

## ***More jobs and growth and societal impact in Europe with excellent and connected regional research and innovation ecosystems***

### **FP 9 – ERRIN Position – 3<sup>rd</sup> July 2017**

More than ever, Europe needs growth and jobs. We must focus on research and innovation with European-added value while strengthening and encouraging equivalent support and investment in regions and Member States.

Building an effective and well-resourced European research and innovation strategy post-2020 requires input from a range of stakeholders. These stakeholders often work together in partnership at the city or regional level combining proximity with critical mass. **Thus ERRIN argues that effective research and innovation is increasingly dependent on strong research and innovation ecosystems embedded in regions and cities.**

These ecosystems are often more likened to value constellations (muddy ponds<sup>1</sup>) than research pipelines. In addressing the key societal issues we face, they join up research and innovation stakeholders, including those that need the know how to adapt the policies and those that are at the receiving end, cities and citizens, in the elaboration and the implementation of research and innovation strategies and actions both within the region and, just as importantly in a globalised world<sup>2</sup>, between regions. Thus supporting collaborative research and innovation and internationalisation is a real EU added value and should be enhanced in the next programming period.

In order to build research and innovation capacity, Member States and regions should aim for and reach the 3% investment target in research and innovation<sup>3</sup> and also strengthen quadruple helix networks at the regional level linked to the development and implementation of regional smart specialisation strategies.

#### **KEY POINTS**

- **Collaborative research is a key EU added value and must be adequately resourced, protected and strengthened with emphasis on ambitious grant-based funding.**
- **ERRIN supports the European Parliament's proposal for a major increase in funding. The structure of Horizon 2020 (H2020) based on excellence and featuring three pillars should be retained and changes made in a spirit of evolution not revolution with the three pillars better connected to 'unlock excellence' for the benefit of all EU citizens.**
- **The programme should derive impact, innovation and internationalisation from Commissioner Moedas' 3 O's structure (Open Science, Open Innovation and Open to the World).**
- **More focus should be placed on the impact of research and innovation actions at the territorial level.**
- **Increased attention should be placed on developing synergies between the H2020 programme and Cohesion Policy at the regional level. ERRIN recommends close cooperation between DG Regio and DG RTD in the elaboration of future programmes with an emphasis on 'joined up' actions.**
- **Research and innovation should reach out to society and better involve citizens with more attention paid to 'societal readiness levels' that would influence the composition of consortia and the communication and dissemination actions aimed at increasing societal impact.**

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<sup>1</sup> 'In reality, our innovation economy is not a Roman aqueduct but a "muddy pond". Rich but obscure. Innovation requires of all actors, corporate, academic, civic and political...' Robert Madelin 'Opportunity now: Europe's mission to innovate' July 2016

<sup>2</sup> [https://ec.europa.eu/commission/sites/beta-political/files/reflection-paper-globalisation\\_en.pdf](https://ec.europa.eu/commission/sites/beta-political/files/reflection-paper-globalisation_en.pdf)

<sup>3</sup> As called for in the Aho Report 2006! [http://ec.europa.eu/invest-in-research/pdf/download\\_en/aho\\_report.pdf](http://ec.europa.eu/invest-in-research/pdf/download_en/aho_report.pdf)

*The following paragraphs outline ERRIN’s thinking on the future Framework Programme in more detail.*

## **UNLOCKING EXCELLENCE AND INTERNATIONALISATION**

**Cooperation is a key EU added value** bringing European actors together, bridging regional ecosystems and thereby contributing to strengthen Europe and the European Research Area (ERA). A common pot for joint cross-border research projects in Europe is a key strength of the EU Framework Programmes (FP). It allows an exchange of ideas, fosters innovation and widens participation in research and innovation across Europe and internationally. In particular, the Societal Challenges, where overarching/global problems are tackled together with European partners, provide clear added value and impact.

