

Policy mixes fostering regional capacity in low carbon economy.

Insights from the implementation of the RIS model in peripheral European regions

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Abstract

This study provides evidence on the application of a regional policy model through a portfolio of actions to support entrepreneurship and development of professional competences. For doing so, we analyse the capacity building process delivered through the EIT RIS Climate-KIC programme in the context of peripheral European regions. In the context of the EIT RIS those are defined as the ones showing innovation performance below the EU average according to the European Innovation Scoreboard.

Emphasis is put on the alignment of multiple stakeholders with existing regional innovation plans such as Smart Specialisation Strategies (S3) by which policy mixes emerge with the purpose of reinforcing synergies and complementarities between EU, national, regional innovation initiatives while developing and activating large-scale “green” projects. The study addresses then the performance of the peripheral regions to improve the knowledge triangle integration. We argue that a variety of mechanisms for public-private collaboration is required to effectively support technological as well as practice-based innovation.

The case of European peripheral regions is a concrete example of the application of policy mixes by considering a variety of regional settings in terms of industrial history and governance configurations. The empirical study is based on the comparative analysis of the results of a portfolio of activities as well complementary interviews to regional policy officers. Results show that the successful alignment between regional priorities and low-carbon economy projects can be explained by how clear is the understanding of horizontal relations between stakeholders to define the long term direction of regional innovation.

Keywords

Environmental governance, industrial change, innovation policy, multiscalar governance, regional policy.

Colophon

Disclaimer: The content of this paper is based on the results of applied research projects by a cross-team of Transitions Hub and RIS programme staff as part of wide interaction with academic and policy community . As such, the results do not necessarily reflect the opinion of Climate-KIC.

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1. Introduction

Since Climate change is one of the great challenges faced by the EU, the EU policy strategy has established specific targets and priorities by allocating a significant share of funding for regional development in this regard. Peripheral European regions, showing innovation performance below the EU average, are main recipients of these funding schemes. These regions seek to create synergies between regional strategies, programmes and funds connected to climate change with mechanisms for capacity building where relations between stakeholders in a multi-level governance configuration are critical for the design and implementation of the policy process.

This study provides evidence on the application of a regional policy model through a portfolio of actions to support system innovation on regional low carbon economies. For doing so, we apply the concept of Regional Innovation System to reflect the understanding of innovation as a systemic process. We also introduce the concept of 'conversations' in the analysis of the capacity building process delivered through the EIT Regional Innovation Scheme (RIS)¹ Climate-KIC programme² in the context of peripheral European regions.

The paper addresses the policy debate on the central aim of innovation policy as a bridge between science and technology developments, organizational capabilities and the pursuit of market opportunities. Empirically, the emphasis is put on the alignment of multiple stakeholders with existing regional innovation plans such as Smart Specialisation Strategies (S3) with the purpose of reinforcing synergies and complementarities between EU, national, regional innovation initiatives. The study addresses then the performance of the peripheral regions to improve the knowledge triangle integration. We argue that a variety of mechanisms for public-

private collaboration are required to effectively support technological as well as practice-based innovation.

The paper is structured as follows: section two introduces the conceptual framework of the study. Section three introduces the exploratory study and analyses the results of the implementation of a portfolio of activities in selected regions. Section four concludes by presenting key insights focusing on practical aspects regarding policy implementation.

2. Conceptual framework

The concept of Regional Innovation System (RIS) reflects, on the one hand, on economic growth in a knowledge base society and, on the other hand, on socio-spatial dynamics of knowledge creation (Frenken & Boschma, 2007; Uyerra, 2010; Uyerra & Flanagan, 2010). It also takes into account the discussion on sources of agglomeration and clustering (Hall & Rosenberg, 2010). Regarding the former, RIS approaches systematically the innovation process where different actors (hard and soft) at different levels interact, going beyond the national level but looking above firms. The latter reflection underlines that geographic and social dynamics differ in certain countries or macro-regions (i.e. EU). Those dynamics can facilitate conversations between different actors as part of intentional and ongoing processes of knowledge creation (Rutten, 2017). Conversation may be anchored in one place or multiple location based on cognitive, geographical and social proximity (Boschma, 2005). Thereby, connecting local ecosystems with similar challenges to conversations elsewhere can be key for developing lagging regions.

