracting for a service that is part of its own business. Grants are forms of financial assistance, which encourage regeneration activities that would not normally be undertaken and may be aimed at assisting with the core costs of running and developing an organization or more specifically to help it carry out a particular program, project or service.

“From a legal perspective the recipient is under no legal obligation to do or deliver anything, but may only use the grant monies received for the specific purposes for which they have been made available. Very few grants are however true grants and most grants are subject to legally binding terms and conditions. Despite some ambiguity the difference between a public contract and a grant is clear and is detailed in how grant monies can be used. Providing how grant monies should or should not be repaid in certain circumstances”. Welsh Assembly Government 2009, Code of Practice Funding the Third Sector).

All public and third sector organizations involved in regeneration are faced with the task of allocating scarce resources ethically and with financial propriety towards regeneration activity.

“But despite the importance of these activities, there has been little attention paid to resource allocation processes in the empirical literature on organizational behavior and management” (Pondy 1970).
There are at least two views applicable the allocation of regeneration resources. One view suggests that objective criteria dominates the decision process. Baldridge (1971) calls this the bureaucratic model of decision-making. In a regeneration actor-network model spend-units are expected to produce uniform treatment. Resources allocated according to a universal process and accepted audit requirements would then be a desired norm.

The second view argues that objective-criteria do not explain organization decision-making (Baldridge 1971, Cyert and March 1963). Political factors here can distort the objective decision making process.

The second view is reinforced when organizational goals and decision-making criteria is ill defined. Consequentially, resource allocation decisions result from discussion, bargaining and compromise amongst influential stakeholders. The influence and political activities of network deliverers thus substantially has the ability rightly or wrongly to influence resource allocation outcomes. In these situations, even to avoid a perception of bias delivering sound investment ought to be balanced by an agreed standards based systemic approach.

**Enabling Managed Responses**

The requirement for clear boundaries in attempting to deal with complexity, and “the conservation of identities amongst a network of actors” involved in regeneration, is reflected in the theory of autopiesis (Luhman 1984) and in the claim that a social system is a system of communicative events, where one communicative event produces another. Although perhaps contradicting and not capturing a “sense of healthy lived experiences” (Stacey 2001) the theory appears to satisfy many of the conditions precedent in practice for enabling managed complex regeneration responses.

Communications in regeneration almost always seem to refer in practice to previous communications and lead to others. In the current regeneration situation, VVP, the subject contribution of this study, there was a distinct sequence of process based communicative events. This formed the ongoing convention in the public Administration of regeneration where another policy, in what was believed to be progress, followed an earlier policy. Communicative events in regeneration are however not always about (A)dministrative thoughts of boundary, and excellence or knowledge or ethical virtues or influence within a boundary, but are often about thoughts of (a)dministrative excellence in the allocation of resources, on audit trail processes, on capital and revenue availability and constraints.
Mainstream thinkers are unlikely to reflect in place-based terms of collective responsibility upon the underlying causal or normative framework unless there is a one off event of note. These are rare and ought to be regular. These events do sometimes happen but more often than not are unstructured or fragmented. There is little of a (SR) structure in communications. Wheels can be reinvented. The evidence of fragmentation is often found in regeneration conferences, of which there are many. Communicative events here are too often reductionist perhaps because of different perspectives that cannot be integrated, perhaps because they are needed to be distinct and incompatible.

They are often formed of specialized speakers “informing” an audience of paying participants of what is good for them. In contrast a plurality of views from those involved and affected is a potential strength underused (Easterby Smith 1997). These “information” events are generally separate from those involved, from communities of practice, and from people who “come and go”.

Information events reinforce the impression of a disorganized complexity. A reductionist system of communication in these circumstances can do little, if anything, for the enabling of managed responses and an integrated system of regeneration in Wales.

In the circumstances where there is generally no concern with adequately serving the problems within a systemic regeneration boundary, there would appear then that there would be a considerable benefit to be gained from a system based integrated perspective, perhaps complementing a reductionist approach through frames of reference provided by models of logic, such as the logic model identifiable in this project. A system of further rules in the public service in dealing with organized complexity would seem to be unavoidable if developing integrative excellence is to become a reality.
5.3 Knowledge Value in a Systems View

Performance and public organization in area-based regeneration, in the future, re-defined in a network form of organization necessary for the tasks anticipated, can be seen as being largely dependent on local knowledge through local practices and on themes continuously produced that “pattern the experience of relationships and being together” (Stacey et al 2000). Amongst network communities of practice knowledge learning is generally fragmented despite some notable exceptions. How to utilize necessary knowledge whilst developing emancipatory knowledge of boundary, process and evaluation then becomes the consequential knowledge system challenge.

Assurance from knowledge captures these themes and can be divided for interpretation into how to use knowledge and how to develop it; in achieving effective governance, the making of better decisions, the development of necessary capability and capacity.

Assuring regeneration quality from knowledge is a particularly difficult idea. There are diminishing circumstances that anyone says that this regeneration management service was particularly good or bad or that those involved failed in or were management leaders in the field. Given that quality assurance is however “not only established but institutionalized in the management of public services, and seems unlikely to disappear for the foreseeable future” (Travers 2007) it is a topic worthy of some consideration. We begin with the effectiveness of governance and some examples in VVP.

Achieving Good Governance

Assurance has in theory become central to Welsh Government policy and practice and therefore to regeneration public service. The Welsh Government is considerably concerned towards whether procedures are being maintained, whether documents are correctly worded. Managing the work of completing many forms is necessary. All government activities have stringent auditing requirements. Anyone managing public service has to prepare for auditing requirements taking up a great deal of time.

Whereas auditing has in theory been extended beyond looking at financial records, and accountants in the public service can conduct value for money and performance auditing, it can however become “decoupled” (Travers 2007) from the work of providing services on the ground.
In VVP the clear policy change devolution of responsibility and (planned) financial autonomy from national government to local government– was expected to focus on customers –and meant a new administrative culture which placed a greater emphasis on knowledge, evaluation and the monitoring of performance. Governance processes reflected multiple networks and the importance of context. Driving up accountability was and is firmly on the agenda.

Of the knowledge mechanisms available to local regeneration delivery organizations in day to day work; maintaining procedures, management responsibility, the everyday experience of specialists in risk assessment and in the exercise of judgment, internal audits, inspections and testing, monitoring and corrective action, measurement and limited forms of evaluation were all in use. Assurance of what was absent, inappropriate or sub-optimal was however limited in a number of examples. Knowledge working in governance arrangements ought not to be subject to unacceptable variability. Power (1997) sums it up.

“Although it benefits national and local government departments to keep good records and particularly the protection of the individual against unfair and unreasonable accusations, there is little in this mechanism, which ensures that local area change processes are receiving adequate attention. Forms are often no record of real progress”.

It is relatively easy for regeneration scheme promoters to provide insufficient or to conceal material information from external resource allocation decision makers. It is also relatively easy for boards of scrutiny or resource allocators to not have enough important information or disregard important information in decision making. That there is no reliable or scientific procedure available to tell the real problems in area based regeneration is evident in normal everyday practice. They only tend to appear in ad hoc conversations, in irregular and after the event “monitoring” or through the tacit knowledge of an experienced practitioner.

“A great deal of unseen work is required by professionals to make assurance work as a system” (Travers 2007). Whether a regeneration program or project is doing well or badly, in the exercise of governance, judgments suggest a greater role for accreditation. The role of Welsh Government practitioners in area-based regeneration through VVP had shifted from creating public value to the witnessing of public value. The creative knowledge role had then generally become a role for others.
The problem for others however (Polyani Nonaka and Takeuchi 1995, Cook and Brown 1999), involved in regeneration policy and practice, is often that “governance knowledge is more unconvincingly analogical than tacit and explicit”. Tacit knowledge is personal, context specific, highly ingrained into action and therefore hard to formalize and communicate. Explicit knowledge on the other hand, is knowledge that can be captured and communicated in terms of reports, articles, manuals, blue prints and in systems that work.

**Making Better Decisions**

How to use knowledge in making better decisions in area based regeneration begins at the level of decision associated with making relative priority rankings of programs and projects.

In the health sector and in some local authorities the problem of competing programs and projects with different patterns of outputs and outcomes has led to approach in financial management termed “goal achievement matrix” or “desiderata ranking” (Coombs & Jenkins 2002). Adapting this type of approach to regeneration, in building on current decision making practice, ought to produce a greater focus towards transparency. There is a need to respond to the need for even greater transparency in current decision-making practices.

Desiderata ranking is a concept used in making better decisions sifting a variety of options to arrive at an optimal decision. At the local level a small team of actors “well acquainted” with the possible activities, constraints and relationships associated with the purpose of satisfying the nature of local area needs is established to define the desirable regeneration logic in any one geographical area and the things they are looking for from normative practice.

The team as a result is not dominated by local actors with natural duties of care to their own organizations, with their own special interests, and ought to then hopefully behave as a neutral challenge mechanism. The logic model (IPO) inputs, processes and outputs, or desiderata goals would follow a weighting to reflect the relative importance of actions at any one time. Program and project designs and actions would then be sought and shaped against the desiderata.
Of particular concern nationally would be the degree of readiness for support i.e. the realistic and reasonable probability of the program and projects being delivered on time to a required quality and within budget. A value proposition and minimum confidence threshold would be a decision making trigger.

Failure to meet the threshold would suggest a proposal requiring further development leading to approvals in principle prior to expenditure authorities to commit. The merits of a potentially valuable proposal requiring further development would however enable financial and support commitment to development activity given the relative importance of any submitted proposal.

By being judged by reference to the IPO logic and desiderata rankings (such as those outlined in the arête model) public value would then be subject to regular update. The time-horizons of public funding is a key consideration and relate to the degree of program and project complication and complexity. The process conducted at local and national levels by small teams of well-acquainted and experienced actors would require full information to be as objective as possible in the determination of realistic prospects.

The work involved in desiderata decision making can also be citizen based where programs and projects are less complicated or complex. It however becomes a more professional activity as programs and projects become more complicated or complex. Nevertheless, decision making choices at any degree of difficulty need to be judged by citizens involved with or affected by local area regeneration activity and justified at the appropriate level by those affected or involved and by their political advocates.

The knowledge of citizens of regeneration norms, routines and influences that can transform into valuable plans, activities, products and services, ought to be a transparent and a systemic objective. The principle of subsidiarity is of particular importance then in regeneration delivery and how best to develop knowledge for the benefit of citizens affected by area-based regeneration activity.

Decisions on the best use of scarce resources among competing ends in regeneration in terms of effectiveness, equity and sustainability i.e. fairness and futures ought to involve citizens being clearer through knowledge of boundary, process and evaluation, of influences in constraints and possibilities, relationships and the nature of need.
What we talk about, when we talk about knowledge in regeneration in the support of
decision making is however often about need information and data, and not intervention
logic, and has resulted in knowing a great deal about the nature of need, but a lesser amount
about possibilities and constraints, relationships and policy.

The volume of need information and data in the field can be attributed to some extent to
making citizens and actors no longer able to make sense of regeneration, in making better
regeneration decisions. For civil servants for example knowledge has become data as
computer system information becomes dominant. As such experience, truth, judgment, and
rules of thumb have become less important.

Despite a common database encouraging information sharing in Welsh Government,
restricted knowledge through silo working seems for some reason to have become more
noticeable in elements of regeneration practice. Civil servants and local authority public
servants would benefit from developing a wider experience in regeneration knowledge. A
wide acquaintance with the variety of activity in regeneration may only be available to the
few but would create an essential source of value to regeneration in Wales if able to be
mobilized.

Knowledge from experience “changes ideas and has ground truth” (Davenport & Prusack
1998) with the potential to tackle increasing complexity. It however seems appropriate that
it “takes a complex sensing system to regulate a complex object” (Weick 1976).

Where decision-making and regeneration knowledge variability was naturally occurring in
some VVP decision making, in arête model terms, a concentration on inputs as well as
output boundaries would have likely secured greater assurance and eventual successes.
Speed of decision making and incorrect assumptions can often come at a price of ignoring
essential elements and factors in making important choices.

**Developing Capability and Capacity**

The approach of Welsh Government, the Welsh Local Government Association and the
Centre for Regeneration Excellence in Wales, to capability and capacity development in
regeneration in Wales as evidenced in VVP can be perhaps described as being generally
based on soft-paternalism to coincide with short term regeneration objectives, with again
some notable exceptions.
Although the approach is facilitative and satisfies a number of ethical conduct criteria, the approach is some way from a national capability hard-paternalism. (Claassen 2014).

Within Welsh Government the focus on regeneration skills capability in VVP is mainly based on witnessing and administering the allocation of short-term financial resources. Expertise development is unstructured except for civil service behaviors and values, which is subject to significant effort. Professional experience in the civil service in regeneration delivery has reduced very significantly over the last 5-year program timeframe.

The WLGA is focused naturally on developing and linking “strategy” across new possible councils in sub-regional ventures and on Public Service Boards “which is likely to remain a major challenge” (WLGA 2015) at the expense of non-statutory purposes. Corporate governance arrangements here reflect the dominant focus of possible organizational collaborations alongside possible new local authority operating models whereas a major shift for many officers and members previously forecast may not now be as disruptive as once thought.

In association with the two main public bodies, the Centre for Regeneration Excellence Wales (CREW) provided notable contributions in developing and enhancing skills in regeneration during the period 2013-2016 across a range of practices associated with regeneration and place improvement including place making, management and marketing, based on events and a focus on website and research commissions, national and international best practice. However, there was a general acknowledgment that there could have been a greater emphasis in their work on the “how to do” rather than the “what to do” i.e. a systemic view.

CREW itself would now be considered in a state of flux and transformation. A further loss of capability is likely to result from the movement of the CREW outside the funding umbrella of Welsh Government with the organizations funding coming to an end in March 2016. As a national activity the threshold levels of capability protection in area-based regeneration is therefore currently unable to be identified.
Capacity and capability as a consequence of old and new political and funding changes ought to receive more serious attention than it currently receives. In a long-term regeneration system greater benefits will only be achieved with a greater focus on longer term capability and capacity. Capabilities then ought to be a proper object of political interest and endorsement.
5.4 Progressive Value in a Systems View

In this section progressive measures are considered in how sustainable regeneration standards could be developed gradually over time, based on the expectancy of economic, social and environmental change in the initial identification and realization of norms, the revealing of influences and the recognition and addressing of risks in the processes of organizational development.

The current idea of regeneration in Vibrant and Viable Places (VVP), of a relatively small-scale short-term capital program function imbedded into a dominant housing function, is not the same idea as a national sustainable regeneration systemic function serving Wales’s most unequal places. In VVP there is significant discipline being developed but not enough depth or breadth of knowledge creation being prepared for those policy makers or practitioners charged with area based change. Building on VVP suggests that national success in sustainable regeneration could be the result of national regeneration standards being developed, establishing new national regeneration legitimacy. Regeneration in Wales has a long way to go if evidence of need is anything to go by.

Realizing Practice Norms

In the research question; what a critical regeneration system ought to be, the operative words “ought to be” puts the description of regeneration phenomena into the realm of normative statements. “Ought to” however does not also mean “can” in these circumstances, with claims of how things should be and how to value them, which things are good and which things are not so good.

Norms are fundamental for prioritizing goals, organizing and planning, whether formally stated or understated. Norms encourage or enforce social activity and outcomes that are socially valued (Nutley & Davies 2001). A number of critical regeneration norms were stated in VVP control documentation. Adoption of normative statements here were used to achieve a common set of requirements and should be considered as requiring regular updating and adaptation.
Norms can be used in assurance certification; implementation and the inter-operability of regeneration practice and can with voluntary collective adoption eventually incorporate into simple rules or standards (Nutley & Davies 2001). Normative statements in this project started from the bottom up and are described in the normative logic model of arête regeneration practice in Chapter 4. Included in its policy sense are the influences on normative practice considered most important.

Norms should be an important consideration for regeneration leadership, and some norms are. Adopting norms within a structural regeneration system is not however a continuing regeneration activity in Welsh Government as a policy in practice. In the absence of a rule based approach to regeneration organization leadership does not easily learn from clearly poor practice.

There are many norms developed into standards in public service. Government internal audit service works to standards issued by HM Treasury. The civil service competency framework sets out the generic skills that any civil servant needs to develop. The Welsh Government however has not set corporate standards for regeneration “advice” to others, although best practice policies are developed in order to hopefully achieve the best outcomes for the people of Wales.

Without a control frame, members of the regeneration “profession” try to do their job skillfully and professionally, but regeneration does not have the defined professional standards to make the job more achievable in the same way as more traditional professions. Ambiguity can be seen in a continued proliferation of ad hoc professional development. A lack of consolidation into a single solution means the numbers of actors at gold standard, base or temporary standard, cannot be determined.

In the absence of agreed regeneration norms as standards, sustainable regeneration is undoubtedly in question. The realization of practice norms through the development and adoption of regeneration sustainability standards ought to involve an increased interaction between regeneration organizations and individuals in shared practices and rules.
Revealing Policy Influences

The new VVP policy and practice framework and its supporting guidance documents identified influences affecting normative operational regeneration delivery and set out a national agenda for a program of local regeneration intervention for a three-year period. The theoretical framework included targeted urban development initiatives and the active participation of communities and the involvement of local people.

The variety of VVP initiatives in practice produced variations in evidence of the openness and inclusiveness of citizen participation. There is nothing unusual in this situation, however there is a history of variability in “exclusion” levels in area based regeneration that can take place when such programs are implemented.

Area based regeneration at a local level is not regulated and perhaps this is part of the regeneration complexity problem, where it can sometimes be seen as arbitrary and unfair to those not participating. A cause for complaint in funding allocations is that decisions are unfair and particularly when competing and failing organizations have made substantial financial contributions to try to participate.

For those local areas with a pre-arranged structure of citizen participation local policy and practice administrators may have had the opportunity to involve local community representatives. For those areas with powerful actors who may not have agreed with the direction of travel administrators may have had to reduce uncertainty by excluding certain actors to encourage a particular agenda (Greenleigh and Blakely 2013).

In systemic terms it is argued that the representation of local interests in area-based regeneration is best operationalized through partnership structures (Muir 2004) and through a greater promotion of “sites of interaction” between government agencies and civil society. A pragmatic yet ambitious “sites of interaction” communicative tool in a local area co-optic approach may well be appropriate in certain circumstances and is recommended in this project in terms of a systemic conference.

Based on an idealized partnership structure for regeneration relations, where power relations should be visible, in the form of a “changing amalgam of localized regeneration events and processes” (Bogard 1991) such a model is outlined and recommended in Figures 5 and 9 in Chapter 4.
In this sense the co-optic nature of monitoring and evaluation would be related to not only a national vision or control but would speak mainly to a sense of team working needed to tackle a local areas most complex problems. The balance of benefits over dis- benefits in this idea would be considerable, if hierarchically challenging. (Volume 2 Appendix 5).

**Recognizing Failure Risks**

The emphasis in this research project was on regeneration policy and practice, where you can’t just do one thing; ethical and facilitative conduct because it is a public service, necessary knowledge because performance as a whole depends on many actors and progressive quality measures because stakeholders demand it.

These elements can be thought of systemically as contributors to a single arête system of sustainable regeneration in Wales, in addressing the question what a critical regeneration system ought to be. Combining these elements in a single system in a first systemic orientation ought to hopefully help to recognize and reduce the ongoing risk of failures in area based regeneration, in the eyes of those affected by local area regeneration, and also those involved in making it work better.

In the current flagship regeneration program for Wales, VVP, the author found recognition of failure risk offered some important viable system perspectives and these were detailed in the case study evidence in Chapter 4 of this Volume, and also in Volume 2 Appendix 5 supplementary interpretations.

Bravely attempting to re-define coherence of regeneration in the field VVP was eventually put into a dominant department where other constituent units -with ten times the regeneration budget- found great difficulty in accommodating a “stray” and its routine procedures, because they dealt with different markets. Representing a major challenge and failure risk divisional management and an exponential increase in complexity, compared with conventional housing delivery, internal co-operation failures was to continue to mean little ability to influence organizational strategy and in its broader sense.

In a new policy and practice designed as a result of a major reduction in capital resources, where professional/technical and specialist resources were then considered unnecessary nationally, the consequence of resource shortages sooner or later would mean less than optimum local services, and a further reduction in regeneration identity.
In a field of intervention where many unequal areas in Wales have historically relied heavily on the general level of confidence or optimism regeneration activity was able to create, and especially as it affects motivation, there would be significant scope then for ongoing damage to both local and national organization and morale.

In Hoverstadt’s (2008) conventional systemic interpretations and Beers Viable Systems Modeling of VVP, analysis in Chapter 4 the author also found particularly useful archetypes of potential failure risks on which to draw comparisons. A further change in identity for regeneration was seen occurring as a result of VVP policy and practice, which for some meant that regeneration became too small to worry about to give proper attention to its ambitions. The function found a national home in 5 different divisions and departments over a 4-year period, becoming a remnant of previous operations, giving the appearance of not fitting neatly anywhere.

In this project’s research, during this period, the idea of realizing delivery norms was the primary basis for the recommendations in early systemic analysis. Understanding influences on norms at a local level then began the understanding of more meaningful citizen involvement. It would be a hoped for outcome that developing this work could gain the support of all those involved in the field. Only then will the usefulness of a systems approach to reducing failure risk in managing change really be tested.
5.5 Adapting Contextually in Real-Time

The adaptability possibilities provided for in a sustainable regeneration model in responding to local area need and opportunity is a key requirement in fulfilling the efficacy, effectiveness, efficiency, elegance, emancipation, empowerment, exception, emotion (Jackson 2010) potential in respect of a sustainable regeneration system design.

Responding to contextual demands of local areas and a changing environment is a constant challenge. Real-time problems of delivery are regularly if not always found. In policy and practice a state of adaptation exists when a desired end cannot be met and there follows a process of adaptation during which actors generate alternatives to original plans - sometimes at short notice and often without adequate time to plan. The structure of arête-ness in this project and the aim of nurturing a shared responsibility reflect the adaptation possibilities (including its cognitive adaptability). The structure would influence behavior if adopted by regeneration actors, for example as a result of making normative challenges a priority, and in the organization of reflective praxis and hence an adaptive response to its particular environment (Bossel 2007).

In the three sections that follow adaptability is considered in terms of assuring better outcomes, tackling complexity with simple rules and the returns from self-organization. The sections follow the logic model of outcomes from the adoption of an arête-ness orientation and desiderata in the model identified in the co-optic figure 9 in Chapter 4.

Assuring Better Outcomes

The structural system suggested in figures 5 and 9 in Chapter 4 in this project is proposed to assure better outcomes for unequal places, as a result of attention to detail, through: experts with widespread acquaintances with the underlying regularities and norms of daily work, and a structured conversational approach to standards and influences in the field.

To be of use the structural system ought to be able to address problems of interpretation, diagnosis, design, planning, monitoring and adaptation, instruction and control. Problems often associated with the aim of predictability.
Predictability in area-based regeneration is often closely linked with regeneration domains and cause and effect. The likely consequences of given situations are of interest in the delivery of results and the successes or otherwise of government. In a structured system aimed at complexity and unpredictability to say that a model of information has predictive value is not to say that is in itself a prediction. New information makes possible more predictively emergent models. Users can however be expected to favor those sources of information and analytical methods that have the greatest predictive value in achieving their specific objectives (Bossel 2007). Predictive value in complexity here means value as an input into a predictive process, not value as a prediction.

In the arête model comparison with VVP decision-making and the allocation of resources, for example inputs were not considered structured sufficiently well enough in terms of information to enable decision makers to assure better outputs and outcomes.

With a restricted focus on numerical outputs and a lesser focus on inputs and processes, some local area based outputs may well lead to sub-optimal outcomes. A five case business case model, seen as best practice at the time in VVP, and with little in the way of expert challenge to rely upon may have worked less well than with a bespoke model designed to be fit for purpose.

Variations in VVP program and project delivery and in a small number of cases maximum variations from the norm meant that a choice between business case models at program commencement could have meant, on the basis of their predictive value better decision makers’ predictions. In allocating resources at the commencement of VVP as a consequence, the assurance of better outcomes.

If for example more challenge was made in respect of inputs and process, (and specifically requisite activity and viable constructs) then more effective investment decisions could have been made. If greater scrutiny of the input description of viable constructs was made in funding bids, then in one case at least 18 months of time could have been saved in reaching a decision to abort a politically favored project. If a process focus concentrated on satisfying place-based stakeholders in addition to political stakeholders, then value creation would have been more transparent and less challengeable.
Across the regeneration delivery network in Wales what can be viewed as assurances to delivering better outcomes through real-time and predictive capability is shown in the arête model promoted in this project. Value creation is offered and characterized by the instantaneous processing and coordination of norms, influences and values as challengeable and reportable value chain activities (Chan 2007).

To achieve greater system assurance adaptation is possible on several structural parameter levels, physical, cognitive and normative. All would be structural changes in the system as parts and interconnections would be added or removed in importance; physical changes introducing/removing functional inputs or processes, cognitive changes introducing/removing concepts/rules, normative changes; introducing/removing normative concepts/weights (Chan 2007).

Adaptability through real-time system processing refers to the capability of a system to be able to respond immediately at the time a transaction (or issue) occurs (Ralston & Reilly 1983). Real time value chain management based on norms and influences ought to enable controlling regeneration organizations to be agile and responsive in a complex and changing environment and this was successful evidenced VVP adapting to problems in practice, for example due to issues around project and program eventual viability and deliverability.

In VVP, real-time management, requiring the capability of; conducting transactions, responding to situations with expertise and knowledge, leveraging the greatest public value and as a consequence confidence (Ralston & Reilly 1983), was however found to be limited to financial and numerical functions by both those in control of programs and those involved in delivery.

Although not described as such in practice the monitoring of real-time value-chain activities across Wales was regular and systematic, but mostly focused on ensuring expenditure forecasts were in accordance with planned forecasts. What was perhaps less effective was adherence to stated policy objectives and for example in the engagement with others notably the private sector in program outcomes and consequently impact.

In the case of an expanding VVP and an idealized regeneration focus, real-time optimization of the value chain would have required more multi-functional and multi-organizational integration and co-ordination of real-time activities than was to exist through VVP management activities.
Although this could have been enabled by agreed regeneration system intelligence at a high level nationally, it would in all probability have been far more effective if the locus of control was established firmly with an expert knowledge-based locally enabled system populated by skilled personnel.

An expert enabled knowledge-based system such as that promoted in arête-ness, operating at the local level could have included: better collaborative product/intervention design and development and procurement benefits. Support services for actors ought to have been able to be provided in real-time in a self-service mode (Chan 2007), referring problem questions e.g. compliance perhaps to a center of excellence set up for the purpose.

Knowledge-based systems are widely used in many areas of value chain management (Chan 2007) and although responsiveness and resolutions to problems in a complex environment requires a corresponding increase in human resource including experts and trained personnel, Just-in-Time arrangements brokered by a center of excellence seems to fit with knowledge-based systemic requirements in this context.

There is a Centre of Excellence for Regeneration in Wales (CREW) in existence providing traditional touch points such as conference and internet provision which has previously not ventured too deeply into the mechanics of delivery. In a systems approach there is the means to create and re-use relevant knowledge and human expertise as long as an organizational duty of care can be established.

As a concept in computer programming a common theme that links all knowledge-based systems (Hayes-Roth et al 1983) is an attempt to represent knowledge explicitly via ontological tools and rules. In the knowledge-based arête system outlined in this project the knowledge base represents ontological facts and the inference base represents the expert base, which can be derived from the model descriptions, which in turn can be derived from expert acquaintances with the real time field under review.

The goal of a knowledge-based expert system is to make the critical information required for the system to work explicit rather the implicit (Hayes-Roth et al 1983) and this was to some degree the case in VVP. In a domain however where expertise is becoming less highly valued, also evidenced in VVP, the common disadvantage of an expert system is the growing problem of knowledge acquisition in the first place.
Self-Organizing Returns

Self-organization ought to be a goal of local and regional area-based regeneration. Self-organization occurs when interactions between the parts of a system produces patterns of recognizable behavior (Gershenson 2015). Self-organization of area-based regeneration requires adaptability in context and in real-time. There is no or limited central control with self-organization in terms of local interactions between elements leading to recognizable regularities in agreed system groupings.

Guided self-organization is nonetheless understood as “the steering of the self-ordering dynamics of a system toward a desired configuration, maximizing synergy through positive interactions and minimizing friction and negative interactions, through mediators able to cope with the variety of different possible interactions” (Gorshenson 2007).

Gershenson suggests adaptive challenges here will have unique characteristics which are relevant to the field in question; non-linear inputs and outputs, formal authority being insufficient to affect change, different interests wanting different outcomes, inadequate previous techniques for new challenges that include:

- The gap between espoused values and behaviors
- Competing commitments
- Unspeakable issues
- Work avoidance

Adaptive capability is then based on adaptive ability in terms of human, technological, informational resources. Organizational decision-making affects the speed of adaptive response. Local areas seeking to deliver regeneration must be able systemically to have enough variety of necessary knowledge to be able to respond appropriately for each of their areas, and this will be the same requirement for Welsh Government in their “guiding self-organization” role (Gershennon 2007).

With improving performance as a goal, adaptability in area-based regeneration can be explained in self-organization returns in the differences between actor-network-funding, and an expert knowledge based (arête) model and in;
- Short and long timeframe programs,
- Specialist and systemic adaptability,
- Place and non-place contexts,
- Micro and macro scale opportunities,
- Low and high adaptive capability

For example, in the VVP short timeframe policy and program contribution to area-based regeneration, with detailed targets to be achieved in a fixed 3-year period, management expectancy was of very low adaptability. The author found little workplace adaptability in practice. Adaptability can be distinguished here in a systems view as a specialized technical requirement. Specialized adaptation in response to program or project problems would then require specialist experience.

In VVP the program level contributions were designed to fit specific places, town centers and targeted community areas with a specific “market” niche in social housing. Although adaptive challenges responding to local area needs, such as business support, was necessary and adaptive action was needed, limited adaptation was evidenced, reflecting a generally accepted public financing focus on “spend-in-time”. The basic assumption here, that successful local area actors in an actor-network-funding model and in competitive bidding process will deploy allocated funds to achieve an optimum or desired end, therefore cannot always be met.

The most important dimension here, the influence of an actor non-spend in any one financial year dominated over other adaptive considerations such as quality dimensions and strategic relevance with a sometimes less than satisfactory impact on local area outcomes. In VVP the national favoring of housing possibilities in differing contexts, was aimed at responding to the nature of a national housing need and the contributions were relatively micro in scale in comparison with major urban housing development and regeneration concepts. In VVP there was example of variation of delivering regeneration outcomes in comparison with self-organizing normative desires during the program period, which were difficult to resolve, creating the associated potential for organizational and individual conflict. Too often then adaptability can be seen as a finance solution to avoid disruption, without potentially distressing a political organization, without recognizing and learning from early decision making failures.
Where in systemic terms the most effective leverage points in the model were to be found at the commencement of the program, to encourage low adaptability and greater predictability of successful outcomes in self-organization this was not recognized strongly enough in decision making processes. “Problem solving associated with difficult relationships” (Hakaanssen 1982) can sometimes define adaptive capability in area-based regeneration as being concerned with the modification of products and services, and transferability. A more detailed model of self-organization may have helped VVP in public/public relationship maintenance.

At a national level the modification of products or services and the influence of Welsh Government on normative self-organizing practice was not always achievable despite considerable effort. Transferability would mean the capability of Welsh Government as the principal enabler of regeneration being able to respond to actor problems and also being able to respond speedily to regeneration constraints and possibilities. This also was not always achievable.

In the VVP actor-network-funding model, despite specialized problems being the challenge for specialist expertise, necessary knowledge and skills became diminished during the program period, with some specialist solutions becoming the challenge for non-specialist leadership.

In contrast to the specialist and technical adaptability required by the VVP actor-network-funding, systemic adaptability was not generally part of widespread debate being both multi-functional and multi-level in composition. Systemic adaptation here would require knowledge of complexity and the dynamic nature of systems, which in the field was not a pluralistic or general consideration.

In VVP an improvement in organizing area-based regeneration was nevertheless begun with the introduction of self-organizing normative regularities. Maximum regularities were not however fully realized. A maximum self-organization occurs when emergence is low, with minimum information i.e. maximum predictability and this could not be guaranteed by the processes involved and particularly when associated with a stop-start program. As a consequence, VVP offered a limited contribution to sustainable development.
In achieving a longer term solution to sustainable regeneration management, the recursive and algorithmic nature of the arête logic in this project could help local actors in regeneration attain self-organization and national actors attain their own requisite variety, (Ross Ashby 1956) whereby “an active controller must contain as much variety as the phenomenon it attempts to control”.

Should the arête model become favored towards the development of a purposeful culture where actors adopt their behavior based on experience of the model, research and development ought to be based on encouraging independent self-organizing judgment. From a pragmatic point of view, if actors in the model are able to adapt effectively within the model, then exploring, designing and re-finining better systems may be possible. The model facilitates adaptability based on an integrative systems concept and the logic is aimed at influencing decisions by providing “the context within a boundary for innovation and an interpretation of the competitive environment” (Cyert & March 1963).

The arête model can support self-organization in a number of ways. A contributory goal can be adjusted to a situation within a meta-control system for goal adjustment by feedback and with a rule such as; if it is not possible to achieve a specified goal under the given conditions and with the available means then (a) changing the goal or replacing the goal within the model would be permissible (Cyert & March 1963). The model could be used to build an adaptive culture and capacity as a result of a greater recognition of what may or may not be financially supported in an actor-network-funding policy, where the parameters and their interconnectedness has been determined in advance of funding resource identification, thus avoiding potential duplication and conflict.

In the key features of a longer-term, higher-level regeneration system for Wales, the classification of self-organization and adaptive leadership capability is suggested in the arête model parameters. Adjustment of system parameters to better cope with a significant situation would require a rule such as; if it is not possible to achieve the specific goal under a given condition within the present system parameters, adjust these parameters. Qualitatively better behavior would be expected from continuous parameter change in a fixed arête structure, for example in greater requirements for improved value for money relationships between delivering sound investment and making better decisions.
Over the long run, area-based regeneration is highly unpredictable in the absence of a higher-level systemic structure supporting agreed actor-network-funding. The causes of unpredictability are multiple and inter-dependent. With longer programs, controlling everything from a national position becomes largely impossible when individuals, organizational diversity, economic forces, and market trends regularly change, “making increased complexity narrow the possibilities, inhibit flexibility, reduce decision options” (Holliday & Quade 2008).

A construct of a system in context, self-organization, associated with varying performance implications is continuous rather than dichotomous activity with consequentially different types of challenges and levels and degrees of adaptability (Oktemgil & Greenley 1997). Problem solving development towards specialist and technical solutions especially those that worked in the past, because they reduce uncertainty and are easier to apply should then not be seen over-riding any higher-level system possibilities in the design of new programs.

As implementing self-organization requires resource utilization, this cost should be set against the benefits of adaptability. In the literature it is argued that high adaptive capability is associated with internal inefficiency and high costs (Oktemgil & Greenley 1997) Nevertheless, taking a highly adaptive focus to achieve a higher level of place base performance is likely to be well worth the effort.

A more comprehensive longer term local area fit for purpose framework with a market orientation towards sustainable development based on localized decision-making and local products and services would more likely create a source of sustainable development and place based competitive advantage (Powell 1992) and as a consequence a source for developing lasting exchange relationships among suppliers and customers (Hallen et al 1991).

**Tackling Complexity with Simple Rules**

In a Wales context the difficult and messy problems associated with area based regeneration in its wider sense, which are neither simple as with minor environmental schemes or complicated as with major commercial development schemes, lies somewhere outside mainstream public services such as education and health, yet these mainstream services are often associated with regeneration comparisons.
This may not be helpful in Administering regeneration, as there is plenty to do other than contribute in an ad hoc manner to mainstream services with marginal impact. Even when attempts to influence mainstream services are attempted (as in the strategic regeneration approach of 2007) the outputs are often seen in practice as political rather than rational.

Boundary identification then is critical. Too wide a boundary dissipates effort; too narrow a boundary does not capture all the parts of a system to be known. “We need a very good understanding of a system if we are to take advantage of it” (Kingdon 1984).

There is a longstanding critique here that there are no area problems, merely macro level structural problems that find their place locality (Dodds 2011) and while this may be true, it is for others to resolve. Tackling poverty and deprivation for example has been an increasing focus of UK regeneration and Welsh policy. Far greater effort than normal day–to-day area-based regeneration activities here are needed.

The difficulties of evaluating regeneration in this context has been the subject of much discussion and it has been concluded in many research outputs that it is difficult to come to firm conclusions about social and economic change (Dodds 2011). Although authors have concluded that place-based regeneration is important and does improve places, these policies should be regarded as being in support of policies that more directly target people. This is a national agenda.

Although the outputs of regeneration activity in Wales are currently marginal in comparison with mainstream services they can nevertheless be improved in reflecting on the values and realities of regeneration delivery. Regeneration can deal with multi-dimensional problems, which are inter-related and not easily solved, but only if those involved and affected can agree boundaries. It is timely that something different was tried.

Some Welsh academics favor non-management issues and support mainstream education, health and cultural issues and radical solutions (such as those identified by Adamson 2010 et al in Deep Place) but there is nothing here yet to suggest large scale viable constructs in program or project development. Whatever the activities promoted in area based regeneration someone has to lead and manage the complexities involved. Enhancing the effectiveness of managing day-to-day work can be achieved as systems thinking applications in use is being developed with some of the best tools available.
Logic modeling for example in Northern Ireland can now be seen in an increasing contributory policy framework (NI Government 2012) without however the norms of regeneration delivery being fully described. In England only forward thinking and inventive regeneration communities are seen as likely to be able to successfully navigate the policy landscape they now face (Broughton et al 2013).

Connected localism (Carr-West et al 2013) in England suggests local government is at the crossroads and this is also a fact in Wales where in 2017 “mandatory co-operation” and possibly less local accountability is on the agenda. In one direction lies the specter of reduced influence, minimal public service provision and public dis-engagement. In the other the promise of invigorated civic economies, public services genuinely built around the needs of citizens, engaged resilient communities” and governance that is well-acquainted with “the system” and its inter-connectedness.

Complex problems are rarely solved by centralized one-size–fits-all solutions, and it is evident that national government in Wales has moved considerably away from delivering regeneration services to enabling them. Although no decisions have yet been made, this may eventually involve more localized elements of economic development based on “mandatory co-operation” (for example as city regions). Localism has a democratic premium and Innovation must therefore be local, (Carr-West et al 2013) if responsive to specific local contexts, drawing on the creativity and civic capacity of local people in a collaborative and co-operative engagement of all parts of public, third and private sector regeneration.

Public services will only be re-designed locally if there is greater financial devolution but this will require local competence and national confidence in local delivery. To achieve national confidence there is a need in tackling complexity of a local delivery environment based on ‘disciplined pluralism” (Kay 2004) where there is an appetite to work imaginatively with others. Disciplined pluralism, however, needs disciplines requiring a different kind of support from national government and in Wales, through VVP, this has effectively begun.
The issue of a lack of co-operation between public service departments is a “perennial problem” (Kavannah & Richards 2001) and is evidenced both nationally and locally in this study. Keeping a track of what is happening has improved through VVP and talking has not been a waste of time, (Grimshaw 2001) however there is a role for a theory of change in regeneration and its associated theory of action. Complex adaptive systems theory ought to be a theory of choice.

The theory of Complex Adaptive Systems (CAS) is not just a research tool to identify behavior it is a tool to encourage behavior, to describe the rules of the game in a more understandable form (Holland 1998). In understanding public service systems and, used in the best, way Rhodes and Mackechnie (2003) suggest CAS can provide regeneration with;

   - A more explicit connection between system outcomes and actor behavior
   - An improved understanding of types of levers
   - A framework for integrating perspectives to allow for competing hypothesis regarding policy instruments

With this potential in mind systems approaches are something well worth the effort. Since the intervention events associated with regeneration are seen as “a range of mutually influencing interactions where choices and events shape new situations and the positions of actors (the fitness landscape)” (Holland 1998), then the task of regeneration network leadership is to “be aware of the opportunities in that landscape as well as the positions of the actors and use them to realize interesting policy proposals or to adapt proposals and actor co-operations in such a way that they fit the landscape”.

As a “policy entrepreneur” approach in Kingdon’s stream model (Kingdon 1984) this approach was successfully used in VVP to rectify poor initial choices. The argument in this interpretation is that if system dynamics, self-organization and emergence at the local level are the norm, then leadership and management ought to be able to adjust to changes in the norm.

If regeneration situations are unpredictable due to their complexity,” then particular knowledge about each specific situation is necessary (and influences should be aimed very specifically at a system’s norms (characteristics) to try to establish specific interactions between actors that realize interaction patterns and outcomes that are in the desired direction (Klijn 2008).
The important management concepts (Flood 1999, Teisman 2005) found in complexity theory; managing the unmanageable, smart interventions and the view of “management riding the fitness landscape” are closer to the management of regeneration than many other types of description. Many of the ideas of complexity adaptive systems theory are a good fit with modern ideas of regeneration, in complex decision making, complex strategies and processes and should therefore be of use. This does not mean however that they would not be problematic to establish (Klijn 2008).

The task of national government is to find ways of encouraging as many area-based regeneration possibilities as possible within resource constraints. A systems approach to disciplined pluralism, competence and confidence, in the absence of competing ideas, seems a good place to continue regeneration conversations.
5.6 Integrated Exchange Rewards

Integrated regeneration can be defined in management terms as the actions of actors involved in; an act or instance of combining the constituent elements of area-based change, and the coordinated behavior of contributing organizations and individuals into a harmonious whole.

In the early 1980’s concern was expressed about the lack of integration and co-ordination of place policies and initiatives (Roberts & Sykes 2000) in the UK. “It remains increasingly necessary to find solutions, structures and strategies to enable the delivery of place-based regeneration with comprehensive and integrated visions”. The multi-disciplinary and multi-objective nature of integrated regeneration is the strategic goal of many in the field and is the raison-d’être of the reforming (2016) Centre for Regeneration Wales. In delivering strategic regeneration management stress is often placed on integrated approaches to achieve horizontal and vertical integration and exchanges between styles of control over time.

Integrated exchange in this Chapter section deals with the horizontal and vertical process in which actors agree to enter into a Chapter 4 arête model arrangement over time in conference and communication in order to enhance integrated regeneration through co-operation and collaboration. A description of rewards based on arête model exchanges in significant coherence, strategic value, public confidence and delivery excellence begins with the reward of significant coherence.

Modeling Significant Coherence

When real systems are being talked about what is really being talked about are models of these systems, that hopefully contain the essential features of the real system. Models allow debate and experimentation and the outcomes can help guide decisions (Bossel 2007). A given model applies to a restricted range of conditions that should never however be applied outside its range of validity.
The purpose of modeling in this project was about government(s) responding to unequal places. Unequal places and coherence modeling was appropriate in attempting to address regeneration problems of excessive complexity, obscure boundaries and uncoordinated knowledge. Against this working principle the model purpose set design parameters of recognizing the fundamental properties, and inter-relationships of regeneration in dealing with unequal places as a supreme orientor.

Within this orientation the working principle of the model was to put long-term, place-based equality (i.e. strategic coherence) needs at the heart of regeneration planning, whilst capturing regeneration opportunities as they occur. The Well–Being of Future Generations - Wales -Act re-establishes and places a duty on public bodies in this regard (Welsh Government 2016).