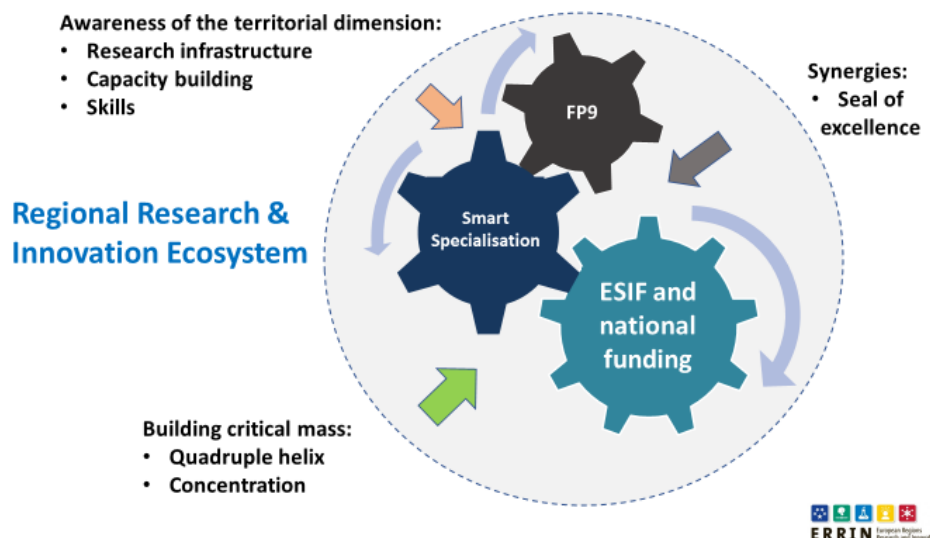
The general structure of the current FP promoting **research based on excellence**, fostering the industrial base and addressing societal challenges has found large acceptance among the research and innovation community and should be retained. FP9 must continue in the mission of previous FPs to generate excellent new knowledge. However, **greater emphasis should now be placed on excellent innovation** but not to the detriment of fundamental research. In this respect it is important that evaluators of FP9 projects have an in depth knowledge of the framework conditions of successful innovation.

Excellence is the core driver for research and innovation, and excellence is found in both large companies and SME’s. It is important that FP9 supports research and innovation activities within SMEs, both within project consortia and also within the SME Instrument. Small SMEs need to develop their absorptive capacity to harness the results of excellent research and the SME instrument has already benefited a number of SMEs in internationalising and scaling up their business. More efforts should be placed on developing the innovation capacities of SMEs and helping them link with relevant partners.

ERRIN suggests that more attention should be paid to cross-cutting research and ways of harnessing project results in order **to unlock excellence** to benefit-European economies and societies at all levels. The focus areas in the pillars should work on collaborative research through **a better alignment of elements between the FP and ESIF**, thereby building in “synergies” between the programmes from the beginning of the programming process. Only a close co-construction of the programmes can ensure efficient support from the ESIF funds to excellent FP9 projects in capacity-building (upstream) and uptake of results (downstream).

Smart specialisation strategies (RIS3) can form the basis for plugging the gap in value chains via thematic regional technology platforms and can contribute to attaining true interoperability between FP9 and the Structural Funds, including investment in research infrastructure and interactions between regional and national funding layers, while not limiting local actors access to FP9 in any way. These excellent regional platforms could then be used to support research excellence.

### **Research and Innovation – joining up in the region**



Therefore, ERRIN supports Commissioner Moedas' Open Science, Open Innovation and Open to the World structure, as they can be attributed to the 3 I's

- Open Science is part of a systemic change that will **impact** on the way that we carry out research and facilitates new forms of collaboration via the use of both state of the art digital technologies and greater involvement of citizens.
- Open Innovation recognizes the complexity in **innovation** and a process of co-creation that involves knowledge flows between a range of stakeholders, often at the regional level, combining critical mass with proximity<sup>4</sup>.
- Open to the World means more recognition of the effort to **internationalise** European research and innovation. The EU needs both access to talent and the ability to import/export ideas globally to stimulate commercial opportunities.

