

# All Australian Regions Are Not Born Equal: Understanding the Regional Innovation Management Sandpit

Anton Kriz, Courtney Molloy, Alexandra Kriz, and Sabrina Sonntag

*“ They were like kids in a sand[pit]. It was a great feeling watching their creativity spread to everyone.*”

Brittany Murphy (1977–2009)  
Actress, singer, and voice artist

In this article, we highlight and challenge an overly simplistic assessment of regions and regional innovation systems in Australia. Treating each region and place as equal and prescribing blanket policy is anathema to the reality. Having argued that places are not equivalent, we then move on to highlight that commonalities at a deeper institutional level are possible. We draw on fieldwork and ongoing action research from the Australian regions of Hunter and Central Coast (New South Wales) and Northern Tasmania. Results of the theory and case work have been instrumental in the development of 11 structural attributes of a regional innovation management (RIM) sandpit framework. The framework provides attributes but also important process insights related to regional programs, enterprise development, and project innovations. Although developing from the Australian context, we expect that the RIM Sandpit and its place-based insights can be generalized to other regions around the world.

## Introduction

Regional innovation is an essential avenue for countries to improve growth, employment, and economic outcomes (Asheim et al., 2011b). However, few really understand the complexity and dynamics of people and communities interacting with a place-based environment to bring a region to life. In this article, we offer a framework for improving regional place-based strategy, innovation policy interventions, and community outcomes. In developing this approach, we recognize that the significant variations across regions also extend equally to unique business and enterprise systems within. Essentially, regions are far from “even playing fields”. Rather, each respectively comprises a complex, place-based natural and built environment offering a kaleidoscope of different infrastructure and industry dynamics with distinct people and talent variations. Hence, regional innovation can be described as a complex adaptive system with dynamic and emergent systems adapting and co-evolving to a changing place-based set of endowments (Sotarauta & Srinivas, 2006).

In the late 1950s, there was a television series in Australia called *The Magic Boomerang*. The main character, Tom Thumbleton (played by David Morgan), threw his boomerang (with its magical powers) and everything within range, including people, suddenly came to a complete standstill. Young Tom would then intervene and rearrange the events for what he considered a more positive outcome. Tom would throw the boomerang again and re-activate the people and setting. Unfortunately, there is no chance of such a magical solution to regions. These systems are moving targets, continually on the go, and the outcomes are definitely not so easily reversible. If one could start from scratch, as has occurred with cities in China and the United Arab Emirates, things may be different. But regions, as our article title suggests, are not born equal with different natural endowments. The article is informed by ongoing action research that allows for direct experience and learning from the field as it unfolds (Stringer, 2013). Researcher participation is fundamental to such an approach. So, there are elements of Tom in this place-based regional game, with the researchers able to also witness a series

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of events. Equally, like Tom, some change is possible through the action research process but not courtesy of a magic boomerang or to the extent of reversing events.

Three Australian regions – Hunter and Central Coast of New South Wales and the Northern Tasmania region – are the focus of this study. Immersion in these systems and learnings from literature has led to us to describe 11 structural attributes of a regional innovation management (RIM) sandpit framework. The framework is offered as an appropriate regional platform for policy intervention and encouraging regional and enterprise growth. We believe the RIM Sandpit framework offers an overarching recipe for regional innovation that allows for political dynamics, power relationships, and a better interpretation of the vast array of activities and intervening agents. The aim of this recipe, unlike other tools in regional innovation systems, is to shift from functional descriptions to identifying a process for administering change. This is important at a program and operational level. Similar to Audretsch (2015), the article suggests that strategic management is useful for understanding dynamics of regions. However, we go a step further than Audretsch in developing our place-based recipe. Like Kanter (2003), we also acknowledge regions can be more deliberate in organizing their outcomes. Predicated in such dynamics is an appropriate mechanism for regional leadership. The sandpit (or sandbox) metaphor describes the activities, actors, processes, and strategies played out within a particular environment, making up what we describe as the “regional rules of the game”. The sandpit however includes researchers and key regional stakeholders getting in and actually getting dirty (playing in the sand).

The role of policymakers in complex regional environments is critical and has been discussed consequently in other domains (Magro & Wilson, 2013; Sotarauta, 2009). Our aim is to shed light for policymakers and industry on the deeper, more systemic structural influences of place. The purpose is to simplify the reality of place without eroding the unique complexity within. The RIM Sandpit framework and its attributes and processes offer important insight into how policymakers and regional stakeholders can enhance innovation in place-based regions and ultimately improve outcomes.

The article commences with a review of key literature related to regions and their management. Leadership is a fundamental element to place-based success and this is discussed. What is also important is to be proactive but also realize that each business and set of enter-

prises within are also unique. An action research approach is used and outlined before the three main Australian cases are introduced. The next two sections discuss the RIM Sandpit attributes and the subsequent framework. The conclusion reinforces the importance of appropriate governance mechanisms and people dynamics as well as challenges if one relies solely on theory without entering the sandpit and interpreting the actual place-based situation and context.

