

Special Session S13-S1 (Mainstreaming Smart Specialisation across Union's policies: challenges, opportunities and tools) Friday, August 30th, 2019 14.00-16.00

Rethinking place-based strategies for integrated development: the challenge of institutional thickness

Richard Tuffs, (former Director and Senior Advisor at ERRIN, the European Regions Research and Innovation Network)

Abstract

Regional innovation ecosystems driven by place-based strategies for integrated development are gaining currency as key aspects of research, innovation and increasingly industrial policy. However, these systems need actors ('boundary spanners', 'orchestrators' and 'conductors') to develop an effective ecosystem. We know that these roles should be found in triple helix organisations and smart specialisation support networks¹ but there is still an issue that there is no career path, often no job title or job description for these key actors in universities, industry and local and regional government. Smart specialisation could be a catalyst to identify and valorise these roles together with initiating the process for a new generation of institutional players for regional innovation.

Introduction

This article will examine the development of regional innovation ecosystems and argue that there is need for much more attention to be placed on governance mechanisms and especially key actors who are able to 'join up' triple helix organisations such as universities and research institutions, business and regional or city governments. Regional innovation ecosystems have become a more important area of study as they develop 'connected' regions which can stimulate and support innovation now accepted as a major input to economic growth.² Connected regions refer to regions where there are numerous actors engaged within the knowledge triangle and triple helix organisations able and willing to collaborate and spread knowledge both within the region and collaborate with external partners.

The article then argues that smart specialisation strategies provide new impetus in regional innovation dynamics but there is still much to be done in improving governance structures of smart specialisation strategies and regional innovation ecosystems. Some of the barriers are outlined including the need for stronger multi-level governance.

Innovation and regional economic development

Innovation is now seen as a key dimension of regional economic development.³ Increasingly regions are now seen as playing a key role in driving innovation within regional innovation ecosystems. Innovation is increasingly seen as an interactive and systemic process involving

¹ See Reconfirm <https://s3platform.jrc.ec.europa.eu/documents/20182/163936/ReConfirm+Brochure/81681d49-2c67-4669-9f9b-17adb68f0fee>, Interreg Europe Policy Learning Platform

² 'Innovation is an essential driver and precondition of productivity and economic progress that benefits consumers, businesses, the economy and the society as a whole.' Page 8, in 'A vision for the European Industry until 2030' (2019), European Commission

³ Marc Lemaître, Director General for Regional and Urban Policy, European Commission (DG REGIO) – Seminar on Synergy Building at Nordrhein-Westfalen Office in Brussels 18 February 2019

a wide range of actors both public and private and shaped by institutional routines and social conventions.⁴ Systemic innovation lends itself to solving societal problems and thus has become central to the more challenge-driven view of science and innovation which has been taken up in the promotion of ‘mission-oriented policies’ in EU research and innovation policy. Mazzucato argues that mission-oriented policies can be defined as systemic public policies that draw on frontier knowledge to attain specific goals or ‘big science deployed to meet big problems.’ Missions provide a solution, an opportunity, and an approach to address the numerous challenges that people face in their daily lives.⁵

‘Institutional thickness’ refers to the ability of a range of relevant organisations to connect both within a region or a functional economic area and between regions or other functional economic areas. Institutional thickness is part of institutional and regional strategy processes which Reichert⁶ identifies as one of the elements of an innovation ecosystem. Other dimensions include and encompasses, culture which includes shared narratives and trust, human capital, knowledge production, supporting structures and network communication and channels.

The regional dimension of innovation has been influenced by the ‘knowledge triangle’ and the increased role of universities in cities and regions as drivers of innovation. The knowledge triangle promotes a close relationship between education, research and innovation. This model is now accepted at all levels – from the regional to the European level. For example, the European Institute of Innovation and Technology (EIT), set up in 2008, has been an initiative with EU funding to integrate fully all three sides of the knowledge triangle by way of Knowledge and Innovation Communities (KICs) comprising international consortia of universities, firms, research organisations and other stakeholders that aim to advance knowledge and innovation in important fields.⁷

Triple helix collaboration

However, the success of this knowledge triangle relies on strong collaboration and coordination between the principle actors. Here again the region plays a vital role in linking the public sector with higher education and the business community – the so-called triple helix. However, building this close collaboration is not easy. Two barriers can be identified: firstly, the role that the university within the region, and secondly, the problems arising from a ‘disconnected’ region.

Universities are key actors in building regional innovation ecosystems but they need to wish to play and are organised to play a strong role in regional development – to be of and for the region and not just in the region. This approach is encapsulated by the concept of the ‘civic

⁴ https://media.nesta.org.uk/documents/systems_innovation_discussion_paper.pdf

⁵ https://ec.europa.eu/info/sites/info/files/mazzucato_report_2018.pdf

⁶ Sybille Reichert (2019), The Role of Universities in Regional Innovation Ecosystems, European University Association https://www.eua.eu/downloads/publications/eua%20innovation%20ecosystem%20report_final_digital.pdf

⁷ See <https://eit.europa.eu/> - there are currently 8 KICs – climate, digital, energy, health, food, raw materials, manufacturing, urban mobility and more in the pipeline

university'⁸ which involves the development of soft boundaries between the university and regional actors with a willingness to engage both in regional strategy development and its implementation.

