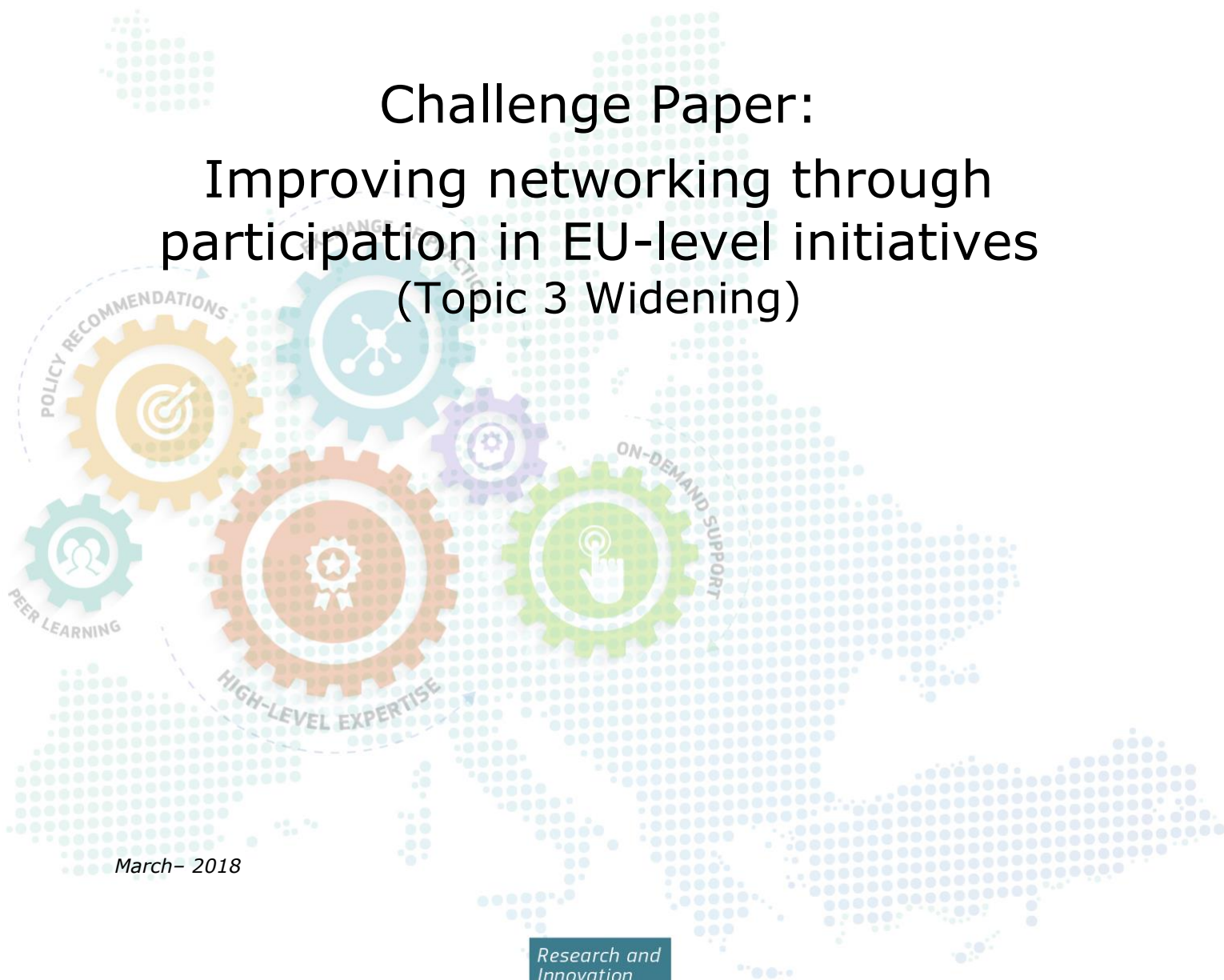


Mutual learning exercise (MLE) on national practices in widening participation and strengthening synergies

Challenge Paper:
Improving networking through
participation in EU-level initiatives
(Topic 3 Widening)



March – 2018

MLE Widening participation and strengthening synergies: Challenge Paper: Improving networking through participation in EU-level initiatives (Topic 3 Widening)

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Mutual learning exercise on National practices in widening participation and strengthening synergies

Challenge Paper:

Improving networking through
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(Topic 3 Widening)

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Foreword

This document has been prepared under the auspices of the Policy Support Facility (PSF) set up by DG Research and Innovation under H2020 to support countries in reforming their research and innovation (R&I) systems. It is one of a series of reports drafted as part of a Mutual Learning Exercise (MLE) on 'Widening Participation and Strengthening Synergies' (WPSS).

Widening participation in the Framework Programme (FP) can help countries tap into their unexploited R&I potential and improve overall R&I system performance.

Ensuring and strengthening synergies between activities supported by the FP and those supported by European Structural and Investment Funds (ESIF) can improve the overall efficiency and effectiveness of public funding for R&I and enhance the performance of R&I activities.

Thirteen countries (Belgium, Bulgaria, Cyprus, Croatia, Germany, Hungary, Latvia, Poland, Portugal, Slovenia, Sweden, Spain and Turkey) are participating in the MLE, with Germany participating as an Observer.

The schedule for the MLE called for Challenge Papers covering different aspects of 'Widening' and 'Synergies' to feed into discussions at a series of four workshops, prior to the production of Topic Reports based on these discussions and relevant material contributed by participating countries.

The aspect of 'Widening' covered by this Challenge Paper is Topic 3: 'Improving networking through participation in EU-level initiatives'.

1. Introduction

A pre-condition for achieving wider participation in the EU Framework programme is that public and private research performers in all countries are well networked with partners in other Member States or Associated Countries. Many research performers (HEIs, PROs, companies) which do not have a history of FP participation are facing a 'closed club' problem, namely a barrier to entry into those networks that are relevant for their activities but from which they feel excluded due to their low visibility and lack of experience in working within EU partnerships.

As mentioned under other Widening Topics of this MLE, the most important route to take at national level to achieve widespread FP participation is to improve the effectiveness of research and innovation systems, introduce the needed reforms, and raise resources for R&D and innovation activities through appropriate delivery mechanisms. The general opinion of stakeholders consulted in the mid-term review of H2020 is indeed that "*widening participation is crucial, but should not come at expense of excellence*"¹. Complementing these fundamental policy moves aiming at raising excellence, action can also be taken to address the 'closed club' problem by increasing the networking of domestic actors on a European scale. Exploiting the benefits from a wide range of networks and partnerships that are at play throughout Europe is likely to provide a good stepping stone for participation in FP. Those networks and partnerships provide different entry points, and some of them might be easier to access than the very competitive FP partnerships. Hence it is worth looking at what can be done to support domestic research actors to take advantage of the wide variety of networks that may act as 'door-openers' to the EU Framework programme.

The focus of this paper is on ways and means to raise the EU networking of national (and regional) research actors with a view to reinforcing their participation in the EU FP.

The paper serves as a background document for the March 2018 workshop organised in Dublin under the EU Policy Support Facility Mutual Learning Exercise (MLE) devoted to Widening Participation and Strengthening Synergies between FP and ESIF. The present Topic had been identified as a priority issue when the MLE was designed by the MLE participating countries. During the workshop, representatives from Member States and Associated Countries will present and share their good practices aiming at improving networking through participation in EU-level initiatives.

The scope of the 'Improving networking through participation in EU-level initiatives' Topic is detailed in section 2. An overview of the landscape of relevant EU networks and partnerships is presented in section 3. Lessons learned from existing practice are exposed in section 4. The final fifth section identifies main challenges that should be addressed in the MLE exercise and proposes issues to be debated at the workshop.

¹ European Commission (2017), *Commission Staff working document interim evaluation of Horizon2020-Annex I*, SWD(2017) 220 final.

2. Scope

2.1. Definition of the topic

This Topic of the MLE on national practices in Widening Participation and Strengthening Synergies focuses on **strategies, innovative mechanisms and schemes developed at national or regional level that aim to improve networking through participation in a wide variety of EU-level initiatives, with a view to reinforcing capacities to participate in the EU FP.**

The immediate question when trying to further define this Topic is: which EU networks are relevant to the goal of increasing participation and success rate in FP? This issue of linkages between participation in EU-level networks, on the one hand, and participation in the (rest of) the FP programme, on the other hand, is an exploratory one: there is no robust evidence that demonstrates a direct relationship between participation in EU-level networks and the rate of participation and/or success in FP. Hence the list of potentially relevant EU programmes and initiatives providing networking opportunities is very long. The landscape of EU networks has grown tremendously in the recent years and the picture has become complex. In the scoping and kick-off workshops, as well as during the implementation of the MLE, participating countries mentioned networks and programmes that they want to consider under this topic. As a result, a (non-exhaustive) list of programmes and fora that are relevant to this Topic includes the following:

- Public-public partnerships (P2Ps), including three types of programmes:
 - ERA-NETs and ERA-NET Cofunds;
 - Article 185 initiatives;
 - Joint Programming Initiatives (JPIs);
- Public-Private Partnerships (PPPs), including three types of programmes:
 - European Technology Platforms (ETPs);
 - Joint Technology Initiatives (JTIs);
 - Contractual Public Private Partnerships (cPPPs);
- European Cooperation in Science and Technology (COST);
- The Knowledge and Innovation Communities (KICs) of the European Institute of Technology (EIT);
- Macro-regional strategies and Interreg programmes;
- The Vanguard initiative and the Smart Specialisation (S3) Thematic partnerships.

