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Smart Specialisation in the EU: Is it a Bridge between Innovation and Cohesion?

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Smart Specialisation in the EU:

Is it a Bridge between Innovation and Cohesion?

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Abstract

Current innovation policy is the result of decades of research about the nature and role of innovation in economic growth. Such investigation has contributed to redesign our knowledge not only on the role played by innovation in economic development but also about the relationship between innovation and territory. Although the huge literature examining the relationships between territory and innovation has shown abundant evidence that certain regions are systematically more innovative than others the reasons for this dissimilarity go on being controversial. But, whatever the reason, the propensity for generation or absorption of innovation differs clearly between regions with some regions being characterised more by innovation-using rather than innovation-producing activities and others by a complete absence of innovation.

Resulting from the criticisms to former policy approaches and from theoretical and empirical developments, the concept of ‘smart specialisation’ appeared and has gained significant political prominence in the European Union (European Commission, 2010; McCann and Ortega-Argilés, 2011). Although regions in many parts of the world are showing interest in the smart specialisation policy approach (OECD, 2012), it is Europe that takes the lead in this type of strategy, feeding high expectations about the results of this approach. In fact, European Commission sees smart specialisation as ‘the basis for European Structural and Investment Fund interventions in research and innovation considered as part of the future Regional Policy's contribution to the Europe 2020 jobs and growth agenda’. Furthermore, the EC goes beyond the innovation policy domain and describes smart specialisation as involving ‘a process of developing a vision, identifying competitive advantage, setting strategic priorities and making use of smart policies to maximise the knowledge-based development potential of **any region, strong or weak, high-tech or low-tech**’ (S3 Platform website).

This paper looks at the capacity of the smart specialization approach to attain the aims that it alleges to pursue, namely the aptitude to simultaneously respond to cohesion and innovation, questioning if smart specialization is able to bridge efficiency and equity which inspire innovation and cohesion, respectively.

Keywords: Cohesion policy; European Union; Innovation; smart specialisation.
JEL Codes: O31, O33, R11, R58

General Theme: G_B Regional economic growth and development

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Introduction

From the 1980s onwards there has been an increasing discomfort with the previous approaches for local and regional development, apparent in the feeling that the traditional development theories could no longer explain the dynamics of the 1980s and 1990s. This was paralleled with the convergence of three disciplinary developments: the endogenous growth theory emphasizing the importance of human capital and innovation; the institutional economics stressing the role of institutions; and the new economic geography calling attention to agglomeration and proximity. As a consequence, some new explanations appeared on how economic development takes place and how it relates to different regions (Barca, McCann and Rodriguez-Pose, 2012; Capello and Nijkamp, 2009).

Given the number of problems in many European countries, the discomfort has been also visible in political circles. While countries try to keep their economic sectors competitive in a globalized production environment (Bachtler, Wishlade and Yuill, 2003; Barca, 2009), plenty of problems cried for solutions: low rates of economic growth, problems in old-industrial areas, peripheral regions and inner-cities evident in high youth and long-term unemployment. At the same time as the increasing globalization stimulated the importance of local specificities and assets upon which the competitiveness of regions is based (Capello and Nijkamp, 2009; Rodriguez-Pose and Crescenzi, 2008), deep technological and institutional changes reshaped the competitive advantage of regions.

These changes have drawn attention to the importance of localities for economic growth and to the significance of “proximity” in the location of economic activity (Boschma, 2005a, 2005b; Rodriguez-Pose and Crescenzi, 2008). So, since the 1980s, innovation is increasingly linked to regional development policies with the emergence and development of ‘cluster’ approaches (European Commission, 2008) strongly interlinking industrial and regional policy¹. Furthermore, the importance of technology and innovation connected research policy to “place based” innovation approaches. Although “global city-regions” play a critical role in the generation of economic growth

¹ The “Pôles de Compétitivité” approach in France is the most illustrative example of this interlink.

(McCann, 2008), growth occurs also in other kind of regions, even in rural-ones (OECD, 2009a, b).