“Governments should strive to improve equality of place-based opportunity, but accept that inequality of outcomes is inevitable. Such inequalities can be reduced by the system, but take it too far and you destroy incentives”

Place-based equality here means the description and explanation of standards in the management of place-based change. Equality of opportunity would require locally determined interventions to deliver more equal places. An understanding of dynamic systems with basic orientations would normally hope to reduce inequalities of outcomes. To achieve a comprehensive assessment of indicator variables for which goals could be defined, basic evaluation orientors in arête-ness would reflect local area need (a basic regeneration orientation), less need (a basic regeneration goal), and reduced need (regeneration goal satisfaction).

**Unequal Places (Need) are;**

1. Not measurably the same in evidence comparisons
2. Not of same social position, status, rank or position in society
3. Unevenly matched in competition
4. Variable or uneven in quality or character
5. Unable to do something, having less than the required ability

**Equal Places (Less Need) are;**
6. Reasonably comparable in quantifiable and qualitative values or standards
7. With the same status and opportunities as others
8. With even balance between opposing sides
9. Equivalent with the same effect application and meaning as somewhere else
10. Equipped with the necessary qualities and means to accomplish something

**Satisfied Places (Reduced Need) are:**

11. Places that fulfill a need or gratify a desire
12. Places that offer enough to make a place content
13. Of a sufficient standard to meet a requirement or condition


With place-need in mind and a purpose of both long term planning and short term opportunity capturing, the nature of the arête model system focused on improving goal seeking and viability, ensuring fairness and diversity (Jackson 2011) and all the things that impact on system behavior, a functionalist model design requirement. The basic causally related parameters/variables represent the dynamics of a sustainable regeneration system capable of being challenged in behavior and interaction i.e. the key structural relationships between the parts that need to be understood in dealing with regeneration complexity.

The nature of the model would need to have regard to environment concerns and satisfaction orientors, both systems determined and environment determined (Bossel 2007). Environment determined satisfaction orientors could include existence, effectiveness, freedom of action, security and safety, adaptability and co-existence (Bossel 2007). System determined satisfaction orientors would include reproduction, responsibility, and the psychological needs of actors in the system.

Longer term questions involving modelling ought to address what people are doing, trying to accomplish, exactly how, how people understand things, what assumptions are they making (Emerson et al 2012) how things should be addressed, what is seen as going on, what was learnt, why participants would need to be included. Over the longer term mathematical modeling would then be possible in context. In a first modeling exercise mathematical modelling would however be unachievable.
Data modeling in this project was limited to mostly qualitative information, about the system structure and the correct identification of important qualitative feedback links is currently much more important in context in understanding a system’s dynamics than a time series data of a restricted system’s behavior. The effort to understand structure and function theory is much greater than for model testing. The validity of higher level explanatory models is argued of greater value than contributory models since structural validity in the field is often a development goal.

The modeling process in this project involved (a) developing a model concept representing the essential structure of regeneration, defining the problem setting, system boundaries, debating systems concepts verbally, developing an influence structure, (b) a construction able to imitate current system behavior, and (c) a first qualitative analysis of system behavior, comparing (a) and (b). Modeling effectiveness in regeneration required limiting the application domain boundary and model purpose to the minimum categories necessary.

System modeling began in this project with a scientific method appreciation of arguments, realities, values, objectives, goals, priorities and preferences (Vickers 1995). Naturally occurring observation over a long period was a methodology of choice, as was interviewing and textual investigation through analysis of content and narrative structure Fundamental interests of observers - stakeholders, decision makers, actors, beneficiaries, problem owners, witnesses and problem solvers policy makers and practitioners were necessary evidence requirements.

The underlying regularities of a regeneration system model was a fundamental system interest. Norms; complete, irreducible and unique, determine as far as possible the required behaviors routine and non-routine for actors in a system and provide indicators of basic orientation and satisfaction (Bossel 2007). Norms indicate response types, processes, and causation properties.

Normative criteria suggested constraints limiting system state variables and differentiating optimal behavior in quality measures, dealing with importance considerations in weighting to be identified against basic and supreme orientors (evaluation criteria) and indicators (state description). For continuity and scale outcomes, effectiveness and efficiency in an actor-based system would however require future co-evolution of desired modeling delivering fundamental interest outcomes from quality-adjusted outputs.
There were two principal modeling processes in a significant coherence process. A model of systemic excellence was firstly developed. Then a model of comparative behavior was developed. A fundamental knowledge about elements and influence relationships was available; the influence structure of a purposeful system capable of being developed and understood. Created from expert views (at least in qualitatively correct behavior) and questions such as; of what parts is it composed? How are they connected? How do they influence each other? (Bossel 2007).

The representation of a system’s structure in a structural model process allowed an understanding of system behavior without any observations of behavior in an explanatory model. With a construction able to imitate behavior of a preferred system observations of current behavior were however then available.

The modeling approach as an explanation was based on inferred best explanation principles, real and constant parameters. Model validity was and is then capable of being subjected to ongoing tests of structural validity, behavioral validity, empirical validity and application validity. A correct structural explanation would allow imitation conclusions covering future behavior. If the model explained relevant structure correctly it is structurally valid. Since the behavior of the system follows from a correct representation of structure the model could also be expected to be behaviorally valid. If the real parameters have been correctly determined it would also be empirically valid.

Because both representations explain behavior as a function of structural relationships, they can be employed to simulate response to future research questions, to conditions that have not been observed before, to investigate behaviors and development paths and to understand conditions and possibilities for system change (Bossel 2007).

The research emphasis in explanatory modeling was based on the recognition of those processes that are decisive for regeneration system behavior. An investigation of structure and function of the system, with experts who are familiar with the system and its operation is an accepted norm (Bossel 2007). Data was obtained from the current real system from the presence or absence of influence relationships. For model construction time series data of system behavior is not required but they would be necessary for further model validation.
In modeling regeneration, the qualitative question; what structure? was primarily important for understanding options, analyzing possible developments, locating normative deficiencies, decisions and behaviors. If the desired performance of a regeneration system can be prescribed, an existing system can be modified to deal with inputs required to meet performance criteria, producing “better” behavior than before.

If future challenges in regeneration, in response to new challenges are to be assessed, descriptive imitations of historical behavior will be of limited help. That regeneration programs should only be evaluated at the end of a long program period surely is no longer enough assurance (even when actioned).

If on the other hand structure and function has been agreed by actors in an explanatory model, reliable results could be expected, realistically, even for conditions that did not apply in the past. Although the inclusion of historically observed behavior to predict the future is usually inappropriate, in regeneration this may be overstated as continuity of quality approaches can offer significant benefits to new entrants.

Required behaviors and constraints in policy synthesis and path analysis can be established from model norms involving decision makers and actor’s commitment, choice, decisions, control, perceptions, and interactions (Bossel 2007). Where a model is available, the theoretical model system can be tested against the policy synthesis question; what inputs? Policy provides for desired performance to be prescribed, constant/time dependent inputs optimal behavior sought.

Bossel argues convincingly (2007), where a model is available the path analysis question what outputs? could be used to test current performance against an ideal model. Where constant/time dependent inputs are known, the output question why? provides for; alternative behavior to be determined, a comparison/evaluation of outcomes to be determined from good to poor, a route to alternative development paths.

The task for those collectively responsible for pursuing regeneration and reducing place-need inequalities systemically, national and local governments, is to understand the nature of local problems, choose the nature of interdependencies required to deliver change, develop regularities, limit constraints, stimulate quality local measures and aggregated quality measures, across parameters, differentiating optimal behaviors aimed at effectiveness and efficiency.
Modeling system design with this purpose in this project was determined by the purpose of the system, the nature of the system and environment concerns, underlying regularities and constraints, and required behaviors. In developing a model of the essential structure of regeneration, the principle of mutual predictability between public bodies was at the heart of practical regeneration working relationships. A move to a system principles based approach (and away from a constrained stop-start approach) would in all probability produce better long-term outcomes for more unequal places and over time greater public confidence in the management of change.

**Strategic Value and Public Confidence**

The arête model in this project in the recommend form can facilitate if adopted the foundations for improving hybrid and differentiated local regeneration strategies and also an aggregated national hybrid and differentiated regeneration strategy. As a problem solving mechanism it has been pointed out that hybrid social control (norms/professional control and professional accountability) are the most efficient forms of control (Barens 2007). Due to the measurement problems of attribution (identified in Chapter 3) and ambiguity, researchers such as Behn (1998) have warned against reliance on output control in the public sector, referring to “the performance problem”.

The strategic value proposition in systemic modeling can support operations through a further acceptance of hybrid and differentiated strategic assumptions. “Differentiation must be added to operational efficiency if we are to perform well including differentiating capabilities” (Piercy & Giles 1989).

Hybrid strategies have been implemented successfully by private companies seeking competitive advantage (Baroto et al 2012) and longitudinal studies of control hybridization illuminate the sector’s survival in the long run, as they allow for adaptation to changes in contexts. Although private company strategies cannot be compared in many circumstances with public strategy, in the public service “hybrid strategies are found to have gradually aligned controls in dynamic situations enabling resolution of conflicts in practice and in balancing the chain of accountabilities” (Nyland & Pettersen 2015).

Hybridity can be re-defined usefully for regeneration as “new phenomena produced out of two or more elements normally found separately, sharing the characteristics of impurity” (Miller et al 2008).
Hybrid strategy facilitated by systems modeling can potentially offer regeneration improvements to the performance problem and policy accountability, coherence and integration as emergent modeling allows for adaptation to changing contexts. It would be strongly argued here that political and key decision-makers’ accountability would be strengthened and not reduced by this greater managerial influence -but only if the process enhances performance.

The theoretical framework in hybridity is a relatively new institutional theory which considers hybrids as “means to balance different institutional logics and to balance diverse interests and goals in the interaction between organizations and their contexts” (Weisell and Modell 2014). Hybrid strategy branding models can be exploited in regeneration as an asset, more effectively with an agreed model of excellence, both operationally and democratically, locally and nationally, “in terms of differentiating capabilities and place relationships, channel power and reputation” (Piercy & Giles 1989). Hybrid regeneration brand extensions are unlikely to be fettered at the local level and will already be used successfully when “we see priorities and decide where to focus” (Piercy & Giles 1989).

The author found evidence in this study to suggest that strategic control in regeneration through VVP was based on legality, probity and internal process, the lowest stages of a control framework, without however sufficient rules and standards to guarantee the successful delivery of hybrid strategies or the next stages of accountability in local level performance and program accountability.

Although in the VVP initial theory there was considerable freedom for actors in a hybrid form of strategy, to pursue whatever seemed appropriate in their localities as long as resources were used in an appropriate manner and a strict definition of activity was not required, in the new practice realities a preference for sectoral and national results was generally preferred by national government and required to secure resources.

In VVP performance demands related mostly to the ability to measure specific affordable housing performance measures set by Welsh Government. The need for affordable housing knowledge, about process, increased with the level of resource allocation and program and policy accountabilities. Required knowledge of alternative interventions, e.g., business support transformational processes and output measures was encountered as a diminishing knowledge base.
In VVP information on local behavior and outcome was often turned into surrogate national measures, which sometimes can create spurious connections between means and ends. For example, expenditure on tackling poverty measured against the objective and investment purpose of developing a vibrant and viable town center.

To deliver public confidence, for the man and woman in the street, generalized regeneration descriptions, economic, social and environmental interventions are not always readily understood or immediately measurable. The arête model on the other hand is relatively easy to understand and capitalizes on several features to assist in human understanding of regeneration in action. As Ware (2005) states “it is possible to have a far more complex concept structure represented externally in a visual display than can be held in visual and verbal working memories” but this would not serve any useful purpose.

It is argued in this thesis that the integrated exchange rewards in strategic value and public confidence in the arête model features has the ability to improve confidence and public value by;

- Enhancing processing ability because users can abstract information at a glance (Scaiffe & Rogers 1996)
- Assisting an individual’s capacity for coping with complex task requirements (Cox & Brna 1995)
- Developing the confidence of those involved in their contributions and those in both the present and the future.

In the circumstances where the model could be collectively adopted, with any necessary adaptation, the model could give a clearer picture of the current state of play than currently exists in the field; “who is involved, what tasks they perform, what activity could cause what, the progress of activities, how elements of the work are passed back and fore from one activity to another” (Alford & Head 2015).

Importantly, there will be nothing to surprise experienced professionals in the model, as they will already be carrying out these tasks. In supporting perhaps what is not happening, to any great degree, in a collective sense, the model can envisage what ought to be (the research question) such as; who else should be involved, who should not be involved, what tasks are more important than others, which ones need to be added, and whether activities should be re-sequenced (Alford & Yates 2014).
Importantly a clear representation of constituent elements can help identify which (if any) parties a government organization might seek to influence, and how they might be influenced, either to do different things the same things better or to do different things. In the public sector, public sector organizations create public value (and sometimes private value). Although what constitutes public value is much debated, Moore’s (1995) foundational articulation of the idea is useful to place-based regeneration and public confidence;

- It is a matter of who consumes it rather than who produces it
- It includes remedies to market failures of various types

Public value thus turns on public authorization for a regeneration organization’s activities. “If regeneration organizations are to create public value in their practices, and use evaluative standards to measure performance, then those values and evaluative standards must be authorized by the public” (Blaug et al 2007).

Blaug et al argue, “The idea in public value argues for a renewed emphasis on the important role public leaders and managers can play in maintaining organizations legitimacy in the eyes of the public”. Although the idea means a recasting of the tension between political bureaucracies, it offers something more than merely a centrally driven static top down target model, at a time of increasing localism. It calls for more rounded balanced accountability where organizations face their citizens as well as their political masters”.

In the arête logic model promoted in this document there is an explicit representation of how interventions contribute to public value in area based regeneration.

The arête model is both a program theory of change for an unequal place or places, and also a theory of action relating to public confidence processes “by which change comes about, and how the interventions are constructed to activate the theory of change” (Rogers 2011). It is intended that evaluation of the model in terms of program theory should be driven by its intended purpose and the needs of its place based intended users i.e. those involved and affected.
The arête model reflects the complexities in public value and that every place based situation is unique - where previous success does not guarantee success - where expertise can help significantly - but where relationships are key - initially the domain of the unknowable - where patterns are only evident in action and in retrospect (Globerman & Zimmerman 2002, Kurtz & Snowden 2003).

The focus on regeneration interventions in the arête model that are both intended and emergent, include intermediate short-term outputs, which can lead to longer-term outcomes and impacts. The model encourages longer term hybrid relationships of organizations working together in flexible ways, adapting to emerging conditions, responsive to what is working or not. Place change is reflected in the emergent relationships between efforts and results e.g. unknown tipping points; although unintended outcomes cannot be anticipated (Globerman & Zimmerman 2002), they can be identified as they emerge.

The model encourages work in conjunction with a number of interventions and in some circumstances (often based on the availability of resource) interventions identified in advance. Shorter term “strategy projects” will fit with the model as requisite activities in public value if the projects:

- Build on previous activity (and are known to work)
- Benefit from a concurrent project (where combined outputs offer better public value)
- Can be jointly funded through another program (with increased value for money)
- Are part of a larger project (with scale outcomes)
- Lay foundations (for subsequent activity)

Adapted from Williams et al 2004-Stronger Families and Communities Strategy 2000-2004

Public confidence from intervention programs through an on-going systems based evaluation would be (evidenced) in that:

- Emergent evaluation designs can accommodate emergent program objectives and emergent evaluation issues (focus within boundary)
- Collaborative evaluation across different places, stakeholders and organizations can be achieved (governance)
- A national aggregation of outputs in a realist synthesis can be achieved integrating diverse evidence including credible single case studies (sufficiency)
There is no “standardized “treatment (necessaries)

Realist evaluation pays attention to the place contexts in which causal mechanisms operate (change trajectory)

Unanticipated results can be caught (unintended outcomes)

Adapted from Rogers 2011

New public management in VVP has pushed forward technical accountability in local government, without necessarily focusing on product or the greater public authorization of activity choices. Politicians make policy that managers are meant to implement in a principal and agent type theory that tends towards targets or in some circumstances towards pet projects. Political and organizational choices and new public management sits somewhat uncomfortably with network governance (Stoker 2006) and public value management, and the role of individuals and organizations influencing choice may not always be in the best interest of places to be served. In some cases, the extent of professional discretion and the concepts of public interest are then worthy of greater attention.

Re-conceiving regeneration public service in a systems view has the potential to radically improve strategic integration and the public value proposition, by re-defining structure, re-drawing system boundaries and renewing planning space (Piercy 1991). This is a concluding interpretation of the findings in this project, which can only be realized if there is a corresponding radical commitment to change in local and national government attitudes to the field in question.

The two findings and recommendations in Chapter 4 are about:

- Doing what matters to the places being served as far as possible
- Getting what collectively is wanted at any one time in developing as far as possible long term place satisfaction
- Finding new and better ways of looking at important things to be able to lever for positive change the way things are done.

Adapted from Piercy 1991
These strategic outcomes would reflect what could possibly be achieved in the “marketplace” for regeneration and in what has been termed strategic intent and “a stable but stretching perspective” (Hamel & Prahalad 1989). Regeneration policy and practice in Wales does not currently have a long-term national plan or stretching perspective. Political leadership can sometimes be associated with doing things over the short term only without a strategy in mind, however “if a national place-based organization in a network has a strategy it can explain where it is going and develop the capabilities to get there” (Piercy 1989).

Achieving Excellence

Government has entered a new era in Wales. The era is marked beyond doubt by the EU referendum decision, austerity limitations and Well Being Act requirements. The EU decision in June 2016 has caused enormous uncertainties, not least in how loosing up to £300m per year of European funding for economic, environmental and social uses in Wales will be dealt with. Legislative changes in Well Being have been introduced through sustainability legislation. New Public Service Boards have increased mandates. The localism act in England is being debated in Wales with a consultation on Welsh options favoring a preference for a development of a bespoke Welsh model.

The ongoing reform of local government will change public service models if not necessarily changing organizations drastically. New “mandatory co-operation” sub-regional principles are being debated. Reform involving local government has already however involved greater responsibility and accountability.

The demands and expectancies of an economic, social and environmental nature are unlikely to lessen. The transfer of functions in area-based regeneration to local administration with the associated results based accountability has the potential to grow exponentially.

Issues faced by local government are increasingly beyond the service or financial capacity of individual authorities and as local government is closest to the people it will fall to the relationship between local government and Welsh Government to explain how it intends to address any regeneration deficit. An example of the deficit that must be filled is reversing the inequality of places.
Local government alone cannot solve regeneration issues, and when regeneration services are integrated through multi-governmental and multi-sectoral networks successes can be realized. VVP is an example of an intention to see an integrated program in urban development and is reported by Welsh Government as successful. There are nevertheless gaps in quality regeneration service provision that ought to be tackled, such as in leveraging private involvement, requisite activity and construct viability.

The more innovative and imaginative public organizations will be developing strategies to do this and are borrowing concepts from the private sector, not least in project financing. In many private businesses looking at ongoing relationships with their markets develops through a variety of service systems and although the public sector is fundamentally different from the private sector notions such as program logic and intervention logic is also being pursued (Alford 2015).

As for private business, intervention logic in public service systems approaches that entail de-constructing public sector work into elements and identifying relationships between them is said to have “widely” used program logic (Alford & Head 2015) an example in the Australian Government’s budget system is based on systems thinking (Wanna et al 2000) but logic modeling is only now being introduced to Welsh Government, as a novelty, and gradually.

In the arête logic modeling in this project “the next step” for the more innovative public organization would be the identification of “intermediate” outputs from hybrid strategies (Funnell & Rogers 2009, Alford & Baird 1997) reflecting a chain of causes and effects from initial policy design and implementation to impacts, that could be understood by those actors involved in any one place, by those actors involved in policy design and importantly by those affected by public interventions.

Although hybrid strategies at a local level were encouraged in VVP they were however without higher level goals or complete normative descriptions for national comparison. There is an opportunity in a strategic approach here, with the benefit of agreed normative definitions, to produce less variable outcomes. The current strategic focus in VVP by Welsh Government is reflected in the institutional aspects of accountability. In this definition accountability relates to the relationship between national and local government and this relationship is one in transition between that of principal and agent and that associated with new public management.
In this project the author found evidence that political leadership say they believe in long term integrated service in place change, but when you look at what some actually do short term matters dominate. The place issue could be taken more seriously. The difference between rhetoric and reality could be improved in the greater satisfaction of unequal places, not in raising unrealistic local expectations, but in communicating the delivery of realistic prospects and continuing to move from the trappings of success to the substance of success.

At the national level, where we are now on the issue of place satisfaction in Wales cannot be determined as straight-forwardly as it could be, despite improving efforts by local authorities in local area reviews, reports and communication events. The arête model could help to get to grips with this. The gaps in where national performance wants to be can also be addressed by questions from the model.

In integrated exchanges, the richness and usefulness of collective debates and conclusions on non-regular influences, and particularly possibilities and constraints would naturally depend on how seriously and rigorously the strategic and integrative model would be utilized.

Piercy (1991) asks five strategic and integrative model questions that can be re-interpreted for place and place leadership in Wales;

- Where does Wales want to be in our approach to managing place satisfaction?
- How does performance differ in different normative categories and what are the reasons?
- How can an explanation be given of the different views that are received from different sources and interests and what does this tell us about what should be done?
- How is performance on managing place satisfaction changing over time is this good or bad, are we making progress?
- How does performance on place satisfaction management relate to other critical factors such as staff turnover, place demographics and other indicators?

The arête model in this project, by its nature, suggests opportunities for national and local regeneration strategic integration. Integration here refers to the fit between a localized model and its national interests and influences and is reflected in an idealized model structure. National and local strategy could be sourced from the model if adopted politically and professionally.
The model structure reflects, “by which managers (and social entrepreneurs) may evaluate
the real nature of the business segmenting for their organization, market opportunities and
identifying barriers to implementation” (Piercy 1991).

The reason to not move towards a systemic structure associated with strategic integration
exchanges and rewards could be seen in the maintenance of the hierarchical political and
organizational culture and status quo. The models in this project should however be seen as
adding to hierarchy competencies and good bureaucracies. The models reflect progressive
hierarchic continuity. The pathway to change lies with political, civil service and local
government leadership cultures. In the next and final Chapter, a discussion of the research
findings offers regeneration leadership in Wales a number of further recommendations
towards future systemic design and delivery of regeneration in Wales. The current situation
offers opportunity for positive strategic and meaningful change.
Chapter Six

Conclusion: Discussing the Results

In Summary

This independent research project produced in its case studies and argument a distinct, significant and original contribution to area-based regeneration in Wales, extending the forefront of professionalism, with implications for national and local management. The author found that if implemented, the recommendation to adopt a systemic approach to area-based regeneration would deliver a major advancement to place-centred change, in areas of localised inequality, and in dealing specifically with the problems of complexity and attribution. The ways in which an original contribution is fulfilled is as follows;

Through a rarely used operational research process in the field, a first orientation of regeneration policy and practice in a systems perspective in Wales produced, for the first time, a detailed systematic understanding of the potential benefits of critical systems thinking to area-based regeneration. New systemic knowledge, created and interpreted in the context of a particular setting, is timely given the EU referendum decision, and towards an improved public value possibility, where the management of change faces many complex challenges.

A systems approach, not examined previously in the management context, despite the development of analogous approaches in other public services, involved the application of tried and tested methods to a relatively new area and data set, resulting in developing the method further. Developing and testing a model of regeneration excellence under natural test conditions was detailed in depth in comparison with field data to identify the potential of additional public value. The potential benefits of critical systems thinking to area based regeneration were found to be compelling and prodigious.

In the field of inquiry, the delivery of things which ought to exist, (but which sometimes did not) was explained in a different perspective. For those familiar with the concepts, a check to their own actions, for those unfamiliar a challenge to become more familiar with what is required.
A dependable model for use at other times by public intervention authorities and others involved in area-based regeneration produced something for those designing and delivering, and for those questioning and scrutinizing. Although subject to limitations, the transferability of the research model through its contextually adaptable design, was seen to offer, in other contexts, the potential for future meaningful application and research opportunity.

In this concluding Chapter a discussion of the results of this research study explains and critiques: regeneration criticality, the value to Wales and the findings supported, levels of resource and the Arête concept, why systems thinking and systems approaches to managing change was used as a potential contributor to area-based regeneration, how area-based regeneration could be administered systemically in Wales, whether emerging policy and practice ought to change, and where system based approaches to change could be promoted by regeneration leadership. In Volume 2 Appendix 1, a research dissemination strategy and reflective summary of this thesis Chapters 1 to 6, in its links to DBA professional development requirements is identifiable.

An example of when, why and how to use the sustainable regeneration (SR) model is described in Volume 2, Appendix 1 in a contemporary situation. What a SR system for Wales could do to help with professionalism, higher-level leadership and management skills, through the collaborative application of modeling, is developed against the aim of influencing the nature of future dialogue in the field.
Chapter Six

Conclusion: Discussing the Results

6.1 Regeneration Criticality
6.2 The High Points of Regeneration Success
6.3 Seeing Regeneration Systemically
6.4 Managing Systems and Change
6.5 Political and Organizational Challenges
6.6 Sustaining Regeneration Leadership
6.7 Re-viewing Regeneration Administration

This thesis involved a study in understanding the value of critical systems thinking and systems approaches to area-based regeneration policy and practice. By using systems thinking approaches to describe and explain how regeneration can be administered systemically in Wales and specifically (a) orientated and administered for stability and growth, (b) operated, managed and led (Rhodes et al 1995), the work concluded that extant contributing policy and practice provides a strong basis for further change, to produce better outcomes for Wales and specifically over the longer term.

The study involved; applying theoretical systems thinking approaches purposefully in a bespoke situation, and from this understanding the development of a system based idealized model of delivery excellence and influence was considered viable. A comparison of the model framework against the extant Welsh Government flagship regeneration program contribution, Vibrant and Viable Places (Welsh Government 2013) provided a model test in application and coherence.

There was, throughout the study, a very strong argument that area-based regeneration is a systemic prospect, and systems approaches to change were found to offer compelling and prodigious potential benefits. Based on an interpretation (Chapter 5) of contributing case studies (detailed in Chapter 4) a systemic view of regeneration was found to be able to significantly add value to both policy and practice and principally by reducing known complexities in the field.
The detail of potential benefits of a systems view of regeneration in Chapter 5 was capable of being seen in pan Wales outcomes. An extant program idealized comparison was completed over a four-year transitional policy and practice change period, involving the management of change from a collaborative national program to a competitive program.

Operational action research (Chapter 2) provided the evidence for systemic comparison and a literature review (Chapter 3) was focused on emerging practice and theory iteratively throughout the work. A system-based arête model of delivery excellence and influence, which was developed as a research output in Chapter 4, described the basis for leadership recommendations and further regeneration strategy development.

A summary of the potential benefits of systemic approaches to sustaining regeneration leadership, and why reviewing regeneration administration in the current context may well make a difference to Wellbeing in Wales is further discussed in this Chapter.

In this final Chapter regeneration criticality and the potential outputs from the project are considered in the light of assumptions about the likely reality of major change. The possibilities towards the high points of regeneration success in a systems view of regeneration; in better policy and practice arguments, the political and organizational challenges through the management of challenges and leadership professionalism provides the detail.

**Regeneration Criticality (1); The Value to Wales and the Findings Supported**

In the CREW 2013 report (Adamson et al 2013) Regeneration in Wales, An Analytical Timeline for the Welsh Assembly Governments National Regeneration Panel, the introduction section described the context for area-based regeneration in Wales in the socio-economic, cultural and environment changes Wales has dramatically seen over the last two centuries.

“There was the initial success of nineteenth century industrialisation, followed by the turn of the century coal boom, culminating in the steady process of economic decline, degradation and social exclusion following the inter-war period. This economic decline has prompted a plethora of government interventions, in the form of numerous government-led regeneration and redevelopment initiatives, differing in scale, scope and vision”.

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“These schemes have ranged from small targeted social schemes, to large scale, economic and physical schemes, as well as a continuum of initiatives in between. The discontinuous patchwork of initiatives that inevitably occur as a result of the nature of the political process has however seen a tendency to reinvent the wheel as opposed to building on previous successes and learning from failures”.

Regeneration in Wales is now required as much as ever. In 2011 and 2014 the Welsh Index of Multiple Deprivation was again published. The September 2011 report was the fourth time it had been published, the time before being in 2008. It broke Wales up into sub wards with populations as small as 1,000 people and showed that those people found to be struggling the most were very similar to those in 2008. The analysis did not merely show which areas were deemed to be Wales' most deprived but how they were experiencing increased crime, poorer health and failing educational outcomes.

A deprivation gap is now growing across Wales where 95% of areas saw an increase in the percentage of people claiming income related benefits since 2008 as the economic crisis hit the country. Local authority areas that have high numbers of relatively deprived areas tended to have a higher percentage of lower super output areas where the indicators are getting worse. Conversely the percentage of areas getting worse in less deprived areas was generally smaller.

In core regeneration sectors, housing, heritage, and events led regeneration, there are old needs and new opportunities in both social and economic development terms. In the context of towns across Wales, town centres have suffered from the economic recession and changing consumer demands. Small towns regeneration represents one of the major regeneration issues in the revitalisation of the Welsh economy (Dakin 2012). Footfall is in decline, too much retail space exists to serve many communities, internet trading is growing, there is a potential lack of sustainable local transport and a lack of resilience. An extended menu of interventions flexible enough to satisfy variety of opportunities is required.

Area-based regeneration has proved a consistent and reliable basis for shaping places and for targeting public intervention activities. In the CREW paper on targeting for the national regeneration panel Welsh examples highlight the need for government to be responsive to economic, environmental and social events, whose origins frequently begin with de-industrialization.
“In the absence of an appropriate public intervention (through spatial, sector, thematic or beneficiary choices), it is somewhat inevitable that inequality occurs. With the ultimate results in concentrated pockets of economic decline and social disadvantage. The identification of this process combined with future opportunity can help inform the creation of a regeneration criterion. These may be used to effectively target areas in priority order of need and opportunity. There is also a demonstrable need for targeting practice to pre-empt future problems, in response to spatial concentrated socio-economic problems. In these situations, ethical moral and political judgements are required”.

However, judgements as to how and where to undertake regeneration initiatives have not always been ethical or moral. Political judgements in the past have been made for example to secure objectives such as: reducing the power of local authorities, facilitating social restructuring to secure electoral majorities, rationing financial resources, and even securing private sector interests. It is important for decisions to be both transparent and justifiable. “To this end it is important that targeting be based on criteria which are designed to allow for issues as they arise, but equally to be flexible enough to respond to democratically endorsed prioritization”.

In the CREW report on regeneration targeting (Dakin et al 2012) Regeneration problems and solutions are importantly seen as varying considerably between places. In one place it may be derelict land and buildings or worn-out infrastructure, in another, poverty, crime, social disorder, ill health. In some places all possible problems exist and they are mutually reinforcing, making an undeniable case for area based regeneration initiatives. Managing change here is critically important. A single model to capture all interventions would aid decision making. A consolidated value assessment of relative priorities, reasonable prospects of success and realizable processes and ought to be transparent in the political policy and practice arena. Integrative, objective, flexible and democratic processes, informed by professional baseline judgements, is something to be aimed for.

In the CREW 2013 review of regeneration there were 27 noteworthy conclusions. The first conclusion set the regeneration baseline professional context.

1. A strong and diversified national economy is a pre-requisite for local area regeneration where sectoral support and infrastructure investment must provide the economic environment for more localised regeneration programmes.
In this context an Arête local and modular area-based regeneration delivery system would have the potential to support many of the remaining conclusions. For example, I believe there is a strong argument that an Arête Delivery Structure could if established;

2. Clarify the specific effort and resources required to better focus on deprived communities
3. Create a less ambiguous policy, which has traditionally led to dissonance between Welsh Government required outcomes and those delivered by local delivery organizations
4. Provide better policy, driven by evidence of what works rather than ideological or political values
5. Facilitate the delivery of more effective partnerships from the three main delivery sectors
6. Enable the better engagement of all stakeholders to secure maximize impact
7. Avoid tightly prescribed spatial boundaries.
9. Avoid fragmentation and damaging discontinuity
12. Mitigate risks associated with continuity through un-hypothecated funding of local areas
13. Provide robust and ongoing real-time monitoring and evaluation
15. Allow for innovative funding solutions
16. Realise the potential for all government expenditure
17. Provide a focus for special purpose vehicles where appropriate
18. Provide a focus for democratic principles and operational structure
19. Provide a focus for public results based accountability
20. Provide a focus for public partnerships

Although no single method (system) can present a fool-proof prescription to the issues associated with the delivery in the field of area-based regeneration (conclusion 27) having a generally agreed systemic structural form would produce significant change management benefits.

In conclusion 9 of the CREW (2013) report it was identified that experience from Northern Ireland suggested that national departments remained fragmented and had failed in attempts to break down silo working. This is also something identified in this research project.
Conclusion 9 identified; rapidly changing policy and programmes, by disrupted bureaucratic and administrative structures, complex and multi-stranded policies which do not connect, maintaining professional divisions and failing to develop cross-sectoral skills. The author would argue that without a new mechanism at a local level in Wales the same conclusion as that in Northern Ireland will continue to be regularly found.

Regeneration Criticality (2); Levels of Resource and the Arête Concept

In the Dakin (2012) et al paper on regeneration targeting, (CREW 2012), repeated and summarized briefly here, the term regeneration is again seen as meaning many things to many different groupings. Terminology has been suggested to describe regeneration practitioners as “developers” but this has not stood the test of time. From finding new uses for old industrial heartlands and re-developing areas formerly engaged in heavy industry, to neighbourhood interventions that improve quality of life, there is again a need to justify regeneration through explanation and description.

The argument against local area-based regeneration is that people rather than areas should be targeted; as most people will be missed in a local area approach, they are unfair to non-targeted areas, with political biases, producing displacement problems to other areas, interfering with market forces, replacing needed action at a national level. Although there is likely to be evidence to support all of these assertions, in part (Smith 1999), despite these arguments most academics and practitioners agree that regeneration is a crucial vehicle to effectively tackle the most serious decline and deprivation.

The argument for local area-based regeneration is therefore an ethical and moral one. Where something extra is needed in areas that are disproportionally affected by market forces problems and the scatter gun approach of mainstream public service delivery is unsuitable. A multiple cause nature of need now requires greater coordination, easier in a number of situations and at defined smaller local levels, (CREW 2012) where increasing inequality and polarisation of deprived and non-deprived areas has or is about to occur. Because problems are concentrated a greater number of people are potentially captured for impact if resources are geographically targeted for tailored services. Greater effectiveness through local partnerships, increased community confidence and capacity is a hoped for outcome.
The roles Welsh Government and Local Authorities play in regeneration in Wales has become clearer, with regard to the division of labour, ironically perhaps as a direct result of the significant reduction in Welsh Government financial and human resources since 2010. Welsh Government now provides national policy advice and national strategy preparation, local authority funding and major infrastructure project management. Local government leads on local policy advice, program and project delivery and integration. Accountability comes with the turf.

Stakeholders and beneficiaries in the form of business and social communities’ have clear engagement pathways, although their roles in regeneration activities varies widely between places and spatial activity. The need for local authority local area integrative co-ordination is now critical. Local area change management must have the power to integrate all programmes and projects to match their own bespoke needs and accountabilities. There is no logical long-term case for national civil service departments with a national remit to attempt to manage local area change. There is however a new opportunity for local and regional management to demonstrate their accountabilities.

The regeneration sector in Wales does not currently command significant resources as a standalone public service, such as health and education. Given current public expenditure trends in Wales regeneration is unlikely to be generally supported by Welsh Government as a single purpose fund to levels that make any real difference. Senior regeneration practitioners have not been retained in Wales as better opportunities have been presented elsewhere.

Area-based regeneration resources have historically been modest (e.g. 1% national social security budget) and has never really been thought of as a substitute for action by mainstream UK government departments, but this does not mean that its role should be anything less than to try to pull together all those departments who could support the most deprived areas.

What is important is to ensure that whatever resources are available are targeted towards the areas of greatest need and areas with the potential for effective and positive change. To be properly prepared to deal with the cycle of urban decay and regeneration, caused by economic change, market and community responses future regeneration challenges associated with decline, deprivation and poverty it is therefore important to establish a set of criteria that will most effectively direct future regeneration investments.
The CREW 2012 report suggests that prioritisation of resourcing in the light of scarce resources is often determined by political influence, but should be defensible in both ethical and practical terms and in a form to increase professionalism. Selection based on competitive processes-between areas, programs or projects, or boundary-less approaches where there are no policy boundaries or restrictions on what objectives, spatial areas could be covered, or via deprivation and evidence based targeting, will, however, each have their own problems.

In responding to the Dakin et al (2012) paper, the Arête concept in this project responds to the problems of resource prioritization, and can be seen as critical to the prioritization process. Finite resources should rationally be based on well-organised areas, with the greatest possibilities for success and guaranteed outcomes, with transparency in selection as to why areas are chosen, perhaps in funding further success or in responding to failure demand.

The concept can, however, and importantly, also respond to less well-organised areas. In a local area competitive application, although areas with better organisation and bidding experience will have a significant competitive advantage when competing to secure funding, less experienced areas with little hope of securing funding, (despite the possibility that they represent a greater need and opportunity), ought to be able compete and raise funding. Experienced consultancy support can then support those areas with new capabilities.

The Arête model sets up a necessary strategic and academic real-time evaluation process rigor to establish an exit strategy at any one period of time, to determine any need for continuing funding. In a boundary-less local area application, made up of multi-faceted activities, continuing with politically popular but unviable activities can be both wasteful in financial and opportunity cost terms. Boundary-less here does not mean circumventing established partnerships but rather boundaries of partnership working within a shared model.

Activities spreading resources to thinly are unlikely to meet the criteria of a focused strategy without a firm co-ordinating mechanism. Supporting initiatives of all shapes and sizes is available with the model concept but only if capable of being prioritized continuously against the model concept criteria.
The Communities First initiative in Wales (now discontinued) raised again the issue of exit strategy. Areas were identified based on evidence of decline and deprivation and prioritised in order of the most deprived. In an Arête model application there would be no dominant league table of the most deprived areas but a preference for league tables of those areas developing progressive competencies needed to tackle their areas bespoke problems. Nationally a model to always allow for the flexibility to do something early or to tackle national difficulties or to do something different or special on the basis of transparency in prioritization, relative priority and a reasonable prospect of success.

The Arête concept in this thesis would help in removing the barriers identified by CREW in 2012 to more even development in Wales through providing:

- a more structured governance arrangement
- more local area opportunities for policy development synergies
- retention of lead regeneration personnel
- development of regeneration skills in sectors appropriate to required change
- restriction of negative effects of departmentalism
- provision of effective real time and post evaluation systems
- transparent and fair regeneration targeting
- long term structure facilitating prioritised change

Regeneration is now a highly sophisticated art and science rooted in practice and delivery as opposed to theory (Roberts and Sykes 2000). It must now be understood that regeneration is a complex process which can be potentially influenced by a multitude of external forces including but not limited to; wider structural events (Brexit the current great unknown), the national economy, practitioner skills, social unrest and changes in technology. Although there can be no guarantee that any regeneration initiative will guarantee success or value for money, it is well worth trying to achieve these goals within a bespoke model as with value for money and success comes local and national confidence in both process and outcome.

An Arête Delivery Structure concept based on the research findings (Volume 2 Appendix 1) was proposed to the Minister responsible for change in the Valleys of South Wales, on the 13th September 2017 in respect of its year-old Valleys Taskforce programme, Our Valleys, Our Future. Delivery plan options were sought by the Minister in an open invitation. At the time of writing this thesis the response to the proposal is undecided.
6.2 The High Points of Regeneration Success

In the George Chadwick (1971) book A Systems View of Planning, there is an interpretation of the value of a systems approach to town planning, that not only has many similarities to this project concept but also many differences. The similarities can be seen in the “how” of planning and regeneration; the differences are in the Chadwick focus on mathematics, whereas, in this study the focus is elsewhere.

The concerns with the future in Chadwick are not necessarily the same as the focus on real-time change in this study, although there is a common eye to the long-term future in both in policy and practice. In common also with Chadwick it would mean that the focus on accurate descriptions would mean that it was not possible to entirely avoid jargon. Where a standard accurate and scientific term is the appropriate term to be used it has been used even if unfamiliar to academics, regeneration policy makers and practitioners. To rephrase Chadwick and the introduction to his book further commonalities are appropriate; (My changes in brackets)

“(Regeneration) policy and practice has been in a state for some time, where its practitioners have been unclear as to where their contributions lie; practice and theory, ideology and mythology, inter-professional and intra professional dispute have all intermingled to produce a confusion of thought and effort; and it is only by separating (regeneration) in to its constituent parts, process and purpose, for analysis, and reconstructing them with meaning that we shall see where (regeneration) stands, what it promises, what it might perform”

The regeneration process can be “one of bounded rationality”, as well as political and organization special interest, and involving human judgments at all points can be improved. As well as rational arguments “it is both art and science and is the more interesting because of it” (Chadwick 1971) A focus on understanding regeneration through the basis of relationships in a systems perspective, which has been sought as a study objective in this project is as important as the study of human relationships. The regeneration purpose “is worthwhile and the process as a public process must be justified. We must be sure about the purpose of (regeneration) and its fundamental system of values” (Chadwick 1971). In the Chadwick terminology of questioning (regeneration);
“Complex through changing sets of relationships, through time when describing various situations, we are dealing with a constantly moving process, evolving but not (teleological) always being explained in ideal terms. Ideal states are however important (to regeneration) as a goal to which we can optimize our individual contributions”.

This does not however imply that the ideal will be attained, or indeed that it is attainable. The fundamental nature of a value system is assumed to lead to valuing certain things more than others. The attachment of values to situations and the weighting of values can be considered “in the formulation of ideals, the setting of goals, and the marking out of objectives in daily conduct” (Chadwick 1971) reflects a complex system.

Holding values should help motivate people to do things with certain ends in view and this has been the experience of many regeneration practitioners working in value laden organization environments. In regeneration practice these activities are almost always place-related although not always place-centered.

For the purpose of this project the complex relationships involved in regeneration arise amongst other things from national and local government organization relationships, and an ideal relationships shown in Figure 10 below. The high points of regeneration success, excellence and delivery, value and activities, mutual dependency and mutually predictable behaviors, are based on this relationship through the shared benefits of a shared model of continuous understanding. National policy confidence is connected to local area change via a consolidated system assessment, and an integrated area based regeneration system for more uniform, repetitive and nested behaviors and a route to collaborative agreements.

Figure 10  A Consolidated System Assessment
For National and Local Regeneration Relationships
In Arête Area-Based Regeneration
Excellence in regeneration policy and practice is “a term directly or indirectly focused on promoting individuals, teams and organizations towards the delivery of quality public service” (McSherry & Warr 2008). The term could be attributed to a perceived decline in delivery standards and quality of provision, where standards are not readily identifiable -as in the case of regeneration practice- or to a desire for distinction.

The term in this project means working towards better arguments and relates to both normative standards and influences. The pursuit of delivery excellence in regeneration policy and practice is important in Wales where delivery and excellence are the “watchwords” of the Welsh Government.

In analogous fields of health and social care better arguments have been associated with patient centered-ness (McCormack et al 1999) as without this could there be a claim to be providing quality care and/or service? There is a direct analogy here with place centered-ness. As without achieving this could there be a claim to quality or excellence in regeneration practice or service?

