



EUROPEAN COMMISSION

Directorate General

Regional Policy

THE STRATEGIES FOR RESEARCH AND INNOVATION OF THE ITALIAN REGIONS WITHIN THE PERSPECTIVE OF “SMART SPECIALISATION”

Executive Summary

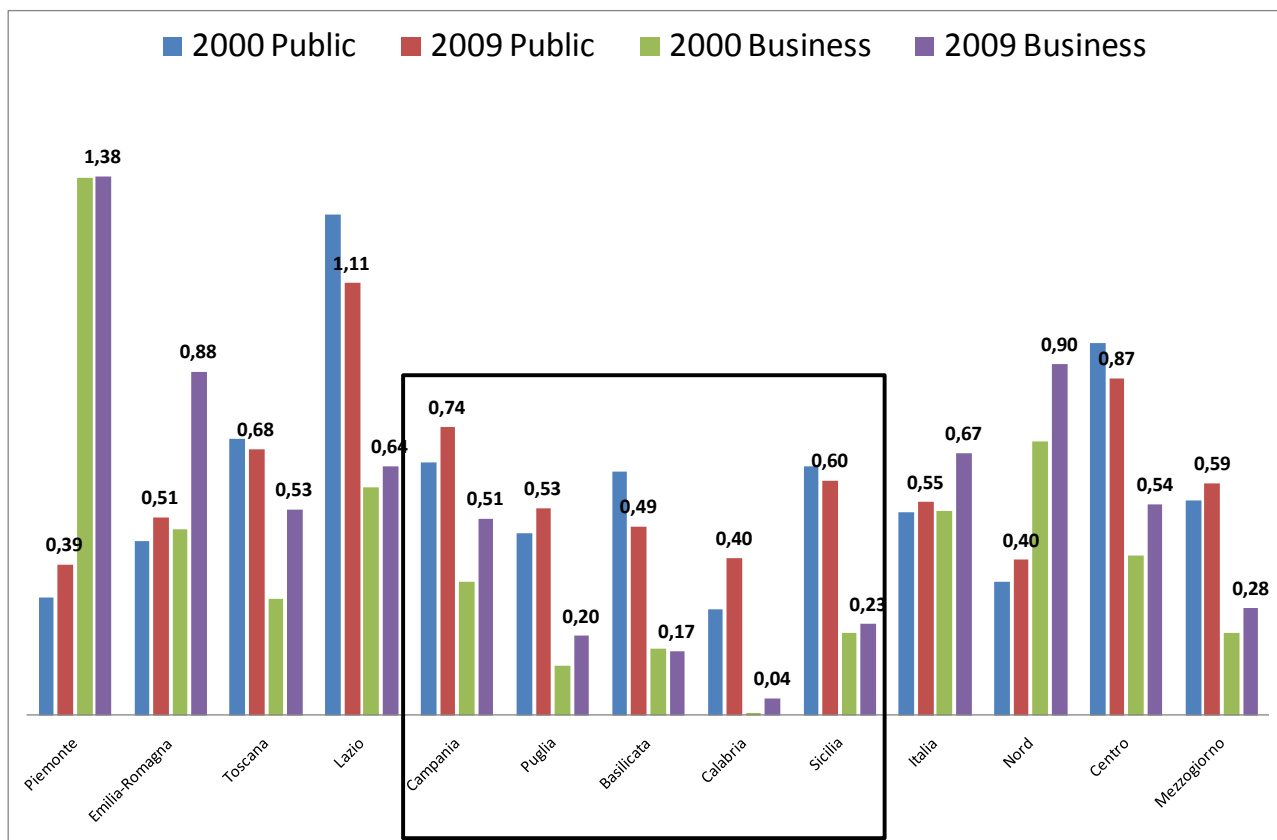
Nicola Bellini and Francesco Grillo

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The objective of this report has been to contribute to the debate on the actual and potential role of Italian Regions in research and innovation policy. The contribution is not based on empirical analysis of the present policies; rather we focused on the strategy design phases and we tried to measure the gap between the strategic documents that are in place at this time and the new requirements of the European Union concerning a strategy based on the “smart specialisation” concept. The study is to be considered as a measurement of the extent to which strategic documents that were drafted before the introduction of the idea of "smart specialization" do already contain some of its elements. We, therefore, did not engage neither in region specific evaluation of the merit of certain strategic choices nor of the implementation and we only checked whether certain factors considered as essential by the European Commission (as for the guide to regional innovation strategies - RIS 3) are treated. The analysis has been realized based on the documents received by the Regional administrations, following a formal request by DG Regio offices.