Likewise, three trends orientate the new developments in regional policy (Bachtler *et al.*, 2003; Barca *et al.*, 2012). First, globalization and the Porter's argumentation that 'competitive advantage is created and sustained through a highly localised process' (Porter, 1990, p. 19) forced to look at local specificities and, consequently, new specific competitive factors were highlighted: the quality of the human capital, the availability of knowledge infrastructure, the existence of networks and clusters (Capello and Nijkamp, 2009; Rodriguez-Pose and Crescenzi, 2008). All these factors reinforced the idea that policies need to be designed and shaped at the regional level (Lagendijk, 2011). Second, a growing trend of decentralization of the different types of development policy (as e.g. research policy, innovation policy and regional policy) in European countries was emerging (OECD, 2010; Bachtler *et al.*, 2003; Lagendijk, 2011). Third, the influence of the EU policies played a key role in developing more strategic methods of facilitating regional economic development (Raines, 2001). The program of regional development, first introduced in 1975, has since then experienced a continuous process of change and evolution (Manzella and Mendez, 2009; Tödtling, 2010; Wolfe, 2011).

Consequently, policies targeted towards regions experienced significant changes in objectives, governance and policy instruments and according to the OECD (2010) there is extensive evidence of a discernible shift in the "paradigm of regional policy". The "new paradigm" is place-based and directed to different types of regions (OECD, 2009a; 2009b; Wintjes and Hollanders, 2010). Essential characteristics of the new paradigm are: a) focus on the endogenous local assets and knowledge; b) designing and adapting interventions to specific contexts and to their spatial linkages; c) stimulating the knowledge and preferences of local actors (Barca, 2009). It was alleged that in the EU regional context, this new paradigm corresponds to the 'smart specialisation' approach (Foray *et al.*, 2011).

While some authors consider the concept of smart specialisation a bit vague (Walendowski, 2011) or problematic (McCann and Ortega-Argilés, 2011)², it starts a

² However, McCann and Ortega-Argiles (2011) state that with a place-based approach and some key issues in economic geography the concept could be applied for regional policy.

considerable academic debate concerning specialization and diversification, which is already on-going (Asheim et al., 2011; Asheim, 2013; Boschma, 2009; Boschma and Frenken, 2011; Morgan, 2013). Despite this debate and the challenges towards practical development it poses (Lagendijk, 2011; Camagni and Capello, 2013), it has gained significant political and analytical prominence in the European Union (European Commission, 2010; McCann and Ortega-Argilés, 2011, 2014). In fact, while regions in many parts of the world are showing interest in the smart specialisation policy approach (OECD, 2012), it is Europe that take the lead in this type of strategies, considering smart specialisation as ‘the basis for European Structural and Investment Fund interventions in R&I as part of the future Regional and Cohesion Policy's contribution to the Europe 2020 jobs and growth agenda’. In this context, smart specialization is defined as ‘a process of developing a vision, identifying competitive advantage, setting strategic priorities and making use of smart policies to maximise the knowledge-based development potential of **any region, strong or weak, high-tech or low-tech**’ (S3 Platform website).

This paper defies the capacity of the smart specialization strategies of the EU to attain the aims that they allege to pursue, namely the aptitude to simultaneously respond to cohesion and innovation. We seek to answer questions like these: Are smart specialization strategies compatible with increasing cohesion in the EU regional context? How smart specialization can deal with depressed and lagging regions?

Therefore, the remainder of the paper is organized in the following way. The next section reviews the main criticisms to the old model of development policy and gives an overview of recent evolution in regional policy characteristics paving the way for introducing the smart specialisation concept. Given the ex-ante conditionality associated to the regional policy, section 3 synthetically introduces the debate between innovation and cohesion which should be considered as another way of looking at efficiency and equity. Section 4 inquiries if we are facing a new paradigm in regional policy or assisting to the bureaucratization of a concept. Section 5 questions the capacity of smart specialization for enhancing both cohesion and innovation. Finally, section 6 concludes briefly.

