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Centre of Excellence in Smart Specialisation and Regional Policy

Linking regional innovation systems with mission-oriented policy

Reflections on the Second Regional Roundtable

December 2019

1. Centre of Excellence in Smart Specialisation and Regional Policy – Regional Research Roundtable

The Centre of Excellence in Smart Specialisation and Regional Policy (the Centre) aims to:

- facilitate international cooperation between researchers and policy-makers working on initiatives to support innovative economic and social development in regions
- broaden understanding of the role of EU regional policy, and
- support the implementation of smart specialisation initiatives and the development of regional innovation systems in countries beyond the EU.¹

The Centre hosted a research roundtable at RMIT University on 11 December 2019 with 14 participants.² Elvira Uyerra (University of Manchester) presented on mission-oriented policy and learnings for place-based innovation. A panel discussion on the potential of the UN Sustainable Development Goals (SDGs) as a framework for place-based innovation policy followed. Participants then identified key focus areas for future roundtables in 2020.

2. Linking regional innovation systems to mission-oriented policy

Dr Elvira Uyerra from the University of Manchester provided the lead presentation at this roundtable. Dr Uyerra is Reader in Innovation Policy and Strategy at Alliance Manchester Business School (University of Manchester) where she is also director of the Manchester Institute of Innovation Research and programme director of the MSc in Innovation Management and

¹ For more information see the Centre flyer at Appendix A or <https://www.rmit.edu.au/about/our-education/global-outlook/european-union-eu-centre/research-programs#regional>

² The participants at the February Roundtable were: Elvira Uyerra (University of Manchester), Anthony Hogan (EGA Insights), Sebastian Fastenrath (UniMelb), Todd Denham (RMIT), Sarah Howe (RMIT), Mick Timpano (LVA), Jess Horton (LVA), Fiona McKenzie (DELWP), Robyn Eversole (Swinburne), Leo Goedegebuure (UniMelb), Lynn Meek (UniMelb), Bruce Wilson (RMIT), Chloe Ward (RMIT), and Anna Hyland (RMIT).

Entrepreneurship. Dr Uyarra is also adjunct professor at the Mohn Center of Innovation and Regional Development at the University of Western Norway and visiting fellow at the Centre for Innovation Management Research (CIMR) at Birkbeck, University of London.

In her presentation, Dr Uyarra proposed that place-based innovation can learn from mission-oriented innovation policy. Dr Uyarra opened her presentation with a discussion of mission or challenge-oriented approaches to innovation, describing these as top-down strategies that take a particular societal challenge as their starting point. Dr Uyarra linked these to the historical changes in rationales for innovation policy. She then identified the limitations of mission-based policy, which are its insensitivity to geographical context, to the local embeddedness of industry, and to the significance of place-based institutions.

Smart Specialisation, as a place-based innovation strategy, has been championed as remedying these gaps in innovation policy. However, Dr Uyarra described challenges for Smart Specialisation:

- A lack of normative focus and clear objectives
- A limited focus on the economic competitiveness of regions
- A disconnection from social challenges
- The risks of firm-led specialisation, which can be limited and restrictive.

Dr Uyarra proposed that a focus on demand can provide place-based innovation strategies with the direction and transformative agenda usually associated with mission-oriented policy. Articulating 'missing markets', including those related to societal challenges, can drive structural change in regional economies and highlight the potential significance of public procurement in driving innovation. These challenges, when identified, can legitimise public investment in technologies. The task of solving these challenges can connect disparate sectors and actors. This work can also potentially open up export markets to regions and nations facing similar problems.

She cited the example of Galicia, in Spain, where the market for Autonomous Aerial Vehicles (UAVs) was identified as a focus area for economic development, leveraging existing infrastructure, skills, and regional environmental conditions.

The slides for Dr Uyarra's presentation are provided in the appendices.

3. Sustainable Development Goals: a framework for place-based innovation policy?

Professor Bruce Wilson and Anna Hyland discussed the potential relevance of the SDGs as a framework for place-based innovation in Australia. The SDGs can be seen as both providing a mission and a focus for innovation policy. They also broaden the scope of regional innovation systems to include societal challenges.

