

**EU-CELAC COOPERATION ON TERRITORIAL COHESION**  
**REGIONAL INNOVATION SYSTEMS IN THE STATE OF PERNAMBUCO**  
**(BRAZIL)**

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## ***Executive Summary***

### **Smart Specialisation Strategies: For what?**

The experience of the implementation of Smart Specialisation Strategies (RIS3) in the different Member-States of the European Union is quite diverse, but shows that the concentration of resources and the encouragement of innovation actors to delineate specific priorities, defined through entrepreneurial discovery, can produce relevant results, stimulating value chains that generate greater added value.

Smart specialisation can be an important catalyst for regional development. It can be achieved spontaneously, but such a situation is unlikely and uncertain. To gain control over the process of structural change, preparing and implementing RIS3 is probably more effective than leaving the future of the region to chance. Smart specialisation strategies adopt a systemic view of regional innovation to structure policy formulation. The existence of an innovation system assumes that different actors play diverse roles in the system, which are interconnected by different types of linkages, share a common goal of developing innovative activities and thereby promote regional development. RIS3 points to an effective use of the potential in the region for its development, through a combination of policies involving investments in infrastructures and in soft capital, such as support for internationalisation and collaborative activities. It is based on several stages, from developing a vision, identifying competitive advantages, to defining strategic priorities and implementing policies to promote the potential of development based on Science and Technology and Innovation (S&T+I).

The main novelty in the formulation of RIS3 is the process of entrepreneurial discovery (EDP). This process directly considers the discovery of new areas that can transform the region. It is a process that is always present in the evolution of territories. The difference in RIS3 is that the EDP is assumed as part of the strategy, a targeted process, attempting to instigate the combination of bottom-up approaches and the involvement of stakeholders in policymaking with more directive regional governments and public administration.

### **The RIS3-PE Project**

The development of a smart specialisation strategy is a complex process involving several phases. In the first steps it is essential to gather solid evidence on the dynamics of the innovation system and on the behaviour of actors in order to contribute to the definition of relevant innovation policies adapted to the needs and the existing territorial context. This report summarizes a set of results achieved in 2017 in the project EU-CELAC Cooperation on Territorial Cohesion for Regional Innovation Systems in the State of Pernambuco (Brazil), funded by the European Commission DG Regio. In addition to promoting the development of a RIS3 in Pernambuco – the so-called RIS3-PE - this project, often referred to as phase 2, had the parallel objective of highlighting crucial aspects for the transfer of the rationale of smart specialisation into the formulation of Brazilian regional policy. This phase 2 essentially sought to structure a broader evidence base. For this the project was divided into eight specific tasks:

- Task 1 - Alignment of principles and methodologies
- Task 2 - Governance model
- Task 3 - Evaluation of the resources of the Pernambuco Innovation System in terms of S&T+I
- Task 4 - Profile of innovation and potential needs (Clothing)
- Task 5 - Profile of innovation and potential needs (Automotive-IT)
- Task 6 - Synthesis report
- Task 7 - Presentation
- Task 8 - A vision for the Smart Specialisation Strategy in Pernambuco

In this project, special attention was given to two territorial innovation systems (TIS), Clothing and Automotive-IT. These domains were selected during phase 1, which took place in 2015, to serve as pilot examples, to demonstrate and adapt the RIS3 approach to the Brazilian context, through the understanding of appropriate forms of multilevel governance and the selection of priority actions for implementation.

## **Main results**

Pernambuco has been developing a set of very relevant innovation support actions in recent years. In 2017 through SECTI-PE, the State has prepared several initiatives within the recently developed Science, Technology and Innovation Strategy 2017-2022, with the objective of developing and strengthening the Pernambuco Innovation System (SPIn). SPIn is a relatively consolidated innovation system in terms of strategic actors, with a significant number of innovative companies, universities, S&T institutes, laboratory infrastructures, governance bodies, innovation habitats, incubators and accelerators, but with regional deficits in the linkages among them.