2. The criticisms towards the old model of development policy and the emergence of the smart specialization concept

Since the third quarter of twenty century (Buyst, 2012; Wolfe, 2011) the traditional development policies, based on the post-World War II growth and development theories, identified as an old paradigm, have been criticized in many respects. First, the main objectives of regional policy in the old paradigm were put in question. Some authors suggested that they were adopted because their simplicity and popularity. In fact, not only the promotion of increased investment and attraction of inward investment for developing lagging and peripheral regions (Bachtler *et al.*, 2001; Bachtler and Yuill, 2001), but also the provision of infrastructures for economic development and consequent creation of employment exert great appeal to decision makers. Second, the lack of coherence between regional development policies and sectoral policies, the little integration of instruments or the lack of coordination across policy fields were highlighted (Wolfe, 2011). Third, the place neutral character of the traditional policy, as exemplified by the same solutions applied to analogous problems in different places (Barca *et al.*, 2012) or the ‘one size fits all’ (Tödtling and Trippel 2005), was specifically vided. Fourth, the top-down decision making, generally ignoring mixed, integrated and/or bottom-up approaches (Barca *et al.*, 2012; Wolfe, 2011), was also criticised.

It was argued that the ‘top-down regional development approach’ had not been very effective in fulfilling the main objectives of regional policy, namely to address the concentrations of unemployment, to improve the economic situation of regions and to reduce disparities within and between countries (OECD, 2009a; Tödtling, 2010). State aid and industrial intervention in declining industries, and big projects resulted in unbalanced policies, worsening of industrial regions and the further economic marginalization of many peripheral and rural regions (see e.g. Grabher, 1993 on the Ruhr-region and Hassink and Shin, 2005).

Responding to the top-down regional development’s criticism, national and regional governments slowly adapted to the growing complexity of regional issues (Hassink and Klaering, 2011; Lagendijk, 2011; Tödtling, 2010; Crescenzi and Rodriguez-Pose, 2011). Likewise, the expertise about regional policy evolved and, at the end of the new millennium’s first decade, a number of highly persuasive reports about policy intervention on regional development were published by significant

international organizations: OECD (OECD, 2009a), the European Commission (Barca, 2009), the World Bank (World Bank, 2009). These reports have disclosed two opposite views in a vibrant debate on regional policy (Barca *et al.*, 2012; Pike, Rodríguez-Pose and Tomaney, 2010). On the one hand, an idea of regional development policy space-neutral, with an emphasis on the agglomeration and spillover benefits arising from the geographical concentration (World Bank, 2009; Gill, 2010). On the other hand, a place-based approach that assumes geographical context as the most relevant in terms of cultural and social characteristics, particularly considering the role of institutions and the importance of local knowledge (Garcilazo *et al.*, 2010). It is this “place-based” line that exerts more impact on the philosophy of the European policies of regional development (DG Regional Policy, 2011; Wolfe, 2011).

The smart specialisation (SS) concept (David *et al.*, 2009; Foray, 2009) embodies these changes but it appears in consequence of a diagnosis of R&D and innovation in the EU. In fact, in its origin is an assessment on how European regions are prepared for globalization. Answering this question, Foray (2009: 15-16) points out some reasons for considering that European regions are ‘ill prepared’: a) ‘the public research system in Europe remains fragmented and nationally based’ and these characteristics limit ‘agglomeration processes’ and impede ‘the formation of world-class centres’; b) there is a ‘tendency in Europe for countries and regions to do the same thing and envisage their future in a similar fashion’. ‘This nationally-based fragmentation and the uniformisation of priorities leave Europe with a collection of subcritical systems, all doing more or less the same thing. Such a situation is obviously a source of inefficiency’ because ‘economy of scale and spillover potentials are not fully realised’ and ‘economies of agglomeration are dissipated’. The economies of agglomeration are central in Foray’s SS concept because they are considered a specific resource *per se* which can make a difference in the territorial attractiveness (Foray, 2009).

The criticisms made by Foray are, at least partly, the development of others made nine years before by the European Commission (2000) in its Communication to the Council and to other European institutions about the creation of an ERA (European Research Area): ‘fragmentation, isolation and compartmentalisation of national research efforts’ as the main characteristics of the ‘European research effort’, which ‘is no more than the simple addition of the efforts of the 15 Member States and the Union’

(Commission of the European Communities, 2000). So, the SS concept appears first and foremost as a way of not repeating past errors and of providing theoretical foundations to a research and innovation policy in the EU context³.

