

SPATIAL INNOVATION IN
TASMANIA:
Constructing Advantage through
Regional Development Platform
Methods (RDPM)

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Spatial Innovation in Tasmania
Constructing Advantage through Regional Development Platform Methods (RDPM)

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Introduction

Unlocking the nature of the spatial, place-based innovation in Tasmania is the key to developing a policy strategy that is grounded in contemporary regional science perspectives on regional innovation systems (RIS) and how they can be *constructed* in small sub-national peripheral economies, such as Tasmania.

Why apply a spatial dimension to the dynamics of innovation in Tasmania?

Small sub-national peripheral economies are often prone to succumbing to a range of policy myths about the role and nature of innovation in their economies. These include the myths that innovation is linear and driven by scientific research; only occurs in knowledge based industries, not old traditional industries; is the only driver of economic growth; means new technologies; is successful only if it creates new products; is about ‘picking winners’, ‘building fields of dreams’ or becoming the next Silicon Valley (Bourgeois and LeBlanc, 2003: 133-145).

Regional science as a multi-disciplinary approach provides the theory and policy tools to unlock the spatial dynamics of innovation at a regional or local level: New Regionalism.

New Regionalism provides a theoretical foundation for the identification and analysis of regional innovation systems (RIS). Regional development platform methods (RDPM) provide the methodological approach to place-based innovation policy development and implementation.

New Regionalism examines the changing political and socio-economic conditions present in sub-national peripheral economies – rural and regional – within the context of globalisation and the knowledge economy (Cooke and Morgan, 1998; Cooke, 2001, 2004; OECD, 2001; Lambooy, 2000, 2004, 2006; Boekema et al, 2000; Brenner, 2003; Rainnie and Grant, 2005; Held and McGrew, 2003; MacLeod, 2001; Wheeler, 2002; Rutten, 2005).

New Regionalism provides the theoretical foundation for place-based spatial innovation policy development through an analysis of learning and innovation as drivers of economic growth; the importance of locally bound social relations and networks in enterprise knowledge diffusion and; institutional design for regional governance as

a means to promote local sustainable development (Amin, 1999; Beer and Maude, 2005; Lambooy, 2005; Smyth, Reddel and Jones, 2004; Boekema et al, 2000).

This approach is perfectly summarised by Philip Cooke's evocation (2007) that for RIS to be successful, it is critical 'to first build policy platforms'.

This Chapter will outline the role of regional science and RIS in analysing place-based innovation in Tasmania and building the platforms for sectoral innovation through application of RDPM approaches.

The Chapter locates the Tasmanian Innovation Strategy within contemporary regional science literature. This literature supports the essential elements of the strategy and its focus on agri-food as an RIS – the 21st century hydro-industrialisation sustainable development platform - supported by: collaborative knowledge management 'hubs' that promote innovation as a public good; new policy platforms; new products, new processes and new business models; enterprise innovation that is decentralised geographically, socially decentralised, economically decentralised and competitive.

Within the Tasmanian Innovation Strategy the agri-food sector has the capacity to add-value to its existing comparative advantage in climate, soils, expertise and products and build a platform of sustainable *competitive* advantage by moving from commodity-based production to niche market products; low price, high volume to high price, premium products; market ignorance to market intelligence and; a production focus to a consumption focus (McCall, 2005).

The Region as a Locus of Innovation

New Regionalism provides us with a set of innovative ideas that will address what economic geographer Michael Storper (1997, 2002) argues is the most significant challenge for regional economies in a globalised economy: if one of the winners from globalisation is to be *the local* what might the local response look like at a regional level?

There is growing empirical evidence that, in many cases, parts of learning process and knowledge are highly localised (Geenhuizen and Nijkamp, 2000; Dunning, 2002; Lundvall, 1994; Mackinnon et al, 2002; OECD, 2001).

A number of theoretical considerations highlight the linkages between regional development theory and innovation.

Firstly, innovation occurs in an institutional, political and social context (OECD, 2001, 2004). This extends the linear notion of innovation as a technical process. Innovation in this literature is seen as being fundamentally a geographical process where innovation capabilities are being sustained through regional communities that share common knowledge bases (Morgan, 2004).