### A Strategic and Regional Innovation Management Perspective

The research and innovation strategies for smart specialization (RIS3) concept, which is increasingly advocated as a potential regional panacea by the European Commission, nominates regional advancement through an entrepreneurial discovery process (Foray et al., 2012). The issues around such discussions are now linked closely to the triple helix and quadruple helix that brings industry, government, university, and community relationships to the fore (Leydesdorff & Fritsch, 2006). But the essential question is, why are you intervening in a system and for what purpose? Flyvbjerg, Landman, and Schram (2012) tackled this challenge through situated knowledge development in the traditions of *phronesis*, that is, practical wisdom and prudence, where learning is informed by doing and insightful interpretation. Experience and understanding of context is critical in such approaches. Hence, we suggest later that *playing* in the regional sandpit goes beyond observation and simply understanding the *rules* to developing real expertise. Asheim, Boschma, and Cooke (2011a), Todtling and Trippl (2005), and others such as Porter (2000) have provided important insights into place-based innovation systems but largely from a “helicopter” regional view. What is lacking is a more critical analysis of the challenges and nuances on a localized level.

Flyvbjerg (2006) noted that idealized rational models do not reveal what is really happening. On occasions, investigations do go deeper (Leydesdorff & Fritsch, 2006), but still most researchers have only “scratched” the sandpit surface. Few understand what it is like to be in the actual sandpit. As Flyberg suggests, it is easy to be a novice or even competent as opposed to developing real expertise. Attention here is on regional understanding at a meso-level (Dopfer et al., 2004) with the aim of providing a window to better understand the micro-level. Audretsch (2015) identifies a broad schema for strategic management of place, which include factors

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of production, the spatial and organizational dimension, the human dimension, along with economic performance and policy as ways of enhancing our understanding. From his empirical observation, he suggests it is difficult to make our prescriptions more specific and detailed. Regions are complex systems and have a unique mix of institutions, culture, and variations of human capital.

Yet, there are examples of delving more deeply with better analysis and interpretation. These insights are paradoxically at a macro-level largely built around “national rules of the game”. Elinor Ostrom for example delved into community, conditions, rules, and respective actors and actions (Drew & Kriz, 2012). Ostrom was one researcher who did immerse herself more deliberately in the field. Acemoglu and Robinson (2012) have brought important insights on national rules of the game by comparing “extractive” institutions built around economic rent and power versus “inclusive” institutions where societal benefits are central. Aspects such as power and underlying political structures have become central in a number of other discussions as well (Glaeser et al., 2004). Like Audretsch, we believe place-based domains are ripe for such investigations. Flyvbjerg’s (2001) qualitative in-depth study of Aalborg is a rarity in this domain. Like Flyvbjerg, we suggest objective-based reality will not do the trick and unlike Audretsch, we believe that, although the regions are different, there will be ways to interpret institutional elements with more precision.

We believe comparisons with corporations can support an understanding of regional innovation. Like corporations, a place is gifted with human and natural resources. Corresponding to corporate organizations, capabilities can be built and regions structured and led. Corporations do have clearer boundaries and their objective is more targeted: to turn a profit. Who is actually leading the region (Sotarauta, 2005) and how policies are shaped (Collinge & Gibney, 2010) is also not straightforward. Nevertheless, it is foolish to simply dismiss parallels between organizing regions and firms. Mintzberg and Waters (1985), in tackling the firm as an organization, identified realized strategy as a combination of emergent patterns and more deliberate activities. This lexicon of emergent patterns with purposive support has entered the regional domain (Collinge & Gibney, 2010). Such regional innovation systems, like an organizing firm, will also arguably rely on innovation processes working both bottom-up and top-down (Kriz et al., 2013). One advantage for regions over firms

is that they generally take longer to fail. There is competitiveness in regions but not yet to the extent of creative destruction in enterprise. A downturn in the forestry industry in Tasmania and reduction in coal exports in areas such as the Hunter highlight that change – whether through policy intervention or declining markets – can still come quickly to regions as well.

Teece (2009) acknowledges that “Economic growth theory has underplayed the importance of the management enterprise in economic growth and development.” The management and development of regions we believe is equally poorly acknowledged. Audretsch (2015) highlights that the Germans are advanced in such notions with their concept of location- or place-based strategic management: *standortpolitik*. Logically, regional innovation systems cannot function effectively without strategic intervention. The focus in regions is now shifting to constructed advantage where more purposeful interventions are applied (Asheim et al., 2011a). If regions, like corporations, want to leave their destiny to chance they can, but increasingly we are learning that better firms seem to more consistently get “luckier” (Collins & Hansen, 2011; Tellis, 2012).

Regions we suggest are the same. Kriz (2015) refers to planned and constructed interventions that guide and steer policy as regional innovation management (RIM). This is an important extension on the concept of regional innovation system. RIM is defined as a purposeful approach to systematically analyzing, developing, organizing and implementing processes and practices to improve regional outcomes. RIM incorporates smart specialization entrepreneurial processes but also extends the analysis of place to include a more *holistic* and *systemic* approach to regional development. Successful regions go well beyond entrepreneurial discovery to encompassing all aspects of growth and development. Talent and knowledge development now goes from cradle to grave.

