

Smart Specialisation

Subjects: Economics

Contributor: Elżbieta Ociepa-Kicińska

Smart specialisation is a concept that catalyses sources of financing and that concentrates the ways of influencing the innovative potential in the regions.

Keywords: innovation, regional development

1. Introduction

Regional Innovation and Smart Specialisation Strategies (RIS3) are treated as one of the key tools in implementing the concept of smart and sustainable growth. The strategies make it possible to focus investments on research, development and innovation (RD & I) in the areas showing the greatest economic and competitive potential of the regions.

We noted that the RIS3 are commonly found and they are analysed on many levels, however, the unique conditions found in each country or region determine various methods of introducing and evaluating the strategy. This customised approach is coherent with the basic assumptions of smart specialisation, which rely on unique resources and which support countries and regions in developing their own methods of generating economic growth, however, it entails the problem of objective evaluation of outcomes of its implementation. It can certainly be asserted that smart growth is a continuous process, and the evolution of the approach to smart specialisation more and more often inclines towards the multi-dimensional approach—which includes more than technological innovations and innovative research. Smart growth is a multi-dimensional phenomenon which should be interpreted in accordance with the assumptions of the Europe 2020 strategy: smart, sustainable, and inclusive growth translates into living conditions, from innovativeness level, through environmental protection, to social inclusion ^[1]. Smart specialisation constitutes a key element of the EU measures focused on supporting the countries and regions in working out their own paths to economic growth ^[2].

Figure 1. The relationship between innovativeness, smart growth and sustainable growth of regions. Source: own work.

2. The Concept of Smart Specialisations in the Context of Innovative Development

The framework for the current innovation policy conducted and implemented in Europe under the 2014–2020 financial perspective was based on the concept of smart specialisation devised by Foray, Foray and Goenag ^[3] and Foray et al. ^[4] ^[5]. In addition, some previous studies had a significant impact on the idea of smart specialisation, e.g., those by Rodrik ^[6] and Hausmann ^[7]. The studies to a large extent created a framework for the idea of smart specialisation which from 2014 was deemed to be one of the key elements aimed at implementing the Europe 2020 strategy that promotes smart, sustainable and inclusive growth ^[8]. Currently, the role of smart specialisations in concentrating the resources for smart and sustainable growth is enhanced. Business support focuses more and more on the priority areas of the EU cohesion policy for 2021–2027, which are important from the point of view of the future of the economy, as well as the social and environmental challenges. The main purpose of new, smart frameworks of innovation is maximisation of the contribution of innovations in economic development and social well-being, while protecting the environment.

The key challenge for regions is how to identify those activities or domains where new R&D and innovation projects will create future domestic capability and interregional comparative advantage ^[9].

An important issue in smart specialisations is going beyond the boundaries of regions and business sectors. As noted by Stawicki et al., according to the smart specialisation concept, one should not thoughtlessly duplicate any solutions coming from other territories, as it may lead to fragmentation of the European innovation system and prevent achievement of the critical mass in individual specialisations ^[10]. According to the above mentioned authors, supraregional cooperation should be undertaken when similarities and complementarities are found between regions, while the choice of specialisations should be based on qualitative and quantitative data. The main criteria for choosing the economy sector include ^[10]:

- presence of key resources and capabilities (e.g., specialised labour force), and in particular their original (intersectoral) combination;
- a potential for diversification of the sectors via intersectoral ties, or ties between knowledge domains;
- critical mass/critical potential within the given sector;
- international position of the region in global value chains in a given specialisation.

Smart specialisation is a concept that catalyses sources of financing and that concentrates the ways of influencing the innovative potential in the regions. According to Rusu, smart specialisation may be treated as a key solution for avoiding dissipation of the EU research funds and for focusing the research, innovation, human and financial resources on those innovative sectors which are high performing, strategic from a socio-economical perspective, eco-friendly and attractive for investors ^[11]. An integral element of a smart specialisation strategy is sustainable growth and development ^[12]. The EU strategic documents and other trends in the literature ^{[13][14][15]} exert a significant influence on the contemporary discourse on smart and sustainable growth in Europe, especially in the context of smart specialisation strategies. It was already in the Communication from the Commission entitled "EUROPE 2020: A strategy for smart, sustainable and inclusive growth" that three priorities were presented to be the determinants of development for the European countries for the years 2014–2020 under the cohesion policy. These are ^[12]:

- Smart growth—developing an economy based on knowledge and innovation.
- Sustainable growth—promoting a more resource efficient, greener and more competitive economy.
- Inclusive growth—fostering a high-employment economy delivering economic, social and territorial cohesion.

