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Executive Summary

This report is D 3.5 'Update Report on the impacts of networks' and draws on the following inputs:

- two large scale impact assessment surveys: a) one focusing on the views of the ERA-NET Cofund community¹ about their participation in the new ERA-NET version, and b) a similar survey focusing on the rest of the ERA-NET Community, and
- an advanced statistical analysis of the combined responses of the two cohorts suggesting that based on the way respondents replied to the questions posed a certain 'chain of impacts' can be identified.

ERA-NETs have taken different forms over the years. ERA-NET actions in FP6 and FP7 provided support for actors implementing public research programmes to coordinate their activities e.g. by mapping relevant programmes and identifying common ground for collaboration and eventually developing joint calls for transnational proposals. ERA-NET Plus actions in FP7 provided - in a limited number of cases with high European added value - additional EU financial support to top-up research funding of a single joint call for proposals. The ERA-NET Cofund instrument under Horizon 2020 merged the former ERA-NET and ERA-NET Plus into a single instrument with the central and compulsory element of implementing one substantial call with top-up funding from the Commission.

The **implementation of ERA-NETs** received adequate attention by the EC who have been providing high-quality support over the years. Participants in Cofund actions seem to be facing difficulties in understanding the financial aspects of the new instrument, some of which are new and take time and experience to comprehend. The concepts of 'Unit Cost' and the 'Black Box' that were introduced by ERA-Net Plus in FP7 are (still) not clearly understood or interpreted in the same way by all Cofund partners. They also express discontent that the management costs are not eligible for direct funding by the EC. Yet, this seems to be more of an issue for the least experienced partners (with less than 3 years of experience in ERA-NETs). The most experienced participants (with more than 6 years of experience), although they do note that understanding the financial aspects of the new instrument may be a challenge, are equally worried about more long-term issues such as shrinking national budgets and limited long-term commitment at national level.

The most **important factors for effective management** are a well-resourced coordination office, manageable internal governance structures and a well-resourced, manageable Call Secretariat. Designing and following internal monitoring and evaluation reporting procedures and contingency plans agreed within the consortium is also important alongside the monitoring procedures specified in the Grant Agreement.

The ERA-NET instrument should **continue to support joint calls** (either cofunded or not) and **other activities** in relation to dissemination of project results. Equally important is to carry on jointly developing strategies for the future in the specific research areas addressed including foresight and vision building exercises. Furthermore, the integration of rather 'new' activities like the sharing of existing infrastructures is also relevant as well as the collaboration with other similar initiatives to avoid unnecessary overlaps between instruments and thin spread of already shrinking national budgets. Capacity building activities and networking events are also important especially with regards to fostering participation of low performing countries.

¹ By 'Cofund community' we refer to any organisation that is coordinator or partner in an ERA-NET Cofund Action.

Overall, ERA-NET partners present **a variety of motivations** for participating in ERA-NETs. On the one hand, there are the motivations that reflect a recognition that certain challenges are better dealt with at the international rather than the national level. Associated to this is the opportunity to access complementary research expertise to achieve critical mass in the areas addressed. On the other hand, there are more 'internal' motivations reflecting own interests such as the opportunity to improve the international experience of the national research communities and to collaborate with other funding agencies. For EU13 respondents the opportunity to increase experience of agencies in managing internationalisation in research, access complementary funding sources and reduce/rationalise research costs matter much more than for their EU15 counterparts.

A variety of conditions and factors can also act as **de-motivators** for participating in ERA-NETs. These may relate to the context outside the network itself i.e. internal, institutional or organisational conditions (e.g. lack of staff or strategic thinking), as well as the overall national research and innovation system (such as limited funds or incompatibility of research topics with national priorities, incompatible national rules, etc.). They may also refer to the specificities of the instrument, the network or the consortium characteristics (e.g. bad management, lack of openness and trust, etc.).

Perceived benefits span a wide range of types:

- a) attitudinal/cultural type strengthening international collaboration among research communities across countries,
- b) capacity building type both in relation to science and technology capacities and skills, and in international project management, as well as in terms of increased quality of research projects at national / regional level, and adopting interdisciplinary approaches in research (collaboration between multiple academic disciplines), and
- c) conceptual type of benefits in terms of adopting transdisciplinary approaches in research (collaboration between academics and non-academics), as well as in terms of increasing awareness and visibility of specific research topics / issues at both national and cross-national level.