Coupled to the concept of the 'civic university', the 'entrepreneurial university' empowers staff and students to demonstrate enterprise, innovation and creativity in research, teaching and pursuit and use of knowledge across boundaries. These universities contribute effectively to the enhancement of learning in a societal environment characterised by high levels of uncertainty and complexity and they are dedicated to creating public value via a process of open engagement, mutual learning, discovery and exchange with all stakeholders in society - local, national and international.⁹

One example of a university collaborating with the region is Karlstad University which collaborates through its Academy of Smart Specialisation¹⁰ to renew the region of Värmland's industry. The Academy for Smart Specialisation aims to utilise research for the benefit of industry, the County Administration, the County Council, and the municipalities in Värmland, and to strengthen the research environments in the region. The Värmland research and innovation strategy identifies the six potential areas of collaboration. These six areas are the foundation of the Academy for Smart Specialisation. Karlstad University and Region Värmland will run the Academy jointly for the purpose of serving as a meeting-place for researchers, companies, financiers and entrepreneurs.

While the Värmland example illustrates a close regional and university collaboration, stronger research universities¹¹ while ready to collaborate with regions and cities are loathe to lose their research autonomy and focus on frontier research. This has been described as the university in the 'middle' providing a strong role in science and technology and innovation but also reacting to changes in society.¹²

The second barrier refers to a 'disconnected' region where there is little or limited contact between the public, education and business sectors. The public sector may suffer from weak political leadership and a lack of coherence between national and regional policies. The business sector may be too fragmented and lacking regional champions, dominated by self-interest and no coordinated or representative voice.

Thus, we can identify a clear need to 'join up' both the knowledge triangle and the region by initially linking the key stakeholders. This requires a coordination role – an orchestration process¹³ that can actively link partners together through strategic alliances.

⁸ See the work of Professor John Goddard on this topic – <https://www.slideshare.net/newsroom-euvz/goddard-john-the-civic-university>

⁹ https://heinnovate.eu/sites/default/files/heinnovate_concept_note.pdf

¹⁰ <https://www.kau.se/en/external-relations/external-relations-university/good-examples/academy-smart-specialisation>

¹¹ The League of European Research Universities (LERU) is a prominent advocate for the promotion of basic research at European research universities. It supports frontier research which plays an essential role in the innovation process and significantly contributes to the progress of society. LERU and its 23 members aims at furthering politicians', policy makers' and opinion leaders' understanding of the important role and activities of research-intensive universities. <https://www.leru.org/>

¹² Professor Koenraad Debackere, KU Leuven, at Friends of Smart Specialisation workshop, Leuven, April 2nd 2019

¹³ Markku Markkula in The Knowledge Triangle, 2013, Aalto University, and Universitat Politècnica de Valencia

Smart specialisation: orchestrating regional innovation dynamics

This orchestration process can be delivered through smart specialisation. Smart specialisation is an integrated, place-based economic transformation agenda that aims to do five important things:

- focus policy support and investments on key national/regional priorities, challenges and needs for knowledge-based development.
- build on each country/region's strengths, competitive advantages and potential for excellence.
- support technological as well as practice-based innovation and aim to stimulate private sector investment.
- involve stakeholders and encourage innovation and experimentation.
- set up evidence-based and include sound monitoring and evaluation systems.¹⁴

As Foray¹⁵ notes smart specialisation has enjoyed a 'short but exciting life'. First elaborated in 2008-9,¹⁶ it made a rapid impact on regional and innovation policy at the European level and is now a key element in EU regional policy.¹⁷

A European Commission Communication in 2010¹⁸ noted that to have most impact, R&D and innovation resources needed to reach a critical mass and to be accompanied by measures to increase skills, education levels and knowledge infrastructure. Therefore, national and regional governments should, accordingly, develop smart specialisation strategies to maximise the impact of regional policy in combination with other Union policies. The Communication argues that smart specialisation strategies could help regions to concentrate resources on a few key priorities rather than spreading investment thinly across areas and business sectors. Furthermore, the Communication also notes that smart specialisation policies could also be a key element in developing multi-level governance for integrated innovation policies.

This Communication was reinforced by a 2013 Regulation¹⁹ which provided a legal base and defined 'smart specialisation strategy' as the national or regional innovation strategies which set priorities in order to build competitive advantage by developing and matching research and innovation own strengths to business needs in order to address emerging opportunities and market developments in a coherent manner, while avoiding duplication and fragmentation of efforts.

The 2013 Regulation bore fruit. According to the Impact Assessment for the 2021-2027 ERDF programme, smart specialisation hardly existed before it was promoted within Cohesion Policy. Furthermore, 70% of managing authorities and regional actors believe that these

¹⁴http://s3platform.jrc.ec.europa.eu/documents/20182/84453/Fact_Sheet_smart_specialisation_en.pdf/764451db-52d7-46c3-91fe-4dd651ef7590

¹⁵ Dominique Foray 2015 'Smart specialization: opportunities and challenges for regional innovation policy' Routledge London

¹⁶ Knowledge for Growth Expert Group http://ec.europa.eu/invest-in-research/monitoring/knowledge_en.htm

¹⁷ Indeed, smart specialisation has been described as a 'silent revolution' by the current Director General of DG REGIO.

