

SMART SPECIALISATION FROM CONCEPT TO PRACTICE: A PRELIMINARY ASSESSMENT

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- This study assesses how and to what extent the principles characterising the Smart Specialisation approach are actually translated in policy implementation, by examining three of its complementary aspects: the nature of the priority areas for policy intervention, the mechanisms for project selection, and the type of policy measures.
- The results shows that regions and countries tend to circumvent the selective approach of Smart Specialisation. Priority areas broadly defined, loose alignment of policy instruments with priorities and the scarce customisation of policy measures to the specific innovation needs of the identified priorities are the tangible signs of this circumvention process.
- We advance the hypothesis that this could be the result of lobbying activities, higher political return from widespread support measures, risk-aversion, and lack of adequate institutional and administrative capacity. An additional explanation may lie in the incentive structure established at European Union level which did not fully support the intervention logic of Smart Specialisation.
- To assess the effects of Smart Specialisation, we suggest focusing on interventions that (i) address priorities consistently defined, (ii) apply policy measures selectively to those priorities, (iii) design policy measures around the specificities of each priority.

1. What this report is about

We present some conceptual developments and original empirical results on how and to what extent the Smart Specialisation approach to regional innovation policy is currently being translated into strategic decisions and policy interventions in European Union regions and countries. This paper provides a summary of recent research conducted by the authors and extensively documented in [1], [2], [3].

We break down the intervention logic of Smart Specialisation into three complementary conditions concerning the nature of the priority areas for policy intervention, the formal mechanisms for project selection, and the type of policy measures to be adopted; and we characterise those conditions in ways that can be investigated empirically.

We then test those conditions using data on the policy priorities identified in national and regional Smart Specialisation Strategies (RIS3) in a group of European countries, as well as on the provisions stipulated in the calls for proposals co-funded by the European Regional Development Fund (ERDF) under the chapter on research and innovation policy (Thematic Objective 1 or TO1).

2. Policy context

The European Cohesion policy 2014-2020 requires countries and regions to design and formally adopt a RIS3 for research and innovation investment. Smart Specialisation is a *place-based* and *experimentalist* policy. Territories are encouraged to invest in learning on how to best identify, design, and implement policies that can effectively work in a specific context, rather than following universal recipes.

The core feature of Smart Specialisation is the definition of a limited set of priority areas for public investment which can best respond to social and economic challenges and offer opportunities for growth. The logic of intervention of Smart Specialisation is therefore distinctively selective as compared to horizontal policies aimed, for instance, to support entrepreneurship or improve business framework conditions.

3. Methods & data

We focus on three complementary aspects in order to assess how and to what extent the principles characterising the Smart Specialisation approach are

translated in policy implementation and practice: (1) the definition of priorities; (2) the alignment of the policy measures to the selected priorities; (3) the adaptation of policy measures to different priorities.

1 - Assessing investment priorities

In the documents outlining the Smart Specialisation approach, the economic activities that are the target of policy intervention are usually referred to as priorities or priority areas. Beyond horizontal measures – such as improving human capital, developing good universities, etc. – Smart Specialisation policy requires setting vertical priorities regarding particular fields and technologies as well as particular sets or networks of actors.

A more precise indication of how priorities should be defined can be found in the European Commission guidance on Smart Specialisation. In particular, priorities could be framed in terms of knowledge fields or activities (...), sub-systems within a sector or cutting across sectors and corresponding to specific market niches, or ranges of application of technologies to specific societal challenges (e.g. ICT for active ageing, mobility solutions to reduce traffic congestion, innovative materials for eco-construction, etc.).

The policy impact of this research

There are tangible signs that regions and countries tend to bypass the very rationale of Smart Specialisation (i.e. selectivity). We argue that this could be explained by a combination of reasons emerging at EU, national and regional level. Their relevance should be further investigated and, if necessary, properly addressed in the future by introducing changes in the incentive structure of the policy.

Thus, the European Commission identifies candidate activities for policy interventions at the intersection of different dimensions. In particular, priorities can result from the application of technologies or innovative processes to certain industries characterised by the utilisation of specific natural or cultural assets, with the aim of pursuing specific societal goals.

We define the archetypal Smart Specialisation priority as a combination of four dimensions: (A) the sectors

or value chains of primary interest for the intervention; (B) the transformative processes to be activated (technology applications); (C) the societal challenges to be addressed; and (D) the natural and/or cultural resources to be used (e.g. maritime ecosystem, alpine ecosystem, cultural heritage).

The intersection of those dimensions determines the activities to be targeted by the policy intervention. In practical terms, since the interaction among all four dimensions may represent too-binding of a constraint on innovation support measures (which inherently require some scope for experimentation), we consider suitable Smart Specialisation priorities those areas defined as a combination of *at least two* of the four dimensions mentioned above.

2 - Assessing policy measures alignment with priorities

According to the intervention logic of Smart Specialisation, we expect that the policy measures devised to realise the strategies will *exclusively* or *preferentially* support projects contributing explicitly to the Smart Specialisation priorities or the actors operating in the prioritised areas.

We consider that an ERDF-TO1 call for proposal implements the RIS3 if the alignment of project proposals with declared Smart Specialisation priorities represents either an *eligibility condition* for funding or a *preferential evaluation criterion* applied to the selection of proposals.