Innovative activity of firms is based on localised resources such as a specialised labour market and labour force, subcontractor and supplier systems, local learning processes and spillover effects, local traditions for co-operations and entrepreneurial attitude, supporting agencies and organisations and the presence of customers and users (OECD, 2004).

Secondly, innovation can be thought of as embedded in social relationships (Rutten, 2004; Grabner, 1993; Granovetter, 1985). These social relationships develop over time in and along culturally determined lines. The regional context establishes the set of rules, conventions and norms that prescribe behavioural roles and shape expectations. These rules are derived from economic and socio-cultural factors such as routines, shared values, norms and trust that facilitate localised interactions and mutual understanding in the process of transmitting information and exchanging knowledge (Rutten and Boekema, 2005).

The strength of the local learning system depends greatly on an array of intangible assets. These include the internal dynamic of the regional, socio-cultural and political assets; the flow of knowledge between different parties generating the bulk of territorialised externalities; and the opportunities for the region to build and keep its distinctive competence (OECD, 2001).

How a region develops, promotes and establishes a collaborative framework to enhance scale and capacity is a critical issue for regions confronting challenges to their well-being.

The existence of social capital - that is derived from a set of social relations, norms, values and interaction in the region - helps to overcome market failures or reduce market costs for firms in densely related networks, by supporting stable and reciprocal exchange relationships between them.

Thirdly, innovation occurs more readily when geographic concentration and proximity are present, and therefore regional clusters (Cooke, 2001, 2002) takes a crucial dimension in such processes.

A regional cluster is best understood as a group of firms in the same industry, or in closely related industries that are in close geographical proximity to each other is meant to include geographically concentrated industries including so-called 'industrial districts'. Clusters also include public institutions, government education institutions, and support services, with cluster boundaries defined by linkages and complementary ties across institutions and industries.

The general argument in relation to clusters is that a local industrial structure with many firms competing in the same industry or collaborating across related industries tends to trigger processes which create not only dynamism and flexibility in general, but also learning and innovation (Cooke, 2001,2002).

New Regionalism (Rainnie and Grant, 2005) suggests that the shape of the local response will be determined by three drivers: learning, knowledge diffusion and innovation. These drivers place a significant role around local governance.

Local governance (Eversole and Martin, 2005; Cooke, 2003; Morgan, 2004; OECD, 2004; Wood and Valler, 2004; Amin, 1999; Beer and Maude, 2003, 2005; Bellamy, et al, 2003) in the New Regionalism is strongly linked to notions of the 'Associational Economy', networking, embeddedness and 'Institutional Thickness', a nexus of applied social and human capital theory.

From National to Local Innovation Systems

One of the potential answers to Storper's (1997, 2002) provocative question is determined by the shape of local governance.

Two regional development policy approaches – incorporated in New Regionalism – help shape that response:

- Regional innovation systems (RIS);
- Constructing competitive advantage through Regional Development Platform Methods (RDPM).

Both of these policy responses recognise that the 21st century globalisation challenge for small, sub-national peripheral economies, such as Tasmania, is to move beyond a reliance on comparative advantage – climate, soils, natural resource and bio-regional assets – and add value to enterprise and service sector products that are *competitive* in a global market place. Much of that value-adding is secured through innovation.

Cooke (2007) argues that the salient lesson of RIS approaches in Europe – he was a key architect of that policy approach - was that national approaches failed or were flawed because they didn't and couldn't take into account the regional variations, needs and opportunities that need to be *constructed* at the local level by 'building the platforms for RIS first'.

RIS won't necessarily emerge from a competitive market-place, entrepreneurial activity or intervention by governments at national level. It needs to be place-based, shaped by local conditions, local knowledge and supported by a sound local governance structure.

RIS as a local innovation strategy is seen as a response to three challenges for regional communities:

- Increased intensity of international competitiveness in a globalising economy (Porter, 1990, 1998; Krugman, 1991);
- Apparent short-comings of traditional regional development models and policies (Beer, Maude and Pritchard, 2003; Beer et al, 2005; Eversole and Martin, 2005);
- The emergence of successful clusters of firms and industries in many regions around the world (Abe, 1998; Cooke, 2002; Cooke and Schall, 1997; Hassink, 1999, 2000).