The above list includes a large variety of programmes/initiatives, within which a very high number of concrete networks have been created. Some, such as the Vanguard initiative and S3 Thematic partnerships are bottom-up, others such as the JPI are more top-down. Some have their own EU-level budget, such as the Article 185 initiatives, JTIs, KICs or Interreg; some do not offer any funding, such as the ETPs, macro-regional strategies or the S3 Thematic partnerships. For many, the EU budget comes from H2020 but the budget for Interreg comes from the European Structural and Investment Funds. The amount of money involved, and the nature of activities supported, also differ markedly across all those networks. What they have in common is that they offer opportunities for researcher performers in all MS and AC to develop partnerships and joint research and innovation activities on a transnational basis. The aim of the MLE discussion is to assess if and how they might act as a stepping stones to enhance their participation in the FP.

2.2. Complementarity with other topics covered by this MLE

The challenge of enhancing participation to FP will not be met solely by activities aimed at fostering wider participation and exploiting opportunities that are offered by a whole range of EU-level networks. Other significant routes are addressed in some of the other 'widening' Topics covered in this MLE, specifically:

- **Topic 2: Improving science – industry relationships and cooperation:** improving cooperation between research actors in the public and private spheres is a precondition for accessing most H2020 programmes, and also for the participation in other EU networks covered in this theme, e.g. the KICs. Hence national strategies, actions and incentives to develop such cooperation are crucial if the benefits of EU networks are to be realised and the goal of widening FP participation reached.
- **Topic 1: Attracting qualified R&D staff in the public and private sectors:** participation in the large variety of European-wide projects and partnerships covered under the present Topic is a good way for researchers to get acquainted with other research actors in other countries, and this can act as an incentive for physical mobility decisions.
- **Topic 4: Skills development, information, communication and training:** while that Topic focuses mostly on information and skills to be developed around H2020 programmes and topics, it is clear that extending the role of NCPs and other information structures to cover other relevant partnerships should be, and already is in some cases, integrated into their mission. Also, improving research managers' skills to access and participate in international programmes and develop relevant multinational partnerships helps develop a competence that benefits participation in a large variety of EU-level networks.

Discussions relevant to the theme of **synergies** between the use of European Structural and Investment Funds (ESIF) and FP funds (Topics 5, 6 and 7 of this MLE), at both strategic and operational levels, are also complementary to the present Topic. The use of ESIF can help reinforce the capacity of national actors to access a large variety of programmes. It can also fund activities that are complementary to those covered by these programmes.

Finally, this Topic is also complementary to another MLE exercise, the **MLE on 'Alignment and interoperability of national research programmes'**², which ended in 2017 and proposed a range of ways to improve alignment and interoperability between national research programmes. That MLE exercise focused on the role that national preconditions play in the Joint Programming Process (JPP), including Joint Programming Initiatives (JPIs) and other public-to-public partnerships (P2Ps). It produced good practice examples and case studies, as well as a self-assessment tool that can be used by any country to identify potential improvements. Reference is made to those lessons in section 4 of this report.

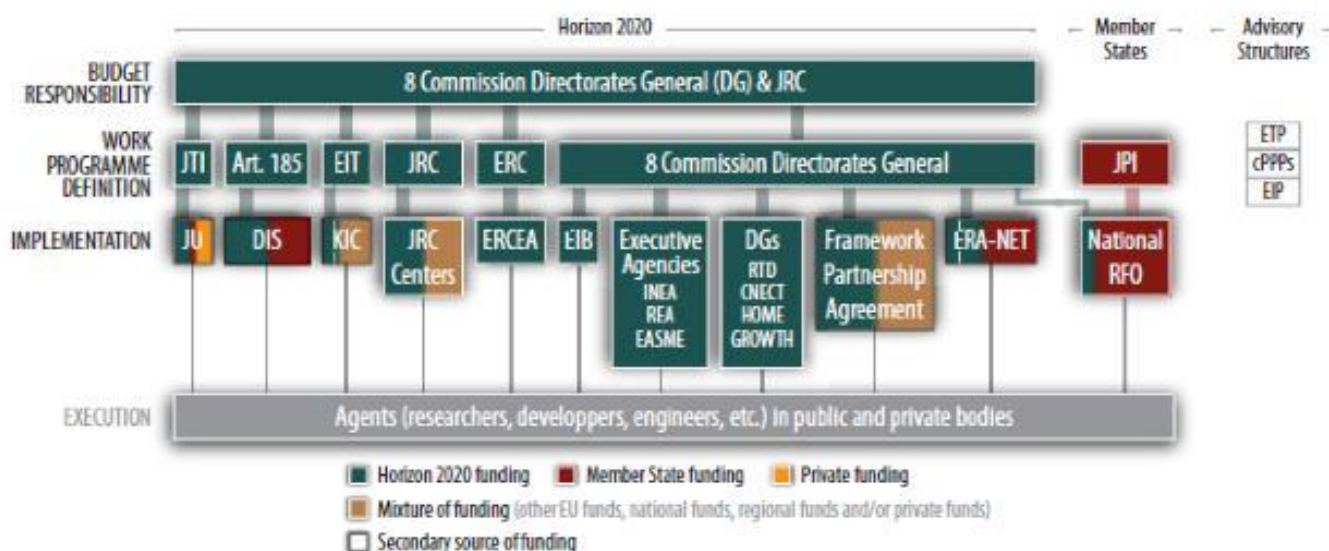
² <https://rio.jrc.ec.europa.eu/en/policy-support-facility/mle-alignment-and-interoperability-research-programmes-national-coordination>

3. Landscape

The share of H2020 funds allocated to P2Ps, PPPs and projects initiated by these partnerships is expected to reach 25% (Boekholt et al. 2017)³: this is to say that P2Ps and PPPs have become **significant instruments for the conduct of ambitious research activities at European level**.

The position of several programmes and initiatives listed in section 2 above (P2Ps, PPPs, KICs and EIT) with respect to H2020 has been summarised in a recent study by the European Parliament⁴. Figure 1 highlights the different combinations of EU, national and private funding for those programmes. Joint programming initiatives (JPI) stand out in that they fall under the responsibility of MS.

Figure 1. Implementation structures for H2020



Source: EPRS, based on European Commission data.

3.1. Public-public partnerships (P2Ps)

Public-public partnerships for research are networks of national authorities joining forces around R&D programme and activities, based on a shared vision and a strategic research agenda. The general aim of those partnerships is to avoid fragmentation of public research activities and funding and create synergies and critical masses to better address important issues for knowledge-based EU. Different types of partnerships are in place and the amount of national and EU money devoted to these research activities has been increasing over time (Figure 2)⁵.

Existing P2Ps have created a significant playground for developing EU-level research partnerships, hence their relevance to this Topic: many opportunities are created by the P2Ps that can be taken by national actors wishing to enter into R&D partnerships at EU level. Between 2004 and 2017, 576 calls and more than 6400 projects,

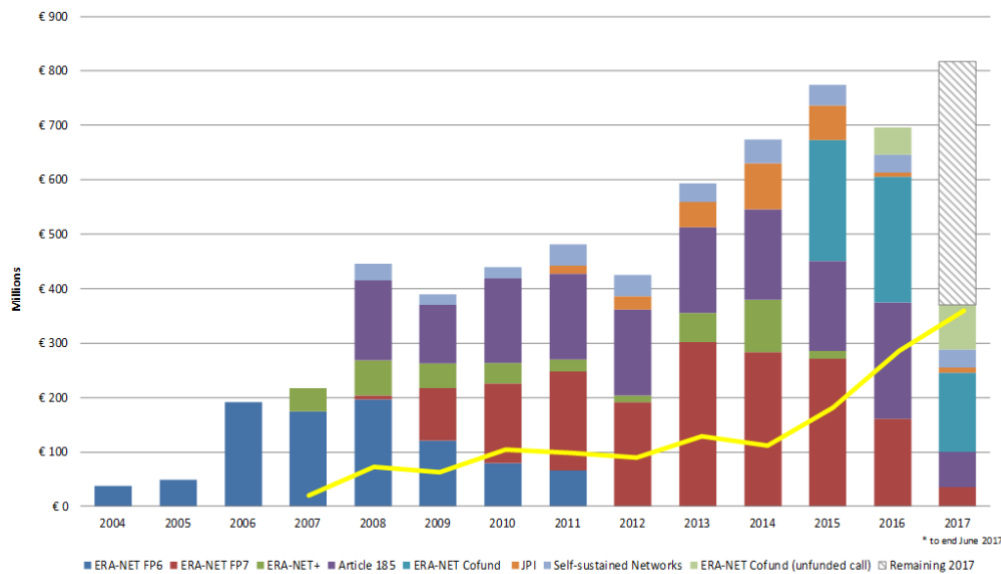
³ Boekholt P., Romanainen, J., Madubuko T. (2017), *Increased coherence and openness of European Union research and innovation partnerships. Final report.* technopolis |group| June, 2017. Government Office, Republic of Estonia. <http://www.technopolis-group.com/report/increased-coherence-openness-european-union-research-innovation-partnerships/>

⁴ European Parliamentary Research Service (2015), *Horizon 2020 budget and implementation: A guide to the structure of the programme.* http://www.europarl.europa.eu/RegData/etudes/IDAN/2015/571312/EPRS_IDA%282015%29571312_EN.pdf

⁵ In addition to the three types of PPP listed in this section, there are also self-supported networks.

