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Proposal

Territorial Connections

A new action for European excellence in territorial innovation ecosystems (proposal)

Abstract

“Territorial connections” is a new action intended to bring together Europe’s territories to use the innovation capacities of their ecosystems to develop Europe economically, environmentally, and socially. The action integrates the 9th framework action (FP9) with other funds as a concrete driver for synergies in EU funding, to the direct benefit of its citizens.

Its originality resides in a novel way to leverage the use of the Research and innovation Smart Specialization Strategies (RIS3) whose main priority is to achieve the FP goals and maximize impacts.

The idea is that several regions sharing one or several smart specializations join their forces and challenge their ecosystems to develop together disruptive innovations corresponding to their chosen targets and to the FP priorities. Universities will be the key actors for research, while companies will provide R&D as well as internationalization and business models to promote the most promising results. To reinforce the ecosystems cooperation, special attention will focus on the knowledge triangle interfaces (research/education, research/innovation, innovation/education).

We believe that the dynamics created by the actors of the ecosystems will leverage the regional strategies, enhance creativity and pave the way to new European R&I leadership and industrial champions.

As a preliminary position, we advocate for a return to innovation and research as one of the top priorities in the debate on the future of Europe, and for a global approach of the European budgetary effort. We must not only focus on FP but also defend the cohesion policy, which represents the same amount of budget for R&I support. And we need to mobilize regional and national authorities if we want to reach the 3% GDP objective. We are still very far from this.

The stakeholders¹ wish to propose the creation of an action that strongly relies on excellence to serve the European innovation ecosystems (see definition below) by promoting shared development strategies between regions² with a similar theme in their Research and Innovation Smart Specialisation Strategies (RIS3)³, to encourage innovations and inventions.

Even though the status of RIS3 is somehow unbalanced between the different European territories, experience shows that innovation is mainly driven by strong territorial innovation ecosystems with universities of excellence at their hearts. Along these lines, Territorial Connections has a strong potential to reinforce the RIS3 concept in FP9 and to accelerate its implementation in Europe, in particular in the Eastern parts of EU27.

The new action should also include a proposal of concrete measures for the future of the structural funds (RIS3) thus enabling them to work as complementary resources in favour of an integrated education-research-innovation approach. Real synergies with the Framework programmes (H2020, FP9) will enable the EU to strategically boost these innovation ecosystems.

This action could also be an innovative tool to mobilize a diverse set of actors towards meeting the challenges of the continent, aligned to the implementation of the next framework programme (see the Lamy report) and the Sustainable Development Goals (SDG).

Defining the targets

Territorial connection is based on consortia (territorial ecosystems of ecosystems) involving territories sharing their RIS3, based on excellence and capacity to achieve goals and maximize impacts. The main target is not to set networks, but to implement R&I projects and contribute to achieve FP goals.

Territorial connection commits to the scientific excellence and European added value principles, but offer a specific added value through excellence, based on ecosystems complementarity to promote new European champions and address the whole R&I value chain from science to jobs.

In this respect, Territorial connection will be a good tool to optimize impacts. Ecosystems complementarity will facilitate widening participation to all kinds of local ecosystems, from western or eastern Europe if they provide specific assets and added value to the consortium.

Leading European regions with R&I smart specialisation strategies are invited to cooperate in a network built on each other's strengths. Four different groups can participate in a network: universities, other civil society actors, businesses and governments.

The action shall particularly target the innovation capacity of universities. They will assume the role of support hubs for innovators, start-ups and SMEs that have a promising potential to develop innovative technologies and/or reach new markets, but do not yet have the necessary resources. By bringing together actors of different regions with different profiles and by putting universities in the centre of the consortia, all participating actors can learn and profit from each other's strengths resulting in more innovation in the ecosystems' value chains.

Defining territorial innovation ecosystems

¹ **(List of Stakeholders to be added)**

² Our understanding of the term region is referring to European territories that were allowed to enter the Smart Specialization Strategy program.

³ Common S3 (Smart Specialization Strategies) should be a horizontal policy element able to provide a framework for all dimensions of the impact via a thematic approach (based on the major scientific fields) integrated with an approach based on the targeted industrial sector (covering the entire innovation chain).

The innovation ecosystems are the territorial playing fields of the local innovation actors with universities at their heart. Strong universities are an integral part of a successful innovation ecosystem as their research supports the technology development and they educate the experts needed on the job market. Other actors of the ecosystems involve public players (vocational training, research centres, regional authorities, cities, conurbations, public services, etc.), private players (businesses) and civil society (NGOs, associations, unions, etc.), together with "interface" structures working to accompany and develop innovation projects, such as the technological research centers, technology transfer offices, R&D and business clusters, start-up incubators and accelerators.

Ideally, these actors should complement one another. Universities can use the results of research cooperation to improve training (universities, other civil society actors, businesses and government) and create new knowledge. Businesses can use them to innovate, enhance working methods, strengthen their product range and get access to international markets. Key elements to the success of the innovation ecosystems reside in the development of research-training, research-innovation and training-innovation interfaces and in their appropriation by the actors in the ecosystem.

An action to mobilize place-based innovation towards society and environmental challenges

The stakeholders propose the creation of a new set of actions devoted to meet the challenges of Europe by strengthening the innovation ecosystems approach in the Framework Programme for Research and Development (FP), based on the knowledge triangle, associating the different types of players (institutions, government, civil society and businesses) within the framework of an RIS3. This action would promote partnerships between different European ecosystems by mobilizing the various actors around a specific theme (e.g. sustainable development, marine renewable energy, autonomous transports, digital factories, artificial intelligence, precision medicine, etc.).