The document starts from an acknowledgment of the situation of Italian regions and of the experience of the 2007 - 2013 programming period.

Graph 1 : Expenditure on R&D as a percentage of GDP – Selected italian regions



Source : Istat

All Italian regions appear to be beyond EU27 averages (2% in 2010) and targets (3% by 2010 according to the Lisbon strategy). However large differences exist: in Piemonte business are spending about 1,4% of the GDP on R&D and surprisingly Campania is the one that has got the highest public (government plus universities) expenditure immediately after Lazio (where the capital Rome is located and some of the largest state owned companies account for their R&D expenses). In general South Italy spend little with some regions with almost no business expenditures.

Against this situation about 20 BN euro (approximately one third of the structural funds) are to be spent in innovation and of these there quarter in the four convergence regions (Campania, Calabria, Sicilia and Puglia): this situation provides South Italy with both an

opportunity – 15 BN euro would be enough to double the overall expenditure in the South and make it significantly higher than in the rest of Italy – and a challenge – with such a low research assets basis there is a risk that these economies will not absorb the available resources. Moreover about 40 per cent of the money to be spent in the South are within a National Programme which says that the central government does play an important role.

Strategies based on “smart specialisation” principles may present some specific critical aspects in the Italian case and especially for South Italy regions that are said to display lower institutional capabilities:

- a) there is the need for a revision, if not for a radical reappraisal, of the governance system, not only concerning a better organization of regional offices and dedicated agencies, but also regarding the ways the various public and private stakeholders are involved in the process, that the EU documents describe as an inclusive "process of entrepreneurial discovery" more than a traditional policy-making process;
- b) in the EU perspective, the relevance of the system of connections within the Region is to be complemented by an equally relevant outward orientation of most phases of the policy process, including the analysis of the region's positioning in global value chains, connections with external knowledge sources and interregional policy co-operation;
- c) strategies must be evidence-based, implying however a wider analytical toolbox, including foresight capabilities and participative methodologies;
- d) the strategy must clearly identify priorities in specific and well defined terms. There is no doubt that, in this perspective, the use of the word “specialisation” may sound ambiguous. In fact some may argue that differentiation may be a better, smarter word in the place of specialisation: in theory any sector may be innovated by renovating the product or the process and by reinventing its competitive advantages. In fact the result

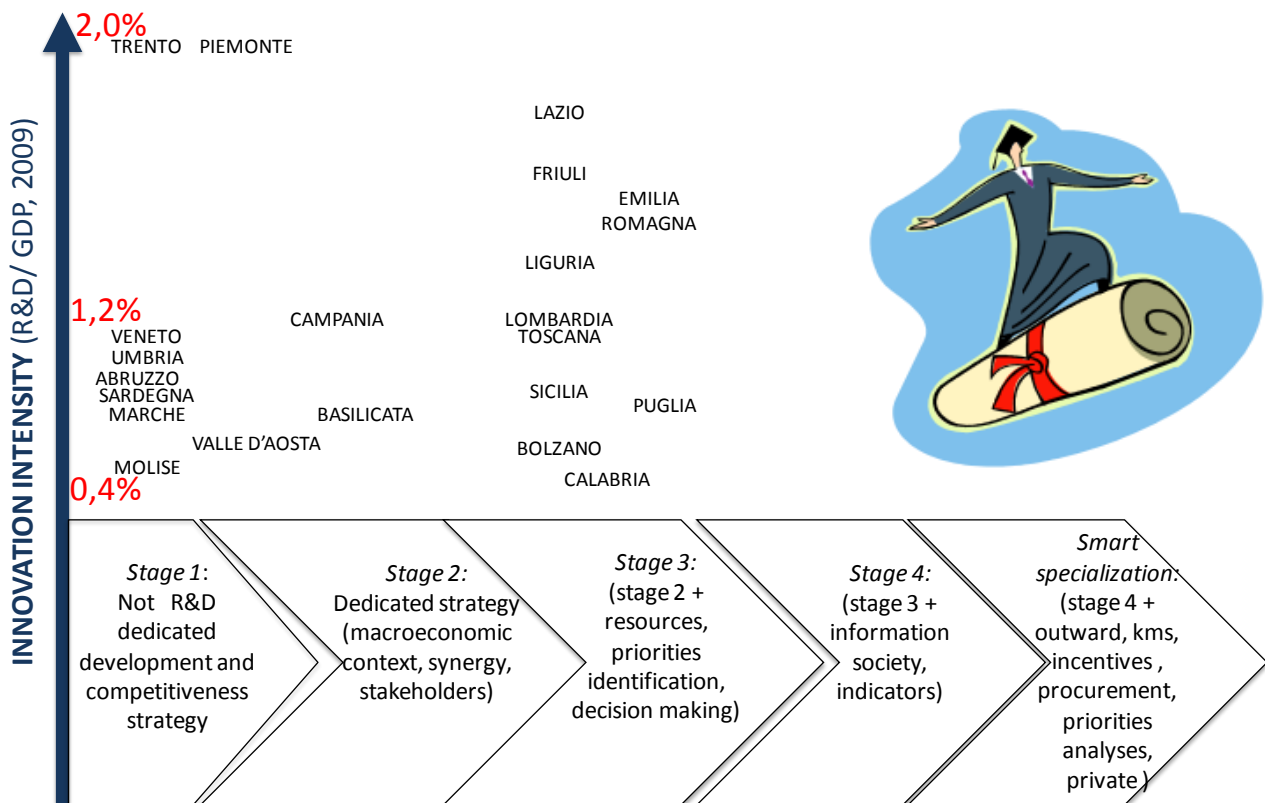
of such policies could also be a decreased specialization of the regional production strategies, thanks to diversification policies based on related variety.