¹⁸ COM(2010) 553 final 'Regional Policy contributing to smart growth in Europe 2020'

¹⁹ (EU) 1301/2013 of the European Parliament and of the Council of 17 December 2013

smart strategies are ‘a paradigm shift in innovation policy governance’ and about 50% of respondents indicated that recent launches of new policy programmes and measures can be attributed to smart specialisation (only 10% felt there is no influence of RIS3 on new policy measures). However, the Impact Analysis points out that the benefits are seen to be highest in the Nordic countries, Austria, Germany, Benelux and France.²⁰

Smart specialisation strategies should be developed through involving national or regional managing authorities and stakeholders such as universities and other higher education institutions, industry and social partners in an ‘entrepreneurial discovery process’ (EDP).²¹ The need for an EDP is based on the assumption that governments do not have innate wisdom or the ex-ante knowledge about future priorities. Policy makers must guard against the intellectual logic imposed by the principal-agent model, according to which the principal, that is, the government, knows from the start which specialisations domains should be developed and therefore confines itself to setting up the incentives for private industry to carry out the plan. This uncertainty is the main reason why administration and politics need to be prepared to listen to entrepreneurs, researchers and citizens in order to identify priorities and facilitate the emergence and growth of new activities.

Therefore, the EDP should be an inclusive and interactive bottom-up process in which participants from different environments (policy, business, academia, etc) are discovering and producing information about potential new activities, identifying potential opportunities that emerge through this interaction. Policy-makers then assess outcomes and ways to facilitate the realisation of this potential. The EDP pursues the integration of entrepreneurial knowledge which is fragmented and distributed over many sites and organisations, companies, universities, clients and users, specialised suppliers (some of these entities being located outside of the region) through the building of connections and partnerships. It is argued that this process can identify both core competences and competitive advantages of the region as well as new domains of opportunities (technological and market-focused) which can be built on the underlying strengths of the region (e.g. related variety).²²

Foray has remarked that the rapid promotion, if not the uptake, of smart specialisation may have been too rapid but by 2017 the European Commission was able to announce²³ that over 120 smart specialisation strategies had been established by Member States and regions through partnership, multi-level governance and bottom-up approaches establishing priorities for research and innovation investments for the 2014-2020 period. The Seventh Cohesion Report remarked that ‘Since smart specialisation became one of the ex-ante

²⁰ Impact Assessment accompanying the document Proposals for a Regulation of the European Parliament and of the Council on the European Regional Development Fund and on the Cohesion Fund SWD(2018) 282 final

<https://ec.europa.eu/transparency/regdoc/rep/10102/2018/EN/SWD-2018-282-F1-EN-MAIN-PART-1.PDF>

²¹ <http://s3platform.jrc.ec.europa.eu/entrepreneurial-discovery-edp>

²² Related variety is a key concept in evolutionary economic geography that links knowledge spill-overs to economic development, new growth paths and economic renewal. It refers to the variety of industries within a region that are cognitively related and maximise the potential for learning opportunities and growth of existing industries as well as the local sources of growth for new industries (see work of Ashem, Boschma and Frenken on this topic)

²³ Strengthening Innovation in Europe's Regions: Strategies for resilient, inclusive and sustainable growth. COM(2017) 376 final

https://ec.europa.eu/regional_policy/en/information/publications/communications/2017/strengthening-innovation-in-europe-s-regions-strategies-for-resilient-inclusive-and-sustainable-growth

conditionalities for the ESI Funds, over 120 smart specialisation strategies have been formulated through partnership, multi-level governance and a bottom-up approach.²⁴

Throughout this period more than €40 billion (and more than €65 billion including national co-financing) has been allocated to regions through the European Regional Development Fund to fund these priorities. Overall, support to research, innovation and entrepreneurship was expected to help 15,000 enterprises introduce new products to market, to support 140,000 start-ups and to create 350,000 new jobs by the end of the programming period. In addition, €1.8 billion has been programmed under the European Social Fund for strengthening human capital in research, technological development and innovation. National, regional and local priorities have been identified and mapped in the process of designing these strategies.

However, despite this success, the European Commission has called for further reform of research and innovation systems within regions. 'The reform of research and innovation systems has a clear regional dimension which should embrace three cross-cutting elements: research and innovation, industrial transformation, and finance and investment.'²⁵

As a prerequisite for cohesion policy investment, smart specialisation has contributed to addressing research and innovation challenges. However, according to the European Commission, in certain cases, the unbalanced participation of representatives from various sectors including research, industry, higher education, public administration and civil society has undermined broader reform efforts.

A major focus of the strategy was to break down silos between various administrative bodies and improve multi-level governance. But reform efforts need to be intensified in order to create an enabling business environment and an efficient and transparent public administration to foster innovation and increasing dynamism in product and services markets and improving conditions for the creation and growth of start-ups. At the same time, these efforts should also encourage investment in skills and human capital as well as making better use of clusters and supporting SME policy.

Future regional policy will pursue the smart specialisation policies put in place between 2014-2020. Five policy areas have been agreed for the 2021-2027 period:

1. a smarter Europe (innovative and smart economic transformation);
2. a greener, low-carbon Europe carbon Europe carbon Europe (including energy transition, the circular economy, climate adaptation and risk management);
3. a more connected Europe (mobility and ICT connectivity);
4. a more social Europe (the European Pillar of Social Rights);

²⁴ 7th Cohesion Report (2017 page 181 https://ec.europa.eu/regional_policy/sources/docoffic/official/reports/cohesion7/7cr.pdf

²⁵ Strengthening Innovation in Europe's Regions: Strategies for resilient, inclusive and sustainable growth. COM(2017) 376 final https://ec.europa.eu/regional_policy/en/information/publications/communications/2017/strengthening-innovation-in-europe-s-regions-strategies-for-resilient-inclusive-and-sustainable-growth

5. a Europe closer to citizens (sustainable development of urban, rural and coastal areas local initiatives).