Interestingly, the way that respondents replied in the survey questions regarding the types of benefits they experienced reveals a specific logic connecting the various types of impacts together. This suggests that there is **interdependence across certain types of impacts**, i.e. degree to which certain impacts are materialised depends on the degree to which other impacts exist. Specifically, increasing research skills is not a matter of international research collaboration alone, but also of adequate policy attention and support at national level. Quality of research is a matter of skills and resources and of international collaboration; however, collaboration at the national level among different agencies also plays a role. Solving societal challenges is not a matter of research alone, but also of influencing European / international agendas. As a result, to achieve their ultimate goal, ERA-NETs need to focus on excellence, but at the same time, they need to pursue objectives beyond that, by increasing efforts to attract policy attention and support primarily at the national level so that they become influential actors at the European / international arena.

The ERA-NET instrument is placed under the framework of EU policies including ERA, Horizon 2020 as well as a series of sectoral strategies and policies. It is largely acknowledged that the ERA-NET instrument contributes to achieving a **critical mass** of resources and **durable cooperation** among countries. Despite the financial crises since 2008, the public funding of transnational research by ERA-NET and ERA-NET Plus actions has been growing steadily since the first calls in 2004 and is estimated to reach a total of 600 m€ in 2016 (including JPI and Cofund calls). The Union funding of ERA-NETs has created substantial effects on

research coordination with the average leverage effect increasing from 6 in FP6 to more than 10 in FP7. The first co-funded calls implemented by the ERA-NET Cofund actions present on average a much broader participation of countries and substantially larger call budgets than the FP7 ERA-NETs and ERA-NET Plus. Out of the 27 new Cofund actions, 10 are successors of previous ERA-NETs and 10 are linked to JPIs, enjoying prior collaborations, some of which may date back for over ten years. In addition, ERA-NETs promote international collaboration beyond the EU more successfully than Horizon 2020.

On the other hand, ERA-NET actions fall short in terms of aligning national research strategies. They do not go beyond being an extra tool to increase trans-national collaboration among funding agencies and forming just another part of their programme portfolio they offer to their research communities. There is also the need for improved coordination and synergy building across the different initiatives as well as among ERA-NETs within the same area and more work needs to be done in relation to knowledge transfer, disseminating and publicising ERA-NET results and impacts. There is also room for improvement in relation to widening participation of lower performing countries, and integrating the research and innovation dimensions.

Notwithstanding, the above shortcomings, the majority of the two survey respondents state that the benefits of their participation are either equal or outweigh the costs. This is valid for both EU15 and EU13 respondents as well as for the most and least experienced respondents.

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1. Introduction

The ERA-LEARN 2020 project dedicates a specific work-package (WP3) to monitoring and impact assessment, which aims to implement a more integrated and systematic framework for monitoring and assessing the impact of P2P networks and associated co-funded projects. Task 3.2 in particular involves an annual series of focused impact assessment surveys to explore important policy issues for P2P networks.

This report is D 3.5 'Update Report on the impacts of networks' and draws on the following inputs:

- two large scale impact assessment surveys: a) one focusing on the views of the ERA-NET Cofund community² about their participation in the new ERA-NET version, and b) a similar survey focusing on the rest of the ERA-NET Community, and
- an advanced statistical analysis of the combined responses of the two cohorts suggesting that, based on the way respondents replied to the questions posed, a certain 'chain of impacts' can be identified.

The content of the survey was common for both cohorts and addressed seven main areas:

- a) quality of support,
- b) key management and monitoring factors,
- c) implementation issues/challenges,
- d) motivations and perceived impacts,
- e) the added value of the ERA-NET instrument,
- f) relevance to EU policy objectives and
- g) level of achievement of these objectives.

Analysis of the responses in each of these areas is presented in the following sub-sections. This is complemented by data and findings of other relevant reports and publications such as the recently published Expert Group Report on Analysis of ERA-NET Cofund Actions under Horizon 2020, and the Expert Group Report on the JPI Evaluation of Joint Programming³.

The survey was first sent to the ERA-NET Cofund community during March and April 2016, i.e. Coordinators and Partners of the first 27 ERA-NET Cofund Actions that were approved for funding by the EC under Horizon 2020. The survey attracted 245 unique responses over 487 unique e-mail addresses thus achieving 50.3% response rate. Due to the high response rate and the balanced distribution of responses across countries we can claim that the results are representative of the total ERA-NET Cofund community. This survey is addressed as the survey of 'the Cofund community' where relevant in the report sections.