To achieve delivery excellence, the emphasis on collaboration, the active participation of stakeholders, means a commitment to shared learning that has stimulated a growing interest in alternative models of knowledge creation and mobilization in healthcare and education systems (McSherry & Warr 2008). As with these disciplines the traditional separation of research production from users of that evidence in regeneration has not succeeded in closing the gap between what is known about the organization of regeneration and what is done in the name of regeneration practice.

Although traditional regeneration research has supported regeneration practice with robust, philosophical and methodological foundations there is little evidence to suggest that they can cater for the ever - changing demands of real-time regeneration practice. There is growing disillusionment with program evaluations many years after the closure of regeneration programs. Participatory monitoring and evidence based service improvement through actively negotiating a body of expertise with managers and practitioners (Marshall et al 2014) -as evidenced with VVP -is now however beginning to emerge.
Although silos remain across the current organization of area-based regeneration in Wales, progress has recently been again made in place-centeredness through the Welsh Government Program Vibrant and Places (VVP). An acceptance of further place centeredness is however unlikely to be enough to ensure improvement if merely based on the allocation of limited resources. Higher levels of success are contingent upon “effective collaboration over time” (Hargreaves 1999) that;

“Fosters professional learning communities profoundly shaped by the interpersonal processes that accompany and surround them” Instructional practices here are those that are “relevant to and fully understood by all (actors), and instruction that is linked to the needs of individual (places) as well as the standards of the external community” (adapted from Hargreaves & Fullan 1998).

Despite the rhetoric of Government further regeneration collaboration, instructional practices and instruction without systemic leadership will not just happen by chance. Facilitation is essential to the process. The complexity of facilitation, and the preparation and support of those who take on the mantle of facilitator in a Welsh regeneration setting would then need clearer articulation to be better understood.

Regeneration activities may be seen as parts of activity systems but it is only likely to be possible to modify the system if the system is capable of being represented in abstract terms and agreed by many. The systemic unit of analysis is then only that of an individual place in need of regeneration activity. In the reality of regeneration interventions, it is also about empowering those who should be empowered and influencing that which could deliver on innovation and change.

An objective in this study in context was to develop a description of an ideal place-centered regeneration system, which ought to be practiced. Testing the model against criteria of interest including influence was possible. The resolution level in this project (Klir & Valach 1967), was defined by interests in defining local delivery norms, influences and values or potential standards, in terms of objects, attributes, relationships and influence.

Although higher and lower levels of resolution are significant in the field and may well be of interest for others, in a general purpose they would have had less meaning for the study purpose, where “immediate effects of managing change in a system of interest needs to be made possible” (Ross Ashby 1956).
In comparing complexities in regeneration with systems concepts, Ross Ashby’s requisite variety provided a possible solution to overwhelming information difficulties (Ross Ashby 1956). According to Ross Ashby’s law of requisite variety systems can only be controlled if the would be controller can command the same degree of variety as the system, in a process of balancing varieties known as variety engineering.

There is no doubting that someone has to control regeneration operations to realize agreed on goals. It is an argument in this study that the regeneration environment is “of much greater variety than is being effectively controlled and things can improve” (Beer 1974). The processes of decision - making are not always about funding. In the field of regeneration, the level of uncertainty that conceals unknown consequences ought to drive the need for more certain practices.

In the testing of the arête model in this project the author found that challenges of communicating outcomes and outputs from initial concepts could be made far easier with a greater concentration on inputs and transformation processes.

The practice of considering far more factors that is currently the norm in regeneration policy and practice would make funding decisions more ethical. Many regeneration decisions fall in to the public realm and will represent professional and/or political and/or organizational decisions. The consequences of decision - making needs time and knowledge. Relatively large-scale regeneration funding decisions are not uncommon, and daily decisions should not be made without a great deal of attention or introspection, given the consequences of a potential actor commitment or potential lack of commitment. Decisions governed by habit, personality or workplace roles rather than through thought, experience and professional knowledge cannot always be considered the most rational.

If a selection group only cares about a limited number of factors, there will be many unidentified assumptions that could not be identified, let alone met, and the group would then not be making a thoroughly rational decision.

Even though what is believed to represent all the information, which is required to be prioritized and weighted, may reflect choices to be selected (and scored on the highest factors), this may not always reflect all the relevant and highest factors, resulting in a flawed outcome. Prioritizing the best options on what matters to you may not be the same as what matters to the place.
There is a very important distinction here between national and local regeneration outcomes. The more complex the decision, the more factors ought to be included. In area based regeneration a delivery standards benchmark model ought to be able to improve the accuracy of prediction and should include both quantitative and qualitative factors.

Although the assumption of perfect information is likely to be rarely met (Kibert et al 2011) there needs to be sufficient information to communicate rationality to others. In the absence of sufficient information, the suggestion will be that there are other strategies at work. Adding additional variables or comparing dissimilar components requires translation into a common measure to decide which variables are most important. Some comparisons will be much easier than others. Which is better in the short or long run is a key regeneration decision when public funds area at stake.

In the arête model in this project the author found a common model for both national and local measurement of change for both design and scrutiny. Each system parameter may take a variety of values to describe a system state. A property is an external manifestation of the way in which an object is known, observed, or introduced in a process. Attributes characterize the parameters of systems, making possible the assignment of a value and a dimensional description. The attributes of objects may then be altered as a result of a system in operation.

6.3 Seeing Regeneration Systemically

In the context of this project, systems thinking is a discipline for those willing to struggle with complicated ideas, “some difficult to grasp” (Jackson 2010). What would be hoped for in emergent thinking about regeneration as a whole system rather than individual parts, would be places able to be better equipped to deal with complexity, change and diversity. The concept of a system as it could relate to regeneration as discussed in this final chapter refers to the fields of policy and practice in area-based regeneration in the local context having regard to approaches available in process modeling and in modeling validity.

Amongst a range of general system definitions, the descriptions and definitions appropriate to regeneration -necessary to be repeated here for clarification and understanding - are those of Bossel (2007) and Jackson (2010).
“A system is anything that is composed of system elements connected in a characteristic system structure. The configuration of system elements allows it to perform specific system functions in its system environment” (Bossel 2007).

“The functions described can be interpreted as serving a distinct system purpose. The system boundary defines the system’s identity and autonomy. As the system interacts with other systems to maintain itself, (the nature of regeneration) is an open system that takes inputs from the environment, transforms them, and returns them to the environment as some sort of product. Dependent on the environment for its existence (regeneration) must be able to adapt in reacting to environment changes” (Jackson 2010).

The social sciences employ both macro-analytic and micro-analytic procedures. In this project, which deals with public interventions at a micro-analytic level the primary concern has not been deriving an understanding of the behavior of individuals, teams or organizations; it is based on an attempt at understanding systemic behavior and in systemic terms how the system is behaving and how it could behave. Describing and explaining systemic behavior in this project has related to the things that matter, in facts and values surfaced through modeling, that go together in organizing regeneration and in an attempt at understanding from knowledge the whole rather than individual parts.

The advantages of modeling are that there is no need to experiment with or threaten the current system; results can be carefully considered, including alternative development paths. The costs of modeling in comparison to the potential benefits are very small. Whether the model will be valid and usable is however the greatest uncertainty and disadvantage. A model to be valid must be able to generate dynamic behavior. Its interconnected elements must be able to be seen to interact. It need not take too long to implement a model dialogue. On the other hand, many things may prevent this happening.

It is possible to approach a system in an infinite number of ways, in accordance with an interest and purpose. In a useful everyday classification of systems Stafford Beer (1959) suggests two criteria, complexity and determinism. Regeneration is complex but is also deterministic. It will only perform those operations that it has been programmed to carry out and this is of particular importance.
The idea of systems came originally from biological science and from those electronic processes that simulate the interaction of biological organisms. The early development of systems thinking is associated with the biologist Ludwig von Bertalanffy and General Systems Theory (1969). Hall & Fagin 1956 put forward an early definition relevant to seeing regeneration systemically with; “the system as a set of objects together with relationships between the objects and their attributes”.

Objects in this definition associated with regeneration are the parts or components of a whole, which are unlimited in their variety-unless capable of reduction to a requisite variety. Relationships are those that tie the system together.

Attributes are properties of the objects. “It is not only relationships, which make the idea of system the central feature of study in this project; it is the bonds that link the objects and attributes in the system process” (Stanford Optner 1965). Stanford Optner expanded the above definition for the research purpose; of relationships to and between systems and expanded on objects and attributes. Objects are the parameters of systems; inputs, process, output, feedback, control and restriction.

In the context of this research project, practice development focused attention on enhancing regeneration boundary and process knowledge through using applied systems methodologies, for by engaging with action and operational research over the long term to review or evaluate a given situation that “results in a change in the assumptions, beliefs and values held, thus identifying (and bringing about?) a change in culture and context for the given situation” (McSherry & Warr 2008).

In the role of change agent, the role of a facilitator in a place centered innovative and contingent structure would eventually be a multiple one involving many complex interactions. In the health sector, the literature highlights four critical roles of change agents as practice negotiators, nurturers, learners and teachers, and knowledge developers (McSherry & Warr 2008). Systemic knowledge development in health would again be a relevant theoretical comparison in approach to the field in question.
Analogous technical aspects are concerned with enhancing knowledge that will improve skills and competencies; practical aspects are associated with what others know and feel about the received technical aspects, emancipatory knowledge focuses on self-awareness and how the individual influences or is influenced by their own working environment, culture and context.

The researcher-in-residence model (almost a description appropriate to this research study) in the medical sector offers a system-based contribution not found in conventional non-systems based approaches. The model would position the researcher as a core member of a front-line delivery team working across a place-centered system with “the potential to engage both academics and practitioners in the promotion of real-time changes” (Marshall et al 2014). The required level of researcher experience, their areas of expertise and the institutional facilitators and barriers and independence necessary to embed the model would be questions to be asked and answered.

The problems of too easy or too difficult actions chosen within regeneration programs suggests that a place-centered researcher in a residence system would mitigate against a decision making system which suggests that there is currently not a good enough system in place for the vetting of proposed programs and projects, or an acceptable knowledge of enough factors and delivery standards that must be considered, or how influencing of these issues can be made transparent.

The principles that hold for systems in general have been developed in this project. The focus in this study has been on specifying inputs, processes and outputs, and their influences, the “totality of all possible conditions of the state in time a descriptive model of particular operational and human disciplines that create an orderly and coherent corpus of knowledge” Stanford Optner (1965)

The ideas in this thesis, in seeing regeneration systemically, of regeneration in context, public administration, and critical systems thinking, add up to a question worthy of regular attention (Chadwick 1971). A conceptual system involving human involvement is non-mechanistic and ought to be adaptive and offer variable utilization, which involves humans in making decisions that modify the system in operation. This provided the material for operational research and analysis in this project and hopefully for future operational research in the field. Regeneration then would be a system of flows of information and energies.
In the question; what a critical regeneration system ought to be, there is a challenging opportunity for a constant and conscious reflection on the activities of the many involved in regeneration activity, in their attempts to add value to the regeneration agenda, to investigate their own practice as area based practitioners and contributors to the Wellbeing of Wales.

The question can produce long term or short-term interventions. In this project the setting has been available to utilize and interpret scientific theory and design method in systems approaches to change for the benefit of networked regeneration practice. If a similar work had existed there would have been no need to have continued.

If network operations in area based regeneration are to be responsive to changes in the environment they will require the maximum capacity to act in an autonomous manner. If management restricts the variety of operations too much (as with some aspects of VVP) then goals may not be secured. If a powerful influence affects too little control over operations, then “drift may occur leaving a local area incapable of achieving required goals” (Beer 1985).

There are clearly two key questions needing answering before a higher-level systemic “start” can be made. If a conceptual system can be defined will the defined structure be acceptable to those within it? How will the system be influenced in the future by those who have the power on the basis of knowledge of its structure? Decision-makers have power to make things happen, or not. Multi-purpose or purposeful systems such as regeneration have many interests and observers interested in what the system is doing, often though in the absence of a determining an evaluative structure.

6.4 Managing Systems and Change

The fundamental properties of a regeneration system are to fulfill a certain function or purpose that can be recognized and agreed by observation. Observers should be able to see essential system elements and structure in models, which determines its function, purpose and identity.

If one or several essential elements are removed observers should be able to recognize a lack of identity, destruction of system integrity, that the system purpose can no longer be fulfilled.
Actors’ carry out tasks, benefitting places and its people benefit from what a system does. “Since purposes emanate from the human mind, system boundaries will depend on worldviews, of the person involved with and observing the system. Facts and values, in an appreciation of the system becomes an over-riding critical qualitative element of study” (Bossel 2007).

Defining corresponding system boundaries and interfaces (and hence of the mutual influences between models), would suggest that problem areas and critical parameters can however “be more readily identified and changed with appropriate controls designed to decouple or engage with modularized influences” (Bossel 2007).

Bossel (2007) suggested that it would be useful to imagine the system as being suddenly frozen in searching for all the elements that influence the system- the state variables- and this reflects Lewin’s (1946) change management philosophy and the arête model design.

The argument in this project in its recommendations is that the unfreezing and refreezing of regeneration policy and practice could be more regular, structured, complete and transparent. In this project the simplest characteristic was the initial focus on requisite activity, being the main project level cause and effect process relationship, that could be seen as being dealt with by almost immediate feedback response times.

The least simple at a whole system level (and perhaps taking somewhat longer) would deal with national self-organizational responses to major disruption and this can be seen as about to be tackled in Wales as a result of the EU decision.

At a whole system level, because resources and many contributory interests are normally at stake, power and politics and organizational interests would then have a significant impact. It would not then be unreasonable to expect a policy review to not only change its contributory policy and program identities and integrities but also its contributory purposes.

The parts of a regeneration social system that involves human beings that can generate their own purposes from inside the system, that might not correspond at all to any prescribed purpose by managers or outsiders, can be seen in this project in the ability to manage the system and its change. The essential variables (Bossel 2007) that completely describe the actual system - state variables- at any instant, plaid a decisive role in this project in analysis and synthesis.
Although much of the study of dynamic systems is concerned with mathematical or computer modeling, representing the study of dynamic behavior, mathematical modeling need not be the only dynamic study of interest. As a regeneration system state changes over time, sometimes significantly, quality state variables would valuably characterize the current state of the system.

They are inter-dependent on each other and each state variable in this study was required for the complete description of the system. State variables make up the memory of the system. Stocks of regeneration elements will however change over time. “A new level of stocks is determined from the level of the previous point in time where the state was last determined and from the inflows and outflows during the time interval which will produce the evolving history of the system” (Bossel 2007)

In systems analysis and modeling the principal task in this project was to find the essential structure of a bespoke system as a precursor to dialogue. Knowledge of past system behavior was usually not sufficient in itself for reliable predictions about future system behavior. Although a system acts on its environment by its behavior (output) variables, a description of the system required more than would have been observable from the outside.

In this study the scrutiny of all processes in any one local area i.e. state changes are recommended at more regular intervals than is currently the case. The “control and adaptation of regeneration system behavior, through feedback, is then possible on several levels with different characteristics and response times” (Bossel 2007). Only external behavior variables (output variables) are currently generally observed in the environment. In practical application regeneration behavioral changes over time are however of considerable external interest.

Although system structure - the relationships and interdependencies between the parts- was seen in this project as defining behavior, the opposite was not true. “Structure cannot be deduced from observed behavior alone. Mimicking the behavior of a system is nevertheless possible through accurate description”. Bossel (2007) argues that;

“Where system structure defines behavior and systems structure results from inputs from the environment and from feedback within the system both groups of effects are transmitted and transformed by the system structure, which must therefore be known for the description of behavior”.
In the current management of change context and opportunity in the place-centered field of interest in Wales—such as city regions, city deals, and valleys taskforce—modularization, how interaction of complimentary systems produces the behavior of a higher or lower system is particularly relevant to regeneration for attention and further research.

There is a substantial opportunity when regeneration works with parallel, superior and subordinate systems and often in a hierarchy of responsibility. A complete system study would focus on the coupling of complimentary systems. It would then be possible to find compact descriptions of the processes in complimentary systems without representing all the detail of their internal processes for the benefit of those being served.

### 6.5 Political and Organizational Challenges

The three sector organizational contributors to regeneration outlined in Chapters 1 and 3, in a network form, is complex, with many organizational duties of care, that sometimes compete with the need for joined-up thinking in addressing serious and long-lasting area-based needs and problems. The cultural norms and behaviors of the three sectors whose actors make up the field in view and the structural challenges in which they practice is worthy of brief review as “a stepping stone to an understanding of requisite organization” (Jacques 2006). There are often quite substantial differences between what dilemmas regeneration organizational leaders think they have and what they really have in terms of policy and practice making alternatives.

A useful and concise history of the Administration of regeneration in Wales which provides an insight into state interventions and the relationships between national and local activities and network actors in its various forms is made up in a timeline of policy and program initiatives from 1986 to 2009 published by the Centre for Regeneration Excellence in Wales (Adamson, Burgess & Dakin 2012).

The submission chronicles influence as “events and occurrences” which have impacted both positively and negatively on the outputs and outcomes from regeneration in the Principality. Although the paper suggested criticism of regeneration initiatives undertaken during the period it was also able to conclude that;
“The relationship between central and local government working in partnership with key private and third sector stakeholders (was) for many years at the cutting edge of regeneration and economic development delivery practice within the UK, and indeed within Europe”

To get back to this level of excellence further change to that which began in 2012 with Vibrant and Viable Places (VVP) is required. Should a move to integrate a currently dominant and limited finance model within a higher-level quality model be considered appropriate politically and professionally, a social system concept such as with an arête concept, aimed at raising standards, would be a positive option.

A social system arête model would reflect a greater responsibility to individual places in context and could provide targeted human resource to support local capabilities and capacities in channeling both local and national government results. A focus on enabling local democracy to understand the range of multi-disciplinary and publicly funded services and activities ongoing in their local area suggested in local standing conferences in this project, would have the benefit of indicating gaps in planning and delivery, and the consequential potential improvements in accountability and performance.

Significant additional government funding may not be necessary with this model. It may however produce re-directed funding eventually towards better outcome possibilities. An initial focus on a standing conference on norms, influences and values leading to the development of standards recommended in Chapter 4 could be achieved with a modest level of cost resource in comparison with recent revenue and capital expenditure budgets.

In local delivery conferences multi-purpose public actors would be given the opportunity to justify their on-going actions geographically providing an understanding of purpose, fairness, partnership diversity, and strategy prioritization in goal seeking and viability. Natural constraints restricting behaviors caused by a lack of financial resource would then be transparent to those local actors and beneficiaries seeking local change.

In an actor based system behavior always has its limits and constraints that restrict behaviors. In regeneration much of the behavior of actors is guided by cultural and social norms and values that occasionally however act contrary to rational principles. Random events are also acknowledged reasons of unpredictability.
In this case quality behavior can be achieved from analyzing the impacts of decision alternatives on satisfying basic model orientors.

The often functional, re-active and administrative way of working in national and local government is in contrast to one that is multi-disciplinary, pro-active and problem solving and is identifiable in the need for the supply of and support to regeneration entrepreneurs, risk takers and leaders who make things happen.

It is recognized that situationally orientated entrepreneurial management rather than bureaucratically rule-bound managers are more crucially needed in the regeneration milieu (Diamond & Liddle 2005). Whether they come from public, private or third sectors or the academic or professional communities, it is acknowledged that entrepreneurial behavior at the delivery level is worth developing.

Technical and administrative public organization managers inhabit a current environment in which creating entrepreneurial change is particularly difficult. To some entrepreneurship in regeneration would primarily mean innovation, to others risk taking. Entrepreneurship has however to be matched by professionalism as without which public service cannot be delivered.

To choose a definition of professionalism and entrepreneurship most appropriate for regeneration in context, and skills that will need to be demonstrated, will be those skills which combine a feeling for the quality of life for individuals, families and communities and those skills that can develop and sustain a healthy local economy and environment. A broader definition, which defines professionalism and entrepreneurship is useful as;

“A force that has the ability to mobilize other resources to exploit an opportunity that meets an unmet place demand and creates public value”, combines definitions (Jones & Sakong 1980, Timmons 1989 Stevenson & Gumpert 1985).

Professionalism, where the discourse is of dedicated service and autonomous decision-making, “emphasizes professional values and a shared entity based on competencies produced by education and training, apprenticeships and socialization and sometimes guaranteed by licensing” (Evetts 2012).
Professional relationships are often characterized as collegial, co-operative and mutually supportive, with relations of trust characterizing practitioner/client (place) and practitioner/employer interactions, but this is not always the case, in the field when deflecting blame amongst public bodies can be easier than admitting failure.

Professional governance at local delivery level in some circumstances means a need for considerably more knowledge than can be gained from hierarchy or markets (Adler et al 2008) and increasingly this is the case at national level. The emphasis on governance and local community controls, the negotiations between complex numbers of agencies and interests, and the recreation of occupational professionals as management points to a new and distinct form of professionalism.

The evidence in this study suggested to the author in its findings a better relationship between policy and practice and professionalism, based on systemic thinking and an additional higher-level approach, which could if implemented produce higher-level standards and quality benefits. With any suggestion of potential in a new approach there are however unknowns. Scope, scheduling, priorities, budget, resources and place-based demands are just a few variables that might necessitate corrections to the “better plan”. One leader who should be able to deal with uncertainties would be the executive sponsor.

As a visible champion of the new approaches value, an ideal sponsor would maintain a vested interest in the success of the new approach from initial planning to ongoing delivery. “Actively engaged sponsors are by far the top drivers of practices meeting their original goals and business intent (Project Management Institute 2015)”. As the number one driver of program and project success sponsors can have a big impact.

“With the benefit of a thorough working knowledge of the system and how strategy could be developed through systemic knowledge they should have the skills and authority to clear roadblocks, the confidence to make correct decisions, the influence to champion the initiative with senior politicians to keep the practices among the top priorities (Project Management Institute 2015).

The executive sponsor is however only one role in a cadre of regeneration system leaders. There are choices emerging in regeneration in Wales as a result of new area based manifesto commitments.
The eventual form of local government (from 2017 onwards) with its new sub regional focus will again re-define the relationship between national and local government. At the level of place, and in respect of regeneration policy and practice external and internal organizational pressures for greater accountability, quality improvement and cost reduction are intensifying.

Seed-corn based funding to local entrepreneurs to develop creative solutions to local market failure gaps in regeneration performance in an organization sense could be provided to develop unique and innovative local alliances between public private and third sector organizations (Goldstein et al 2009) within an agreed system. As well as individual and groups in a bespoke locality, who come together co-operatively in order to address pressing economic and social challenges, where the public service itself undoubtedly requires entrepreneurial behavior, a joining up of service provision at a local and sub-regional level could have significant and beneficial outcomes.

6.6 Sustaining Regeneration Leadership

The Welsh Government’s preferred map for the future of local government recently published is now very uncertain but as reduced expenditure plans continue to set the context in Wales the options for progressing regeneration are available for re-consideration. Given the EU decision the choice between local management of national performance measures and new regeneration professionalism will define regeneration again for the foreseeable future. It is strong possibility that system leadership at distributed levels (Higham et al 2009) is a concept whose time has come.

A defining characteristic of system leadership would be that leadership could not be understood as a function of its isolated components. A range of roles for those involved in regeneration systems leadership could include:

“Those who would sustain improvement in a whole place based system during extremely challenging times, who develop successful local place innovations from systemic knowledge, who work to broker and shape wider network partnerships, who as change agents and systems excellence practitioners aim to improve the above and importantly the system as a whole (Higham et al 2009)”.

What effective systems leaders are expected to do are “to provide adaptive leadership, sustaining system improvements over the long term in challenging contexts, facilitating the narrative for improvement, organizing the key improvement activities, supporting personalized and organizational learning strategies building capacity through distributed leadership actions” (Senge et al 2015).

An attempt to see clear transparency in regeneration excellence knowledge and ethical virtue does not suggest formal leadership qualifications, merely informal continuing professional development supported with academic input. Structured learning in a more formal sense may follow, but only should participants desire it.

The King’s fund statement (Fillingham & Weir 2014) that “management is about control while systems leadership is about influence” has become increasingly important to regeneration in Wales. As this project has explored a systems view of regeneration administration in Wales and more deeply into the demands of increasingly complex situations, leadership is the key factor in reviewing regeneration administration. Its influence is fundamental to the direction of systemic regeneration and regeneration integration.

Characteristics commonly associated with successful leadership of whole systems involve; an entrepreneurial attitude, drawing on many perspectives, the distribution of decision making, the establishment of a compelling network vision, promoting the importance of value-relationships and behaviors as much as delivering tasks (Wellbourne et al 2012).

The adoption of the title director must mean that the individual with the title must publicly set the systemic direction and the rules to be applied and then direct the way forces work towards that direction. “Leaders will not satisfy a network regeneration organization if they do not set a compelling vision, which attracts followers and requires them to share that same vision” (Oshry 1999). Leaders who establish credibility with followers in regeneration are known to be followed and vice versa.

A regeneration delivery network will only be as strong as its relationships and its connections (Ballantyne et al 2006). Bennigton & Hartley (2009) highlight the needs for a step change in public sector leadership skills in a whole system concept, to break with the traditional silo approach to different areas of public service.
Although good foundations have been achieved in VVP in a partial transfer of responsibility away from institutional leadership, current regeneration leadership practices ought to change further. Evidence from VVP nevertheless suggests that maturity in network communications has improved and it may be a good moment to extend the situation from minority leadership visions towards dynamic mutual enacted systemic values.

The step change requirement (beginning to happen with the Valleys Taskforce?) is in;

- Exposure to ideas from regeneration fields substantially beyond the current narrow boundary associated with a time limited capital program

- The development of hybrid ideas generating new insights in truly inter-disciplinary approaches

The development of leaders capable of importing learning from beyond the conventional capital spend approach would then be the next stage. Focusing on individual learners as early adopters could prove to be a fertile ground for a new understanding if a stronger focus on a whole system approach (Welbourne et al 2012) was considered the best way forward in context.

In the delivery of VVP national leadership and management processes Administratively were associated with assessing value on an ad hoc basis, a separation of leadership and management reducing leadership in the field to monitoring and reporting. Leadership decisions to reduce the number of professional regeneration managers by one-half at the commencement of VVP followed a period of major and often-voluntary professional staff losses in the field (over 30 in a four-year period).

The argument in VVP for reducing the number of Welsh Government leaders and managers was made in response to the premise that such management costs were an overhead burden, given the new hands off relationship with local authorities, that professional and technical costs were no longer required to contribute directly to the quality of the organization outputs.

This opinion was later challenged in independent external evaluation reports, that the capability of regeneration management had a significant bearing on VVP successes.
Although eventually endorsed by a Ministerial advisory group the challenge was however not the subject of further review.

In discharging their responsibilities Welsh Government VVP regeneration managers, a number being previous leaders in the field, could only rely on very limited authority vested in them by virtue of their position as “witnesses” to regeneration delivery. Assessments and awards by policy colleagues were made on the basis of a potential conflict of interest. Their key task in securing as far as possible the deployment of capital resources was then without any creativity, the subject of a common obstruction, and a waste of professional expertise.

An initial inability to seek appropriate information from project promoters in VVP, which ought to have prevented value being lost during the ensuing program, was arguably a consequence of the new national and local government protocol, political involvement in initial operational decision-making and professional staff reductions. Effectiveness in the operation of programs was less than than the highest priority, based on monitoring expenditure only within annual accounting periods.

In the administrative (with a small a) contribution of VVP management processes there were however valued benefits in;

- Keeping records which demonstrate that auditable processes have been properly followed
- Taking measurements describing levels of activity (and sometimes the quality) of results achieved during an accounting period
- In particular reporting and accounting for actual resources used compared with approved plans that resource approvals and commitments have been met propitiously
- Demonstrating transparency to interested parties through freedom of information and Ministerial requests for information
- Providing data on numerical outputs to reflect national program for government priorities and indicators
In the new Wellbeing legislation introduced in Wales the mandatory accountability requirements place a new demand for greater professionalism and intelligence, shifting from measurements that report what has happened to indicators that try to predict what is most likely to happen in joining up public service. From lag to lead indicators, in a more pro-active and knowledgeable Administration, with a capital A.

There is an urgent need to be able develop leaders for the future who are able to understand the multi-disciplinary nature of the field of inquiry away from single sector and departmental solutions. When national and local regeneration organizations agree to co-operate (or collaborate) the constitutional position will be that they have agreed to a mutual extension of their jurisdiction.

Where the overwhelming imperative of regeneration leaders is to plan the best possible deployment of scarce resources to maximize their impact and then to deliver this plan by steering effectively, successful working will “depend on the leadership skills and influence of those involved to win the respect of followers across the relationship” (Wellbourne et al 2012)

There is nothing really however in the way of structured apprenticeships in regeneration (except being thrown in at the deep end) in which leadership and management can develop sufficient contextual and operational knowledge forming relevant skills through practical experience so that their control of resources and influence is both informed and intelligent. Managers can only take ownership of the combination of guidelines, rules and processes, which are to be followed when these are fully understood and this can take some considerable time.

The model dimensions in this project’s arête output, along which differences in structure can be captured, the nature of division of labor, the nature of interdependencies and the structure of regeneration objects understood, may be particularly useful for those who wish to embrace greater interdependence and with a broader range of stakeholders.
The challenge for leaders in regeneration in Wales is then to create what else the system can be (Oshry 1999) (something very close to the research question) as opposed to management, whose business is to strengthen the system as it is (something very close to the focus in VVP). It is hoped for that the leadership of VVP will eventually see further than the task of more of the same in VVP 2 from 2018.

Achieving the management of change of the type suggested in this project would require a transformational change in leadership approach, which could nevertheless come from a change in the emerging priorities of national and local government. The reach of leadership and management in regeneration is currently curtailed by national departmental boundaries and often a generally non-place based focus.

However, with a reviewed and renewed focus on an arête systemic model it would be possible to extend leadership influence and management output over more than one organization, through greater transparency. Under these circumstances, each local area could agree to adopt a model as standards, with common rules and procedures, without constraining their individuality, whilst sharing their mandate with peers.

Regeneration is no different from mainstream public service, where there is a growing attention to the leadership of complexity (Obolenski 2010, Rhodes et al 2010) and the benefit of a systems approach. A higher-level system in regeneration ought to be a knowledge-based expert network system dealing with complexity rather than a simple hierarchy. Hierarchies will always be present in politically dominated organizations, and must always be a firm part of any systemic approach to area based regeneration. They can then produce a regularizing influence and not a constraining influence.

6.7 Re-Viewing Regeneration Administration

Between 2012 and 2017, in a period of transition of regeneration policy and practice in Wales, new Wellbeing legislation was introduced with greater public service demands, and the likelihood of local government reform form was debated at length and inconclusively. The Brexit decision in June 2016 was to cause major concerns that affected the public service as a whole and to a very large degree.
Against this evolving context the purpose of this study was to understand the potential benefits of critical systems thinking and systems approaches to the future of public service administration of local area-based regeneration in Wales. Complexity, attribution, evaluation and measurement were serious administrative challenges to overcome. Results based accountability was the new public mantra in the general field of public service. The potential benefits from the research evidence was compelling and prodigious.

A single model of managing regeneration integration was the outcome of the study for public leadership future consideration. Case study and interpretative work, findings and recommendations reflected five years of operational and action research study, which included research into the analogous development of mainstream public services in applying systems approaches to managing change.

The model in its final form visualized an idealized sustainable regeneration system based on arête-ness, or excellence from necessary knowledge, ethical virtue and progressive measures and was a response to the research question what critical regeneration systems ought to be, the golden thread to the whole project. The model in figures 5 and 9 Chapter 4 is seen as capable of being implemented with a leadership will. The model and the use of the model in both a professional setting and a public arena would meet a number of value creation objectives. A key outcome would involve transparency. As David Brin points out “(Brin 1988)

“A key issue in a transparent society is whether it is two-way transparency or one-way transparency. Two way transparent societies can keep power differences down and keep powers accountable”

There is always scope for improvement in area-based regeneration and specifically in improving two-way transparent regeneration administrations. Regeneration administration in Wales involves very powerful public bodies. A system-based approach to change can deliver a collective approach to change if so desired. There could be stronger localized buy-in to regeneration conformity with a collective approach to standards, and as a consequence a potentially greater influence towards the promotion of greater professional behavior.
Theoretically knowing most things relating to a regeneration system is never however going to be sufficient to be able to predict precisely what will happen and this is part of the enjoyment of practice. The opportunity for national and local government organizations to monitor accountability can nevertheless be reduced in the number of occasions of need by the use of simulation models, predicting and acting before the fact. Although not publishable, the Arête model was successfully used personally during the research process in area-based regeneration program and project assurance reviews, to mitigate risks and adapt situations to achieve greater public value.

The work in this project can help the leadership of regeneration in Wales to overcome problems associated with transparency and excellence based on knowledge, ethical virtues and progressive measures. Implementing the necessary change may however be far from easy given the embedded culture of the representative organizations and will take a real effort. There is a thin line between valuing good professional practice and imposed conformity.

The language of systems shares a common trait of optimism with that of regeneration in that if we can learn from the science of complexity then we will be able to predict the most likely outcomes with improved levels of confidence (Welbourne et al 2012). This should be treated with healthy skepticism. The supplementation of a perceived single control in the field with a systemic view of control in which “many watch the few” (Mathesen 1997) is at face value a different idea to that which is practiced, but with greater understanding there is a price worth paying for greater professionalism.

Trying to control such a complex system would be to deny the vast number of variables. Any regeneration system would nevertheless need to accept the situation where it tries to become capable of teaching itself how to solve its own problems. Otherwise we are dealing with luck and not management (Mathesen 1997).

The goals of Well-being legislation in area-based regeneration are capable of being structured. Performance however will depend on teams of specialists responding to either place or specialism or both. The argument in this thesis is both, focused initially on place for democratic accountability.
The standard argument in attempting to see the whole at one view is that transparency makes people behave well because they can be seen and held accountable; “either when they are doing something well enough or when others look back and find out what they did, so there is an incentive for doing things right” (Sandberg 2011). If we are on the way to an even more transparent society reviewing regeneration management in systems terms will help not hinder.

Structure in a regeneration system produces strategy, transparency, operational influence and control, the co-ordination of key partners, activities and resources effectiveness and local impact. People who are involved are rewarded by a sense of shared achievement. People who are affected achieve a potentially greater understanding of what can and cannot be done. There is a firm obligation on the public service to leave future generations better organized.

“The obligation to leave future generations organized is as important as any other activity or consideration”. This may demand significant restraint and great amounts of political action to create and stabilize (regeneration) practices, laws and institutions that characterize such a society, and a “chain of obligation escaping the confines of narrow self-interest” (Kibert et al 2011)

In complex adaptive systems theory there is a good fit with area based regeneration. A system ought to be able to itself learn from experience, how to respond most effectively to achieve desired goals, however much things change. There are encouraging signs of this being achieved in the current regeneration program in Wales.

C. West Churchman (1968) points out that “the systems in which we live are far too complicated as yet for our intellectual powers and technology to understand, but a great deal can be learned by allowing a clear statement of an approach to be made, in order that its opponents may therefore state their opposition in as cogent a fashion as possible”. Learning relies on some aspect of “individualist” behavior that is vital to discovery (Welbourne et al 2012). We can only hope that individual, structured and organized discovery will be a feature of regeneration in Wales going forward.


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Administering Regeneration in Wales: 
Policy and Practice in a Systems View

(Volume Two)

David Paget

MBA Dip Est Man FRICS FCMI

Additional material submitted as Appendices
to Volume One to the Cardiff School of Management
in partial fulfilment of the requirements for the degree of
Doctor of Business Administration

Supervisors: Professor David Brooksbank
Professor Nick Clifton

Cardiff Metropolitan University
Cardiff School of Management
Western Avenue Llandaff, Cardiff UK CF5 2YB

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Appendix 1          A Reflective Summary

Professional Development Portfolio (PDP)

Personal and Career Development
Student Number ST 20018779

An earlier focus on PDP submitted under separate cover involved:

PDP Part 1 The Potential for Professional Change
To Where Did I Want to Get?
Where Had I Been? Where Was I Then?
How and When Would I Achieve My Goal?
Operational Research Actions & Ethics

PDP Part 2 Preparing for Professional Change
Role of the Researcher
Developing Regeneration: Ways of Seeing
Critical Systems Thinking: Being Different
The Unfolding Process
Understanding the Experience

The focus in this submission is on learning from professional change.

PDP Part 3 Learning from Professional Change

1.1 The Learning Outcomes: Did I Achieve My Goal?
1.2 Doing Better Things & Doing Things Better
1.3 Tackling the Problems: A Key Debate
1.4 Disseminating the Research Findings
1.5 The Benefits of Professional Development

1.1 The Learning Outcomes: Did I Achieve My Goal?
PDP Part 3   Learning from Professional Change

In this final PDP part the learning outcomes from conducting, reporting and interpreting on the final project includes a reflection on the arguments in the thesis in doing things better and doing better things, a key debate in which to apply the research findings, the dissemination of the research findings, and the benefits of professional development. This appendix relates to Volume 1 thesis Chapters 4 and 5, in particular, and, alongside Chapter 6, provides the detail of wider learning outcomes.

The first question is; did I achieve my goal? In answering this question directly, I believe that through the research process I was able to understand the potential benefits of critical systems thinking and systems approaches to managing change in area based regeneration and that this value in context was potentially and hopefully of significant benefit to professionalism in field.

On a personal level in terms of the production of quality applied reasoning, the organization of knowledge, and intellectual development, I believe I achieved personal goals as a result of an “active, persistent and careful” (Dewey 1933) attention to learning over time. Through operational research actions I was able to commit to a mature epistemic inquiry in the search of more probable answers to a research question. I thoroughly enjoyed the very serious and challenging demands of the process.

I had learnt how to avoid fallacious arguments through the study of informal logic, in an often irrational discipline; I had learnt to organize knowledge based on facts and concepts and imperfect data in my own discipline, how to present knowledge in a research thesis and format hopefully useful to others and how to set information goals in a research inquiry.

I had learnt how to make a generalization through a claim or conclusion based on causal and analogous comparisons, -in this case in a more useful than less useful argument - through an interrogation of the data and premises contributing to a claim to warrant the claim. I had identified “the type of backing evidence needed to justify and warrant the force of qualifiers and relevant knowledge needed in its support”, and learnt that serious research “is not about intuitions or feelings, aesthetic or contemplative thinking” (Kurfiss 1988) but is sometimes about years of reflection about certain issues.
In my own subject discipline, I learnt to recognize the chunks or clusters of symptoms in a schema, which organizes specialist knowledge in problem solving, hopefully for greater practical design effect.

I had developed knowledge in the understanding of a whole public service system, in an operational context, using operational analysis techniques and skills in the use of modelling through using customer language. I believe that I could with others develop further consultancy skills through broad networking and across disciplines. I had experienced an increase in personal confidence to work with other systems thinkers and remain curious to be more creative in challenging environments.

Where I am now as a systems thinker is that I believe I am able to label myself as a systems person having developed systems skills against bespoke system requirements. When coupled with subject discipline knowledge and experience as demonstrated in this project I will hopefully have evidenced a move from a senior regeneration practitioner to a supervised research practitioner to a specialist professional in regeneration systems.

I had enjoyed the challenge of the difficult and complex issues associated with this project in context and recognized the need for abstraction to move the agenda forward. I needed to work with incomplete and conflicting information to integrate new ideas and information. I would be content for the results of the project to be the subject of scrutiny in the field should they be taken up by my employing organization or not. If they are not taken up I would promote the results externally as the evidence demonstrated a strong belief in the potential value of the work to unequal places. Tuned in to potential political and organizational considerations and consequences relevant to the recommendations made, take up would however not be easy.

I believe that personal learning in my field of activity is now in need of a “greater need for detail, interdependence, an ability to think flexibly, a capability to adapt to changing situations, an emotional resilience (Busby & Martingale 2007). Based on the competency mapping of Swales & Wright (2011). I would now be able “to commit to system-related quality decisions based on my technical judgment” (Swales Wright & Oxenham 2012). “I can provide quick answers relating to the things that matter, even if it is not a hundred percent solution, and I can also take a rigorous analytical approach in a deep and critical understanding of problem-solving approaches”.

However, I cannot say that I understand the potential application of technological capability to improve public services in the field and this is something to work on. Area-based regeneration is a field that would benefit from recognition of the need to embrace alternative approaches that transcends traditional boundaries.

During the project I further developed VITAE (2011) strengths in systems thinking subject knowledge, practical application of research methods, information seeking activities, information literacy and management, IT competency (to a limited degree) cognitive abilities academic literacy and numeracy, analyzing and synthesizing. I was able to demonstrate on-going research work over a number of years, a responsiveness to opportunities, research management skills, research strategy, project planning and delivery, risk management skills. I would nevertheless require more knowledge of IPR, finance and research funding sources to be proficient in this area.

I was able during the study period to become a Government Gateway assurance assessor in public service delivery confidence. I would develop improved communication skills as a result of giving progressively detailed presentations on the topic. As a result of a dissemination strategy associated with this project I would further develop this skill with employer or without employer support. I would be offered the opportunity to teach at a leading Welsh University during the process. Teaching and public engagement was something to be thought about further during a late stage career, possibly in consultancy.

Whether policy and practice in area-based regeneration in Wales ought to change further as an alternative to current models was a positive design recommendation in this project.

In my own Valleys community, I had learnt that higher level ill-structured problems meant that where a specialist knowledge and control system and strategy is relevant to planning, setting goals, asking questions and making changes- and such a system does not exist- there is a lot to do for the problems to become well-structured problems, capable of well-structured design solutions. I hoped to play some part in this effort in the future.

Forming a potential “trans-disciplinary shared conceptual framework through the vehicle of systems thinking” was the output from this project (Welch 2012) which I believe could be applied purposefully in a Valleys context and is the subject of report in section 1.4.
At a career level I believed I had achieved a long held goal by establishing a situation model which could support the Valleys communities, alongside other unequal places, in the process of developing support for propositions, for ways of implementing change, and within a professional context to hopefully produce better outcomes.

Seddon (2008), discussing the design of systems to deliver public services emphasizes the importance of what he terms” counter-intuitive” thinking. He points out the limitation of traditional “command and control” thinking in service organizations since it focuses attention on “functions, targets and budgets in such a way as to fragment the mental models about organizational life held by the participants”. I would prefer the term counter-allegiance although I agree with him when he says that:

“To take a systems view is to think about the organization from the outside-in, to understand customer demand and to design a system that meets it. To be able to control in this high-variety environment, it is necessary to integrate decision-making with work (so the workers control the work) and use measures derived from the work” (Seddon 2008).

1.2 Doing Better Things, Doing Things Better

An evaluation of systems thinking in the public sector was commissioned by the Wales Audit office (Zokaei et al 2010) as part of its program focusing on efficiency and the constrained public sector financial environment. The research involved three public sector organizations in which systems thinking had been deployed and in particular where results had been achieved. The three case study organizations had been using systems thinking methods from 2006, demonstrating a degree of sustainability, in that principles were embedded across all of the services and involved staff at all levels.

Workers were responsible themselves for the re-design of the system in which they worked, and each case followed the same methodology. There was no toolkit or training course.

The integrated work was organized outside-in, against demand, value and flow, designed against purpose, demonstrating variation, intrinsically acting on what mattered to the system and was based on “partnering, co-operation and adaptability” (Seddon 2005).
In analyzing their old system, all found examples of unintended consequences of managing by targets including poorer service. By redesigning their systems, they were able to realize the boundaries of the systems in which they were operating.