The objective is to combine and strengthen the best class innovation ecosystems of several comparable territories by their RIS3. This framework should create dynamics that take into account rapid changes in knowledge, the need for territories to adapt and co-create more integrated development strategies at European level. One of the aims here is to reinforce the H2020 approach by networking European ecosystems to develop innovation and create future European champions.

- This action will mainly be based on a bottom-up approach and on a specific theme. The consortia would themselves propose innovation themes that fall within their RIS3
- The selection criteria for choosing the best project proposals will be based on the excellence of academic actors and the best potential for disruptive innovation
- The consortia could include three to six different territorial innovation ecosystems (five on average), with at most three local stakeholders per ecosystem. The network should include at least three universities of excellence.
- Initial funding will be earmarked for:
 - activities linked to research, training and innovation,
 - actions that will strengthen the interfaces between the elements of the knowledge triangle: technology transfer (the interface between research and innovation), knowledge transfer (the interface between research and initial training), improvement in human capital (the interface between lifelong learning and innovation),
 - facilities that provide structure, such as research infrastructure, that will also be eligible and funded by the structural funds.

Funding will be varied and adapted to the types of actors involved in the project: funding for basic and applied academic research, technology concepts, proof of concept, prototype development, demonstrators, maturation funds, in-use searches, market surveys, commercial development, training modules, educational engineering, actions in favor of student entrepreneurship, ideas laboratories (science-society interface), organizing debates, etc.

- Funding will be planned for 5 to 7 years. Low TRL basic research will be funded for and assessed after 3 years with a go-nogo decision, taken by the commission experts and validated by the industrial partners, depending on its actual potential for innovation.
- The EU funding will be included in an average range of 10 to 20M€ per project and launched in a form of a pilot action in the 2018-2020 period. The business partners will be co-financed according to their turnover or profit levels
- Incentive measures will be put in place to encourage the inclusion and participation of regions striving to move towards excellence.

Facilitating synergies between the FP, the structural funds and ERASMUS+

Territorial connection is not about cohesion policy. We are not in the capacity building field but in the best class smart specialization networks, contributing to European excellence.

The debate concerning synergies has not yet led to satisfying solutions.

We must move from synergies to co-construction of new common actions and fully recognize the role of regions and cities in the setting-up of excellence in research and innovation. This is a pre-condition to develop effective synergies between FP and cohesion policies.

Since one of the aims of the European Commission is to maximise impact at territorial level, we believe that it is necessary to reinforce coordination between the different EC Directorate-Generals, *and* to enable a convergence of the different funds linked to research and to innovation to better serve ecosystem strategies, and to avoid opportunistic funding. For this, we would suggest to:

- Harmonise the rules of programs linked to research and innovation (ERDF, INTERREG and framework programme) with each other and with national and regional rules, imposing single rules closer to those of the Framework program and removing the problems of state funding.
- Consider TC as being a new approach crossing FP9 and territorial innovation ecosystems and allow the action to mobilize additional funding from cohesion policy and regional budgets with a target of one new euro for 1 FP euro. On these grounds, the global budget of a TC project could reach around 50 million Euros.

Finally, the stakeholders would like to point out that, within the framework of the Erasmus+ consultation, it has also made proposals for structural partnerships that would durably bring together up to six higher education institutions through training and research projects in order to strengthen the European Higher Education and Research Area.

Conclusion

The ultimate goal is to design an action at European level to support excellence in the joint development and management of territories. It includes the notion of sustainability by addressing the needs of civil society and participating in reflection on the future. It allows the emergence of new solutions through a systemic approach including the appropriation and sharing of knowledge between stakeholders. It commits to the excellence principle by joining the resources of best class RIS3 ecosystems. The expected result should be an open innovation scheme, built as an “ecosystem of ecosystems”, addressing the continuum research-education-innovation with an equal commitment of the academic and the economic stakeholders. It opens new ways, through collaborations between European territories, to optimize and accelerate their developments and

achieve the European framework program goals, while creating common dynamics of major innovations at the service of the citizens of Europe.

Annex 1. Territorial connections and other comparable European programs/actions

There are already several European Research and innovation programs integrating territorial components. We point here in three tables the main differences between TC and three other programs/actions, Regions of Knowledge 2, KIC and Interreg

Territorial Connections	Regions of Knowledge 2
Regions are not defined by administrative boundaries	Regions are administratively defined
Participants are from different regions	Participants must be from the same region
Regions must share at least one RIS3	Regions don't need to have a RIS3

Territorial Connections	KIC
Participation of European territories in consortia	Consortia are mainly academic or economic
Research and innovation	Innovation and market
Bottom-up process	Top-down process
Medium-size action	XXL program

Territorial Connections	Interreg
Transnational program	Crossborder program
Global R&I challenges	Crossborder cooperation
Bottom up process	Partially top-down

Annex 2. Project funding (FP9⁴)

Type of actions	Funding range/partner/5 years (M€)	Minimum funding range (M€) (3 ecosystems including 2 partners each)	Maximum Funding range (M€) (6 ecosystems including 3 partners each)	Average funding range(M€) (12 partners)
RIA	0.6 -1.3	4-8	11-23	7-16
IA	0.7- 2.1	4-13	13-38	8-25

Average funding range independent of action type: 7-25 M€

Sharpened average funding range independent of action type: 10-20 M€

⁴ As already mentioned, if the action is allowed to mobilize additional funding from cohesion policy and regional budgets with a target of one new euro for 1 FP euro, the global budget of a TC project could reach around 50 million Euros.