The results of the survey provide the following picture:

- unsurprisingly no document shares the “smart specialisation” approach in a consistent and conscious way, due to the chronology of these documents. Only in one case (Emilia Romagna) we have more precise references, although the proposed approach remains quite external to the strategic argument;
- 12 Regions have a strategic document on research and innovation, although some of them are by now quite old;
- 8 Regions do not have such document, but in few cases (Piemonte, Valle d’Aosta) we were provided by a planning document with a wider scope provides many elements that would make up for a research and innovation strategy.

Overall the results of our review can be summarized by the following graph.

Fig. 1 : Italian RIS versus smart strategies targets and total R&D expenditure



Source: Grillo and Bellini on Italian RIS and Istat

The most evident shortcoming of these documents, compared to the requirements of the smart specialisation strategy, are:

- the “closed” approach to regional innovation systems, with internationalization aspects that are confined to intentions rather than developed into concrete actions;
- the absence of knowledge-generating mechanisms originated by the outcomes of the projects;
- the absence (with the exception of Lombardy) of a substantial argument about adaptations of public procurement procedures to the characteristics of innovation;
- the failure to provide motivations of the choices of priorities and the lack of comparison with other Regions' priorities;

- the absence of value chain analyses within prioritised areas;
- the lack of mechanisms to involve private capital both of private entrepreneurs to be supported and of financial operators (venture capitalists, for instance) to co finance projects;
- the inadequacy of communication strategies supposed to mobilize specific targets;
- limited number of analyses devoted to the impact of digital technologies;
- limited reference to indicators to measure policy outputs and outcomes, absence of performance based incentives and resources allocations mechanisms and overall systems of policy learning which are not enough operationalised.

On a more general plan strategic documents appear to usually not recognize the nature of the "process of entrepreneurial discovery" and to point to some cultural gap between the corporate culture of public administrations and the characteristics of strategies supposed to produce innovation and thus change: projects are not normally perceived as experimentations of solutions towards problems, diversity is not encouraged, failures that are associated to any portfolio of innovative projects is de facto not allowed, knowledge generating mechanisms are not normally considered.

It is also interesting to notice that a classification of regions appear to make a number of "clubs" to emerge: within each club a number of features are shared and they seem to describe a four stages process towards a smart specialization benchmark.

Not less interestingly there seems to be no correlation between the level of spending in R&D and the quality of plans. On the contrary, some of the best documents come from Southern Regions.

These results may suggest a gap between plans and their actual implementation or an obvious greater role that structural funds (and thus compliance to requests associated to them) may play for less developed regions.

A more detailed analysis shows the following:

a) analysis – vision – priorities

Analytical bases are quite robust, but based on standard methodologies. A Region-specific and clearly stated vision is often missing.