The key argument supporting the emergence of RIS is that: firm-specific competencies and learning processes can lead to regional competitive advantages if they are based on localised capabilities such as specialised resources, skills, institutions and share of common social and cultural values (Cooke,2003, 2004; Boekema et al, 2000).

The cause and effect relationship between RIS and regional development is one where regional development ensues as competitiveness occurs in places where localised capabilities such as institutional endowment, built structures, knowledge and skills exist. This is in marked contrast to top-down command approaches; 'picking

winners' or; smoke-stack development or; 'build it and they will come, approaches'. RIS is essentially endogenous (local) in its focus.

Regional innovations systems (RIS) are a response to the regional development policy view in the 1990s that national innovation systems were not necessarily successful in addressing the challenge of competitiveness in a period of globalisation (Nelson and Rosenberg, 1993; Freeman, 1995). National systems simply failed to take into account the dynamics of local, place-based economies and couldn't respond effectively to those local conditions, nor could the local economies connect to the national strategies.

Indeed, with the emergence of clusters as a local innovation system much of the emphasis on competitive advantage in innovation was predicated on the existence of regional and local innovation systems. Hence, the relationship saw local innovation systems being the basis for national competitive advantage, a significant shift in emphasis (Cooke and Morgan, 1998; Cooke, 2001, 2003).

In the 21st century governments in most advanced economies are promoting regional innovation and cluster-building policies as ways of boosting national competitiveness.

For enterprises to stay competitive they have to restructure their business organisation, including their innovation activities and consumer and supplier relationships. Companies organise their production and innovation processes on a global scale, taking advantage of the specific resources of different territories.

Regions, especially when they have developed clusters and appropriate administrative machinery for supporting innovative enterprise, represent more meaningful communities of economic interest. Regions define genuine flows of economic activities and can take advantage of true linkages and synergies among economic actors. Regions have to seek competitive advantage by mobilising all their assets including institutional and government ones where these exist, or press for them where they do not.

RIS: The Concept of System

Cooke (2003:5) argues that: ‘...an innovation system is a social system, which means that innovations are the result of social interaction between economic actors. And it is an open system, which interacts with its environment.’

In a regional innovation system there is considerable research interest in the role of support institutions in knowledge production and innovation, focusing on a regional level. These institutions are shown to be crucial in assisting firms to meet knowledge, skills, financial and other needs that markets fail to provide.

One of the features of Regional Innovations Systems (RIS) that can be enhanced by an institutional approach is collective entrepreneurship. Regional governance approaches – implying an institutional approach – can promote collaborative practices amongst actors that may give regions distinctive trajectories in regional economic development (Cooke, 2001).

One of the assumptions of the RIS approach is that many innovative firms operate in regional networks, cooperating and interacting not only with other firms such as suppliers, clients and competitors, but also with research and technology resource organisations, innovation support agencies, venture capital funds, and local and regional government bodies (Cooke, 2004).

Innovation is a process that frequently benefits from the proximity of organisations that can trigger this process. Furthermore, local regional authorities, such as the Cradle Coast Authority, in north-west Tasmania, and Northern Tasmania Development, have an important role to play to support innovation processes by offering services and other mechanisms that augment the interlinkages between all these actors. These organisations form part of the local governance frameworks that can develop platforms for sectoral innovation at a local level.

Some components of RIS include: collective entrepreneurship, exploitation of social capital advantages where these exist and building networks where they do not, specialist, small-scale enterprise and innovation support systems, regional financing and investment vehicles and labour market adjustment services (Rutten, 2004).

RIS to be successful need to be locally embedded in the comparative advantage of regions so a competitive edge through the application of learning, knowledge diffusion and innovation can be added (Rutten and Boekema, 2005).

RIS: Definition

The concept is ubiquitous but usually is understood as a set of interacting private and public interests, formal institutions and other organisations that function according to organisational and institutional arrangements and relationships conducive to the generation, use and dissemination of knowledge (Cooke, 2003: 5).

