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Special Issue: Smart Specialisation, Territorial Innovation and Policy Change

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Editorial

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Territorial Innovation Models and the Emergence of RIS3

Innovation is the most important driver of economic growth and a key domain for public policy (OECD, 2007). The literature on territorial innovation models (TIMs) has expanded underlining different features of the process within the territory (Crevoisier, 2014) but that in general underline the crucial role that agglomeration dynamics and different types of proximity have in the production of knowledge and its transfer to the economic fabric (Boschma, 2005). TIMs such as development poles (Perroux, 1955), industrial districts (Becattini, 1990), clusters (Porter, 1998), *milieux innovateurs* (Aydalot, 1986; Maillat, 1995), learning regions (Florida, 1995; Morgan, 1997), creative cities (Yencken, 1988; Landry, 2000; Howkins, 2001; Florida, 2002), among other models were crucial to underline this relevance and were often translated to policy-making.

One of the TIMs that was more influential for the European Union was the 'Regional Innovation System' (RIS). The concept is based in the systemic approach to innovation dynamics, that provided relevance to the interaction of a series of actors at the national level in order to instigate innovation as a means for growth (Freeman, 1995; Lundvall, 1992). The RIS approach underlines that the 'regional' level is the adequate scale to analyse and to implement policies for innovation, in particular due to the referred agglomeration effects and proximity benefits (Cooke, 2001; Asheim, Smith, & Oughton, 2011). RIS paradigm was very important to several generation of EU policies that tried to stimulate innovation in the regions. To that end, it is important to emphasize that the RIS concept was structuring, for example, the definition of 'regional innovation strategies' (RIS programme 1994-2001), the RITTS - regional innovation and technology transfer strategies (1994-2001), and the European Regional Development Fund Innovative Actions (2000-2006) (Uyarra & Flanagan, 2012). More recently, the RIS was recovered to the spotlight and is a crucial theoretical building block of the RIS3 - Research and Innovation Strategies for Smart Specialisation (Foray et al., 2012).

Smart specialisation defines the virtuous process of diversification by concentrating resources and capacities in a limited number of domains that represent possible paths of transformation of the regional productive structures (Foray, 2016). RIS3 emerge as a renewed place-based paradigm for the strategic development of innovation under the premise of interaction and knowledge of regional capabilities and forces. It suggests an evidence-based process to select regional priority domains, through an entrepreneurial discovery process (EDP), in which regions can be more competitive and show a greater efficiency in access to national and international markets (Marinelli, 2017). These domains are not sectors, clusters or scientific areas but transformational activities that may instigate regional development. They are in the cross-roads of existing and latent capacities of the R&I system and the application of knowledge enabling technologies (KETs) or general purpose technologies (GPTs), and express opportunities that emerge from existing related varieties in the region (Balland, Boschma, Crespo & Rigby, 2017). This means that RIS3 is a mixture of vertical and horizontal policies.

The RIS3 approach differs from previous strategic initiatives. Firstly, it is based in the premise of unique regional configurations suggesting a specific development trajectory that require an adapted policy-mix. This is in line with the considerations that the earlier generations of regional innovation policies were based in an ineffective 'one-size fits all' approach (Tödtling & Trippl, 2005) that emulated successful results and fashionable domains from specific contexts to others with very different capacities. Secondly, RIS3 understands the innovation policy process as participatory and multilevel, with the deepening involvement of various actors in the innovation system governance, often stimulated or anchored in the EDP, in order to bring the strategy closer to the reality of the territory, at its different levels of action, namely business and industrial fabric, governance and knowledge generation actors such as universities and research centres (Grillitsch, 2016). Thirdly, the key to the past success of the concept was that RIS3 has been adopted across the European Union (EU) as a requirement, an *ex-ante* conditionality, for access to innovation financing mechanisms in the context of the European Structural and Investment Funds (ESIF) in 2014-2020 (Kroll, 2015). RIS3 will

be for sure a central aspect of post-2020 EU Cohesion Policy and this is a debate that requires preparation and participation from all relevant key stakeholders. Also in Portugal.

Organisation of the Special Issue

This special issue is an attempt to discuss some relevant issues to 'smart specialisation' rationale. It is a direct result of dedicated call for papers and a special session organized by the PPPJ editors and the guest editor about "Territorial innovation models, smart specialisation and public policies". This session was organized within the 24th APDR - Portuguese Association for Regional Development Annual Congress on "Intellectual Capital and Regional Development: New Landscapes and Challenges for Space Planning" held at the University of Beira Interior, Covilhã in July 2017. The issue includes five original articles that highlight crucial aspects for RIS3.