The RIS3-PE project (phase 2) has developed several studies. One of these studies was based on secondary information to present a comparative analysis of national and international cases with the Pernambuco case. Another report, based on a set of interviews with key stakeholders of the SPIn, carried out a content analysis, underlining dominant perspectives on the strengths, weaknesses, opportunities, threats, policies and measures needed to strengthen innovation. A third study analysed the knowledge and innovation needs of Clothing and Automotive-IT companies.

There were several events within the scope of the project, in particular, an opening conference (Recife in March) and a closing conference (Brasilia in November). Of note is the realization of two entrepreneurial discovery workshops. The main objective was to generate suggestions on priorities and ideas-partnerships for RIS3-PE. These workshops were held in July 2017 (Clothing, Caruaru and Automotive-IT, Recife). The Clothing group prioritized 6 ideas-partnerships: e-commerce development, shared governance model, process quality assurance and efficient use of inputs, knowledge generation and training of human resources, construction of an eco-power plant for Clothing and Laundry, Centre for collaborative innovation. The Automotive-IT group prioritized 7 ideas-partnerships: Multidisciplinary environment for developing solutions for connected and sustainable vehicles, Urban space for experimentation, Shared battery (service), Assistive technology, Electrification of transports, Positive displacement, Integration between public sector and firms, universities, research centres,

financial and development institutions. These ideas-partnerships can be mobilized for subsequent phases of RIS3-PE.

### **Conclusive Notes**

The initial formulation of a RIS3 needs an in-depth process of evidence generation to assist in policy design - it is critical to prepare studies on the dynamics of innovation and events for entrepreneurial discovery. The tropicalisation of the RIS3 framework has several limits to which it is important to respond so the implementation of this type of strategies can be successful. A crucial limit is that, contrary to what happened in the European case, there is no continental cross-cutting instrument in Brazil such as the Cohesion Policy, which allows large-scale financing of interventions in the selected priorities of smart specialisation, nor does it attribute to the preparation of a smart specialisation strategy a conditionality character of access to public funds.

The present project was a contribution to produce a base of evidence to support the definition of policies, to promote methodologies and experimental events for the entrepreneurial discovery, and finally to help to understand the potential of tropicalisation of smart specialisation strategies. The different types of evidence collected - with on-site visits, interviews, questionnaires, entrepreneurship discovery workshops – provided consistent insights, facilitating the preparation of a short list of recommendations that can be followed to facilitate the deepening of RIS3-PE. These principles may be relevant and transferable to other Brazilian States.

Contextual Recommendations (beyond the scope of RIS3 intervention):

- Structure the conditions for government initiatives to transcend the political cycles of the administration that created them.
- Formulate solutions for the improvement of water management.
- Increase public security
- Develop mobility with new transport networks.
- Reduce the fiscal burden at all levels, as well as reduce the bureaucracy of the public machine.

Recommendations for SPIn:

- Define a collective shared vision on the future of the State
- Select a more limited number S&T+I priority domains.
- Create an animator (or reinforce this function within the system) for the promotion of innovation at the State level.
- Promote the articulation and cooperation of the actors of innovation in the different territorial systems of innovation and at the State level.
- Encourage a permanent process of participatory governance, involving universities, government, companies and society.
- Stimulate the culture of innovation in university entrepreneurs and researchers.
- Prepare higher education graduates for the needs of the market by structuring offers related to emerging technological areas.
- Propose an Innovation Pact involving the State Government and the various actors of the Innovation System of Pernambuco.

#### Specific Recommendations to Facilitate the Implementation of RIS3:

- Measures to connect RIS3 framework with ongoing policies and mechanisms.
- Increased support and extra evaluation to proposals linked to ideas-partnerships identified in RIS3.
- Specific announcements for projects related to priorities identified in RIS3-PE.
- Launching sectoral forums and other governance mechanisms planned for RIS3-PE.

In short, smart specialisation can be an interesting framework to reflect on the future of regional policy and innovation in Brazil. Implementing a RIS3 is only a path. It is expected that some of the suggestions and ideas generated in phase 2 of RIS3-PE may be relevant to the design of a true smart specialisation strategy in Pernambuco and to stimulate a new public policy paradigm in Brazil.

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