### **STREAMLINING IMPLEMENTATION**

The existing three-pillar system is clear and works well, however, ERRIN proposes a number of improvements:

- A stronger emphasis on an ecosystem approach in relevant parts of the programme which have a direct territorial dimension (e.g. smart cities) would provide a means for programme users to **create links between the pillars**, e.g. enabling the exploitation of fundamental research in collaborative research and innovation projects with a range of different partners from the public sector, academia and industry.
- Links between research, technology **and societal challenges** are crucial to provide knowledge on issues such as security, migration, integration, global movements and religions relevant to shaping Europe's future. The pillars should start communicating via joint calls where required.
- FP9 should be a tool to bring **excellent regional clusters to the international level**. Regional smart specialisation strategies provide an already established structure to enhance cluster collaboration at the EU level. While recognising the difficulties, **a strengthened compatibility of FP and ESIF** requires increased simplification throughout the wide range of ESIF programmes which are all very differently organised, managed and funded.

While recognising the improvements to the H2020 Participants Portal, **there are genuine concerns** that for many new R&I actors the current programme appears complex, especially due to the plethora of acronyms e.g. JPI, JTI, PPPs, EIT/KICS, which hinder the understanding of role, funding and impact. There is a perceived lack of transparency in many of the programmes, with some viewed as 'closed shops'.<sup>5</sup> An evaluation of JPIs, JTIs, PPPs, EIT/KICs and their European added value would be beneficial.

The need for greater efficiency and transparency should not, however, lead to denying access to or funding from the programme for larger or more mature enterprises as they are key partners and drivers in the regional innovation ecosystem. In fact, FP9 should be instrumental in stimulating such companies to increase their RTD spending as this would have the most impact on the total EU RTD spending figure.

<sup>4</sup> See Professor Fabrizio Barca's speech on place-based innovation at the Cohesion Forum 2017 <http://www.cvent.com/events/7th-cohesion-forum-2017/custom-21-060b36e2ea92472ea4b09d44cba15f59.aspx>

<sup>5</sup> JPI's for instance, exclude actors which national programmes do not foresee as beneficiaries or where States do not participate in specific topics and this hinders European objectives and JTI's are sometimes perceived mechanisms to fund private industry interests, with lobbying playing a role rather than excellence.

**An enhanced trans-disciplinary approach** allows for new knowledge to be developed in the ERA stimulating a pluralistic debate with particular attention falling on SSH, SWAFS and RRI. This approach will not only increase knowledge and allow for practical solutions to be generated rapidly.

Horizon 2020 currently plays an essential role in strengthening European competitiveness and tackling societal challenges providing the unique possibility for excellent individual and collaborative research and innovation projects to generate true European added value for EU citizens, boosting economic growth and productivity<sup>6</sup>, producing new and better job opportunities, and supporting social prosperity and well-being. The next Framework Programme should continue the process towards bottom-up challenge-driven projects. This approach will address the true European societal dimension via the active involvement of end-users.<sup>7</sup>

Member States should respect the 3% R&D investment commitments defined under the Europe 2020 Strategy. According to figures from 2015, the EU only invested 2.03%, with the individual figures for different countries ranging from 0.46% to 3.26%. It is essential to support research and innovation with more funding avoiding reallocation of H2020 budget to other initiatives or pilots not directly linked to H2020 priorities.

The most recent figures for H2020 participation clearly show a marked rise in the number of competitive proposals being submitted, which has clear implications for success rates in general (currently 11 %), and the severity of this issue being compounded by previous transfers made to EFSI. In order to maintain the attractiveness of the programme and considering the well-known budget constraints, **resources should be pooled around a more concise number of strategic priorities**. This will enhance the impact of the programme, contributing to the creation of a lean interface, developing critical mass and reducing over-subscription. Furthermore, there should be more emphasis on two-stage calls under FP9.

A consistent and ambitious FP9 budget needs to include synergies with other programmes, in particular with ESIF through a reshaped regional policy benefiting all EU regions. In particular, this could require the harmonisation and simplification of compliance rules to both FP9 and ESIF (e.g. state aid, audit procedures, financial reporting) which would benefit the cohesion between programmes and strengthen support for R&D actions, investments in capacity building, human capital and infrastructure. The design and budget of cohesion policy after 2020 should clearly reflect these ambitions.