In a second step the survey was sent to the rest of the ERA-NET community, i.e. ERA-NET Partners (covering FP6, FP7 and Horizon 2020) that did not participate in any Cofund Actions as well as to those Cofund Partners/Coordinators that had not replied to the first survey. The respective questionnaire was adjusted to refer to the overall ERA-NET experience rather than that of participating in a single Action. The questions that were specific to the Cofund Actions were withdrawn and those of a more general nature remained covering the seven areas mentioned above. This time invitations were sent to a total of 1566 unique e-mail addresses and 342 responses were attracted (response rate of 21.8%).

² By 'Cofund community' we refer to any organisation that is coordinator or partner in an ERA-NET Cofund Action.

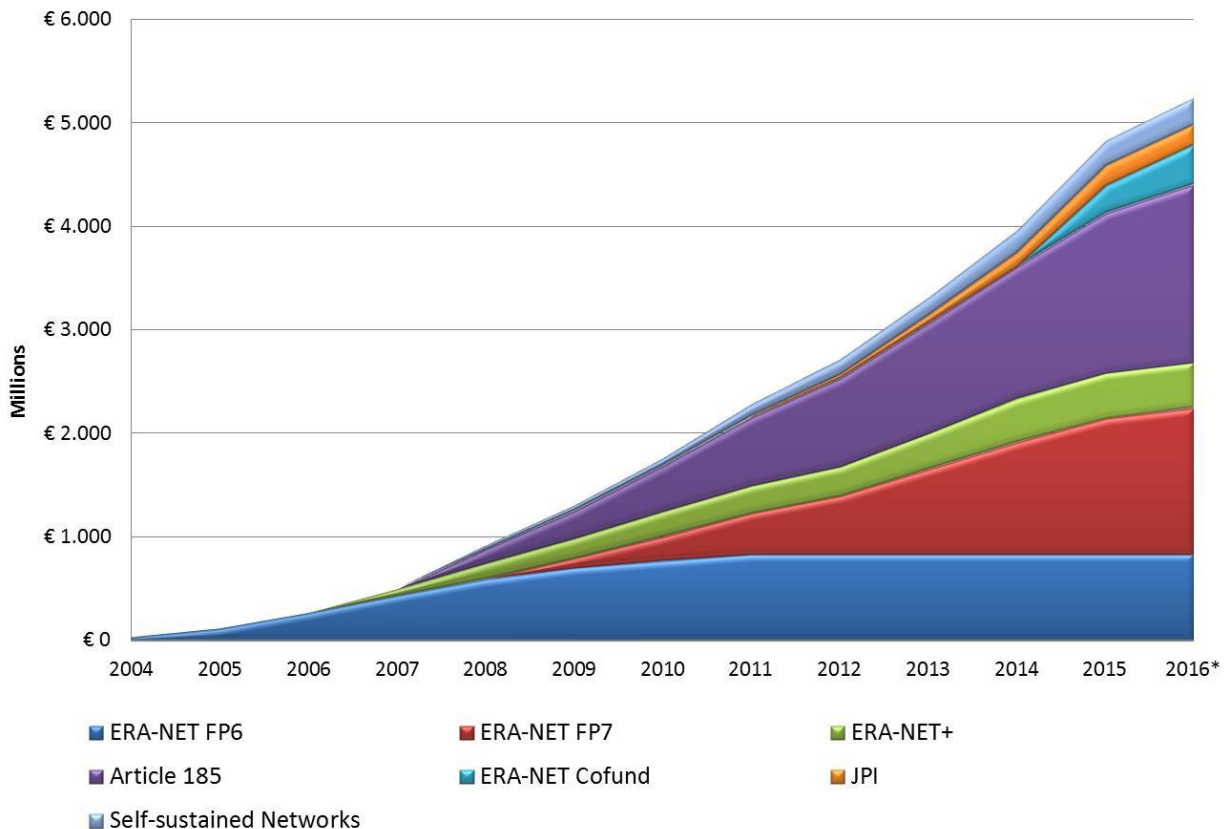
³ <https://www.era-learn.eu/publications/ec-publications>.