RIS has a capacity to mount a swift regional response to global competitiveness threats in times of market instability by developing, supporting and promoting regional and local coherence, integration and associativeness among stakeholders, actors and institutions (Lundvall, 1992).

The significance of RIS lies in its capacity to provide the foundation, support and driver for the prioritisation of regional development strategic priorities at a local level by promoting collaboration around those priorities and fostering competition at the product and enterprise level in the region to meet the strategic priorities and goals that are developed within the RIS (Lundvall, 1992).

RIS produce pervasive and systemic effects that encourage firms within the region to develop specific forms of capital that is derived from social relations, norms, values and interaction within the community in order to reinforce regional innovative capability and competitiveness.

The social aspect of innovation refers to the potential for collective learning within a firm, even if it may be divided into sectors (R&D, production, marketing, commercialisation) as well as the external collaborations with other firms, knowledge providers, finances and training.

RIS is characterised by co-operation in innovation activity between firms and knowledge creating and diffusing organisations, such as universities, training organisations, R&D institutes, technology transfer agencies, and so forth, and the innovation-supportive culture that enables both firms and systems to evolve over time (Cooke, 2003).

RIS has the capacity to promote interactions between different innovative actors that (should) have good reasons to interact, such as interactions between firms and universities or research institutes, or between small start-up firms and larger (customer) firms.

Within place-based RIS, innovation is a localised social activity with significant linkages across the socio-economic spectrum of a region. These localised networks of tacit and codified knowledge diffusion are particularly evident in the agri-food sector in Tasmania (McCall, 2005).

Placed-based RIS approaches are popular because they provide a narrative on the intangible dimension of local economic development and the processes of knowledge circulation and learning at the seemingly more manageable regional scale. A simple rationale for the widespread adoption of this approach is that, from a policy perspective, it is much easier to manage economic policy at a local regional level rather than a national scale.

Comparative studies and individual 'snap-shots' of regions are the main methodological approach derived from RIS. Comparative studies enhance the view of RIS in different contexts and the differing approaches adopted. The study of individual RIS – linked to sectors where comparative advantage is identified, for example the existing agri-food sector in Tasmania - illustrates the unique characteristics of the institutional context and policy initiatives, and thus the context specificity of each case. Like regional development approaches, RIS must be endogenous to be effective and useful.

But, how would a place-based, local RIS be *constructed* in a small sub-national peripheral economy such as Tasmania? What would an RIS look like?

Regional Development Platform Methods (RDMP) is the first policy attempt to overcome the problem of identifying what an RIS would look like in reality.

Our own sense of an RIS is the enterprise outcome – by way of a high-value adding, niche market agri-food cluster such as wasabi, for example – that emerges as a future opportunity, either as new, or expanded, collaborative or

individual enterprise that emerges in order to respond to 'local opportunities' emerging from the integration of the 'local' into globalisation and its differentiation as a regional/local solution to a global challenge or opportunity.

In the case of Tasmania RIS opportunities exist in the manufacturing and agri-food sectors but RIS and their *competitive advantage* need to be *constructed* through the adoption of RDPM.

Constructing Advantage: RDPM

Cooke (2007) began to observe that the application of RIS across nation states –particularly in Europe - was increasingly looking like a 'one-size fits all' approach and at the same time economic geographers such as Storper (1997, 2002) were loudly claiming that 'the local was the winner in the globalisation challenge'. This view was supported by a range of orthodox economists, notably Krugman and Porter, but the key question remained: what would the 'local' RIS represented by local innovative governance look like?

Cooke (2007) argues that rather than construct another layer of innovation 'practice' around regional science by developing 'local innovation systems' the best approach would be to press the argument that the adoption of RIS in any region was not appropriate, indeed it was likely to be counterproductive. Cooke (2007) began to articulate the view that a new phase in the competitive context of globalisation had emerged that required not comparative, not competitive but *constructed* advantage.

Constructed advantage as advocated by Cooke cements a number of components of regional/local responses to the challenges and opportunities of globalisation in one approach that overcomes the propensity to adopt inappropriate RIS models into regions in the hope that the model would match up to the local conditions and drive productive capacity.