Bruce Wilson described the centrality of the SDGs to the strategic planning and implementation of work programs in various EU institutions. Both Horizon Europe and the Joint Research Centre have explicitly connected their frameworks, including Smart Specialisation, to the SDGs. This suggests that the SDGs could provide Australia with a way of thinking about both Smart Specialisation and a broader normative agenda. This could also provide a point of access for place-based innovation into regional research and state and federal policy debates.

This assessment could, however, be over-optimistic, because the Australian response to the SDGs to this point has been superficial compared with Europe's. It was suggested that the policy emphasis in SDG work in Australian public policy is more on implementation and monitoring, and repackaging work that is already underway, rather than using the SDGs as a strategic framework.

Anna Hyland proposed that the SDGs can inject directionality into Smart Specialisation. But this

raises the question of where this sits in a place-based approach – are the SDGs top-down, or bottom-up? Anna referenced her work on mid-sized towns, where questions of what a ‘good life’ means could provide a starting point for connecting the bottom-up approaches associated with S3 with the strategic goals of the SDGs.

Participants noted that the SDG agendas of decent work, economic growth, water, climate, and education are already present in regions and their values. The Centre’s role could be to bring these to public awareness: ‘we are acting deeply on our values, but how do we act consciously on them?’.

Participants also raised the possibility that the SDG framework could enable a broader focus on social innovation for Smart Specialisation in Gippsland. The SDGs have not yet infiltrated public, local discourse, and suggested drawing an explicit link between this, and ideas of ‘liveability’ in Gippsland.

Furthermore, the Entrepreneurial Discovery Process in Gippsland has focused on value chains, competitive advantage, and industries. This led to the social innovation agenda being somewhat sidelined. Work on community energy already provide an example of linking the economy to social relationships. Forthcoming work on health is also an opportunity to bring social innovation to the heart of the Smart Specialisation process, and to test how demand and public procurement can drive innovation.

4. Building an agenda for 2020

Recognising the challenges raised by Dr Uyarra’s presentation, participants raised key questions for Smart Specialisation in Gippsland, and as a potential strategy in other Australian regions.

- How can the Centre promote resilient governance structures and build institutional capacity that will survive relatively short Australian electoral cycles?
- In a place-based innovation system, how can the community recognise unmet demand within and outside the region? What does inter-regional and global value chain analysis look like?
- How can the Centre develop and communicate a narrative about its ongoing work to regional communities and government stakeholders?

Following the discussion, Bruce Wilson proposed the following focus areas for the Centre’s 2020 agenda:

- Directionality: what is the logic and direction of momentum of innovation and development in regional areas? What outcomes are sought?
- What innovation mean to the Centre, and what does a comprehensive agenda around innovation look like? How can we be more explicit about the ‘social good’ dimension of innovation?
- Governance: what counts as a region, and what does a division of responsibility between state, federal, and local government, and agencies?
- Data: what is our data, where is it and who owns it? Following on from the innovation survey, how can we map the Gippsland economy with granular detail of sectoral distribution?
- Storytelling: how do we find niches in the public debate and policy agenda, at the local and national level, to make inroads in communicating stories about our progress?

Through its activities in 2019 including this roundtable, the Centre has developed ideas, energy, and opportunities for Smart Specialisation and Regional Policy. The report of the Centre’s second Research Roundtable provides clarity on the strategic issues surrounding a Smart Specialisation

agenda in Australia's regions. It also points to future directions, drawing on both the expertise of local participants and Dr Uyarra's international experience and theoretical insights.

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**JEAN MONNET CENTRE OF EXCELLENCE ON
SMART SPECIALISATION AND REGIONAL POLICY**

The Centre of Excellence on Smart Specialisation and Regional Policy aims to promote international cooperation between researchers and policy makers working to support innovative economic and social development in regions.

The Centre seeks to broaden understandings of the role of regional policy in the integration of the European Union, recognising the EU's current emphasis on smart specialisation strategies. A key theme is the effectiveness of regional policy in assisting with integration. This has global relevance, as it offers an approach to addressing problems such as regional disparities, climate change and cultural cohesion that are found in all parts of the world, not least in Australia.

The Centre aims to strengthen RMIT's capability to improve the quality of teaching and research in the regional development and policy fields. It will strengthen the linkages with EU regional policy researchers and policy makers, and enhance understanding in Australia and in Asia about the contribution which regional policy makes to EU integration processes.

