REGIONAL POLICY IN AUSTRALIA: CAN SMART SPECIALISATION DELIVER VIBRANT AND PROSPEROUS REGIONAL AUSTRALIAN COMMUNITIES?

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ABSTRACT: Regional policy in Australia is fragmented, incoherent, and reactive. With responsibility sitting uneasily across Federal, State, and local governments, there is evidence of both duplication in responsibilities and significant gaps in the policy frameworks affecting country Australia. Over the past forty years, this has been exacerbated by the public policy which has focused on reducing costs and introducing markets to various aspects of public service provision across Australia, with lasting, negative effects on country communities. This article reviews the multiple challenges facing public regional policy in Australia and considers those challenges in light of international experience and policy development - particularly that led by the Organisation for Economic Cooperation and Development (OECD) and the subsequent development of 'Smart Specialisation Strategies' (S3) policy in the European Union (EU). This analysis suggests that over the last ten years, policy initiatives in the EU in particular have demonstrated the value of taking a more deliberate approach to regional policy. This observation has been tested in Australia through policy experimentation with S3 in Gippsland in southeast Victoria. This case study suggests that the implementation of S3 might have a transformational effect in country Australia, but that S3 alone would not be enough to deliver vibrant and prosperous regional communities. In line with the gradual evolution of 'S3' in Europe to 'S4' – Smart Specialisation Strategies for Sustainability - there needs to be a more comprehensive framing of the relationship between city and country Australia, and a new social contract. In the context of the social and environmental challenges identified by country Australians themselves, socio-ecological innovation has emerged as a distinct imperative for this policy experimentation in the Australian context.

KEYWORDS: Regional policy; smart specialisation; socioecological innovation; collaboration; quadruple helix.

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1. INTRODUCTION

With responsibility sitting uneasily across Federal, State, and local governments, there is evidence of both duplication in responsibilities and significant gaps in the policy frameworks affecting country Australia. This has been exacerbated in the past 40 years by the public policy which has focused on reducing costs and introducing markets to various aspects of public service provision across Australia, with pointed effects on country communities. Alongside this, corporate decision-making has cut direct services in country areas. Interpersonal services have been replaced by automated call services, and the direct links between city and country people have become increasingly mediated and distant. For many urban Australians, country Australia has become a source of staples from the far end of supply chains, and a site for recreation and tourist expenditure.

In this context, contemporary regional policy is characterised by minimalist provision of essential services, belated infrastructure investment and reactive disaster spending, leavened by a solid dose of competitive grants programs. Little is said about the future of country Australians as part of the nation, apart from the small minority whose jobs depend on extractive industries, and the once valued social contract between city and country Australia appears to have evaporated.

The aim of this article is to prompt debate about a more strategic approach to public regional policy in Australia. It draws on a review of international regional policies undertaken by the Organisation for Economic Cooperation and Development (OECD, 2009), the conclusions from which led to the European Union (EU) adopting a new approach to its major investment in Regional Policy. The EU's 'Smart Specialisation Strategies' (S3) policy framework encourages a place-based focus on developing regional innovation systems, building on the endogenous economic strengths and assets of localities.

The EU's initiatives in the last decade have prompted considerable learning and have demonstrated the value that taking a more deliberate approach to regional policy can have. The article addresses the question of whether 'smart specialisation' could work in Australia? The implementation of this approach in the Gippsland region in south-east Victoria since 2017 suggests not only the economic and political benefit of deliberative, place-based approaches but also, more specifically, the potential for innovation to address critical socio-ecological challenges facing country Australia. Action research on this project has shown that Smart Specialisation in itself offers a strong foundation for regional development, but that country Australia also needs a more comprehensive reframing of the relationship between city and country Australia, and a new social contract.

The article begins with an outline of the current status of regional policy in Australia, before providing an overview of the OECD conclusions and an introduction to the EU's Smart Specialisation policy framework. It then draws on action research to provide an account of the key learning from the implementation of S3 in Gippsland, and the importance of embracing both economic and socio-ecological innovation opportunities. It concludes with a discussion of the broader implications for regional policy in Australia.

2. THE POLICY CONTEXT IN COUNTRY AUSTRALIA

Agriculture and mining (not least the gold rush) have underpinned economic life and prosperity in country Australia. Over time, country communities emerged in response to the local needs of increasing settlements, evidenced in the establishment of shops, courts, and even Regional Policy in Australia: Can Smart Specialisation deliver vibrant and prosperous regional Australian communities?

gaols in specific communities such as Dubbo in New South Wales (Bureau of Infrastructure, Transport and Regional Economics, 2014).

These developments were underpinned by a 'social contract' between country Australia and its national government. Country people undertook the privations of rural life in order to provide the nation with food, fibre, and ores; in return, the government would ensure their well-being through the provision of infrastructure and services and, when needed, specific forms of aid. Up until the 1970s, successive Australian governments supported this contract by underwriting the socio-economic sustainability of vast numbers of towns through protectionist policies that ensured the viability of their local industries. The collapse of Keynesian economics in the late 1970s and the subsequent shift to economic rationalism led to the development of new policies for country Australia. These policies, whose stated goal was to make country Australia more prosperous and vibrant (Smith and Pritchard, 2015), were focused primarily on improving the efficiency of Australian agricultural industries (including eggs, dairy, wheat) and the removal of tariff protections.

In consequence, these policies changed the economic fundamentals of agriculture in Australia (Lawrence and Gray, 2000), so that the sector became focused on productivity increases, achieved through better financial margins, the more efficient use of land and water and the minimization of labour (Smith and Pritchard, 2015). Under free-market policy settings, farmers could no longer be assured of government assistance in the face of environmental or external market threats. Farmers were now seen as independent economic units who carried and managed their own economic and climate risks, notwithstanding the economic and environmental factors that were beyond their control. Their viability was affected by rising input costs, falling commodity prices, greater competition from market deregulation (Lawrence and Gray, 2000), a compressing terms of trade (Barr, 2009), and climate change (Milne et al., 2008), manifested, not least, in more frequent and intense droughts (2002, 2009, 2015, 2017-2019; Bureau of Meteorology, 2021). To survive in such an environment, farmers had to achieve basic efficiencies of scale and access to land that was climatically suited to their productive needs (Hogan et al., 2008).