Attention was paid with specially targeted reminders not to have any country significantly over- or under-represented in the responses. In addition, the responses were spread across participants of all ERA-NET funding schemes, i.e. FP6 ERA-NETs (CSAs, 14.40%), FP7 ERA-NETs (CSAs, 39.61%), FP7 ERA-NET Plus (19.07%) and H2020 ERA-NET Cofund (25.92%). This survey is addressed as the survey of 'the overall ERA-NET community' where relevant in the report sections. In addition by the use of the term 'ERA-NETs' without any other specification we will be referring to all the different schemes of the instrument, i.e. ERA-NETs, ERA-NET Plus, and ERA-NET Cofund. This version of the report draws on comments received from the ERA-LEARN 2020 consortium and is considered the final version of Deliverable D3.5.

2. Facts and figures of ERA-NETs

The various ERA-NET schemes have existed since FP6. Over the years they have taken several forms, i.e. ERA-NET in FP6 and FP7, ERA-NET Plus in FP7 and currently ERA-NET Cofund in Horizon 2020. ERA-NET Plus actions aimed at supporting the funding of research projects by topping up the national contributions in a joint, trans-national call. 23 ERA-NET Plus actions were supported under FP7 and received 144 million. Overall, between 2002 and 2013 the EU invested Euro 483 million in 123 different ERA-NETs under FP6 and FP7. This investment resulted into more than 350 calls implemented from 2004 to 2014 that supported more than 3.400 transnational projects funded in the same period. Overall, EU support for public-to-public networks (P2Ps) rose from 380 m€ in FP6 (2.1% of the budget), to approximately 2,500 m€ in Horizon 2020 (around 3.1% of the budget).⁴

Figure 1: Cumulative investments in P2Ps



Source: ERA-LEARN 2020 Annual Report 2016, <https://www.era-learn.eu/publications/other-publications/2nd-annual-report-on-p2p-partnerships-2016>

The public funding of transnational research by ERA-NET and ERA-NET Plus actions has been growing steadily since the first calls in 2004. Including the data on calls launched by JPIs and the calls resulting from the ERA-NET Cofund action of the Work Programme 2014/15, the total public funding for transnational calls is expected to reach 600 m€ in 2016. The total public funding of research implemented by ERA-NETs and

⁴ J. Niehoff (2014) The ERA-NET scheme from FP6 to Horizon 2020. <https://www.era-learn.eu/publications/ec-publications/>.

ERA-NET Plus from the beginning of the instrument until 2013 amounts to more than 2,3 b€ and will reach more than 3 b€ by 2016 as indicated in Figure 1 above.⁵

The Union funding of ERA-NETs has created substantial effects on research coordination. The leverage effect, i.e. the amount of additional Euro invested by participating countries per each Euro invested by the EC, was close to 6 for FP6 ERA-NETs and more than 10 for FP7 ERA-NETs, with some individual ERA-NETs reaching leverage effects of 50. Larger leverage effects are found within networks that are continuations of previous collaborations. FP7 ERA-NETs that were successors of FP6 ERA-ENTs have achieved leverage effect of more than 16, thus confirming the importance of establishing long-term collaboration.

Issues that required attention in relation to ERA-NETs were the unbalanced commitments from participating states with national contributions differing widely from country to country and not being in line with the research capacities and/or programme volumes of the countries in question, and the need to improve knowledge on impacts of ERA-NETs and their supported projects.³

In Horizon 2020, the ERA-NET Cofund was launched. The ERA-NET Cofund is a merger of the former ERA-NET and ERA-NET Plus instruments. The central and compulsory element of ERA-NET Cofund is still the implementation of one joint call with top-up funding from the Commission complemented with the ability to implement other joint activities (as in the classical ERA-NET).

During the 2014/2015 calls for proposals, a total of 27 ERA-NET Cofund actions were approved for funding by the European Commission. In addition, a total of 35 proposals are expected from the 2016/2017 calls. The total EU budget for ERA-NET Cofund earmarked for the years 2014-2017 in Horizon 2020 reaches 495 m€. The 27 networks that have been selected for funding bring together a total of 728.5 m€⁶ including contributions from EU Member States (57.8 %), associated countries (6.9 %), third countries (5.1 %) and the European Commission (30.2 %)⁷. The leverage effect is 2.31, i.e. for each euro invested by the EU, the participating countries invest an additional amount of €2.31.⁸

Bellow follows the analysis of the results in the two surveys carried out by ERA-LEARN 2020 in 2016 as presented in the Introduction supplemented by relevant findings available in other relevant reports.

⁵ Niehoff's presentation at the Workshop on the 'Future of Joint Programming and its Instruments', Brussels, 9th November 2016.