Future smart specialisation strategies will come under 'smarter Europe' and they should specifically address enhancing research and innovation uptake, digitisation and growth and development of SMEs. However, one more interesting feature is the increased attention paid to the skills agenda both the skills required to enhance industrial transition but also the skills needed for smart specialisation. In fact, the 'good governance of national or regional smart specialisation strategy' is specified as an 'enabling condition' for smart specialisation. The criteria for good governance includes an analysis of bottlenecks for innovation diffusion, monitoring and evaluation tools, an effective EDP, actions to improve research and innovation systems and industrial transition and international collaboration but also the existence of competent regional/national institutions or bodies, responsible for the management of the smart specialisation strategy.

Smart specialisation and governance

There is now increased attention to the need for better governance of smart specialisation as governance and the monitoring and evaluation of smart specialisation strategies are seen as the most challenging aspects of the smart specialisation process.²⁶ In a recent paper, three leading academic proponents of smart specialisation, Dominique Foray, Kevin Morgan and Slavo Radošević,²⁷ argue that the implementation of smart specialisation strategies is proving to be a big challenges for all concerned especially for the public and private stakeholders in less-developed (and possibly less-connected regions). The institutional context and capacity including weak governance is a major barrier to effective smart specialisation strategies.

The role of public administrations in animating and curating the smart specialisation process is of major importance and can be summarised under three themes: leadership, knowledge and integration. They argue that there is a need for stronger collaborative leadership at the regional level. This means relinquishing a centralised governance model to one more open to distributed leadership.²⁸ Leadership involves vision but many public administrations, especially in less-developed regions tend to be risk averse limiting room for experimentation and flexibility in decision-making.

In a recent study on the governance challenges of smart specialisation, Guzzo²⁹ found that obstacles to stakeholder engagement (vital for the EDP process) included a lack of adequate communication channels, a lack of political commitment and trust by stakeholders on how public authorities would use their contribution. This weakness was often compounded by the

²⁶ See the PXL workshop on Governance of the Smart Specialisation Strategies in January 2019 <http://s3platform.jrc.ec.europa.eu/-/pxl-workshop-on-skills-for-s3-policy-makers?inheritRedirect=true>

²⁷ The Role of Smart Specialisation In the EU Research and Innovation Policy Landscape Dominique Foray, Kevin Morgan and Slavo Radošević, DG REGIO https://ec.europa.eu/regional_policy/sources/docgener/brochure/smart/role_smartspecialisation_ri.pdf

²⁸ See the matrix model used in Östergötland, Sweden http://s3platform.jrc.ec.europa.eu/documents/20182/316095/PXL_Governance+of+RIS3+%C3%96sterg%C3%B6tland.pdf/c89ec3fe-e712-4f42-a098-1f66cf0a6103

²⁹ Fabrizio Guzzo, JRC Seminar, Linköping, 31 January 2019 <http://s3platform.jrc.ec.europa.eu/documents/20182/316095/Link%C3%B6ping-31.01.2019.pdf/a6803663-d3cd-474e-8258-f66e88476959>

lack of (skilled) personnel within the public administration dealing with the involvement and management of stakeholders. These weaknesses were not helped by the lack of adequate skills and capabilities of (some) stakeholders and in many cases a lack of interest.

Public administrations have also experienced a knowledge deficit in dealing with smart specialisation because as a strategy becomes more differentiated, then more granular forms of knowledge are needed. This is particularly true for the collection of data regarding regional innovation capacities, entrepreneurial activities and competitiveness. Strategy development requires the right information and knowledge to analyse opportunities and monitor progress.

Policy integration is a third area where public administrations can make a big difference. Foray, Morgan and Radošević argue that public procurement which accounts for almost 20% of EU GDP is the 'sleeping giant' of regional innovation policy because it has the potential to furnish a demand-side impetus to innovation and growth providing it is integrated with other smart specialisation policies.

Building regional innovation ecosystems

Many EU Member States and regions in Europe have a long track record of using the triple helix model where industry, cities and regions and other public organisations such as universities collaborate to develop stable interactions and exchange in order to align policies and strategies to develop effective regional economic and innovation strategies. However, all too often, as Morgan has commented, it is often difficult to find effective double helix cooperation let alone triple or the increasingly called for quadruple and penta-helices.³⁰

However, the recent emphasis on regional innovation ecosystems has shed more light on the methodology of developing such ecosystems³¹ which focuses on developing a vision and strategy at regional level, the collaboration of key stakeholders coupled to the availability of infrastructures and resources at the regional level. Cities and regions which have developed such innovation ecosystems are also often referred to as 'pioneering' regions and cities which 'work with methodologies of change to engage people, define shared purpose, create good conditions for good collaboration, build capacity...and show the way'.³²

According to Oksanen and Hautamäki (2014), an innovation ecosystem consists of a group of local actors and dynamic processes which together produce solutions for different challenges. Innovation takes place in a precise location which suggests that physical proximity of innovation players matters. Despite the barriers already mentioned above, innovation ecosystems have emerged such as Espoo in Finland.³³ The emergence of such ecosystems depends on three factors. First, the engagement of public institutions committed to develop the territory and attract necessary resources along with top level universities to nurture

³⁰ Calzada, I. & Cowie, P. (2017), Beyond Data-Driven Smart City-Regions? Rethinking Stakeholder-Helices Strategies. *Regions* 308 (4): 25-28. (ISSN: 1367-3882). DOI: 10.1080/13673882.2017.11958675.