3. EMPLOYMENT IMPLICATIONS

The wealth generated by agriculture remains central to the social and economic viability of many local communities (Marsden Jacobs et al.,

2010), but the drive to secure scale and efficiency has worked against the goals of supporting local employment. The subsequent gradual loss of employment has had cascading impacts on the availability of services. Employment in the agricultural sector has fallen by 14 per cent over the past 20 years and presently constitutes less than 3 per cent of the national workforce (Department of Agriculture, Water and the Environment (DAWE), 2021a). At a national level, agriculture's share of the Australian workforce fell, proportionally, by 28 per cent between 2010 and 2020 (Trading Economics, 2021), down from 3.2 per cent to 2.5 per cent.

The profile of agricultural workers is of an ageing, predominately low paid, unskilled, casual or seasonal and often migrant workforce (DAWE, 2021a). The majority of young people working in the industry are not highly educated although almost one third do hold a Technical and Further Education (TAFE) certificate (29 per cent) of some kind (DAWE, 2021b). The decreasing need for unskilled labour and the increasingly mechanised nature of the industry have resulted in workers who identified as managers exceeding farmworkers themselves by a factor of 2:1 (DAWE, 2021b). Indigenous workers, including those living in more rural and remote areas such as northern and western Australia, were also under-represented in the agricultural workforce.

This data is not a surprise. In 2017, the Productivity Commission (2017) concluded that the long-term financial gains reported in agriculture have resulted from reducing labour inputs through technical innovations. The loss of the need for a continuing agricultural labour force led to the subsequent decline of smaller rural communities, as they, and once locally based services came to be absorbed into larger regional centres (Productivity Commission, 2017). These trends have been exacerbated by successive droughts on country towns. This has led to 'serious erosion of income for farms and small businesses (and) increasing rural poverty' (Alston and Kent, 2004: xiii) with increasing suggestions that 'regional towns and cities are sliding towards welfare-dependency' (Marsden Jacobs *et al.*, 2010, p. xii).

While market pressures were changing the way agriculture operated, the mining sector underwent a boom from the early 2000s onward. Coal and iron ore were in high demand, significantly improving the nation's terms of trade (Productivity Commission, 2017). While employment in agriculture was falling, employment rose in mining. The rise in mining employment, however, was based on fly-in, fly-out employment contracts, and the new jobs in mining were typically not rurally based (Carson, 2011).

Coastal communities around regional Australia have also faced increasing challenges, particularly from climate change. The 2019-20 bushfires and smoke storms had a significant impact on a vast number of coastal communities on the eastern seaboard. Inundation and coastal erosion also pose significant challenges with Australia being predicted to lose 40 per cent of beaches over 80 years (Australian Broadcasting Commission, 2020). Similarly, the sustained long-term economic impact of Covid-19 related business shut-downs has seen an estimated 10 per cent of regional businesses permanently close their doors (Wilson *et al.*, 2021), due to a loss of viability.

4. THE POLICY RESPONSES

The cumulative impact of these changes on the viability of farms and their communities became very evident by the end of the millennial drought, around 2008-2009. In response to a rising tide of concern about the socio-economic viability of country Australia, the Federal Government introduced a policy of localism. Localism was concerned with promoting self-sufficient, socio-economically viable regional communities. In announcing this policy, the then Minister for Regional Australia argued that to achieve regional sustainability, communities had to enact a placebased vision of effective partnerships with industry centred on scientific innovation (Crean, 2011). Yet this aspiration was not realised in any meaningful way. While the Australian Government of in 2011 invested in the development of broadband internet, and regional infrastructure projects, it did not make a distinct budget commitment to realise locally developed technologically innovative partnerships. The overall funding envelope did not support a specific strategy to underpin the socio-economic viability of country communities (Hogan and Young, 2015).

More recent regional policy and initiatives are still less coherent, focusing on the efficiency of some selected industries and supplementing state and local efforts to improve infrastructure and community cohesion. The Australian Government's 2020-21 budget statement for regional Australia asserted that 'with the right policy settings and under the right conditions, country, coastal, rural regional and remote Australia can only forge ahead' (Department of Infrastructure, Transport, Regional Development and Communications, 2020, p. 1). As can be seen in Figure 1 below, the policy settings prioritised by the Morrison Government were

focused on transport infrastructure, crisis recovery projects and localised small-scale grants and loans projects.¹



Figure 1. Regional Funding, Australian Government Budget 2020/21. Source: Department of Infrastructure, Transport, Regional Development and Communications (2021).

The budget statement identified regional industry growth of 12.6 per cent in the mining industry and of 1.6 per cent in agricultural revenues. However, each of these sectors is beset by considerable challenges, and there is no evidence of any consideration of strategic alternatives. It is a given that mining exports will have to reduce (coal to be reduced by half by 2050, if not more dramatically) if Australia is to meet the goals of

¹ The budget statement notes \$110 billion for transport infrastructure, but notes that this figure spans a ten year horizon. To this end 10% of that allocation is identified for the current budget year.

international climate policy (Sydney Morning Herald, 2020). At the same time, there is a significant lack of innovation investment in agriculture, and limited seeding of the development of alternate industries in country Australia. The Commonwealth Scientific Industry Research Organisation (CSIRO) has asserted that agriculture alone will require a 'tsunami' in technology development (Wu *et al.*, 2019), but current initiatives are very inconsistent.