### Need for Strategic Leadership of Regions

Strategic leadership literature stemming from corporations has benefits for regions as well. This is not a new concept, with several authors supporting this premise (Beer & Clower, 2014; Collinge & Gibney, 2010; Sotarauta, 2005). Finding *who* is leading and accountable in Australian regions is quite difficult. Governments at local (council), state, and federal levels have become adept at shifting responsibility and governance arrangements and these vary state-by-state and council-by-council.

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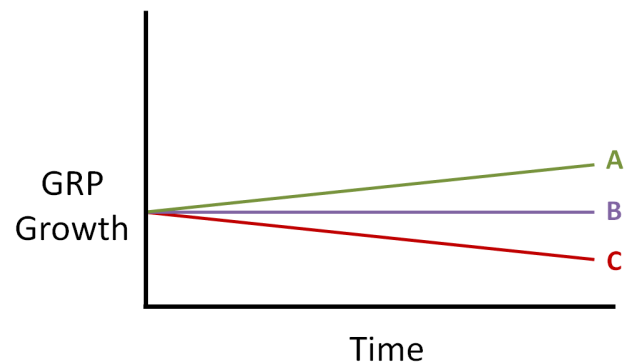
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Many regional areas in Australia are suffering high levels of unemployment and underemployment, leading to ancillary social problems around health, drugs and alcohol; youth unemployment is extremely high; and gross regional product (GRP) of these regions is not keeping pace with capital cities. Establishing the mission of a region is therefore a priority but if there is no definitive leadership, articulating and delivering on objectives is problematic.

Figure 1 suggests three possible trajectories for Australian regions. Do nothing and the trajectory of the lowest line (C) is likely. Regions, like firms, can get lucky with a resources boom; a prime example of which is the Hunter region. Equally, they can get unlucky with the rapid decline of such booms. Accelerated technological change, robotics, and computerization are increasing the challenge for regions globally. As in the United States, productivity increases are occurring but notably now without wages and employment growth. Expectations are that GRP will need to be raised even higher to sustain regional employment numbers. If a region wants to shift the trajectory into positive realms – the upper line (A) in Figure 1 – then business and regional systems will need to be even more proactive. Like the Red Queen and Alice in *Through the Looking-Glass* (Carroll, 1871), it appears regions are going to have to run twice as fast in the future to raise employment levels adequately.

Lerner (2009), in *Boulevard of Broken Dreams*, rightfully acknowledged that governments are notoriously poor at developing such systems. Offering large incentives for regions to embark on such strategies is the basis of smart specialization. Yet this is increasingly counter to the way Australian policy is operating. Minimal government financial support is available in the Australian context, which means harnessing extant resources and capabilities has never been more important (Kriz, 2015).

As Machiavelli and later Lewin identified (Burnes, 2004), forces against change can prohibit most initiatives. We believe understanding where such push-back is likely to come from is critical in regions. Finding coalitions, sponsors, promoters, and innovation champions for supporting change is equally advantageous (Bankins et al., 2016). Brokers have been discussed in regions but there is more to such change. At a regional level, positive change takes some doing. Some regions with strong strategies and collective leadership are offering important examples in the Australian domain.



**Figure 1.** Three possible gross regional product (GRP) trajectories over time

The Geelong region with its G21 Regional Alliance ([www.g21.com.au](http://www.g21.com.au)) of five municipalities working toward a common objective is an example. The area has been hit by industry closures, but through harnessing the power of its constituent stakeholders, the region has been forthright in accessing government assistance and generating new enterprise. The Sunshine Coast Economic Futures Board ([tinyurl.com/h3vz78v](http://tinyurl.com/h3vz78v)) is setting a similar agenda. Generally, Australian regions are lacking a detailed understanding of their innovation ecosystem and the networks and business systems underpinning their macro-meso-micro development.

In Australia, the approach to regions and their underlying business systems has generally been one-size-fits-all. Redding and Witt (2007) drilled down considerably to understand the nuances around business systems. Recently, a heavy emphasis on the business system has been placed on generating startups in Australia. Shane (2009) warned global and United Kingdom policymakers against putting too much emphasis on such startups. Gazelle-style high-growth approaches have become popular with researchers (Acs & Mueller, 2008) and gazelle enterprises are now advocated by some Australian states and nationally. However, recent research suggests steady-growth firms (Kunkle, 2013), similar to the German Mittelstand approach, may be even better. These “stickier”, family-based regionally supported and financed operators, with their longer-term horizons (Audretsch, 2015), have commonalities with some family businesses operating in Australian regional areas. Companies such as the Elphinstone Group ([elph.com.au](http://elph.com.au)) in Tasmania, Varley Group ([varleygroup.com](http://varleygroup.com)) in the Hunter region, and Borg Manufacturing ([borgs.com.au](http://borgs.com.au)) on the Central Coast are good examples. Analyzing the business system and dynamics in more

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detail is beyond the scope of this article. But, like regions, we *should not* be treating such systems as identical.