³¹ Pia Lappalainen, Markku Markkula and Hank Kune (eds) 2015, *Orchestrating regional innovation ecosystems*. Aalto University

³² Committee of the Regions 2016, *Regional Innovation Ecosystems*

³³ JRC Policy Report 'Place based Innovation Ecosystems' 2017

http://s3platform.jrc.ec.europa.eu/documents/20182/198909/aalto_innovation_ecosystem_case_study_formatted_online_version.pdf/5a6a8441-cfc4-47ae-afd7-9506de540073

human capital. Second, a harmonious business sector which includes a mix of large companies and start-ups which cooperate in value chains and clusters, and third, a risk-taking entrepreneurial culture and local society facing up to major challenges. The lack of one or several coordinating actors can impede the development of an innovation ecosystem.

However, just having building blocks in place may not be enough. In fact, as the UK government's Science and Innovation Audit of the East of England points out³⁴ the 'blocks' are less important than the 'wiring' literally, what 'makes the whole greater than the sum of the parts. This is defined, first and foremost, by the people working within and across our innovation ecosystem. These people – whether researchers, entrepreneurs, investors or clinicians – constitute some of the world's best talent. They are our strongest asset, alongside the people working with and to them.'

However, the audit singularly avoids the mention of regional governance as a coordinating mechanism. However, this is where new roles are needed such as orchestrators or 'entrepreneurial bureaucrats' or 'policy entrepreneurs' at the local and regional level. These actors 'wire' the 'blocks' together. They help to develop a place-based 'connected' region. This 'orchestrating' role encompasses sub-roles such as an 'architect' – making the vision tangible; a 'bridger' or 'boundary spanner' – engaging stakeholders across sectors; a 'conductor' – harmonising diverse instruments and a 'curator' – designing concepts to fit the context. Orchestrating innovation ecosystems is about research and society and brings us back to a societal challenge perspective of research where politicians, project managers and planners knowing that answers to their challenges are available and about researchers understanding the challenges and problems of politicians, project managers and politicians and organising research to address them (e.g. the civic university).³⁵

³⁴ UK Government Science and Innovation Audits Wave 2 Summary Reports 2017 <https://www.gov.uk/government/publications/science-and-innovation-audits-second-reports-published>

³⁵ Pia Lappalainen, Markku Markkula and Hank Kune (eds) 2015, Orchestrating regional innovation ecosystems. Aalto University

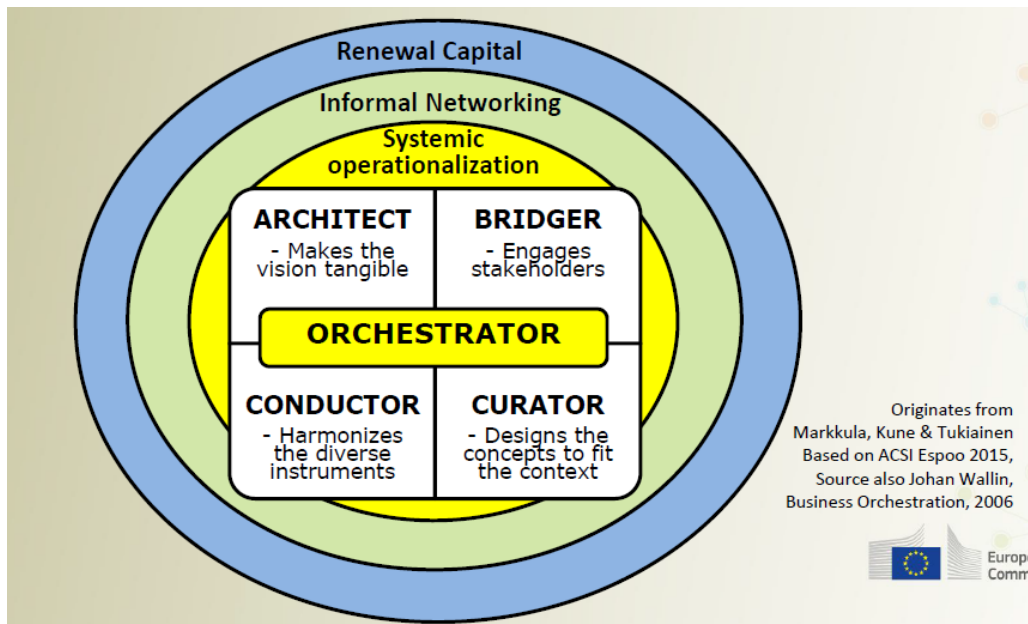


Figure 1 Place-Based Economic Transformation³⁶

Barriers to effective implementation

This paper has already examined above the importance of the public sector in developing smart specialisation strategies and examined the issues of leadership, knowledge and integration as factors that can hinder the design and implementation of effective smart specialisation strategies. However, other barriers can also be identified. For one thing smart specialisation has focused much more on policy design and less attention has been paid to policy delivery and implementation. A recent Joint Research Centre survey³⁷ indicates barriers to the successful building of a smart specialisation management team. The main obstacles were internal bureaucratic obstacles, a lack of funding for staff recruitment and training and insufficient coordination and flow of information within government departments. This was followed by the unavailability of skills at the local level, a lack of interest or engagement by stakeholders and insufficient political commitment.