More generally, policy coherence is undermined by the Australian multilevel version of regional governance. For example, in a report to the federal Department of Infrastructure, Transport, Regional Development and Communications, a Strategic Expert Panel recommended that the Department 'recognises the national importance of achieving good economic and social outcomes for regional Australia' (Department of Infrastructure, Transport, Regional Development and Communications, 2019, p. 9) and proposed closer collaboration with State and Territory governments and Regional Development authorities. Currently, much is left to local governments or regional development authorities even though they did not have the resources to act on goals or strategies. Local governments, for example, raise the majority of their own funds, with just 14 per cent of revenue coming from state and federal grants.

This is not to say that there is a shortage of funds for regional activities. Billions of dollars are spent each year on activities such as transport, water and power supplies, not to mention education and health. Rather, funding programs are reactive in nature, lacking strategy, poorly coordinated, and insufficient in the face of the task to be completed. Furthermore, the value of existing expenditure has been undermined by the reliance on competitive application and selection processes. Inevitably, these processes, even applied to programs offering much smaller amounts, have bred a culture of distrust and undermined collaboration, when organisational resources are already under pressure.

The long-standing crisis discourse of rural and regional Australia has intensified in recent decades as deregulation, globalisation, and climate change have taken effect, resulting in increasing evidence of rural decline. Tensions in social policy abound as policymakers seek to encourage communities to be economically self-sufficient while at the same time making billions of dollars available to support various change initiatives. It is evident though, that despite more than 40 years of policy that has been focused on securing increased efficiencies in agriculture, the policy changes did not deliver more vibrant and prosperous regional communities (Smith and Pritchard, 2015). As such, a primary focus on agricultural economic outcomes alone is insufficient to underpin the socio-economic viability of regions. A more coherent strategy is required to secure the much-promised vibrancy promised to regional Australia (Hogan and Young, 2015).

5. INTERNATIONAL EXPERIENCE: THE OECD PERSPECTIVE AND THE EUROPEAN UNION

In 2010, the OECD published a comparative review of regional development policies in all of its 36 member nations. The membership encompasses most advanced liberal economies, including Australia. The review observed that policies focused particularly on regional development could be traced to the 1950s and 1960s, although a paradigm shift had occurred in the years around the turn of the century. Up until the 1980s, policies had focused on infrastructure and investment aid, typically targeting designated poorer areas. These interventions were considered necessary as market mechanisms were failing to enable the convergence of living standards.

However, these policies were assessed as inadequate. The OECD outlined its view on a more constructive approach in *Regions Matter: Economic Recovery, Innovation and Sustainable Growth* (2009) which addressed the central question of how to generate growth in regions. The conclusion was that public policy needed to focus on maximising growth from the assets available in a region, rather than concentrating on the transfer of resources. National macroeconomic settings did not determine regional outcomes. Furthermore, they found that some regions had more in common with regions in other nations than they did with regional or national outcomes in their own nation. When aligning regional performance with regional policy, they were able to draw inferences about the effectiveness or otherwise of different approaches to regional policy.

The OECD concluded that:

Regional policy has evolved from a top-down subsidy-based group of interventions designed to reduce regional disparities, into much broader policies designed to improve "regional competitiveness". National governments are increasingly favouring regional growth over redistribution, in pursuit of national or regional competitiveness and balanced national development... Regional strategic programmes and programming have grown in prominence, reflecting a general policy shift towards support for endogenous development and the business environment, building on regional potential and capabilities, and aiming to foster innovation-oriented initiatives. (OECD, 2010, p. 12).

This conclusion signalled several themes which have become central in debates over the past decade: equity across regions: a focus on regional growth rather than redistribution; multilevel governance; strengths-based endogenous development; and innovation. The new paradigm was not entirely at the expense of the earlier emphasis but clearly marked a more dynamic, program-oriented approach which relied on more effective multilevel governance processes for stimulating growth, albeit still with some spatial targeting.

A key element in the approach advocated by the OECD was an emphasis on multilevel governance, in which each level of government contributed to 'policy design and, equally importantly, to the implementation of these policies' (OECD, 2009, p. 12). They proposed that regional policy was important, and should encompass such features as:

> clear roadmaps based on agreed priorities, needs assessment and stakeholder buy-in as a basis for accelerated public investment;

> human capital development and innovation support rather • than a narrow focus on infrastructure development;

> focusing investment on specific regions or communities that face specific economic, social or ecological pressures;

> arrangements for coordinating action across various ministries; and

> ensuring that local and regional knowledge, funds, and capacity are mobilized (OECD 2009, pp. 12-13).

Multiple OECD reports reinforced the value of the new paradigm, with regular updates (such as 'Regions at a Glance' and 'Regional Outlook') over the subsequent decade. One of the more influential was OECD Regional Outlook: Building Resilient Regions For Stronger Economies (2011), which examined the priority of place-based rather than 'spatiallyblind' policy. Their conclusion was that policies which are attuned to placed-based specific assets and provide for effective coordination of interventions are more likely to be successful than national economy-wide measures (OECD, 2011; OECD, 2015).

The OECD initiated a more direct policy orientation when it established a Working Party to review the EU's decision to invest extensively in 'Smart Specialisation'. The EU had drawn on work undertaken on how it could maximise commercial outcomes from science (Foray et al., 2009) on

the one hand, and on a review of the stronger for a stronger place-based emphasis in the expenditure of EU Cohesion Funds (Barca, 2011) on the other. It also reflected 20 years of academic work on the emergence of regional innovation systems, and the importance of proximity and the quadruple helix in innovation processes (Isaksen *et al.*, 2018).