Regional Innovation Systems are not self-sustaining (Tödtling & Trippl, 2005), nonetheless, they allow knowledge sophistication and thus, innovation and economic growth. As suggested by Tödtling & Trippl (2005), there are

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no best practices that fit all RISs. Each region has different innovation barriers: lack of organizational support, over-specialization of traditional industries and/or, finally, lack of dynamic innovation networks and knowledge bases. Those barriers can translate into horizontal priorities such as improving human capital, acceleration transfer of technologies, creating incubators and upgrading companies capabilities while vertical priorities are related to focus in specific fields, technologies and type of business configurations (Foray, 2014; McCann & Ortega-Argilés, 2015).

In the EU, a diverse number of regions and policy instruments try to foster innovation by reconciling these horizontal and vertical priorities. Smart Specialization, is a concept at vogue, given that it incorporates the reflections on economic growth - especially in the European context - from the last 20 years. It basically aligns with Tödtling & Trippl (2005) in the sense that different regions have different endogenous capacities and weaknesses and thus, the efforts must be targeted. Regarding low-carbon economy sectors, the regional innovation process turns more complex in terms of the multi-level policy mixes

that rise issues of coordination underpinning the policy process such as the mix of actors, levels, policy domains and time (Matti, Consoli, & Uyarra, 2016).

These multi-domain, multi-instrument, multi-actor and multi-layer dimensions provide us with the general framework to explore and analyse the interaction and conflicts between instruments, actors and policy goals. Figure 1 represents the system of relations between these elements as part of the general framework for the policy analysis: 1) policy domains, 2) Governance – levels-, 3) Geography and 4) Time. Governance levels are illustrated here as sequences of contexts (problem-solving) and processes that interact across domains and over time, with emphasis on the variety of simultaneous regional processes.

The multilevel governance view facilitates the understanding of the complexity of the policy framework while linkages are connections between instruments belonging to different policy domains such as energy, industry and innovation. Connections can stem from programs, plans