Mazzucato (2019) in her report on the governance of missions notes that it is 'the lack of... coordination capabilities that has become perhaps the most difficult issue in modern day innovation policy-making.'³⁸ She argues that a 'complexity paradox' of modern public policy where the more complex policy issues are, the more compartmentalised policy-making becomes, increasingly fragmented into different government departments and initiatives. Rigid formal procedures can also reduce openness and constrain creativity.

³⁶ https://ec.europa.eu/regional_policy/sources/conferences/smart-regions-2017/markkula.pdf

³⁷ Fabrizio Guzzo, JRC Seminar, Linköping, 31 January 2019

<http://s3platform.jrc.ec.europa.eu/documents/20182/316095/Link%C3%B6ping-31.01.2019.pdf/a6803663-d3cd-474e-8258-f66e88476959>

³⁸ Mazzucato, M (2019) 'Governing Missions in the European Union'. European Commission, page 12

Any management team must also deal with the regional context. There may be a lack of political control of the economic drivers of the region. Multinational companies are often in the region but not of the region. Plant or office closures may not be predicted and can come out of the blue.³⁹ Similarly, regions may be differently served by higher education. Not all regions have a top-level research university and universities may differ in their level of engagement at the regional level.

In terms of the Entrepreneurial Discovery Process, all too often the 'usual suspects' are engaged but it is more difficult to involve a wider audience. There is much anecdotal evidence of the capture of the process by regional elites e.g. a strong university in a less-developed region.

A lack of engagement may be due to a simple lack of interest or understanding as smart specialisation still remains to a large extent in an academic and technocratic domain and despite heroic communication attempts,⁴⁰ and there is still lack of political awareness of the concept. A lack of knowledge may also be compounded by a lack of trust by stakeholders on how public authorities would use their contribution and a lack of skilled personnel within the public administration dealing with the involvement and management of stakeholders.

A further problem is the difficulty of the territorial area where functional economic areas rarely coincide with administrative areas. This issue is further complicated by metropolitan areas where policy makers in cities often have limited capacity to address challenges, due to the existence of functional urban areas (FUAs), defining cities and their commuting zones. These FUAs extend beyond formal administrative boundaries. Therefore, metropolitan areas may often suffer from fragmented policy making.⁴¹

Increasing cooperation in innovation investment across regions

Smart specialisation is not just based on a region's competitive assets but must also involve looking outside the region to benchmark against competitor regions and more importantly seek potential collaboration with other regions. Increasingly, smart specialisation strategies are used to drive a more effective innovation policy and push interregional cooperation in new value chains across borders. Linking research and innovation actors with industrial stakeholders helps to exploit complementarities in the development of products and process design. This supports the building and reshaping of EU wide value-chains by encouraging the synergy of investment between the private and public sector and the creation of a stable pipeline of projects matching strategic priorities.

It is thus necessary to develop further the inter-regional and cross-border dimension by creating interregional investment opportunities which will facilitate scaling up regional and

³⁹ 5th June 2019. The UK telecoms giant BT announced that 300 offices would be reduced to around 30 by 2023, a massive 90 percent reduction in the number of locations it operates. BT currently employs around 52,000 people across the 300 locations. BT announced that its key cities in the future will be in Belfast, Birmingham, Bristol, Cardiff, Edinburgh, Ipswich, London and Manchester.

⁴⁰ <https://www.youtube.com/watch?v=hbTIVOBv8IU>

⁴¹ <https://www.espon.eu/metropolitan-areas>

local innovation, as already kick-started in the context of the Communication on Clean Energy for all Europeans.⁴²

Stronger strategic inter-regional cooperation and sustainable linkages between regional ecosystems along smart specialisation priority areas can increase competitiveness and resilience as illustrated by the Vanguard initiative.⁴³ This initiative for new economic growth models through smart specialisation is driven by a political commitment by regions to use their smart specialisation strategies to boost new growth through bottom-up entrepreneurial innovation and industrial renewal in European priority areas. Thirty regions are now part of this initiative.

The Vanguard Initiative seeks to lead by example in developing interregional cooperation and multi-level governance to help regional clusters and eco-systems to focus on priority areas for transforming and emerging industries. Vanguard regions seek to exploit complementarities identified in smart specialisation strategies in order to develop world class clusters and cluster networks, in particular, through pilots and large-scale demonstrators.

The interest in the Vanguard Initiative led the European Commission to set up, with support from its Smart Specialisation Platform, thematic platforms on industrial modernisation, energy and agri-food to help regions to work together on their smart specialisation priorities, involving policy makers, researchers, business, clusters and civil society. These platforms provide a unique opportunity for policymakers at EU, national and regional level to pool experience to address these priorities in a regional context where change is felt most. Thematic Smart Specialisation Platforms⁴⁴ bring together 100 regions working together in 29 interregional partnerships to date on common topics to foster innovation, value chain linkages and develop joint investments, with support from the Commission services.