In summary, what is important is to utilize burgeoning research globally and take lessons in the field to go beyond a macro-level surface view of regions. Constructing and guiding regions and place-based systems rather than forcing them to change is about understanding bottom-up *and* top-down innovation interventions and molding both a deliberate *and* emergent strategy. This means guiding and also “steering” the direction with support of the community. The aim of this article is to offer insights from an action research agenda that, like Flyvbjerg, takes the researchers from simply observers to participants in the process. Watching from the “ground” (contextual view) rather than just the “air” (helicopter view) gives what we believe is a new perspective to regional realities. Importantly, this situational understanding will ensure the *why* of the place-based region is equally top-of-mind.

### Action Research and the Respective Cases

This research combines qualitative in-depth cases, empirical evidence, and reflection under an overarching action research base to gather deeper structural regional insights. Action research where immersion and shared understanding is possible adopts, as Gummesson (2001) suggests, “curiosity, courage, reflection and dialogue”. Like case studies, it is an underutilized methodology that has many critics. We agree that detachment and more objective designs have their advantages from a bias perspective but they also have weaknesses with increased potential for misunderstanding (Kriz et al., 2014). Action research is reserved for situations when researchers assume the role of change agents. Learnings can definitely happen both ways in such participant approaches with the researcher also gaining significantly. Literature and secondary data do add significantly in action research and case study approaches. For example, insights from leadership studies such as the competing values framework (Lavine, 2014) and from innovation champions literature (Howell et al., 2005) have proved critical when doing the fieldwork related to this study.

The three action research cases reported here relate to the Hunter region in New South Wales, the Central Coast region of New South Wales, and Northern Tasmania region:

1. The Hunter region is classified as old industrial under the Todtling and Trippel (2005) regional innovation system framework but appears to be transitioning toward metropolitan as the region broadens. The Hunter region is located 120 km north of Sydney with its major city being Newcastle. It has approximately 620,000 inhabitants and the world’s largest coal port. The region is well known for its wines but is also strong in manufacturing, mining services, defence, horse breeding, and education (particularly the University of Newcastle: [newcastle.edu.au](http://newcastle.edu.au)).
2. The Central Coast is based around two cities, Gosford and Wyong, with a population over 330,000. The region is located 70 km North of Sydney and is classified as peripheral under the Todtling and Trippel schema. This region has over 30,000 daily commuters and has a low level of research support and activity. Tertiary education is offered through a campus of the University of Newcastle. Industry is built around logistics and food processing with services around construction, retail, and health services.
3. Northern Tasmania’s largest city is Launceston with the total area having a population around 132,000. Key features of the region are the Tamar Valley, which boasts wineries, boutique arts and crafts, and the Australian Maritime College ([amc.edu.au](http://amc.edu.au)). Northern Tasmania has similarities to the Hunter region, with an old industrial base in this case built around a convict heritage, early trade, and agriculture. The area is complex, with eight local government areas and strengths beyond agribusiness that include tourism and manufacturing, with aspects such as mountain biking and outdoor recreation as highlights. Bell Bay Aluminum ([bellbayaluminium.com.au](http://bellbayaluminium.com.au)) is a key industry player in the region.

The Central Coast was pivotal in initial learnings that led to the RIM Sandpit framework outlined in this study. The first named author was asked by the Federal Government to assist in developing an innovation strategy for the Central Coast as part of an Innovative Regions Centre national agenda. To add sustainability to the initiative (including developing, monitoring, and evaluating the overarching program and projects), a strategic body called Innov8Central ([innov8central.com.au](http://innov8central.com.au)) was established. Projects included the development of Central Coast Manufacturing Connect ([ccmconnect.com.au](http://ccmconnect.com.au)) to stimulate industry collaboration. The success of the Central Coast initiative and Innov8Central led to

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an invitation to the first named author to undertake workshops in Tasmania. This has led to various initiatives and what has emerged as an action research agenda in Northern Tasmania. The balance has been more emergent than deliberate but key stakeholders have now bought-in. The activities in the Hunter region developed independently. The first named author had provided strategic and innovation management advice to a number of the region's key stakeholders, including the HunterNet cooperative ([hunternet.com.au](http://hunternet.com.au)). Known nationally as a highly successful cluster in mining services and manufacturing, this cooperative and its 200 members is a central agency for enterprise activity in the Hunter region.

Three of the authors of this paper are now directly involved in workshops and other ongoing activities related to the cases. Seeing regional strategies first hand as they unfold has offered rare insights. Developing trust and support takes time and continually being invited back suggests the stakeholders are seeing positive outcomes. Over 150 interviews have been conducted in the studies, along with formal workshops such as innovation champions programs for businesses on the Central Coast and various community events. Six annual Innovation Summits on the Central Coast (approximately 175–200 people per event) are an example of some of the additional regional innovation activities underway. HunterNet has an annual formal planning day for the board with a follow-up day for its members. The first named author has been responsible for facilitating such days. Tasmania runs an annual Breath of Fresh Air Film Festival (BoFA; [bofa.com.au](http://bofa.com.au)) with workshops and planning for regional innovation activities incorporated in recent years around the RIM paradigm.