**The focus on grants rather than financial instruments must be assured**, despite the shift to ‘idea to market or research to retail’. With this change in dynamic, ERRIN is conscious that moving towards a mix of funding instruments, including loans for higher TRL prototypes along with other instruments, such as EIB must be leveraged in order to deliver the potential of close to market activities. Importantly, increasing the diversity of private and public funding sources would aid in reinforcing the budget and remedy overstretched resources.

**More visibility** and stronger mandates should be considered for **‘regional’ National Contact Points** (see e.g. NCP Brussels<sup>8</sup> and Northern Ireland) in the future structure, allowing them to play a stronger ‘facilitator’ role acting as a connecting hub for regional actors to national and EU funding that can support research and innovation. Their role would combine visibility and information, disseminating projects results to increase impact and stimulating collaboration between quadruple helix stakeholders and end-users in the region.

<sup>6</sup> A 10% of R&D&I investment is associated with gains in productivity between 1.1% and 1.4% (Donselaar and Koopmans, 2016). Among all investment categories that drive labour productivity growth, including investment in tangible capital, or economic competences, R&I accounted for 15% of all productivity gains in Europe.

<sup>7</sup> The scheme should be implemented in several stages to facilitate broader participation and lowering the threshold for new-comers from all parts of EU and beyond to participate. It should be based on high-level missions but user-driven in a bottom-up fashion. See VINNOVA Challenge-driven approach <http://www2.vinnova.se/en/Our-activities/Cross-border-co-operation/Challenge-driven-Innovation/Challenge-driven-Innovation/>

<sup>8</sup> <https://www.ncpbrussels.be/about-ncp-brussels/our-mission>

## **ACHIEVING GREATER IMPACT**

Impact is a dynamic, open and networked process in a culture of sustained engagement and co-production of knowledge. Widening participation can support this by mobilising untapped resources but should not replace excellence as an overarching research policy principle. **A broader definition of ‘impact’ is needed that encompasses impacts on society** in a wider sense, including scientific, economic, societal, territorial, cultural, behavioural, etc.<sup>9</sup>

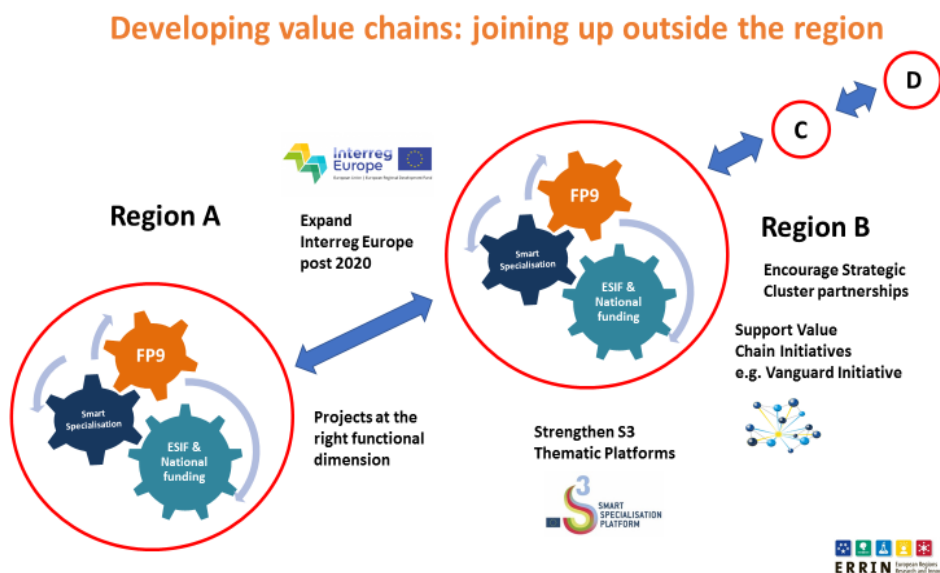
Enhanced societal and economic impact could be achieved through the systematic development of quadruple helix partnerships at the regional level to exploit funding opportunities at the national, regional and European levels in order to strengthen competitiveness and societal well-being. Discussions in this space should focus on aligning strategies that mutually reinforce the interactions between all funding instruments (but especially, FP9 and ESIF and investigating where the potential lies in leveraging such instruments further.