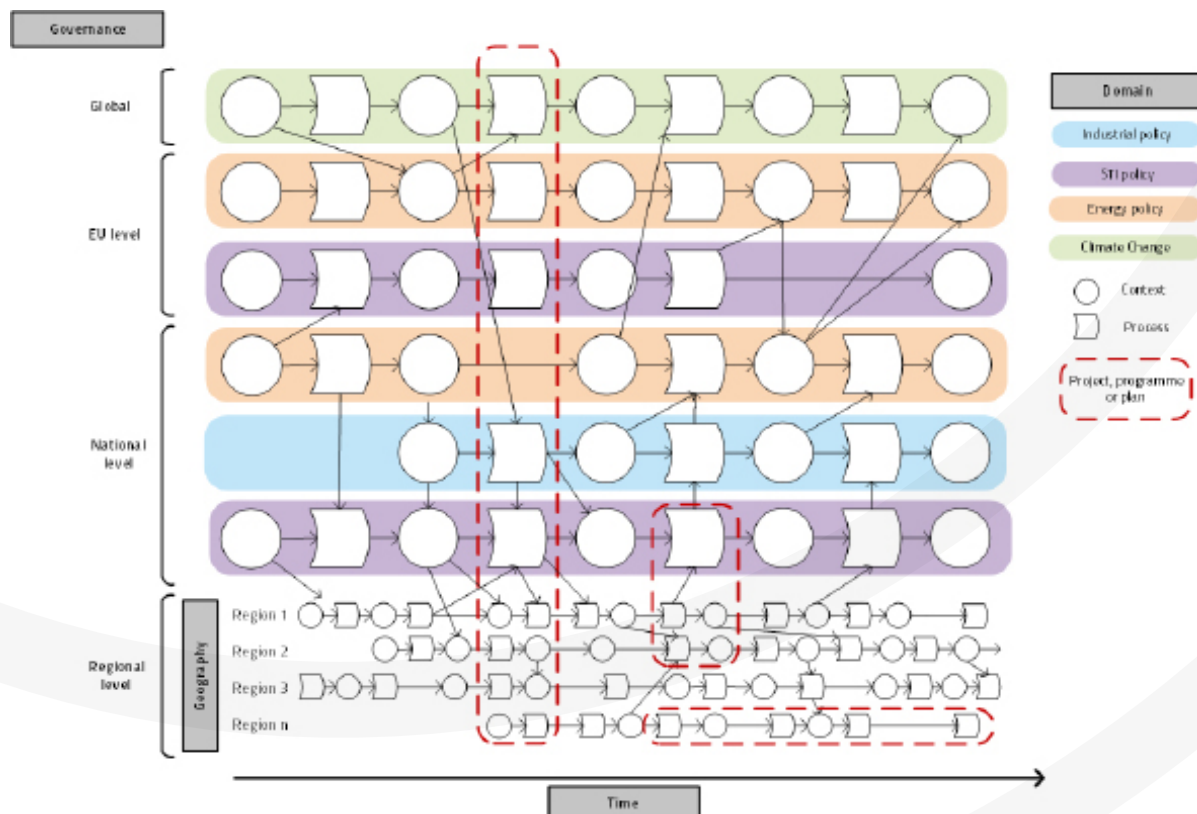


Figure 1 Four elements for analysis multilevel governance systems. Source: Matti et al.(2016)

or project designed for multilevel domains where regional implementation processes require the creation of territorial spaces for innovation through the exchange, combination and adaptation of different type of knowledge and best practices. Those connections facilitate the exploration and establishment of a new domain of opportunities indicated by the smart specialization approach where practical challenges arise to reconcile horizontal priorities (capacity building) with vertical priorities in terms of focus industrial and focus.

This paper explores mechanisms by which multiple stakeholder perform horizontal interactions in different phases of the innovation process for creating alignments between external demands and internal challenges while supporting capacity building processes aimed to address regional development in low carbon economy. By doing that, the study seeks to highlights the potential of systemic approach contributing to integrate different domains and sectors to work in low carbon economy and the different performance of a variety of instruments and mechanisms addressing the local capabilities required to go through the full process of design and implementation of territorial strategies.

2.1. Methodology

The research design of this study is based in the exploratory analysis of the on-going activities of the Climate-KIC EIT RIS programme. The EIT Regional Innovation Scheme (EIT RIS) is the EIT Community's outreach scheme. The objective of the EIT RIS is to contribute to boosting innovation in European countries and regions that belong to the groups of 'modest and moderate' innovators (according to the European Innovation Scoreboard). The EIT Community strives to achieve this objective by engaging local organisations and individuals in KIC activities, transfer good practises and know-how to the local innovation ecosystems and provide tailor-made services to address innovation gaps.

The empirical analysis is based on the different sources, namely methodological and policy documents and reports, data gathered through the implementation of the internal

activities as well as a series of interviews and participatory exercises run during the implementation of the programme in 2016 and 2017. First, we focus on the explanation of the overall policy background of the regions participating in the programme. Here, we intend to gain understanding regarding the linkages, synergies and complementarities between EU, national, regional innovation initiatives. Afterwards, we present the Climate-KIC RIS programme as a storyline on how regional horizontal and vertical priorities are addressed through a variety of mechanism aimed to foster local innovation process.

3. Empirical study

3.1. The overall EU policy background

The Europe 2020 strategy has established specific targets on greenhouse gas emissions, reducing energy consumption and energy origin from renewable sources. This takes the form of mandates through the different EU directives related to energy, and industrial regulations. On the other hand, The European Council has reinforced these priorities in 2013 by indicating that climate action objectives should represent at least 20% of EU spending in the period 2014–2020. With that respect, the main initiatives that support regional development can be divided in two categories³ : 1) Structural and Investment Funds (ESIF) and 2) European Territorial Cooperation (ETC).

Through the European structural and investment funds (ESIF), almost half of European Union (EU) funding are channelled. They are jointly managed by the European Commission and the EU countries and divided in 5 specific funds. One of these funds is the European Agricultural Fund for Rural Development (EAFRD), part of what was once the Common agricultural policy (CAP), one of the oldest polices of the EU that go back to 1962. Another long-time initiative is the LIFE programme, the funding instrument for the environment and climate action since 1992. Another important body of the ESIF are the Cohesion funds, aimed to funds transport and environment projects in countries where the gross national income (GNI) per inhabitant is less than 90% of the EU average. Also, part of the ESIF, the European regional develop-