Where their service had little control, other agencies received benefits in improvements from redesign. Cumulatively the evidence suggested that the benefits that could be achieved from system thinking interventions were even greater than expected when seen at the level of higher system interactions.

In the case studies in this project thesis, in Chapter 4 Volume 1, and in its integrated work findings, the work format followed a similar pathway except in the number of workers responsible for collectively (re)designing the system. Although the numbers of personal contributions throughout the study were considerable it was not possible in the research context to undertake a larger “workforce” or actor exercise, as without organizational support and resources it was beyond the capacity of a single researcher. At a national level, the “arête” model design in this thesis ought therefore to be seen as work in progress unless and until the actor workforce in an intervention context has had the opportunity to participate.

The benefits of the arête model in this project are currently based on potential benefits. At a national level the model is radically different to that which exists on a number of levels, politically, organizationally, rationally. If a “big” start becomes possible the model of arête ness should be seen as a starting point for widespread discussion and this is the subject of the first research recommendation. This would need resources, and the will of political, civil service and local authority area-based regeneration champions to begin to understand workforce needs. Research on a larger scale in terms of the consequences of change in implementation would be needed to make larger claims of greater benefits.

The arête model however is also put forward for the use of local areas and in starting “small” could be used immediately where no model exists to help local areas in doing better things and in doing things better. Demand in context is increasing e.g. in the new Valleys taskforce, whilst resources are generally being reduced. Local areas will need to order their work within a new regeneration focus.
Increasing scrutiny and bureaucracy and results based accountability is evident. Routine dysfunctional practices can create a waste of time, money and effort. Logic through budget based control alone will not suffice in future. A greater knowledge based control through Public Service Boards for example will be important.

The consequences of unchanged thinking will be in unchanged activity, the second recommendation in the research findings. The arête model provides a framework offer to local facilitation of a discussion amongst Public Service Boards.

“Things that matter ought to be a fundamental part of new and better ways of thinking and acting” (Gibson 2016), and “not a standard package of services picked off the shelf, deficit faced, focusing on needs and weaknesses, rather than building on strengths and what would be true systemically to deliver the desired outcomes” (Pickthall 2016).

An assessment of demand in area-based regeneration in the context of a new Valleys taskforce would benefit from an assessment of modular failure demand i.e. (demand caused by failure at local levels to do something or to do something right for bespoke places) which could then be synthesized into a total valleys assessment. Place–shaping data, threshold levels and designing against demand could then follow.

In a design for place value and not department value (is it for us?) “Dissolving boundaries between traditional professional roles at higher system levels before professional actor involvement could then feasibly happen” (Pickthall 2016).

The arête model is a dynamic system with a purpose relating to a place point of view, capable of local problem solving and adapting to variation over time. Measures that underpin the purpose are based on sustainability criteria, enhancing relationships; between system elements, a collective responsibility for outcomes. Systemic measures both that will help those involved in interventions and those affected understand and improve the system conditions are identified.

Capable of being scrutinized by the places on which work is carried out, “the model is yet in the hands of those who do the work” (Gibson 2016). The model produces measures that can be used by system leaders, to take effective action on the system.
The Consolidated Value Assessment, Appendix 4.3, within the model parameters aimed at key decision making is designed for transparent, citizen influencing scrutiny and national and local financial decision making. Working out and solving the most urgent place problem is critical to building a local areas trust in a long term program. Understanding against the model means a plan for priority local demand, highest value and appropriate role conduct. Approaches in current use, “do not necessarily seek exclusively to understand the drivers of service consumption against more effective public services which costs less” (Catcher 2016). The things that matter, for example, to national organizations, understandably, is to meet national government targets.

Organizational targets involve budget based control. There is no indication that this will diminish. Many of these targets however are so “arbitrary and out of context that they mean little to quality determination” (Gibson 2016). In the arête model the things that matter to place are not necessarily the things that matter to national organizations, but they ought to.

The aim in the model in this project was to deal principally with the qualitative aspects of interventions in unequal places, to foster knowledge and learning and to understand contributions to the system. Quality measures are currently not the driving norms in the field despite much talk of evaluation analysis. Quantitative measures in the field have however become more sophisticated recently and the time is right for qualitative measures to catch up. Places can then be helped on their own terms, and efficiently.

1.3 Tackling the Problems: A Key Debate

In the body of the thesis in Volume 1 there are a number of examples of key debates associated with tackling the problems of complexity. An example of a current and specific key debate in the field of area-based regeneration in Wales is found in Welsh Government proceedings relating to a Ministerial Taskforce for the Valleys of South Wales. In the italics highlighted that follow it is possible to follow the model arête parameters identified in this research. It is noteworthy in what was said systemically and perhaps more importantly what was not said. The Minister for Lifelong Learning and Welsh Language (the Minister) responded to questions and outlined the role and priorities of a new Task Force to a National Assembly for Wales Committee on the 29th September 2016 (Welsh Government 2016).
The Equality, Local Government and Communities Committee published the question and answer meeting agenda and committee transcripts shortly thereafter as a public document. The establishment of the taskforce group was part of the Labor manifesto for the May 2016 Welsh Government election and was then made part of the program for government over the next five years. The Minister said:

“What I am very eager to see is that we ensure that we can generate change in the South Wales Valleys”. The purpose of the taskforce would be “to create an opportunity for change in the valleys. The papers agendas and minutes will all be made public and people will see exactly what we hope to achieve”.

The hope in developing “relations” to generate change was in using the strength of the Government together with the private and voluntary sector. Coming to a thorough mutual and agreed understanding of the challenges involved was an early task activity.

Challenges would be different in different places. What might work well in the Valleys of Gwent might not be so well suited to the Gwendraeth valley. A lot of different priorities in different places meant an in depth understanding of the reality of the quality of life or of the “nature” of need was required to begin the job of looking at how to start to deal with them. A sustainable system over time was important. “It’s unrealistic to think that whoever is a member of this taskforce could change everything in five years to create revolutionary change.

The nature of need would be the subject of further analysis, however initial thoughts were that priorities (possibilities) were economic, for example in-work poverty, the casualization of the economy, transport issues, the human consequences caused by welfare reform and of leaving the EU. The selection of the valleys was because problems existed on an international scale.

“Because of the size of the challenge in the valleys (one third of the population circa 1m people) we have to face that, although I hope the type of answers we find will also be useful to other parts of the country”.

Intervention “possibilities” in the increase in the creation of well-paid secure jobs, better access to highest possible quality services, the protection and enhancement of the physical environment. An industrialized strategy based on a decentralized economy based on support for manufacturing and a focus on local economies. A concern was “to not create an industry of committee’s dealing with different aspects of the same problem”.

What I want to do is to look at how we streamline, how we order our work, how we ensure that the work that’s done is accountable to the National Assembly and Government (not necessarily to the areas affected). “We need to do that in a way that minimizes complexity and maximizes delivery. We will see how (in possibility mode) how we can use the Governments powers and resources to ensure change. In my opinion - creating a national agency- that’s not going to happen.

I don’t see that that is going to be the solution to the question. *I don’t see the taskforce as a department of Government*, holding a budget of millions running its own programs. “There’s a difference here that’s very important” “What we want to see and that is where I see this taskforce working is using some sort of government powers soft powers to bring people together operating as a catalyst to create change and creating accountability for the people in the valleys and offering a path that could be followed that would bring people together, people from different sectors and people from different communities”.

“I will never set a community against another community. I think we have an absolute fundamental responsibility as a government to represent all communities equally, but also recognize the scale of difficulties and challenges and problems facing particular communities and that means specific answers in some cases”.

*“Every Minister without exception is going to be part of this work. As part of the Ministerial team the first Minister wanted me (to work as a catalyst), to make sure that other Ministers also take action and work together. Every Minister without exception is responsible for parts of this work that is true without exception. I don’t want to see Government operating in isolation in any way. I want to start this work immediately”*. 

“We need to find a way of bringing perspectives together. We will be using all mechanisms available to us. Soft powers are not easily described *I want this to act as a means of holding people to account for the policies and for the priorities and for the decisions they take.*
I then want to see this taskforce acting as a very real means of promoting and delivering change in terms of…bringing people together whether its private industry, local government service deliverers Welsh Government”.

“As a challenger and holder to account of decision makers who are currently taking decisions about projects that impact on the valleys …I will expect that the people who are delivering…explain to the taskforce. This taskforce will hold people to account and will ensure that we have a very clear route-map and path ahead of us to create work to improve the daily lives…of people”. “What I do not want to do is to end up in a situation where we create a mirage of hope but no means of delivery. We will deliver a route map, if you like over the next few years about what we want to see delivered and what we want to see happen.

I will establish targets and I will establish objectives on which we can be held to account. One of my objectives is to agree a structure for working…. and a streamlined approach to the delivery of policy and the delivery of investment. I’m absolutely determined that we will establish……… a way of working where we are accountable to the communities that we serve, understanding different demands, different needs, visions and ambitions.

The challenges facing the Valleys Taskforce have been grouped together. In doing so a model of arête ness appears to potentially address a number of questions in supporting a design dialogue towards;

1. Better integration and co-ordination across public services.
2. Increased access to good quality jobs, increasing employability skills and delivering maximum benefits to the valleys communities from initiatives such as the Metro, City Regions and City Deals.
3. Positive communication and true community engagement.
4. Maximising benefits from structures and organisations working with and in the valleys.

The highlights above demonstrate the arête model potential and in the “how to” of being some use. In terms of its potential contribution to structure, design, dialogue, transparency and in dealing with reality, ambition and fairness, the question now for those who will attempt to tackle the problems of the Valleys in all its complexities is to find a way agreeable to all.
1.4 Disseminating the Research Findings and a Proposal

The challenges facing the Valleys Taskforce was recognized in the preparation of a proposal to the responsible Minister on the 13\textsuperscript{th} September 2017. The proposal (below) identifies what issues are important for consideration, what actions are recommended and what the situation is that has led to the proposal, based on research from this project, in context.

\textbf{Our Valleys, Our Future \hspace{1in} Proposal Summary}

\textbf{An Arête Delivery Structure for the Valleys Taskforce}

On the 20\textsuperscript{th} July 2017, the Welsh Government’s Minister for Lifelong Learning and the Welsh Language (the Minister) as Chair of the Valleys Taskforce (VTF) called for contributions to the emerging VTF plan for the Valleys of South Wales; Our Valleys, Our Future, in the form of delivery plan options, prior to publishing a detailed delivery plan in the Autumn of 2017.

This paper responds to this call and proposes an Arête Delivery Structure option for the Minister’s and VTF’s consideration. “Arête” in this paper is shorthand for “excellence and ethical virtue”. The Arête Delivery Structure design which follows is based on evidence from operational research within Welsh Government between 2012-2017, examined successfully at doctoral level in July 2017.

\textbf{What are the issues the Minister and VTF is being asked to consider?}

The Minister outlined in September 2016 a vision to generate change in the Valleys, through a \textit{sustainable system over time, a better way to order work, minimizing complexity, creating accountability in public service departments, a new structure and method of delivery, offering true engagement with those affected by change by those involved with change”}.

A really important public service opportunity was created. The challenges for public service management was in system design and network acceptance. Could a system design capture the opportunity, and satisfy “how” the VTF “is” (always) creating the dynamics of local change?
Could the potential for and of change, through the design of an abstract structure and its implementation be made acceptable to the workforce i.e. the delivery network? Critically, in a multi-disciplined Valleys agenda implementation and delivery would mean dealing with complexity.

In area-based change management complexity is an ever present issue. To absorb this complexity, the ability to; summarize local area change, eliminate false hope, communicate impact, raise reasonable and not unreasonable expectations would be detailed design issues. A place-centered mechanism to achieve local area collaborative governance and a collective responsibility arrangement, something to deal with engagement, activity and integration was the system design solution. The focus was on quality management standards, modularity and transparent prioritization.

**What is being proposed.**

In this proposal, the Minister as Chair of the VTF is asked to put forward to the VTF for consideration an Arête Delivery Structure system design option to be made from;

**Higher level quality assurance standards, commonly agreed re-stated definitions of excellence and ethical virtue in the field, modularity and associated systemic decision making processes, allowing every Valley area to deliver, in their own way, a long-term systemic area-based change management approach.**

With a local area focus, a long-term systemic arête view would enable the transparent VTF prioritization of the things that matter, in real-time and amongst relative priorities. For those familiar with required quality standards there would be no surprises, for those unfamiliar necessary advances.

The use of standards, subject to local area scrutiny, social pressure, and delivery incentives, would, if adopted, provide an advanced frame for collaborative governance and collective responsibility at a local area level, and a multiple mind-set to seeing multi-disciplined activity as a whole, a step away from taking things apart in sometimes restricted local and national departmental perspectives.
Although perhaps novel to some departmental hierarchies, the adoption of standards and a place-centered modular approach to public interventions would make responding to local market and failure demand simpler, more transparent for all departments involved, and importantly to the places being served.

**Why am I making this suggestion now?**

A new Valleys plan needs a model based more on change management effectiveness than that of the recent past. Despite notable successes, there is clear evidence of inadequacies in top-down and bottom-up area-based change approaches in Wales, in achieving longer-term objectives. A systemic model of place-centred change management and delivery excellence, aimed at dealing with the problems of execution, would better respond to the potential for the sustainable delivery of economic, social, environmental, demographic and technological integration and innovation.

If successfully implemented by the VTF, a model based on excellence and ethical virtue could have wider potential benefits to sustainable change management in Wales, given the challenges and opportunities of Brexit and its eventual devolution settlement.

In a single logic-based modular system, aggregating public interventions in a local and national context would enable the monitoring and transparent reporting of change at both local and national level. Capturing the logic of each and every sector intervention in a common format at a local level is timely and appropriate. The Valleys area is not a single community. There are many different types of interventions to record in each different Valley community in a coherent public reporting mechanism, if citizens are to be confident in a delivery approach.

An illustrative Arête delivery structure model design (Model A) has been tested for coherence with Welsh area-based change policy and practice, and is supported by academic systems thinking and regeneration authorities. The evidence is based on criticality in real-time change management theory; public service norms, influences and values, and through delivery capability testing. The illustrative model would, however, need validation and amended as required through network actor workforce consideration to achieve common agreement.
Model A (Illustrative) An Arête Delivery Structure in Area-Based Change

What action should be taken next.

The Minister and the VTF is asked in this paper to consider three cumulative tasks and the work of officials towards the development of standards and a modular approach to area-based change in the Valleys, which can survive irrespective of funding or administrative constraints i.e. a system for all seasons. Based on a systemic description of excellence in the field, to be designed by policy and practice actors delivering real-time public value and local area change, voluntary standards in a modular framework ought to benefit unequal places earlier, if adopted by both those involved with change and those affected. The three cumulative tasks are as follows;

- **Task 1.** The development of a whole system explanation of place-centered change management, in a rigorous model which could facilitate sustainable development improvements in a variety of unequal places. Through the collaborative design of an idealized system structure and its parameters, a comparison with contributing policy and practice structures and behaviors could be made possible through a system of regular communicative events. (e.g. Model A illustration, Figure 1 Conference Events)
• **Task 2.** The initiation of a Standing Conference of Change Management Principals, and actors contributing to satisfying place-need in the Valleys area, to share in and agree the construction of whole system idealized parameters, (e.g. Model A) and *a professional framework of threshold standards*, and also the instruments of system viability; implementation, co-ordination, operational control, development and policy.

• **Task 3.** Following the completion of tasks one and two the initiation of Local Area Standing Conferences, (Fig 1) to enable all contributors (P1, P2...) active in or planning to satisfy place-need in the local area (A1, A2…) the ability to communicate their plans and ambitions *in a modular approach* towards the agreed whole system parameters, to include preventative and collaborative possibilities and performance over both the short and long term.

![Valley No 1](image)

**Figure 1** Valleys Taskforce Performance Reporting based on An Arête Delivery Structure and Local Area Standing Conferences

**What is the situation that has led to this proposal?**

**Complexity**

Area-based programs and projects can historically be seen as simple, as complicated but predictable with expert support, or as complex in an integrated form, with cause and effect unclear and unpredictable as a result of significant degrees of freedom of its multiple network actor participants.
A change vision involving Wellbeing goals lies in the third category, impacting on diverse Valleys communities, would now involve the need for a working knowledge of a delivery network made up from many different objectives and disciplines. The more autonomy in the delivery network the more complex. In this situation complexity will continue to grow unless tackled.

At the complex level no central authority could possibly control every action - even if it wished to. With simple and complicated actions self-evident in public response terms, the extreme options to the VTF as it begins its work then lies in disorganised or organized complexity. Disorganized complexity means a large number of parts with limited interconnectivity, a situation often described as random, requiring eventual survey work at the end of a programme period to determine efficacy. By then the learning and knowledge capture is often lost in translation.

Organized complexity on the other hand, based on standards, means connections between the parts. Many wins from interdependent programs and projects with attainable and measurable objectives can offer tangible positive outcomes in line with longer term goals and can also offer sustainable solutions. Where organizations absorb complexity they are known to outperform organizations trying to reduce complexity. How to add them up is then the challenge.

**Modularity**

Modularity, more practical than grand solutions (although sometimes needed), more scalable than (isolated) small wins offers a tool for adding up contributions, co-ordination, joining up, designing against demand. Modularity involves the use of systemics. In dealing with complexity, significant organization and management value is found in systemics.

An initiative to deliver area based change in the Valleys from a holistic point of view using systemic approaches would begin with systemic design thinking by all those concerned with the purpose of a system of public service intervention. There is a significant opportunity here with New Public Service Boards amongst others, not previously involved in delivering regeneration type changes on the ground, to benefit from modular guidance in the prioritization of delivery activities.
In the example of a desired modular design of local area-based regeneration delivery in public service norms, influences and values in Model A, the illustration could be offered as a starting point towards a discussion of local and national delivery standards in a modular form. A short term aim could be to test the validity of these and other potential systemic descriptions in the field against the reality of contributory policy and practice, including pilot activities, with both those involved with delivery and those affected by change. In understanding organized complexity the potential benefits would be likely to considerably outweigh the costs.

**Standards**

There are many demands in the Valleys communities needing short and long term/high impact change. Multiple parties and organizations with diverging self interest in area-based change have historically had difficulty in agreeing a sustainable delivery consensus, although through programs such as Vibrant and Viable Places, this is now improving. The VTF by the nature of its emerging task has the opportunity to produce even better models of public service delivery and quality assurance (QA) through agreeing expected delivery standards.

There will be those who will see quality assurance standards as a critical necessity. Previous area-based authoritative and competitive intervention models have however had variable success. Large scale problems refuse to go away that resist any simple solution. Grand solutions can be ambiguous, and where not legally binding less effective, costly and risky. Competition is of value but only to the few and can cause a weakening of capability and capacity over both short and long term. Where capital and revenue programs are diminishing rapidly, bottom up and top down distinctions may no longer be effective as the only tools of policy optimization.

Despite current local area-change problems associated with budgets and short termism, over time there will be many specialized priorities, programs and projects capable of being facilitated through public intervention. QA is needed from the start of a new plan. In the code of area-based change in Model A, the example of standards aimed at QA in delivering public value does not constrain creativity over the immediate short term or long term. The public value benefits of agreeing excellence in delivery standards through modularization can, however, be seen in greater reasoning skills.
Consolidated Value Assessments

In the absence of higher level model parameters, to support multi-organization resource allocation decision making transparency, there could be scope for subjective criticism in the Valleys and of the VTF, as activities change over time. In terms of a practical, defensible systemic structural approach to certifying program and project priorities at any one time, Consolidated Value Assessments of programs and projects (Figure 2) would enable a demonstration of transparent resource allocation, through the delivery of public value benefits, if based on agreed model parameters and QA standards.

![Figure 2 A Consolidated Value Assessment of Norms in Programs and Projects](image)

Based on Model A criteria, the evidence from structural activities in terms of outputs (relative priorities), processes (result propositions) and inputs (reasonable prospects) of and from delivery, in a dynamic system, would be capable of scrutiny by the VTF and local change management over time, and through an approach based on better questions.

The model in operation would facilitate the making of better decisions by board or committee, in transparently recommending programs and projects to funding bodies seeking to determine support between potentially competing priorities.

Research evidence here suggests that inputs ought to be of special importance and a cause for concern. A prioritization of the things that really matter, in context, and in real-time, amongst reasonable prospects. For example, programs or projects should only be considered for support as a well-organized or potentially well-organized program or project (B Status Figure 2), or less well-organized but worthwhile and needing improvement over time, if input norms, for example, such as requisite activity, can be entirely justified in evidentiary terms.
What are the financial implications of Ministers agreeing to this structure?

The full costs of an Arête Delivery Structure are not identifiable without the further work. Anticipated costs at this stage of design would however not be expected to outweigh the management of change benefits to Wales most disadvantaged and unequal places.

The flexibility of management teams in the civil service and in local government public service have the experience and knowledge to provide the modern transparency associated with an Arête Delivery Structure in line with their established competencies and day to day duties and in their duty of care supporting Ministers and locally elected leadership.

Departmental consequences in accepting both a budget based decision making process and a place/knowledge based decision making process would nevertheless need careful consideration and planning, as more relevant local priorities were brought forward for possible resource allocation.

Conclusions A Better Way

The VTF 2017 Plan promises good quality jobs and the skills to do them, better public services, a focus on what matters to local communities and five hub locations. The Valleys are not a single community despite their similarities. Each and every Valley’s market and failure demands should be respected and tackled in a fair way. The problem then is in adding up the complex contributions cogently.

A systems based approach, standards and modularity is a purposeful option. An Arête Delivery Structure for the VTF is a valid change management solution. A systems approach is not a panacea in dealing with the management problems of area-based change. It is nevertheless transparently fair, intelligent and honestly defensible in explaining what can and what cannot be done in the field.

Other change models; political, organizational, hierarchical, top down, bottom up, pilot based, pockets of good practice, planned or contingency based can be accommodated in a systemic approach.
An “emergent” system approach however, provides the opportunity for modern scrutiny and the potential avoidance of acrimonious evaluations sometimes many years after interventions have been implemented.

If better programs and projects are expected to emerge in a future Valleys context and decisions made relating to real-time opportunities, then high-level standards ought to be delivered. In delivering excellence in a multi-disciplinary and multi-objective public service, a common way of adding up a raft of policy and practice contributions, reducing variations or identifying gaps is needed. The employment of modern management techniques for the Valleys, such as that offered in an Arête Delivery Structure, is therefore worthy of serious consideration.

The Minister has considered it appropriate and timely to try to think of a better way to approach local area change in an improved network organizational structure. In a network delivery organization in the Valleys, the work of the VTF is critical to the better management of the network and the Valleys being enabled to perform excellently and ethically. A controlling national model is offered in Figure 3 as a Consolidated System Assessment in a network organization structure based on an Arête System solution.

![Figure 3](image-url)

**Figure 3**  A Consolidated System Assessment for National and Local Relationships in an Arête Delivery Structure

The argument in this proposal is that, as the delivery of public interventions supporting area-based change increase in complexity, caused by greater service demands for the evaluation of management actions, the administration of local area-based change in Wales ought to develop further, as an Arête System. A timely opportunity to pragmatically make a bigger difference through the work of the VTF is now available.
Whether or not the advice is considered appropriate at this time, the following dissemination model, based on that of Harmsworth & Turpin (2000) is considered appropriate.

Aims and Objectives of the Project

The aim of this project was to understand the potential benefits of critical systems thinking and systems based approaches to administering area-based regeneration in Wales. In a “trans-disciplinary” (Parker 2008) approach, the dissemination aim in this project would be to try wherever possible to turn the concept of systemic working in area-based regeneration into one of real benefit to unequal-places.

Dissemination of the project work was not commenced in any substantial way before the research was completed as substantive dissemination was only felt capable of being designed for approval by Welsh Government on completion. This would allow for the benefit of employer input against a whole system concept, as without which significant national benefits were unable to be potentially identified in the short term.

Benefits to End Users

The two findings of the project are;

Finding 1 The potential benefits of critical systems thinking to area-based regeneration in Wales are compelling and prodigious. A likely cost-effective system of sustainable area-based regeneration for the long-term could be promoted in a cogent argument for the immediate benefit of unequal places in Wales to;

- Tackle complexity through responsible collaboration.
- Cope with making better decisions,
- Give pluralism in the field a better chance,
- Enable the shared construction of actions in local area change,
- Involve many disciplines,
- Recognize dynamics,
Finding 2  In the absence of a meaningful long-term joining up of public service in a local delivery mechanism based on an actor agreed system for sustainable regeneration in Wales the rhetoric of responsible collaboration in integrated area-based regeneration is unlikely to be matched by the reality of delivery.

In the first finding and through the thesis model developed in Chapters 4, 5 and 6, Volume 1, six potential uses for model end users are summarized in the following highlights;

- 1 The opportunity to promote higher-level professionalism:
- 2 The methodology towards the development of national standards
- 3 The transparent development of standards by those involved influencing local change through improved national conferences
- 4 The transparent demonstration of standards to those affected through improved local change conferences
- 5 The tailored knowledge-based allocation of resources to underperforming places
- 6 The longer-term planning of local area adaptable change

Five benefits of the model in the research findings were found in collective responsibility and collaborative governance through the ability to deal with;

- 1 Complexity and strategy, the making of better decisions, the capturing of many different views
- 2 Means to achieve material conversations for integrated working
- 3 Failures in comprehending the realities of delivery
- 4 The re-branding of regeneration in the pursuit of Wellbeing
- 5 Ethical conduct, necessary knowledge, progressive measures

The results of the study can be disseminated to a range of people and organizations involved in area-based regeneration and those affected by regeneration activity in Wales. A first priority in dissemination is returning the results to the Welsh Government and this was
achieved contemporaneously with this academic submission. Study participants in case studies agreed a form of joint reporting where appropriate. Participants have been continually if selectively informed of emerging findings during the study period.

The opportunities for dissemination can be developed further dependent on whether or not Welsh Government actions the thesis findings. On Welsh Government favoring the concepts at the current time public resources can be deployed in dissemination activity (scenario 1). On Welsh Government not favoring the concepts private resources can eventually be deployed by the researcher in consultancy practice, but not until an employer/employee relationship has ended (scenario 2).

It is not currently envisaged that disseminating the work in the project externally would happen until a thorough examination of who may stand to benefit or otherwise has been completed by internal Welsh Government controls. Progressing scenario 1 will mean that a decision is required by Welsh Government which may take some time to resolve before a final strategy can be executed.

**Evaluation and Criteria for Success**

In both scenarios’ success would generally involve the engagement of individuals and communities of practice involved in systemically agreeing system based parameters norms and influences in delivering local area change through area-based regeneration. Communities of practice on the ground are the same for both scenarios.

Measuring success correspondingly means not only whether Welsh Government agrees or not to action the findings but whether regeneration in Wales is eventually seen as requiring being delivered to higher standards.

The environment will always change, as will leadership, and the context within which potential end users are working will also change. This means that even if unsuccessful over the short term there will be other opportunities over the mid to longer term to promote the research models and purposes. Awareness, of the projects work, and potential worth will hopefully bring forward support and favorability. Greater understanding, involvement and commitment are all required. Awareness of the study logic, usefulness and potential application e.g. Valleys Taskforce, could be an initial model application priority.
Awareness of the work within Welsh Government in its aims and objectives will hopefully create enough interest to wish a more detailed understanding. Awareness of the work within the external community of practice is currently dependent on workplace protocols. Targeting audiences that do not require a detailed knowledge of the work but where it would be helpful for them to be aware of the activities and outcomes would however raise its profile.

**What the project proposes to disseminate?**

With favorable support from Welsh Government there are a number of groups/audiences to target directly for understanding and action. The people that are in a position to bring about national change are those leaders in Wales who are accountable for regeneration excellence and delivery on a national scale.

These are the groups that will need to be influenced by a deeper understanding of the project’s worth in order to achieve real change. The scope of dissemination internally would start narrow and broaden out as a result of interest or dis-interest to particular communities. A shared understanding, of exactly what it is to disseminate and why what it offers to particular audience’s in terms of, benefits realization, internal, external and connected stakeholders.

**Target audiences/groups**

The stakeholders in this project will eventually be made up from two groups, those influencers involved in designing regeneration interventions in Wales and those affected by change interventions. Raising awareness right across the discipline is possible while employed however only with the support of the employer.

Until then awareness of the project and its worth will be based on a low target associated with individuals within potentially influencing departments gradually building up support and hopefully favorability and involvement, commitment and action. In Welsh Government these groups and individuals would include Managers (Department Heads/Senior Staff), Project Managers, Quality Enhancement Units.
Without Welsh Government support the message of better regeneration through systemic approaches would be problematic. It would be unrealistic to expect an early understanding of the projects worth in the absence of detailed discussion. Finding ways of generating ownership can however be seen externally for example through the Centre of Regeneration Excellence Wales as being capable of making an impact.

The timing of particular activities is dependent on opportunity and the Valleys Taskforce, City regions and City deal opportunities in Wales are current opportunities to pursue.

With employer support external bodies such as public Service Boards, Community Leaders in Local Communities, Local Government, Network Entrepreneurs and actors connected to the taskforce can be targeted. Potential Users, Students, Suppliers (Event Organizers) would also feature as would distributors (Libraries, Universities, Academic Staff).

Attendance at conferences would hopefully encourage participation. The project would need a distinctive identity and those who may become involved would hopefully have a proven track record in the type of work undertaken. Alliances with other systemic concepts could be made with appropriate professional bodies.

**Dissemination methods/ activities**

Establishing a steering group of professionals and academics in the field to gain access to networks and organizations at the leading edge of debate would give the work initial credibility with the regeneration management community at large beneficiaries.

There is unlikely to be a danger of overlapping or conflicting activities in context without the support of Welsh Government however the extent to which adopting new approaches, methods and materials might have other implications on future policy, for example on staffing and funding quality assurance would be key organizational consideration.

With the support of Welsh Government however there will be many methods and existing channels for dissemination including facilitated workshops, website information, roadshows, conferences, one-to one and the use of media, mailing lists. With the benefit of cost/benefit evidence identifying viability, there would be a wealth of experience in this area of activity to draw upon.
1.5 The Benefits of Professional Development

At the commencement of this Professional Doctorate study at Cardiff Metropolitan University five basic questions were worth investigating (Based on Campbell et al 1991):

1 Would it be useful to link a theoretical discussion to the field of area based regeneration?
2 Would a discussion with others as a means of linking theory with practice create new information?
3 Would I gain personally by reading for a purpose and writing about theory and practice?
4 Would my beliefs be challenged, leading to behavior change?
5 Would the beliefs of others be challenged leading to the creation of a new context in which alternative behaviors was possible?

In question 5 the question remains to be answered. In questions 1 to 4 however the investigations were conclusively positive. The benefits of professional development, on reflection were found to be based essentially in an improved capability to develop a reasoned argument. The whole project process relating to these questions would be of professional value to the project outcome.

The opportunity to explore the basic tools of critical reasoning in a work situation was of great personal value over a long period stretching back almost seven years when craft training for the project had been completed.

The collective project arguments enabled hopefully a demonstration of independent thinking; from the ability to make informed argument based on facts and substantiated claims, a critical attitude to cultural biases, the analysis and importantly synthesis of data and knowledge claims, the critical application of knowledge working in the writing of a substantial thesis.

In helping to deal competently with the ethical, social, and political problems of everyday life, the opportunity, provided by critical systems thinking, and its associated tools, enabled capabilities to be developed in a systematic way, which eventually provided the opportunity to make informed organizational recommendations.
Through critically evaluating data and knowledge claims, the competencies developed would not only help in applying knowledge and skills to justify choices in sometimes difficult situations, but in making informed and responsible personal decisions in the workplace.

The benefits to professional development can be attributed in this project to a large degree on the eventual overall argument in this project being abductive. Based on the research interest and evidence available initially a move from an inductive reasoning to abductive reasoning was a natural evolution.

During the early stages of the project a hypothesis and an inductive argument in probability allowing for the possibility that the conclusions would be false was developing, as was an argument in causation and inference for future hypothesis evaluation and deductive testing. This was an approach worth understanding in action.

Based on a developing understanding of regularity, an understanding of the counterfactual, an analysis and synthesis of necessary connections in singular context thoughts turned approximately half way through the project to the question of system design. In reality this was the real interest in the project from the start although perhaps unrealized. Although I knew deductive reasoning and correlation didn’t mean causation I did not know that I had drifted seamlessly into abductive thought processes.

In contrast to inductive and deductive reasoning I was to become aware that “design researchers generally promoted abductive logic as the form of logical reasoning required” (Dong et al 2015) “the lifeblood of creative design” and noted scholars were of this view.

Abductive reasoning in this study introduced a hypothesis and theory to explain given facts and was a cognitive strategy not necessarily known until the later stages of research, “a quite specific and deliberate way of reasoning” (Dorst 2011). Pierce (1932) argued that “abduction is the only logical operation that introduces new ideas”. It was also argued for “in synthesizing complex and contradictory information to generate insight (Kolko 2010) and “in reasoning toward new solutions from function to form” (Kroll & Koskela 2014). These were to eventually become strong pointers in concluding the study.
The thing I was interested in was the beginning(s) of a bespoke system design and:

“A reasoning frame to influence the direction of a system acceptance. That is something capable of influencing structural or behavioral aspects, which would involve the de-familiarization or articulation of needs in a different way. A simulation for alternative contexts of use, which could lead importantly to an invention of conditions for future possibilities, and a prospect for new knowledge, and professional practice”.

(Based on Dong et al 2015)

The abduction in this project in context was a first synthesized orientation of a field in a systemic view. Logic based abduction provided for multiple possible explanations and disregarding other possibilities the abduction hopefully can be made useful in serving better to orient regeneration policy and practice in the context of the local situation. The explanation in the model outcomes were derived from logic theory (the domain of critical systems theory) and a set of data observations.

In application abductive reasoning for system design included “identification of implicit design targets, ideation of innovative design concepts, the method of diagnosing design constraints” (Stephen C-Y-Lu & Ang Lu 2012). Observations followed from an explanation of observations, interviews, topic reading and theory. An explanation is valid if it is the best explanation of a set of known data.

The research model in this project can be seen as a purposeful abductive reasoning activity “from abstract design intent to a concrete design concept, under constraints”, (Stephen C-Y-Lu, Ang Lu 2012) to propose something new and of use.

From a theoretical viewpoint synthesis means a purposeful reasoning from the general to the particular. The best explanation in this project was in terms of simplicity and elegance i.e. the fewest possible assumptions. The explanation in synthesis is consistent with theory. The abduction was “to pick the best explanation based on clarity and simplicity, prior probability, and explanatory power” (Pierce 1932).
From a practical viewpoint professional development can be viewed as repeatedly making purposeful propositions to map from the ends to the means and this was eventually seen in the arête model focus during mid study and in the following “how and why” promotions to realize the ends. In addition to abductive reasoning, deductive and inductive reasoning would play important roles in future design. Inductive reasoning for design evaluation, and deductive reasoning for design analysis.

Reasoning or validation of the model outcome in this project would be explained through successive approximation, inductively by those involved in area-based regeneration policy and delivery, otherwise the model would not achieve its goal in a collective value. Deductive validation would be possible at a later stage. Modelling in this project flowed from a story of how the data was generated. The data was not easily available to those who might wish to study complexity in the field. The model was deeply involved with policy and practice by observation and thought to see whether it could be falsified or improved (Bayesian style) in attempting to determine or adjust the strength of belief in the veracity of the hypothesis.

The biases acknowledged in this project in the role of researcher were amongst other things, in an optimistic and conscious purpose bias towards excellence, a predicable–world bias and an analogical bias. Although they are acknowledged they do not, it is argued, reduce the works potentially pragmatic value. Pierce said “Pragmatism is the logic of abduction”. There are a number of pragmatic uses to which the model can be put “with conceived implications for informed practice so as to be testable” (Pierce 1932).


The contribution in this project in logic book style would mean that the truth of the premises makes the truth of the argument and conclusions much or slightly more likely. The argument conclusion is that critical systems thinking can help with area-based regeneration.
The first premise is that area based regeneration is complex. The second premise is that critical system thinking helps with complexity. I have found that both premises are rationally sufficient to be able to conclude that the project findings and argument conclusions are much more likely to be true than not. Although the premises were kept to a minimum this was done for simplicity and explanation.

A positive claim about what critical debate involves is that “its purpose is to bring to an audience a way to see the object in a certain way” (Hopkins 2006). The proper outcome of critical discussion in the field of inquiry in this project should be a rational activity that counts as reasoning. Area-based regeneration is an activity that is the right sort of thing to be supported by reasoning.

The target of the argument in this project is that the proposition is useful for debate. It is argued in this project that critical systems thinking are very useful for debating area based regeneration and specifically transparency. “There can only be rational connections where there are (design) concepts because concepts are nothing more than articulations within (system) states that makes it possible for there to be rational transitions between them” (Crane 1992).

In this argument a hypothesis was judged and selected because it offered via its trial to establish transparently a low cost test for probability falsification. It is argued that the evidence in this project produces more than instinctive plausibility or subjective likelihood (though reasoned) but a reasoned objective probability (Hopkins 2006). If it stands up to test in policy and practice application that will be worth knowing.
Appendix 2  Completing the Research: Methodology

2.1 The Key Research Paradigms
2.2 The Directional Relationship with Theory
2.3 Systems Theories, Applications and Limitations
2.4 Operational Research Actions and Ethical Assurance
2.5 Ensuring Quality Standards

2.1 The Key Research Paradigms
Ontology and Epistemology;
Positivism, Interpretivism and Post-Positivism
Critical Realism and Meta -Theory
(Demonstrating a systematic acquisition and understanding of key research paradigms, and philosophical approaches. Examining the role and usefulness of theory)

Ontology and Epistemology

Ontology addresses questions of what things are and their being in the world (Potter 2006). Ontology is about the nature of the world and what it consists of, what entities operate within it and how they interrelate to each other. Epistemology is concerned with the study of the nature of knowledge, what counts as valid knowledge and how it can be gained.

Basic questions asked about knowledge are; what can we know? How can we know it? Why do we know some things but not others? How can we acquire knowledge? Can knowledge be certain? We are therefore confronted with philosophical choices at the commencement of research regarding the nature of the world, human action and its explanation (Gill & Johnson1997). The set of philosophical assumptions explicitly or implicitly adopted influences our subsequent choice of particular modes of engagement (Burrel & Morgan 1979) and what we see as warranted in research.

Ontology is the starting point for most of the debates among philosophers and in the study of management. (Easterby-Smith et al 2005) has produced a concise explanation within the social sciences as opposed to the natural sciences. In the natural sciences and in the debate between realism and relativism on there exists an interesting and perhaps relevant agenda.
Traditional realists start with the extreme position that the world is concrete and external and that science can only progress through observations that have a direct correspondence to the phenomena being investigated. Less extreme internal realists point out the limitations in this position. The more precisely the position is determined the less precisely the momentum is known in this instant and vice versa (Heisenberg 1927). The relativist position goes a stage further than the less extreme internal realists in suggesting that scientific philosophies may not be quite so rigid, inflexible or unchangeable (Easterby-Smith et al 2005).

In the corresponding social science debates where the subject is people the internal realist and relativist positions can be seen in the ontological positions of representational-ism and relativism where “truth” requires the verification of predictions and is determined through consensus between different viewpoints and “facts” are concrete but cannot be accessed directly but will depend on the viewpoint of the observer (Easterby-Smith et al 2005).

Easterby-Smith suggests a third ontological position— that of the nominalist— depending on who establishes the truth and that facts are all human creations. The question here is; where do the labels come from and who influenced them? As a variant of relativism nominalism assumes that different observers may have different viewpoints and what counts as the truth can vary from place to place and from time to time (Collins 1983).

Within the relativist field critical realism (Bhaskar 2008) recognizes that social conditions create concepts that are human constructions with differences in quality and judgment and are only a more or less accurate reflection of reality if they take into account a broad sample of viewpoints. For critical realist’s replication is an essential requirement for reliability. In applied and critical systems approaches this is a clear pointer to rigor and relevance in the project in focus.

Epistemologically today few natural scientists claim that it is ever entirely possible to describe what is out there and get it right, and this is also the stance taken in this project, (Willdig 2001) since human perception and understanding are fallible, selective and biased by preconceptions (Chalmers 1999). Most natural scientists however believe that they can progressively pin down the facts and get close enough to reality to at least solve practical problems (Gill & Johnson 1997).
The social science view appears on the face of things to be very different to that of the natural sciences with its tendency to reduce human actions to the status of automatic responses excited by external stimuli (Gill and Johnson 1997), although the close to reality argument &to a least solve practical problems seems to be common to both.

The three key beliefs (Potter 2006) in social science research; that knowledge is constructed rather than discovered, multiple rather than singular and a means by which power is exercised are however convincing arguments in the field in question.

In the field of area based regeneration the evidence of many years of professional practice is that reductive evaluative studies often provides convincing knowledge of a representation of the real world, that will nevertheless invariably be influenced by what the researcher chooses to observe, how they interpret what they find through the stories they are told (Potter 2006). There will never be the likelihood of a single reality or one “true” knowledge, as there is no way to get direct, undisputed and certain knowledge of the complexities involved and particularly in observations through very short research commissions. There is nevertheless usually a very strong relationship between multiple knowledge, construction and power. Researchers, policy makers and practitioners are human and will always have a stake in the stories they tell about human interests and concerns (Haraway 1984).

**Positivism, Interpretivism and Post-Positivism**

The different philosophical assumptions in contrasting research traditions and the key paradigm ideas of positivism, interpretivism and post-positivism with their associated ontological and epistemological frameworks are the subject of much attention.

The key idea of positivism is that the social world exists externally and that its properties should be measured through objective methods rather than being inferred subjectively through sensation, reflection or intuition (Easterby-Smith et al 2005).

The collective historical assumption here is that reality is external and objective, the epistemological assumption is that knowledge is only of significance if it is based on observations of this external reality.
Although some positivists would disagree with some of these statements the philosophy has developed over the last one and a half centuries into a distinctive paradigm “the progress of scientific discovery in practice in tiny steps which refine and extend what is already known” (Kuhn 1962) There is nothing to suggest in this definition that it would not be relevant to systemic inquiry.

The philosophical assumption on the other hand of interpretivism - also labelled as constructionism or naturalism- at the extreme from positivism, arose out of the criticisms of positivism and their natural science claims and stems from the view that reality is not objective and exterior but is socially constructed and given meaning by people. There is also nothing to suggest in this definition that it would not be relevant to systemic inquiry.

Most people in public service for example, unlike the objects of the natural world, are conscious, purposive actors, who have ideas about their world and attach meaning to what is going on around them. In particular, their behavior depends crucially on these ideas and meaning (Robson 2002).

Human science according to Alfred Shutz (1899-1959) amongst many others “cannot be pursued as if humans have no stake in what is being investigated”. The central characteristics of humans has implications for doing research involving behavior, what people actually do, and has to be interpreted in the light of these underlying ideas, meanings and motivations (Robson 2002). Within this tradition there is almost invariably a rejection of the view that “truths” about the social world can be established by using natural science methods (Robson 2002) but this rejection is extreme.

Again at the extreme, interpretivists/constructivists/naturalists have grave difficulties with the notion of an objective reality that can be known (Robson 2002) but it is difficult to see why. Where the task of the researcher is to attempt to understand the multiple social constructions of meaning and knowledge using appropriate methods such as observation and interviews research participants should only be viewed as “helping” to construct the model of reality with the researcher. The researcher will have an influencing agenda and because there are multiple realities, the research questions cannot be fully established in advance of this process.
Given the reported demise of positivism (Byrne 1998) in social research post-positivism has recognized the criticisms of positivism and has attempted to come to terms with them. Accepting that the theory, background knowledge and values of the researcher can influence what is observed with a however remaining commitment to objectivity (Reichard & Rallis 1994) post-positivism offers a tempting philosophical framework.