The documents often share the need behind the “smart specialisation” approach, but the translation in actual priority indications is quite problematic. Priorities are often defined in terms that are so wide that very little is actually left out. Furthermore translation in action plans often reveals a preference for cross-cutting, inclusive policies. There is almost no thinking on the innovative interactions and crossing between technological platforms and sectors, with the remarkable exception of Emilia Romagna.

Outward looking orientation is generally missing and self-referential approaches seem to dominate both in the description of the regional innovation systems and in the definition of innovation policies. Opportunities deriving from the “co-opetition” with other regional governments are underestimated.

b) governance

Radical re-design of government structures is lacking and only rarely (most clearly in the PA Bolzano document) there is the awareness of the need for an updated culture of innovation policies to be diffused within the local society.

Processes are designed in a way that shows greater prudence towards stakeholder involvement than it is expected by the EU. Traditional practices of consultation are clearly preferred.

Learning processes are revealed with regard to the past experiences (although additionality analysis is often poor) rather than being planned for the future in an adequate way.

The question of coherence amongst strategies at different institutional levels (European, national, regional, local) and of synergies amongst regions is normally treated but more on the plane of generic intentions than on the analysis of collaborations and possible overlaps amongst projects or priorities/ sectors.

Moreover a question mark is left untouched: considering that central government plays a crucial role and even manages directly some of the structural funds funded programs, which is or should be the role between regions and state? Who is doing what and is it enough to say that "basic research" is responsibility of the State to solve the problem? Which should be the role of the state in developing the next generation of smartly specialized strategies? Who comes first? Are the priorities to be set by regions and the state must simply put them together or is there a pre established menu of choices/ a framework that the state must suggest and that regions have to comply with?

c) actions

Policy mixes are adequate, but the overall approaches follow quite rigidly a very traditional scheme (supply – demand – transfer) without attempting the necessary integration of the three dimensions within industry- / technology- / territory-specific situations.

Demand-side policy is obviously present, but it is heavily influenced by the limitations connected with the characters of Italian industry and especially with the prevailing small dimension of Italian companies. Policy indications emphasize the need to aggregate individual demands and assist in the definition of innovative needs of the companies.

Again we witness a certain resistance to opening the system, e.g. within the process of project selection.

In conclusion: Italian regions face several challenges with regard to “smart specialisation” strategies:

- a) Regions will need to indicate “creatively” their priorities, but also to explain how they are positioned with regard to other Regions, which are their comparative advantage and what they actually need: this implied that they need to rely on wider knowledge assets than the present ones;
- b) increasingly the involvement of private capitals will be the indicator of policy success;
- c) it will be fundamental to understand how public procurement will be able to express a demand for innovation: this implies a commitment to innovation also for the selection procedures;
- d) indicators will have to be designed in a way that they are relevant and that they can be monitored flexibly and reliably;
- e) the strategy governance should rely on specific performance indicators;
- f) failure must be accepted as a factor that is intrinsically linked to innovation, provided that the system is able to codify the knowledge produced also by failed projects.

As a consequence, regional strategies will particularly need to:

- a) use the appropriate analytical tools to make choices really “evidence-based”;
- b) design mechanisms that give a prize to co-financed projects and facilitate the involvement of private financial actors;
- c) identify innovations within public procurement mechanisms and process to experiment their introductions;
- d) identify indicators and monitoring arrangements within a participative framework including stakeholders (the idea of an “information agreement” amongst all the participants to the implementation of regional innovation strategies may be the best

- way to ensure that information providers and information users do contribute to the development of efficient and relevant monitoring systems and indicators grids);
- e) articulate a system of incentives both for reviewing allocation of resources and assignment of responsibilities in managing of specific portions of the programs;
 - f) design a knowledge management system which is capable to generate knowledge from projects and steer policy learning processes.

These recommendations however need to consider two constraints: skills and time. The adoption of "smart specialization" (or smart differentiation approaches) do pose a challenge in terms of human capital: international comparison, value chains, knowledge management systems do all require regions to engage with competences that are relatively new to them; the need to develop before the negotiation of next programming period regional innovation strategies that not only respond to requirements but also commit actors inside and outside administrations, demands that as soon as possible Regions, State and European Commission will have a platform where exchange contents, approaches and choices.

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