Cooke took the view that 'if the local was to be the winner' a careful and systematic approach - build the policy platform first, using RDPM - to the construction of competitive advantage needed to be established in order to answer two questions: what would the local governance response look like and how would we know an RIS if we came across one?

The answer to the latter question is resolved by the adoption and application of a regional development platform method (RDPM) to a local enterprise sector – such as agri-food – that exhibits existing comparative advantage. As localised RIS are problematic – see Cooke above – *constructed advantage* is the alternative policy approach, but the same outcome.

This requires some explanation.

RIS at a Local level: Cause and Effect?

One of the essential linkages in RIS platforms at a local level is the recognition of the critical importance of institutional frameworks for *constructed advantage* and their role in RDPM. Institutions remain central in emerging local governance frameworks that support RIS – in whatever shape they emerge.

How does one know an RIS if one sees one?

Again this problem/issue is now being approached through the emphasis on establishing RIS ‘platforms’ but it is significant that the research in this emerging area is being driven by the apparent links between RIS to ‘production structures’ and its relationship (embedded in) to an ‘institutional structure’. The ‘platform’ for RIS emerges from these two features together with the region, the actors, and the interactions and inter-relations that bind them together.

RIS and *Constructing Advantage*

Regional Innovations Systems (RIS) development, promote and support regional knowledge capabilities. Regional knowledge capabilities become structurally embedded by specific institutions that facilitate network interrelationships, supported – in some cases – by complex and sophisticated processes (digital) data exchanges or rely on tacit knowledge exchange within community, social and enterprise networks.

RIS emerge in response to a critical regional development issue/research question: how to configure a viable environment for stimulating individuals, organisations or regional economies to adopt new practices and continuously innovate?

The answer is to move beyond natural or comparative advantage (climate, location, resources) and to *construct* advantage.

The relationship between RIS and constructing advantage for a regional economy is a complex one.

Constructed Advantage

Constructed advantage becomes the foundation for the ‘new competitive advantage’ in regions.

Competitive advantage highlights regional development economics, the dynamic of which draws upon constructed advantage. This knowledge-based construction (Cooke, 2007: 187) requires interfacing development in various directions:

- Economy – regionalisation of economic development; ‘open systems’ inter-firm interactions; integration of knowledge generation and commercialisation; smart infrastructures; strong local and global business networks.
- Governance – multi-level governance of associational and stakeholder interests; strong policy-support for innovators; enhanced budgets for research; vision-led policy leadership; global positioning of local assets.
- Community and Culture – cosmopolitanism; sustainability; talented human capital; creative cultural environments; social tolerance.

In an adjustment of Cooke’s (2007) foundation work, these three foundations for constructed advantage give rise to a knowledge infrastructure.

The knowledge infrastructure (Cooke, 2007: 187) consists of universities, public sector research, intermediary agencies, professional consultancies, all being actively involved as structural puzzle-solving capacities, with commercial and public interest links to the market place – regionally and globally.

Constructed advantage ‘develops’ in regional economies that tend to possess ‘related variety’ (flow on effects and linkages through networks or clusters) in their economic structures.

This knowledge infrastructure is both complex and pertinent to constructing regional advantage. For example, in the agri-food sector it might activate Geographical Information System (GIS) based external knowledge to develop a model of ‘precision farming’ to determine seed and fertilizer requirements in accordance with micro-variations in natural soil humidity and fertility (Cooke, 2007: 191).

In this case, as with the broader application of knowledge infrastructure in constructing advantage, regional advantage accrues from the precision application of supportive inputs designed to optimize efficiency, while effective outcomes accrue from capabilities in rapid development of available technologies and capacity building in relation to knowledge development and diffusion.

Constructed advantage, according to Cooke (2007: 191) is concerned ‘fundamentally with the relational embedding of institutions that assist regions to evolve spatial knowledge domains’. These spatial knowledge domains tend to emerge from existing comparative advantage to form localised industrial clusters that specialise in one thing – for example in Tasmania, mining, agri-food production, or eco-tourism.

