## THE IMPACT OF SMART SPECIALISATION ON THE GOVERNANCE OF RESEARCH AND INNOVATION POLICY SYSTEMS

FABRIZIO GUZZO AND CARLO GIANELLE

- This policy insight provides evidence of the impact of the adoption of the Smart Specialisation approach on the governance of research and innovation policy systems in EU regions and countries.

- Results show that Smart Specialisation has strengthened the networks of actors involved in the policy process and made the governance of innovation policy more inclusive.

- Despite the general increase in pressure for coordination, the effectiveness of horizontal and vertical coordination within and across administrative levels is still weak in many territories. More efforts are needed in this area in the future, together with the strengthening of skills and resources to perform policy functions.

- There is evidence that Smart Specialisation has supported the production of a wide range of tangible and intangible collective goods. These are crucial in generating external economies, which in turn increase the innovation capacity and competitiveness of local firms.

- In view of the EU Cohesion policy 2021-2027, the Smart Specialisation approach needs to recognise more explicitly the need for upgrading the quality of governance and policy capacity. Where these elements are weak they should be addressed with specific measures.

### 1. What this report is about

This report presents some evidence of the impact of the adoption of the Smart Specialisation approach on the governance of research and innovation policy systems in EU regions and countries. In particular, it provides a synthesis of recent empirical research conducted by the authors and extensively documented in Guzzo and Gianelle (2021).

First, the analysis explores the governance arrangements underpinning Smart Specialisation strategies and the changes introduced by this policy concept. Second, it investigates to what extent (if any) and how Smart Specialisation has promoted better coordination among the actors involved in the policy process and collective action.

### 2. Policy context

Smart Specialisation represents an ambitious place-based industrial and innovation policy experiment. Launched by the European Commission within the EU Cohesion policy 2014-2020 framework, this policy approach aims at promoting regional innovation and economic transformation by helping countries and regions to mobilise entrepreneurial potential around emerging activities. It requires different actors (higher education and research organisations, business, public authorities and civil society) to prioritise support based on where local potential and market opportunities lie. To facilitate this process, Smart Specialisation seeks to improve governance arrangements, concentrate resources, build critical mass, and accelerate the uptake of new ideas.

Smart Specialisation is a "complex policy space", involving different actors, levels of government and governance arenas as well as a mix of objectives, policy domains and instruments.

Given this complexity, the assessment of governance structures and processes for Smart Specialisation is crucial. It is essential in order to check whether proposed measures can be performed as envisioned. In this respect, the existence of a competent and functional organisation responsible for the management of the Smart Specialisation strategy is important not only to design sound policy interventions but, more importantly, to translate the content of strategy documents into effective implementation procedures, instruments and results.

Often, strategies, which are seemingly well-designed on paper, are not implemented as expected due to unclear attribution of responsibilities and lack of political support, management bodies not fully operating, ineffective inter-government coordination,

weak interaction with the private sector and lack of adequate skills and resources in public administrations and relevant stakeholders.

## 3. Analytical framework & data

Governance arrangements are the result of existing institutional settings and capacity, codified norms, administrative traditions, history of public-private interactions, informal networks and participatory processes. These elements are context specific, so the resulting governance mechanisms tend to vary across the EU.

### The policy context of this research

*This report is part of a research project developed within the Territorial Development Unit of the JRC and co-financed by the European Commission's Directorate-General for Regional and Urban Policy (DG REGIO) in the context of the Smart Specialisation Platform activities. The research project explored four main themes: Smart Specialisation governance, the entrepreneurial discovery process, monitoring and evaluation systems, and policy implementation measures. Further references can be found in the "Read more" section.*

Given these differences, it is neither feasible nor advisable to propose a unique, monolithic, model of governance for Smart Specialisation that can be universally applied to every region or country. Nonetheless, it still possible to draw the attention to the following three main components that can be considered generally relevant for effective governance:(1) management bodies of the Smart Specialisation strategy; (2) horizontal and vertical coordination; (3) skills and resources.