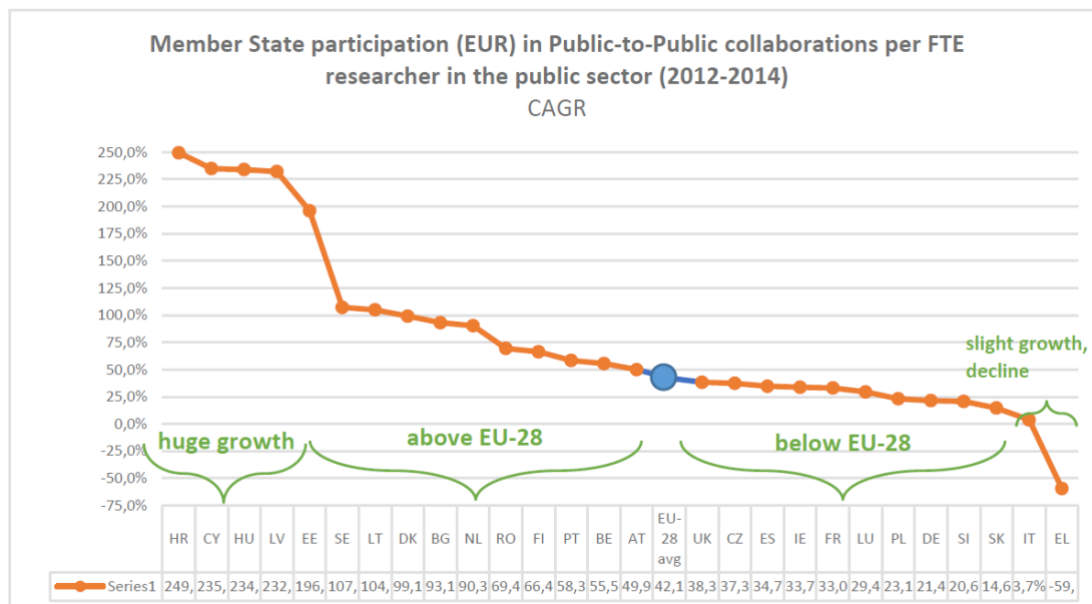
worth €6.3 billion were funded under the various PPPs. On average, 20% of competitive national R&D funding is invested in these PPPs (this share is smaller for the larger Member States)⁶. Between 2012 and 2014, the growth rate of the financial participation of Member States in P2Ps has been tremendous. In particular, several EU13 Member States have fiercely increased their contribution to P2Ps (Figure 3).

Figure 2. National joint call commitment (with EU contribution for cofunding of calls overlaid) for all calls closed 2004-2017, by network type



Source: ERA-LEARN 2020 (2017) Third Annual Report on Public-Public Partnerships.⁷

Figure 3. Compound Annual growth rates of MS financial participation in P2Ps per FTE researcher in the public sector



⁶ Data from ERA-LEARN 2020 (2017), *15 years of European Public-public partnerships in research and innovation*. <https://www.era-learn.eu/publications/other-publications/15-years-of-european-public-public-partnerships-in-research-innovation>

⁷ <https://www.era-learn.eu/publications/other-publications/3rd-annual-report-on-p2p-partnerships>

ERA-NETs and ERA-NET Cofunds⁸⁹

The most numerous P2P partnerships are those of the ERA-NET family (in terms of money invested - see Figure 2 – and also number of programmes and number of calls). ERA-NET Cofund under Horizon 2020 is designed to support public-public partnerships, including joint programming initiatives between Member States, in the preparation and establishment of networking structures and the design, implementation and coordination of joint activities. Key actors in ERA-NETs are national (or regional) research funding agencies. The scheme also includes EU topping-up for trans-national calls for proposals. ERA-NET Cofund is based on the merger of the former ERA-NET and ERA-NET Plus actions and is implemented by using 'programme co-fund actions'. It allows for programme collaboration in any part of the entire research-innovation cycle. The main and compulsory activity of the ERA-NET Cofund under Horizon 2020 is the implementation of a co-funded joint call for proposals that leads to the funding of trans-national research and/or innovation projects (one co-funded call per Grant Agreement). In addition, research funding organisations may launch additional joint calls using national resources. In 2017 there were 8 ERA-NETs and 11 ERA-NETs plus from FP7, and 46 ERA-NET Cofunds.

Article 185 initiatives¹⁰

Article 185 initiatives (A185s) are long term public-public partnerships established on a voluntary basis by EU Member States that are also eligible for a substantial financial contribution from the EU Research Framework programme. They are established through the EU ordinary legislative procedure and require a Dedicated Implementation Structure (DIS). They aim to address common challenges in specific research areas by creating economies of scale and synergies between national and EU research programmes and investments. Their ambition is to achieve scientific, managerial and financial integration amongst national research programmes in a given field. Six A185s are ongoing: they feature a high degree of diversity in terms of scope, participation, management and funding modes.

Joint Programming Initiatives (JPI)¹¹

The JPI initiatives aim at the development of a long-term strategy for joint programming tackling key common European challenges. They are funded and implemented by the Member States. The Commission provides support for their management through Horizon 2020 Coordinated and Support Actions, but no additional funding is provided to fund research projects. Member States participating in a JPI define a shared vision of the area through a Strategic Research Agenda (SRA) and define implementation mechanisms, including joint calls and other activities (capacity building, dissemination, evaluation, etc.). In 2017 there were 10 active JPIs (as mentioned above, part of the ERA-NET Cofunds are actually initiated by JPIs). They have a longer-term horizon and higher political commitment than ERA-NETs.

⁸ http://ec.europa.eu/research/era/era-net_en.htm

⁹ For a more detailed description and analysis of instruments in sections 3.1, 3.2 and 3.4 see Boekholt et al. (2017), op.cit.

¹⁰ http://ec.europa.eu/research/era/art-185_en.htm

¹¹ http://ec.europa.eu/research/era/joint-programming_en.htm

3.2. Public-Private Partnerships (PPPs)

European Technology Platforms (ETP)¹²

ETPs are industry-led stakeholder forums recognised by the European Commission as key actors in driving innovation, knowledge transfer and European competitiveness. The 41 existing ETPs develop research and innovation agendas and roadmaps for action at EU and national level to be supported by both private and public funding. They do not have earmarked funding. They mobilise stakeholders to deliver on agreed priorities and share information across the EU. They also act as facilitators for the preparation of collaborative projects.

Joint Technology Initiatives (JTIs)¹³

The majority of JTIs emanate from European Technology Platforms (ETPs): they are established with a view to implementing their Strategic Research Agendas. JTIs are long term strategic agreements that combine private and public (EU and national) funding sources, including ESIF. The EU Council adopts provisions for the establishment of JTIs after consulting the European Parliament. The seven existing Joint Undertakings (JUs) implement actions under the strategic agendas defined by the JTIs. The calls are open to members of the JTI, and often also to other actors.

Contractual Public Private Partnerships (cPPP)¹⁴

The nine existing cPPP carry out breakthrough research in broad cross-sectoral and societally-relevant themes. They are more flexible and lighter structures than the JTIs and are based on a memorandum of understanding and a contractual arrangement between the Commission and an association representing the interests of the private sector. The association is consulted during preparation of the H2020 work programme and a budget is ring-fenced for its thematic area in Horizon 2020. However, calls launched under H2020 in the relevant field are open to all participants regardless of their participation in the cPPP.

3.3. COST¹⁵

Founded in 1971, COST is an intergovernmental framework for European co-operation in the field of Scientific and Technical Research. Its aim is to foster the co-ordination of nationally funded research on the European level. COST actions promote basic and pre-competitive research as well as cooperation between enterprises and R&D institutions. COST actions are used to finance cooperation between researchers and the coordination of this cooperation, but not the research itself. Once approved, the COST Actions receive funding of €130 000 per year for four years. 35 European countries are members of COST. Funding from COST comes principally from the European Commission (DG RTD) through a grant agreement, and the annual €300m budget comes from two H2020 programmes ('Societal Challenge 6' and 'Spreading Excellence and Widening Participation').

¹² <http://ec.europa.eu/research/innovation-union/index.cfm?pg=etp>

¹³ <http://ec.europa.eu/research/jti>

¹⁴ http://ec.europa.eu/research/industrial_technologies/ppp-in-research_en.html

¹⁵ <http://www.cost.eu>

3.4. EIT and KICs¹⁶

The European Institute of Technology (EIT)'s Knowledge and Innovation Communities (KICs) are strategic partnerships that bring together businesses, research centres and universities under the broad theme of societal relevance. Contrary to the programmes discussed so far, national authorities are not formal participants in the KICs. KICs aim at strengthening cooperation between the participating actors by forming structural pan-European partnerships and creating favourable environments for innovation in their domain. The activities of the six KICs are driven by the desire to find solutions to major societal challenges which have high innovation potential. The KICs activities include: training and education programmes, research commercialisation, innovation projects, as well as business incubators and accelerators. The EIT and KICs have been integrated into the FP since H2020 (as indicated in Figure 1 above). The KICs are established as separate and autonomous entities, which receive annual funding from the EIT, limited to 25% of KICs' overall funding sources during its lifetime. KICs find their other funding from governmental funds, the private sector, H2020, Structural Funds, with the aim of becoming self-sustainable (i.e. not dependent on EIT funding) in the long run.

3.5. Macro-regional strategies¹⁷ and Interreg programmes¹⁸

Europe has adopted four Macro-regional strategies. These are integrated frameworks endorsed by the European Council to address common challenges faced by a defined geographical area that would benefit from strengthened cooperation across Member States in various domains and contribute to the achievement of economic, social and territorial cohesion. Those strategies are intergovernmental initiatives and their implementation relies heavily on the commitment of the participating countries. Each strategy involves a broad range of actors at various levels (international, national, regional, local), sectors (public, private, civil society), and fields of expertise, thereby providing a platform for coherent multi-country, multi-sectorial and multi-level governance. Macro-regional strategies do not have associated budgets but may be supported by the European Structural and Investment Funds, in particular Interreg programmes that overlap with the areas of these strategies.