Although a great deal of effort seems to have been expended in seeking to establish one research paradigm over another, to determine the best philosophy for a pragmatist in this project seems to be found not in arguing paradigm superiority, but in agreeing what is meant by a “scientific attitude” (Robson 2002). By this Robson means that research is carried out systematically, skeptically and ethically.

Systematically by giving serious thought to what is being done, how and why you are doing it, being explicit about the nature of observations and the circumstances in which they are being made. Skeptically, by actively subjecting ideas to possible disconfirmation, and subjecting observations to the scrutiny of others.

Ethically, by taking account of the interests and concerns of those taking part in or possibly affected by the research process and outcomes. If forced to submit to convention, the philosophical direction most relevant to the study in focus and logic of enquiry (Blaikie 2000) will principally be interpretivist. Gaining new knowledge in the field in question is always likely to be a process of interpretation and a constructivist view.

The project concept in this research project could accommodate contrasting approaches, a positivist and interpretivist ontological view because they could both be incorporated in design and application and could produce a view of the world from different processes. Methodological choices however involve the art of the possible.

Induction, deduction, and abduction would be weaved into the process in this project as and when necessary. Induction initially, to look for regularity in theoretical modelling, follow by testing theoretical modelling against extant policy and practice and eventually deduction (outside this project scope) to possibly demonstrate correlation. Abductive theory in this context can be tested by selecting a small number of variables to study and by seeking to exclude others of lesser potential importance. A scientific attitude is then appropriate and achievable.
The positivist v interpretivist debate in the social sciences has been (Easterby Smith 2005) overshadowed in recent times by attractive choices in realism, critical realism, pragmatism and contextual sophistication. The perspective of critical realism as a way of bridging the positivistic and interpretive philosophical extremes has more recently generated much interest in a range of disciplines (Syed et al 2009) and is the next subject of interest.

**Critical Realism and Meta-Theory**

Critical realists are concerned with meta-theory (Fleetwood & Ackroyd 2004). Meta-theory designates ideas, thought or argument that are beyond theory. The notion of culture in anthropology is an example. Culture and politics are sometimes considered outside theory in area based regeneration but as a non-disciplinary category, are important to this study. The embedding of culture and politics in this project will be necessary without which context would be unexplained.

Realist inspired theory of “what exists” (Sayer 2004) in regeneration policy and practice and systems approaches appears useful because it is formulated in terms of propositions concerning the way the world actually could be understood rather than solely in terms of the way it may be understood or interpreted and is therefore a priority for ontology over epistemology.

The fundamental ideas in critical realism; methodological pluralism, causality as a concept, its agency and structure view and its general view of social science i.e. the evaluative nature of social theory (no positivistic split between facts and values) are all necessary to the projects situation. In the case of public regeneration management, aimed at solving as far as possible dynamic problems this perspective seems to offer the opportunity to deploy any research paradigm as may be required to investigate a situational phenomenon in context, prioritizing an ontological grounding for interpretive research.

Reaffirming the importance of a focus on context and meaning the perspective can deal with causal influences and multiple methodologies and also the meta–theory implications of culture, power and politics. A commitment to realist ontology i.e. to the existence of causal mechanisms whose social interactions generate events and occurrences is a hoped for understanding in this project through observations directly in context.
The policy review, during the middle stages of the research would be a generative mechanism that has causal mechanisms, which are relatively enduring. They would be observable and their interactions would generate actual events. Although only a partial subset of events can be directly observed and recorded empirically they will hopefully be enough to become relevant in demonstrating a scientific attitude.

The objective is to take these observations to eventually explain abductively mechanisms and structures within a local context, that if they existed would explain the observed results, generating causal mechanisms at work and at a variety of levels; organizations, geographical areas, cultures and in particular relationships between systemic parts, groups and organizations.

In this particular research project the situation dictates the research practice and whereas it would be necessary to react to whatever happens in the research situation, it would also be necessary to follow wherever the situation leads to with those involved in the change process itself (Checkland 1991).

Research in this project comprises structure and agency, analytic dualism, parts and people that can engender their own distinct emergent properties. The project would involve a temporal situation where moments of agency occur (Fleetwood 2004) and where applying models of reproduction and transformation of structures in morphogenic /static cycles (Archer et al 1998) would be natural, relevant and appropriate. Causality in decision processes is difficult to unravel in retrospective research (Schwenk 1995). This research would however be prospective.

Area based regeneration involves a network form of organization. In understanding networks, the assumption that structure follows strategy would not always be a true assumption. The assumption that a network consists of several actors who “pursue their own interests when acting” (Hukansson & Johanson (1993), is more likely.

In the field of network research critical realism through construction is often event based, for example in conference attendance analysis. Finding ways of securing knowledge from actors in real time regeneration activity nevertheless involves the interplay of agency and structure. Why this differs from model research is in believing social systems are open systems.
The tasks then involve developing system conditions to enable actors to account for what they know at the time, to discover real causal mechanisms and structures, conditions that enable or constrain the production of knowledge and communication.

Both qualitative and quantitative methods are relevant to the adequate explanation of events in area based-regeneration. With the aim of producing theory, which actually identifies causal mechanisms, multiple data would then necessarily be required and methods of study necessarily complicated. It was originally hoped in this project that multiple network research approaches including quantitative techniques could work better than one-dimensional studies of a single phenomenon, to achieve the best in depth and breadth possible. However, given resource limitations and within the context of time, space and particularly workplace culture this was eventually not found possible.

Further quantitative modelling would undoubtedly prove useful in identifying the value of a systems approach to change. With the benefit of first system orientation to be produced in this project however the nature of the situation at the beginning, the predictability of change interventions, an evaluating following the execution of actions would only be possible, If the work is continued, quantitative analysis can then clarify the major relationships and constraints and be of meaningful importance.

It has been argued that realism can and should revolutionize practice in social science (Sayer 2004) and it appears likely that critical realism has the potential in systemic modelling of area based regeneration to advance public management operational research in “a re-interpretation of the activity of science “(Ron 2002). The dualism of action and structure as two interacting systems (Mingers 2004b, Archer 1995) would have the potential to increase the predictability of overall value of public interventions in area change in a relationship with systemic design and inquiry.

Predictability in this project would be that of modelling for explanation, understanding and design, not statistical modelling for predictive purpose. Predictability from interdependency is nevertheless the focus in the project. The contextual orientation in the study idea is to follow a case study context free stage followed by an action research context specific work plan. The logic is based on a sequential need to understand context and concept before interventionist action.
In later parts of the process a more positivist ontological approach would make it feasible to study what “it” is like and how it works as an ordered system made up of discrete and observable events. By contrast in continuing the work through an interpretivist ontology an interpretation would mean that the only world we can explain is a semiotic world of meanings represented in signs and symbols that people use to think and communicate, language being the prime example. In moving the project forward data in case study form can be gathered initially and analyzed for explanation. Explication will generally be the focus in latter stages.

Explicatory and abductive research treats the residue of the unexplained as the focus of enquiry (Potter 2006) and involves deliberately looking for things that cannot be neatly accommodated within pre-existing theoretical frameworks to solve the puzzle of what is going on and in developing hypothesis in understanding complexity. By not dismissing any methodological choices easily at the beginning of study the sophistication of approach would be pragmatic, transactional and contextually dominant. Action research (Ulrich 2012) towards good professional practice would be the eventual concept of choice.

2.2 The Directional Relationship with Theory;
The Nature of Operational Research in Context
Values and Principles for Action,
Multiple Methodology and Method

The Nature of Operational Research in Context

Descriptions of operational research (OR), its history and practice are briefly outlined in Volume 1 Chapter 3 (Literature Review). Michael C. Jackson (2010) in this context summarizes the usual impression of operational research (OR) held by social scientists as “a discipline, which seeks to use quantitative techniques to solve tactical problems in pursuit of goals specified by management in large organizations”. This view of OR, and especially as it is not a wholly unfair characterization of much contemporary practice as evidenced by its leading journal, would make it clearly unsuitable for this project.

The preference in this project is to however note that OR began not as a mathematical science but as an interdisciplinary science and that the creation of interdisciplinary teams was seen as one of the most important elements.
“Many of the pioneers of OR were social scientists who believed that OR as a “systems” approach that should be used for public rather than sectional interests” (Churchman et al 1957, Ackoff & Sasieni 1968).

The nature of OR in this project context would be in pursuing public interests and in developing the understanding and organization of complex responses, by accommodating analytics if possible, in building in behavioral science, in coping with complex systems and in developing design thinking and encouraging evaluation. It would be acknowledged that OR in practice “currently does not give sufficient prominence to its contribution to these elements and to systems design in general” (Royston 2013).

In the research context OR can be seen and conducted from two general positions, an academic focus on theory building and a policy focus on problem solving, a non-mutually exclusive basic and applied philosophy. It would be necessary to move from one orientation to the other as the project progressed. The interests of both basic and applied research can then converge through the opportunity in potentially contributing to a better understanding of the prospects for both regeneration policy and practice.

The research context is one where regeneration policy and practice/executive processes are on-going and evolving through a staged sequence of events that provides both a basic and applied research opportunity. Public interests would be turned into public policy and executive practice action during periods of change management activity. In context, the effects of time and space and comparisons between the relationship of input process and outcome would be critical.

At each stage of policy and practice judgment activity, issue creation (February 2012), agenda building (October 2012) issue resolution (February 2013) policy implementation (May 2013) and policy execution (on going) can be matched by (OR) applied systems thinking and applying systems approaches. The task of handling these issues together in a pragmatic methodology selection would be based on the main theoretical devices associated with systems thinking, a contingency approach and an attention to boundaries. The dominant device lies with a prior knowledge of potential methodological solutions and their application benefits.
Regeneration research in Wales had previously tended to focus on “either process or outcome at the expense of the other with little linkage between the two” (Andranovich & Riposa 1993). The rare access opportunity in this project was to produce an attempt to link process and outcome to provide a broader and deeper understanding of systemic issues. In suggesting policy and practice improvements the research context and setting offered future opportunities “in collaborative, problem-orientated research to provide potential solutions to geographically bounded problems” (Lerner and Lasswell 1951).

Importantly, time change effects affect the perception of the relative significance of particular issues in area based regeneration and would call on a design requirement for system adaptability. Because regeneration areas continue to evolve, what previously might be considered a relative non-issue may be a significant issue today e.g. welfare reform.

Despite differences in terms of local areas demographics, and in institutions and interventions, local areas do nevertheless share similar characteristics that can provide a basis for comparison and generalization. OR tools for comparison can then look to reduce the difficulties in data collection across different geographical areas.

The benefits of using basic research methods in OR research includes “thinking about the practical implications of conducting basic research” (Andranovich & Riposa 1993). The thinking in this research would be that this project can be used by policy makers,” in the process of seeking an alternative specification of issues, if such specification is provided in an accessible and results orientated way in a professional language they can understand”.

Good professional practice in area based regeneration depends on proper choice and use of intervention methodologies and conforming methods. Whether Critical Systems Thinking (CST) could help to establish the norm of professional practice could be initially seen in a long tradition. Good systems practice would look to “take advantage of the availability of different systems methodologies because they would be informed by different methodological paradigms that can do justice to different kinds of contexts” (Ulrich 2012).

In this project the iterative nature of methodology selection and the policy development sequence would eventually lead to basic and applied research integration through CST. CST and its toolbox would seem to hold many keys to selecting methodological approaches.
CST compels attention to be paid to boundaries (that de-limit any system of interest). As a core tool for “reflecting about the boundaries of concern that we presuppose whenever we conceive of some problem in system terms, systems thinking then becomes a source of critique” (Ulrich 2012).

To this end one tool Critical Systems Heuristics (CSH) for example would provide 12 boundary categories for four critical sources of selectivity built into all practice; its sources of motivation, of power, of knowledge and of legitimization (Ulrich 2012) “best implemented as a process of reflecting on and discussing the implications of alternative boundary judgements” and would be of particular relevance.

CSH captures the idea of a system boundary and its methodological consequences with the image of the iterative eternal triangle of boundary judgments, value judgments and judgments of fact. When some boundary judgments are changed, the reference system, of which it is constituted, would change, too; and “consequently all other boundary judgments may then need to be reconsidered and adapted” (Ulrich 2012).

Values and Principles for Action

From theory to practice depends to a large extent on axiology, and whether association with logic of enquiry is bounded by “value and ethics.” In this project value concepts would move from value free to value laden as the work progressed. Pragmatists believe that values play a large role in conducting research and in drawing conclusions from study but "they see no reason to be particularly concerned with it”. (Teddlie & Tashakkori 2009)

Pragmatists decide on what is important within their personal value system. They then study that topic in a way that is congruent with their value system including units of analysis and variables that they feel are most likely to yield interesting responses (Teddlie & Tashakorri 2009).

Teddlie & Tashakorri argue that transformative and pragmatic scholars emphasize statements linking results from study to broader issues and are generally concerned with issues of external validity and the transferability of results. This would eventually be consistent in which this research would be conducted.
The personal value system in this project would be formed however from a set of ethical values and measures (Hartman 1991) taken from current public and corporate practices with some potentially important “name” changes.

The values that guide this research project would be aimed at enhancing a social function within a pragmatic transactional/transformative tradition. Researcher self-interest here would be simply based on an intellectual and professional challenge. The principal intrinsic value (for future group testing and agreement) that would provide the essential guide to action and ultimate importance for working in this project would be following Hartman (1991) that;

1. Small local regeneration changes can make a purposeful contribution to controlling need and every local area can be improved, in some form, at any one time.

2. The delivery of regeneration initiatives is a fundamentally local issue, and all or most elements of project implementation require some degree of management and accountability at a local level.

3. To deliver an integrated crosscutting regeneration vision over the short term, at a time of resource constraints, local government has a responsibility to join up delivery across government, (including national government) in supporting excellence in as many quality local regeneration strategies as possible.

4. To deliver an integrated crosscutting regeneration vision over the longer term, national government has a responsibility to join up delivery across government, (including local government) in supporting excellence in as many quality local regeneration strategies as possible, irrespective of departmental budget availability.

In the public service a pragmatist/transformative viewpoint can be seen as “agreeing with the existence of an independent reality, independent of our minds” (Cherryholmes 1992).

Teddlie & Tashakorri (2009) suggest importantly that “whilst denying that truth regarding reality can actually be determined, or if one explanation of reality is better than any other, an attempt to say something interesting cannot be totally abstracted from contingent beliefs and diversities of viewpoints”.

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A choice of alternative explanations that best promote necessary social change would then be the focus of explanation. Pragmatist /transformative research represents “an intermediate non-extremist A–paradigmatic point of view”. (Teddlie & Tashakorri (2009). The epistemology–methods dogmatic link is not as important as working with and using whatever methods seem appropriate and necessary for the research question. Patton (2002) made the following common sense statement about the A-paradigmatic thesis “well trained and thoughtful (researchers) can get meaningful answers to practical questions without making a paradigmatic pledge of allegiance”

For the pragmatic/transactional/transformative researcher contextual pragmatism and orientation is a critical determinant of a research approach and a major influence on the way that a management approach in particular is conducted. Where once management researchers prided themselves on following the natural science model and on their objectivity, it is now beginning to become respectable to be introspective (Hunt & Blair 1986)

In this project the distinctions between context free and context specific research) would be found in the projects case study and action research phased overlaps. Although the two orientations appear to be at extremes, they would not in this project necessarily contradict each other fundamentally in basic or ontological or epistemological stances (despite one having a greater academic status than the other). A mixed orientation that weaves back and forth between the divisions would be explained by the move between inductive and deductive methodology and back again as circumstances dictated.

Context free research would be conducted as a result of this researchers’ values and interests in phenomena, conduct free of particular organizational context in which the phenomena are found. By contrast context-specific research would be that in which the focus would be of the unique characteristics of types of organizations involved in the regeneration process. The relationships of these orientations to methodological preferences, and how these orientations would be combined successfully to enhance management processes would eventually be found in the objective evaluation or in psychology in the term “reality testing” (Kelle 2001).
Multiple-Methodology and Research Design

The model in Kelle’s typology, (Kelle 2001) of complementarity and a way to get a wider more comprehensive perspective on the phenomenon would be relevant to this study over the long term. This relates epistemologically to the idea of multiple perspectives on reality that does not rule out the possibility of there being a single empirically adequate understanding “we may need multi-faceted data to derive it” (Lesniewski 1992).

The questions are, over the long-term; do “we have to combine methodologies and methods to get a view of the phenomenon at all” (Fielding & Fielding 1986), in a trigonometry model? Do we need to combine methodologies to get a fuller picture or different viewpoints or “take advantage of when chance arises or postpone the immediate rejection of information or hypotheses that seems out of joint with the majority viewpoint” (Trend 1978)? The answer to both questions would be yes.

The modern origin of methodological combination is commonly dated to Campbell’s “multi-trait, multi method matrix in psychology” (Campbell & Fiske 1959), which rendered the idea in highly formal terms and promoted triangulation as “an approach to testing and proving relationships through convergent validation”.

Multiple methodology research appears to offer several merits, in a long term approach in context, not least in greater sophistication in understanding through an imitation or “synthetic density” (Fielding & Fielding 1986).

The policy community in the field would currently benefit from a theory of research, which would allow them to acknowledge and understand change from policy and practice. Those currently engaged in commissioning research, in line with the recent promotion of evidence based policy, results based accountability and outcome–based thinking, ought to be able to measure a logic of approach over a long period.

Modelling for the future application of mixed method regeneration research design in operational research through CST appears to offer many potential benefits despite what initially appears under researched non-agreed and unformulated research questions (Fielding & Fielding 1986).
Modelling for multiple-method future research in this project idea would increase the likelihood that weak empirical evidence and gaps in argument would be exposed, taken for granted assumptions could be challenged, and more sophisticated “analysis density” (Fielding & Fielding 1986) promoted from a deeper engagement in the first instance than merely with case study research.

2.3 Systems Theories, Applications and Limitations

This project would be about how regeneration is operated managed and led. Regeneration actors are not confronted with problems that are independent of each other but with complex dynamic situations and systems that interact with each other (Meadows 2009). Systems thinking is a basis for OR. Russell Ackoff said in 1974 “there is so much talk about systems and so little understanding”.

“A system is a set of things interconnected in such a way that they produce their own pattern of behavior over time, a set of elements coherently (or not) organized in a way that achieves (or doesn’t achieve) something, a function or purpose.” (Meadows 2009)

In the field of area-based regeneration, the elements can include strategy, structure, organization, activities and actors. Funding resource and geographical factors are often described as boundaries. Regeneration systems elements are inter-related through the flow of policy, the norms of individual, group, organization and network behavior and practice and particularly through the allocation of resources. The purpose of a regeneration system could be to enable local geographical areas to move away from a position of inequality and need to a position of less need greater sustainability through confidence, prosperity, and health.

The components of a regeneration system are therefore theoretically able to generally be identified. The parts will affect each other and together could produce an effect that is different from the effect of each part on its own. The flow of information and feedback could play a great (or less great) factor in holding the system together and in determining how it operates.
A regeneration system may exhibit adaptive, dynamic, goal seeking, self-preservation and (sometimes) evolutionary behavior (Meadows 2009). It also may not. In any regeneration context the most crucial determinant of regeneration system’s behavior should be seen in its purpose. The stock of elements and the flow of activities would then depend greatly on management capabilities.

Systemic behavior can reveal itself as a series of events over time and would be an overarching methodological pointer. The system structure could produce the source of system behavior. Many relationships within the structure would be non-linear, but are often planned as if they are. Single input projects do not neatly produce single impact effects. Many causes however would routinely come together to produce many effects.

Multiple inputs produce multiple outputs and virtually all of the inputs and therefore outputs can be limited. The input element that is most important to a system at any one time is the one that is most limiting e.g. a lack of suitably qualified actors with management capability. In this project about regeneration systems and change, the task would be captured by the question; what critical a regeneration system ought to be?

Within the local situational context of a new policy for regeneration in Wales, Vibrant and Viable Places, there would be places to intervene in a new system- in significant leverage points. The language of systems could possibly be gradually introduced. e.g. Stock and flow structures, balancing feedback, reinforcing feedback, information flows, rules, mind-sets, goals, parameters delays. The early opportunity task would however be to first watch how the system relationships behave before attempting to disturb it (Meadows 2009). A context free view would be possible as a result of an absence from and reintroduction to the field in a new research role.

Later tasks would be context laden as change programs evolved and developed. Early assumptions would become visible. Care would need to be taken to, respect distributed information, in expressing assumptions, in enriching normal language with systems concepts, in paying attention to what was important-not just what was easily evidenced. Thinking in feedback terms would be needed to make sense of feedback policies, serving the delivery network to help the system run itself, locating responsibility in the system, following the system wherever it leads.
Systems theory influences methodology and systems methodologies that govern the principle logic of enquiry would generally follow the key research paradigms (Jackson 2010). Ontological and epistemological traditions shape the nature of systems approaches. Cabrera et al (2008) describes a distinction in terms of thinking about systems e.g. “accounting systems, HR systems, it systems (real world entities) and systems thinking i.e. systems of interest perceived as conceptual constructs for enquiry into real world entities engaging and improving situations of real world complexity” (Reynolds & Holwell 2010). This project would deal with the latter.

From the literature the case was very strong that systems thinking was ultimately a conceptual construct and followed an interpretive epistemological approach (Checkland 1978). The rich historical tradition in systems thinking (briefly described in the literature review in Volume 1), would distinguish the approach methodologically as hard or soft or critical.

Situational or contextual matters would nevertheless determine how applied systems thinking approaches could and would be contextually used. Borrowing from the wider application of systems traditions that shape contemporary systems practice Maitery & Ison (2000) suggests that the problem situation practitioner community who lead systemic interventions are required to deliver purpose through purposeful as opposed to purposive intervention (Churchman 1968).

The outcome of purposeful intervention in this project would be systemic changes to achieve more purposeful policy and practice and as a consequence the better improvement of local place-need area-based situations. “Claims towards value in creating beneficial change in a situation, would be dependent on the context of use, the purpose for which approaches are employed and the skill and imagination of the practitioner” (Reynolds & Holwell 2010).

A first requirement lied in understanding of relationships between different entities in the complex situation (eventually the subject of the developing Chapter 3 Volume 1 literature review) followed by surfacing and engaging through practice contrasting perspectives associated with the complex situation in context. A final orientation would be in “gently disrupting, unsettling and thereby provoking new systems thinking” (Reynolds & Holwell 2010).
The application of critical systems thinking (CST) methodological approaches in their most recognized forms - that of hard, soft and critical forms, was found to be the most-simplest categorization of approaches corresponding to research paradigm extremes. Hard systems thinking sought to bring a positivist and scientific rigor to the solution of management problems, free from the taint of personality and vested interests. Checkland (1981) in Jackson used an examination of methodology to demonstrate that all variants of hard systems thinking were similar in character.

“They largely assumed that they can define an objective as being “easy “to obtain and seeing the task as undertaking a systemic investigation to discover the most efficient “how” that will realize the predetermined objectives. The literature modelling in these circumstances; as iconic, analogical, analytic, simulations, gaming, judgmental and conceptual bore resemblance in some aspects in a human system, however not in others” (Checkland 1981).

In Checkland’s (1981) analysis of soft systems methodology the notion that it was not possible to assume easily identifiable agreed on goals that could be used to provide an objective account of the system and its purpose would not be eventually borne out. A highly developed approach in systems modelling could allow for different future view-points, and alternative world views, which ought to be able to make explicit their various implications systematically.

“Compared and contrasted to a learning process in which self-interested participants in the problem situation commenced and failed to deliver a purposeful structure more fully the possibilities for change on offer could well be greater (Checkland 1981)”.  

That consensus or at least accommodation between different practitioners or stakeholders can be achieved in explaining is a criticism of soft systems methodology that is reflected in the third choice of a post-modern critical methodology (Jackson 2010). Ulrich’s (1983) emancipatory approach allows questions to be asked about who benefits from particular systems designs based on the assumption that problem situations can be coercive.

Post- modern systems practitioners here are concerned that the claims of any systems methodologies are able to guarantee generalized improvement. This however will not be of concern where local area improvement even contested improvement is the driving goal.
The main applications of applied systems thinking mirror the principal ontological and epistemological debates and extremes of positivism and interpretivism. The approaches are not mutually exclusive. Their primary orientation would be determined by context and opportunity.

Using them in combination if possible would have had “the advantage of being better able to recognize the limitations of any one given perspective” (Morgan 1986). If in use in area-based regeneration they could provide a frame and reframing opportunity in different ways allowing perhaps new kinds of solutions to emerge from actors, then claims of successes could become more justified.

The long-term messes (Ackoff 1974) to which regeneration seeks to respond are both complex and crucial. A CST view is held out as embracing both a holistic and process view. Complexity theorists for example (Reynolds & Holwell 2010) claim that it represents an advance on systems thinking with its emphasis on emergence, interdependence and relationships but this seems to simply borrow from earlier system arguments. For complexity theorists’ such as Reynolds and Holwell the “inherently unknowable predictability of organizations” is a difficult concept to understand. On the one hand it feels correct to say that “methodologically managers will need to accept the dangers of long term planning in rigid structures, with precise task definitions, and elaborate rules that often accompany change”.

On the other hand, fixing regeneration in pursuit of a particular vision, would undoubtedly benefit from long term planning and even when an uncertain world requires flexible responses.

Improvement through both theoretical and methodological pluralism and critical awareness in place-based regeneration is recognized in regeneration public service. The theory and practice of evaluation research multi-methodology and method is now firmly established in many sectors (Jackson 2010) from logic of enquiry inside organizations, with external postmodernists in organization theory, evaluation research, and management consultancy, (Munro & Mingers 2002) and has been a recommended focus of long-term attention.
Tools such as Total Systems Intervention (Total Place) and Critical Systems Practice (Jackson 2010) and the opportunities in Action Research for creativity, choice and implementation have however yet to be fully applied in context in the field in question. The application of systems thinking to the research opportunity in each of the policy and practice phases to be experienced as a framework to the contextually specific situation requires design choices by objectives narrowing work to a manageable activity in terms of scope, capability, capacity, time and resource (Jackson 2010).

The relevant operational action research approaches to be used would relate to organizational cybernetics, system dynamics, hard systems thinking and soft systems methodologies. A case study phase design choice would be initially in exploring purposes and in understanding goal seeking and viability. The focus would be functionalist and structuralist given the need for understanding of existing systems in practice and the potential for improvement.

The first step would be to agree the identity of the organization in terms of purpose and through a step process compare outgoing organization with what a good organization should look like.

Model reliability and beneficial use is the controlling test. Viable Systems Modelling (Beer 1974) VSM has been described as a “master organizing idea” (Hoverstadt 2008) providing a model of organization that offers a framework to understand how other management approaches fit together (or don’t). A sub-systems culture is particularly relevant in the field of area-based-regeneration. What is going right or wrong can be data sought by using this model through participant observation, interview and through documentary evidence.

Organizational cybernetics in the work of Stafford Beer and the Viable Systems Model (VSM) 1974 captures diagnostic modelling and would be theoretically seen as of potentially significant use to understanding the relationships between the operations of complex systems in the field. The VSM respects the recursive nature of systems found in public organizations, and would theoretically allow an elegant representation of organization relationships to be constructed. The VSM model would eventually be graphically represented in Chapter 4 and would reflect a widely used model systems where an overall organization is made up of a number of organizations. It can be seen as being particularly relevant to a single contributing organization.
In a case study action research phase, systems dynamics would be used for thinking about and simulating how the elements of regeneration fit together, interact and change over time (Morecroft 2010), and would illustrate how dynamic behavior depended upon feedback loop structures.

Retaining the fundamentals developed by J.W. Forrester in the 1950’s (Forrester 1994) whose ambition in developing Systems Dynamics (SD) was to extend the range of applied systems thinking to more strategic problems. System dynamics is recognized as dealing with the importance of context, practitioner skills and improvements as part of the ongoing process of managing a situation. The main concepts and tools would be feedback structures and behavior causal loop diagrams.

In early phases the ideas in SD would be used to review and evaluate and to construct concepts for use in later phases and following research. Communicating important interdependencies will be an outcome of this work that that would eventually involve qualitative survey analysis and semi structured interviews. Conceptual modelling of critical regeneration systems in terms of elements, focus, interventions and innovations would be necessary for a later action research phase. A group modelling process could follow group-facilitated interaction.

To get an appropriate understanding of structure it would be necessary to establish, the boundary of the system, its critical variables, the network of feedback loops, the rate or flow and stock level of variables and the leverage points (Bossel 2007). The problems worrying decision makers could be clarified and the variables that impact on the problem identified. A feedback model in construction would reveal the relationships between the variables to be validated by real world activity. Experiments conducted on the model to see how alternative decisions could improve performance and recommendations on how the decision makers might change the situation to make it better could follow during the action research phase.

Although a diagnostic case study phase would have benefited from research into process efficiency through hard systems thinking techniques such as cost-benefit analysis, planning, programming budgetary systems analysis it would not be appropriate within the nature of the project’s research access.
In this case study, resource allocation modelling that seeks to apportion scarce resources in the most efficient manner, maximizing outputs and minimizing costs while achieving overall objectives was not the core subject of study although of particular operational relevance.

Critical path analysis and coordination modelling however would be capable of reporting. If expert practitioners were able to be employed, then likely greater benefits could be achieved in the evaluation of alternatives. In concluding the diagnostic case studies understanding the “attractor patterns” that determines current behavior and the reasons why it is dominant completes the methodology choices. Participant observation relating to how change would happen would lead to later action stages.

In completing a systemic inquiry Stacey (1993) suggests concentrating on information flow, degree of diversity, richness of connectivity, level of contained anxiety, control parameters and power differential. Whether or not the system in focus would be stable, unstable, a complex adaptive or evolving system with bounded instability, will be pointers to dominant cultures, processes, powers and ordinary management (Jackson 2010)

The iteration between case study and action research (the “consultation” phase) would be an appropriate time to introduce “is” and “ought” questions and judgments of actors and influencers. Encompassed in the work of Werner Ulrich and Critical Systems Heuristics (CSH), a framework for professional practice based on the central tool of boundary critique could be developed. A particular focus on working constructively levering available change in action would require the understanding of contextual tensions between situations and the contextual relevance of systems.

New VVP policy consultation responses, model coherence testing and survey analysis and group facilitation exercises could take advantage of Ulrich’s twelve-question set adapted for purpose. The reasons for is and ought to question and questions of this nature at this stage would reflect the change announcements of a new policy to be announced by the relevant public service Minister with the power and responsibility for emerging policy change.

Unfolding multiple perspectives amongst actors and influencers, in survey and workshop responses to national consultations making more sense of situations prior to recommending change would be timely.
CSH is an emancipators approach orientated towards re-arranging sources of power that normally dominate and would be a valuable tool in context. The opportunity for a reference system for actors would follow conceptual modelling and produce further critical element evidence in terms of sources of motivation, control, expertise, knowledge and legitimacy.

An action research phase would attempt to utilize soft systems methodologies and strategic analysis techniques, as far as possible. However, without widespread organization support these techniques would not be fully utilizable. (Eventually, opportunities did not present in a form capable of purposeful report). Action orientated users learn their way from finding out about the situation and taking action to improve it but only within the limits of organizational processes. The learning would nevertheless benefit from case study evidence as work continued and from developed models of understanding and analogous literature review.

Structured participation with actors who can demonstrate a purposeful orientation in the field, who will live with final versions of change proposals was the goal (but unfortunately again would not be capable of being fully completed). Using previous models as a source of questions to ask of the problem situation, thus structuring a discussion about changes that are both desirable and culturally feasible although was not personally deliverable – but would be corporately deliverable. A more recent addition to the SSM literature suggests, “internalizing the methodology in the everyday flux of occurrence” (Mode 2 SSM Jackson 2010) but in this project, this flexibility in use approach was only capable of breaking the surface infrequently to interact with ongoing ideas and events.

A new-look regeneration policy for Wales was to be announced in early 2013. Within the change context of a national review of area-based regeneration there would be strategic options and assumptions to be understood in organizing complex responses and in implementing systemic improvements. The three principles of interactive planning (Ackoff 1981,1999b) of participation of stakeholders, and of continuity and holism produced principles that could be built into an action phase.
Strategic assumption surfacing and testing is a systems methodology that can be employed when managers are confronted by wicked problems. Characterized by being connected through a lack of clarity about purpose, conflict and uncertainty it is based on recognizing value that can be obtained by entertaining different world-views (Mason & Mitroff 1981). Policy options that diverge from current practice could be considered as part of the national regeneration review. Alternatives should be fully considered. Four principles highlighted by Mason & Mitroff (1981) are participative, adversarial, integrative and managerial mind supporting.

The use of qualitative survey response analysis would be employed in stakeholder analysis –a large spread of opinion and the involvement of many stakeholders would be obtained as part of the national regeneration review. Assumption specification and rating would as a result be undertaken as to whether they are managerial mind supporting.

The design of an improvement strategy post-new-policy announcement and commencement out of an action research phase would have possibly benefited from Strategic Options Development Analysis (SODA) but this would not materialize at a level to achieve integration in the field to any large scale (despite a brave attempt to integrate change at a local level through VVP). The essence of SODA is a technique that involves causal mapping. Mapping allows views to be captured and structured in a means-end format. For example, this improvement might lead to this outcome.

SODA at a higher level could have brought together two skills (Eden & Ackerman 1998), firstly relating to the process in helping a problem solving team to reach a workable a politically feasible agreement in context to deal with the well-known “messy issues” in the field, and secondly the adoption of a model framework that could have provided in context how the interconnected strategic options could best be addressed.

The limitations of systems thinking and systems approaches to managing change thinking have been widely documented.

Michael Jackson argues (2010) that the value of hard systems thinking such as found in mathematical modelling - tends to leave the human aspect of systems aside - and that if used a significant set of operational issues would then not be identified in real time.
Preferable however by many, mathematical modelling, requiring external specialist practitioners would be outside the scope of the project. In its first systemic orientation measuring performance qualitatively human system issues would be preferred over non-human methods.

Hard systems thinking in regeneration would normally be used- if at all- at the end of intervention programs, as a tool of evaluation. If hard systems approaches could be used at the beginning of a process a positivist epistemology would emerge, possibly enabling greater predictability and regulation of behavior and this would be a progressive goal in the future. The philosophical failure of hard systems thinking in the face of extreme complexity, multiple perceptions of reality and the need for operational change would in this project idea be learning factors most secured by alternative means.

A lack of mathematical modelling in this context would not restrict the value of the project in the development of an initial, idealized systemic view. The goals of an idealized regeneration system were not able to be clearly established through the literature before research commenced and this would be an appropriate time to consider the human possibilities associated with a new competitive place-based policy and the dynamics of a new system.

The strengths of systems dynamics lie in the claim that structure is the principal determinant of systems behavior (Jackson 2010) “a unifying and interdisciplinary framework capable of seeing beyond surface detail, penetrating complexity, revealing real levels of improvement in social systems. Small changes through positive and negative feedback can produce big results”. This would be the hope in a new policy agenda. The new VVP policy framework would involve key decision points. The consequences of exploring alternative strategies, emphasizes learning opportunity whether structured or unstructured.

Critics however have urged considerable caution in the use of system dynamics (Keys 1991, Flood & Jackson 1991, Jackson 2000). Imprecision, the lack of rigor, ignoring existing theories in the field in focus, preparing to continue without bothering to collect sufficient essential data - in other words judgment, over “proper” scientific research.
System dynamics needed an accurate grasp on initial conditions. Could we know enough to make a useful model of a regeneration system? Could systems dynamics be suitable in the current context? From an insider viewpoint, it seemed on the face of it that with rigor in research and with a wealth of analytical data, it was quite possible.

The role of systems dynamics would then be to attempt to describe complexity, by not disenfranchising stakeholders, but by involving elite technicians.

The aim of the project would be to help with the better prediction of behavior of a regeneration system, improving goal seeking, ensuring that stability in a network of delivery actors involved in the field is maintained so that goals could be achieved. System dynamics would be seen as interpretive, a structuralism philosophy rather than a functionalist positivist approach (Jackson 2010) More powerful than hard systems thinking and broader in scope, the model seemed particularly suited to the public sector, where regeneration seemed to be always in a state of flux or transformation.

Viable Systems Modelling (Beer 1965) or cybernetics would feature in the mix of approaches in both the understanding and organizing project phases, and has been seen as integrating fifty years of work in the academic discipline of organization theory. However, promoting structural laws that must be observed if an organization is to be viable can ignore hierarchical organization factors, which do act according to their own purposes (Jackson 2010).

Cybernetics is suggested by Jackson, as saying little about motivating individuals to perform, how participation can be arranged. Viable systems thinking is likely to be (or not to be) of interest and of use in the field of regeneration to the more powerful in consolidating their own positions. Beer (1966) however recognized power imbalances and the functionalist use of the model in efficiency and efficacy and its limitations in relation to effectiveness, culture and politics.

Used in action research for over 30 years’ soft systems methodology (SSM) was an epistemological break from harder traditions that had been particularly relevant in recent times to business and management. It has nevertheless often been criticized as little more than multi-group brainstorming (Jackson 2010).
It is, however despite its association with subjectivity and interpretation, a methodology regularly used with positive feedback from its users.

It would be argued eventually in this project that organizing large-scale complex systems in a political context is a Checkland (1976) soft systems methodology waiting to happen. Culture, politics and participation are included. As it is about purposes where participation is a necessity SSM appears to be able to contribute to effectiveness and elegance as well as efficiency and efficacy.

Where a purposeful organizational design of a complex adaptive system is a potential goal SSM has been suggested as a less obviously suitable approach, (Jackson 2010) a limited perspective on why problem situations occur. Where consensus about what systems to design is not always possible applicability is questioned.

Checkland’s (1976) intention however was to take SSM beyond an abstract form to a set of clearly defined activities that guide the processes of intervention through an “internalized” methodology that could deal with ill structured problem situations (Jackson 2010). More widely applicable in area-based regeneration contexts in Mode 2 form (flexibility in use) management here could use SSM more frequently and effectively as a natural tool in everyday pluralist work and in various guises. Some facilitators are more skilled than others and facilitator quality here would be an obvious issue.

Applicability of SSM has been criticized by hard and emancipatory thinkers, where power and politics determines the outcome of debate, as “too interpretive” in thinking for functionalists, subjective, regulative, acting only at the level of ideas, ignoring structures, helpless in the face of the power of the system (Jackson 1982, Mingers 1984) and these issues are relevant in the field.

However, a new-policy context in VVP would provide the opportunity to develop a new strategy with the objective of dealing with the wicked problems associated with regeneration. With a known database, such as that with a national consultation, a large spread of opinion could be captured relatively easily to ease the execution of proposed courses of action.
As a soft system methodology aimed at clarifying purposes and finding more elegant ways forward Strategic Assumption Surface Testing (SAST) in the context of a national consultation would possibly provide a useful thought process. Assumptions often lie at the heart of regeneration. SAST had however been criticized for hidden views, limited perspectives and lack of transparency, a failure to test assumptions and attempts to produce “safe” plans to avoid senior management criticisms.

Within the SSM grouping of system techniques Ulrich’s critical systems heuristics (CSH) expansionist approach was to provide the original research question and a strong philosophical foundation for a number of case studies in “what is” action research phases and “what ought to be” project phases. A methodology for purposeful systems thinking ensuring representation of those affected, the techniques would hopefully compliment systems dynamics modelling in describing the value of change activities. Evaluating published plans with regard to boundary judgments, interest groups in the field ought to be able to eventually and transparently call systems designers to account.

Criticisms of CSH are however considerable. Of idealism, the rejection of functionalism, neglect of structure, not possessing a social theory to inform judgments, content less form of critique, methodological immaturity (Flood & Jackson 1991, Meija 2001, Midgeley 1997). Nevertheless, using CSH questions alongside more established systems approaches ought to be part of area based regeneration in a regularly used technique. The concept of boundary is particularly important to regeneration in a multi-agency situation and would be of critical importance to gain the commitment of many involved and affected stakeholders.

2.4 Operational Research Actions and Ethical Assurance

Operational Research Actions

The potential for applied operational and action research and the practical application of theoretical systems thinking as a professional activity, would involve through an account of research in my own organization how area based regeneration ought to be (Ulrich 1983) planned and conducted. The application of theoretical systems thinking approaches purposefully could then possibly result in a future research design for a bespoke situation.
Early reading of relevant academic literature and methodology, (Volume 1 Chapters 2 and 3) at an early stage of development and prior to and during the research proposal submission stage informed the rationale for the study and the potential methods that could be used to implement and evaluate the research, including the opportunity to further pilot some of the proposed methods.

The professional context and rationale for operational action research, described in this Volume and Volume 1 was to come about as a result of new Wellbeing legislation in Wales, the possible reform of local government, and developing national government requirements towards improving performance, through new mechanisms such as new results base accountability. (The EU referendum decision was a final addition to this context in June 2016). Operational research in action was a natural choice in these circumstances.

The first recorded application of operational research, under that specific name, took place in 1937-1939 at Bawdsey Research Station, by teams led by Eric Williams and Geoffrey Roberts. The work at Bawdsey was on analysis to improve the design and performance of an air defense information system that integrated radar with other observational data transmission and interpretation tools. The systemic outcome has been estimated to have doubled the efficacy of UK fighter command in the Battle of Britain (Royston 2013).

Charles Babbage, a pioneer of operational research (Hyman 1982) later conceived the idea of the black box and was concerned with issues beyond the purely technical, advocating the systematic deployment of science and technology to support industry and commerce and promoting “the union of theory and practice”

Operational research (OR) is defined today as “the discipline of applying advanced analytical methods to help (management) make better decisions” (Informs 2003) and “a structured and reflective mode of intervention for the real world” (Royston 2013). It is however often described “without explicit reference to the three qualifying ideas that stood at its beginnings: applied science, systems thinking and optimum (or preferred overall) solutions” (Ulrich 2012).

The focus on improvement rather than on knowledge for its own sake distinguishes OR from pure academic disciplines and places it in the domain of (DBA) practice based professionals.
Conceiving and creating something that will improve a situation is then seen in practice as a question of design. Although not immediately recognized at the commencement of this project, the concept of design thinking would become of primary importance.

There was not a descriptive or explanatory systemic view of area-based regeneration to rely upon at the projects commencement. Design was a necessity in this project concept to address the research question and to provide something with which to compare policy and practice. Design thinking would become a “fundamental conscious and explicit part of the professional work” (Royston 2013) in turning operational research into action. The “skills of synthesis” would play a key part (Ackoff 1979) in “an expansion of a traditional OR technical role to that of a reflective inquirer with an emphasis on helpful ways of framing and structuring problems of the real world” (Schon 1983).

In agreeing with Ulrich (2012), in identifying the potential for research in action it was clear on reflection that in the public sector “all problem structuring had value implications in the sense that it may do more or less justice to the different views and needs of people”. “There is no way around it, professional problem structuring entails choices as to what are the relevant facts (observations) and values to be considered” (Ulrich 2012).

The question in this project was then what should in a specific situation constitute the basis of values and knowledge for doing a competent and rational job. The challenge would be how to select and deploy theoretical content in a situation not under my personal control. How would I deal with the limitations of opportunity and of professional methods and tools? Could I “accommodate analytics, give consideration to behavior, deal with complexity, develop design thinking, encourage evaluation”? (Royston 2013). By choosing methodologies I was defining what kind of complexity mattered for dealing as effectively with the context as possible.