The OECD Working Party concluded that S3 was an appropriate response to the structural trends in OECD economies, not least the increasing importance of information and communication technologies, a stronger emphasis on people and knowledge assets, and more intense global production processes. They concluded that the core policy characteristics of smart specialisation were:

> • the Entrepreneurial Discovery Process (EDP), which involves an interactive process in which the private sector is discovering and producing information about new activities and the government provides conditions for the search to happen, assesses potential and empowers those actors most capable of realising the potentials;

> • activities, not sectors *per se*, are the level for setting priority setting for knowledge investments;

• an emphasis on strategic and specialised diversification (ironically). Rather than encouraging specialisation along predetermined paths, the S3 approach recognises that new or unexpected discoveries of activities might emerge within a given parts of an innovation system leading to "specialised" diversification; and

• evidence-based monitoring and evaluation that feeds back into policy design (OECD, 2013).

The first of these is particularly important, as it highlights the importance of place-based 'quadruple helix' collaboration, in which business and researchers, government, and civil society contribute to innovation through the difficult process of bouncing different expertise and perspectives off each other. Bringing together these perspectives also offers much more grounded evidence about markets, regional assets, and expertise to inform investment processes.

The EU required each of its regions to complete an S3 Strategy as an *ex ante* conditionality to a significant proportion of the hundreds of billions of euros available through its Cohesion Funds in its 2014-2020 multiannual financial period. The achievements in these seven years led to the renewal of the S3 program for the 2021-27 period (EU, 2020). Nonetheless, the policy and academic evaluations of the first period led to a greater

appreciation of the difficulties of implementing S3 in 'Less Developed Regions' (LDRs), and of the importance of broadening the innovation agenda beyond a relatively narrow focus on science and technology to encompass socioecological innovation and the societal challenges associated with sustainability (Coenen and Morgan, 2020).

A decade on from the OECD's initial focus on regions, the EU has demonstrated the importance of a policy framework which provides a clear and consistent view of future possibilities and a clear methodology for engaging key stakeholders in how that future might be realised. As well, there has been considerable learning about the conditions and institutional capability that is crucial for successful implementation of S3 – the 'heroic assumptions' as they have been described by Marques and Morgan (2018; see also Rodriguez-Pose and Ganau, 2021). The emphasis in implementation has been on identifying specific regional assets, and on building cross-sectoral collaboration in order to realise the innovation potential of those assets (EU, 2020).

6. DEVELOPING AN AUSTRALIAN S3 APPROACH

Might this approach assist Australia in overcoming the inadequacies of its regional policy framework? The first regional authority to pay systematic attention to the EU's work on regional innovation and its possible benefits in Australia was the Regional Development Australia committee in the Hunter region (RDA Hunter). The Hunter region is Australia's largest, with a diversified economic base with coal mining as its principal source of revenue.

Interest in S3 developed over several years, beginning with the Hunter Central Coast Innovation Festival in 2009. This prompted a survey of businesses focused on 'Innovation in Business' that was conducted in 2012, with results feeding into the *Hunter 2013 Innovation Scorecard* (RDA Hunter, 2013, 10). This was followed by the subsequent publication in 2014 of the *Hunter 2014 Innovation Scorecard: Smart Happens Here*. This time, the RDA Hunter looked to benchmark Hunter businesses against global competitors, specifically those in Europe. Drawing on the EU's Regional Innovation Scorecard, businesses were surveyed using questions drawn directly from the EU's survey. As the 2014 *Scorecard* outlined:

> The EU recognises that innovation improves economic performance and employment opportunities - demonstrated by its ongoing multibillion Euro investment in innovation programs... RDA Hunter is applying the EU's lessons in the region by

producing the Hunter Innovation Scorecard. The 2014 Scorecard demonstrates the region's strong innovation performance and compares the Hunter to the EU which operates within a tested innovation system and framework. (RDA Hunter, 2014, p. 1).

With this experience, the RDA Hunter initiated an S3 process with the support of researchers at the University of Technology Sydney. Based on extensive quantitative and qualitative data and a forum attended by more than 150 stakeholders, this culminated in the publication of *Smart Specialisation Strategy (S3) for the Hunter Region: A strategy for innovation-driven growth* (RDA Hunter, 2016). The Strategy focused on innovation based on the region's assets, highlighting opportunities across seven sectors. It attracted strong political support, with endorsement from the Prime Minister, Malcolm Turnbull, and the EU Ambassador to Australia, HE Sem Fabrizi. However, the implementation of the Strategy depended on investment which was difficult to attract (see https://rdahunter.org.au).

The second commitment to implementing S3 in an Australian region came in another coal-transition region, the Latrobe Valley. Following the announcement of the closure of the Hazelwood coal mine and power generator in 2016, the State Government of Victoria established the Latrobe Valley Authority (LVA) to address the transition challenges which would arise, initially from the closure of such a large employer, and subsequently, of all coal-powered generators. It focused firstly on the redeployment of workers affected directly and indirectly by the plant closure, and then on large-scale projects that would bring public investment into the Valley.

The third stage was the reconstruction of the regional economy, which inevitably meant a focus on Gippsland, not only the Latrobe Valley (see Figure 2). Although there is considerable diversity within Gippsland, the interconnectedness of the regional economy has been a feature of its development since the beginning of European settlement (Australian Journal of Regional Studies, 2017). The LVA officers undertook a review of global best practice in regional transition and identified the OECD/EU engagement with S3 as an appropriate framework for Gippsland. They engaged support from researchers at the University of Melbourne and Royal Melbourne Institute of Technology University, who had expertise with respect to S3. This team initiated an action research project which has generated the data on which this section of the article is based.

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Figure 2. Map of Victoria with Gippsland Highlighted. Source: Regional Development Victoria (2021).

The S3 process (EU, 2012) commences with a Regional Context Analysis (RCA), which is a rigorous assessment of the evidence that aims to identify the assets and knowledge which can support innovation opportunities and potential challenges in a region. Such analysis is also difficult practically in the Australian context, where, unlike in Europe, there is no established architecture for the kind of place-based data collection that underpins European S3 processes. Further, in gathering evidence for the Gippsland RCA, the extensive geographical spread of the region and its population, its diversity and the limited presence of research and education facilities, demonstrated considerable variation from the pattern of most regions in Europe (Goedegeburre *et al.*, 2020, p. 24).