### 1 – Management bodies for Smart Specialisation strategy

Clear attribution of responsibilities and political support to the organisations in charge of the management of the Smart Specialisation strategy are essential to (i) avoid the creation of structures with limited room for manoeuvre in practice and (ii) ensure their operational and coordination functions. The appointed bodies should be independent of and yet accountable to political representatives as well as private and civil society actors. Implementing bodies should have the necessary autonomy and adequate

resources to limit rent-seeking behaviours and avoid incumbents and powerful lobbies capturing most of the policy resources or undermine the policy's transformative intention. Clearly, autonomy should be accompanied by accountability. The right mix of autonomy and accountability should be carefully designed according to the characteristics of the political and institutional context and the administrative capacities.

### 2 – Horizontal and vertical coordination

Coordination is crucial in the complex policy context of Smart Specialisation, where different policy areas and levels of government are involved. Coordination mechanisms are necessary to harness synergies and complementarities, while avoiding overlaps.

The channels for an ongoing negotiation and collaboration with private and public actors need to be ensured. Effective inter-ministerial/departmental coordination mechanisms and links with elected representatives should also be in place along with coordination arrangements across different spatial scales.

### 3 – Skills and resources

Availability of adequate skills and resources to effectively carry out strategy formulation, implementation, and monitoring and evaluation of policy measures.

### Data sources

We rely on two sources of evidence to assess the impact of Smart Specialisation on the governance of research and innovation policy systems implemented in different EU regions and countries and to shed some light on the role of Smart Specialisation governance in promoting better coordination and collective action.

The first source of evidence is represented by a survey. Launched by the S3 Platform team in June 2020, the survey gathered primary information on the Smart Specialisation experience. Survey data include 79 valid responses from 19 EU Countries, 9 responses from national authorities and 70 from regional ones.

A collection of 18 case studies, from 7 EU countries (DE, ES, FI, HU, IT, PL, SI), provided the second source of empirical evidence for this study. 5 case studies regard national strategies and 13 regional ones.

## 4. Evidence

### 1 – Governance structures and processes

The exploration of governance structures and processes allowed us to grasp some of the main characteristics of the coordination arrangements implemented across the EU and to identify some common trends as well as differences.

The role of government in shaping governance arrangements and their evolving path is central in Smart Specialisation. The government is the main organiser of the dialogue among different partners and the main organisation responsible for ensuring some coherence among the different needs and interests. It plays a *meta-governance* role, by providing the ground rules and infrastructure for governance and the mechanisms for collective learning. Moreover, the government fosters meanings and beliefs among relevant stakeholders and the development of shared visions, which may promote new institutional arrangements and new activities.

The degree of formalisation of governance structures and processes varies considerably across the EU. Some regions have opted for highly formalised and articulated modes of governance; while, others have adopted more informal governance arrangements.

There are notable differences on how the strategic decision-making power has been shared between the government and other parties across the EU. On one side of the spectrum, there are territories – such as North Rhine-Westphalia (DE), Mazowieckie (PL), Slovenia, Abruzzo (IT), Cataluña (ES) and Galicia (ES) – where strategic decision-making and planning have been firmly in the hands of government bodies without much involvement of relevant stakeholders. On the opposite side, there are cases characterised by more inclusive processes (Comunidad Valenciana (ES), Lapland (FI), Ostrobothnia (FI), Helsinki-Uusimaa (FI), Hungary, Poland, Lombardia (IT), Toscana (IT) and Emilia-Romagna(IT)).

Intermediary organisations (namely clusters and technological districts) are very relevant actors in Smart Specialisation governance. They are key partners in the production and circulation of new knowledge on economic activities, technologies and markets. They help to develop and diffuse new ideas and narratives, while strengthening networks of individuals and organisations.