The project is co-funded by the European Union under the Erasmus+ Programme Jean Monnet Activities

The Centre's objectives are to:

- share best practice and promote dialogue about regional policy and smart specialisation processes
- undertake comparative research on the implementation of smart specialisation and implications for regional development and policy
- promote policy dialogue about the economic, social and environmental contribution that smart specialisation processes can make
- enhance the depth and quality of teaching subjects that address the EU experience, and
- attract students to postgraduate studies on smart specialisation and regional policy, and support early career researchers.

Partners

- Prof Bruce Wilson
- A/Prof Lauren Rickards
- Prof Peter Fairbrother
- Dr Meagan Tyler
- Mr Todd Williams

Key actions include:

- Undertake new research to support policy recommendations
- Annual roundtables and policy dialogues bringing together researchers and policy makers to share insights and debate issues
- Web-based communication, sharing details of research and activities of interest to regional policy-makers and researchers in Australasia
- Review of learning resources for students, ensuring that the content reflects current debates and research outcomes;
- Support for early career academics at roundtables and conferences

For more information, contact:

Anna Hyland
 EU Centre at RMIT
 T: +61 3 9925 0858
 E: eucentre@rmit.edu.au
 W: rmit.edu/eucentre



APPENDIX B




MANCHESTER
1824
The University of Manchester
Alliance Manchester Business School

MANCHESTER INSTITUTE OF INNOVATION RESEARCH

linking regional innovation systems with mission-oriented policy

Elvira Uyarra

Research Roundtable: Centre of Excellence in Smart
Specialisation and Regional Policy, RMIT University, Melbourne
Wednesday 11 December 2019



MANCHESTER
1824
The University of Manchester

Rationale

There is a growing interest in how innovation may help steer economic transformation in socially desirable directions and drive economic diversification and structural change.

However there is a disconnect between the agendas of mission-oriented policies and new industrial policies

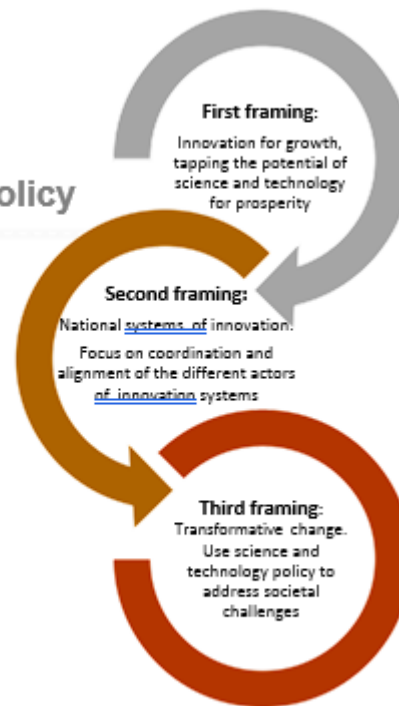
Mission or challenge-oriented approaches take a top-down approach that takes a particular societal challenge as a starting point and seeks to modulate or steer existing socio-technical systems in that direction.

New industrial policy approaches adopt a bottom-up structural approach that takes existing regional strengths as a starting point and identifies particular areas of technological specialisation order to diversify the economic base.

Challenge to bring together and help articulate these two agendas through for instance demand articulation.

Changing rationales for innovation policy

1. To overcome market failures preventing R&D investment
2. To overcome systemic failures (institutional, network and learning failures)
3. To address particular societal challenges (environmental, health, etc.)
 1. A more proactive state 'shaping' rather than 'fixing' markets
 2. Not just more innovation but transformative change (System innovation).



Schot, J., & Steinmueller, W. E. (2018). Three frames for innovation policy. *Research Policy*, 47(9), 1554-1587.

Neglects the importance of place

- However insensitive to geographical context (Coenen et al, 2015; Coenen and Morgan, 2019; Uyarra et al., 2019).

Industries are locally embedded

Importance of proximity for innovation

Multi-scalar actor networks and institutions.

Policy implementation strongly shaped by place based institutions

Challenges are local

'despite of labels of "grand" and "global", challenges are contextual' and do not 'present themselves as the same for every region or nation, as underlying problems affect places in different ways and to different extents' (Wanzenböck & Frenken, 2018).