The significance of RIS and its link to constructing advantage is that RIS becomes the “switching” mechanism that enables *tacit knowledge* to be transformed systematically into *codified* and *commercializable knowledge* (Cooke, 2007: 191).

Constructed advantage has five assets: infrastructure; leadership; capital; people and; learning. As such constructed advantage is based on not only what one has but on what one thinks and does in a region. Knowledge becomes a central factor of production.

Constructed advantage becomes a process of building on and expanding social capital – skills, organisations and networks. Creating regional communities around constructed advantage is a full-on contact sport, not a dry policy

making exercise. The plan, programme develop and budget approach is replaced with a far more engaged approach around establishing a vision, management and monitoring strategy.

Three key points are critically important to understanding the notion of constructing advantage:

1. Intangible assets (ideas and knowledge, know-how, common-sense, trust and cooperation) so critical to constructing advantage are open to local construction – through encouragement, manipulation and sponsorship;
2. Local organisations and networks are of fundamental importance in marshalling a region's people and intangible asset;
3. Uniqueness of place is a critical part of emphasising the importance of knowledge, assets, history and institutions.

Replicating the organisational model of the cluster is fundamental to constructing advantage as the basis of a local/regional innovation system with appropriate and corresponding governance support.

Cooke's (2007) exultation that for RIS to emerge at local levels it was critical to 'first build policy platforms' created a methodological challenge for regional scientists. For the 'local to be the winner' in the globalisation challenge would require more than the adoption or adaption of recognisable RIS approaches, as had been the practice particularly in Europe.

'First build policy platforms' meant a number of things: it would be endogenous in its design and incorporate the central components of New Regionalism as a theory of regional development – innovation, place, knowledge, leadership and regional governance.

The application of a methodology that would 'first build policy platforms' would, in turn, give rise to a 'local' RIS that would be a tangible outcome of 'constructing advantage'.

How does constructed advantage work within RIS in regional and rural communities and economies?

The answer lies in the establishment of Regional Development Platform Methods (RDPM) as a *methodological* tool for regional innovation policy.

RDPM translates the theoretical components of New Regionalism into a practical and pragmatic tool for delivering real outcomes for regions, across social and human capital objectives, together with significant enhancement of enterprise opportunities. RDPM makes it possible to identify a place-based local RIS, and know what it looks like.

Regional Development Platform Methods (RDPM)

Regional Development Platform Methods (RDPM) construct localised RIS and this not only produces innovation at a product level but incorporates local governance as a foundation for innovation in the region at a business, community and institutional level (Harmaakorpi, Pekkarinen, 2003).

RDPM has its intellectual roots in evolutionary economics. The concept is closely related to a cluster. However RDPM refer to, and identify future clusters rather than describing present or past clusters (Harmaakorpi, Pekkarinen, 2003).

RDPM (Harmaakorpi, 2006) can be defined as regional resource configurations based on the past development trajectories but presenting the future potential to produce competitive advantage existing in the defined resource configurations.

The competitive advantage is based on the business potential of the actors working for the platform.

RDPM is often based on an industry, area of expertise or future mega-trend or combination of those. As such, RDPM becomes an institutional framework for innovative policy development and implementation of an RIS.

Agri-food in Tasmania is an existing sector, but not yet an innovation system. When *constructed advantage* has been applied through the adoption of RDPM approach the sector will move from its existing comparative advantage to a platform of sustainable competitive advantage.

An essential part of the method to establish an RDPM is the so-called core process thinking (Harmaakorpi, 2006; Pekkarinen and Harmaakorpi, 2006) which is designed to form the innovation networks, aiming at exploiting the business potentials emerging from the RDPM approach.