⁴² <https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/clean-energy-all-europeans>

⁴³ <https://www.s3vanguardinitiative.eu/>

⁴⁴ <http://s3platform.irc.ec.europa.eu/s3-thematic-platforms>

All Thematic platforms

Regions are coloured according to their participation in partnerships

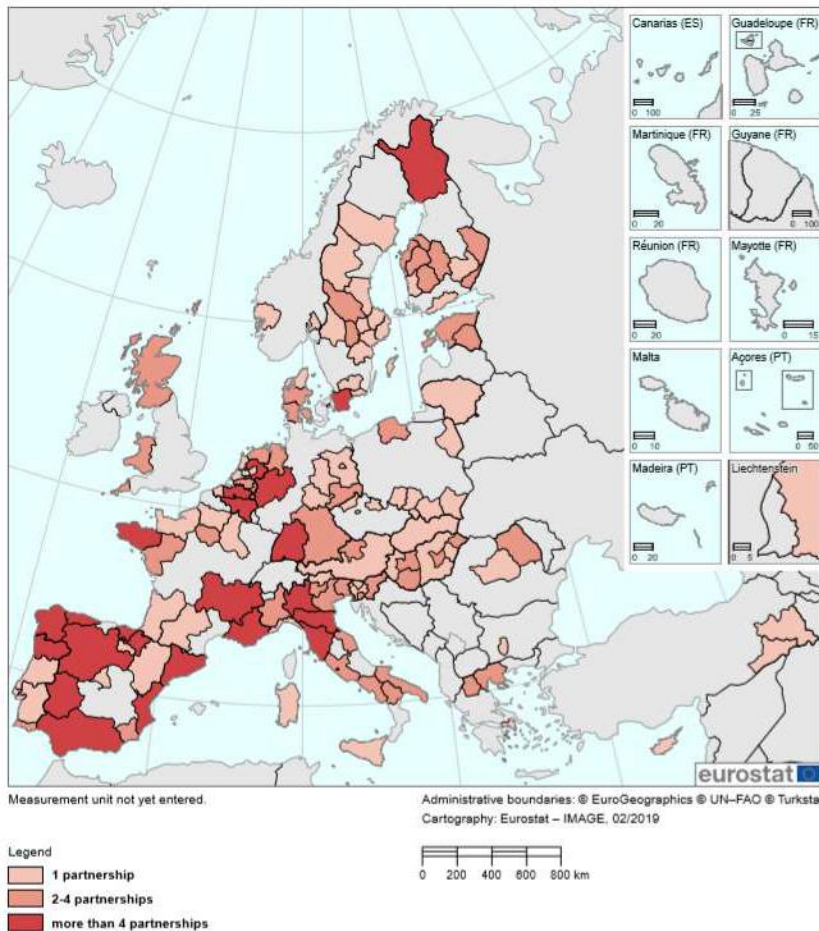


Figure 2 Regional engagement in smart specialisation thematic platforms

Further efforts are necessary to integrate other large European initiatives with these platforms and their regional partnerships to facilitate the commercialisation and scale-up of inter-regional innovation projects and to incentivise joint business investment. The Thematic Smart Specialisation Platforms should also be used to deepen cooperation between less-developed regions, regions in industrial transition and more advanced ones, to facilitate their industrial and technological transition. These efforts will be supported by the proposed ‘Component 5’ under the proposed European Transnational Cooperation Package which will provide nearly €1 billion to support interregional innovation investments bringing together researchers, businesses, civil society and public administrations involved in smart specialisation strategies established at national or regional levels.⁴⁵

Multi-level governance

This heightened interest in transnational collaboration supported by the smart specialisation process involves multi-level governance. Barca (2009) has defined multi-level governance as

⁴⁵ See the S3P-Industry 5th Steering Committee Meeting Warsaw, Poland 14th June 2019 <http://s3platform.jrc.ec.europa.eu/meeting-14th-june-2019> with specific reference to the presentation of Valentina Pinna DG REGIO, European Commission

a 'system in which the responsibility for policy design and implementation is distributed between different levels of government and special-purpose local institutions...'. This means that there must be close collaboration between the local, regional and national levels of government on the one hand but also collaboration between different regions. This is a complex process and can be another barrier to the effective implementation of smart specialisation.

Identified problems include ineffective coordination mechanisms and a lack of trust among authorities and actors placed at different territorial scales. This lack of trust and coordination leads to difficulties in developing common visions and combining the different needs, agendas and expectations. This is lack of a common vision is compounded by a lack of clear political commitment for a more active engagement of sub-regional governments and actors who are often the key players in implementing effective integrated strategies.

Multi-level governance requires clear and transparent coordination arrangements and mechanisms. Coordination needs to be carefully addressed from the design phase of the strategies to avoid the emergence of coordination failures in the implementation stage and poor delivery of public action. In order to shed more light on how to improve multilevel governance, Larrea et al. (2019) identify four pillars of multilevel governance for place-based smart specialisation.

The first pillar is 'complexity' which assumes that any multilevel governance is complex, and that this complexity can be understood and managed by either by a 'learning' approach where all layers learn from practice or a 'power' approach focusing more on negotiated outcomes between the different levels of government. The second pillar focuses on 'emergence' which assumes that smart specialisation strategies emerge through learning and negotiation, but they require a 'strong network of facilitative actors'. These facilitators should be trained so that they can guide processes. The third pillar refers to 'context specificity' which means that smart specialisation processes are carried out differently in every place. Solutions must be tailored to the region. These solutions also include 'soft' contextual conditions linked to regional capabilities and what different governments can do together. The fourth pillar 'reciprocity' relates to mutual recognition of different levels of government. This reciprocity relies on trust and complementarity. This pillar can relate to both vertical governance and also to transnational collaboration.