The RIM Sandpit framework has developed from a range of these initiatives and field-based learnings. This work has included over 600 surveys for a regional innovation readiness evaluation in Tasmania built around the lessons from the earlier Central Coast experience. The first named author has also been pivotal in this readiness assessment, which has now also included the development of a new Northern Tasmanian Futures Strategy under Northern Tasmania Development (NTD; [northerntasmania.org.au](http://northerntasmania.org.au)). Two of the research team are now involved in skills training programs aimed at economic development officers and key stakeholders in Northern Tasmania. The aim is to build human capital resources that extend the capabilities of the region. Although the original Federal Government IRC program on the Central Coast was quite focused, many of the

other elements have resulted from positive feedback and bottom-up informal support. A journey was kick-started and the destination is still unknown. Irrespective, the regions have benefitted. Sizeable research and development investments and outcomes on the Central Coast linked to Innov8Central are an indication of extant success.

### RIM Sandpit Analysis and Findings Leading to 11 Attributes or Positions

Reviewing regions at this deeper action-research level has provided two-way benefit. It has allowed the research team and particularly the first named author unprecedented access. Common themes have evolved through the process. The notion of a region as an enterprise (albeit not perfect technically) helps crystallize a regional purpose and simplifies the complexity of a region. The Federal Government through the IRC, and more recently the Entrepreneurs' Programme ([tinyurl.com/z5akss6](http://tinyurl.com/z5akss6)), provided seed funding for the Central Coast initiative; continued momentum in all three regions has been managed through strong stakeholder support but it has been limited by lean budgets as well as minimal stakeholder funds (Kriz, 2015). This level of support varies from the significant resources for smart specialization in Europe. Key elements that seem constant from both smart specialization and RIM is that innovation management operates most effectively from bottom-up before top-down and a systems perspective is a critical lens for a place-based view.

The knowledge gathered from literature investigations and three cases has highlighted 11 key elements common to all regions. Fundamental to a systems perspective is that innovation at an organizational level has two key drivers: one pitched specifically at developing the core capacity and processes and the other focused on driving new growth opportunities and external advantage. Anthony, Duncan, and Siren (2014) suggest that these “two buckets” are fundamental to organizing successful short-term innovation outcomes. The case learnings suggest this applies equally to regions. The first bucket is about positioning a region on a key strength and setting up a platform around regional leadership. Smart specialization and RIM rely on a central process that acts as a thrust for regional outcomes. The regional development platform method from Finnish academics helped inform the research around such central programs (Pekkarinen & Harmaakorpi, 2006). The external projects (or second bucket) that emanate are products of this central hub and need scoping

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and vetting before being actioned. Seeing innovation as a sequence of *projects* is recognized in the contemporary strategy and innovation management literature.

Klerkx and Aarts (2013) discuss different forms of innovation network orchestration related to constructing broader regional initiatives and innovation champion activity. The Australian experience identifies that a network catalyst in the form of an independent network administrative organization (Klerkx & Aarts, 2013) has benefits. This is why Innov8Central and other vehicles like Northern Tasmania Development and HunterNet are so important. Innov8Central provides more independence than a university or government body. Essentially, such bodies sit in the space shared by the three circles (the shaded mandala) of the triple helix (quadruple helix). Their role is to support the regional innovation overarching program and to operate a project pipeline for sustainable growth and competitiveness. What has been learned in the Australian experience is that these entities require proper resourcing and support. However, lean budgets are possible because regions have a lot of goodwill. If you can harness the forces as in the three case studies, there is significant volunteerism at hand to make things happen. Ultimately, we are likening the network administrative organization to a “SWAT team” for assisting the leadership and human capital in such change. The action research is identifying that such entities need to be built into the deeper regional institutions and structures (Frost & Egri, 1991) to protect them from short-term politics and power plays.

A synopsis of the empirical elements, distilled through the literature and action research, are discussed below; a more detailed analysis is beyond this article’s scope. Autio’s (1998) original regional system of innovation followed by Todtling and Trippl’s (2005) regional innovation system identifies numerous actors and the knowledge processes involved. This is akin to identifying functional elements of an organization. These models also provide a broad idea about the importance of knowledge exchange between actors. What is unique about RIM Sandpit is the schema developed focuses more on purposefully constructing and managing innovative change in such a system. The concept of regional innovation management, with its notion of a sandpit, has additional meaning (Kriz, 2015). Already, the role of researcher and others entering the sandpit has been discussed. *Immersion* in the pit (or box) is essential for building real knowledge and expertise. But the importance of politics and power are also known in-

tuitively by stakeholders. Likening this to the softer games of children “tossing” sand around in the sandpit always brings a wry smile to those involved in workshops and seminars. The quotation at the outset of the article appears apt. Interestingly, creativity flourishes when cooperation and conflict are present.