Of the three qualifying OR ideas at the commencement of study critical systems thinking (CST) was able to capture the imagination in the research question. Would systems thinking in a critical form be useful in handling contextual selectivity? Critical systems thinking was an application of systems thinking that “aimed to support good practice in operational research” (Ullrich 2012) which like all professional research practice was required to deal with validity claims.
Would relying on relevant facts, considering relevant issues, being unbiased, fostering improvements capable of being evidenced in any design thinking? Critical systems thinking was certainly not practiced as a self-contained system in the field of inquiry and was also not understood as a methodology or paradigm in day-to-day practice.

With the potential of systems approaches for contributing to good practice underestimated in practice the opportunity as a reflective insider to study in a contextual quest for increased sophistication was capable of being considered. To reflect on these matters Ormerod (2013) suggested a framework for consideration in three core “products” in “smart bits, helpful ways and things that matter”.

Firstly, smart bits would be the core products and related activities and skills of quantitative (technical) analysis and (hard) systems modelling, recognized as the OR profession’s specialist expertise.

Secondly, helpful ways would be those general problem solving and intervention skills associated with participants in co-operation such as “process (facilitation) consultancy” (Schein 1969) and project management, often described as soft operational research.

Thirdly, things that matter would be both generalist and specialist skills in appreciating problem contexts, and it would be here that the original systemic rather than technical concept of OR’s search for optimum solutions would be found. I had already been drawn to things that matter, as without a system design per se there was an obvious gap in something to help make things be done better. The research question made clear that the things that matter was where the research interest lied.

The potential for professional change at a personal level was understood through OR, in the archetypal competences required, of “integrative thinking” (Ulrich 2012) and “context competence” (Ormerod 2013), and the ability to; situate problems in their organizational and social environment, and to identify and synthesize related systemic assumptions and connections. Being able to formulate strategy and policy options would play an important part as well as designing ways to implement them and to evaluate the outcomes.
In design thinking Ulrich (2012) suggested “dealing (systemically) with multiple perspectives while maintaining a neutral and professional stance”. In a first systemic orientation in the field, research work meant an emphasis on dealing with the things that matter before helpful ways and smart bits despite their obvious on-going importance. The work of appreciation was in focus. Craft techniques, had been previously piloted to serve the value, reality and instrumentation phases in Vickers (1965) model of appreciation. The returns from operational research actions were potentially considerable. The task was then to determine ethical risks involved in the process.

**Ethical Assurance**

The key principles for conducting operational and social research for government were set out in the UK Government Social Research (HM Treasury 2005) Professional Guidance (July) document which articulated the responsibility for central government departments to uphold five key ethical principles. The five ethical principles were:

1. A sound application and conduct of social research methods and an appropriate dissemination and utilization of the findings
2. Participation based on valid informed consent
3. Enabling participation
4. The avoidance of personal and social harm
5. Non-disclosures of identity and personal information

In this project the principles were to be followed during five years of systematic study. The work was part funded by Welsh Government and there were no other researchers involved. Information was subject to Welsh Government ownership where data was not in the public domain. The Cardiff School of Management Ethics Exemplar Pack 2014/2015 was available from June 2014 to support the ethical processes.

For each of the five principles the relevant ethical sensitivities and risks were considered. Appropriate action was to be taken to manage the issues identified. Judgments about the level of inherent sensitivity and steps to be taken were expected to increase towards the end of the project as dissemination of research findings came into focus. Consent would then be sought from internal Welsh Government GSR experts and advice followed.
Red, Amber and Green sensitivity ratings representing highly sensitive, sensitive and not sensitive categories and an overall sensitivity rating were to be employed as follows.

**RED** - The issue needed to be closely monitored and managed with remedial action likely to evolve throughout the project.

**AMBER** - The issue would require to be managed throughout the project but initial identification of remedial action should ensure sensitivities are appropriately managed.

**GREEN** - The issue had been assessed adequately as not being sensitive and this would be the subject of constant review.

The operational research actions were rated against the sensitivity traffic light system. The overall ratings recorded here (COLOUR) were those relevant to the eventual research outcome as the most considered ratings. An overall sensitivity rating of AMBER reflected the overall control of Welsh Government to consent to dissemination and publication. A summary of key sensitivities was considered and addressed as follows.

**Principle 1 Sound application and conduct of social research methods, appropriate dissemination and utilization of the findings.**

I was content that the research was not duplicating already existing work, and new pieces of primary and secondary research was needed to be done to address the research question in the public interest (GREEN). Operational research was appropriate to the groups being interviewed and the level of respondent burden was appropriate for the people involved.

The research had no relevant consideration of the diverse perspectives of people according to their gender, disability ethnicity, religion, sexual orientation, socio-economic status or age (GREEN). Interviewing participants would have the capacity to provide informed consent which would be expressly obtained. (AMBER)

The role responsibility to Welsh Government, different stakeholders and research participants around the research dissemination would be subject to GSR and independent department review prior to dissemination in any publishable form, and there may be accessibility issues to resolve (AMBER).
There would be no issues around equality. Presentations of work in progress to colleagues, students and academics would be on model building issues only and not comparisons with policy and practice in action. (GREEN)

**Principle 2  Participation based on valid informed consent.**

Primary research through human case studies would require informed consent and this would be obtained by e-mail or group meeting records and in face to face explanations before semi-structured interviews were conducted. Understanding the “systemic critical” topic as distinguished from the “critical” would be a regular purpose in explanation (AMBER). It was not intended to follow up participants with further research during the project period. (GREEN)

Welsh Government departments were part financial sponsor to the research and consent was formally gained from department heads. I was studying my own practice in context. The research was identified as a workplace learning requirement in performance management reporting during the research period. Information access protocols were constantly considered in the thesis writing style to be adopted in taking steps to remove any need to quote from official non-public documents (AMBER).

**Principle 3  Enabling Participation**

There were opportunities to encourage wider participation which were not however progressed due to the eventual absence of departmental financial and resource support. With the benefit of wider participation through local authorities and partnerships involved in area-based change earlier change actions would have been possible (AMBER).

**Principle 4  Avoidance of Personal Harm**

It is the responsibility of government departments to put in place suitable systems and processes to ensure that appropriate ethical standards are met. Some of the research interpretations in this study would cover departmentally sensitive research questions relating to decision making and the potential for failure risk. These potential stresses would be minimized by allowing department heads the opportunity to read and comment on research findings prior to dissemination (AMBER).
I would weigh up the relative balance of potential harm to individuals and departments and benefits to the research following receipt of comment or request for textual changes. I would amend the thesis as necessary subject to reasonable requests. To mitigate against any stress, the thesis writing style would be systemic not personal. (AMBER). I would carry out interviews personally having undergone ethical and inclusive research methods training (AMBER).

**Principle 5  Non-disclosure of identity and personal information**

Data Protection Act requirements were not considered an issue as survey data in case study 5 would be dealt with by Welsh Government policy department. Steps were taken in principle 4 to protect Government data security requirements. The data collected during the research would be subject of independent Welsh Government review prior to dissemination with a consideration in how the data could be used for any other than its original purpose and how to ensure that no one could be identified (AMBER).

The research was not person-based. It would however be based on a human system. Interview and survey based research in the subject field had previously been undertaken as part of MBA and PG Diploma Management and Business Research qualifications and with knowledgeable professional participants in the field. Participants were again knowledgeable and professional (AMBER).

Participant observation of operational events over the study period was that of the researcher only. Semi-structured interviews in case study 2 and a focus group consideration in case studies 1 and 3 were subject to informed consent. Documentary material not in the public domain was not made available for analysis by anyone other than the researcher and was subsequently not made available in the thesis in any form.

Documents in the public domain were however the subject of coding by a research assistant in case study 5. As national survey questionnaires were designed corporately, ethical considerations in disclosure and material use here were made explicit at corporate level (and were subject to informed consent as part of consultation formal protocols). There was no attempt at statistical analysis of population samples where consultations were expressly made with informed consent (GREEN).
The dissemination of the research may be regarded by some by reference to the topic or the practitioner researcher participant observer basis as having more than minimal risk. The thesis in full would therefore be recommended for independent scrutiny and reviewed by at least one expert in addition to departmental scrutiny. Independent scrutiny by a research professional outside the immediate departmental team of the risk assessment and proposed arrangements for managing these would be requested from the Welsh Government GSR professional team (AMBER).

The potential for professional change identified through operational research actions and ethics would be the subject of constant reflection and update. To understand the potential value of systems thinking to area-based regeneration policy and practice would mean a careful consideration of relevant factors over a significant period of time.

2.5 Ensuring Quality Standards

Combining the Data

In merging the findings from this project, an explanation of regeneration policy and practice through imitation and influence relationships, “identifiable in the local context” (Miles & Huberman 1994) would produce, in Chapter 4 Volume 1, an evaluation of transitional change in a contributing policy and practice.

This synthesizing goal is presented in the absence of prior modelling of area-based regeneration in systemic terms. Accurate description and definition was therefore the foundational task. Developing model parameters would hope fully enable the representation of an essential structure that could be influenced by behavior over time by many actors and communities of practice.

The synthesis of findings and recommendations, would include headline study findings for further interpretation and discussion in Volume 1 Chapter 5, and include a summary of; emerging practice, areas for improvement, key learning points, and non-statistical outcome forecasts.
The emerging synthesis would reflect the values, realities and instrumentation judgments (Vickers 1995) associated with an appreciation of a regeneration system at the end of a national regeneration program, the beginning of another. Both outgoing (legacy) and incoming (VVP) policy and practice Administration would be experienced during the research period.

In the absence of an extant systems based regeneration policy and practice model per se, the explanation of influence in a time of significant policy and practice change in this study would however be limited as a first system state orientation. It is acknowledged then that the results can only be considered an imitation, with hopefully more than (some) practical relevance for decision makers.

The synthesizing output in Chapter 4 would represent the beginnings of the development of a sustainable regeneration system structure, should regeneration leadership in Wales decide to pursue the challenge in order to obtain a longer-term qualitatively correct behavior (behavioral validity). A focus in the research “contract” on accuracy in descriptions and definitions relating to local delivery norms was of critical importance. The local context and research opportunity provided for a chronological flow of naturally occurring data, an identification of precisely which events led to which consequences, serendipitous findings, new integrations, the generation and often revision of conceptual frameworks.

Hard system numerical data was not chosen as being necessary in this project and the data therefore is generally in the form of words. Although numbers play a significant part in the field in identifying scale and output, words, leading to actions or incidents were required to provide the source of grounded, rich descriptions, and arguably a greater influence in context. Numbers in scale and output would it is argued flow from an adoption of system principles. Although it would have been possible with greater resources to provide more numerical data, this can be the subject of further attention.

The aim would be to find relationship patterns within words and actions and to present those patterns for others to inspect. It was not appropriate to incorporate substantive numerical data due to information, resource and confidentiality issues.
In the final parts of the synthesis report headings in use incorporate current area-based evaluation frameworks (e.g. Communities first), for ease of mutual consideration, and include: critical assumptions and influences, the effectiveness of strategic governance and organization, approaches to: designing and delivering interventions, evidencing and communicating inputs, outputs and outcomes.

The lawfulness of the data analysis comes from the regularities and sequences that link together phenomena, in patterns and constructs. The fact that most of these constructs are invisible to the human eye does not make them invalid. Generalizability of findings is not a research aim except in how far regeneration systems could be understood and explained in a systems view.

In combining evidence from the study, Chapter 5 Volume 1 would identify the potential value of a systems approach to regeneration in Wales and would recommend a preferred system of Administering regeneration in Wales for further discussion.

The model opportunity can then be seen in the light of its potential to the development and integration of national and local strategy (Homans 1949, Miles & Huberman 1994). The credibility and quality of conclusions to the world of regeneration policy and practice would however be relevant in a local context only. The case studies in Chapter 4 would be recorded in a format that could be made available to the public. Where data should only be made available to Welsh Government this data would be excluded from this recorded format.

Relevance, Rigor and Recoverability

The demonstration of relevance and essence of scholarship in this project would not be found in a narrow agenda but in a creative, ethical and critical examination of area-based regeneration (ABR) in systems terms and specifically in a structure and boundary that put “a high ceiling on ideas and possibilities” (Syed et al 2009)

In understanding ABR as systems, relevance relates to managing uncertainty more effectively and specifically the control of ABR outcomes. Outcomes are of critical relevance to ABR systems as opposed to “convivial relevance” (Eldridge 1986).
It is a hoped for outcome that improving ABR outcomes would be a consequence of improving the mutual predictability of national and local behaviors in this project recommendations.

There are major concerns about the behavior of government departments working together to satisfy place-need as far as possible as this behavior has “an effect on society” (Syed et al 2009). In the field of ABR critical research is required that is dissociated from day to day-managerial activities so that “the claims of management can be called into question” (Gray 2001).

The research relevance in terms of context and opportunity, situation-driven, interactive and iterative, place this project as a Mode 2 research concept (Gibbons et al 1994). (For a discussion of Mode 1 and Mode 2 research, reflexivity and benefits see Appendix 2). Management has a long tradition of conducting research in Mode 2, using academic and practitioner division of labor (Eden & Huxham 1996), co-operative inquiry – co-researchers and co-subjects- (Heron 1996), grounded theory (Glaser & Strauss 1967), the clinical method (Schein 2001).

The five features of Mode 2 research are found in this project in; knowledge produced in the context of application, trans-disciplinary, a diversity of organizational density, social accountability and reflexivity, and a diverse range of quality controls (Mclean et al 2002). Mclean et al argue that all five Mode 2 categories is “perhaps the only consistent way of looking at change from the inside within a dynamic which can only be accessed through experience”.

Not always accepted by policy science scholars’ in empirical validity, conceptual strength and political value Mode 2 knowledge is” nevertheless trans-disciplinary and concerned with getting things to work in practice” (Mclean et al 2002). In Mode 2 quality has to “reflect a broad range of concerns and a broader community of interest both in practicality, in promoting solutions at the heart of professional relevance and in rigor, at the heart of academic accreditation”.

Rigor in this project, the “goodness” criteria (Miles and Huberman 1994) or “trustworthiness” criterion (Lincoln & Guba 1985) ought to be achieved through a research strategy that included;
1. Intellectual frameworks declared explicitly at the start of the research (F) and the process of using them - which would be used to define what counts as knowledge. Learning gained can be agreed or disagreed with both academically and professionally; against the area in focus (A), the methodology used and the framework of systems based methodologies (M) embodied in the overall methodology (Checkland & Scholes 2003).

2. A reliance on accepted methods; such as taking note of the researcher as instrument, field journal, taped recordings, thematic logs, auditing transcripts, data displays, a simultaneous literature review; and operational techniques including: purposeful/theoretical sampling, constant comparison, member checking, triangulation, thick description, peer review, audit trail. The strategy would be mindful of internal and external validity requirements reliability and objectivity opportunities in using these methods.

3. Responding to criticisms of action research in terms of results generalizability and quality goodness, substantiation of the approach in the project would include the collection of a significant documentation, and careful analysis iteration, making all the analytical elements explicit at the outset (Eden & Huxham 1996).

Eden & Huxham’s (1996) argument, that action research (and case studies in contextual use) is generalizable at the theoretical level as a measure of the quality of research is a project offer. At an interim or process level, references to orderliness, validity and generalizability should be achieved by maintaining a relatively objective and scientifically distanced stance (Mclean et al 2002) when necessary.

The strong criterion of “whole concept repeatability” (of the happenings) (Checkland & Scholes 2003) is unlikely to be possible in the research context except perhaps every 3-5 years as national policy changes are again considered. It is highly likely that mixed methods and methodological pluralism will then again be necessary although model application may be able to be utilized earlier for current Welsh Government manifesto commitments e.g. the developing Valleys Taskforce.

Whether the research concept is repeatable in the future will depend on a government commitment to purpose. The preference for purposeful reasons will then depend on whatever contributes to the success of the project.
In the literature on mixed methods research considerable attention has been directed towards classifying types of mixed method designs (Creswell & Plano Clark 2007). This project would categorize as a sequential case study and action research format that could provide a basis for future research design, where methodological issues will again be subject to value judgments. Instruments for repeatability should nevertheless be developed in the project, that could be used more frequently in monitoring for regular improvements in system predictability.

The criterion for recoverability by interested observers is important to determining the projects rigor and relevance. The research should be conducted in such a way that processes would be recoverable -through its themes and its program possibilities - (Holwell 2004) by anyone interested in scrutinizing the process and outcome. In this research the work has previously been reported as commencing with a linked framework of ideas and concepts, a way of applying the ideas and an area of interest in which to apply them (Checkland & Holwell 1998a).

The project process should be based on a declared methodology of contingency-based options in advance, a set of themes explored over time that encompassed a particular framework in such a way that the process would be recoverable, iteration through repetitions of the cycle (Holwell 2004). Exploring the themes over time in several different organization contexts would be possible.

The research themes, questions and problems would however not be fully resolved from a single research project and this was not the plan. Linked projects backwards and forwards via the themes proposed and as amended would mean that interaction here “should be thought of differently within and around the action research cycle” (Holwell 2004).

**Relationships, Processes, Outcomes and Ethics**

As a result of the new regeneration policy for Wales it was hoped to involve a coalition of national and local regeneration actors in multi-organization action research, following the new-policy establishment phase, but this did not materialize.
Multi-organization research can take different forms. Increasingly practiced varieties are in coalition based and multi-site action research (Fuller Rowell 2009). Butterfoss, et al (1993) define coalitions as “inter-organizational, cooperative and synergistic working alliances”, a good definition for a likely new-policy regeneration agenda.

Regeneration coalitions are likely to only be formed in a new policy setting at both national government department level and the local government network level when deeper cooperative rules have been agreed. Coalitions, both diverse and enduring, in that they involve a variety of groups, coming together to address issues of shared concern over an extended period of time would then require a centralized process (Butterfoss, et al 1993).

The standards by which regeneration is judged will change as a result of new Well-being legislation and local government reform. In terms of accountability, quality standards are likely to include “everything that those who hold actors to account find relevant to their decision whether to continue or withdraw their confidence” (Vickers 1995). Although regeneration actors are open to the idea of professional learning there is no evidence of learning, “what is needed to be learnt”.

Prior to the new VVP policy announcement, collective learning about regeneration systemic elements, interventions, boundaries and innovations would be considered ad hoc in nature. Learning in the field would not often involve the process of social construction and more often involve distribution to participants and generally in lectured events.

That area-based regeneration needs the inter-organizational nature of coalitions would allow them to address self-constructed learning and larger scale issues exploring ways to enhance the functioning of particular inter-organizational systems through a cyclical, participatory and separate action research processes. The promise of coalition based and multi-site action research lies in three types of capacity (Fuller Rowell 2009).

1. Relational capacity as each organization’s growing understanding of common challenges and areas of independence lead to the formulation of possible topics that future coalition based initiatives could address.

2. The building of pragmatic capacity, which in turn could strengthen a coalitions ability to succeed (Foster-Fishman et al 2001)
3. Member capacity where each organization’s potential contribution to a coalition-based process ought to be improved.

A key consideration in developing the research process would involve skills to conduct mixed-methods research and the length of time needed to conduct the study. Craft training in both qualitative and quantitative research previously undertaken in anticipation of this research opportunity and an unequal treatment of phases was understood. Even as an insider it would be necessary to negotiate access. Once accepted, it would be constantly necessary to establish a workable and convincing role in which to gather data. Because action research involves interaction between individuals within formal structures ethical issues would expect to be often and sharply raised (Bulmer 1982a) in Bryman.

An ethical approach in this project would mean that all cases within the action research framework would be carefully considered prior to distribution and publication of any documentation.

Past and present experiences of individuals and of groups as a whole would not be identifiable for ongoing reference unless it would be with informed consent (Rust et al 2001) which could significantly limit the publication of detail. As the project interest would be of systems not individuals this would be eventually less of a problem.

The ethical principles to be followed in the research process both case study and action research is more particularly dealt with in Chapter 4 Volume 1. Ethics statements would be prepared and distributed to participants as required that would include; letters of permission, based on informed consent principles, the promise of confidentiality of information, identity and data, ensuring participants right to withdraw, good professional and academic conduct and the keeping of good faith (Mcniff et al 2003).

The principal outcomes and success of the project would eventually be contingent upon collaboration between practitioners over time. Facilitation would need to be dynamic and likely opportunity driven due to the nature of dispersed working in a complex and multi-dimensional environment. Over time the facilitation/change agency role would require “mediating the articulation of diverse perspectives and processes of negotiation, the gradual introduction of structured learning that will require on-going support, common understandings, and the creation of new opportunities” (Moll 1997).
In 2013 the Welsh Government Minister responsible for area-based regeneration announced a policy change. There would be many more Ministers who would work on area-based change in the future.

The long-term problems, wicked issues or messes (Ackoff 1974) associated with regeneration in the field would remain complex and crucial. There would be serious issues of inequality for both places and people in the poorer areas of Wales with many interrelated aspects and interdependent factors.

The extent of uncertainty regarding the value and impact of regeneration interventions would be a regular cause for concern. The problems would be more than a local difficult. The current focus on outcomes and what could be measured-rather than the processes by which better beneficial change might best occur-could not in the future ignore interdependency and interconnections.

The regeneration agenda in Wales faces increasingly difficult economic and social organizational and structural challenges. While they present tremendous challenges, they also hold tremendous opportunity for re-thinking, re-shaping and re-visioning regeneration practice. There is a greater need for outcome predictability that demands questioning mutual local and national predictability. In the next Chapter some of the main contributing elements in the literature in respect of systemic considerations in area-based regeneration can now be considered.
Appendix 3  Reviewing the Literature

Place and the Regularities of Practice – Additional Material

3.1 Requisite Activity
3.2 Viable Constructs
3.3 Enhanced Co-operation
3.4 Reliable Delivery
3.5 Requisite Organization

3.1 Requisite Activity

The first underlying pre-process regularity of regeneration practice in Volume 1 Chapter 3 is argued as requisite activity, meaning what is important in priority amongst many relative priorities, in most cases a requisite variety of activity and actors. Requisite activity determines requisite actors. The choices can be considerable.

Changing, improving or upgrading places through regenerative activity can be seen daily in all forms of media, the pronouncements of politicians and the social world around us. Requisite activity is a first constant of practice and often the subject of possibility space.

Turning “possibility space” (Tuan 1977) into upgrading plans, architects and planners try to create a sense of place, economists and surveyors identify the markets for change, politicians tell us that certain people are out-of-place, artists attempt to evoke place in their contributions. There is no doubt that these acts of upgrading will continue to be political and contested. The in-place vision of the normal, natural and appropriate and how deviation has occurred from expected regularities will have many observers.

As part of the underlying and interrelated regularities of local regeneration practice, regeneration actors engage in a wide variety of intervention actions. Most are based on a local development strategy; some are required by statute, with the ability to set up trading companies and enter into many forms of partnerships. Local strategies based on a vision of change ought to normally be expected to:
Justify the component variety of activities and actors required by the nature of things through informed analysis, essential to the timely delivery of local or regional outputs and outcomes.

Local strategies can support businesses, social enterprises and community bodies such as credit unions, co-operatives and training workshops, make premises or land available, improve community safety, enable better transport, attack deprivation and exclusion in poor neighborhoods. There would be many deprived neighborhoods in Wales where strategy should be employed in demonstrating greater coherence across policy arenas. The Wales Index of Multiple Deprivation, (Welsh Government 2014-WIMD) “defines” disadvantaged neighborhoods in terms of poverty, unemployment, poor health and concerns over crime. There is however not enough definition of how to define strategy.

Although activities and actors ought to reflect pressing area-based problems, working collaboratively, across boundaries and between services, it is not always the case that partners are delivering against a developed public service strategy, working with and through a wide range of other agencies.

Delivering public services requires a pluralistic system of local politics with an emphasis on policy networks, and would normally suggest a dominant conceptual framework. In Wales a dominant conceptual framework is perhaps only now beginning to emerge in new Well-Being legislation. Systemic ways of working in the field in context have on the other hand have yet to be identified.

The pluralist framework rhetoric ought not be entirely accepted at its face value. Questions over the effectiveness of the seemingly large number of separate anti-poverty initiatives, for example, raises the danger of increasing local complexity, rather than reducing it. It is quite appropriate in these circumstances to challenge explanations that suggest an emphasis on joined-up policy networks, against the dominance of political leadership, organizational cultures, and the major groups of professionals in individual policy arenas. In regeneration programs the challenge here is often led by government sponsored external consultancy.
Since the early 1990’s there have been a number of detailed evaluations of regeneration programs and requisite activity (with until recently little work on translating benefits from regeneration projects into monetary values). The difficulties of evaluating regeneration actions have been widely discussed, concluding for some, that “it is difficult to come to firm conclusions about long lasting social and economic change as a result of regeneration interventions” (Dodds 2011)

The cause of policy failures in the past and identified in 1998 in Bringing Britain Together-A National Strategy for Neighborhood Renewal was that intervention efforts were highly fragmented. Future policy needed to be “aimed at prevention of social problems, rather than dealing with their results”.

An early approach perhaps that emphasized integrated strategies through the development of neighborhood management initiatives that could attempt to address complex and interrelated problems was pointing to a systemic view of the field (Hill 2000). Evaluation of regeneration strategy is complex because it tries to deal with problems with many dimensions that are not easily solvable individually let alone collectively.

McInroy (2006) had argued that the interrelatedness of these problems, failing local economies, poor local environments, declining housing markets, low employment, crime and poverty meant that nobody could be certain of the ideal starting point for a regeneration program and it would be difficult to know then which factor (of requisite activity-my emphasis) was the most important.

Drawing on evidence from these academic evaluations authors such as Rhodes et al (2005), Lawless et al (2010), Fyfe (2009) Adamson (2010) concluded that although regeneration activities were important and did improve places regeneration policies should be regarded as being in support of policies that more directly target people. There would be nothing to argue with here. The allocation of funding however was always the historical point of controversy.

The 1990’s in England were marked by the allocation of regeneration funding to places through processes of competitive bidding based on output measures and value for money through the greater participation by the private sector in regeneration initiatives.
This is now the theoretical model in Wales in the 2013 £100million three-year Viable and Vibrant places regeneration program supporting both major and minor projects. Except, engagement with the private sector may not be so achievable.

The model of the local council as the sole organization that proposes and delivers regeneration policies has been replaced by a network of actors, which work in partnership (Booth 2005). Elected representatives are certainly not excluded from the process, but the legitimization and accountability of the “new” networks are now particularly ambiguous.

In neighborhood activity actors can see requisite activity differently. Community leaders, business and training actors, voluntary actors, residents, advocates, and local government professionals would readily acknowledge patterns of power and influence in their own organizations as well as formal lines of accountability (Coaffee 2004a). This influence can sometimes result in failure to achieve an optimum regeneration input and defeat a regeneration funding opportunity.

The current shift away from national to local government to local and regional governance in Wales in recent years has not left many power relationships undisturbed. The reality in the current climate of regeneration is that many-respected community leaders are becoming more accountable, with increased responsibilities, limited power and diminishing resources.

3.1.18 The actors that make up the human system in focus can be argued as being the core element of a complex adaptive system framework. Political advocacy should be relied upon solely in the choices, which make up requisite activity.

For political actors in area-based regeneration “the experiences of merging neighborhood and urban regeneration, subsequently transforming the linkages between both central government and localities and between local authorities and citizens, especially with regard to trust based relationships” (Coaffee 2004a) means that regeneration expectations from local communities can sometimes be very demanding. Coaffee accurately predicts “Council leader’s bare heavy expectations to span the barriers between structures and government professions on the one hand and the often-disgruntled population on the other”.

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Actors in a regeneration system perform different roles and tasks, from public sector decision and policy makers who make policy, to property developer actors in development driven activities, to third sector actors neither state nor market driven in community and voluntary activities. With multi-discipline professionals somewhere in between the need for many participants to share knowledge (facts and concepts) involved in requisite activity is considerable and an acknowledged major theme in regeneration literature (Roberts & Sykes 2004)

Dominant actors and organizations within individual regeneration policy arenas vary with individual policy agendas. In major economic regeneration and city level policy the lead actors are notably public-private partnerships. In community strategy the lead role is performed by local authorities but within frameworks which emphasis multi actor co-operation and planning.

In housing in Wales the major responsibility in social housing has moved from local authorities to housing associations, which together with the contracting out of housing management has left some local authorities with a declining role. In the environmental field the input of groups is more eclectic and the emphasis on community participation is an essential part of the policy arena. (Hill 2000)

The requisite activity/actor profile between neighborhood and urban regeneration is an important distinction. Neighborhood actors often refer to policy initiatives designed to benefit and improve the lively-hoods of residents living in relatively small-scale areas, through the (effective) integration of economic, social and environmental development goals over time. Urban regeneration on the other hand might simply comprise the redevelopment of residential, commercial or industrial space in a single location.

The key ingredients of success on the ground are widely recognized in actors’ personal styles and inter-personal relationships (Taylor 2000). In urban regeneration activity developers, planners, landowners, investors, community groups actively seek to shape structures and systems (Doak & Karadimitriou 2004). In many cases stakeholders can be difficult to pinpoint, allowing advisory groups and representation to flourish.
Often this can leave no real time to consult the community regarding requisite activity and gives the impression that their views were not sought until after decisions were made. Feeding back to the community can be a large time consuming task, such as attending meetings, translating key decisions into community languages. Extra resources would normally be required to make this work but may no longer be readily available (Broughton et al 2013).

Where champions will support the policy principles of a requisite activity and promote it, pragmatists will adopt a practical but skeptical view of regeneration benefits in particular and can sometimes see it as a source of funds available to maintain a role (Purdue et al 2000). Actors can act as champions or pragmatists or sometimes as opponents. For many local regeneration actor’s degrees of trust and power relations with central government will be an enduring theme (Purdue et al 2000).

Opponents can take a critical stance from within or outside a sponsoring organization. “Although pragmatists will always remain cautious, if trust is high, champions can tend to feel empowered, whereas if trust is low opponents can feel excluded”.

For those who live and work in disadvantaged communities, many neighborhood regeneration leaders have a sense of mission and are horrendously overworked (Purdue et al 2000) “they eat and sleep community, taking the form of contingent leadership where external contingencies taken from the environment shape the leadership tasks required” (Bryman 1992). Building on sources of local leadership, and particularly entrepreneurial leadership and understanding where this entrepreneurship comes from then becomes particularly important.

With regeneration funding cascading down to local areas and generating new leaders in theory, local leadership would be required to understand requisite activity, the relevant funding context, and importantly the interaction with powerful drivers in the form of rules and resources defined by regeneration policy as well as institutional and partnership arrangements (Purdue et al 2000).

In the 2013 climate of localism in England Broughton et al would suggest, “Only the most forward thinking and inventive neighborhood organizations and communities are likely to successfully navigate and negotiate the policy landscape they now face”.

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Localism is an agenda currently being debated in Wales and in many ways there are much closer working relationships between central and local government actors in public service in Wales, in government, industry and commerce and local community associations. Bryman (1992) may have already summed up the nature of requisite activity, sustainable and successful regeneration in any future review of systemic regeneration in Wales in the following:

“Where there is evidence of dynamic (and successful) community leadership in (regeneration) it was because the individuals involved had been able to turn the (uncompetitive) environment within which regeneration takes place to their advantage. Successful leaders were those who were keen to learn procedural aspects. Leaders who did not necessarily have an interest in bureaucratic aspects but were more interested in voicing the concerns of local communities were (eventually) put off” (Bryman 1992)

Government in Wales as elsewhere is now imposing much tighter limits on regeneration activities, for example in short funding deadlines and requisite activity must be able to prove viability of activities in their construction prior to gaining transparent funding approval. Where viability however means a more than just commercial viability a constant argument in a reasonable probability of outcomes would be necessary. The second underlying regularity of regeneration practice viable constructs is the next topic of interest.

3.2 Viable Constructs

The second underlying and constant regularity of regeneration practice relates to whether a required activity, program or project construct can be delivered successfully over the length of the activity program or project in terms associated with viability. Viable constructs in area-based regeneration ought to be able to:

**Demonstrate the reasonable probability that requisite activities are capable of being delivered, in terms of community, market/locational, commercial, funding, public value and implementation viability, and from program and project design disciplines, theoretical assumptions and propositions.**
In regeneration there is no shortage of problems to address and almost always a shortage of resources so the question of what to deliver becomes an early and particularly important decision. To invest in any one option often becomes a choice between options the most viable constructs a key consideration.

Requisite activities ought to be able to meet the tests of viability and minimum public intervention. In the public service as a minimum, requisite activity choices about what to deliver where would be based on effectiveness (Welsh Government 2013 Demonstrating Outcomes) if based on viability. If option A sounds like a good idea with aims you agree with, with activities that are required and sound sensible, but you are not sure whether the option can be made viable, or option B addressing an equally required activity but with robust evidence about viability, which option is better? It ought not to be only a political consideration.

The deliverability answer lies in early program and project development. Program and project development is defined as “the redefinition and determination of the potential of specific program and project ideas” (Greenleigh & Blakely 2013). In general, program development involves taking one or more potentially attractive ideas, shaping and specifying them precisely, and rejecting those that do not seem viable. Malizia (1985) proposes four interconnected bases; community, locational, commercial, and implementational, to justify actions and interventions to determine viability in relation to required regeneration activity.

First the community support base required to make the program or project viable in public value, requires informal and formal commitments, secondly, locational and market studies would be required to be test initial resource and customer assumptions, thirdly economic viability aspects will need to consider the level of commercial and funding risk, the potential in cost recovery and finally who has the skills and capacity in the community to undertake the tasks.

Greenleigh & Blakely point out importantly “There is no real point in embarking on a program or project if the skills to organize or manage the activities are not present”
That policy, program and projects should be viable lies at the heart of realism in planning regeneration propositions. Results-led activities - have replaced activity-centered activities and results mean delivery on the ground. Public interventions are required to be evidence-based but this is not always the case. Analysis over advocacy in regeneration theory is easier said than done.

As all public interventions are propositions - if X then Y- what does this mean for actors? Government specialist program and project managers suggest that “every component of a theory of change logic model must be evidenced” (Rosenberg & Posner 1979) but in the absence of logic modeling there is no reference to begin the work.

In the Rosenberg & Posner logical framework model, as in practice, assumptions are the key determinant of regular a successful outcome from an input–process-output model where objectively verifiable indicators and means of verification must provide the evidence. A logic model template in area-based regeneration ought to reflect a system dynamic approach in the measurement of inputs and outputs, in a design-do-outcome theoretical approach at ex-ante appraisal, process formative and impact phases of the policy cycle.

Common failings associated with not following a logic model approach would include waiting until after the intervention has started or finished in determining viability, (ex-ante appraisals are uncommon in the UK) limited or no means of measuring change, trying to collect too much data, relying on one source of information, not investing enough time in decision making, advocating not learning (Patel 2013).

Difficulties in attributing failure outcomes in viability constructs would be helped on the other hand by taking into account logic model influences, as a means of establishing what would have been possible with the taking of reasonable actions within the model. Likely to be different for different interventions and beneficiary groups, a logic model would then need to be capable of being understood by the many not the few. There would be a greater role for modeling qualitative perspectives of different people and in local area regeneration and in national government and in this there is good place to start.
3.3 Enhanced Co-operation

The tension in achieving an appropriate balance involving central government on the one hand, with local government and local citizens on the other has been a constant feature of regeneration initiatives in England (Dodds 2011). This tension although surfacing periodically in Wales may have now lessened somewhat as a result of VVP. That central government does not currently take a top down approach to regeneration and that devolution to local governance allows for flexibility in carrying out regeneration activity and a greater role for local economic development in theory is now generally accepted, with some exception.

The theoretical shift from top-down to local governance arrangements in Wales may now almost be complete. From March 2014 the only Urban Regeneration Company in Wales folded in favor of local governance arrangements. Although the shift towards “entrepreneurial localism” (Harvey 1989, Wood 1998) is the new general mode of local regeneration governance there will however remain certain circumstances where co-operative central and local government arrangements may still be appropriate e.g. as the consequence of major employer restructuring.

As a third constant element the underlying regularities of regeneration policy and practice co-operation is enhanced where it is possible to:

**Identify** the informal, formal and legal mechanisms, in its different surrounding contexts, that must be contracted to deliver the requisite actions, such as policy and agency arrangements, public/public or gap funding agreements, public/private joint ventures and special purpose vehicles.

In 2010 Tallon reported that under many previous central government initiatives partnerships that were forced together often failed to cohere, or were not given enough time to develop. In the more recent past in Wales local authorities were perceived to be bypassed as government agents of urban redevelopment with urban development corporations, quasi-autonomous national non-governmental organizations (the Welsh Development Agency was disbanded in 2006) and direct partnerships with local communities (Welsh Government 2015-Strategic Renewal Areas 2007-2012).
Although regional development agencies and urban development companies were not necessarily set up to bypass local authorities they were perceived as such by some and misrepresented by others as non-accountable to local populations. Suffering from many central re-organizations they have now given way to more local arrangements. Multi-sectoral local partnerships in England (Clark & Southern 2006, Ball & Maginn 2010) have now become “modern orthodoxy” in regeneration governance with two defining characteristics namely; a mix of actors drawn from the public, private and third sectors, and an emphasis on the need for local communities to be involved in decision-making.

Dodds in 2011 pointed out that on the positive side local co-operative governance partnerships hypothetically could share expertise and expand access to funding, Ball & Maginn (2005) had previously seen increases in the prospect of joined up working, Shaw & Robinson (2010) the prevention of duplication of effort, the production of a better strategic dialogue and shared agenda, governance more in tune with local needs. Ball & Maginn (2005) would put forward the argument that

“Greater attempts could be made to ascertain the efficacy of co-operative partnerships, emphasizing the role of strong leadership, where decisions are sometimes necessary against participants’ wishes, and where conflict needs “dampening down”. Helping to ensure partnership board meetings were properly constituted, on a business like basis a “new” key regularity” (Ball & Maginn 2005).

Importantly Ball & Maginn in 2005 made the case for a greater understanding of co-operative partnership types that should be “Inclusive and egalitarian for predominantly social regeneration, less so for property development”. The suggestion that “attention should be paid to the distinctive ways in which projects are managed and the contexts in which partnerships are useful.

The general consensus that local communities must be involved in the process of regeneration is now supported by a considerable knowledge base, about the different methods of engagement with people (Fyfe 2009, Findlay 2010) and the need to tackle natural tensions that exist within local areas (Tallon 2010, Adamson 2010, Shaw & Robinson 2010).
Although community involvement is now found in many common aspects of regeneration policy perhaps the most significant shift in distinctiveness in Wales has occurred as a result of devolution, where locally specific regeneration policy directions ought in theory to be subjected to much closer democratic scrutiny. If so the time for greater transparency of decision-making by policy makers would require new leadership disciplines.

In the historical context policy makers may have been particularly concerned with partnerships based on models of synergy and budget enlargement (Roberts & Sykes 2000) perhaps at the expense of the local transformational logic model, where benefits can be gained by exposing the different partners to the assumptions and working methods of other partners. The time for a change to effectiveness is now the measure of success.

There is little evidence in UK regeneration literature that local initiatives have been successful at attempting to work co-operatively with mainstream governments to “bend “funding, that is in influencing the spending of mainstream programs to support local regeneration targets, to achieve greater local success (Adamson & Bromiley 2008, Fyfe 2009, Beatty et al 2010). Although agencies with a “neighborhood” remit (notably the police) were often generally supportive of area based regeneration, others like schools, social services, primary care trusts were less so, because their remit is often related to national not local area targets.

National policy imperatives can make it difficult to honor prior commitments made to individual area co-operative partnerships. Tallon (2010) notes that governments tend to pursue short-term regeneration initiatives largely isolated from mainstream programs and services, perhaps because it suits a political agenda. Lawless (2010) reflecting on the experience of program evaluations in community policy suggests that an outcome focused realism in terms of what can be achieved and selectivity with whom to engage would be necessary as a consequence.

How to form effective partnerships and how to fund commercial and physical regeneration activities can entail very many specialist partners, and investments involving millions of pounds of funding. Co-operation on interventions in the built form, to stimulate economic outcomes, is as a consequence a particular funding challenge.
“The withering of public funding means that the public sector must work in partnership with the private sector in many cases to make urban regeneration happen. In areas of high market failure and limited private sector commercial activity (as in Wales-my emphasis) this is of real concern” (Jones & Evans 2008).

Models of co-operative partnerships would be considered by Jones & Evans (2008), as “facilitating, coordinating, and implementing, with many partnerships containing elements of all three models”. Types can include development partnerships, joint ventures, development trusts, agency and informal arrangements, strategic partnerships.

Partnership roles would include negotiation of contentious or politically sensitive issues with those who have different perspectives, relating to wide ranging objectives focused on deep rooted problems, drawing together partners to oversee initiatives and in some cases time limited specific objectives (Stewart & Snape 1995). Partnerships would normally change over time. The quality of personnel involved in partnerships would then be a critical factor for achieving reliable delivery successes “over both the short and the long term” (Boyle 1993).

3.4 Reliable Delivery

The fourth constant regularity in the field of area-based regeneration practice can be considered in reliable delivery. Tallon (2010) acknowledges that regeneration policies since the end of WW2 have attempted to solve some of the most deeply entrenched and difficult social and economic issues facing the UK.

However, he states that significant academic and public policy reviews of regeneration in the UK since the mid 1940s and particularly from the late 1960s, when a distinct urban policy emerged, reveal a similar set of general errors made by central government urban policy namely;

- Lack of clarity and purpose - with initiatives too broad and ill defined
- Insufficient commitment and resources over timescales that are too short
- Excessive central government control
- Limited co-ordination with mainstream policies and local policies
• Insufficient understanding of functioning of neighborhoods in wider surrounding areas
• Failure in realizing community potential
• Implementing one-dimensional policies-rather than connecting physical, social and economic dimensions

In spite of the introduction of a range of public reforms generally referred to as “new public management” (NPM) (Hood 1995, Osborne & Gaebler 1992), the delivery of public services, including regeneration delivery, continues to pose problems. Reliable delivery ought to be able to:

Confirm the ability to achieve the fulfillment of requisite activities in perfect order by program and project management disciplines determined by robust evidence that components will not be subject to unacceptable risk.

Although the efficient and effective instigation and delivery of publicly initiated regeneration projects in program and project management terms is adequately dealt with by Government in documentary form (NAO, Office of Government Commerce (OGC) Gateway, Association for Project Management, HM Treasury Green Book, Good Governance Standard in Public Services) there is nevertheless a recognition that delivery could be more reliable. The NAO and OGC list eight common causes of why projects run into difficulties. Five of these are concerned with project governance and:

• A lack of a clear link between the project and key strategic priorities, including agreed measures of success
• A lack of clear senior management and Ministerial ownership and leadership
• A lack of effective engagement with stakeholders
• A lack of understanding of and contact with the supply industry at senior levels
• Inadequate resources and skills to deliver the overall program

HM Treasury 2007 Project Governance: Guidance notes for public sector projects
Of the delivery assurance neutral challenge mechanisms in use on the ground the Office of Government Commerce Gateway process would be considered one of the most valuable.

The value of the OGC (HM Treasury 2007 OGC) Gateway process, which examines programs and projects at key decision points in their life cycle, would be that it could look ahead to provide (a temporary) assurance that regeneration programs could progress to the next stage.