According to Foray (2009: 14-15) the SS concerns ‘an essentially entrepreneurial process’ as opposed to a ‘bureaucratic process (plan)’ and has as main objective ‘the creation of a large research and innovation area’ which will allow ‘unrestricted competition’. For avoiding the “sheep-like behaviour” and to consider the different types of regions, SS advances a division of labour between technological frontier and follower regions: leader regions ‘invest in the invention of a GPT’ while the followers must invest in the «coinvention of applications».

So, the ‘smart specialisation approach is a policy prioritisation agenda for regional innovation policy’ (McCann and Ortega-Argilés, 2013: 206). But, given the nature of innovation, whereby failures are observed alongside with successes, it is understandable that the ‘smart specialisation’ agenda (Foray et al., 2011) includes the idea of discovery and experiments (Hausman and Rodrik, 2003; Rodrik, 2004) and use indicators and evaluation as central instruments in the regional innovation policies design.

Although in the smart specialization rationality it should be the entrepreneurial search processes that are assumed to identify the smart specialization opportunities in the region (Foray, 2009; McCann and Ortega-Argilés, 2014), this doesn’t mean a passive public intervention. The SS is possible if active governmental policies exist. These must play a fourfold role (Foray, 2009: (i) Supplying incentives to (encourage) entrepreneurs who are involved in the discovery of the right specialisations; (ii) Assessing the value of the identified specialisations; (iii) Identifying and supporting the investments that are complementary to the right specialisations; (iv) Cutting down investments which were supported ex ante as part of promotion of the search for the right specialisations, but turn out to be inappropriate ex post.

³ The above criticisms explain also why the SS concept is in the origin of the ‘smart specialisation’ agenda of the EU (Foray et al., 2011), which has oriented the debate about how to choose priorities in the EU context (McCann and Ortega-Argilés, 2013). But the SS concept has originated also a considerable academic debate about specialization and diversification. Some authors argue that this concept and this agenda imply strategic technological diversification around a region’s core activities (McCann and Ortega-Argilés, 2013, 2014).

3. Innovation and cohesion or the efficiency vs. equity debate

The Lisbon Treaty explicitly recognizes territorial cohesion as a fundamental objective of the European Union⁴. In effect, this treaty affirms that: ‘It [the European Union] shall promote economic, social and territorial cohesion, and solidarity among Member States’ (European Union, 2007: article 2 n. 3). The main argument pro an EU-wide cohesion policy is that it constitutes the only efficient way to alleviate the economic, social and territorial disparities among all member states. But a cohesion policy based on compensation mechanisms is necessary because economic integration can produce winners and losers across countries and regions (Venables, 2003). If two countries (or regions) with different infrastructure (or other type of external economies source) enter in an economic union, the country (or region) with the better infrastructure will attract more industrial activities, which may deepen differences in income and employment. So, building a sustainable community ‘with different endowments is thus helped by a compensation mechanism to ensure equitable sharing of the gains from integration’ (World Bank, 2009: 264).

Although the territorial impact of European policies should be considered in the 2020 strategy (DG Regional Policy, 2011), the EU regional policy is not usually used as a compensation scheme for countries or regions which have been losing out from the EU integration process. In our view, the territorial cohesion has not deserved by EC (European Commission) either the same relevance attributed to innovation or the attention due to a fundamental objective, unless, accomplishing with this objective had been considered as a member states’ task.

From the time when the process of European integration began, innovation occupies a relevant role in the European policy: general objectives of modernization, developing research and technology diffusion has been chief concerns of the European integration since the first treaties of Paris and Rome. As the integration evolved the relevance given to innovation was always growing as is evident with the *Green Paper on Innovation* (European Commission, 1995) and *The First Action Plan for Innovation in Europe* (European Communities, 1997). This increasing trend in innovation concerns culminated in 2000 with the design of the Lisbon Agenda (European Council, 2000).