This learning made it apparent that implementing S3 in Gippsland ('GS3') would be an intense process of policy experimentation. Apart from

the inadequacy of regional data, there were other circumstances which indicated that it would differ greatly, not only from the European experience but also from typical regional development processes in Australia.

One important aspect of policy experimentation in the GS3 process was the decision to focus on particular industry sectors. The S3 methodology was designed to focus on activities within production processes, exploring the opportunities for innovation across sectors and developing regional innovation *systems*. However, in Gippsland, local political and policy constraints demanded the adaptation of the approach to take as its basis four significant sectors of the regional economy. These sectors – food and fibre, renewable energy, the visitor economy and health services – had emerged from the context analysis as being the foundation of the future regional economy (Goedegebuure *et al.*, 2020).

Steering Committees, representative of the industry, government, education/research, and civil society (the Quadruple Helix), were established for each sector. This kind of collaboration proved to be unfamiliar and challenging. Differences in language, priorities, reward systems, and resources required time to explore and understand and were contrary to established ways of working. Nevertheless, key themes and questions emerged and were informed by the RCA and Steering Committee discussions. From the outset, not least because of civil society participation, there was widespread recognition of social issues, such as food insecurity, which could not be dealt with simply through a focus on a single sector. It became evident that the initial sectoral focus would lead inevitably to the development of collaborative, cross-sectoral alliances and networks. Through extensive discussion focused on the RCA evidence, a series of specific assets and innovation opportunities were identified for careful examination through the Entrepreneurial Discovery Process (EDP) (EU. 2012).

In the 'New' Energy sector, for example, four opportunities were explored through the EDP: Bio-energy, Geothermal energy, Community energy, and Smart Grids. Subsequent Innovation Groups (an extension of the EDP that was unique to Gippsland) drew in more than a thousand individuals to address specific aspects of each type of new energy (Shortis *et al.*, 2020). Innovation, in this context, came very much to focus on meeting societal challenges as much as promoting new industries and employment. For example, emerging projects encompassed plans for a town-wide smart grid in Heyfield, aimed firstly at overcoming persistent breakdowns in the local grid, but also testing community-led and owned

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power generation in ways that could be replicated in other locations. In the town of Yarram, work undertaken to pilot a 'Community Energy Park' has led to the State Government funding the installation of pyrolysis technology at a local sawmill, which would use the waste wood product as feedstock for energy production and a range of bio-fuels (see https://lva.vic.gov.au/media/download/GS3-eBulletin-3-August-2021.pdf).

A similar pattern became apparent in each of the four sectors. Alongside initiatives which did relate clearly to scientific and technological innovation, there was growing recognition of the significance of social innovation, drawing on the everyday economy of essential goods and services, not least education, health, and utilities (Coenen and Morgan, 2020; the Foundation Economy Collective, 2018). This developed from the challenges and priorities elucidated by participants, particularly community participants, in a region with a history of lagging social indicators. It also reflected the changing demographics of Gippsland, where, as in many regions in Australia, an increasing share of the workforce was engaged in 'foundational' activities such as healthcare, social services and education. In this sense, the agenda of GS3 has paralleled and even pre-empted the recent evolution of S3 into 'S4': Smart Specialisation for Sustainability (Coenen and Morgan, 2020; Miedzinksi et al., 2021).

7. A DISTINCTIVE APPROACH?

The implementation of an S3 process in Gippsland remains a form of policy experimentation unique in regional Australia. The project's focus on developing an integrated, innovative, and sustainable economy, based on efforts to systematically and empirically identify regional assets and opportunities is the first of its kind in Victoria (Goedegebuure et al., 2020). Gippsland was the first region outside of Europe – and the only in Australia - to be registered with the EU Joint Research Centre's Smart Specialisation Platform, making the region and the GS3 project a globally significant site of policy experimentation for an evolving methodology originally developed in and for a European context.

From an Australian perspective, the policy experimentation has had a number of features:

> a focus on strengths and assets rather than gaps and inadequacies in local resources;

• an exploration of the innovation potential associated with natural assets, as well as science and related knowledge assets;

- an emphasis on collaboration rather than competition;
- diverse models of place-based innovation; and
- exploration of appropriate governance arrangements.

Apart from the learning on each of these issues and the progress with specific projects, a culture of collaboration and learning can be seen to have developed in the region (see, for example, Food and Fibre Gippsland: https://www.foodandfibregippsland.com.au/smart-specialisation).

Furthermore, the achievements in New Energy, for example, demonstrate that empirically-driven economic innovation is possible, though progress has been limited and slow from a systemic point of view (Goedegebuure *et al.*, 2020). The process has contributed to an evidence-led discussion about the urgency of energy transition and climate action in the region, and the relevance of global transition as articulated by the UN Sustainable Development Goals (SDGs), to localised regional development. Across the Quadruple Helix, project champions and sector leaders increasingly recognised the value of co-design, co-investment, and burden-sharing (Wiseman *et al.*, 2020).

From the outset, the OECD/EU approach to regional innovation overwhelmingly focused on scientific and technological innovation as the pathway to establishing regional innovation systems. In Gippsland, like many lagging regions in the EU, such a focus is not necessarily conducive, or appropriate, to place-based innovation. In Europe, too, many lagging regions struggle with useful data collection, which is then reflected in the EDP and efforts to identify distinctive knowledge assets. The 'heroic assumptions' about how the S3 process is established in such regions had already been identified (Marques and Morgan, 2018). Such challenges were reflected in Gippsland, where a focus on natural assets and how those might act as a foundation for cross-sectoral innovation became important.