The 11 attributes, or *positions*, in the RIM Sandpit that we have developed from relevant theory and strategic practice and insights in the field are:

1. *Place*: The location of a region plays a critical role as the natural and physical environment and endowments influence significantly how the region and businesses within operate. The Central Coast and Hunter regions may be within 70 km of each other but the former is largely built on commuters and micro and small business dynamics whereas the latter is founded on a port, minerals, and old school ties. Natural and physical resources as well as regional culture and institutions need to be considered. The regional development platform method originally focused on the Lahti region in Finland as an example.
2. *Planning*: A thorough understanding of the region and its internal and external environment is required before working on a strategy. The planning process includes identifying key attributes such as the region’s core competence, capabilities, and resources. This was the first step in the Central Coast development and has proven critical. It has enabled a focus and is constantly under renewal. The Futures Strategy in Tasmania is an advancement that aligns well with processes behind smart specialization.
3. *Positioning*: Similar to enterprises, regions need to identify their vision, values, and mission (VVM). Some major companies are now referring to mission as *purpose*, which would suit a regional approach and importance of community. Defining statements for VVM will help both enterprises and regions understand their positioning. Values also help with the *why*. The Central Coast and the Hunter regions are undergoing significant council upheaval, which makes positioning difficult. A level of readiness is required but we are finding a vision really focuses the troops. The Regional Futures Strategy of Northern Tasmania Development is using positioning to drive change. New Zealand, the Sunshine Coast, Queensland, and Geelong in Victoria have been useful in informing the researchers in this area.

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4. *Program(s)*: Programs are a way to actively pursue long-term growth in a region and to improve skill-sets. Program choices have significant influence on growth outcomes. Finding the unique value proposition is not unlike the focus behind smart specialization or the platform derived in the regional development platform method. For regional development, it is important to understand how knowledge, infrastructure, government, economy, community, and culture link together to gain constructed advantage. The Central Coast region is developing food and health initiatives; the Hunter region is looking at engineering capabilities and solutions; Northern Tasmania is focusing efforts around food, tourism, and advanced manufacturing.
5. *People*: Human capital is significant for a region as people acting individually and in groups enable regional development through providing knowledge, skills, and capacity. Talent in the tradition of Richard Florida is now used to illustrate such capabilities (Audretsch, 2015). All three areas of the Central Coast, Hunter, and Northern Tasmania regions have underemployment issues with the Central Coast and Northern Tasmania lagging on tertiary education indicators.
6. *Power*: Experience in the field and the literature highlight regional power plays and their importance. It is not clearly defined *who* is in power. For a region, it is important to identify where power resides and to distribute responsibilities accordingly. What the leadership theory describes as toxic leadership is also important in regions. We now look at place attachment as an important indicator. Power in the Hunter region is scattered among key stakeholders. Drawing on lessons from Pittsburgh in the United States, the Hunter region is finding collective leadership a challenge.
7. *Politics*: Regions need to consider different levels of government, multiple higher education institutions, community groups, and both for-profit and not-for-profit organizations. NORTH Link (melbournenorth.com.au) in Northern Melbourne has informed the research here – multiple universities, multiple stakeholders, and multiple councils buying into a directed platform helps offset conflict around egos and power. Eight local government areas make the politics of regions complex in Northern Tasmania. Northern Tasmania Development is the vehicle to bring this together, but it has had its challenges as it is purely council funded. The Central Coast had two local government areas but the politics, power plays, and lack of a regional approach has seen a merger implemented by the state government.
8. *Process*: Process looks at the key capabilities in a region including human capital, stakeholder dimensions, and political issues; it is used to identify capacity for change. Process is fundamental in the regional development platform method, and lessons from the three regions identify that process is likely to help drive growth. Innov8Central on the Central Coast has continually revised its development, and Northern Tasmania is putting together a project platform to support such processes. Monitoring “the two buckets” is critical here.
9. *Pivot*: Places and regions need to constantly rethink and reformulate, just like organizations. Rarely do things flow as easily as the literature explains. It is a constant process of learning by doing. Ries (2011) highlighted a need for lean startups to pivot. Regional change is similar. Each place is unique and every step and project is new. Anthony, Duncan, and Siren (2014) draw on lean startups and a “minimum viable innovation system” as a way of building an innovation engine. The Central Coast is a good example of pivot with Innov8Central moving from the university to the New South Wales Business Chamber. Moving to a stronger industry base was always the plan. Procrastination is an innovation “killer”. Tasmania has suffered from many such false starts.
10. *Perfect*: Evidence-based decision making and calculated risk taking are ways to build strong place-based outcomes. A key step in the process is to perfect ongoing strategies and programs to develop and maintain growth. Perfection is never reached and reflecting on outcomes is a significant element. The Northern Tasmania region has set important goals through its Futures Strategy. The Central Coast is about to embark on a similar goal. HunterNet (operating for 24 years) is closer in its lifecycle to realizing such goals. But this too is a constantly altering journey. The capability literature discusses sensing, seizing, and transforming (Teece, 2009), and this view sums up the place-based project journey.
11. *Project*: After identifying and developing strategic plans for the region and improving and perfecting the system (including leadership, human capital, politics, and programs), different place-based pro-



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jects need execution. Project management skills are therefore also significant. Northern Tasmania has used a project portfolio as a way of cementing and measuring success. One of its key projects in 2016 is the training of council economic development staff and key industry stakeholders. The aim is to broaden the regional innovation expertise. This was one of the earliest project platforms for the Central Coast and its Innovation Champions Program ([tinyurl.com/j3d7o4d](http://tinyurl.com/j3d7o4d)).