The first article, prepared by Paulo Neto, Maria Manuel Serrano and Anabela Santos is entitled "Renewed challenges for public policies in post-2020 Cohesion Policy: From RIS3 to RIS4 and a new social dimension for smart specialisation". It is based in a preoccupation that the RIS3 are not promoting enough the cohesion of the territories as they are largely focusing excellence with many destabilisation effects. This preoccupation, to answer societal challenges and social innovation, is something that is already implicit in several RIS3 all over Europe (Nogueira, Pinto and Sampaio, 2017) but still needs to be made more effective. The article pays attention to smart specialisation as the probable main territorial approach in the post-2020 period. The text analyses key policy implications, requirements for an effective governance, the policy dimension of smart specialisation, and the future of 'smart'. The authors suggest that in the post-2020 the development of RIS3 needs an increased consideration to the social dimension, and the consequent transformation of RIS3 into RIS4 - Research, Innovation and Social Strategies for Smart Specialisation.

The second article is focused in another preoccupation of the RIS3. With the application of the concept in EU, many regions worldwide have showed interest and have begun to replicate RIS3-alike strategies. Nevertheless, implementation in less developed regions is not unproblematic (McCann & Ortega-Argilés, 2016). The European Commission was one of the instigators of this policy transfer with projects such as "RIS3 in Latin America" or "RIS3 and beyond" (cf. JRC European Commission S3 Platform website at http://s3platform.jrc.ec.europa.eu/). In the article "Smart specialisation in Africa: Potential for regional development in Cameroon based in tourism-training-innovation resources", Tchakounte Ngassa Ulrich, Hugo Pinto and Carla Nogueira provide an overview of the Cameroon's economy, coupled with a comprehensive look of innovation, training and tourism resources at regional level. This country is an excellent case to reflect how to transfer the RIS3 concept to other parts of the world, namely those in less developed or even in deprivation. The article is based in the calculation of specialisation indices to find territorial patterns at regional level. The authors consider that smart specialisation may be an interesting concept to be implemented in Cameroon and other African regions as a planning tool, but a proper EDP to identify the existing potential of the territories needs to be employed in order to choose priorities and define governance mechanisms.

The following article by Nicola Francesco Dotti, Giulia Lazzeri and Alberto Bramanti, entitled "Smart timing and specialised spaces: Reflections on the implementation of smart specialisation strategies in Milan and Brussels" debates these two cases, underlining how advanced urban areas with different institutional and spatial settings face structural challenges and opportunities to keep high levels of competitiveness. The authors underline both the spatiality and temporality of RIS3 as its implementation requires space to support the scaling-up of innovative activities, coordination among tiers of government involving local, regional, national and European policymakers, and taking into account the spatial economic interdependencies within the territory. Additionally, the timing of the RIS3 implementation, from the initial steps of design to the ex-post evaluation affects a potential mismatch between short-term returns and longer-term perspectives.

The following article is entitled "Empreendendo descoberta inteligente: Uma abordagem aos modelos de implementação da especialização regional em Portugal" (Undertaking smart discovery: An approach to the models of implementation of regional specialisation in Portugal). Antonio Sampaio Ramos and Fernando Rosa, national specialists directly involved in the Portuguese RIS3 process, underline here their vision on the state of the art of the smart specialisation process, confronting conceptual architectures of the different multilevel models of governance adopted by the regions. The text compares the RIS3 operational models of the Centro and Algarve. These regions followed different approaches and their baseline regarding R&I ecosystems and economic fabric is

completely different (Cooke, 2016). The RIS3 implementation in Portugal was itself, in the spirit promoted by the smart specialisation rationale, a challenge of regional innovation and a process of collective experimentation. The full realization of the necessary conditions for an effective participation, requires that the foreseen governance mechanisms are implemented the regions, and that each region finds the ways to guarantee an effective EDP with a strong impact on the improvement and discovery of RIS3 priorities and monitoring.

The final article "Enhancement of innovations through the public programmes: Does it work?" by Oto Potluka Ondřej Dvoulety conducts a counterfactual evaluation of the Operational programme Enterprises and Innovations (OPEI) in the Czech Republic which took place during the period of 2007-2013. This is a crucial technique to assess the impact of a policy measure (Menzies, 2017). The authors have analysed a data sample of 31,604 firms and found positive impacts on profit in the case of supported small and medium-sized firms. They also found a positive effect on employment in medium and large firms assisted by the ERDF.

Final Remarks

'Smart specialsation' faces a variety of challenges for its adequate transfer, design and implementation as a policy. A satisfactory RIS3 goes beyond many stylized facts on innovation regional policies: beyond benchmarking and best-practice emulation, beyond technologist visions of development anchored in the promotion of R&I, beyond the promotion of high growth sectors just because they are fashionable, beyond a strict vision of product innovation encompassing the social aspects of the phenomena, beyond scientific priorities that are transferable to market and understand social sciences and humanities as a minor contribution, beyond a simple *ex-ante* criteria to assess ESIF. Only overcoming these limitations RIS3 can achieve its ambitions of becoming meaningful structural change agendas for the regions that develop them. Hopefully this special issue of PPPJ can contribute to the debate about smart specialisation in Portugal for the post-2020. It is crucial as this discussion is inexistent or at best still immature and lacking analytical depth and more open examination.

Évora, June 2018

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