The Interreg programmes aim at achieving one of the two goals of the EU Cohesion Policy – promoting European Territorial Cooperation – and are funded by the European Regional Development Fund (ERDF). The three¹⁹ types of Interreg programme fund cross-border, trans-regional and inter-regional cooperation, with a total budget of €10.1 billion for the 2014-2020 period. This money is invested through Operational Programmes in the defined zones, covering 11 investment priorities (thematic objectives, including research and innovation), and fall under the responsibility of Managing Authorities. The value-added of Interreg programmes takes different forms: building critical masses that transcend borders; combining the diverse assets, skills and resources that characterise European economies; and learning from each other through joint projects, experimentation and exchanges of experience.

¹⁶ <https://eit.europa.eu/activities/innovation-communities>

¹⁷ http://ec.europa.eu/regional_policy/en/policy/cooperation/macro-regional-strategies/

¹⁸ <https://interreg.eu/about-interreg/>

¹⁹ In addition, Interreg IPA CBC supports cross-border co-operation between candidate countries, potential candidate countries and EU Member States, to contribute in their accession preparations with a territorial and cross-border focus.

3.6. The Vanguard Initiative²⁰ and Smart Specialisation Thematic Platforms²¹

The Vanguard Initiative and the Smart Specialisation Thematic Platforms are networks aimed at facilitating the development of innovative projects that exploit the benefits of trans-regional collaboration along value chains that have been made more visible by the adoption of Smart Specialisation Strategies (S3) in European regions. They have some characteristics that differentiate them from the networks and schemes discussed earlier. Contrary to P2Ps and PPPs, they are not organised around calls for research projects; they rely fully on bottom-up initiatives; and they place regions at the forefront. Neither the Vanguard initiative nor the S3 Thematic Platforms have associated budgets for the implementation of the concrete projects developed by their partnerships.

The Vanguard Initiative was initiated by several European regions. By joining forces, they aimed to exploit the potential of their smart specialisation strategies and boost growth through bottom-up entrepreneurial innovation and industrial renewal in European priority areas. The initiative is industry-led and relies on the political commitment of regional authorities in each of the (currently 30) participating regions. The partnerships, working on a variable geometry basis, first carry out detailed examinations of capability, competence and capacity in a number of targeted fields within the regions. Secondly, they work with industry stakeholders to develop joint demonstration projects. Interregional cooperation is developed to enable investment in EU value chains. The Vanguard initiative aims to provide a more bottom-up approach than large-scale P2Ps or JTIs, with a stronger focus on SME participation.

The European Commission has taken on board the experience of the Vanguard Initiative and has launched three S3 Thematic Platforms with a methodology inspired by the Vanguard experience. The aim of the Thematic Platforms is to create an investment pipeline of mature projects in new growth areas across the EU. The Platforms, managed by the European Commission's Joint Research Centre, provide expertise, advice and networking opportunities through workshops and seminars.

²⁰ <http://www.s3vanguardinitiative.eu/>

²¹ <http://s3platform.jrc.ec.europa.eu/s3-thematic-platforms>

4. Lessons

4.1. *General lessons related to getting more benefits from EU networking opportunities*

For governments, promoting the participation of domestic research actors in a variety of EU networks calls for action on two fronts:

1. Developing better national strategies to position the country in the wide web of EU-level initiatives, programmes and networks. The goal of internationalisation/Europeanisation of research should therefore be well integrated into national strategies. This also includes efforts geared towards increasing the visibility of these networking opportunities (better national information, mapping exercises);
2. Providing funding incentives to research actors to facilitate their participation in EU networks of different kinds (beyond H2020 research consortia²²).

Individual Public Research Organisations or HEIs may also set up mechanisms facilitating entry into the competitive H2020 consortia. One example of such an initiative taken by a university is provided at the end of this section 4.1.

Developing national strategies for participating in EU networks and programmes

In order to benefit from opportunities offered by the large variety of EU-level programmes listed in Section 3, it is important to develop **national strategies** to create synergies between these programmes and the national systems, and to facilitate access to EU networks and programmes.

Several evaluations and reports (e.g. Boekholt et al. 2017²³) have highlighted the huge **complexity of the landscape** faced by potential participants given the large number of programmes and networks active at European scale, often addressing the same activity domains, albeit with different goals and approaches. The lack of synergies between the two P2P and PPP families of instruments has also been criticised by Boekholt et al. (2017) and adds to the overall confusion in the landscape. Small and less research-intensive Member States in particular cannot afford to be present in all initiatives. Hence there is a need for them to obtain a clear overview of existing networks and programmes and to use effective prioritisation mechanisms to decide where they should direct efforts and invest public money.

These questions have been covered by the **MLE on "Alignment and interoperability of national research programmes"**²⁴. That MLE identified the conditions needed to raise participation and get more benefits from Joint Programming processes (as well as some good examples of how to reinforce these conditions). These conditions include:

- Adopting a national research and innovation policy that includes a well-articulated international/ERA dimension;
- Engaging various Ministries beyond the Research Ministry, at both a high political level (to increase political commitment) and at a more operational level;
- Implementing effective criteria and processes to prioritise national participation in the various EU networks/programmes;

²² The latter incentives are covered under Topic 4 of this MLE.

²³ Op.cit.

²⁴ See detailed recommendations and good practices on <https://rio.jrc.ec.europa.eu/en/policy-support-facility/mle-alignment-and-interoperability-research-programmes-national-coordination>

- Ensuring appropriate budgetary sources to participate in EU-level programmes and developing rules for interoperability;
- Using suitable mechanisms to bring in stakeholders (including those outside of the research community) at the implementation stage;
- Monitoring and evaluating participation in Joint Programming programmes.

To get an overview of the scope of such strategic activities when deployed at national level, one option is to look at Member States' and Associated Countries' National Action Plans (NAPs) for the ERA. These NAPs have been adopted with a view to translating EU priorities in the ERA Roadmap 2015-20 into national contexts. The ERA Priority 2a – jointly addressing grand challenges – states that *“improved cross border collaboration between national research actors should reduce fragmentation and duplication of effort, make best use of resources and help provide the benefits of scale required to tackle issues which require large concerted efforts.”* The sections of the ERA NAPs dealing with this priority are thus closely linked to the Topic of the present MLE. The ERAC-GPC (High Level Group for Joint programming) carried out an analysis of NAPs ²⁵ while reviewing the ERA progress report 2016²⁶. The conclusions of the analysis are that countries are implementing actions on four fronts:

- Governance: establishing national coordination structures to coordinate participation in P2Ps; engaging in strategic networking; working towards alignment between national and EU programmes;
- Communication and uptake: improving communication between policy-makers and research stakeholders and wider society around participation in EU networks; promoting visibility of networking of science and its benefits (mapping, websites, events, dissemination of information, etc.); ensuring involvement of stakeholders and end-users;
- Funding at programme level: ensuring budgetary commitments to JPis, use of ESIF, funding schemes to support transnational cooperation; harmonisation of funding rules to facilitate national participation in JPis;
- Monitoring: mapping and assessing state of EU networking.

These conclusions are well in line with the findings of the MLE on 'Alignment and interoperability of national research programmes'. Two illustrations of strategic approaches to participation in EU networks by EU13 Member States are provided below:

- The national strategy of **Estonia**²⁷ determines the principles of state participation in EU partnerships, describes the decision-making process for making the selection, and outlines the tasks of the various stakeholders. The framework encompasses joint programmes based on Article 185 of the Treaty on the Functioning of the European Union, Joint Programming Initiatives (JPI), Joint Technology Initiatives (JTI), the Knowledge and Innovation Communities (KIC) of the European Institute of Innovation and Technology, FET (Future and Emerging Technologies) partnerships, infrastructure (incl. European Research Infrastructure Consortia (ERIC)) on the roadmap of the European Strategy Forum on Research Infrastructures (ESFRI), and ERA-NET joint calls. In terms of good practice, the Estonian Research Council (ETAg) supports science advisors in Sectoral Ministries. These advisors are regularly trained and supervised by ETAg in H2020 and ERA

²⁵ ERAC-GPC (2018), Working paper: final report of the task force – Priority 2a, WK 432/2018 INIT.

²⁶ http://ec.europa.eu/research/era/eraprogress_en.htm

²⁷ <http://www.etag.ee/en/cooperation/eu-partnerships/>

activities to increase the capacity of the ministries to participate in these activities or fund them.

- **Malta**²⁸ has developed a specific approach to participation in European strategic initiatives, in particular the Joint Undertakings and Joint Programming Initiatives. This approach takes into account the small size of its research community and national public R&D budgets. As indicated in its NAP, its strategy is based on *“the need to align closely with the priorities of the National R&I Strategy and to support the smart specialisation areas (RIS 3). Initially, participation in the Joint Programming Initiatives was to focus on JPND and JPI Oceans, since these initiatives are clearly in line with the National R&I Strategy and the smart specialisation priorities. However, due to resource constraints and the timing of the calls, a decision was taken to focus on strengthening participation in JPI Oceans. This is also due to the higher level of interest on the part of local stakeholders in this initiative. Strengthening participation in JPI Oceans will be undertaken by mapping the full range of local stakeholders with an interest in this initiative in the public and private sectors and securing resources for effective participation. The aim is to define a more strategic approach to participation.”* Another action is the development of *“The online web-based portal PlumTri (Platform for Maltese Research and Innovation) plumtri.org to ensure more effective and targeted dissemination of information on the Joint Undertakings, Joint Programming Initiatives, COST and H2020 to the relevant stakeholders. The aim is to progress towards the setting up of online communities for each of the initiatives Malta is active in and thereby provide easier and faster access for local stakeholders to relevant information and contacts.”*

Financial support for participation to international networks

Along with national strategic initiatives and the ring-fencing of national budgets for funding country participation in EU-level programmes and networks, financial incentives may be developed at national or regional level to facilitate the participation of domestic actors in such networks.