Conclusions

In conclusion, regional innovation ecosystems or place-based strategies for integrated development are gaining currency as key aspects of research, innovation and increasingly industrial policy. Smart specialisation strategies are processes to develop both priorities and governance strategies. However, while smart specialisation has been successful in supporting strategy and policy development, it has been less successful in terms of implementation.

The implementation of smart specialisation depends on close collaboration between a variety of actors at the regional level such as universities who play a strong role in smart specialisation

strategies and also competent multi-level governance. However, these systems need the 'boundary spanners', the 'orchestrators' and 'conductors' to develop the ecosystem. Smart specialisation, if developed in its full sense, needs these roles to make the process work.

The challenge is what comes first – institutional actors who believe and practice smart specialisation or smart specialisation that will help develop these roles at the regional level? We may assume that this is not an 'either/or' choice but there is a need to build a 'community of practice' of smart specialisation actors who can both interact at the regional level and also increasingly at the international level, for example, in smart specialisation thematic platforms.

While there is an increasing interest in smart specialisation and a wealth of events at the European level engaging a new generation of regional actors who have had experience of smart specialisation processes, there remains a lack of formal learning opportunities for these actors or any formal criteria for the skills needed. Recent MOOCs⁴⁶ on smart specialisation can play a role but more thinking is required on the role of the smart specialisation in developing the actors and governance mechanisms to implement strategies more effectively both regionally and transnationally.

References

Barca, F (2009) 'An agenda for a reformed cohesion policy: a place-based approach to meeting European Union challenges and expectations', European Commission, Brussels

Calzada, I and P. Cowie (2017) 'Beyond Data-Driven Smart City-Regions? Rethinking Stakeholder-Helixes Strategies'. *Regions* 308 (4):25-28

Committee of the Regions (2016) 'Regional Innovation Ecosystems' EU Publications

ESPON (2018) 'SPIMA - Spatial dynamics and strategic planning in metropolitan areas'.

Retrieved June 10 2019 from <https://www.espon.eu/metropolitan-areas>

European Commission (2010) 'Regional Policy contributing to smart growth in Europe 2020'

Retrieved June 10, 2019 from

https://ec.europa.eu/regional_policy/en/information/publications/communications/2010/regional-policy-contributing-to-smart-growth-in-europe-2020

European Commission (2017) 'Strengthening Innovation in Europe's Regions: Strategies for resilient, inclusive and sustainable growth'. Retrieved June 10 2019 from

https://ec.europa.eu/regional_policy/en/information/publications/communications/2017/strengthening-innovation-in-europe-s-regions-strategies-for-resilient-inclusive-and-sustainable-growth

⁴⁶ <https://www.smartspecialisation.ch>

European Commission (2019) 'Clean energy for all Europeans'. Retrieved June 10 2019 from <https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/clean-energy-all-europeans>

European Union (2013) 'Regulation (EU) No 1301/2013 of the European Parliament and of the Council of 17 December 2013 on the European Regional Development Fund and on specific provisions concerning the Investment for growth and jobs goal and repealing Regulation (EC) No 1080/2006'. Retrieved June 10 2019 from <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32013R1301>

Expert Group 'Knowledge for growth'. Retrieved June 10 2019 from http://ec.europa.eu/invest-in-research/monitoring/knowledge_en.htm

Foray, D (2015) 'Smart specialization: opportunities and challenges for regional innovation policy' London, Routledge

Foray, D, Morgan, K and S, Radošević (2018) 'The Role of Smart Specialisation in the EU Research and Innovation Policy Landscape' DG REGIO. Retrieved June 10 2019 from https://ec.europa.eu/regional_policy/sources/docgener/brochure/smart/role_smartspecialisation_ri.pdf

Karlstad University, 'Academy for Smart Specialisation' Retrieved June 10, 2019 from <https://www.kau.se/en/external-relations/external-relations-university/good-examples/academy-smart-specialisation>

Lappalainen, P and M. Markkula (eds) (2013) 'The Knowledge Triangle'. Aalto University and Universitat Politècnica de Valencia

Lappalainen, P, Markkula, M and H. Kune (eds) (2015) 'Orchestrating Regional Innovation Ecosystems'. Espoo, Aalto University

Larrea M, Estensoro, M and M Pertoldi (2019) 'Multilevel governance for smart specialisation' EU Publications

Mazzucato, M (2018) 'Mission-Oriented Research and Innovation in the European Union: a problem-solving approach to fuel innovation-led growth'. European Commission

Mazzucato, M (2019) 'Governing Missions in the European Union'. European Commission

Mulgan, G and C. Leadbeater (2013) 'Systems Innovation'. London, Nesta

Oksanen, K and A. Hautamäki (2014) 'Transforming regions into innovation ecosystems: a model for renewing local industrial structures. The Innovation Journal: 19(2) Article 5

Reichert, S (2019) 'The Role of Universities in Regional Innovation Ecosystems'. European University Association

Rissola G, Hervás F, Slavcheva M and K Jonkers (2017) 'Place-Based Innovation Ecosystems - Espoo Innovation Garden and Aalto University (Finland)' JRC Science for Policy Report/European Commission

UK Government (2017) 'Science and Innovation Audits Wave 2 Summary Reports' Retrieved f
June 10 2019 from <https://www.gov.uk/government/publications/science-and-innovation-audits-second-reports-published>