**A ‘Societal Readiness Level’<sup>10</sup> (SRL) to connect research and technology to citizens should be explored.** Stronger attention to citizens’ engagement in research projects not only reinforces responsible research and innovation (RRI), but also exposes citizens to research and innovation methodologies and gives an end-user input. By better embedding SSH in the programme, projects results could be used to advise, analyse and provide background for decision making by policy makers, researchers and society. Making this connection would reassure the public that funding is spent as efficiently as possible. Therefore, the FP needs to provide short as well as long term foresight to a larger extent than has been done so far.

**More attention needs to be paid to disseminating the results of projects.** ERRIN supports the Committee of the Regions and DG RTD’s Knowledge Exchange Platform<sup>11</sup> and would support a ‘results’ days which could be linked to future information sessions for new FP9 calls. Project results might also be promoted in rolling exhibitions in Science Museums, Science Festivals and relevant Industry Fairs and Conferences.<sup>12</sup>

One of the aims of the framework programme should be to facilitate the emergence of European value chains.

**Enhancing the territorial dimension** of the framework programme would allow stronger impact at the local level, in particular on growth and job creation while facilitating interregional cooperation. Regions are quasi neutral, high-impact stakeholders, as they incorporate a wide range of interests from research, universities, industry, civil organisations, SMEs, local and regional governments and citizens working in a systemic, sustainable context with their place-based approach.



<sup>9</sup> A more meaningful approach to evaluation and quantification of these impact dimensions stemming from many different fields of research should be developed.

<sup>10</sup> See for example [https://innovationsfonden.dk/sites/default/files/societal\\_readiness\\_levels\\_-\\_srl.pdf](https://innovationsfonden.dk/sites/default/files/societal_readiness_levels_-_srl.pdf)

<sup>11</sup> <http://cor.europa.eu/en/activities/networks/Pages/kep.aspx>

<sup>12</sup> See SPARKS project which has organised a travelling exhibition around 28 Member States <http://www.sparkspjroject.eu/>

The advantages of enhancing the territorial dimension include:

- Closer quadruple helix cooperation contributing to an enhanced involvement in RDI;
- Wider outreach to the innovation community, allowing potential participants with new innovative ideas lacking large-scale resources to access FP9 and European networks more easily. Increased flexibility to include new “non-experienced and risky” stakeholders with excellent project ideas to engage in projects, thereby increasing impact and widening participation;
- More efficient and effective spending of the EU funds via compatible programmes leading to better outcomes for the citizens and European added value;
- Facilitation of international RDI co-operation funded under FP9, by providing a more clearly defined offer to key global partners.
- A well-supported regional funding support system integrated with EU funding instruments represents the bridge for successful participation in trans-regional cooperation projects by research institutes and industry.

In conclusion, ERRIN considers that building a strong regional research and innovation ecosystem (joining up in the region) and then linking this ecosystem with other regional systems (joining up outside the region) to establish competitive value chains will be the hallmark of a successful future EU research and innovation strategy. ERRIN welcomes a dialogue with the European Commission and other stakeholders on how to implement these key actions.

*ERRIN (European Regions Research and Innovation Network [www.errin.eu](http://www.errin.eu) is the European network expressing the voice of over 130 members that play an active role in regional innovation ecosystems that embrace innovation and technology as key contributing factors to achieving the highest possible quality of life within their regions. Note that this position paper was developed by an FP9 Working Group alongside the ERRIN Policy Working Group and was discussed at the ERRIN Annual General Meeting in June 2017. It reflects a broad consensus of opinion but may not reflect the views of individual ERRIN members.*

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