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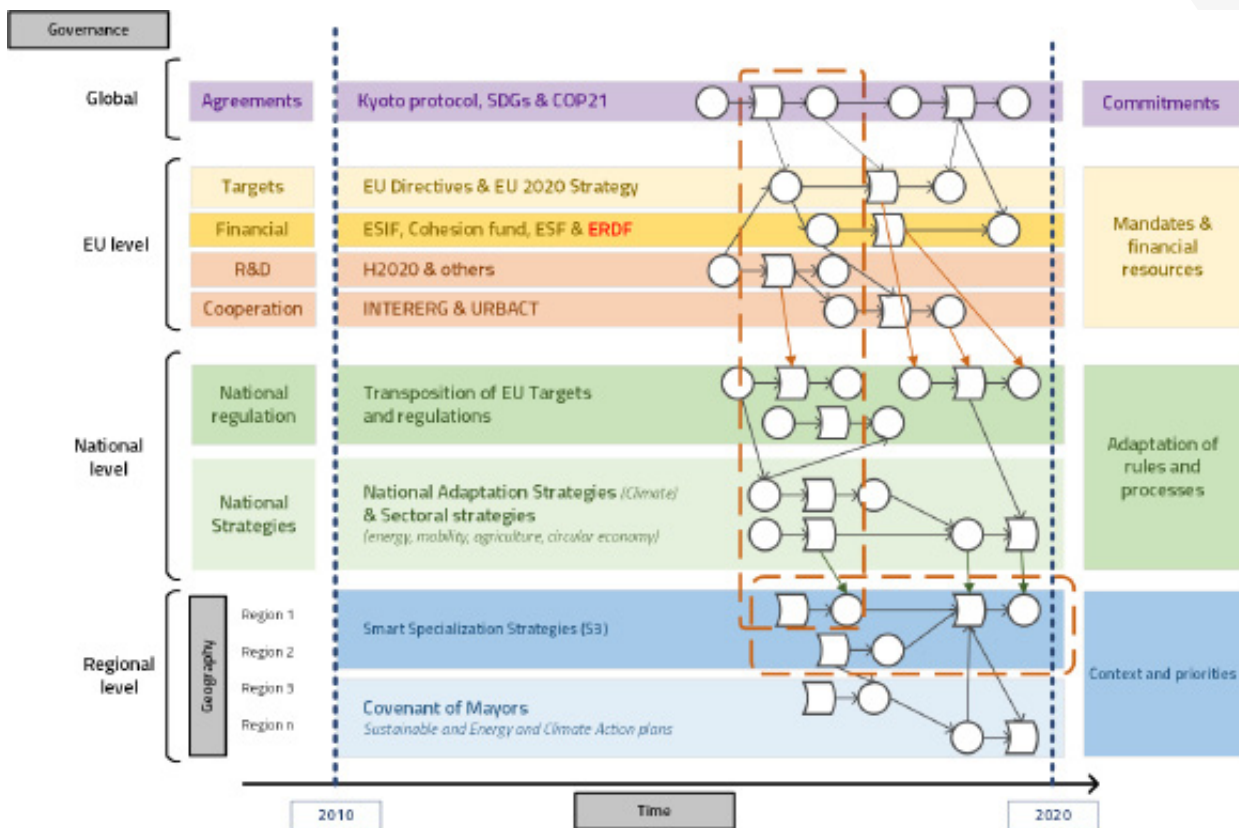


Figure 2 Policy mix on EU regional policy for Environmental and Climate Change

ment fund (ERDF) promotes balanced development in the different regions of the EU.

The European Territorial Cooperation (ETC), is better known for the Interreg programme. Born in 1990 as a Community Initiative with a budget of just EUR 1 billion covering exclusively cross-border cooperation, Interreg has been extended to transnational and interregional cooperation. Under its wing, the pilot projects of the Regional Innovation Scheme (RIS) were implemented on 2000. The second stage of the RIS programme was developed between 2007 and 2013 (see Figure A.1 in the Annex). The actual RIS3 programme started on 2014 and will be into effect until 2020. A key point to access the RIS is to have designed a Smart Specialisation Strategies (RIS3) for the region (See Figure 2).

On the other hand, the Horizon 2020 programme, as the biggest EU research and innovation programme, has established clear research lines in the area of energy and low carbon economy. More specifically, the relation

between Cohesion Policy and the synergies with the research and development in the regions has been reinforced by the STAIRWAY TO EXCELLENCE (S2E)" project launched in 2014 by the Smart Specialisation Platform (S3P) to support the implementation of national and regional Smart Specialisation Strategies. H2020 also support synergies with action at urban level with the Smart cities action line.

At member state level, the adaptation of the EU mandates and policy instruments take the form of transposition of targets and regulations while the National Adaptation Strategies indicate the general direction of the working plan regarding Climate change. In practice, the policy implementation process take place at territorial levels through the RIS3 where territorial thematic priorities are identified. Simultaneously, programs as the Covenant of mayors facilitate the engagement of cities in the development of actions plans on energy and climate areas aligned with the overall regional and national targets related to the EU2020 strategy.