- The Agency of Innovation and Development of **Andalusia** (IDEA) manages a programme to foster International R&D&I²⁹, which provides several types of grants to Andalusian SMEs to stimulate their participation in international networks³⁰:
 - Grants to support SMEs in submitting projects within international calls for proposals, covering external technical assistance for tasks related to partners search and proposals drafting (max. €10k and 75% of costs);
 - Grants to support SMEs involved in international partnership projects (ERA-NETs, Joint Programming Initiatives, Joint Technology Initiatives) or an international agreement (Eureka, Iberoecka) that had not obtained funds despite positive project evaluations;
 - Grants to support SMEs (possibly in collaboration with Technology or Technology and Innovation Centres) that are involved in projects approved by the JTI Cleansky. These grants fund complementary R&D projects approved by the Cleansky evaluation committee that are additional to those funded by EU money. The projects may run in parallel or after the EU-funded projects. A complementary action may also involve Andalusian SMEs that did not participate

²⁸ https://era.gv.at/object/document/2763/attach/MT_National_ERA_Roadmap_2020.pdf

²⁹ See presentation at the Madrid workshop of this MLE: <https://rio.jrc.ec.europa.eu/en/policy-support-facility/mle-widening-participation-and-synergies-between-horizon-2020-and-esif>

³⁰ In addition, Seal of Excellence grants are available for SMEs applying to the H2020 SME instrument, which have been scored 12 or more but haven't been funded by H2020.

in the initial project, provided that this is approved by the Cleansky evaluation committee.

- In **Estonia**, the programme Mobilitas Plus³¹ of the Estonian Research Council provides grants to Estonian researchers for participation in international research networks and projects:
 - Horizon 2020 ERA-NET support: these grants enable Estonian research and development institutions to cover the research costs of participating in Horizon 2020 ERA-NET projects (€150k/project);
 - Horizon 2020 EIT support: these grants cover the travel and staff costs of the participation of Estonian research and development institutions in the work of Knowledge and Innovation Communities (KICs) (€30k per year for up to two years). The Estonian Genome Centre of the University of Tartu is a partner of EIT Health. The Centre has received 10 times more funding from the KIC than they have paid as co-financing³².

Organisation-level initiatives to facilitate entry into competitive H2020 networks

Some Research Performing Organisations, besides facilitating the participation of their own researchers in EU networks, have also taken initiatives aimed at lowering barriers to H2020 participation by actors from less-research intensive countries:

- **CELSA**³³ (Central Europe Leuven Strategic Alliance) was founded in 2016 at the initiative of the Belgian University of Leuven, together with 7 old and famous universities in 4 cities in countries in the EU13: Budapest (Hungary), Ljubljana (Slovenia), Tartu (Estonia), Prague (Czech Republic). CELSA organises training courses, exchanges of practice in common issues such as peer-reviewing, education evaluation, research assessment, open science, knowledge transfer, and in particular the setting-up of collaborative projects for research programmes like Horizon2020 and education programmes like Erasmus+. The CELSA Research Fund supports collaborative research projects. The Fund's purpose is to set up new scientific collaborations between the CELSA partners. Projects are funded for two years and help leverage competitive funding from European Commission programmes such as Horizon 2020.

4.2. Lessons related to specific programmes and networks

ERA-NETs

A mapping exercise of country participation in ERA-NETs³⁴ indicated a strong correlation between the R&D intensity of countries and the frequency of their participation in ERA-NET programmes (Figure 4)³⁵. Those countries that invest most heavily in the ERA-NET programmes, are unsurprisingly, those countries that are large beneficiaries of H2020 funding³⁶. However, there are also a number of less R&D-intensive countries that have a

³¹ <http://www.etag.ee/en/funding/partnership-funding/mobilitas-plus-partnership-and-co-operation/>. In addition the Horizon 2020 ERA chair support covers the research costs of Horizon 2020 ERA chairs in public research institutions.

³² From presentation at JRC workshop “Pilot training for national/regional authorities with low H2020 participation on optimising the use of H2020 in implementing RIS3”, Brussels, 15 February 2018. <http://s3platform.jrc.ec.europa.eu/-/pilot-training-for-national-regional-authorities-with-low-h2020-participation-on-optimising-the-use-of-h2020-in-implementing-ris3>

³³ <http://celsalliance.eu/about.html>

³⁴ S. Elena Pérez (2010), *Mapping ERA-NETs across Europe: overview of the ERA-NET scheme and its results*, JRC Scientific and Technical reports, Luxembourg: Publications Office of the European Union.

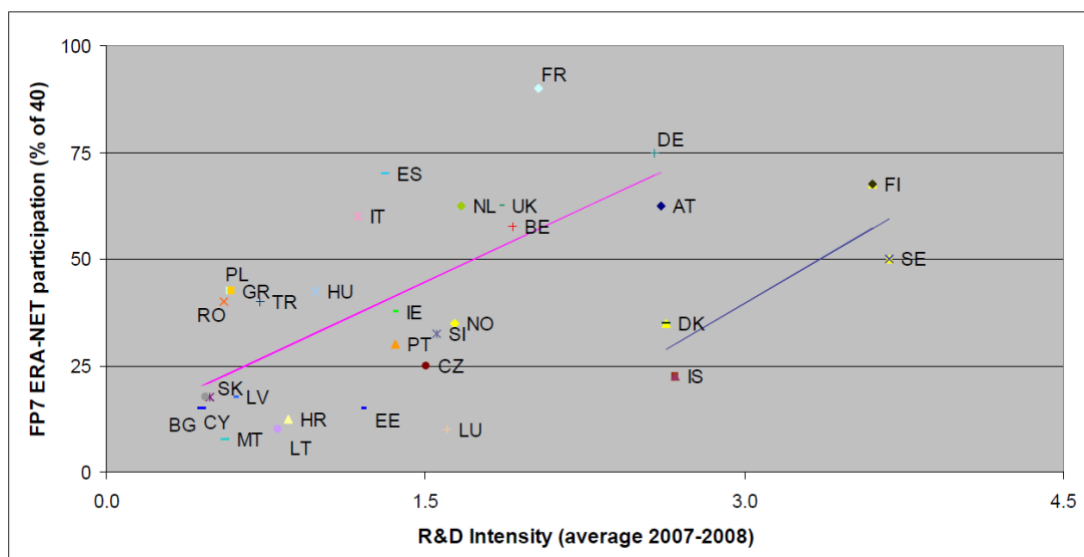
³⁵ The picture is similar for FP6.

³⁶ See annex for an overview of funding from H2020 for all MS, and EU15 and EU13 countries.

higher involvement in ERA-NETs than their R&D intensity would suggest, namely Greece, Hungary, Poland, Romania and Turkey (FP7 data).

Under the ERA-NET Cofund scheme, the EU13 Member States that have the highest committed budget (for EU co-funded calls) are: Poland, Romania, Latvia, Cyprus and Slovenia³⁷.

Figure 4. Country participation in ERA-NETs in FP7 and R&D intensity



Source: S. Elena Pérez (2010)

The evaluation of ERA-NET schemes points towards **networking benefits** brought by these programmes, which act as **intermediary layers between national programmes and FP participation:**

- The evaluation of the FP6 ERA-NETs states that “the most tangible impact of the FP6 ERA-NET scheme on national programmes related to the creation of new opportunities for research beneficiaries who would otherwise be excluded from the regular FP to engage in transnational research. It filled a gap between national research policies and the transnational research agenda generated at European level through the FPs”³⁸;
- The analysis of the ERA-NET Cofunds under H2020 reports that “the vast majority of national representatives state that their countries will retain their current level of participation in ERA-NET Cofund, while the majority of EU-13 national representatives are planning to increase their involvement by a moderate amount.”³⁹

The latter analysis includes a list of barriers to participation in ERA-NET Cofunds by EU13 countries. Most of them resonate well with the lessons mentioned in section 4.1 concerning

³⁷ Data from ERA-LEARN 2020 (2017), *15 years of European Public-public partnerships in research and innovation*. <https://www.era-learn.eu/publications/other-publications/15-years-of-european-public-public-partnerships-in-research-innovation>

³⁸ Matrix Insight, Rambøll (2009), *FP6 ERA-NET Evaluation–Summary*, European Commission https://ec.europa.eu/research/evaluations/pdf/archive/other_reports_studies_and_documents/fp6_era-net_evaluation_-_final_report_-_volume_1.pdf

³⁹ Götke N., Amanatidou E., Ispas I., Julkowska D., Serrano J. 2016 *Analysis of ERA-NET Cofund actions under Horizon 2020. Final report of the expert group*. European Commission <https://www.era-learn.eu/publications/ec-publications/analysis-of-era-netcofund-actions-under-horizon-2020>

the importance of developing national strategies for participating in EU networks and programmes.⁴⁰