It delivers through a peer review in which independent practitioners from outside the program/project use their experience and expertise to examine the progress and likely-hood of successful delivery of a program or project in a valuable Delivery Confidence Assessment. It would however not be meant to replace effective local delivery management. It would be used to provide a valuable additional perspective on delivery issues facing the local delivery team.

To support a neutral challenge, which should be able to deal with uncertainty about achieving desired outcomes (OGC 2007), regeneration programs would not necessarily have start and finish dates. With outcomes based on a less well-defined development path, regeneration programs would be about managing change over the longer term. There would hopefully and normally be a strategic vision and a route map of how to get there, but initially without financial and other resources allocated to it. A program approach should be flexible and capable of accommodating changing circumstances, such as opportunities or risks materializing. It should nevertheless indicate the coordinated delivery of the range of work, including projects, needed to achieve outcomes and benefits through the life of the program.

A regeneration project in contrast to a program would have a definite start and finish date, a clearly defined output, a well-defined development path, and a defined set of financial and other resources capable of being allocated to it; although benefits are achieved after the project has finished, the project plans should include activities to plan, measure and assess the benefits achieved by the project.
That regeneration programs are now more complex than ever in reliable delivery, is reflected in the ideas associated with new public management (NPM), branded as One Public Service in Wales. Although NPM has yet to fulfill its promise - to improve significantly on either the costs or effectiveness of the public sector - it has nevertheless been seen as significantly increasing the overall complexity of public services (Rhodes & Mcecknie 2003).

The idea that decision-making processes and management in public policy and public administration is complex has entered the minds of practitioners and scholars in public administration (Teisman & Klijn 2008). Insights from theories on complexity however have hardly been used in public administration and regeneration management. In other social sciences such as economics, an evolutionary approach has received far more attention than the field in question.

Emerging network theories of public policy and management (Rhodes 1997, Kickert et al 1997) have added to the complexity of public administration theory by introducing a new level of “actor” – the network itself in reliable delivery-- as well as highlighting the importance of interactions among participants contributing to the outcomes of a network or system.

Networked public service systems would be seen as encompassing a broad range of public, private and non-profit organizations that may work independently, in partnership, or even in conflict with one another to meet the needs of consumers and/or citizens in their domains of operation (Rhodes 1997).

That public policy program delivery processes should be understood as self-organizing systems would be put forward in an argument, amongst others by Butler & Allen in 2008, re-interpreting previously published material in the British Journal of Management. Butler and Allen would show how national policy could be re-interpreted at the local level. This so called receptivity would create processes in which each local organization is uniquely mixing elements of national policy with their own requirements. It would be an important source for unpredictable output and outcome of national policies.
Although leadership of change programs, local politics, implementation strategies and visioning was assumed to guide receptivity (Haynes 2008), Butler and Allen would build upon Tuan and put forward a fifth factor to be taken into account; the possibility space.

The possibility space may be a key idea in supporting the work of systemically regenerating local areas. The possibility space would have four characteristics; no universal best practice, organizational play, path dependency and choice. Path dependency would tend to suppress creativity, but sometimes would not manage to do so. The possibility space is then enlarged. The authors argued here that anticipating the future (choice) and path dependency would both be at work.

The potential relevance to regeneration policy and practice of three further dominant complexity theories: the dominance of dynamics, self-organization (and emergent properties) and co-evolution, would be also be reflected in the new public management theories of several authors (Teisman & Klijn 2008).

Pierce (2000), Blackman (2001), and Chapman (2002) would suggest a critical role for complex adaptive system (CAS) theory in public administration networks and Anderson (1999), Stacey et al (2000) particularly in understanding public service systems. These broadly accepted notions of complexity theory associated with public management (Teisman & Klijn 2008) could be seen as attractive regeneration program delivery possibilities. In the reliable delivery of programs and projects, adaptive behavior is important to area-based regeneration. For public managers involved in regeneration delivery, processes take place within a dynamic, specific and multiple context of compounded systems and sub-systems, of actions and processes that are interconnected.

That the regeneration governance process is dominated by dynamics is difficult to dispute. Even the normative behavior of basic public management (focusing on one goal, one implementation trajectory and a well-defined set of actors) would not take away dynamics in governance processes. It is likely that assumptions that policy decision-making phenomena and institutions evolve is a correct assumption. Phenomena do not develop by external forces but by self-organizing capacities. “Actors and processes do not only behave according to laws or principles, and will normally determine that even amongst chaos, although not everything is possible in the next period, much is” (Stacey 2000).
The adaptive behavior of actors within a self-organizing networked organization has been elaborated by Luhmann (1986) in terms of autopietic social systems, where actors create their own perception of what they want and how to behave in the landscape they are in. According to Luhmann, the performance (fitness) landscape changes continuously as a result of the choices of actors and external pressures. The impact of context determines the effectiveness of the behavior of actors in their search for survival.

Governments can often change the regeneration landscape in a material way by preferring one relative priority over another (e.g. the year of tourism) and in the absence of evidence would then be seen by some as performing as self-referential entities. In a power-based network things going wrong can always be blamed on the other. Accusations and announcements aimed at getting in charge again. Regeneration changes can also appear in context through self-organizing capacities and through interactions. “Some changes occurring suddenly, others slowly, some created consciously, others emerging by mistake. It is a great challenge for public managers, to deal with them” (Teisman & Klijn 2008).

Focusing on the interplay between regeneration actors, strategies and the landscape in which actors try to reliably deliver results can be regarded as “a next step in public regeneration administration to improve our analytical understanding of complex governance and performance processes” (Teisman & Klijn 2008). Many managers are however not the rational beings presented in managerial handbooks, avoiding choices or actions according to the circumstances. New network rules are then not only appropriate but in the public interest.

Mary Lee Rhodes (1997) study of urban regeneration processes using the concept of complex adaptive systems (CAS) provides a rare example of using a CAS framework for the treatment of the important public management regeneration issue of network interdependency. She argues not only that network emerges from interaction, but also that new organizational structure emerges from behavior and interaction.

There is much to be learnt from the Rhodes study which shows that processes in complex regeneration systems are an unfolding series of events, not knowable in advance, capable however of re-construction in retrospect, generating insights into the patterns of interactions and relationships between actors and factors that occur in the cases.
The Rhodes study shows that performance landscapes are a combination of emerging interactions and existing rules, decisions, and environments that facilitate and complicate interactions. In Wales it is with new rules that performance may be improved over time.

The analysis and mapping of the make-up of extant regeneration networked organizations, structures and cultures is a stepping stone to an understanding of requisite organization (Jacques 2006) in the field of regeneration. Requisite organization and its relationship to delivery and excellence is the fifth and final normative underlying regularity, and the subject of the next theoretical contribution.

3.5 Requisite Organization

Requisite organization is the fifth and final pre-process underlying regularity put forward in the thesis in Volume 1 as being a constant requirement in the practice of area-based regeneration. Requisite organization in local (and national) area-based regeneration:

**Validates the governance, leadership and managerial accountability hierarchy responsible for decision making and control, required by the nature of things, and the pattern of role connections which ought to exist to achieve mutual trust**

In a brief description of what practitioners and scholars have already learnt about what could make good governance in spatial regeneration practices in the context under review this final delivery input requirement looks at the relationship between local and national requisite organization. In Volume 1 Chapter 6 the challenges to introducing systems approaches area able to be seen in the cultures and practices of the three sectors that make up the potential contributors to a network form of organization.

Delivering area-based regeneration is a role argued for Local Governance over the longer term. The challenge for local government in regeneration governance then is to steer, evolving, partly external and partly internal, participatory regeneration governance (Healey 2007). This does not, however, always fit into the traditional organization of local government public service production and decision-making.
To add to the challenge governance structures are likely to be dynamic—with multiple sources of influence, reciprocal— influenced by public managers with their specific duties of care; that can constrain their logical actions, involve the potential for different priority actions, while creating accountability for results in public value (Feldman & Khademian 2002).

In a further and possibly defeatist addition to the challenge as a result of the myriad activities that could be considered as being relevant to the field, politicians, administrators and experts may simply not know what is going on or, even worse, have no way of knowing it (Wagenaar 2007). Typically, as for VVP, local governance currently tackles short term regeneration programs of three to seven years, and are governed by a steering group and a board structure comprised of local stakeholders as well as public officials from the local authority administration. In times of budget cuts, skills shortages and accelerating demands for public services this is not a straightforward task.

To begin to implement a specific requisite organization wherever it fits most usefully Jacques (2006) suggests four validating steps; the appointment of a program/project officer, project team and shadow board to oversee governance development, varying in size depending on workload, the undertaking of a learning exercise (in public values—my emphasis), pilot testing of leadership and accountability capabilities, and if pilot testing is satisfactory the implementation of a full scale program with the appointment of the required board of governance.

There are many guides supporting this process (HM Treasury 2007) and the choices of structure possible. The principles of Welsh Government applicable to understanding local governance arrangements are;

- Knowing who does what and why
- Engaging with others
- Living public service values
- Fostering innovative delivery
- Being a learning organization
- Achieving value for money

Welsh Government 2016 Government Monsters and Trolls
Regularity, propriety and value for money are accounting officer responsibilities. All public servants are accountable. Officials and officers are responsible for keeping proper accounts, prudent and economical administration, the avoidance of waste and extravagance, and the efficient and effective use of all resources in their charge.

Smaller area based regeneration initiatives governance structures are often not large enough (or perhaps important enough) to merit strategic consideration. In this situation, according to Coaffee (2004a) critical local area concerns relate to compatibility; of outcomes, processes and scale. Outcomes, whether bottom up engagement of communities can work be made compatible with economic and property-led initiatives. Processes, whether encouraging greater community voice can be made compatible with national and local government interference. Scale, targeting of small areas directly can be made compatible with mainstream larger initiatives, if within a systems approach.

A local requisite organization’s first role would be in delivering outcomes. The characteristic features of the organization, functioning at arms-length in theory from national government, would be in having certain discretionary powers such as the power to make decisions regarding requisite activities in their local area and tightness in structural form by which a predefined set of processes could be considered standard processes (Coaffee 2004a).

Organizational tightness in a public/private/third sector requisite organization would be measurable inter alia in the sharing of; knowledge, research costs, investment risk, and in co-operating towards; agreeing and realizing visions and plans, government and stakeholder consultations (Kort & Klijn 2011).

Kort and Klijn looked at the impact of organizational form and managerial efforts on the performance of regeneration outcomes and concluded that organizational features did not however have a particularly significant impact on outcomes. On the other hand where local requisite organizations are subject to network management strategies such as with systemic approaches managerial capacity did have a significant impact on regeneration outcomes.

Engberg & Larsen (2010) would see a network systems planning perspective as having some important area based regeneration advantages;
• It could be adaptable and flexible
• It could channel knowledge of local problems, needs and preferences
• It could generate an input of activities and resources
• It could qualify and supplement top down politico-administrative and planning practices
• It could constitute arenas for deliberation and dialogue
• It could channel critique and conflicts
• It could represent a strategic answer to complex and multi-layered local planning situations

At the national level in Wales implementing a national regeneration program over the longer term would depend on the further development of governance networks (Sorensen & Torfing 2005). Governance activities in area-based regeneration are currently being directed over the short term at both national and local levels in Wales. In theory to support the network process national government downplays a hierarchical management style in favor of an approach based on mutual negotiation, agreements and networking (Engberg & Larson 2010). However, local networks often operate in more than a shadow of national hierarchy.

National direction in a context-orientated meta-governance level could mean over the longer-term local/regional direction towards comprehensive regeneration processes at the level of local areas considered as places needing targeted effort. Neighborhoods, towns, citywide and regional initiatives would in this context be considered for some form of mechanism of accountability. The network form of organization as seen in Stafford Beer’s 1965 Viable Systems model could then be seen as an appropriate form for debate both visually and analytically, and specifically in the situation where the division of labor could create new opportunities for the planning and implementation of integrated public service delivery.

In a network form of organization, meta-governance refers to the regulation of self-regulation (Engberg & Larson 2010), responsive to different contexts at the local/regional level, strengthening vertical and horizontal cross-sectoral coordination and integration.
The purpose of meta-governance could be to create some form of co-ordination coherence and integration in the fragmented structure of network governance without completely undermining the autonomy, engagement and self-regulation in governance networks (Sorensen 2006).

In doing so the concept of meta-governance would also provide an analytical tool for analyzing the process of network governance (Zonneveld & Spaans 2012). Multi-level governance would then be concerned with the dialectic between top-down structural policies and bottom-up approaches rooted in the uniqueness and diversity of place (Albretts 2005).

In a systems view, an institutional context and shift towards greater influence through meta-governance mechanisms could enable governance stakeholders to attempt to deal effectively with fragmented governance created by unnecessary complexity, (Zonneveld & Spaans 2012) and could be possible if local government was able to relate strategy and vision to the concrete implementation of the requisite variety of project and investment activity, wherever it emanated from.

To deal with this local government ought to be allowed to put greater emphasis on strategic integration and co-ordination of overall area-based input–process-output orientated governance mechanisms to ask “whether a particular procedure (contribution) would cause other actions to adjust their actions in a way that would be mutually beneficial” (Engberg & Larson 2010).

The methodological difficulties relating to attempts to measure across the many facets and initiatives comprised in a holistic approach to area based regeneration and joined up thinking (Lawless et al 2010) need to be grasped by local and national government and a contextual diversity of operation would point to the overall responsibility being a local one.

Local governments have a financial incentive to pursue partnership strategies that mobilize non-government resources (Engberg and Larson 2010). The aims of requisite organization in systemic terms then ought to be about developing these requisite governance arrangements transparently across geographical areas at the right level to do the right job with the right network level of support.
The coordination between different scales of regeneration activity however still remains a hypothesis rather than a working assumption and whether reconciliation between top-down and bottom-up processes in holistic long-term area-based regeneration can be achieved is an open question (Coaffee 2004a). Collaboration between different scales of regeneration for some has become “a sound-bite that is in danger of becoming a cliché with no substance” (Wilkinson & Applebee 1999).
Appendix 4  Modelling a Place-Shaping Contribution at Work

4.1 Forecasting Outputs and Outcomes

4.2 Delivering Change: Inputs and Processes

4.3 Financing a Short- Term Actor-Network

As additional material to Volume 1 Chapter 5 emerging normative practice, policy influences, key learning points, and areas for improvement are dealt with in this Appendix. In terms of critical assumptions and Influences, the effectiveness of strategic governance, organization approaches to designing and delivering interventions, evidencing and communicating (logic model) inputs processes and outputs are considered.

Contribution analysis continues to summarize the performance of the VVP policy and program at the stage in its development where a cause and effect policy and program evaluation would be impractical. The analysis here relates to what extent observed results of normative process inputs and arête model desires are (whether positive or negative) contributing to the arête theory of change sustainability goals.

The aim is a continuing test of the value of the arête model criteria in critically explaining sustainable regeneration in model terms. A performance story of the influence and importance of the competitive VVP policy and program in the new process norms is assembled to enable stakeholders to critically assess strengths, weaknesses and adjustable requirements of the theory of change model. This paper is in three sections corresponding to the Input-Process-Output (IPO) arête system parameters and a summary model description of the current VVP regeneration framework.

4.1 Forecasting Outputs and Outcomes

On the 24th March 2016 a Welsh Government press statement was released which said that;

“Additional funding for VVP brings the total investment in the Welsh Government flagship regeneration scheme to £118 million. A recent report found between 2014 and 2017 the program will create more than 2000 jobs, support 3000 people into work and bring a further £300 million in to Wales. It is expected also to provide 1000 affordable houses and more than 2300 homes in the private sector.”
Twelve local authorities who will receive the additional £12.8 million VVP funding are spread throughout Wales”. The pre-election statement focused politically and organizationally on the measures that matter to Welsh Government, which is in national numerical outputs. In addition, what could have been said was that Place A was becoming more competitive or that Place B was now less unequal or needy or disadvantaged. It is hoped that following completion of the current VVP program in March 2017 places will also be the focus and unequal ness a measure.

Public value needs relating to places ought to be measured and legitimized by the places served by public interventions. Places compete for trade, for our affection, for investment. The evidence from VVP was that reckoning public value (Moore 1995) on balance had moved in perception from one of local political competence with responsibility to place-need to one of national political competence in housing provision.

Reconciling different standards for reckoning regeneration public value is at the heart of understanding place-centered wellbeing and the co-production of public value. Analytic and design techniques in determining co-produced public value ought to be the subject of greater understanding and modeling in this regard can play a significant part.

4.2 Delivering Change; Inputs and Process

Emerging Normative Administration

An independent review of VVP at its mid-point (Welsh Government 2016) was carried out by external consultancy on behalf of the Ministerial Advisory Group for regeneration in Wales with a brief to evaluate process and describe lessons learned. Scoping interviews were held with the Welsh Government policy team, eight telephone interviews held with Welsh Government regeneration practitioners, and ten face–to-face interviews with Local Authority staff and partners.

The results were in the following categories;

- Balancing need and opportunity
- Concentration of funding
- Regional Partnerships
- Links Between Projects
- The Application Process
• Capitalizing on Momentum
• Project planning
• Control and Flexibility for Local Partnerships
• Partnership Working
• The Capacity of Council Staff
• Consistent Criteria

Positive and negative input issues were identified in;

- Targeting low hanging fruit
- Not dealing with market failure adequately
- Concentrated, flexible resource allocation
- Difficulty in articulating causation
- A lack of time to thoroughly plan
- A needed delay to achieve place buy-in
- Lack of contributions from specialists
- Welcome autonomy and time limited disciplines
- Lack of synchronization with others
- To resist the temptation to make changes which affect stability

The arête model description of process would require knowledge of process to be evidenced by those operating in the system involving the relevant filtered activity/processes and spatial intervention preferences representing the proceedings as a whole. An interpretation of the process sequence /series of actions, events, operations is as follows.

**Allocating Resources**

To continue, obtain or bring about requisite activity in VVP through the beneficial allocation of people and funding meant a two-stage competitive allocation of resources and an event of note. The assessment of competing VVP bids at Stage 1 considered proposals from Local Authorities in a 100-word synopsis. At stage 2 although a more detailed SOP was submitted which was required to follow the “five case” business model insufficient supporting information and expert evidence was not available in some cases to make confident and predictable allocations.
The assumption was that all project bids submitted were necessary in their submitted form and fully deliverable during the program period when in reality some were not.

In some bids promoted perhaps as a result of political or organizational logic there was a need to establish at an earlier stage a more informed knowledge (fact and rule) based criteria for rational judgments. Undeliverable projects and projects where public value and a transformational impact was in doubt were considered for award of funding without the benefit of necessary knowledge and expert advice leading in some cases to the eventual selection of alternatives with better opportunities to achieve overall VVP objectives.

Whilst the responsibility for the governance of each LA VVP program rested clearly with the Local Authority, Gateway reviews were an additional assurance mechanism employed to provide assurance to Welsh Government that the governance arrangements being implemented in each VVP program area were appropriate and effective.

Gateway reviews were of real-time value as snapshots of progress but were not meant to and could not replace real-time monitoring value. Changing circumstances were sometimes weekly happenings in the field when knowledge of better public value would have been at a premium.

**Satisfying Stakeholders**

The Welsh Government produces achievement reports in the form of national documents and case studies. Disadvantaged place change outcomes ought to be communicated to a wide audience and unequal ness ought to be a quality focus based on corresponding measures to report. The national focus should be able to build on the firm compliance foundations now being instilled through VVP at a local area change level.

The beginnings of applying more “business like” principles to area based change can be adapted further to deliver a greater blending of intervention elements and uniformity of learning, from what works for growth through a greater minimum public intervention understanding. Although knowledge is not currently enough of a focus in area based regeneration, the current VVP program however has provided the foundation to develop further towards an expert system.
Expert systems are designed to solve complex problems by reasoning about knowledge. An expert system can be divided in terms of a knowledge base (facts and rules) and an inference base where explanation capabilities are based on the knowledge base.

Expertise and professionalism was not highly valued enough in VVP and the trend is arguably a worsening of knowledge capability and capacity as a result of stop-start policy. The reform of local government and results based accountability without technical specialization is perceivably becoming ever more the norm.

The ability for regeneration organizations to be agile and responsive in an increasingly complex rapidly changing environment requires real-time value chain management (Chan 2007) and coordination of value chain activities across the extended network. The positive evidence from VVP nationally is that real-time management of regeneration processes requires the capability of conducting transactions through being able to respond to situations with expertise and knowledge and the capability to leverage place based intelligence.

Observing Rules

The principal regulations governing conduct, actions, procedures and arrangements in VVP can be described (March & Olsen 2006) as developing “rules of appropriateness” in public service behavior that are relevant to administering area based regeneration as a public service. The VVP rules were developed consensually between collaborating bodies prior to a competition being agreed. The exact formulation of rule based ideas having taken some time to be worked through, around competition prior to collaboration, the standardization of regeneration monitoring forms such as in project information and monitoring, desktop instructions, quarterly reporting of progress and risk took a little longer than anticipated.

In action the impact of the VVP rules and standard operating procedures continued as work-in-development during the program period to a point where the relevance of the logic of appropriateness became well understood. Participants appeared keen to continue in a second policy phase as the many rule disciplines were becoming more understandable and acceptable.
The rules related however to appropriate short-term actions only. Nevertheless, they created important disciplines in local delivery that ought not to be abandoned when considering new policies, even when involving radical change.

The new policy and practice rules were becoming a “fact”. There did not appear to be a need to “go behind it”, as funding resource by a dominant organization actioned it. The political order was clear with reasonably predictable outcomes. Yet the logic restricted rather than emancipated. There would be insufficient lessons learned for example in “non-approved” activities and their potential contributions. Improving performance on the basis of experience was limited too often to a single sector activity (affordable housing) as opposed to multi sector activity.

The rule base included the interpretation of internal rules in National Government. The Welsh Government was committed to a whole Government approach to regeneration and good practice. However, a whole government approach to the product of regeneration was not evidenced purposefully in key departmental contributions during and throughout the program period, limiting the variety of public value achievements in practice.

**Arguing Reliably**

In a considered argument recognizing public value that could be applicable and relevant to area-based regeneration, Michael Moore (2013) suggests that public bodies ought to;

- Focus on economic and social place-based outcomes rather than their own internal activities
- Become more responsive to the places they serve and adapt their performance to those particular circumstances
- Be held accountable for the fairness and performance with which they use public assets both in money and authority to support places
- Develop and use performance measures that can provide accurate and timely information about their performance
- Create a strong sense of accountability for performance
- Determine and demonstrate how much public value they must know the degree to which they are producing the outcomes that justify the expenditure of public money
Public service regeneration must be able to change and adapt and this means not only the current program but also in the intentions actors would like to make to position themselves for improved performance in the future. Examples of good and less good practice against these criteria at both a local and national level, was evidenced in VVP. Coherent real-time reasons for adopting particular intervention conclusions in cause and effect, cost-benefit, market failure and means were not always clear. How actors dealt with future improvements was not always the question.

Citizens were not always given the tools to explain that where a regeneration authority that once performed well was now lagging behind, to increase the pressure on the bodies not only to perform better but also to make some kind of investment now increasing its capacity to improve in the future.

**Controlling Behaviors**

The new VVP policy made a genuine attempt at encouraging place-need development integration in its initial rules and arguments. The scope was originally broad and the interaction of a variety of interventions welcomed. However, a dominant controlling political interest skewed eventual outcomes at the potential cost of autonomous and hoped for well-informed and collaborative local area governance.

Collaborative governance has been described as, “the pursuit of authoritatively chosen public goals by means that include engaging the efforts of and sharing discretion with producers outside of government” (Donahue & Zeckhauser 2006). Distinguished from simple contracting and strategic interaction, each party would have a hand in defining not only the means by which a goal is achieved but the details of the goal itself.

Fulfilling the needs of place sometimes fell below expected controlling behaviors and the demands of places, communities and funders. Confidence that collaborators had the right mix of skills leadership and capabilities to achieve success was not always demonstrated. Adequate engagement with the private sector market, to identify delivery options, was not always undertaken.
Neutral challenge of VVP project sponsors by independent experts was not always transparent. The impact of organizational constraints and political controlling behaviors was shown in the resourcing system, which meant that in some circumstances some approved projects were unlikely to achieve their ends. A pragmatic view would then be utilized in the ideas of political feasibility and the art of the possible, in a practical and bargained rule-based consensus.

4.3 Financing a Short-Term Actor-Network

A focus on a regeneration delivery network in VVP, made up of associations between public organization actors and their intervention departments, to enable the building of an understanding of interaction amongst actors- without imposing a pre-determined higher level structure - placed the implementation of regeneration and VVP initially in the realm of an actor-network model (Callon 1986, Law & Hazard 1999, Latour 2005).

Actor-network theory makes claims on the capacity of both human and non-human factors e.g. organizations and individuals to be actors in networks and systems and tries to explain how networks come together to act as a whole. Individual actors in VVP invariably work in organization hierarchies. Relations needed to be repeatedly performed to aid system sustainability. In VVP an organization actor system managed the resources it was configured to use in order to support and control the actors it was programmed to contain. A greater hierarchy was evidenced as the policy was put into practice,

Local authority sub-systems in the VVP system were meant to be relatively autonomous. Sub-system boundaries would however eventually be re-drawn from a non-modular national policy approach to co-define local and national system boundaries. In VVP all 22 local authority actors in Wales could be seen at work at any one time in some form of regeneration work.

There would be many other essential actors associated with the work including housing associations, third sector and community bodies. Eleven authorities were eventually selected for special treatment with the allocation of £100m of financial resource to programs considered relative national priorities and on the basis of their “business plans”.
The VVP actor-network finance model summarized as P1 in Figure 11 below in its essential aspects distinguishes between the system environment, its causal and response processes and its normative disciplines. Comparisons with the model are inherently problematic. Individual sub-systems in a causal, response and normative system suggest communication problems corresponding to hierarchical results based accountability responsibilities required of organizational actors (Bossel 2007) and this may be a legacy of the revised (housing) program focus.

In P1 figure 11 acting in response to directional communications it receives from Welsh Government a local authority actor can only make compliant local decisions, create necessary compliant activity and fitting actors. The problems of sending more communications “up the line” whilst trying to determine and communicate how to respond to their own more bespoke local regeneration needs would also include the need to attend to the next national government message.

In P1 figure 11 the environment in area-based regeneration (within the boundary of the larger box highlighted) would be that local authority area part of Wales, which could be influenced to a significant degree by the behavior of a national economic, social or environmental policy or which can exert significant influence on that policy. There are very many policy drivers operating in any one local authority area at any one time and consequently a very large number of regeneration actors in play. VVP the policy driver in focus would be seen as P1.

In dealing with the policy driver P1 relationships, national policy influences on causal processes would represent functioning. Following the receipt of communications from the Welsh Government system “effectors”, by which instructions for (competitive) response actions originate, influences from the local environment are considered. Response processes in relationship to causal processes would need and require information processing, the analysis of policy, local situation perception and classification, a problem-solving assessment of alternatives and decision-making.
In a single local area based regeneration management approach however all Welsh Government and local government policy areas affecting area based regeneration, P2, P3, P4, P5…. ought to be able to be taken into account, in dozens if not hundreds of “business plans”. The total system consists of a multitude of actor-systems and decision units of flows and levels of information. Relationship complexity shown by broken lines in the diagram would be particularly onerous at best. At worst the connecting lines would not exist (and this was the case to some degree in VVP).

In performing each of these local area operations each local authority area actor in Wales (in competition with each other) would then need to refer back to normative references and processes required by the effectors to assess the consequences of behavioral alternatives, making the structure of even a straightforward decision more difficult.
Local authorities can then only construct an “image” of a situation from a diverse and constantly changing supply of information from the environment and their own concerning system variables, making them theoretically and practically unable to respond sensibly and efficiently to new requirements.

The description of a whole local area regeneration system in figure 9 only becomes possible through a radical reduction in often-important variables resulting in an unavoidable subjectivity of model construction (Bossel 2007). At the lower level of system responses in a time-constrained program such as VVP, the processes of self-organization or structural change would generally involve a longer response time and would only be conducted as a result of political change.

The constant change of normative references by political effectors presents a special difficulty in a process of adaptation to a constantly changing environment. Effectors without changing elementary goals can and do abruptly change their behavior. The routine transformation of a given stimulus into a corresponding response by a previously known transformation function is then not sufficient.

The essential feature of actor-network systems is that tasks are split up until they become small enough to be managed in one piece, only then becoming clearly structured (Latour 2005). If a problem is not communicated to the right person, failure messages dealt with by supervisors (often political) can easily dissolve into defensive programming with the aim of not leaking failure out.

The nature of regeneration intervention through VVP is in short term capital program urban development. Urban development is not simple and its complications require multi-disciplinary built environment professional actors. It is however not necessarily complex as with larger revenue and capital area based programs. Simple cause and effect responses relating output directly to input are generally not the case although outputs can sometimes be “announced” well in advance of delivery.
Responses generated by feedback involving variables and delay were a normative case in VVP requiring constant monitoring and control. Monitoring and control purposes with short response times seeking to maintain system stability within its stated parameters in VVP was very well practiced. The parameters of VVP may however turn out to be short-term qualities, which are functions of time only.

For a system with incomplete constant longer term parameters and relationships can change over very short periods of time without a stable reference. Should VVP continue and maintain its basic influences allowing for its parameters to be adjusted adapting to local and national change situations (e.g. resource availability) the processes of adaptation are likely to be accepted. Yet another short-term urban program may however not be based on an evaluation of systemic responses.

In the relatively autonomous VVP, system behavior is the dominant component and is controlled by information communication processes and processing. The interaction of Welsh Government and Local Government actors interacting with respect to a given ordering aspect is often based on exchanging information among them to pass on communications to others and to higher up organization hierarchies.

In the VVP P1 figure 11 actor-network model, the absence of a long-term structure suggests that the behavior of the system itself creates unnecessary complexity and normative confusion and could be improved with simple rules to assist with learning difficulties, improving the type and scale of learning interactions. The number of elements and their functional connections is extremely high; the mutual dependencies are generally complex and rarely linear.

Where a structure design is known and the performance of the system is prescribed constant and time dependent inputs are known. “Knowing the input (and process) is tantamount to knowing the output” (Latour 2005). A small-scale pilot test of the VVP contribution amongst practitioners in respect of place-based satisfaction for example showed a variation in responses worthy of further consideration (Worksheet 2 Measuring the Contribution Satisfaction Scale).
1. Orientor: **Enhanced Co-operation**  
   VVP Goal:  
   Indicator:

2. Orientor: **Created Effective Planning**  
   VVP Goal:  
   Indicator:

3. Orientor: **Delivered Sound Investment**  
   VVP Goal:  
   Indicator:

4. Orientor: **Enabled Managed Responses**  
   VVP Goal:  
   Indicator:

5. Orientor: **Achieved Good Governance**  
   VVP Goal:  
   Indicator:

6. Orientor: **Made Better Decisions**  
   VVP Goal:  
   Indicator:

7. Orientor: **Developed Capability & Capacity**  
   VVP Goal:  
   Indicator:

8. Orientor: **Realized Practice Norms**  
   VVP Goal:  
   Indicator:

9. Orientor: **Revealed Policy Influences**  
   VVP Goal:  
   Indicator:

10. Orientor: **Addressed Failure Risk**  
    VVP Goal:  
    Indicator:

Worksheet 2  Measuring the Contribution  Satisfaction Scale  
(Towards a Consolidated System Assessment)
The interactions of Government in VVP are the result of complex decision-making processes; consist of power and information flows and communications for the purpose of exerting influence, obstruction or co-operation. Freedom of action reduced with technical uncertainty and self-interest preference, restricts choice and local accountability. However, a model VVP working inside an arête orientation ought to provide for a modular analysis of each part of a local and national system. In terms of sub-system and higher level system values and behaviors their collective behavior could be aggregated to form a whole system state satisfaction analysis with possibilities for improvement.

A higher-level structural system design in arête ness is promoted in Volume 1 to address a fuller image of area based regeneration as a modular solution to tackling complexity. Constant and time dependent inputs are made known and a desired systemic performance described. The model specifically includes autonomous actor flexibility whilst making it easier for actors to establish joint normative criteria. An arête overview of VVP in behavior and path analysis suggests that the achievement of a higher overall satisfaction rating of the VVP in a system view could have been significantly improved with relatively small aggregated changes and these improvements are reported In Volume1.

**Key Learning Points and Areas for Improvement**

The path chosen in VVP was an experimental one, in greater output control, following a period of regeneration output uncertainties. Time-restrictions were required and began to establish norms and disciplines. New parameters were being learnt by trial and error. The path chosen was a good solution at the time.

An administrative solution to greater short term output control was fulfilled, a synthesis of policy at higher level of longer term satisfaction did not happen which would suggest that VVP was in aggregate not working above a minimum satisfaction level to satisfy arête orientation values and qualities. Climbing the arête peak had begun but there was a considerable effort needed to reach higher.
With a greater concentration on input and process at its commencement the VVP contribution to area based change could have been significantly enhanced. What did help with change requirements in adapting inputs to deal with local and national performance criteria was the skill of national regeneration management. In the evaluation of VVP performance, evaluation criteria would however be dominated by numerical outputs. Value for money was based on expectancy not test. Evaluation criteria of aspects of system interest and system state requirements (referred to earlier as orientors to co-inside with an arête system orientation) would have improved evaluation considerably.

Designating important system criteria indicators would have dealt with qualities towards a longer-term system survival and development – but not the degree to which they must be satisfied - which would have been the domain of actors then involved in the developing system.
Appendix 5
Ethical, Knowledge and Progressive Value; in a Systems View

Additional Material
Ethical Value in a Systems View
Knowledge Value in a Systems View
Progressive Value in a Systems View

Ethical Value in a Systems View

5.1 Enhancing Co-operation

Mutual co-operation between public bodies can be stable if the future of local area regeneration is sufficiently important to national and local government in Wales relative to the present. And it should be. One quarter of the population are classed as living in relative poverty (Oxfam 2016). There are many deprived neighborhoods and communities. Town centers’ have been subject to gradual decline. There are many other indicators of place based inequality.

The long-term pay-off incentive should always be greater than a short -term political incentive. It was however not necessarily reflected enough in VVP. Without a developing understanding of place development through sustained conversations including the ability to recognize the relevant features of interactions and interventions there is always the possibility of reinventing previous failures.

Transparent norms and influences as standards in the public service can nevertheless be seen to evolve and prove stable. There is a wide range of mechanisms to support norms as standards (Axelrod 1997), to enhance co-operation, not least meta-norms, internalization, group membership, and competition.

VVP in its current form was based fundamentally on competition not perhaps on enhanced co-operation. Competition is often seen as soliciting for ideas and approaches in seemingly a survival of the fittest and best value approach. There was however little facility within the current process for learning amongst un-successful competitors.
The concepts behind the competition also governed most of the daily work of those successful competitors perhaps at the expense of further place based learning opportunity. An interesting example would be an unwillingness to invest in normative groupings that are not complying with agreed norms and this was evidenced in the VVP competitive process when not allocating resources to ideas outside the norm, was justified merely in terms of “flawed bids” for funding support.

In the case of Vibrant and Viable Places the external Ministerial Advisory Group, the Internal Welsh Government board and associated Local Area Regeneration Boards are understandably focused on cooperation monitoring. The focus on monitoring is arguably:

- More on stemming loss of value than on creating new value
- Not based on trust as the key to successful program completion, e.g. 100% VVP risk is borne by local authorities
- Mostly on one time goals
- That team work helps but is not pivotal to success
- Driven by prescription e.g. 60% funding towards housing and unlikely to accrue game changing shared value

At the professional level, quarterly and yearly performance reviews and assessment of national level staff performance would be based on “getting things done” and that in particular would essentially mean the relatively narrow goal of achieving expenditure milestones. Competition for funds is always likely to be an element in any future approach and it is argued here that although performance concepts can be significantly different they are not mutually exclusive to measures of cooperation.

In the short term national and local government could engage in new forms of enhanced cooperation and exchange in a higher level systems approach that provides some measure of increased benefit not currently available. In co-operation through collective responsibility for example, the cost of exchange is negligible, in relation to potential benefits, with parties able to keep their relatively independent goals, authority and responsibilities. In responsible collaboration and a higher degree of exchange, shared goals and more formal arrangements on authority and responsibility with numerous exchanges ought to result in the desire to reduce imposed complexity as much as possible.
The benefit of collaboration should outweigh the cost of exchange (Rikerjoe 2010) and would be the subject of new judgments. An example of a transition from co-operation to collaboration was found with Communities First which unfortunately may not continue.

Entering into a co-operative goal arrangement here without an examination of goal alignment norms and the value equation was eventually to lead to the original failure of the co-operative effort and a transformation in favor of collaboration. That an area-based collective responsibility for local area change built on norms influences and standards may have been missing will not however have helped the cause.

Although history has shown that tremendous value can be delivered with consolidation in the field, as with the establishment and evolution of the now defunct Welsh Development Agency, consolidation in area based regeneration is considered beyond the scope of influence from this study. Consolidation, where interdependency is total and complete and where separate parties are combined into one, with goals, authority and responsibility highly aligned may of course happen, but this does not appear as yet on the horizon.

Enhanced co-operation and collaboration while maintaining the disciplines associated with competition reflects a strong argument that this is the next appropriate stage of development to be aimed for. The aim in the recommendations in Volume 1, in the development of regeneration in Wales in systems terms is further co-operation and collaboration.

“Although cultural uniformity is not a value in itself it seems to me that the spread of norms has generally been a progressive process” (Axelrod 1984)”. In the arête model in Volume 1, the norms described are not considered unduly prescriptive but adaptable to circumstances and context. The question of resisting the development of norms, and of acceptable standards, is nevertheless likely to be encountered to some degree. As norms become publicized, however, the practice could optimistically become culturally uniform.

5.2 Creating Effective Plans

A place-plans process is an ethical activity and ought to begin by analyzing the current conditions and capacities of the community or place across a wide range of categories. Analysis can be descriptive, predictive (if-then) or evaluative.
How things are means currently relative to its position in the past or its future prospects measured against development goals. Descriptive analysis is often used in marketing place opportunities; predictive analysis can often take the form of impact or causal analysis. A development impact analysis (Edwards 2007) from a specific development program can be used as a forecast tool and in viability and evaluative analysis.

Consultants, facilitators, and community organizers alongside professional and technical actors generally will arrange to consider plans for a place-based product, but can often fail to adequately consider plan-based viability, not only commercial viability, but viability in deliverability. VVP examples here were of significant noteworthiness.

Citizens and professional actors involved in place making can present alternative circumstances area based interventions dependent on their perception of causes of inequality. One place may be easily mobilized while others not in the absence of identifiable patterns of political and actor leadership.

More often than not an organization vision and mission statement attempts to define tasks—but not always successfully. Although a comprehensive regeneration place-planning process is complex the general categories of analysis, program development and marketing are difficult to separate because they are interdependent. These tasks, which relate to the organizational and locational circumstances of the place at any one time, are also likely to be required at different times.

An inventory of area resources, the building of development organization, the selection of local development strategies and projects, the building of action plans specifying project details are all required before developing an overall regeneration concept that can be prepared for implementation and articulated in a robust business case (Edwards 2007). Comprehensive plans can only really be ready for support with this level of necessary knowledge. With short term funding approaches such as with VVP, plans and concepts “requiring further development” appear nevertheless to be increasingly accepted as the norm.
The Joseph Rowntree Foundation (JRF) argues that only comprehensive plans are eventually likely to succeed; and appropriate action must be taken not to undermine long-term sustainability. The foundation brings together under six headings what has been learnt from 33 projects between 1992 and 1995 and a further 36 projects thereafter that provide a checklist for leadership and co-ordination, solid community participation and a long-term commitment. These are (my emphasis in italics):

- Understanding Disadvantage (*inequality*)
- Getting Started and Maintaining Momentum (*dynamics*)
- Enabling Resourcing and Training (*capability and capacity*)
- Partnerships (*enhanced co-operation*)
- Targeted Mainstream Service (*collective responsibility*)
- Decentralized Management (*responsible collaboration*)

There are many ideas and attempts to answers to the needs of local areas that could benefit from local area regeneration. It is clear however that communities could have a better understanding of the things that could make even a small difference to their daily lives.

Ethical modeling by managers ought to help (Greenleigh & Blakely 2013). In moving places forward in the creation of effective plans a normative map such as with an arête system orientation would provide simple rules and a heuristic support to local areas in tackling complexity. Time and funding resource being made available to support plan processes at the commencement of VVP in 2013 for example would have avoided significant time waste. In the case of VVP incomplete business cases proved to be very difficult to regularize once financial resources were allocated to programs and projects requiring further development and eventually dis-continued.

### 5.3 Delivering Sound Investment

Resource allocation in both national and local government organizations would agree that decisions about budgets and relative priorities occupied a “substantial place in the activities of organization participants” (Daft 1978). Fairness would never be far from investment conversations.
The new regeneration framework in Wales VVP set out the vision for regenerating town centers, coastal communities and community first clusters and the rules for grant funding between the years 2014 to 2017. The original budget for VVP was £100 million and was implemented in a competitive and targeted investment program based approach.

The guiding principles were; more targeted investment in fewer areas, better integrated working across funding programs and the need to lever in additional investment, particularly from EU private and third sectors. A VVP framework guidance document was provided to local authorities and seminars were held to engage and support the competing local authorities in the application process.

Twenty-two applications were received requesting over £250m grant support. All were deemed to meet pre-requisites. Eleven programs were eventually allocated grant funding. (Stage 2 assessment report, Wales.gov.uk). Performance indicators were not scored in a second stage as the supporting evidence and claimed outcomes contained in the bids varied widely in quality. (Stage 2 Assessment report)

A scoring matrix was devised to score applications against a number of set criteria. There were two stages of assessment, scored by an administrative panel of officials with color-coded traffic light recommendations (red amber green) reflecting the assessment panel collective view. The RAG scores were given notional numerical values then weighted to give a total score and notional ranking. The evidence on which decisions were made was based initially on a 3500-word submission and subsequently a 10000-word maximum five case business plan and program output submission.

Value for money and impact was considered against all the bids at a program level with a 75% Welsh Government fund expected to lever 25% from others. The evidence to support transparent decisions and relating to outputs in particular would have influenced decisions and provided initial results based assurances. A VVP program board was established in autumn 2014 to oversee governance arrangements. A Delivery Confidence Gateway Program Assessment was considered premature. The funding for the program was principally managed by local authorities, with the involvement of Registered Social landlords, and mostly third sector companies with the third sector generally delivering the projects. Due diligence checks on partner organizations was a local authority responsibility.
The issue of reputational damage caused by the risk of under-spending time-limited funding was an important consideration. Funding allocations could not be accrued forward to the next financial year. Control and inherent risks were then always capable of further consideration. If the overall program was failing to achieve outcomes and objectives this would be dealt with by the development of standardizing monitoring forms, desktop instructions, quarterly reporting information, and financial spreadsheets.

Financial risks and value for money was a decision for each local authority grant recipient. The only assurance mechanism in place post funding allocation was the timely completion of one-off individual local area program Gateway reviews. Individual program boards to provide neutral challenge to project teams were to provide local governance. The minimum requirements for overall grant funding required that national funding programs be formally evaluated at least every 3 to 5 years. On 25th July 2013 the bids were finally considered by a sub group of senior civil servants who provided feedback on initial synergies across government departments. It was agreed to put in place a structured process to ensure effective joint working between departments and with relevant local authorities. (Stage 1 assessment report Wales.gov.uk)

The processes of investment decision-making in the first year of a new program philosophy suggested that a similar competitive situation in the future could be improved. A systems influence on resource allocation was seen in observation as something that could positively influence resource allocation decisions; and principally by identifying variables in the organization of delivery norms influences and standards.