⁴ For a comprehensive understanding of the European Union cohesion policy, see Molle (2007).

Indeed, at least since the beginning of the 1990s, the main objective of EU policy has been promoting international competitiveness and innovation, perhaps because it is observed that the innovation gap is twice the cohesion gap between the most and the less developed regions (European Communities, 1997). This objective of promoting international competitiveness and innovation became the alpha and omega of the EU policy in a way that subordinates cohesion to innovation, with the traditional objective of cohesion — the convergence between regions — being substituted by the promotion of innovation in the weaker regions. This is evident in statements like this: ‘the aim of the EU cohesion policy is to promote the development of many of Europe’s weaker regions’ (McCann and Ortega-Argilés, 2014: 2). We disagree with this way of looking at cohesion: we can try to develop a weaker region, and be succeeded in this endeavour, but this cannot be sufficient for reducing the gap with a more developed region.

On the other hand, the search for international competitiveness has been done by each country per se and this type of rivalry has caused inefficiencies in the application of the EU’s funds, given the tendency for emulating other countries’ best practices. The SS concept deals with this problem but it only considers the effects and not the causes of such inefficiencies. The main effect is the tendency for countries and regions to choose the same priorities. They all try to compete in biotechnology, nanotechnology or information and communication technology (ICT) by hosting clusters of excellence, incubators, science parks and world class research hubs (Foray, 2009; Lagendijk, 2011) leading to subcritical systems “all doing more or less the same thing” (Foray, 2009, p. 16).

This way how countries and regions compete has another effect: polarization and misemployment of resources in research activities. It is for avoiding this effect that regions should ‘particularise themselves’ and develop an original strategic vision. Also it is considered necessary ‘to reconcile unrestricted agglomeration processes with a relatively balanced distribution of research capabilities across Europe’ (McCann and Ortega-Argiles, 2011 p. 7) for, as Foray (2009, p. 17) explicitly mentions, not to “further increase polarization phenomena: scientific densification for some regions, ‘desertification’ for many others” in the context of the European Research Area (ERA).

The concept of ‘smart specialisation’ was introduced by Foray (2009) for better dealing with the challenges of globalization in Europe which imply solving these problems. He argues that specialisation can only occur in a large research and innovation area that allows for unrestricted competition. Foray expects that the realisation of the European Research Area (ERA) will bring Europe closer to such a reality. Regions can then engage in an ‘entrepreneurial process’ of matching local knowledge production to the ‘pertinent specialisations’ of the region. Pertinence in this discovery process will be defined by the emergence of General Purpose Technologies (GPTs). Foray claims a sort of core-periphery division of labour: while leader regions invest in the invention of a GPT, less advanced regions must invest in the ‘co-invention of applications’⁵. It is expected that regions engaging in smart specialisation enjoy high returns as they enter a competition arena composed of a small number of players. Government policies have a role in providing appropriate incentives to entrepreneurs who are involved in the discovery of the right specialisation.

However SS doesn’t face the way competition is considered between countries and regions within the EU and this competition philosophy has conflicting with easing the convergence of individual member states and regions⁶. Indeed, the existence of contradictory objectives between cohesion and innovation policy is evident: while the former means diminishing the disparities between regions, the innovative firms targeted by the latter tend to cluster in the most advanced regions (Kaufmann and Wagner, 2005). So, the tension between efficiency, which underlies innovation, and equity, that should inspire cohesion policy, goes on being visible in the European Union’s regional policy and the new European Commission (EC) strategies are unable to solve this old debate.

It appears that EC is convinced that was able of solving the efficiency vs. equity trade-off with the adoption of the RIS3 strategies, considering that these strategies lead to a more comprehensive set of development objectives ‘tapping under-utilised potential in all regions for enhancing regional competitiveness’ (OECD, 2009). Although it is alleged that rather than focusing on the dichotomy between convergence and competitiveness these strategies would enhance greater regional specialisation and cooperation, it is certain that the ‘full utilization of the potential of every region’

⁵ This leader vs. follower typology has been criticized by Camagni and Capello (2013), which developed a more complete taxonomy of regions.