- *“Missing strategies at national level for encouraging public-public partnerships;*
- *Unclear/not defined national priorities for participation in ERA-NETs for almost all EU-13 countries;*
- *The Cofund instrument is still not seen at national level as a framework under which multilateral cooperation with all EU countries could take place;*
- *Lack of available budget for investment;*
- *Shortage of administrative resources;*
- *Lack of awareness of the Cofund instrument;*
- *Lack of experience with the tasks at hand or WP leadership;*
- *Complicated national administrative procedures.”*

Many (15 out of 27) ERA-NET Cofunds have developed new features aiming at the **establishment of specific measures to encourage the participation of Widening countries**⁴¹. These include:

1. Offering brokerage support and partner search tools (for all participants, but of particular benefit to EU13 actors);
 - The **M-ERA.NET**⁴² has implemented a mapping activity that aims to support the transnational networking of clusters and competence centres in the thematic areas of M-ERA.NET by providing national/regional companies and research groups with a database to find matching partners for their business and research.
2. Including work packages dedicated to capacity building for new members (e.g. the development of competences for WP / task leadership roles);
 - The **Biodiversa ERA-NET Cofund**⁴³ has a WP dedicated to ‘Strengthening and expanding the network: integrating new partners and providing processes’. In this framework, a Staff Exchange programme was carried out to strengthen and enlarge the relationships between new member agencies, to better integrate partners to the consortium and contribute to the information flow within the organisation. The vision for a Staff exchange scheme is one that connects and integrates the new member agencies and introduces them to the network of the consortium, while setting up a particular topic to focus on during each staff exchange visit.
3. Increasing the maximum number of partners in a Cofund proposal if EU13 participants are added;
4. Launching targeted calls for EU13 participants, taking into account S3 and topics of specific interests;

⁴⁰ Op.cit.

⁴¹ Op.cit.

⁴² <https://m-era.net/other-joint-activities/clusters-and-competence-centers>

⁴³ <http://www.biodiversa.org/501>

5. Allowing EU13 partners to join research consortia at a later stage (i.e. after the pre-proposal stage).

Article 185 initiatives

The recent meta-evaluation⁴⁴ of Article 185 initiatives finds that those programmes display **high entry barriers for low-performing countries**. One of its conclusions is that *“there are significant barriers to participation for the less R&D intensive countries including how the underexploited synergies with the Structural Funds can be realised in practice”*. The evaluation adds that *“additional financial resources from EU co-funding are the most important value-added feature for the less R&D intensive countries. At the same time, competitive funds in these countries are even more ‘scarce’ than in the R&D intensive countries, making it even more challenging for them to co-fund national participants at a comparable level of the more research-intensive countries. This is made even worse if the only activity of an Article 185 initiative is to implement multiple joint calls for collaborative R&D projects that have a high level of scientific intensity. This is, for example, one of the conclusions from the final evaluation of the BONUS Article 185. Also, the less research-intensive countries do not seem to be very influential in setting the strategic agenda for the Article 185s.”*

A more promising feature of Article 185 initiatives is the **success rate of proposals**, which varies from 23% in AAL2 to 33% or 34% in EDCTP2 and EUROSTARS2 respectively. These success rates are significantly higher than the average success rate for Horizon 2020 applications (11.6%) or those of FP7 (18.5%)⁴⁵.

European Technology Platforms (ETPs)

An enquiry⁴⁶ was carried out in **Denmark** in 2009 to understand the practices developed by individual R&I organisations to better position themselves in the EU FP and influence its annual work programmes. While the most common strategy used was ‘participation in conferences, workshops and other network activities’, one third of the participants also mentioned ‘Participation in European Technology Platforms and / or input to Strategic Research Agendas’. Of all the mechanisms used, the latter was rated as the most effective mechanism to influence FP work programmes. Interviewees also highlighted the fact that EU Platforms *“are becoming more important in shaping the EU research agendas, so it is vital that Denmark plays as full a role as possible”*.

Enquiries such as the one conducted by the Danes provide the knowledge-base needed to underpin the formulation of appropriate, context-dependent strategies designed to increase participation in FPs and shape their direction in the national interest. However, such strategies are much more likely to be a realistic option for strong and large actors from R&D intensive countries than for smaller players.

Joint Technology Initiatives (JTIs)

While the overall view of industry partners and researchers about the benefits of JTIs is positive, there have been, according to the review of (Boekholt et al. 2017)⁴⁷, *“some concerns that there is not enough visibility surrounding the JTIs ‘sort of like closed clubs’ ”* and a sense that *“JUs don’t seem eager to attract new partners”*, even if there is no clear evidence to support this claim. The review notes that JUs do not publish data on the

⁴⁴ Meyer-Krahmer F., Hunter, A., Nauwelaers C., Galetta D-U., Santos F. (2017), *Meta-Evaluation of Article 185 Initiatives Report of the Expert Group*. European Commission - ISBN 978-92-79-71486-3. https://ec.europa.eu/research/evaluations/pdf/a185_meta_evaluation_expert_group_report.pdf

⁴⁵ Data from ERA-LEARN 2020 (2017), . <https://www.era-learn.eu/publications/other-publications/15-years-of-european-public-public-partnerships-in-research-innovation>

⁴⁶ Danish Agency for Science, Technology and Innovation (2010), *Evaluation of Danish Participation in the 6th and 7th Framework Programmes*, Research: Analysis and Evaluation 2/2010.

⁴⁷ Op. cit.

allocation of funds by type of participant or by country, even if the inclusion of such data in their publicly available annual activity reports is compulsory.

While all JUs formally work under an open access policy, there is an 'entry ticket'⁴⁸ for membership. This involves considerable sums of money and may constitute a barrier to entry for smaller participants. Some JUs launch calls that are open to non-members or have established systems where a share of the calls budget is reserved for non-members, but this is not the common practice.

In contrast to the above examples of the 'closed club' nature of some JTIs, interesting cases of openness are provided by two JUs:

- The **Clean Sky Joint Undertaking (CSJU)**⁴⁹ is a Joint Undertaking of the European Commission and the European aeronautics industry. The JTI develops innovative, cutting-edge technologies aimed at reducing CO₂, gas emissions, and noise produced by aircrafts. The Clean Sky 2 Programme is resourced with a total budget of €4 billion. CSJU encourages synergies with ESIF by allowing complementary activities to be proposed by applicants to CSJU Calls and by broadening the scope, adding parallel activities or continuing CSJU co-funded project/activities through ESIF in synergy with the Clean Sky 2 Programme and its technology roadmap. The CSJU also encourages the use of ESIF to build and enhance local capabilities and skills in fields related to the Programme, in order to enhance the level of European competitiveness of stakeholders in this area.

At a strategic level, the CSJU has developed a coherent and comprehensive policy strategy and an action plan on synergies for Member States and regions that are interested in investing ESIF within the aeronautics area and other related technology domains. In this regard, the CSJU is developing closer interaction with interested Member States and Regions in Europe by discussing strategies and possible cooperation via a tailor-made approach, which includes the signing of a Memorandum of Understanding (MoU). While keeping the funding processes and rules of each competent authority separate, the purpose is to identify and apply mechanisms for ensuring synergies through ESIF in research and innovation projects from a specific Member State or region. So far, CSJU has signed twelve MoUs at a national or regional level. The approach is based on the complementarity of projects, rather than on the co-funding of a single project.

- The **Bio-Based Industries Joint Undertaking**⁵⁰ has signed MoUs with several Polish regions in order to establish a close collaboration aimed at strengthening their potential, creating synergies, sharing experiences and achieving mutual benefits in joint actions. These regions have selected bioeconomy in their smart specialisation strategies (RIS3) and have dedicated significant amounts from ESIF to them. This is in line with the objectives of the Bio-Based Industries Joint Undertaking and Bio-based Industry Consortium, which aim at the development of sustainable and competitive bio-based industries in Europe and at bridging research and innovation gaps within EU by promoting synergies with ESIF.

Contractual Public Private Partnerships (cPPP)

Data from the implementation of cPPPs in 2014, 2015 and 2016 indicate a huge concentration of funding in the same Member States that dominate H2020 funding profiles. Hence cPPPs are **unlikely to provide 'easy entry points' for low research intensity Member States** seeking to use such networking opportunities to improve their

⁴⁸ Cited in European Commission (2017), *Commission Staff working document Interim evaluation of Horizon2020, Annex I, SWD (2017), 221 final.*

⁴⁹ Source: www.cleansky.eu/structural-funds-and-regions

⁵⁰ <https://www.bbi-europe.eu/news/bbi-ju-signs-letter-intent-develop-bioeconomy-partnerships-central-and-eastern-regions-0>

participation in FP. Achieving better engagement of New Member States has also been pointed out as a challenge for cPPPs in the review of R&I partnerships by Boekholt et al. (2017)⁵¹.

COST

COST has several features antithetical to 'closed clubs' that could be adopted more widely:

1. COST has a strategic goal of 'inclusiveness'⁵², which includes the three dimensions of geographical spread; career stage (involving early career investigators⁵³) and gender balance. Under the 'geographical spread' element, the goal is to favour inclusion of less research-intensive COST Member States, the '**COST Inclusiveness Target Countries (ITCs)**⁵⁴'. The objectives are: 1) identifying excellence in science and technology across Europe; 2) increasing research communities' access to funding and infrastructures and 3) triggering structural changes in COST Member States' national research systems. Half of the COST budget is to be dedicated to activities for the benefit of ITC countries, with a focus on engaging researchers from ITCs.
2. COST was formerly structured into nine science and technology domains. This has been replaced by a new organisation aimed at guaranteeing a **fully open and bottom-up approach** through the establishment of a single Scientific Committee. This guarantees that all researchers have equal access to COST, independent of their domain of activity, since this has not been predetermined from above.
3. Special support that **targets research administrators from the EU-13** is given via the BESTPRAC project⁵⁵. BESTPRAC is a targeted network (not a regular COST Action) to support administrative, financial and legal services in universities, research organisations and related entities supporting researchers involved in the lifecycle of transnational external competition-based (in particular European funded) projects in order to exchange experiences and share and develop best practices, encourage knowledge sharing, knowledge transfer and increased efficiency.