The 11 attributes can also be likened to 11 positions in a football (soccer) team. The 11 positions are not only attributes but set the framework. Like football, in this game, the eleventh "P" (Project(s) or striker(s)) sometimes kick-off the game. This view sees the regional rules of the game starting more from bottom-up rather top-down. A strategically top-down regionally directed approach would alternatively be built around the first "P": Place. Ideally, Place would be the starting point under most regional rules of the game. Systems perspectives are rarely straightforward. Sometime "kicking off" projects and activities in the field of play from the bottom-up actually engenders more in-kind goodwill and support. This is very much the way the Northern Tasmania experience has developed. This is a potential issue with smart specialization, with top-down funds a great way to generate activity, but are communities ready? No doubt potential regional beneficiaries will not resist the funds (Kriz, 2015).

### Adding a RIM Sandpit framework

Figure 2 offers a schematic illustration and representation of what a region confronts in constructing advantage, as indicated by fieldwork and research. The 11 elements outlined above appear to be critical in understanding and building capacity and resilience in regions and offer important strategic insights for policymakers, regional stakeholders, and planners. Guiding a complex adaptive system within regionally specific rules of the game is an incredible challenge. Flyvbjerg (2001) noted it takes courage for academics to get so involved. Observing an irrational waste of public money in Aalborg, Denmark, was not his idea of "good science" or "good practice" (Flyvbjerg, 2006). The Futures Strategy in Northern Tasmania and Innov8Central's platform is largely built around what we have termed a RIM Sandpit framework. Figure 2 adds critical innovation process implications to the aforementioned attributes. Place provides a boundary to all. Planning and positioning are central and provide an overarching schema for leaders and communities. If the region is treated like a complex organization, then positioning

around vision, values, and mission (the VVM circle holding up the see-saw, or teeter-totter) is critical.

The inverted triangle reinforces that success is built from the bottom-up. But success ultimately requires top-down support. Northern Tasmania is building a platform as is Innov8Central for balancing such agendas. Regions, like organizations, find change difficult; selecting the "right" programs and buckets to pursue for the core and for growth is fundamental and a key element in regional innovation management. Balancing countervailing forces with needs of enterprise (E), government (G), university (U), and other stakeholders is difficult. This is highlighted with the see-saw figuratively centred between Lewin's forces of change. We now get participants in regions to analyze these forces in some detail. Note that RIM Sandpit uses enterprise more generically than industry in its triple helix (i.e., enterprise incorporating entities, clusters, networks, sectors, and industry). Community interests are represented by the people in the centre circle, which captures the quadruple helix. People and power and politics combine to create constant to and fro action around programs. In essence, the three shared circles in the middle, or triple helix, is better described as two enablers of (G) and (U) supporting enterprise (E). The ultimate goal is to grow the enterprise circle and improve GRP as depicted.