Peripheral EU regions show different performance in that process of adaptation and translation based on their current status regarding the commitments with the EU policy (see table A.1 in Annex). Thus, even when they are located in different stages of the policy process, they seek to create alignments with EU thematic priorities while they reinforce their competences to foster regional innovation. With that respect, the Climate-KIC RIS countries are interested in a variety of topics (energy, waste & water and agriculture) much in line with C-KIC Themes (see Table A.2 in the Annex) as well as with the priorities of the RIS Strategy 2018-2020 (Energy Transition, Circular Economy and Adaptation).

Fostering cleaner mobility methods and transport systems on their cities is a clear priority for Portugal while Cyprus has put more emphasis on applying new devices and materials to build and remodel buildings in a more energy efficient way. Regarding the waste & water nexus, RIS countries (among others, Latvia and Serbia) put their attention on Circular Economy and, finally, a focus on agriculture manifest itself as a shift towards sustainable land practices in farming but also in forestry, which can also be combined with overarching topics, i.e. water management and climate change adaptation.

The context described above illustrates the overall policy context where European regions access to resources and define thematic priorities by making alignments with the defined targets and framework of the funding scheme. The Climate-KIC RIS activities are aimed to support regional stakeholders' role as multipliers of knowledge and expertise by reinforce synergies and complementarities with EU, national, regional innovation initiatives and funding sources. The nature of this activities is briefly explained below.

3.2. The Climate-KIC RIS programme. An evolving regional network

Climate-KIC's EIT RIS activities started with the first competitive call for participation held in late 2013 with implementation of activities starting in 2014. The approach taken first was to establish twinning partnerships or 'buddy relations' between Climate-KIC regions and EIT RIS regions, represented by single entities. Twinning (Slovenia

and Emilia-Romagna, Timis Region of Romania and Central Hungary, Central and Porto regions in Portugal and Valencia in Spain and Estonia and Lower Silesia/Poland) was effective until end of 2015 and built the backbone of Climate-KIC's EIT RIS approach in the beginning.

Activities were focusing on education and incubation/acceleration as well as the facilitation of exchanges via two-way expert study visits targeting various cleantech and climate innovation topics. The professional mobility programme 'Pioneers into Practice' played a key role in facilitating the new regions' integration into Climate-KIC with considerable anecdotal evidence for programme participants acting as "ambassadors" for Climate-KIC and later getting involved as coaches or facilitators themselves or applying to take forward their business idea developed during the programme in the accelerator. Also, the bilateral study visits produced tangible follow-up projects, common grant applications and valuable contacts that were later utilised in the organisation of further activities. However, the main caveats of this early implementation model were the limited connectivity of the new partners across Climate-KIC as well as the limited scope of the regional partnerships acting as the programme facilitators in the new regions.

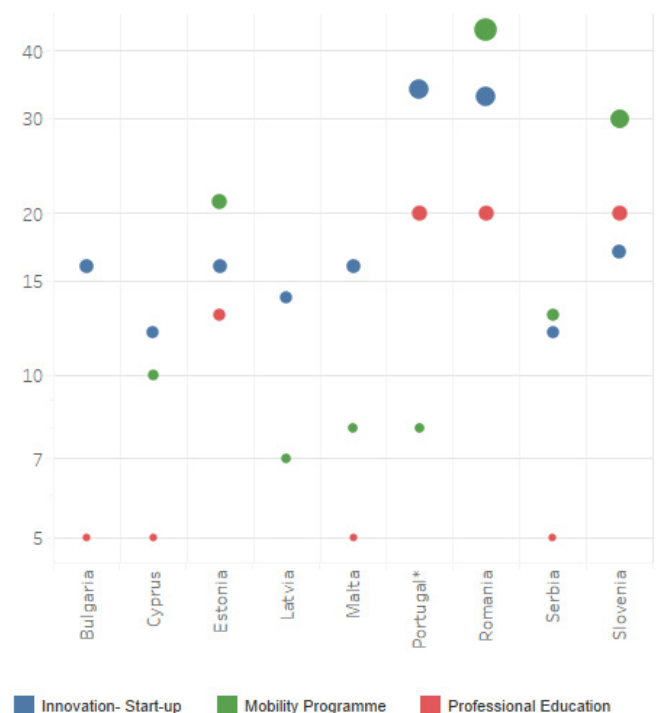


Figure 3 Climate-KIC RIS programme. Distribution of participants by type of action and region. Source: own elaboration