Finally, governance arrangements are not static, but dynamic. As a result of the implementation process, governance arrangements have been evolving in many territories. Some of the transformations depend on changes in government; others, hinge on beliefs and behaviours of actors and organisations involved in the process as well as on their policy learning and reflexive capacities. Overall, these changes reflect a genuine intention of countries and regions to enhance the governance of their respective research and innovation systems.

### 2 – Management bodies for Smart Specialisation strategies

There is an extensive agreement among stakeholders on the existence of a clear attribution of the role and competences to the management bodies. In most cases, Smart Specialisation management bodies can count on a continuous political support in their respective territories. In less developed regions, however, political support is considered weaker.

Leadership is seen as contributing to effective implementation and strengthening stakeholder commitment to the strategies' objectives. It is also considered particularly relevant in promoting and diffusing new ideas and narratives on innovation strategies, in thickening relationships and promoting trust. Evidence from the case studies show that generally the operational leadership is well identified and recognised in management bodies, while political leadership is unclear and weaker.

Many stakeholders observe that management bodies maintain their autonomy *vis-à-vis* undue pressures from private actors (companies, business associations, etc.) and public university and research centres. On the contrary, the perception of their autonomy with respect to undue intrusion of the political class is lower. Reporting of the management bodies (accountability) to the political class, relevant stakeholders and the general public is an area where more efforts are needed in the future.

### 3 – Horizontal and vertical coordination

Inter-government coordination has received more attention that in the past and, as a result, new norms and arrangements have been experimented (set up of new coordination bodies, formal and informal mechanisms, etc.) promoting a greater policy coherence.

However, despite these changes and the general increase in pressure for coordination, the effectiveness of horizontal and vertical coordination is still insufficient (with the lowest perception of effectiveness recorded in less developed regions).

This seems to depend on coordinating bodies and arrangements that are not properly functioning and the persistence of a silo approach in government, which is difficult to overcome.

### 4 – Skills and resources

Smart specialisation is very demanding in terms of policy capacity. In several cases, the skills and resources available to the management bodies are not sufficient to face the challenges posed by the policy. Analytical, communication, interpersonal and relational skills need to be strengthened in many places.

In a better condition are those territories which can rely on departments and units with a consolidated experience on innovation policies and well-functioning innovation and executive agencies (e.g. Toscana, Emilia Romagna, Lombardia, Galicia, Cataluña and North Rhine-Westphalia).

The infrastructure to collect and analyse data available to the implementing body does not appear to be adequate in many territories. Clearly, this shortcoming has negative consequences on the process of policy learning and adaptation. Policy learning is only possible if properly supported by the systematic production of information regarding actual policy developments and by the governance arrangements necessary to use evidence to improve the efficiency and effectiveness of public intervention.

On a more general level, we note that the quite critical assessment of the resources and expertise available to the management body seems to contrast with the stakeholders' positive assessment of the political support to the policy process. One would expect political support to be accompanied by the provision of adequate resources for the strategy implementation, but this does not seem to be generally the case.

## 5. Is Smart Specialisation governance promoting better coordination and collective action?

The evidence we gathered reveals that the Smart Specialisation experience has strengthened the networks of actors involved in the policy process and made the governance of innovation policy more inclusive.

A widespread increase in the density and complexity of relationships – promoted by the establishment of new consultation fora, platforms, thematic working groups, clusters and the like – is a common trait across EU countries and regions. These new institutions are reshaping and strengthening networks of engagement and modalities of cooperation between public and private actors lowering the transaction costs associated to collective action.

The greater interaction between the government and other public and private actors has contributed to design more targeted public intervention and calls for projects better aligned to stakeholder needs.

Where observable, the reorganisation of intermediary bodies, technology transfer organisations and innovation services is considered by national and regional actors as a direct consequence of this policy experience.