Concerning the first feature, the Key Performance Indicators for inclusiveness policy presented in the 2016 COST report⁵⁶ indicated that the **inclusiveness goal had only partially been met**: the share of COST Actions budget benefitting ITC reached 32%, below the 50% target; the share of reimbursed researchers from ITS reached 32%, slightly below the target of 35-50%; and the average share of ITC by Action was 43%, within the 40-50% target. Following these results, a new package of measures was adopted, starting in 2017. These involve: 1) inclusion of ITCs already at proposal stage (based on a fixed ratio); 2) an obligation for an ITC representative to fill at least one key position in the management committee (chair, vice chair, working group leaders); 3) a new conference grant for young researchers, 4) the development of a mentoring scheme to improve payment modalities.⁵⁷

⁵¹ Op. cit.

⁵² http://www.cost.eu/about_cost/strategy/excellence-inclusiveness

⁵³ A system of anonymous proposals is established to act against a bias favouring older and well-known researchers.

⁵⁴ Bosnia-Herzegovina, Bulgaria, Cyprus, Czech Republic, Estonia, Croatia, Hungary, Lithuania, Latvia, Luxembourg, Malta, Montenegro, Poland, Portugal, Romania, Slovenia, Slovakia, the former Yugoslav Republic of Macedonia, Republic of Serbia and Turkey.

⁵⁵ This was cited in the Topic 4 report as a good example of incentive to upgrade skills for research managers.

⁵⁶ Cited in European Commission (2017), *Commission Staff working document Interim evaluation of Horizon2020*, Annex 1, SWD (2017), 221 final.

⁵⁷ Id.

KICs from the EIT

The work of EIT with the KICs has suffered from the '**closed club**' syndrome: there is a high concentration of funds in a small number of more advanced countries. This feature has been criticised in a recent report of the European Court of Auditors⁵⁸: "*The EIT financial contribution is highly concentrated in five countries (73 %)*⁵⁹ *while only two countries*⁶⁰ *of the EU 12 have received an EIT financial support (6 %). A two-speed Europe risks being further engrained, with EIT expenditure concentrated in countries with developed research infrastructure.*"

In reaction to this situation, the EIT has created an **easy access mechanism** for participants from 'outside of the core':

- The **EIT Regional Innovation Scheme** (EIT RIS)⁶¹ aims to share good practices and experience emerging from EIT Community activities and to widen participation in KIC's activities across Europe. The scheme opens up participation in KICs to actors that are not members of the KICs groups and belong to MS that are 'modest and moderate' innovators (as well as to some AC), by providing them targeted support to benefit from KICs' activities. Every year, the EIT grants funds to the Innovation Communities for EIT RIS implementation: a separate fund allows each KIC to apply for between EUR 1.5 - 4 million annually for EIT RIS activities. Starting in 2016, 10 % of the annual competitive EIT contribution to the KICs is to be allocated to support and mainstream the regional innovation scheme.

Macro-regional strategies and Interreg programmes

As argued in a report on the added value of **macro-regional strategies**⁶², the latter can be instrumental in **helping individual actors to develop new partnerships, which can then lead to FP projects**. There is no comprehensive analysis to substantiate this claim, but illustrations of this link are given through examples:

- The development of the FP7 project 'Development of a Next-generation European Inland Waterway and logistics system (**NEWS**)'⁶³ has greatly benefited from the macro-regional strategy of the Danube region (EUSDR): "*The EUSDR was crucial in the development of the project idea as it provided both a connecting point and argument for the need of the project. The EUSDR supported the project in all phases and opened up opportunities to meet relevant actors which, otherwise, might have been more difficult to approach. Concretely, the EUSDR provided the project with a Letter of Support to the FP7 programme, helped establish contact with existing networks in the Danube region and relevant actors.*"⁶⁴
- The project developed under the EU Baltic Sea macro regional strategy (EUSBSR) and funded by the Baltic Sea programme **EfficienSea**⁶⁵ (Making the Baltic Sea region pilot region for e-navigation, making maritime traffic efficient, safe and sustainable traffic) continued as a Horizon2020 project. "*Macro-regional*

⁵⁸ ECA (2016), *Special report: The European Institute of Innovation and Technology must modify its delivery mechanisms and elements of its design to achieve the expected impact.*
https://www.eca.europa.eu/Lists/ECADocuments/SR16_04/SR_EIT_EN.pdf

⁵⁹ Netherlands (24 %), Germany (15 %), France (13 %), Sweden (12 %) and United Kingdom (9 %).

⁶⁰ Poland (4 %) and Hungary (2 %).

⁶¹ <https://eit.europa.eu/activities/outreach/eit-regional-innovation-scheme-ris>

⁶² Interact (2017), *Added value of macro-regional strategies – programme and project perspective.*
http://ec.europa.eu/regional_policy/en/newsroom/news/2017/03/17-03-2017-macro-regional-strategies-what-s-the-added-value-for-projects-and-programmes

⁶³ <https://trimis.ec.europa.eu/project/development-next-generation-european-inland-waterway-ship-and-logistics-system#tab-results>

⁶⁴ Op.cit.

⁶⁵ <http://www.efficiensea.org>

cooperation offers better access to funding, as there are already established partnerships or, at least, the knowledge of relevant partners. The broad network and collaboration between the partners and with other projects was seen as a result of having a link to the EUSBSR. The H2020 funding source fitted better when the project became more mature. Where INTERREG supports projects that involve experiments and testing, Horizon 2020 offers the possibility to continue funding and developing products and services, in this case to bring e-navigation tools to the market. During its follow-up project, the partnership as well as the scope of the project have been expanded. Most of the partners are still based in the Baltic Sea region but with the inclusion of more shipping companies the focus has become more European/global.”⁶⁶

Using **Interreg programmes** as a stepping stone to FP entry is one possible option, based on the following two arguments:

- Interreg programmes are less competitive than H2020, hence access to this type of funding source is easier;
- Partnerships are formed in limited neighbourhoods (especially cross-border collaboration programmes) and this is easier to achieve than the development of partnerships on a wider EU scale.

However, the evaluation of Interreg for the period 2007-2013⁶⁷ does not really support this latter claim. The evaluation found that *“one of the key benefits of the Interreg programmes is their contribution to enhanced cooperation among a wide range of stakeholders (such as research centres and universities, SMEs, public authorities in charge of environment), through formal and informal networks, institutionalised links and more ad hoc connections (such as partnerships for joint research and sharing of practices).”* However, the evaluation was critical concerning *“the depth of cross-border cooperation actually achieved through programme implementation, and more importantly, concerning the sustainability of cooperation”*. The analysis of sustainability of projects shows a rather negative picture: *“due to the barriers faced by national/regional funding sources to provide funding on a cross-border basis, the Interreg-funded projects depend on this funding source to continue. A frequent situation is that of repeated applications to successive generations of the same programme: this is an indication of the difficulty for organisations and project partnerships to secure funding through other sources. Also, the absence of private actors as direct beneficiaries of Interreg projects, and the low level of private co-financing of projects act as a **barrier for the constitution of FP-oriented public-private partnerships**”*. Even in cases where mention was made of Interreg projects being potentially continued through FP projects, barriers do exist:

- **Interreg IV North⁶⁸** (cross-border programme between Norway, Sweden and Finland): *“a very limited number of projects have reached the stage where they can envisage an application to FP7 or Horizon 2020. Interreg projects may act as a first step towards accessing the European Framework Programme (FP): while a few projects reported attempts in this direction, this is likely to be insufficient to ensure the continuation of the learning supported by Interreg North (9 applications have been recorded by the programme). **The goal of the EU FP is quite different and for many the step is too high to take.**”*

For Member States with limited funding from mainstream ESIF, and with numerous internal EU borders, Interreg programmes may represent an important source of public funding

⁶⁶ Op.cit.

⁶⁷ ADE (2016), *European Territorial Cooperation: Work Package 11 - Ex-post evaluation of Cohesion Policy programmes 2007-2013, focusing on the European Regional Development Fund (ERDF) and the Cohesion Fund (CF)*, Brussels. http://ec.europa.eu/regional_policy/en/policy/evaluations/ec/2007-2013/#11

⁶⁸ http://ec.europa.eu/regional_policy/sources/docgener/evaluation/pdf/expost2013/wp11_interreg_4a_north.pdf

that can be used to develop trans-border R&D partnerships. This potential was largely unexploited during the period 2007-2013 due to a situation where "*there was little ownership of the programmes by national and regional authorities, so that **potential complementarities with mainstream programmes were rarely explored.***" Moving in a new direction that exploits such synergies is a potential way forward for Interreg programmes to act as a stepping stone to entry into wider R&D partnerships. Some frontrunner programmes exist:

- In the **Interreg IV Flanders-Netherlands**, the value-added of cross-border cooperation is firmly acknowledged in the field of R&D and innovation. The establishment of specialised infrastructure is a major outcome of the programme. This can take the form of knowledge infrastructure with clear complementary character, including provisions for shared use by actors on the two sides of the border. Successful projects support cross-border applied research involving public and private actors, leading to innovation based on complementary assets; or the creation of 'virtual research labs' that allow universities and PROs in the area to work together.