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Major steps towards a more partner-driven model were only taken in 2016 when a new call for EIT RIS consortia was held and such consortia selected following a competitive selection process. The existing regions were complemented by a set of new regions represented by consortia spanning the knowledge triangle from the start. At the same time, “old” RIS regions were asked to further broaden their local partnerships and factor knowledge triangle integration into their thinking. Entities were brought into partnership with Climate-KIC from almost the get-go which enabled them to engage with Climate-KIC more easily and substantially with less administrative hurdles. The current composition of RIS consortia is mainly represented by Business (40%), Higher education (25%) and Research (17%). The rest are government (10%), and other institutions such as NGOs or International organizations, which converse on an activity-basis.

The Figure 3 shows programme beneficiaries in the regions of the main activities. A variety of different programmes targeting diverse stakeholders (students, professionals, officials, start-ups, etc.) were utilised in a variety of contexts. The ability of the local programme

coordinators to mobilise stakeholders also varied considerably with some entities having more privileged access and/or higher connectivity with a variety of actors.

In the search of alignments between regional priorities and Climate-KIC activities, the partners have identified the role of CKIC in Knowledge Triangle Integration, the ultimate objective of the KIC to foster innovation. One of the key aspects in implementing CKIC activities such as Professional Education is stakeholder engagement. Following a systemic – or even ecosystem – approach, we have found that RIS regions can identify which stakeholders to target, their knowledge bases and the scope of required capacity building processes (see Table 1). For example, Serbia, Romania and Latvia seek to work with different partners in building a network for educational and entrepreneurial activities. In addition, while some regions as Malta and Cyprus have a clear understanding in focus areas such as monitoring, evaluation and supporting actions for policy implementation, other regions such as Romania and Bulgaria require support to build capacity, specialize in some strategic sectors and can mobilize resources in a more consistent way.

Region	System analysis of knowledge resources	Evaluations policies and actions	Foresight and scenario planning	Governance assessment tool	Specialization strategy
Bulgaria	Optimize communication between stakeholders and processes about project	Motivate, improve the institutional frame/communication and legal regulation	Create a sustainable politics and project result	Choose the proper method instrument to reach the goal	Capacity building
Cyprus		Evaluate sustainable action plans at LA level	EFRB Information on key projects; CY=problem solution planning	Technical assistance from task force; Structural funds & research fundamental	To adapt S3CY
Malta	Stakeholder engagement for new project ideas	Impact assessments	Action plans for OP 2014-2020	Consultation processes	
Serbia	Stakeholder engagement		Create a co-financed and stable network	International actors	To strengthen relationship with KIC
Romania	Combine traditional and new stakeholders	Motivate, improve the institutional framework and communication	Close the gap between expectation and reality, already started in IT software and automotive sectors		Capacity Building and guidance
Latvia	Understanding local ecosystem, inform to then bring together	Evaluate economic policies (give input)	Analysis of interests of key players (corporation model)	Prepare for changes in the ecosystem	Represent green players in the market

Table 1. Regional priorities and system innovation approach for capacity building process
Source: own elaboration

Assessing governance is key to succeed in implementing the RIS model given the diversity among peripheral regions, especially in countries out of the European Union, such as Serbia. On the other hand, regions indicated that the system innovation approach could be critical to develop capacity for policy analyses and planning. More specifically, it can be used to spearhead development of relationships with countries/regions using their Smart Specialisation Strategies and develop and activate large-scale “green” projects targeting ESIF and ERDF provision.

More specifically, the understanding of innovation as a systemic process regarding the interaction of localised production and diffusion of knowledge in peripheral regions reveals the importance of upgrading and catching up processes. The demand of mechanisms to facilitate articulation between actors as part of the implementation of regional strategies reinforces the links between the economic performance and the learning capability of the territory for dealing with multilevel governance configuration.

4. Discussion

Peripheral regions face the implementation of EU 2020 strategy by encompassing two main challenges, the better understanding of synergies between regional strategies, programmes and funds and, on the practical level, the development of capacity to create links between science and technology developments and organizational capabilities to pursue market opportunities.