New approaches to industrial and regional policy

New approaches to industrial policy (e.g. Rodrik, 2004) and smart specialisation advocate greater selectivity in innovation policy intervention

Regions should develop new areas of comparative advantage based on unique place-specific characteristics and assets (McCann and Ortega-Argilés, 2013).

These should be 'discovered' through bottom up 'entrepreneurial discovery' processes.

Structural change understood as occurring through endogenous, firm-led regional branching processes (Boschma, 2017).

Is Smart specialisation transformative enough?

Smart specialisation lacks a normative focus, being more concerned with the economic competitiveness of places. Disconnect with recent concerns around RRI, socio-ecological innovation and social innovation (Hassink and Gong, 2019; Tödtling and Trippel, 2018; Uyarra et al., 2019; Coenen and Morgan, 2019).

Firm-led regional branching and related variety may be too limiting and restrictive for certain economies... e.g. old industrial regions (locked in low complex activities) and peripheral regions (lacking sufficient capabilities). Other mechanisms beyond firm-led branching may be needed.

Transformative change requires a more **proactive role** of the state (Frenken, 2017) and significant **institutional work** (Lawrence and Suddaby, 2006) by **institutional entrepreneurs**, intermediaries and other actors with system-level agency to support industrial paths (Hassink et al., 2019; Isaksen et al, 2019).

Neglect of the demand side

Market formation as driver of structural change tends to be neglected.

Formulating societal needs and articulating demand may be a way to both address societal challenges and enable structural change.

There are many 'missing markets' related to **societal** challenges or problems (e.g., climate change, air quality, smart mobility, etc.).

Particular challenge or problem affecting the region may be used to legitimize public investment in particular technologies. Connect existing knowledge base and capabilities to societal goals.

Trying to solve societal challenges requires the connection of different and often disparate sectors and types of actors, thus facilitating the emergence of **unrelated industries** (Janssen and Frenken, 2019; Mazzucato, 2018).

Potentially open up export markets to countries dealing with similar challenges (Frenken, 2017, p. 45).



Example: Galician Civil UAVs Initiative

One of the key priorities of Galician S3 was to diversify Galician industry (from shipbuilding, automotive) into higher value added activities (like aerospace), attracting foreign direct investment to the region and link the local supply base with multinational firms.

Civil UAV identified as an area with huge market potential

Galicia did not have technological advantage in the sector nor large firms to develop capacity in the technology.

Challenges that could be turned into demand for technological solutions: prevention and management of forest fires, inventory and land management, disaster management, hazard mapping, control of poaching, coastal surveillance, management of tourist flows, etc.

Locational advantage: Unused airport suitable for technology testing, sparsely populated area with minimal air traffic, making it easy to segregate the air space in order to be able to test the vehicles; as well as its proximity to the sea enabling tests in different climatic conditions.

Example: Galician Civil UAVs Initiative (cont.)

ERDF-funded Civil UAVs aimed at:

- Increasing the efficiency of its public services and acting as first client for the solutions or products developed,
- creating future opportunities for improving its position on the global market

Institutional entrepreneurs in Galicia enabled legitimacy and leveraged resources to create new institutions for industrial diversification and new path creation in the aerospace industry.

- *infrastructures* to ease the development of the drone industry in Galicia, improving its legitimacy.
- *Knowledge creation*. Attraction of MNEs to develop new products, technologies and solutions;
- *Market creation*: articulate challenges into concrete demand for solutions based on UAVs e.g. in the areas of improvement of rural environments and land management, maritime control
- *Anchoring*: value capture through sub-contracting and developing of business ecosystem though e.g. supply chain development and business acceleration and incubation.

Final remarks

We need a better understanding of the scope of regions and regional policy to address societal challenges, in a multi-level context.

New path creation requires a more proactive role for the state and institutional work at multiple levels to gain political support, enable legitimacy and leverage resources.

This includes active construction of markets (influencing the scale, sophistication and direction of demand) as mechanism for path creation.

Regions can proactively use societal or policy challenges to shape markets and the selection environment for certain technological trajectories.

Building institutional capacity is however key.