At this point it should be noted that the above mentioned relevant aspects related to a sustainability framework based on equally important pillars constitute the acknowledgement that although each of them maintains its own autonomy, identity and value, they are interdependent ^[16].

The concept of smart growth, which comprises the notions of both smart specialisations and smart city development, indicates the direction of development of the EU economies and the adopted priorities, aiming at fully sustainable growth. In the Europe 2020 strategy, smart specialisation is shown as a major recommendation for the economies of the EU member states. In addition to the fact that the very idea of smart specialisation is treated as a priority, playing a vital function in the cohesion policy, it is also possible to note the major assumption that innovativeness on the one hand determines, and on the other hand is determined by, smart and sustainable growth. Smart and sustainable growth are directly correlated, while the concept of innovation is a factor that integrates them ^[17]. According to Dziedzic et al., the support provided by public entities is especially important, as under national and regional innovation systems they may combine their efforts in order to support scientific research and technology development, and to bridge the world of science with the world of business, assisting in commercialisation of knowledge and technology ^[17]. This approach does not focus on innovation and technology as such but is aimed at specifying how the transition to sustainable growth relates to the general changes in the economy and society, and especially to the role of the public policy.

The goal of RIS3 is economic development via regional priorities which correspond to efficiency, research and innovations of a knowledge-based economy. According to Kangas and Aarrevaar, the main point is to allocate the resources for research and innovation in order to enhance priority areas of regional funding, governance and regulation, forming a regional policy mix ^[18]. RIS3 correspond to the probably the greatest attempt so far at an organised, supranational strategy of innovation, which according to Grillitsch and Asheim, stimulates economic growth via economic diversification and developing a new path, e.g., diversification of the economy to technologically more advanced activities which make progress towards more complex knowledge compared to its current level in the region ^[19]. Moreover, quoting Jucevičius, it is necessary to assume that the absorption capacity is here considered to be the basic assumption for the innovativeness of the Regional Innovation Strategy RIS3, in which all the participants (persons or institutions, innovators or observers) operate as a network and have appropriate capabilities to operate, maintain and develop ^[20].

Regions all over the European Union (and beyond) have worked out their own regional research and innovation strategies for smart specialisations (RIS3), which because of the European Commission that established RIS3 as a prerequisite for accessing some financial facilities under the EU structural funds for regional growth ^[21] have become of key importance for the pro-innovation activities. According to the data of the Joint Research Centre (JRC-IPTS), over the past several years over 180 smart specialisation and similar economic transformation agendas have been designed and implemented, offering over EUR 67 bn available under European structural and investment funds (2014–2020 programming period) ^[22].