Phases of the RDPM

The RDPM consists of eight phases (Harmaakorpi, Pekkarinen, 2003):

1. Analysis of the changing techno-economic paradigm and/or benchmarking of mega-trend opportunities against enterprise capacity – shared vision and goals – for example innovative business models for the agri-food sector in Tasmania;
2. Background study of the industries and areas of expertise in the region – where does the industry currently stand: Statistical data sets, comparative analysis , Situation Report?
3. Establishment of expert panels – tacit knowledge, broad overview of sector, establish the basis for interactive visionary scenarios;
4. Assessment of future scenarios – mega-trends, turning challenges into opportunities – demography, climate change;
5. Definition of potential development platforms – what could work – industry sector combinations; scarcity of regional resources needs to be ‘quantified’ and responded to, what is scarce and assessment of ‘value’;
6. Conceptualisation of the RIS – design a process – shared understanding – roles and functions of actors, institutions etc;
7. Search of the core processes of the RIS – consolidate networks and actors; promotion of collective learning around the enterprise opportunities;
8. Definition of knowledge creation and management system: How will the project develop and how will it be managed?

RDPM provides the ‘business plan’ for a range of social/community enterprise organisations and more collaborative business models for existing operators.

Cooke's (2007) mantra in relation to RIS is a simple one: RIS is tricky so first design and build an appropriate policy platform, an RDPM.

Since RIS are defined as loose-actor networks composed on many different actors – firms, institutions, government agencies – particular attention must be given to the relationships in the networks.

How is it possible to create a trusting relationship/atmosphere in the network?

This requires the aspiration of building a common knowledge management system for the innovation network. This requirement is central to the objective of RDPM: to develop and conceptualise an innovation policy tool for designing and running regional innovation systems in order to increase sustainable regional competitiveness. This is the local governance 'institutional' challenge.

It becomes apparent in the literature review of RDPM as a design for knowledge management (Harmaakorpi and Pekkarinen, 2003) that the critical challenge to success lies in the ability to form creative social capital (Pekkarinen and Harmaakorpi, 2006) in the multi-focused networks that emerge in the RDPM.

Challenge of RDPM

RDPM (Harmaakorpi, 2006) is future-based and focused. Random innovation might occur in the present, to respond to a need, either market-based or ethical.

RDPM is not just about replication or adoption, it is about building on, existing resource configurations.

The challenge for RDPM is to convert knowledge – both explicit and tacit – into 'productive outcomes'. This is achieved within the knowledge management approach of RDPM where explicit knowledge is converted into tacit knowledge in a learning process that promotes, enhances and informs action and practice.

Designing a RDPM: Issues and Challenges?

Designing a RDPM in a small sub-national peripheral economy around the complexity of human and social capital challenges present in those regions is difficult and problematic. At the heart of this dilemma is the role of social capital in the design of RDPM.

Social capital in the context of RDPM (Pekkarinen and Harmaakorpi, 2006) needs to be viewed as a resource, embedded within, available through and derived from a network of relationships. The challenge for an RDPM is to achieve enterprise outcomes by tapping into the social capital but at the same time being fully aware of its limitations and its instability around the vital issues of trust and self-interest – at the commercial and personal level. RDPM implies a complex capacity to derive enterprise outcomes from three components of social capital present in existing and future enterprise networks. The three components are:

1. Relational dimension: friendships, respect and reputation;
2. Structural dimension: who you reach and how you reach them;
3. Cognitive dimension: shared values, interpretations, and systems of meaning.

These components share a common characteristic: they constitute some aspect of the social structure and they facilitate the actions of individuals within the network structure. A RDPM needs to tap into the complexity of those relationships and manage the outcomes of that discursive encounter in the process of achieving an enterprise outcome.

Whilst it is important to contextualise social capital as both positive (network endorses and embraces opportunity) and negative (lock-ins and resistance to change) in relation to innovation within an RDPM approach it is critical to understand how social capital can advance the outcomes of the RDPM approach?

Social capital can advance the prospects of RDPM by enhancing a series of complex relationships within the RDPM process. These include the capacity to enhance:

- Long-term outcomes over short-term self-interest;

- A common network identity that cultivates trust through demonstration;
- A reduction in transaction costs and level of uncertainty;
- Strategic planning into the future based on demonstrated opportunities and assistance to develop outputs to meet new demand in the market place;
- Leadership in the network by ‘licencing’ someone or an organisation to ‘access’ the social capital present in the network.

These are the challenges and opportunities within the design aspects of the RDPM and so they in turn require micro-planning across the 8 phases of the RDPM to ensure that the social-capital ‘eye on the ball’ mantra is present at all phases of the RDPM.