The Vanguard Initiative and Smart Specialisation Thematic Platforms

There are **no formal barriers to entry** into the Vanguard Initiative and Smart Specialisation partnerships. The only condition to become an active participant in such networks is to have the capacity to develop joint pilots and demonstrators based on high skills and appropriate infrastructure. This open situation is related to the fact that no direct funding is accessible to participants in the partnerships, which provides a better frame for 'open clubs' situations.

The JRC Smart Specialisation Platform, recognising how difficult it is for less research-intensive Member States to participate fully in S3 and innovation-oriented partnerships, has developed the '**Stairway to Excellence**' (S2E) project. This provides tailored assistance to the EU13 Member States and focuses on the attainment of synergies between ESIF and FP.

5. Challenges

The evidence and lessons presented in section 4 concerning the various opportunities offered by the wide web of EU-level opportunities for networking in research and innovation result in a mixed picture:

1. Many of these networks (in particular Article 185 initiatives, cPPPs, JTIs, KICs) demonstrate aspects of 'closed clubs' that are similar to those faced by new candidates for H2020 partnerships. In this respect, it is hard to see how these networks can play a facilitating role and act as a stepping stone to FP participation for those smaller players at the periphery of the 'H2020 core'. In addition, the complexity of the landscape in which these initiatives exist presents another difficulty;
2. However, for some 'closed clubs' networks (notably KICs, JTIs) and also COST and ERA-NETs, a number of promising initiatives aiming at fostering openness to new participants do exist. If further developed, these could help new participants, in particular those from less-research intensive countries, to enter into the 'closed club' of H2020. These promising '**openness mechanisms**' provide a good basis for discussion in the MLE workshop devoted to this Topic;
3. Some networks (typically Interreg-funded networks and bottom-up partnerships around S3) are not characterised by 'closed club' features. As such there is **an unexploited potential** for them to act as stepping stones to more ambitious FP partnerships. How to leverage this potential is another issue for discussion in the MLE workshop.

These conclusions generate questions that deserve to be debated in the MLE workshop devoted to the Topic of 'Improving networking through participation in EU-level initiatives'.

Questions to focus the discussion of this Challenge Paper in the meeting in Dublin on 22-23 March 2018

Q1: How should national ERA strategies prioritise participation in particular networks given the wide variety of EU-level networks that exist, some of which suffer from a 'closed club' syndrome?

Q2: Which incentives best motivate research performers, from the public and private sectors, to engage into EU level networks? Are financial incentives an imperative?

Q3: What is the most effective way of fostering the desire to participate amongst domestic actors? Does the mapping of national participation in EU networks help? Do evaluations that demonstrate benefits help? How can evidence concerning benefits best be communicated to national actors?

Q4: What are the lessons to be learnt from Member States that have implemented strategies aimed at lowering barriers to entry into EU networks? What are the lessons to be learnt from the 'COST inclusiveness strategy' and the 'EIT Regional Innovation Scheme in KICs'?

Q5: Is preferential treatment for EU13 countries in EU programmes a good option? Could the use of quota systems be a relevant and an effective strategy? Are there any other options?

Q6: What are the best strategies to exploit the potential of ERA-NETs, which can act as intermediary layers between national programmes and FP participation?

Q7: What kind of pro-active strategies could be deployed to ensure that the Managing Authorities of Interreg programmes give priority to strategic R&D&I partnerships in Operational Programmes?

**Annex: H2020 contribution to Member States
per inhabitant, per researcher FTE, per € million spent on R&D**

Country	H2020 contribution (EUR million)	Horizon 2020 contribution		
		Per inhabitant	Per researcher FTE	Per EUR million spend on R&D
Malta	16	36	19,094	230,759
Lithuania	21	7	2,585	54,264
Latvia	22	11	5,978	141,825
Bulgaria	30	4	2,095	68,791
Croatia	32	8	5,042	85,644
Slovakia	50	9	3,492	54,245
Luxembourg	54	94	18,892	80,767
Cyprus	62	73	71,860	768,657
Estonia	66	50	15,767	217,990
Romania	77	4	4,422	98,703
Hungary	109	11	4,298	72,008
Slovenia	109	53	13,848	128,243
Czech Republ	129	12	3,393	39,751
Poland	185	5	1,908	42,743
Portugal	343	33	8,663	149,794
Ireland	356	75	16,610	121,962
Finland	430	78	11,470	70,879
Greece	435	40	12,396	258,158
Denmark	497	87	11,887	61,706
Austria	576	66	13,609	55,170
Sweden	704	71	10,249	48,267
Belgium	965	85	17,518	95,806
Netherlands	1,566	92	20,337	114,857
Italy	1,664	27	13,786	75,991
Spain	1,813	39	14,806	137,627
France	2,097	31	7,812	43,110
United Kingd	3,083	47	10,654	70,251
Germany	3,464	42	9,690	39,735
EU-28	18,953	37	10,426	63,429
EU-13	907	9	3,812	67,524
EU-15	18,046	44	11,423	63,277

Source: European Commission, CORDA data, cut-off date 1 January 2017

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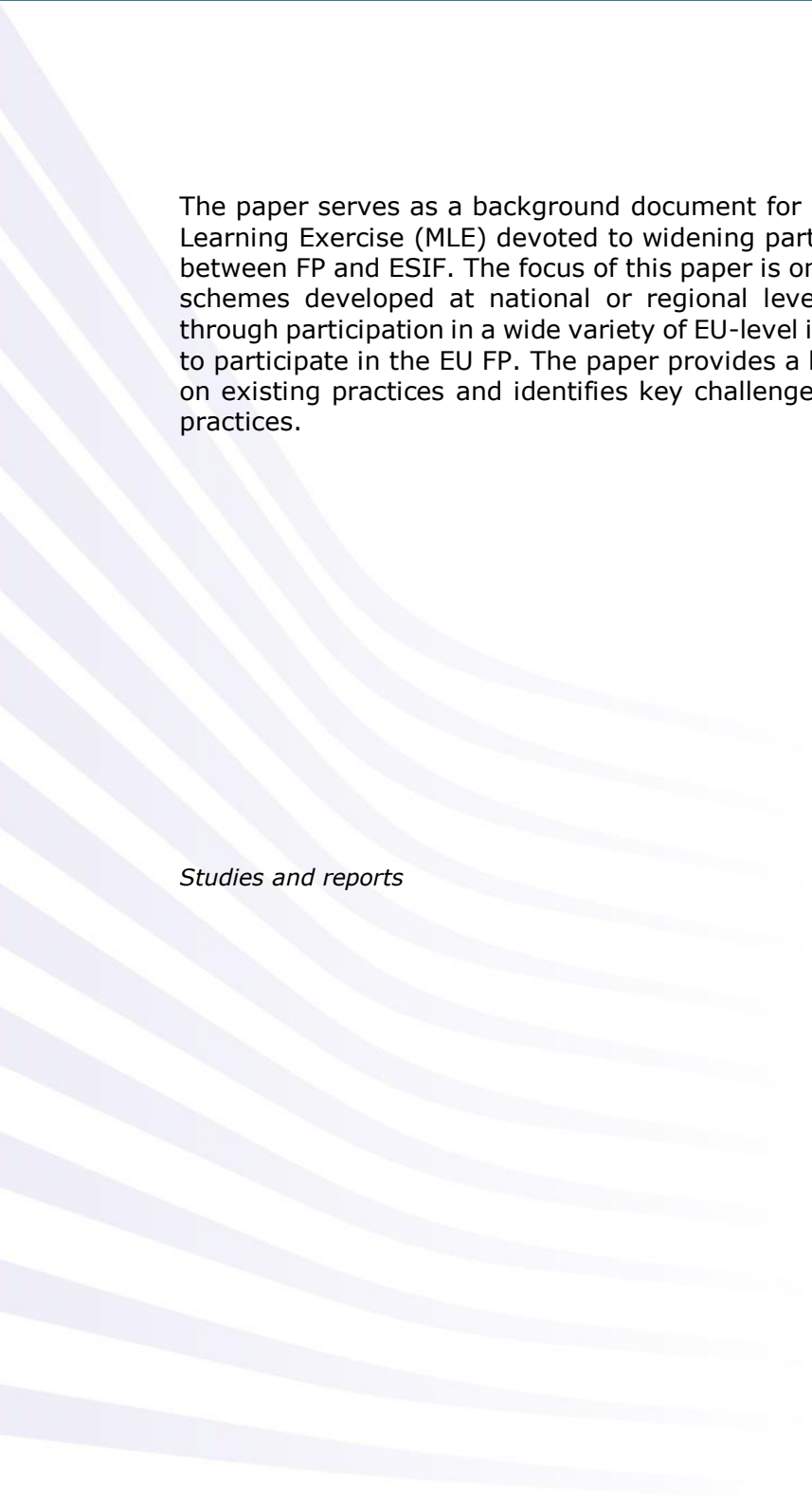

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The paper serves as a background document for a workshop organised under the Mutual Learning Exercise (MLE) devoted to widening participation to FP and enhancing synergies between FP and ESIF. The focus of this paper is on strategies, innovative mechanisms and schemes developed at national or regional level and aiming at improving networking through participation in a wide variety of EU-level initiatives, in order to reinforce capacities to participate in the EU FP. The paper provides a landscape of existing initiatives, insights on existing practices and identifies key challenges to be discussed with respect to these practices.

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