A focus on Relative Priorities, Value Propositions and Realistic Prospects identifiable from systemic parameters (Volume 1 outputs-processes-inputs) could have had if implemented a combined and definitive role in both political and bureaucratic investment choices, on core and primary purposes and on support functions. The three variable boundaries in a Consolidated Value Assessment (CVA), would determine A or B in Figure 12 below, or somewhere in between and whether proposed activities were well or less-well organized. The CVA was eventually suggested in a lessons learnt offer, as a concept for more effective and efficient resource allocation by Welsh Government choosing between area-based investments.
The CVA in Figure 12 was designed to incorporate the Gateway Delivery Confidence Assessment process. In a competitive regeneration environment, the concept began with an analogy with the legal profession. The code for Crown prosecutors in the UK sets out the basic principles to be followed when prosecutors make case decisions.

Figure 12  A Consolidated Value Assessment of Norms in Programs and Projects

Evidence Indicates;
All Critical Elements, i.e.
Outputs (Relative Priorities)
Inputs (Realistic Prospects)
Processes (Value Propositions)
In Place/ or Not in Place/or in Place By ?

Adapted from Stacey 2001

The principles could be seen systemically as analogous to regeneration case decisions. The decision on whether to allocate scarce resources to competing regeneration programs or projects could be subject to a “full code test” in two considerations conducted simultaneously, an evidential consideration and a public interest consideration.
The Volume 1 arête logic model parameters ought to be able to capture the detail in evidence and public interest.

The evidential consideration meant that amongst relative and discrete priorities for resource allocation in any local area, value judgments and prioritization would help decide on the requisite activity importance at any one time and against the nature of needs and opportunities, possibilities within the local area, constraints and relationships in a local and national context. Decision makers must then be satisfied in constructing viability that there is enough evidence to provide “a realistic prospect of successful delivery” against each program and against each project.

Determining priority between relative and discrete priorities would also require a consideration of urgency, severity, impact, work-around-ness, risk and return, due dates, relativity to other work and the skill based resources available and required (Sifter 2014). A single priority field in a “public value” orientation to include “that which benefits and is valued by citizenry more generally” (Moore 1995) would be a link to increased levels of public engagement, civic participation and co-creation in regeneration based public value management and could highlight the different elements of public value created by the interventions in focus.

Decision makers ought to be able to consider whether the evidence to be used was appropriate and reliable and whether the evidence produces a minimum confidence threshold in a reasonable argument of risk and return to a peer review of suitably qualified specialists. Due diligence would be part of the process.

A realistic prospect test would be an objective test. It means that a peer review would more likely than not make a positive recommendation of resource allocation based on the evidence presented. If the case does not pass the evidence consideration, it should not be considered further, no matter how important the case appears to be.

If the program or project does pass the evidential consideration, decision makers must then decide to what degree the program or project is needed in the public interest to determine further intervention possibilities. Public interest considerations would involve determining public good and the achievement of public value within the local area subject to intervention.
In decision-making, the practices of Ministers and Council members not managers are largely accountable for the allocation of public resources. In order to achieve continuing high standards, performance reporting of positive or negative decisions would be appropriate and necessary, notably in value-added; for users, for wider groups, for the wider public realm in social, political, environmental and economic added-value (Williams & Shearer 2011).

Public stimulation of regeneration activity frequently exposes opportunity and need which will exceed the availability of necessary public resources. The disappointment of those who fail in their bids for resources can be exacerbated by a lack of appreciation of the reasons for selection of other areas or schemes (Poole 1995).

It would not be unreasonable to expect priority choices to be justified and explained to others and an overly sophisticated appraisal system lacking practical application is not proposed in a CVA. No management system should interfere with the chances of achieving local success yet decision-making justification, transparency and a collective consensus on policy and strategy would benefit from improving the means of communicating decisions.

Although a CVA of resource allocation in regeneration decision-making could be a common idea when regeneration organizations have similar goals the actual process is likely to be different when local the decision rests with large or small regeneration organizations. Large organizations are bureaucratized and employ greater use of rules and procedures than small organizations (Hall 1972). Administrations in larger organizations frequently comprise a higher proportion of administrators compared to operational specialisms and this is the case in the transitional change programs associated with VVP.

In order to increase resources to administrative support, specialist staff numbers were decreased during VVP, and explains why replacing personal supervision and more impersonal communication with larger spans of control the utilization and following of simple rules will become more important in future than perhaps other devices.

At the early stage of the new regeneration program development a reduction in qualified specialists and an increase in support staff was a purposeful decision, the problems caused by a loss of technical specialism producing a weaker relationship with better decision-making and the potential risk of waste in resource allocation.
Outputs of public and publicly funded regeneration organizations are often difficult to define and measure. In large regeneration organizations administrators will necessarily invest in support activities, with a larger requirement for paperwork, other written communications and maintenance that may never again see the light of day. In smaller regeneration organizations if the technical specialisms’ core were to receive priority systemic support, with the consequential enabling of core actors to be more effective and efficient, then at least some effort will have been made to improve higher-level standards.

5.4 Enabling Managed Responses

In Volume 1 Chapter 4, a system of norms, influences and values, standards in area based regeneration, was considered necessary and appropriate in better enabling managed responses. Further standards or rules could take the form of instruments, guidelines instructions to support individual mental models (Senge 1990) or schemas, parts of which may be communicated or shared or not by many individuals. The argument for further standards in enabling managed responses in area-based regeneration as an ethical concern is that public (A)dministration of area-based regeneration requires direction to achieve integrated delivery and the following of certain rules is critical to achieve results, not least in a communicating a fairness of approach.

Coherence in communication is caused by the design of a language and narrative system. With the benefit of a national standards based system design and a local rule based self-organizing process the outcome would be closely associated with complex adaptive system theory (Holland 2006).

In reality individuals are too often the key influences in the field. Management changes can occur when patterns of connectedness between individuals alter. This may be change for better or worse. There was a significant change of direction in VVP for example in the field when individual Ministerial priorities changed dramatically. Five Ministerial appointments in the field over four years meant that each Minister was able to create significantly different variations between public and private patterns of communication in the field.
Meanwhile, public officials charged with results based accountability are being held accountable through performance management reporting procedures. In dealing with personalities public officials can often offer the response of having personality “challenges” to deal with.

In systemic circumstances analogously associated with area-based regeneration Gergen (1999) and Shotter (1993) hold that individuals cannot be held accountable for results beyond their control. Mcnamee & Gergen (1999) in these circumstances strongly argue for a move to the notion of a relational responsibility a “we” that is to be held responsible for actions. Mary Gergen goes even further (1999) and suggests that the notion of accountability be dropped altogether in favor of “relational appreciation”.

Although other social constructionists (Lannaman 1999, Deetz & White 1999) argue against that this position pointing to the difficulty of dealing with power and self interest in particular, it is argued here that because individuals shape each other’s actions that they cannot be held accountable for them. The definition of complex adaptive systems (Holland 2006) is therefore not only relevant but also critical to area based regeneration.

“As a system comprising a large number of individual actors who interact with each other according to a variety of rules that organize the interaction between them at a local level. Actors repeat their interaction in a non-linear way referring back to their rules iteratively recursively and self-referentially and adapt to each other” (Holland 2006)

As there is no legal duty for grant recipients to perform, for example, there is a strong argument that only a relational appreciation of performance can be understood over the longer term where there may then of course be consequences for non-performance.

“In a human system, through communicative interaction with each other humans are able to co-operate in joint action using tools to co-operate within their surroundings. Communicative action through the medium of symbols, an ongoing richly connected multiplicity of stories and propositional frameworks results are the focus. In the public focus on results based accountability, the difficulties become evident in discussions on accountability” (Holland 2006).
If regeneration actions are joint, how can an individual be held accountable? From the evidence in Chapter 4 of Volume 1 and the current approach to regeneration integration in Wales the conclusion reached is that despite a more transparent attempt at integrating groupings of people, decision making is often aimed at attending primarily to organization ends, only weakly taking account of their impact on place-centeredness as a whole.

The departmental silo based approach to public service at the national level was generally unchanged in VVP, despite public cabinet agreement to meaningfully collaborate. In the Homes for Wales’s bulletin in July 2015 for example it was stated that out of the £100m VVP program funding £60m was identified towards housing supply. The target was housing, place was not the political investment target, despite an original well thought out policy objective.

The evidence in Volume 1 this study shows improvements in VVP in the measurement of targeted regeneration investment, but generally against national targets, narrowing goals in the field when broadening performance based on emerging practice could have produce greater place benefits. An overly prescriptive yet under prescribed control system subject to limited internal (A)dministrative feedback, a culture that sends out subliminal messages of success.

In the evidence that local groups were happy to do what they could to secure and expend short term targeted funds, while paying some attention to other requisite activities, but not too much, there were signs of repetitive patterning and a developing in-stability in the field. There was not always evidence of trying to take in to account the impact of other potential (but unfunded) activity on the whole (Bentley 2000).

The view of regeneration causality in Volume 1 is that the future is under perpetual construction, in the detail of relationships between actors and entities. In areas with many problems needing long term solutions, regeneration is an ongoing social constructionist position and as such there is no mature or final state in the field (transformative teleology), only perpetual iteration of place identity and differentiation, continuity and transformation agendas. The future is unknowable but yet recognizable, the known and unknown at the same time (Stacey et al 2000). The argument for “patching” over the long term, to create stability, then becomes appropriate (Kauffman 1995)
Kauffman’s simulations show that the number of connections between actors in a complex system determines the dynamics of a system. A small number of actors and the dynamics take the form of stability and highly repetitive patterns and vice versa. Because the conflicting constraints actors impose on each other are numerous a critical number of connections as a result of competition may be neither too few nor too many, and a dynamic “at the edge of chaos”. However;

“the explicitness, procedural and narrative of modeling is an underused resource and can be called upon in the thematic patterning of experience and as a tool for communicative interaction’’ (Kauffman 1995).

The pointers to a whole regeneration system approach, based on modeling better decisions, and patching at a local level, suggests pro-active and not reactive responsive approaches at a national level. It is argued in Volume 1 that any communicative interaction and holding to account for results begins with a communication plan and the development of standards. A multi-actor conversation put forward for consideration is therefore based on higher-level performance standards in a national and local standing conference format. National and local standing conferences on a model structure and performance could create occasions for regeneration actors in the widest sense to come together and discuss issues of common interest and explore ways of dealing with norms and influences, and with the requisite variety of actors’ interests in terms of excellence, knowledge and ethical virtues.

Providing a clearer picture in terms of transparency and objectivity should be as open as possible about the parameters on which decisions are made. In a national standing conference public actors would determine the logic and give reasons for their decisions. Holders of public office are accountable for their decisions and actions to the public and must submit themselves to whatever scrutiny is appropriate to their office.

Explaining the merit of patching choices based on a collective and simplified explanation model in a local standing conference format would help to ensure the fairness and propriety in the spending of public money and the integrity in the eyes of the places which it serves. Information should be restricted only when the wider public interest clearly demands (Nolan 1995). If the patching argument suggests stability with an emergent order (Kauffman 1995) then competition may be worthy component in any future system design.
Acknowledging the need to move the focus of regeneration from a low level grant giving mechanism to a system based model of coordinated effort where quality is the real driver would require significant leadership effort (Volume 1 Chapter 6). Local and national standing conferences would be leadership events to facilitate other communicative events. Based on normative framing and considerations, clear boundaries, the conservation of network identities, a collective determination of accountabilities of both local and national public actors, the benefits of a whole system regeneration process, in achieving good governance would not only lie in transparent practice but in good governance.

**Knowledge Value in a Systems View**

**5.5 Achieving Good Governance**

Achieving good governance means to large degree knowledge of inputs and process. Process knowledge creation, conversion and connection are key parameters in the delivery of regeneration, in which background knowledge of boundaries is also essential and without which knowledge would be incomplete.

The most value-adding characteristic of knowledge is its ability to create new knowledge by perceiving and evaluating information in the context of action (Davenport & Prusack 1998). Information filtering for knowledge management in Davenport and Prusack’s definition is relevant to local regeneration in a systems view as-

“A fluid mix of framed actors’ experiences, values, contextual information and expert insight provides a framework for evaluating and incorporating new experiences and information”.

It originates and is applied in the minds of knowers. In organizations it often can become embedded in document or repositories but also in organizational routines, processes, practices and norms”

Process Knowledge in the field of regeneration is transformational and to achieving good governance is of specific added value, a fundamental part of the logic model identified in Volume 1 Chapter 4 when it can:
Evidence the relevant filtered activity/process body of knowledge and spatial intervention preferences that represent the proceedings as a whole in a sequence/series of actions, events/operations/changes/behaviors in;

(a) Allocating Resources “To continue, obtain or bring about Requisite Activity” (Response Types/Minimum Interventions) Risk sharing and returns.

(b) Satisfying Stakeholders “To fulfill desires, needs or demands (Customers/Communities and Funders)

(c) Observing Rules “The principles/regulations governing Conduct, actions, procedures, arrangements (Public Values/Compliance/Guidance)

(d) Arguing Reliably “To give coherent real-time reasons for adopting particular intervention conclusions” (Market failure/Cause and Effect)

(e) Controlling Behaviors “To exercise restraint or direction over a range of actions and ways of behaving” (Political/Rational/Organizational)

In Wales, in area based regeneration, central and local governments are increasingly the main sources of data and information, a significant part of knowledge management. O’Leary (1998) defines knowledge management as “the process of converting knowledge from the sources accessible to an organization and connecting people to that knowledge”. Regeneration practitioners and policy makers are a critical resource for the creation of policy and practice initiatives that clarifies the relationship between ideas and actions. Without clarification, data does not have meaning of itself and provides no justifications or interpretation.
It would not be acceptable to describe part only of what happened at any one time, as is often the case. “A set of discrete, objective facts about events” (Davenport & Prusack 1998) can however be “endowed with relevance and purpose” (Drucker 1998) that can be “acquired by the giving of meaning in terms of relational connections” (Bellinger 2004). It cannot however provide an explanation of “why” the data is what it is.

The levels of process knowledge creating entities (individual, group, organizational and inter-organizational) in regeneration in recent years could be said to be in decline as a result of massive discontinuities. The Centre for Regeneration Excellence Wales (CREW) continuation without core funding remains uncertain and concerning. The adoption of any new process knowledge management system would need to take into account the human, political and cultural issues of those involved as well as financial issues.

An overview of the role knowledge plays in regeneration; by CREW, the extent of development of a knowledge management system, and knowledge based approaches to regeneration ought to be considered. The desirable characteristics of knowledge management ontology suggested by O’Leary (1998) as “a specification of discourse in the form of a shared vocabulary” could be a starting point. The five areas to be distinguished include;

1. The definition of the scope of discussion groups so that users can know where to raise a specific issue.

2. The provision of search capabilities by determining the topics residing in a knowledge base.

3. Filtering capabilities based on the ontology as “underlying ontologies” i.e. users using the ontology to specify keywords or concepts, which capture the nature of the desired knowledge.

4. Reusing artifacts archived across the common dimensions of ontology (to determine similarity of an artifact to the current situation).

5. The ontologies that facilitate collaboration either by defining a common language or by facilitating the identification of the appropriate extent of a common language.
The use of an active, context sensitive knowledge management system could be a fundamental sub-system of an “agreed” regeneration system, which pro-actively pushes information to actors according to the tasks in hand in their own context (Abecker et al 1998). The overall goal would then be to provide individual information relevant to needs.

Although knowledge based systems and approaches have its limitations such as in the use of formalized abstractions (irrelevance) inflexibility (time), partiality (topic), diversity (user), procedures (standards slowing down processes) context (self) it also has potential for smarter working. Knowledge management in regeneration could formalize only knowledge that produces stability (Buckingham & Shum 1998) or such specialized formal representations, which are possible for well-defined tasks (Shipman & Marshall 1999).

At the national level, the current challenge to regeneration network governance is perhaps the most striking outcome of the past 25 years of place-based regeneration. Networks can be efficient but they can also be undemocratic, lacking transparency and accountability. There is no reason why governance accreditation could not translate to roles involving the examination of area-based change.

The Vibrant and Viable places program has already created a network model of governance. Network theorists argue that governance networks are a way of responding to complexity and wicked societal problems and may be the only viable way of decision-making in a situation with fragmented resources and many interdependent actors (Koppenjon & Klyn 2004). Sorensen & Torfing (2005) usefully define the key elements of network governance co-ordination and contributions as;

“A relatively stable articulation of public purpose by interdependent, but operationally autonomous actors, interacting through negotiations, within a normative, cognitive and imaginary self-regulatory framework within limits set by external agencies”

The governance questions of assurance, democracy and efficiency can be identified in the study recommendations in Volume 1 with systems solutions. Incompatibility can be resolved by a set of common and explicit rules to enable actors to become more complementary, transitional arrangements to enable elected politicians to design their involvement in real time practice removing the temptation in network forms to create their own instrumental forums.
The knowledge of “democratic anchorage” (Sorensen & Torfing 2005) can be determined by an understanding of system norms rules as rules. Commonly accepted democratic standards re-articulated and re-considered systemically as:

- The inclusion of all relevant and affected actors and democratically elected politicians
- The construction of open-ended policy discourse
- Democratic deliberation based on voice to exit i.e. the possibility to agree to disagree
- Transparency about the terms of debate
- Government improving the future system

Sorensen and Torfing 2005

At the local level a process model for good governance and neutral challenge to decision making could avoid as far as possible inefficiency and ineffectiveness being further developed. A good governance example in of process modelling is found in community housing organizations (Community Housing Cymru 2014). Although there may be resistance to this idea this could be replicated to networked regeneration organizations involved in systematic regeneration.

The recommendations in Volume 1 of this study involving local and national standing conferences can facilitate Welsh Government citizen-centered governance principles; putting the citizen first, knowing who does what and why, engaging with others, living public service values, fostering innovative delivery, being a learning organization, and achieving value for money. It starts with knowledge of process and ought to lead to making better decisions.

5.6 Making Better Decisions

With competing local plans or interests, which need comparison and choice by elected local area representatives, a common system employed to score each competing program or project would be to score on the basis of meeting a desiderata; excellently, well, adequately or not at all. Weighted scores are summed with evidence declared, producing a transparent quantified and qualified index of benefits.
A financial appraisal of cost effectiveness and benefits often makes up the beginnings of analysis, which together with a logic model analysis creates a decision-making process and plan ready for local and sometimes national scrutiny. In a competition for the allocation of resources a national scrutiny of local area regeneration designs for funding support and the potential allocation of financial resources ought to then transparently follow the same desiderata model. The replacement of the word local with national would suffice in any commonly agreed system description in making better decisions. Financial and monitoring decision makers need very good information and a precise specification of regeneration activity against which to compare. The value of knowledge reflects the cost of poor knowledge.

The usefulness of information in area-based regeneration must be evaluated in relation to the purpose to be served. The better choice of information is the one that, subject to the constraints associated with cost/benefit comparisons and consistency, produces from among the available alternatives information that is most useful for decision making. Allocating resources and objectives that are orientated towards stewardship in area-based regeneration are always concerned with decisions.

Allocating resources is dealt with specifically in Volumes 1 and 2 in this study in view of its systemic importance in the field. Stewardship deals with efficiency, effectiveness and the integrity of the steward (The Financial Accounting Standards Board Statement of Concepts 1980) To say that stewardship reporting is an aspect of decision-making role is simply to say that its purpose is to guide actions that may need to be taken in relation to the steward or in relation to the activity that is being monitored. In VVP decision making in allocating resources and stewardship would be considered primary activities.

Knowledge in action can and should be evaluated by the actions and decisions to which it leads. At the local level regeneration successes and failures ought to depend on knowing which things you need, which things you have and which things you can and can’t do without, to do what is required. It ought not to depend on who you know or freedom of information requests. Better systemic knowledge can lead for example to measurable efficiencies and the reduction of variability. It can be used to make wiser decisions about strategy, in public value, for individual places.
In VVP insufficient information was made available to support effective decision-making initially resulting in missed opportunity cost possibilities. A key assumption here is that the highest level of learning results when mistakes are made and acknowledged. Separating things that happen in learning from career-evaluation processes makes a lot of sense, but only if the culture allows.

The Financial Accounting Standards Board Statement of Concepts (1980) is the accounting industry standard in respect of quality information required for decision-making usefulness. It states that the primary qualitative characteristics of accounting information most important to decision making are relevance and reliability. Understanding ability means that users must understand the information within the context of the decisions being made.

The purposeful reporting objective of area based regeneration information ought to be to provide comprehensible information to those who have a reasonable understanding of area based regeneration or who wish to learn its parameters. This is a user-specific quality because users will differ in their ability to comprehend any set of information.

The political and organizational culture associated with area-based regeneration identifies with organizations where separated learning is highly unlikely. Critical decisions in the field rest with Ministers and Council Leaders who would benefit from greater decision making assurance. A systemic approach here in desiderata terms and outlined in Volume 1 of this study would seem therefore to have many benefits to recommend it.

In this project’s findings it is argued that systems based information ought to be based on norms, influences and values. It could be particularly useful to actors in how to use and develop knowledge and in making better decisions because it can be relevant, reliable and understandable.

In an expert knowledge-based system, systems information ought to be relevant due to its predictive value, its feedback value and its timeliness. In terms of reliability, when subject to neutral governance challenges, verifiability and representational faithfulness ought also to be present to assist with effective management.
In respect of relevance and norms for example; If the requisite activity norm is not based on informed analysis and a thorough examination of relevant priorities, then (as with some VVP projects) the norm can be reconsidered in the light of challenge or else resources not wasted. This predictive ability would be considered central to the quality argument in predicting outputs and outcomes and in opportunity cost considerations in short term funding scenarios as with central government funding provision.

If project viability, enhanced co-operation or deliverability norms become an issue (as in VVP) then alternatives can be brought forward in a timely manner or else resources not wasted. This predictive ability is also central to the quality argument in predicting outputs and outcomes and in opportunity cost considerations in short term funding scenarios as with central government funding provision.

In respect of reliability and influence, for example; If program or project monitoring information is not verifiable or representationally faithful among different measurers then greater specialisms and/or expertise or influences can be introduced to the problem context or else objectives may not be realized. Representational faithfulness is a known issue when there is little agreement between a measure and the real world phenomenon that the measure is supposed to represent (an acknowledged problem with some aspects of VVP).

If an assumption of neutral challenge by governance arrangements with respect to those potentially affected by regeneration interventions is not met in practice and evidenced by reliable information then there can be no guarantee of norms not favoring any particular self-interest. Neutrality is of particular importance in area-based regeneration or else often-unfounded accusations can materialize. Although regeneration influences should not favor any self-interest, it is a difficult task not to be perceived as such (as in some aspects of VVP) in the absence of neutrality.

If a system of decision-making in resource allocation and stewardship reporting is to be credible then there must be public confidence that the normative and influence setting system is credible. In program and project implementation the selection of knowledgeable board members ought to be based on merit and not the influence of special interests.
The setting of norms being developed neutrally with the objective of relevant and reliable information, which can develop into knowledge,” not purposeful manipulation” (Kirk 1986) is the subject of the principal recommendation in Volume 1 Chapter 4 of this project. The “compressed knowledge” (Claassen 2014) of current regeneration experts in terms of systemic capability and capacity development is discussed in the section that follows. The place to start is with high-value knowledge to enable better decision-making. There is little doubt a difficulty could be in getting help from organizational departments with a tendency to resist sharing knowledge from existing resource.

5.7 Developing Capability and Capacity

In Volume 1 Chapter 4 of this study an idealized approach to regeneration Administration in Wales prescribes through norms, influences and values a list of capabilities for a developing system, where Government has decided to think again about the public value of regeneration to Wales. The question raised here would be whether capabilities and capacities would be able to respond adequately in the promotion of the stated functions.

In any expansion of regeneration influence across the board a harder intervention in terms of improved capacity and capabilities would then need to consider capability training, support and participation (Claassen 2014). Whether in considering adequacy; the absence of a capacity, ongoing practice was required in participation, (in which a certain number of people participate to a certain extent), it was acceptable to surrender capacity as of little consequence (Claassen 2014), would be key considerations.

In a longer-term regeneration system a paternalistic approach would be justified to achieve a structurally functional approach as “at some appropriate threshold level a system could fall short of a minimum account of a fully ethical (and knowledgeable) functioning system” (Claassen 2014). Although a realization of all the capability norms in the logic model in Volume 1 may of course not be achievable immediately the most important ones relevant to a local area would be a first concentration. Indeed, perhaps only a part approach in many local areas may be necessary.
The idea of a paternalistic approach may appeal to political and actor endorsement but only “if the concept does not aim at directly producing people who function in certain ways. It should aim instead at producing people who are capable of functioning in these ways, who have both the training and resources, so to function, should they chose. The choice is left to them” (Nussbaum 2011, Sen 1993).

An emphasis on capabilities as a relevant source of normative requirements was not entirely evident in VVP; however this is not the case in other local area regeneration programs such as Oxfam Lift, where local skill sets are considered prior to investment decisions and the allocation of resources. Across the regeneration normative agenda a further “standard move” (Claassen 2014) would respect a greater pluralism (Nussbaum 2011) in the field aimed at broader objectives.

Informed choices of support were demonstrated in VVP in specific output categories and support provided by CREW and others although sometimes in the absence of a reasoned wholeness with cross-linkages to other necessary capabilities such as those involved with inputs and processes. The absence of certain functions in VVP pointed to “subtle obstacles” (Claassen 2014) to the capability in question.

Enterprise development for example in VVP was a function undoubtedly needed but was generally not a focus of choice and can be concluded from an absence of function to an absence of joining up and capability. Judged problematic in practice, a situation of involuntary capability surrender was clearly evident by the non-involvement of a required operational department support - despite a “whole government” cabinet approved approach.

In a longer-term system, training would be necessary but perhaps only for a limited time. It should however be bespoke to local need and structurally regularized to avoid waste. A system for regeneration in Wales should be capable of judging when a structural function is vital to the realization of local benefits needing capability support. An absence of capability and capacity undoubtedly causes waste and ineffective interventions and will if not standardized over a long period of regeneration activity of not only effective but also ineffective behavior.
For local areas the extensiveness and thresholds of capability and capacity ought to be known in delivering structural regeneration. The extent to which results based accountability (RBA) by departments and individuals is a reality can only be determined transparently where actors accept a collective responsibility to place. A conscious choice would then have been made to work in the system to deliver a certain function.

The promotion of structural functions in a systemic view and in the arête model in this project would however not necessarily mean automatic realization of functions as a result of a paternalistic approach. It would not be logical to promote structural functions without promoting capabilities and the realization of functions and norms through capabilities.

Regeneration of local areas describes a situation in which ambition, capability and capacity can be seen as main drivers of change. Making available capacity and capability through participation in which at least a certain number of requisite actors participate to a certain extent would be an arête knowledge based behavior.

Conversely any arête decision-making system that did not arouse sufficient levels of participation would undoubtedly be in danger of collapsing (Claassen 2014). There is always an interest in the activities involved in regeneration in Wales and those involved and affected by regeneration plans should be able to acknowledge the capabilities required for structural functioning. Otherwise, with attribution as a critical problem, how will the part played by actors ever be attributed to progressive successes or failures?

**Progressive Value in a Systems View**

**5.8 Realizing Practice Norms**

Co-defining norms such as those identified in Volume 1 can help certify that policy and practice actors in the value chain adhere to norms in order to produce a sustainable product (Fransen & Kolk 2007, Wijen & Ansari 2007). They can be seen in the VVP contribution and comparison with an arête logic view in variation, transmission and selection (Boons 2009).
Variations were encountered in VVP for example in comparison with the input process and output norms associated with arête goals, which required significant adaptation to resolve. Variations meant that deviations from these norms and practices, in the way that regeneration actors behaved and organized themselves were able to be identified in practice leading to issue resolutions.

How a particular practice, rule or principle was transmitted between national and local organizations in VVP meant that transmission of VVP norms was sometimes based on isolated practices and perhaps on too many occasions. In the regeneration context once norms are transmitted, practices can get more or less integrated which then promotes more or less retention of these practices.

Where VVP was based on a part-only selection of normative practice, it was left to the devices of each local regeneration organization to select the norms it wanted to reflect normative practice. Selection in this context meant that certain norms rather than others were adopted in particular areas but also that norms became similar on certain dimensions to ease producer adoption.

In VVP the evidence of competing or multiple normative practices across regeneration local authority areas sometimes did little for mutual confidence in a national context for sustainable and measurable area based regeneration. In the Welsh Local Government Association (WLGA) however, the representative organization for local authority regeneration organizations in Wales, the vehicle existed for converging normative practice positively offering a co-evolutionary opportunity.

While the development opportunity was timely in tackling the processes of selection, transmission and the reduction of variation in area-based regeneration, the WLGA, with its geographical and institutional membership, would have involved multiple actors in the discussion and adoption of normative practices and processes to aid the move from member competition to a modular, singular, yet flexible operational practice. They were unable nevertheless to go as far as to assure higher level norms and strategic standards over the longer.
The WLGA is seen by many as having a particularly important role in area based regeneration in Wales to help with a gradual development of standards over time. Whole system delivery standards based on norms, influences and values in a sustainable regeneration system in Volume 1 in this project in an abstract form is a first system orientation. Challenging the mak-up of elements is positively encouraged from actors and professionals in the field.

However, until necessary conversations occur analogical transfer may help to better understand how standards can be realized and how problems can be encountered. Analogies can be highly effective tools for coping with significant change and innovation (Bingham & Kahl 2013) and when used appropriately can help people make sense of comparable opportunities.

The analogous performance management of head-teachers in Wales for example, based on the statutory use of professional leadership standards, is conceptually similar to that of regeneration leadership. In raising education leadership standards in Wales a guidance document states, “the overall purpose of the professional standards is to raise the standards of (teaching/regeneration) practitioners and to improve (learners/place) outcomes throughout Wales”. In this example reading regeneration for teaching and place for learners would be self-explanatory and loose no sense in meaning.

If there were to be a similar regeneration guidance document continuing the comparison could see the professional standards articulate “the understanding, knowledge and values that our professionals in Wales must demonstrate”.

The standards ought to “provide a framework to enable practitioners to identify their performance objectives and to choose the most appropriate professional development activities” “All practitioners would be able to use the standards to help them identify and develop leadership skills relevant to the particular stage of their career and to their current role and responsibilities”

Benchmarking standards from norms specifically designed to raise standards and expectations is however not as easy as it sounds. The realization of professional standards even in high profile public service such as education, and even where practitioners agree standards, is subject to significant difficulties.
Education professionals in Wales for example agreed their own standards in 2011. In a report by Estyn in September 2015, whose purpose is to inspect quality and standards in professional education, there are pointers to the problems of realization of norms. In the following paraphrased findings of the Estyn report it is reported inter alia that (my emphasis in *italics*);

- While there is good attention paid to what is to be achieved (the performance management objectives) in most cases only a very few reflect fully in writing on “how” the objectives should be achieved – applying agreed standards.

- Very few *decision-making* panels use the standards effectively to evaluate performance. Governors should obtain in writing reflections on how *leaders such as SRO’s* have led in the previous *period*. This would enable the governance arrangements to gain a more rounded understanding of professional working during the *period*.

- In nearly all *situations practitioners* identify their own professional development needs accurately in relation to their performance management objectives. However most report that finding suitable continuous professional development is time consuming and guaranteeing the quality difficult.

- *Distributed leadership in a network* is not planned well. Leaders who remain in the same leadership role for a long time do not always see the need to progress to higher leadership roles or to further develop their own leadership skills and knowledge.

- Only a few leaders challenge themselves or their colleagues effectively enough.

- There are too many standards overall to be useful (61 noted) while the key themes of the standards established by Welsh Government in 2011 remain mostly relevant.

The argument in Volume 1 is that the development and implementation of voluntary sustainable regeneration standards should be developed from norms, influences and values within a higher level regeneration structure, building upon disciplines established in VVP as the optimum policy for people living in the most disadvantaged places in Wales.
What a regeneration practitioner and policy maker should be expected to know or ought to know at all career stages and especially at the early stage in a career should begin with norms (and then influences, longitudinal, coherent and flexible standards) that are suggested generally go beyond current core competencies (Weaver 2002) capacities and capabilities.

The national context in Wales may be about to change further as a result of greater requirements for change from local government either locally or regionally. The Well Being of Future Generations Act makes operational change in new ways of working necessary. Normative practice will then play a critical and progressive role.

The arête concept in Volume 1 is a starting point for discussion of norms and influences. The evidence of standards in comparison with arête norms and influences has suggested variation and transmission issues that affect delivery and value criteria. National norms are currently only temporary requirements pending the receipt of funding availability. After norms, influence would be the next topic of concern.

5.9 Revealing Policy Influences

In order to attract Welsh Government funding, local government was required in VVP to take the lead in preparing and submitting programs bids for scrutiny. By the nature of a competitive bid process VVP had an explicit program selection mechanism, but not a great deal of time to allow for citizen communication (Agger & Larson 2009), and therefore was seen by some as favoring those areas “in the know” with resources for involvement.

Written sometimes by local authority officers with employing organization duties of care or consultants employed by local authorities with contractual responsibilities to their organizational client, the authors will have had the power to include and exclude issues and problems, as they felt appropriate (Greenleigh and Blakely 2013). If elements were not considered politically appropriate they may have been excluded.

There was sometimes a political selection of neighborhoods or local areas to target for intervention, within perhaps a longer-term plan for a wider area, but also sometimes a vanity project or a project to limit a political organizations maintenance liability. Vital decisions taken in the final days before bid submissions would have been pragmatically necessary.
It was positive in VVP that work was done to bring forward urgent concepts within the time frame of competitive bidding frameworks. It was negative nonetheless in that it some cases in the efficiency argument being undermined by accusations of a lack of participation, involvement and legitimacy. If it is helpful to see participation as a site of complex interaction between organizations of government and civil society within which ideology will influence behavior and choice, then systemically “a shared understanding of the ways in which bureaucracy networks can include communities needs to be better understood” (Muir 2004).

Unclear policy influences, roles and responsibilities are clear factors to citizens in local areas subject to regeneration interventions, which can hinder the effective representation of local interests and can sometimes create a climate of distrust (Greenleigh and Blakely 2013).. To encourage participation in area-based regeneration as a way of ensuring that government controlled programs are legitimized by civil society, the intention of national regeneration governance ought to be to build an understanding of expectancy at a local level.

This can involve a deeper understanding by citizens of the relationship between economic, social and environmental change and the patterns of policy governance alongside practice implementation processes, but only if the most important influences on norms, the nature of local need, delivery relationships, intervention possibilities and constraints (Volume 1 recommendations) are subject to regular communication.

Contributors to regeneration in any one local area should expect to be looked at, both at the level of national and local governance, including ALL contributing government departments, and at the level of a participating community. It is no use having dozens or even hundreds of government department business plans without communicating how they will impact on any one disadvantaged area. A combination of structurally controlled visibility and a standardization of multiple regeneration techniques alongside concrete operations would perhaps not so much be a visioning structure as much an ordering structure for sorting and arranging intervention categories and actors so that they can be seen and understood.
“Perhaps attenuated, dispersed and mediated through communication technologies”, perhaps through conferences in co-optic forms. “Partitioning space and ordering temporal relations, linking operations to the forms of discursive knowledge, which direct the gaze and give (regeneration) its object” (Simon 2012). The co-optic metaphor in a systems view can be seen as significantly adding value to the development of bespoke place based regeneration solutions in a number of ways.

The interface, technological or physical, facilitates interaction and collaboration among users, revealing policy influences for any one unequal area. In order for the metaphor to work there must be a genuine desire to conform rather than pretending to conform. However, this does not mean forcing contribution.

In a co-optic structure community empowerment can include the delivery of technical support to community actors who are participating members within the local partnership structures (Adamson 2010) by greater purposeful participation including enabling stronger influence over national government departments and in seeking to bend mainstream programs.

The partnership structure of a co-optic model means that; “the structure of policy must carefully delineate the roles of statutory agencies within the forms of partnerships established to achieve the policy” (Adamson 2010). An understanding of normative practice requirements and influences would support the bespoke training and support requirements of purposeful citizens participating and responding to the needs of the specific community. Non-prescription of rules and responsibilities at this level provides an opening for evasion and avoidance of the policy objectives and institutional resistance often caused by organizational inertia.

In the field of area-based regeneration whole system collective results based accountability (RBA) in any one geographical area cannot be seen as becoming a reality without an agreed structure. Problems are complex and solutions never straightforward. Clear communication and transparency among all actors involved (Meinama 2000), and an integrated approach among the many involved professionals and non-professionals is necessary for successful interventions.
Problems have to be defined collectively and have to be responsibly addressed as such. To do so, all those involved need to understand each other and develop mutual trust. A normative and influence narrative in the arête abstract concept that encompasses the different and often conflicting meanings that individuals attach to their areas can begin to provide such a shared frame of reference.

Concerning what constitutes a problem and what constitutes a solution, means how to do as well as what do and when to do. A fall back to the delivery of one-dimensional urban regeneration interventions (VVP 2?) and goals need not be the only way to see regeneration. Strategic rather than operational goals ought to mean making more professionals from the communities themselves.

Exclusion of some sort takes place in every regeneration program or project. Whether deliberate to make processes run more productively rather than being blocked by endless consensus seeking debates or excessive conflicts or discursive exclusion, excluding issues and thereby only indirectly people. Exclusion through non-structural control can lead to unevenly distributed resources and further disadvantaged minorities (Agger & Larsen 2009).

Structural solutions, the subject of the thesis in Volume 1, can transparently demonstrate the subject of choices, of techniques and involvement methods as part of shaping the nature of inclusive participatory and democratic processes. Citizen participation is essential for the success of programs of intervention in area based regeneration rejecting poor policies, questioning policy contents referring serious disagreements on to political leadership would benefit from new rules of engagement as a framework to report progress.

5.10 Recognizing Failure Risks

In an actor-network funding model VVP was eventually able to offer all bidders only a percentage of program level funding. Promising and demanding regeneration outputs and outcomes without sufficient resources needed to deliver those outputs in some case would then meant that some regeneration organizations were unable to deliver against planned outcomes.
In situations where political promises are made actors can come under considerable political pressure to irrationally deliver the undeliverable, a consequential waste of time and resource. A desired performance not achieved with much embarrassment, resulting in the inevitable game of blame attribution.

When many small issue decisions are required but are made at levels well above a reasonably required level of delegated authority, decision fatigue can become commonplace. When replacing responsible professional and technical competence is evident and no one questions decision making as a problem, pressing up the line is an eventual result, as a protection to reputational failure and conflict.

When output peaks after the end of an actor-network model, short run program managers can try to confirm earlier promises made and occasionally by any means. As problems get passed up the line for senior management to resolve, the results of earlier decisions to prefer one intervention action over another become far more important, amongst frantic attempts to save face and reputation.

In VVP financial performance management dominated nationally over place centered strategy development to such a degree that development management was under developed, neglected or ignored. Not recognizing failure in development management would deny actors the flexibility to move into needed areas of regeneration activity with decisions to do more of the same or cutting back being the only other options. Setting a strategy with easily achievable targets would be the easy way for local area regeneration management to gain favor.

Easy solutions can become an input parameter, not an output of a cohesive strategy, with results invisible until it is too late change. Where ambition is restricted given the nature of interventions preferred, greater co-ordination across the wider definitions of regeneration would be limited in influencing necessary change.

In terms of governance decisions taken in silos, means the process of seeing failure in a project as opposed to a program level. Straight-line expansion when things are going well–cutting back when not. A stop-start process in the new rules of engagement associated with VVP would be likely to create planning uncertainty, with a potential developing culture of under-resourcing in deploying actor resources.
In the absence of a long-term model to rely upon, disruption as a result of program discontinuity would mean the construction of an actor-network funding model without a long term plan, giving the appearance of not knowing what to do in the future, based on what works; in the design phase, in the decision making phase and in the compliant execution phase. In restorative and adaptability actions, when plans fail, and in many cases for reasons beyond the control of regeneration actors, confidence in operation and planning certainty then becomes fundamental in the promotion and transparency of operation.

The intent in the arête recommendations in Volume 1 would be to establish a longer-term basis for the far greater integration of expertise in the field than currently exists, facilitating the development of disciplines aimed at responding directly yet flexibly to the needs of individual unequal places.

With the challenged acceptance of the principles of arête ness, the abstract model recommendations in Volume 1 if implemented ought to be able to help in terms of recognizing failure risk through a pluralistic, results orientated policy design, with innovative local strategies aimed specifically at effectiveness.

The intention recommends possibilities involved with improving effectiveness and efficiency and responds to challenges that require response to problems and failure risks associated with complexity, attribution, lack of knowledge or comprehension of policy and practice standards, a lack of ability or willingness to comply with standards, potential failures of local strategy and decision making.

The recommendations are pluralistic in nature and open up possibility space for new ideas and distributed leadership, the enhancement of roles for local communities and markets.

The tools within the abstract model can be cost effectively used for continuous results orientated management (RBA) in a more integrated whole system form than currently exists, ex-post evaluation, monitoring delivery trends in support of current accountability reporting and the improvement of ex-ante evaluation and impact analysis. The evidence supporting the model recommendations point to how regeneration system parts ought to connect together to serve better the unequal places of Wales.
The work can be seen to build on the actor-network model established in current regeneration policy and practice. However, relying solely on an actor-network model alone would demonstrate inherent risks of failure, and a number have been earlier identified. In the current context potential problems in a stop-start program can be addressed in a systems view where a higher-level structure is available as a result of:

- National political and local leadership being able to rely on a shared intuition base, a better description of work in the field. Faced with multi-faceted regeneration problems in the collection of necessary research and the development of evidence leadership would have available a fallback to known goal responses to justify actions thus making more sense of their involvement.

- Leadership continuing to reject oscillation between bottom-up decision making and top-down central control a result of whatever the last program did or did not achieve through initiatives to devolve authority as far as possible.

- Central control through preference of regeneration functions denying local managers the autonomy they need to creatively deliver the best solutions for their area being more able to respond effectively to areas of greatest need.

- Reducing micro-management of operational problems, allowing professional managers to develop strategy. Without the fear of a loss of national control of the “situation” local management can relax requests for repeated information and reports, strengthening local management’s ability to deal with real problems.

- Strategic significance being gained as a result of dis-associating regeneration excellence at a higher level with resource availability, whilst the making resource availability more effective by increasing further the influence of regeneration thinking.

- The non-re-learning of lessons because of variation in common procedures that should be seen more fully as the co-ordination issue and the success measure of an intelligence function, learning about strategic issues in the environment.

Adapted from Chapman 2004 (Demos)
The structure in arête ness in the recommendations in Volume 1 provides an opportunity for discussions about doing the right things at the right time, within the constraints of resource, yet within a stability and growth framework, and in a transparent, integrated and inclusive way. Yet is only a starting point for debate.

An actor-network finance model contributing to a higher-level structural function could support the reduction of; the areas of regeneration organization where recognizing failure risk is not managed, and suggests there could be greater control of making regeneration more effective. The argument here then is that things could change further in area based regeneration and for the better.

The current actor-network model in isolation will not address the needs of the many unequal places in Wales needing long term attention. A higher-level arête model ought to be part of the establishment of any purposeful regeneration governance structure going forward in providing modern assurance. Recognizing failure risk ought to begin with structure as structure influences behavior. In Appendix 1 in the opportunity associated with the Valleys Taskforce this is where such an application can now be demonstrated.
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