3 - Assessing the customisation of policy measures to priorities

We finally consider how the measures implementing the RIS3 are tailored based on the specific characteristics and needs of each priority area. Within a single strategy, we expect to observe an appreciable degree of variation across priorities with respect to the definition of policy instruments, categories of beneficiaries, funding rules and timing and duration of the intervention. To verify this, we check whether the measures implemented through ERDF-TO1 calls are designed to address single priorities, a sub-set of priorities or all priorities in the same way.

Data sources

To assess investment priorities we analyse 39 RIS3, corresponding to the total number of strategies currently being implemented in Italy and Poland (21 regional strategies and one national strategy in Italy; 16 regional strategies and one national strategy in Poland). The two countries represent 28.8% of the

ERDF-TO1 budget available for the entire European Union – with Poland accounting for 20.3% and Italy for 8.5% – and have decentralised administrative structures that allow regional authorities to design and implement regional strategies with a dedicated budget.

To assess policy measures alignment with priorities and their customisation to the specific innovation needs of different priorities we use information on the actual implementation of the Smart Specialisation policy derived from the analysis of 285 calls for proposals employing ERDF-TO1 resources, launched under 46 ERDF Operational Programmes in Italy, Poland, Portugal, Czech Republic, Hungary, Lithuania and Slovenia between 1st January 2014 and 31st December 2016.

4. Main results

1 - Investment priorities

In virtually all the strategies examined, priorities are specified through a nested, multi-level scheme, where the higher levels comprise a number of items each of which is matched with several items defined at a lower level, giving rise to a tree-like structure.

We combine the information provided *across* all the different levels of the priority tree. We find that all but six of the policy intervention areas identified in the 39 strategies examined are suitable Smart Specialisation priorities since they are defined as a combination of at least two of the four basic dimensions identified in Section 3.

The total number of priorities in Italy and Poland, obtained by considering the items at the lowest possible level of the priority tree, appears to be in the thousands. This may appear excessively high in light of both (i) the need to concentrate public resources on a limited number of priorities, as required by the ERDF regulations, and (ii) the administrative and technical capacities needed to effectively follow the development of many distinct areas.

Thus, it seems that the extensive branching structure of priorities we observed might counteract and possibly neutralise the selectivity of the policy intervention advocated by the Smart Specialisation approach even in the presence of a formally correct combination of dimensions.

2 - Policy measure alignment with priorities

Around 81% (231) of the calls examined are only open to project proposals in the priority areas identified in the RIS3, while 2.5% (7) allow projects in any area, but provide preferential evaluation of those in the Smart Specialisation priority areas.

Overall, according to the conceptual framework in Section 3, 83.5% (238) of the calls appear to implement the RIS3 and we denote them RIS3 calls. Thus, a considerable number of calls (47, that is 16.5% of the total) allows for projects outside of the priorities declared in the strategies. This applies especially in countries, such as Poland and the Czech Republic, where one-third of the calls has no specific priority-alignment mechanism, and Hungary, where close to one-third of the calls contains only a preferential criterion for the evaluation of projects in the priority areas.

3 - Policy measures customisation to priorities

Most RIS3 calls (94.5%) address all the priorities simultaneously; we found that the type of policy instruments implemented, beneficiaries, funding available for individual projects, project timeline, admissible costs, financial rules, etc. were the same across all priority areas identified in the strategies. This pattern applies to all the countries examined; in particular, in the Czech Republic, Hungary, Lithuania and Slovenia all the RIS3 calls address all priorities at once.

Overall, there seem to be no truly priority-specific calls in the countries scrutinised in the period considered in this study. Although formally including priority-alignment mechanisms, the RIS3 calls are not significantly customised to the specificities of the priority areas, as per the logic of the Smart Specialisation approach.

5. Conclusions

The evidence we gathered reveals only a partial transition from the “old” undifferentiated industrial policy, typical of European regional policy prior to 2014, to the highly selective Smart Specialisation approach.

We found tangible signs that regions and countries tend to circumvent the very rationale of Smart Specialisation. This could be the result of lobbying activities, higher political return from widespread

public support measures, risk-averse attitude of policy makers, and lack of adequate institutional and administrative capacity that can be observed at national and regional level.

However, an additional explanation may lie in the incentive structure established at European Union level which did not fully support the intervention logic of Smart Specialisation. Should future research prove that this is the case, for the next programming period it would be advisable to revise the incentive structure provided to national and regional authorities in order to better reconcile the experimentalist approach and intervention logic of Smart Specialisation with the requirements established by Cohesion policy regulations (funding absorption targets, performance framework, etc.).

Finally, we believe that the empirically testable criteria we propose for the identification of Smart Specialisation policy interventions will contribute to understanding how to perform an impact evaluation of the Smart Specialisation policy once data on project outcomes become available.

To assess the effects of Smart Specialisation, we suggest in particular focusing on the interventions that (i) address priorities which are consistent with the policy approach, (ii) apply policy measures selectively (exclusively) to those priorities, (iii) apply policy measures shaped around the specificities of each priority area.

Read more

[1] Gianelle, C., Guzzo, F. and Mieszkowski, K. (2019), "Smart specialisation: What gets lost in translation from concept to practice?", *Regional Studies*, DOI: [10.1080/00343404.2019.1607970](https://doi.org/10.1080/00343404.2019.1607970).

[2] Gianelle, C., Guzzo, F. and Mieszkowski, K. (2018), "Smart Specialisation at work: Assessing investment priorities", JRC Technical Reports [JRC113433](#).

[3] Gianelle, C., Guzzo, F. and Mieszkowski, K. (2017), "Smart Specialisation at work: Analysis of the calls launched under ERDF Operational Programmes", JRC Technical Reports [JRC106974](#).

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