⁶ The recent enlargements of the European Union has become this issue even more important (Dogaru, Van Oort and Thissen, 2011; Thissen and Van Oort, 2010).

inevitably requires instruments different from ‘ensuring equal opportunities for individuals irrespective of where they live’ (Barca, 2009, p. 17).

There is a recurrent confusion between regional policy and cohesion policy. This confusion is fed by many EU documents and made by many scholars. In effect, the name of regional policy and cohesion policy are commonly used interchangeably but actually EU regional policy is not an authentic cohesion policy. In fact, the ‘EU regional policy is an investment policy. It supports job creation, competitiveness, economic growth, improved quality of life and sustainable development’ (European Union, 2014). It is now subordinated to the Europe 2020 strategy.

The official explanation for this confusion is provided by the EC: “Regional policy is also referred to in broader terms as cohesion policy as its overall goal is to strengthen what is known as ‘economic, social and territorial cohesion’ in regions qualifying for support”, which in practice means: a) economic and social cohesion: boosting competitiveness and green economic growth in regional economies and providing people with better services, more job opportunities and a better quality of life; b) territorial cohesion: connecting regions so that they capitalise on their respective strengths and work together in new, innovative configurations to tackle common challenges (such as climate change), thus benefiting and reinforcing the EU as a whole’ (European Union, 2014).

In order to understand why despite ‘tapping under-utilised potential in all regions’ is not the best way of increasing regional cohesion, we need to disentangle the concept of regional policy from the one of cohesion policy. Regional qualifies the level as opposite to national while cohesion qualifies the aim of the policy. We can have a regional innovation policy and this to be contradictory with a regional cohesion policy. In fact, an innovation policy is always contradictory with a cohesion policy whatever the territorial level they are applied. Innovation implies ‘creative destruction’ and divergence, while cohesion involves convergence.

To disentangle this confusion is important not only for assessing the real importance of the RIS3 strategies but also for understanding why despite the overwhelming rhetoric on supporting and enhancing research and innovation the technology gap between the EU and the US goes on increasing.

4. Reformulation of the EU regional policy: a new paradigm or the bureaucratization of a concept?

The European Union has been active in running a regional development policy, as can be demonstrated by its program of regional development, first introduced in 1975, and by the creation of the European Regional Development Fund (ERDF) in the same year, after establishing the European Social Fund (ESF), in 1958. However, the recent years have brought a reorientation of the regional policy towards an objective of regional competitiveness and a more efficient implementation of the renewed Lisbon Strategy. Such a change entails that the European regional development policy would be to a lesser extent dedicated to traditional compensation measures but would in turn be employed to enhance an endogenous competitive potential of the regions.

The Barca's report (2009) reinforces this change recommending the reformulation of the EU regional policy to a place based policy, which should mould interventions to specific territorial contexts and to their spatial linkages, and stimulate and aggregate the knowledge and preferences of local actors (Barca 2009, p. 4). Therefore, it advises to substitute the traditional policy to a new formula that puts emphasis on endogenous potentials and adjusts intervention to the territorial context of the specific regions.

But while the traditional cohesion policy was focused on the compensation for regional differences in unit capital costs and on the labour and capital flows, the new one is supported only in an abstract principle of competitiveness which can be more efficiently attained if countries and regions follow strategies organized around the SS concept.

Is the SS concept the origin of a new paradigm in EU regional policy? Apparently the answer is yes. It 'provided a major twist in terms of contemporary policy thinking' (McCann and Ortega-Argilés, 2014: 3). Indeed, SS responds to all criticisms directed towards the old paradigm in development policies: it is space based and it considers spatial variability focusing on the problem of differential spatial development (Bachtler *et al.*, 2003; OECD, 2009; Wintjes and Hollanders, 2010), putting emphasis on policy frameworks that enable processes of entrepreneurial discovery, by searching

for complementarities between different policy domains (Foray et al., 2011). The smart specialisation concept also works up the idea of ‘self-discovery’ (Hausman and Rodrik, 2003), one of the subjects which has become more and more important in arguments regarding modern industrial policy. Here, the idea is that many areas of innovation policy need to allow for experimentalism in order to discover what works in what context and what does not (Rodrik, 2004). That is why these changes also encompass a reconsideration of the possible partnership roles of different levels of governance (OECD, 2009a, 2009b, 2011b).