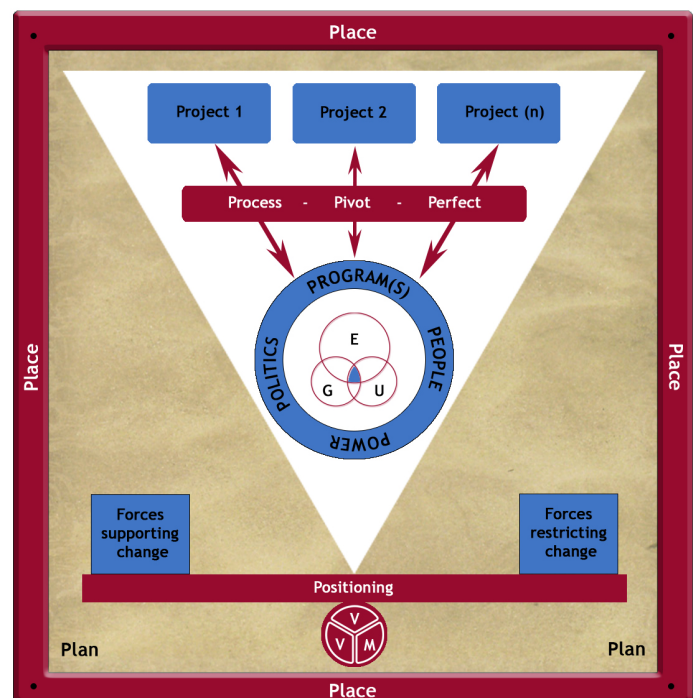


Figure 2. The RIM Sandpit framework

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This program is like a nation's "sovereign" domain. Each region and their requisite community need to determine their own *why*. Regions, programs, and projects need adjusting, and this reinforces why methodologies such as action research are appropriate. Process refers to driving regional projects. The two-way arrows between process, pivot, and perfect linked also to working on the overarching program(s) and the place-based core has key importance (two important buckets of innovative activity). This process of activity can include internal and external innovative projects. As in lean and the startup literature, pivoting and constantly changing and reflecting is critical. Trying to perfect outcomes in a region means adequate implementation and execution. Innovation in regions is becoming project driven, as highlighted. This framework adds insights and advantages to policymakers and regional stakeholders. Using this model, plus additional business systems insights, a company and new venture has key information around locational dynamics. Frost and Egri (1991) are clear about seeing the "surface" but note the importance of interpreting these "deeper" intuitional elements.

### Conclusion

In regions, it is not simply a case of "innovate or die". Pittsburgh in the United States is a good example of what can happen to cities when key industries (such as steel) implode. Enterprise lifecycles are getting shorter (Ormerod, 2007) and this will impact on regions; however, most regions still die more slowly. Fortunately, through strong leadership Pittsburgh has turned its fortunes around and innovation has advanced in a range of new sectors. Once leadership is identified, equally each region and place needs a carefully crafted and constructed strategy. This article has discussed regions from a smart specialization and now a RIM Sandpit perspective. The business dynamics that sit within enterprise dynamics are also key and they differ for each place. The next step for the Central Coast, Hunter, and Northern Tasmania regions is to work on unique business characteristics and to drive enterprise growth from the central program and triple helix perspective. One size does not fit all for regions, and treating the business landscape as equivalent is poor policy. Simply advocating startups as a panacea is not sufficient. Regions are complex ecosystems. What this article outlines is a recipe that incorporates a process for programs and projects that potentially perfects innovation for place.

The idea of leadership is implicit in the model once the region establishes its *why*. The mandala is a key component and hence the shading in the center of the RIM Sandpit. Setting up a governance structure is not easy. Setting goals around GRP, we have found, is also important. It builds purpose, responsibility, and accountability. That is when the first bucket around programs kicks in. Fundamental to growth are the enterprises. Regions in Australia should start looking further afield to German Mittelstand and what is known as "hidden champions" for enhancing their place outcomes. These steady growth companies are regionally "sticky" and are likely to remain in the region as it grows. This is the current priority of the Central Coast and Hunter regions through state government and federal government support. Superior leadership is required at a regional level to understand context and paradox and to integrate trade-offs between competing values (Cameron et al., 2014). The cases and practice highlight that regional leadership in Australia is currently variable in such capacity. Once the "why" and leadership are identified, then a region needs to ask "what" and "how". The RIM Sandpit in essence helps identify the *what* and the *how* but relies on place stakeholders for deciding *why* and ultimately *who*. Then, as the RIM Sandpit highlights, it becomes a case of constructing and then "steering" the program and projects around an established vision and platform.

Regional innovation management ultimately is built around community; this means placing people and their needs as central (quadruple helix). The RIM Sandpit identifies that people also bring in power and politics and ultimately it is the region's responsibility to work with its leaders to address the fine balancing of forces going forward. Innovation champions literature and practice is proving fruitful for the cases. As suggested, there is a lot of goodwill currently not being tapped. This article fills an important gap for those wanting to make interventions stick. It offers insights into a meso-level and this can be drilled down further to a micro-level. This approach is helping considerably at the policy and regional governance level for all three cases but there is a long way to go. This is not a short-term game. The RIM Sandpit framework is not dissimilar to how modern business contemplates the *two buckets* associated with innovation. Finding unique value and growing the business (regional) model is fundamental to both. It is a case of sensing, seizing, and ultimately transforming capabilities and regions. Undervalued are the field officers in Australian regions

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from state and federal departments. A number have become invaluable sources and experts in their understanding of the local terrain. They are ideal agents for assisting with change.

The Australian experience has shown that it is critical to have some form of apolitical network administrative organization. The expanding enterprise circle should always be central with universities and government as enablers. This approach needs support and acceptance within the governance structure. In cultures where top-down strategy is more accepted, a different leadership structure is probably warranted. Regional innovation management's applicability beyond the Australian regional context is yet to be explored but the

*recipe* itself appears generalizable. Place is the important outer element of the RIM Sandpit framework that makes regions and places different but, like their corporation counterparts, regional leaders need to develop, refine, and sometimes reconfigure their strategy. We have found pivoting and adjusting a critical component. The RIM Sandpit enables those entrusted with regional advancement to make such adjustments. However some words of caution: just learning the rules without context, experience, and judgement does not make you an expert (Flyvbjerg, 2001). Also remember that many of the "children" in this sandpit have big egos and do play for higher stakes. But these challenges are outweighed by the goodwill normally apparent in such systems.

### About the Authors

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