Other questions have emerged. The architecture for implementing S3 in Australia is undermined by ambiguities in regional governance, coherent management of resources and the limited capability of the tertiary sector in many parts of country Australia. As the final report of the GS3 team explained:

> ...[G]etting the space and resources to engage strategically with innovation depends on transformative interactions with educational and research institutions and the implementation of time and cost-saving technology. However, at this stage, the sector is largely segmented and inwardly focused, rather than engaged in

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> strategic partnerships with regional government and industry (Goedegebuure et al., 2020, p. 17).

With respect to governance and resourcing, the establishment of the LVA, with its mandate not only for an immediate response but also for long-term economic planning, not to mention the capability of its key staff, has provided a rare space for experimentation. It has been able to sponsor different approaches while continuing to engage with local elites and entrenched interests. However, legitimating its approach has proved a persistent task, requiring it to 'continuously ... explain and convince its counterparts in government of the value of the approach and the value of the governance model adopted' (Goedegebuure et al., 2020, p. 34)

8. CONCLUSION

So, does smart specialisation offer deeper coherency and strategy in Australian regional policy? The methodology, certainly, lends itself to the development of coherent and strategic regional thinking. The place-based, detailed empirical work of documenting a region's assets overcomes the historic incoherence of data and information available for developing regional policy. The participatory, deliberative process of entrepreneurial discovery across sectors and across the quadruple helix, meanwhile, enables the development of strategic vision and tactics to achieve this. This can go some way towards remedying the perceived 'democratic deficit' in top-down policymaking, especially when seen through the vector of metropolitan-based governments making decisions for regions, rather than in partnership with them.

The insights into the benefits of S3 for regional policy in Gippsland indicate that it is part of a new approach. However, a more comprehensive rethinking of Australian regional policy depends on envisioning the work of government in the context of a new social contract between city and country. As signalled by the OECD a decade ago, governments at all levels need to see themselves as entrepreneurial partners in the sustained viability of the rural, regional and remote economy.

A revitalised social contract for country Australia calls for the government to focus on broadly-based partnerships with industry, research institutions, and community to achieve deliberate economic, social, and environmental ends through collaborative processes. Successive Australian governments have recognised their role in restructuring rural industries, but as yet have not taken the vital step to partner more actively with industry and community to enable the levels and kinds of investment

to occur that would bring about the longer-term restructuring of regional economies which are both desirable and achievable. European initiatives such as S3 provide a developed policy model for the kinds of partnership that would make a massive difference to how recovery processes could be imagined in Australia.

Furthermore, the policy requires sufficient flexibility to adapt to the circumstances of different kinds of regions and to pay attention to the institutional capacity that is required to nurture and support effective collaboration. However, the governance arrangements do not presently exist to enable such an approach to be implemented. From a government point of view, appropriate contracts and accountabilities need to be in place so that the public can be assured that government funds are spent appropriately. From a regional perspective, the necessary institutional processes do not exist that can properly receive, manage and distribute resources, in a manner responsive to local assets and needs.

If these broader issues can be addressed effectively, smart specialisation does indeed have a significant contribution to make to delivering vibrant and prosperous regional Australian communities. However, a critical element of its success will be recognition that there is still much to be learned about how diverse Australian regions can build regional collaboration and innovation systems that will strengthen their futures.

REFERENCES

Alston, M. and Kent, J. (2004). Social Impacts of Drought. A report to NSW Agriculture. Centre for Rural Social Research, Charles Sturt University, Wagga Wagga. Online version accessed March 2022,

https://www.csu.edu.au/__data/assets/pdf_file/0008/704483/Soci al-Impacts-of-Drought.pdf.

Australian Broadcasting Commission (2020). Sea level rise will see 40pc of Australia's beaches lost, predicts new study. Online version accessed September 2021,

https://www.abc.net.au/news/science/2020-03-03/beaches-sea-level-rise-australia/12006286?nw=0&r=HtmlFragment.

Australian Bureau of Statistics (2021). Twenty years of population change. Australian Bureau of Statistics, Canberra. Online version accessed October 2021, https://www.abs.gov.au/articles/twentyyears-population-change.

- Barca, F. (2011). An Agenda for a Reformed Cohesion Policy: a placebased approach to meeting European Union challenges and expectations. DG Regio, European Commission.
- Barr, N. (2009). *The house on the hill- the transformation of Australia's farming communities*. Canberra, Halstead Press.
- Brett, J. (2007). The country, the city and the state in the Australian settlement. *Australian Journal of Political Science*, 42, pp. 1-17.
- Brett, J. (2011). Fair share: Country and city in Australia. Quarterly Essay.
- Bureau of Infrastructure, Transport and Regional Economics (BITRE) (2014). The evolution of Australian towns. Report 136. Bureau of Infrastructure, Transport and Regional Economics, Canberra. Online version accessed October 2021, https://www.bitre.gov.au/publications/2014/report_136.
- Bureau of Meteorology (2022). Drought: Rainfall deficiencies and water availability. Bureau of Meteorology, Melbourne. Online version accessed October 2021, http://www.hom.gov.gov/alimete/drought/

http://www.bom.gov.au/climate/drought/.

- Carson, D. (2011). Political economy, demography and development in Australia's Northern Territory. *The Canadian Geographer/Le Géographe Canadien*, 55, pp. 226-242.
- Cockfield, G. (2015). From state direction to community self-efficacy: the devolution of responsibility for regional development in Australia. In A. Hogan; M. Young (Eds) *Rural and regional futures*, Routledge, London, pp. 38-57.
- Coenen, L. and Morgan, K. (2020). Evolving geographies of innovation: existing paradigms, critiques and possible alternatives. *Norwegian Journal of Geography*, 74, pp. 13-24.
- Crean, S. (2011). Investing in regional Australia. Online version accessed September 2021, https://archive.budget.gov.au/2011-12/ministerial statements/ms rural and regional.pdf.
- Danniell, K. A., Hogan, A. and Cleary, J. (2017). Breaking Down the 'One-Size-Fits-All' Approach to Rural and Regional Policy: Enhancing Policy Initiatives through Multi-level Governance. In K. A. Daniell and A. Kay (Eds) *Multi-level governance. Conceptual challenges and case studies from Australia*, Australian National University E Press, Canberra, pp. 403-428. Online version accessed September 2021, http://pressfiles.anu.edu.au/downloads/press/n3935/pdf/prelims.pdf.