Designing RDPM: Knowledge Management

What are the critical components of knowledge management within the design of a RDPM?

The development and maintenance of trust in knowledge management within the RDPM is probably the single most important component of a successful RDPM.

Trust is a ‘wicked problem’ for an RDPM but if present can enhance the outcomes of the process by:

- Enhancing the productivity of the network by reducing uncertainty around who does what and how they do it;
- Reducing the transactions costs of being a member of the RDPM;
- Enhancing the co-ordination costs of the RDPM;
- Enhancing the amount and diversity of knowledge achievable by a member of the RDPM.

A critical design challenge is how to process and share knowledge within the RDPM. This requires complex management and data collection tools to support transparency. Whilst the 8 phase approach sets up a design structure it does little to assist in the micro-management component of the RDPM process.

The critical role played by the expert panel is to create or establish a vision for the project that in turn needs to be tested in the real world. This means that the experts chosen are critical in establishing a vision for the future enterprise opportunities. They need to have qualities beyond their expertise. They need to construct a vision for the project that draws as much on their passion and personal leadership qualities as their technical skills and expertise.

The establishment of a vision is important in both creating and managing knowledge. Given the diversity of the stakeholders any potential regional RIS project, a vision is needed to synthesise the project – a knowledge vision. The knowledge vision gives a direction to the process of knowledge-creating and the outcomes.

The knowledge-vision asks a series of fundamental questions:

- What are we on about?
- What should we create?
- How can we do it?
- Why are we doing this?
- Where are we going?

The purpose of the knowledge vision is to create a common knowledge around a common language (of the project) that enables communication and co-ordination.

One of the understated outcomes of the RDPM approach is that its competitive advantage outcomes based on the co-operative functions in the innovation network would be hard to ‘replicate’, ‘remove’ or ‘export’ elsewhere. This does not preclude a Tasmanian project it just reinforces the endogenous nature of the exercise as an answer to Storper’s challenge and Cooke’s evocation.

One of the implications of this vision component of the RDPM and its link to the expert panel is that it strongly suggests that the expert panel could include expertise/membership from outside the industry sector being proposed.

Bringing in people ‘without history’ can be beneficial to the task at hand. These people are more likely to ‘look forward’ – meet and adjust to the requirements of the market place and future scenarios – rather than revert to a view: ‘this is what we do in our industry’.

Both RDPM and RIS require critical institutional support – a governance framework at a regional level.

In Tasmania that governance support is being developed through collaboration between existing regional stakeholders, the Cradle Coast Authority, Northern Tasmania Development, and the Australian Research Innovation Centre (AIRC).

Conclusion

Tasmania’s Innovation Strategy adopts RDPM as the policy approach for developing the platforms for place-based local innovation systems, *constructing competitive advantage* at a sectoral level from existing comparative advantage.

Tasmania’s Innovation Strategy is informed by the regional science literature, adopting the approach that for innovation to be a driver at a local economic level, it is critical as Cooke (2007) argues, ‘to first build policy platforms’.

Building the policy platforms around local governance systems including the economy; governance and community and culture provided the foundation for a knowledge management system at the local level that can identify and promote sectors to be prioritised as localised regional innovations systems, capable of making the transition from comparative advantage to competitive advantage by *constructing advantage*. One such Tasmanian sector is agri-food.

The Tasmanian Innovation Strategy identifies the agri-food as a sector that has the capacity to add-value to its existing comparative advantage in climate, soils, expertise and products and build a policy platform that *constructs competitive advantage* by moving from commodity-based production to niche market products; low price, high volume to high price, premium products; market ignorance to market intelligence and; a production focus to a consumption focus.

RDPM approaches, having identified the RIS potential of agri-food, will in turn play a critical role in the implementation of such an ambitious strategy. RDPM will provide a platform methodology to harness and manage the social capital component of innovation and the inherent tensions present in diffusing knowledge within a commercial value-chain as tacit knowledge is codified for the benefit of the agri-food sector and Tasmania's 21st century 'hydro-industrialisation' approach to sustainable development.

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