The institutional changes, promoted by the Smart Specialisation experience, have supported the production of a wide range of tangible and intangible local collective goods. These are crucial in generating external economies, which in turn increase the innovation capacity and competitiveness of local firms. These are some examples:

- Production and circulation of knowledge on specific economic activities, markets and technologies, favoured by a greater interactions between different actors (North Rhine-Westphalia, Lapland, Ostrobothnia, Galicia, Lombardia, Emilia Romagna, Helsinki-Uusimaa, Poland, etc.);
- Better understanding and recognition of different partners' worldviews and interests, and greater trust among the actors of the regional research and innovation system (North Rhine-Westphalia Lombardia, Cataluña, Toscana, Emilia Romagna, Comunidad Valenciana, etc.);
- Launch of collaborative projects and pilot initiatives aimed at exploring and discovering new opportunities (Lapland, Helsinki-Uusimaa, the Six-city strategy (FI), Slovenia, Cataluña, etc.);
- Development and/or sharing of (public and private) research and technology transfer facilities (Ostrobothnia, Comunidad Valenciana, etc.);
- Strengthening of existing and/or creation of new intermediary organisations to facilitate the interaction between research and technology transfer organisations and the

world of production (Emilia Romagna, Lombardia, North Rhine-Westphalia, etc.);

- Diffusion of new ideas, narratives and common visions on innovation and development policies (Slovenia, the Six City strategy, North Rhine-Westphalia, Lapland, Lombardia, Toscana, Cataluña);
- Enhanced capacity to perform policy functions by public authorities and relevant stakeholders (greater policy intelligence, coordination and negotiation abilities, etc.) (e.g. North Rhine-Westphalia, Lombardia, Emilia Romagna, Toscana, Slovenia, Cataluña, etc.).

## 6. Policy conclusions

Our study suggests that institutional changes have occurred and can lead to better policy design and implementation. Accordingly, Smart Specialisation approach needs to recognise more explicitly the need for upgrading the quality of governance and policy capacity. Where these elements are weak and/or incomplete they should be addressed with specific measures embedded into strategies and progress should be continuously monitored.

Territories must discover what governance structures and processes work best in their context. They should prefer the experimentation of new governance structures and processes and the increase of responsibilities and functions of the management bodies and other relevant organisations as a result of capacity building processes, to the adoption of ideal models and best practices, which are often formally introduced without promoting real changes.

Our findings show that intermediary organisations are crucial in supporting the collective action necessary for the production of a wide range of collective goods that generate external economies, which in turn increase the innovation capacity and competitiveness of local firms. Where necessary, the quality and capacities of intermediary organisations should be supported by ad hoc measures.

Our study suggests that, regardless of differences in State organisation and governance structures, failures in coordination are fairly common across the EU. The set-up of clear horizontal and vertical coordination mechanisms needs to be addressed since the outset of the policy design. Furthermore, the effectiveness of these mechanisms should be monitored throughout the policy process. This is necessary to avoid coordination failure problems in the implementation phase, which would undermine the efficiency and effectiveness of public action.

Finally, adequate capacities for policy formulation, implementation, monitoring and evaluation are required, both at national and regional level. If necessary, a capability development plan should accompany the Smart Specialisation strategies.

---

### Read more

Gianelle, C., Guzzo, F. and Fratesi, U. (2021), *Lessons from the Smart Specialisation experience: policy implementation*, Smart Specialisation – JRC Policy Insights, JRC124039.

Guzzo, F. and Gianelle, C. (2021), *Assessing Smart specialisation: governance*, JRC Science for Policy Reports, JRC123984.

Hegyi, F. B. and Prota, F. (2021), *Smart Specialisation process evaluation: monitoring and evaluation experiences across Europe*, Smart Specialisation – JRC Policy Insights, JRC123920.

Perianez-Forte I. and Wilson J. (2021), *The entrepreneurial discovery process: tools and mechanisms*, Smart Specialisation – JRC Policy Insights, JRC124101.

---