Department of Agriculture, Water and the Environment (a) (2021). Snapshot of Australian Agriculture 2021. Department of Agriculture, Water and the Environment, Canberra. Online version accessed October 2021, https://www.agriculture.gov.au/abares/products/insights/snapshot -of-australian-agriculture-2021.

Department of Agriculture, Water and the Environment (b) (2021). Snapshot of Australian Agriculture 2021. Labour use in Australian Agriculture. Department of Agriculture, Water and the Environment, Canberra. Online version accessed October 2021, https://www.agriculture.gov.au/abares/research-topics/labour.

Department of Agriculture and Water Resources (2019). Agricultural Innovation - A National Approach to Grow Australia's Future: Full report. Ernst & Young, Canberra. Online version accessed September 2021,

> https://www.awe.gov.au/sites/default/files/sitecollectiondocumen ts/agriculture-food/innovation/full-report-agriculturalinnovation.PDF.

Department of Infrastructure, Transport, Regional Development and Communications (2019). Australia's regions – investing in their future. The recommendations of the Strategic Regional Growth Expert Panel for investing in the future of regional Australia. Online version accessed October 2021,

https://www.infrastructure.gov.au/sites/default/files/migrated/regi onal/publications/files/australias-regions-investing-their-future-expert-panel-report.pdf.

- Department of Infrastructure, Transport, Regional Development and Communications (2021). Regional Ministerial Budget Statement 2020-21. Department of Infrastructure, Transport, Regional Development and Communications, Canberra.
- European Union (2010). Europe 2020 Strategy. Online version accessed September 2021, http://ec.europa.eu/europe2020/tools/flagshipinitiatives/index_en.html.
- European Union (2012). Guide to Research and Innovation Strategies for Smart Specialisation. Sevilla, Smart Specialisation Platform. Online version accessed September 2021,

https://ec.europa.eu/regional_policy/sources/docgener/presenta/s mart_specialisation/smart_ris3_2012.pdf.

European Union (2020). Place-based innovation for sustainability. Report prepared by P. McCann and L. Soete, for the Joint Research

Centre, European Commission. Online version accessed September 2021,

https://publications.jrc.ec.europa.eu/repository/handle/JRC12127 1.

Foray, D., David, P. and Hall, B. (2009). Smart Specialisation – the Concept. EU Knowledge Economists Policy Brief n° 9, Brussels.

Goedegeburre, L., Wilson, B., Coenen, L., Schoen, M., Fastenrath, S., Ward, C. and Shortis, E. (2020). Developing and Implementing a Smart Specialisation Approach for Gippsland 2018-2020.
Melbourne Sustainable Society Institute (MSSI), Melbourne.
Online version accessed September 2021, https://sustainable.unimelb.edu.au/__data/assets/pdf_file/0003/35 18319/FINAL-GS3-Report-2018-2020.pdf.

Gross, C. (2015). Perspectives on population policy in Australia. In A. Hogan, M. Young (Eds) *Rural and regional futures*, Routledge, London, pp. 101-114.

- Hogan, A., Hanslip M., Kancans, R., Russell, J. and Stakelum, P. (2008).
 Climate risk and adaptation among primary producers. In *It's about people changing perspectives on dryness. A report to Government by an expert social panel.* Bureau of Rural Sciences, Canberra.
- Hogan, A. and Young, M. (2015). *Rural and regional futures*, Routledge, London.
- Isaksen, A., Martin R. and Trippl, M. (2018). New Avenues for Regional Innovation Systems – Theoretical Advances, Empirical Cases and Policy Lessons, Springer, Cham.

Joint Research Centre (2021). Miedzinski, M., Ciampi Stancova K, Matusiak M and Coenen, L. (2021). Addressing sustainability challenges and Sustainable Development Goals via Smart Specialisation: towards a theoretical and conceptual framework, Publications Office of the European Union. Online version accessed September 2021, https://s3platform.jrc.ec.europa.eu/en/w/addressingsustainability-challenges-and-sustainable-development-goals-via-

smart-specialisation.-towards-a-theoretical-and-conceptual-framework.

Kenny, P. (2008). Drought Policy Review Expert Social Panel 2008. It's About People: Changing Perspective. A Report to Government by an Expert Social Panel on Dryness, Report to the Minister for Agriculture, Fisheries and Forestry. Department of Agriculture,

Fisheries and Forestry, Canberra. Online version accessed September 2021,

https://www.awe.gov.au/sites/default/files/sitecollectiondocumen ts/ag-food/drought/publications/dryness_report.pdf.

- Lawrence, G. and Gray. I. (2000). The myth of modern Australian agriculture: Australian rural production in the 21st century. In B. Pritchard, and P. McManus (Eds) *Land of discontent the dynamics of change in rural and regional Australia*, University of NSW Press, Sydney, pp. 33-51.
- Marsden Jacobs & Associates, RMCG, EBC Consultants, DBM Consultants, Australian National University, Geoff McLeod and Tim Cummins (2010). Synthesis report. Economic and social profiles and impact assessments in the Murray Darling Basin. Murray-Darling Basin Authority, Canberra.

Marques, P. and Morgan, K. (2018). The Heroic Assumptions of Smart Specialisation: A Sympathetic Critique of Regional Innovation Policy. In A. Isaksen, R. Martin and Trippl, M. (Eds) *New Avenues for Regional Innovation Systems – Theoretical Advances, Empirical Cases and Policy Lessons*, Springer, Cham.