All of these shifts reflect an extensive reconsidering of regional development policies per se (McCann and Ortega-Argilés, 2013), of which regional innovation policies are one key subset (OECD, 2011a). But, if it is recommended that some conditionality is to be attached to EU innovation funding regarding issues of transparency, along with the use of outcome indicators and monitoring and the role of peer review and mutual learning (McCann and Ortega-Argilés, 2013), it is more disputable that the same conditionality should be attached to funds directed to cohesion.

However, the EC doesn’t think so and imposed ex-ante conditionality on the ERDF. But, building on the SS concept for imposing Regional Innovation Smart Specialization Strategies (RIS3) through this pre-condition, the EC fails the underlying philosophy of the concept, transforming it in a ‘bureaucratic process’ (Foray, 2009: 14) and inducing a ‘sheep-like behaviour’. This explains why the EC considers smart specialisation as not new. Quite the opposite, SS is considered by the EC as only a ‘refinement and upgrading of the existing methodology for Structural Funds programming’ (European Commission, 2014). And the EC explains: what is new is that the Commission proposes to make such strategies a pre-condition for ERDF funding. Consequently, rather than considering smart specialization as an on-going, evolutionary process which requires ‘strategic intelligence’, the EC bureaucratizes the idea and makes depending cohesion from adoption of RIS3 plans. Trying to respond to this conditionality, regions, especially the ones with less innovative capacity, will engender plans that formally follow the ideas of SS but in practice result in a copy and paste exercise.

5. Ex-ante conditionality and cohesion

Furthermore, there are two important issues associated to this conditionality that impact on cohesion. First, RIS3 are based on research and innovation policies and innovation is associated to income inequality and divergence (Venables, 2001). Indeed, contemporary research in economic geography has shown that innovation is unevenly distributed across space exhibiting a strong tendency to cluster (Karlsson 2008a, b). In fact, across the urban hierarchy, innovation appears to be disproportionately concentrated in large urban centres (Bettencourt et al. 2007) and this concentration has considerable effects on income inequality, as explained by several theories. Not only the skills biased technological change hypothesis (Acemoglu 2002; Card and DiNardo 2002; Goldin and Katz 2008)⁷ but also the task-based framework (Autor et al. 2003; Acemoglu and Autor 2011) and the explanation based on the growing low-skilled ‘service class’ associated to the ‘creative class’ thesis (Florida, 2002; Peck 2005; Storper and Scott 2009; Krätke 2011; Florida et al., 2012) show different channels through which innovation influences income inequalities.

Indeed, one of the stylized facts of the emergence of the knowledge-based economy over the last 30 years is that it has been accompanied by rapidly increasing income inequality across many advanced industrial economies (Atkinson and Piketty 2007; OECD 2008). Likewise, the empirical work that studies the relationship between innovation and inequality in regional contexts drive to similar conclusions (Donegan and Lowe, 2008; Lee and Rodriguez-Pose, 2013). For instance, Lee (2011) examines the innovation-inequality link across a panel of European regions over the 1996 to 2001 period and has found a positive and significant relationship between innovation and inequality.

But apart the innovation inequality link, that exists even where regions are in the same conditions, the ex-ante conditionality, pressing on the same strategy for all regions, introduces a new factor of divergence. In fact, meeting the ex-ante conditionality poses a double test to the regions. First of all, many have to develop their first innovation strategy, often without any appropriate administrative framework. But it is very difficult if not impossible to create this basis and make their efforts sustainable,

⁷ According to Wheeler (2005), this may be the relevant explanation for the pronounced rise of inequality across the US.

without the existence of robust, practice-oriented governance structures. Some of the RIS3 national assessments specially made by DG Regional and Urban Policy cast severe doubt on the ability of policy and governance structures of some countries to fulfil the ex-ante criteria (Reid et al., 2012). Next, regions still have to do so in a way that matches the exigent set of methodological requests for smart specialisation. Even where new governance organizations exist, innovation strategy cannot often be realised inside the administration in the short term, but will call for external assistance.