The diversity of regional settings and related sectoral priorities, the variety of barriers for the innovation and the different maturity in the policy process shape the socio-spatial dynamics of the knowledge creation process that regions put in place to face those challenges. Thus, as there is no single collection of best practices and actions that fits all RISs (Tödtling & Trippl, 2005) but those best practices could be oriented to facilitate structural change (Foray, 2017).

Table 2 shows the common elements on mechanisms for public-private collaboration identified through the analysis of interactions with regional stakeholders re-

garding the pursuit of vertical and horizontal priorities embedded in the process of regional development and smart specialization.

In the search of synergies between regional strategies and overall policy background, the regional actors seek for a better engagement with the international economic system. Regions indicated that the system innovation applied on project development and exploration of industrial sectors through the EIT RIS programme contributes to develop capacity for policy analysis and planning. With that respect, the activities carried out facilitate an additional entry point to the economic system as well as for broad participation of a variety of actors.

Furthermore, those activities do not necessarily overlap with existing action or promote collaborative projects but introduce some coordination and links between the entities and regional projects as a catalyst for collective actions. For example, professional education activities are recognised as a significant driver for stakeholder engagement.

In fact, it is through those activities that ‘conversations’ between regional stakeholders and different actors involved in the programme take place based on several types of proximities (geographical, cultural, technological, cognitive, institutional, etc.) depending on the nature of mechanism and the involvement of a variety of actors and regions. Individuals operate in a certain moment and place; in a world where knowledge is global and a variety of stakeholders ‘need’ to connect, this reality translates into multi-local anchored conversations (Rutten, 2017).

Action area	Type of regional priorities	
	Vertical	Horizontal
Innovation	Catching up and re-industrialization	Capitalization of project results
Policy	Implementation and market deployment	Policy learning and participatory processed
Entrepreneurship	Dynamic and inclusive start-up program	Emerging sectors and entrepreneurial discovery process (s3)
Capacity building	Technical support	Re-skilling process for professional education

Table 2. Relations of action lines for public-private collaboration and regional priorities

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These conversations become critical inputs for a process of collective understanding on how public-private interactions reveal potentials and opportunities (structural characteristics, capacities) and, therefore, the direction of structural change. The co-creation of a regional narrative helps regions know themselves better by reconciling horizontal priorities (capacity-building) with vertical priorities in terms of industrial focus while the creation of territorial spaces enables entrepreneurship through the exchange, combination and adaptation of different types of knowledge.

Since each region is different and the portfolio of EU policies and programmes such as S3 provides tools to handle such heterogeneity, the contribution of a network base programme such as EIT RIS could be explained by the need for a new rationale for knowledge sharing and inter-regional cooperation where major steps towards a more partner-driven model could benefit from that heterogeneity based in a variety of mechanisms for public-private collaboration that effectively support technological as well as practice-base innovation.

5. Conclusion

The case of European peripheral regions is a concrete example of the application of policy mixes by considering a variety of regional settings in terms of industrial history and governance configurations. This policy context, characterised by multiple policy domains, sectors and levels, creates new challenges at system level regarding the definition of long-term direction of regional innovation. The capacity building process requires then the articulation of new conceptualisation and new practices motivated by a challenge led, demand oriented, systemic initiatives that move forward from a legacy of technology driven, supply side, singular approaches.

The exploratory study has illustrated how a variety of mechanisms for public-private collaboration are required to effectively support technological as well as practice-base innovation. More specifically, the setting of regional priorities in terms of areas of specialization in industry and technology can be easily performed while the implementation process indicated gaps in different areas

related to capacity building such as knowledge triangle integration, stakeholder engagement and mechanism for cross-border collaboration.

Preliminary results show that the successful alignment between regional priorities and low-carbon economy projects can be explained by how clear is the understanding of horizontal relations between stakeholders to define the long-term direction of regional innovation. That alignment requires better understanding of specialisation process that can be facilitated by articulations between local stakeholder and intermediaries to contribute to improve the implementation process and better define priorities from regional setting and industrial history. With that respect, regional development and systemic approach for low-carbon economy has been identified as a potential approach to facilitate local solutions based in local knowledge and expertise while enabling pathway creation for emerging sectors.

1. See <https://eit.europa.eu/activities/outreac/eit-regional-innovation-scheme-ris>.
2. Europe's largest public-private innovation partnership focused on climate innovation.
3. Additionally, the Framework Programme for Research and Technological Development (HORIZON2020) and the Instrument for Pre-Accession Assistance (IPA) should be named as a source of income for the projects of regional innovation.