Miedzinski, M., Stancova, K. C., Matusiak, M. and Coenen, L. (2021). Addressing sustainability challenges and Sustainable Development Goals via Smart Specialisation. Joint Research Centre. Science for Policy Report, European Union.

Milne, M., Stenekes, N. and Russell, J. (2008). Climate Risk and Adaptation. In *It's about people – changing perspectives on dryness*. A report to Government by an expert social panel. Bureau of Rural Sciences, Canberra. Online version accessed September 2021,

https://www.awe.gov.au/sites/default/files/abares/documents/clim ateriskadapt.pdf.

- Organisation for Economic Cooperation and Development (OECD) (2009). Regions Matter: Economic Recovery, Innovation and Sustainable Growth. Organisation for Economic Cooperation and Development, Paris.
- OECD (2010). Regional Development Policies in OECD Countries. OECD, Paris.
- OECD (2011). Regions at a Glance 2011. OECD, Paris.
- OECD (2013). Innovation Driven-Growth in Regions: The Role of Smart Specialisation. OECD, Paris.
- OECD (2015). Promoting Growth in All Regions. OECD, Paris.

Regional Policy in Australia: Can Smart Specialisation deliver vibrant and prosperous regional Australian communities?

- Productivity Commission (2005). Trends in Australian Agriculture. Research Paper. Productivity Commission, Canberra. Online version accessed September 2021, https://www.pc.gov.au/research/completed/agriculture.
- Productivity Commission (2017). Transitioning Regional Economies. Study Report. Productivity Commission, Canberra. Online version accessed September 2021,
- https://www.pc.gov.au/inquiries/completed/transitioning-regions. RDA Hunter (2013). Hunter 2013 Innovation Scorecard: Australia's Most
- Innovative Region. RDA Hunter, Newcastle. Online version accessed September 2021, https://www.rdahunter.org.au/wpcontent/uploads/2019/03/2580_RDA_Hunter_Innovation_Scorec ard_DRAFT06b.pdf.
- RDA Hunter (2014). Hunter 2014 Innovation Scorecard: Smart Happens Here. RDA Hunter, Newcastle. Online version accessed September 2021, https://www.rdahunter.org.au/wpcontent/uploads/2019/03/Offsets_RDAHunter_submission_April _2014.pdf.
- RDA Hunter (2016). Smart Specialisation Strategy [S3] for the Hunter Region: A strategy for innovation-driven growth. RDA Hunter, Newcastle. Online version accessed September 2021, https://www.rdahunter.org.au/wpcontent/uploads/2019/03/SmartSpecialisationStrategyfortheHunte rRegion.pdf.
- Reserve Bank of Australia (2011). The Resources Boom. Reserve Bank of Australia, Sydney. Online version accessed October 2021, https://www.rba.gov.au/publications/bulletin/2011/mar/pdf/bu-0311-10.pdf.
- Rodriguez-Pose, A. and Ganau, R. (2021). Institutions and the productivity challenge for European regions. *Journal of Economic Geography*, 22, pp. 1-25. DOI:10.1093/jeg/lbab003.
- Shortis, E., Ward, C. and Wilson, B. (2020). Working hard to get energytransition policy right: learning from Gippsland's Latrobe Valley's efforts. *The Mandarin*, July.
- Smith, E. and Pritchard (2015). Australian agricultural policy: the pursuit of agricultural efficiency. In A. Hogan, and M. Young (Eds) *Rural and regional futures*, Routledge, London, pp 58-70.
- Sydney Morning Herald (2021). Australia's coal exports to 'halve by 2050' if climate goals are met. Online version accessed October 2021, https://www.smh.com.au/business/the-economy/australia-

s-coal-exports-to-halve-by-2050-if-climate-goals-are-met-20211006-p58xuc.html.

- The Australian Small Business and Family Enterprise Ombudsman (2019). The workforce challenges of rural and regional Australia. The Australian Small Business and Family Enterprise Ombudsman, Canberra. Online version accessed October 2021, https://www.asbfeo.gov.au/news/news-articles/workforcechallenges-rural-and-regional-australia.
- Trading Economics (2021). Australia employment in agriculture. Online version accessed October 2021, https://tradingeconomics.com/australia/employment-inagriculture-percent-of-total-employment-wb-data.html.
- Wu, W., Dawson., D, Fleming-Muñoz, D., Schleiger, E. and Horton J. (2019). *The future of Australia's agricultural workforce*. Commonwealth Scientific Industry Research Organisation Data61: Canberra, Australia. Online version accessed October 2021, https://www.qff.org.au/wp-content/uploads/2019/12/19-00351_DATA61_REPORT_AgricultureWorkforce_WEB_19103 1.pdf.
- Wilson, B., Ward, C. and Hogan, A (2021). Major Disruptive Events in Selected Australian Regional Communities: Policy Issues for Business Recovery, and for Decision-Making Structures. Report prepared for Regional Australia Institute, Melbourne.
- Windsor, T. (2011). Sustaining rural communities how can we achieve it? Keynote paper. Sustaining Rural Communities Conference, Cotton Communities CRC. Narrabri. Online version accessed October 2021,

http://www.cottoncrc.org.au/content/SRC/2011_Conference/2011 _Conference_program.aspx.

Wiseman, J., Workman, A., Fastenrath, S. and Jotzo, F. (2020).
Addressing sustainability challenges and Sustainable
Development Goals via Smart Specialisation. Centre for Climate and Energy Policy Working Paper, Australian National
University, Canberra. Online version accessed October 2021, https://ccep.crawford.anu.edu.au/sites/default/files/publication/cc
ep_crawford_anu_edu_au/2020-11/ccep2010 wiseman workman fastenrath jotzo after hazelwood.pdf.