References

1. Foray, D.; Goddard, J.; Goenaga Beldarrain, X.; Landabaso, M.; McCann, P.; Morgan, K.; Nauwelaers, C.; Ortega-Argilés, R. Przewodnik Strategii Badań i Innowacji na rzecz inteligentnej specjalizacji (RIS 3). 2012. Available online: http://www.innowacje.kujawsko-pomorskie.pl/wp-content/uploads/2013/04/RIS3_guide_PL_20130412.pdf (accessed on 9 July 2020).
2. Godlewska, S. Strategie na rzecz inteligentnej specjalizacji (RIS3)—instrument realizacji polityki rozwoju vs. warunek po zyskiwania funduszy unijnych. *Przegląd Eur.* 2013, 4, 78–93.
3. Foray, D.; Goenaga, X. The goals of Smart Specialisation; Joint Research Centre (Seville site): Ispra, Italy, 2013.
4. Foray, D.; David, P.A.; Hall, B.H. Smart specialisation From Academic Idea to Political Instrument, the Surprising Career of a Concept and the Difficulties Involved in its Implementation. Available online: <https://infoscience.epfl.ch/record/170252> (accessed on 9 July 2020).
5. Foray, D.; Mowery, D.C.; Nelson, R.R. Public R&D and social challenges: What lessons from mission R&D programs? *Res. Policy* 2012, 41, 1697–1702.
6. Rodrik, D. Industrial Policy for the Twenty-First Century; Social Science Research Network: Rochester, NY, USA, 2004.
7. Hausmann, R.; Rodrik, D. Economic development as self-discovery. *J. Dev. Econ.* 2003, 72, 603–633.
8. COM(2010) 2020 Final. Europe 2020: A Strategy for Smart, Sustainable and Inclusive Growth—European Environment Agency. Available online: <https://www.eea.europa.eu/policy-documents/com-2010-2020-europe-2020> (accessed on 9 July 2020).
9. Argiles, R.O.; McCann, P.; Perianez-Forte, I.; Cervantes, M.; Larosse, J.; Sanchez, L. Innovation-driven growth in regions: The role of smart specialisation. *Organ. Econ. Co Oper. Dev.* 2013. Available online: <https://www.oecd.org/sti/inno/smart-specialisation.pdf> (accessed on 10 July 2020).
10. Stawicki, M.; Wojnicka-Sycz, E.; Pander, W. Wyznaczanie, Monitoring i Ewaluacja Inteligentnych Specjalizacji; Maciej Stawicki: Warszawa, Poland, 2014; ISBN 978-83-930108-2-0.
11. Rusu, M. Smart Specialization a Possible Solution to the New Global Challenges. *Procedia Econ. Financ.* 2013, 6, 128–136.
12. Europe 2020: A Strategy for Smart, Sustainable and Inclusive Growth VOCEDplus, the International Tertiary Education and Research Database. Available online: <https://www.voced.edu.au/content/ngv:22040> (accessed on 10 July 2020).
13. Statistical Office of the European Communities. Sustainable Development in the European Union: Overview of Progress Towards the SDGs in an EU Context, 2019 ed.; Statistical Office of the European Communities: Brussels, Belgium, 2019; ISBN 978-92-76-00779-1.
14. Better Policies for Sustainable Development 2016: A New Framework for Policy Coherence en OECD. Available online: <https://www.oecd.org/publications/better-policies-for-sustainable-development-2016-9789264256996-en.htm> (accessed on 10 July 2020).
15. Schot, J.; Steinmueller, W.E. Three frames for innovation policy: R&D, systems of innovation and transformative change. *Res. Policy* 2018, 47, 1554–1567.
16. Errichiello, L.; Micera, R. Leveraging Smart Open Innovation for Achieving Cultural Sustainability: Learning from a New City Museum Project. *Sustainability* 2018, 10, 1964.
17. Dziedzic, S.; Woźniak, L.; Chrzanowski, M. Inteligentna specjalizacja jako droga do zrównoważonego rozwoju. *Pr. Nauk. Uniw. Ekon. Wrocławiu* 2015, 267–279.
18. Kangas, R.; Aarvevaara, T. Higher Education Institutions as Knowledge Brokers in Smart Specialisation. *Sustainability* 2020, 12, 3044.
19. Grillitsch, M.; Asheim, B. Place-based innovation policy for industrial diversification in regions. *Eur. Plan. Stud.* 2018, 26, 1638–1662.

20. Jucevičius, R.; Juknevičienė, V.; Mikolaitytė, J.; Šaparnienė, D. Assessing the regional innovation system's absorptive capacity: The approach of a smart region in a small country. *Systems* 2017, 5, 27.
21. Benner, M. From Clusters to smart specialization: Tourism in institution-sensitive regional development policies. *Economies* 2017, 5, 26.
22. Implementation-Smart Specialisation Platform. Available online: <https://s3platform.jrc.ec.europa.eu/s3-implementation> (accessed on 16 July 2020).

Retrieved from <https://encyclopedia.pub/entry/history/show/7144>