But alongside with these ill prepared regions, other reports have shown other regions that have built notable capacities in R&D policy for decades and essentially fulfilled the ex-ante criteria long before RIS3 strategies become fashion (Baier et al., 2013; Kroll, Meyborg, 2013; Larosse, 2005). In these regions, where criticisms of academicism and ‘rigid requirements’ are frequent there is ‘the impression that the Commission aims to decree strategy processes, [which] does not work, at least not in the regions that have [already] completed their [own regional innovation strategy] years ago’ (Kroll et al., 2014: 4).

Obviously, there are many regions between the very experienced and the structurally problematic in which the new agenda may reveal other aptitudes and specific challenges, but the important point is that considering the same ex-ante conditionality for all regions will necessarily increase the disparities between regions. Furthermore, as Foray duly points out (2009: 23) “the ‘smart specialisation’ strategy does not necessarily offer any protection against the risks of collective inertia and inability to respond to the challenges of a radical innovation that threatens to render the capacities of a particular region obsolescent”. But if this is true, cohesion instruments are necessary for impeding the growing divergence between regions and so a cohesion policy should not be submitted to ex-ante conditionality.

This conclusion is not endorsed either by the EC or by some scholars. For instance, McCann and Ortega-Argilés (2014) consider smart specialization as ‘a major element of the overall EU cohesion policy reforms’. Yet these authors assume that ‘other elements of the reforms are designed to deal with the associated problems of institutions, governance, cross-border cooperation, and limitations in absorptive capacity, all of which are typically faced by weaker regions attempting to upgrade their

economic capabilities' (p. 10). However, we don't see these 'other elements': if they exist they don't deserve by the EC the same emphasis as the ex-ante conditionality.

6. Concluding remarks

While smart specialization is plenty of good ideas about research and innovation policy, it is short in advice for depressed regions. Perhaps because in the SS concept innovation is associated with technological innovation and this is associated to the GPT. But innovation is only one aspect of wealth creation and technological innovation is only one part of innovation together with organisational, marketing and others. Follower and lagging regions can and should also invest in knowledge development, supplying specific niches in global chains.

It is a puzzling fact that a concept rejecting the 'one size fits all' would be applied using the same ex-ante conditionality for any 'region, strong or weak, high-tech or low-tech' and more puzzling is to consider that this conditionality can contribute for cohesion in the EU regional context. With this conditionality not only the disparities between leader and follower regions will increase but also inefficiencies in application of the European funds will not stop. It is not possible to impose a policy with the SS characteristics in regions not possessing the needed basis for it raises. Who are the civic entrepreneurs in depressed regions? Who mobilizes business, public entities and civil society?

The regions really lagging behind need European funds for some essential things as, for instance, combat the population ageing and outmigration and parallel with this they need funds for bringing new knowledge into the region, increasing talent not only in technological innovation but also in improving the regional social and economic 'milieu' as well as for increasing local absorption and adaptation of knowledge via well-educated and trained staff.

In our view, the most important challenge that cohesion and innovation policies face come from regions that have no hypothesis of developing an innovation policy because they are in a spiral of decreasing demand, employment and entrepreneurship. In these regions the most important is not to choose between possible priorities in technological innovation but to have the needed endogenous assets that exist in more

developed locations. In other words RIS3 supposes that funds already exist if the correct priority is chosen, but financing is not the only and the most important problem in lagging and depressed regions, which will continue to experience the ‘costs of remoteness’ (Venables, 2001).

To sum up, responding to the question posed in the title of this paper, the answer is no: smart specialization, applied by the EC through the RIS3 strategies, is not a bridge between innovation and cohesion. Innovation is without any doubt a source of dynamic efficiency, but it should not be used as a panacea. There is, and there will be, the need of a compromise between innovation and cohesion and the best way of trying this is to employ instruments that compensate the negative effects of the former upon the latter, and not subordinating the latter to the former.

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