6. References

ASTER. (2016). Climate challenge in ESIF Operational Programmes and Smart Specialisation Strategies. A study on climate mainstreaming in selected EU countries (Internal Climate KIC document). Climate-KIC.

Foray, D. (2014). *Smart specialisation: opportunities and challenges for regional innovation policy* (Vol. 79). Routledge.

Frenken, K., & Boschma, R. A. (2007). A theoretical framework for evolutionary economic geography: industrial dynamics and urban growth as a branching process. *Journal of Economic Geography*.

Hall, B. H., & Rosenberg, N. (2010). *Handbook of the Economics of Innovation* (Vol. 1). Elsevier.

Matti, C., Consoli, D., & Uyarra, E. (2016). Multi level policy mixes and industry emergence: The case of wind energy in Spain. *Environment and Planning C: Government and Policy*, 0263774X16663933.

McCann, P., & Ortega-Argilés, R. (2015). Smart specialization, regional growth and applications to European Union cohesion policy. *Regional Studies*, 49(8), 1291–1302.

Rutten, R. (2017). Beyond proximities: The socio-spatial dynamics of knowledge creation. *Progress in Human Geography*, 41(2), 159–177.

Tödtling, F., & Trippl, M. (2005). One size fits all?: Towards a differentiated regional innovation policy approach. *Research Policy*, 34(8), 1203–1219.

Uyarra, E. (2010). What is evolutionary about 'regional systems of innovation'? Implications for regional policy. *Journal of Evolutionary Economics*, 20(1), 115–137.

Uyarra, E., & Flanagan, K. (2010). From regional systems of innovation to regions as innovation policy spaces. *Environment and Planning C: Government and Policy*, 28(4), 681–695.

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7. Annex

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020		
LIFE	LIFE I			LIFE II			LIFE III			LIFE +																				
Common Agricultural Policy (CAP)	European Agricultural Guidance and Guarantee Fund (EAGGF) (FEOGA)												European Agricultural Guarantee Fund (EAGF)																	
Structural and Investment Funds (ESIF)	LEADER II						LEADER +						LEADER approach						LEADER											
	Cohesion Fund																													
	European Social Fund (ESF)																													
	European Regional Development Fund (ERDF)																													
European Territorial Cooperation (ETC)	INTERREG II						INTERREG III						INTERREG IV						INTERREG V & EUROPE											
	URBAN I						URBAN II						URBACT II						URBACT III											
	URBACT I																													
Framework Programme for Research and Technological Development	FP4						FP5						FP6						F7						HORIZON 2020					
Instrument for Pre-Accession Assistance (IPA)	Rural development, Transition Facility and others																													
Macro-Regional Strategies	Baltic Sea Region EUSBSR																													
	Danube Region EUSDR																													
	Adriatic and Ionian Region EUSAIR																													
	EU Strategy for the Alpine Region EUSALP																													

Figure A.1. Overall policy background of EU Funding for Environment and Climate Change. Source: own elaboration

RIS Country	Entry EU	Status of National Climate adaptation strategy	S3P	S3 Regions	Macro Regional Strategies				Covenant of Mayors			
					Danube	Adriatic Ionian Region	Baltic Sea Region	Atlantic Arc Sea Basin	S1	S2	S3	
Bulgaria	2007	Being developed	2012	1	2011					25	25	3
Cyprus	2004	Being developed	2014							24	24	8
Estonia	2004	2017	2013				2009			4	4	1
Latvia	2004	2017 (Expected)	2014				2009			21	20	7
Malta	2004	2012	2014							24	24	
Portugal	1986	2015	2014	10				2012		117	113	44
Romania	2007	2016	2011	7	2011					72	59	11
Serbia					2011	2014				1	1	
Slovenia	2004	2016	2015		2011	2014				29	29	

Table A.1. Status of the RIS regions, Different level of maturity in the policy process. Source: own elaboration

Target country	C-KIC Theme			
	Sustainable Land Use	Sustainable Production	Urban Transition	Decision Metrics and Finance
Bulgaria	3	3	2	1
Cyprus	3	4	4	
Estonia	2	3		
Latvia	2	4	1	1
Malta	1	1	1	1
PT Centro Region	5	5	3	4
Slovenia	1	2	2	1

Table A.2. Thematic priorities of RIS regions and Climate-KIC Thematic areas. Source: based on ASTER (2016)