⁶ The figures are based on amounts planned for the co-funded calls at the proposal stage.

⁷ The share of the EU contribution drops to 30 % despite the funding rate of 33 % because a number of consortia mobilise substantially higher national contributions than necessary to justify the EU contribution.

⁸ Expert Group report on the Analysis of the Cofund Actions under Horizon 2020, both available at <https://www.era-learn.eu/publications/ec-publications/>.

3. Key findings about the overall ERA-NET experience

3.1 EC support remained of good quality or even improved over the years

In all aspects, the support provided by the Commission was of good quality and remained stable or further improved over the years. More than 50% of the respondents agreed to this. Yet, for a share of around 20% financial aspects slightly worsened. This possibly reflects the ineligibility for direct EC funding of the management costs of actions in the Cofund instrument, as well as certain difficulties in understanding the financial aspects, some of which are new ('black box', 'unit cost') and take time to comprehend.

Indeed, as the Expert Group report on the Analysis of the ERA-NET Cofund Actions⁹ reveals, difficulties emerged in understanding the cost categories, calculating the Union Contribution, and understanding the financial requirements / regulations. The new concepts of 'Unit Cost' and the 'Black Box' concept introduced by ERA-Net Plus in FP7 were (still) not clearly understood or interpreted in the same way by all Cofund partners. Yet, this seems to be more of an issue for the least, rather than the most experienced respondents¹⁰.

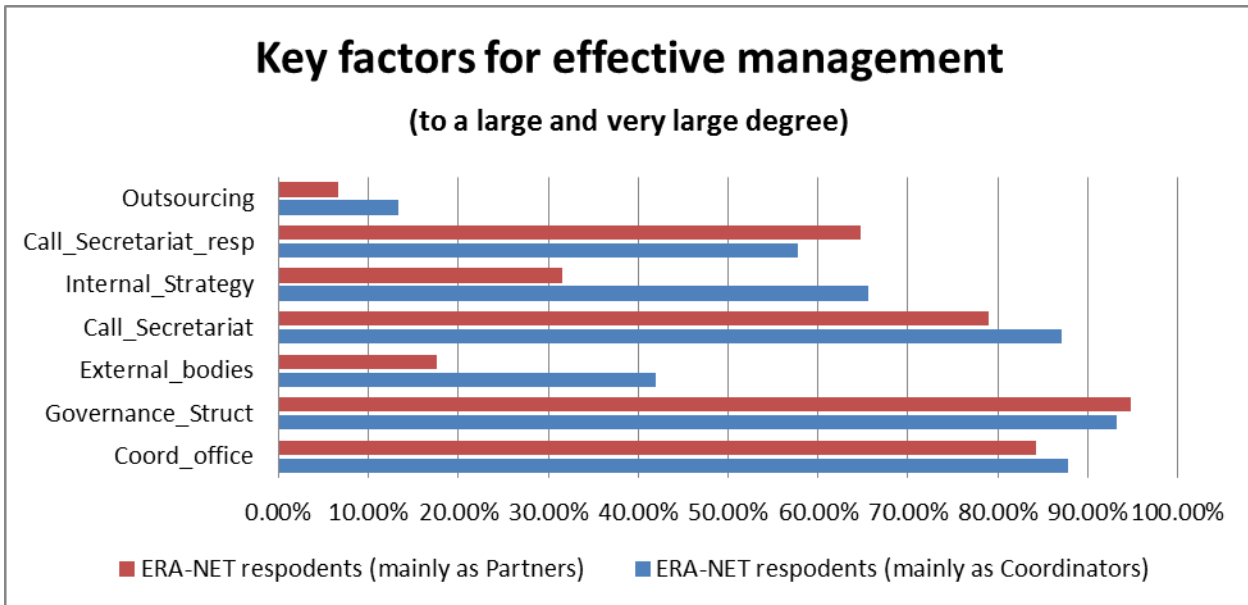
3.2 Well-running coordination office and call secretariat supported by manageable governance structures are key to success

The most important factors for effective management are a well-resourced coordination office, manageable internal governance structures and a well-resourced, manageable Call Secretariat. Views coincide across the 'ERA-NET overall community' and the 'Cofund community' as well as across most and least experienced respondents. The least experienced respondents appreciate slightly more than their most experienced counterparts that the responsibility of the call implementation and the management of the call secretariat is assigned to the same partner. In addition, those that have acted mainly as Coordinators than Partners until now value more the existence of active external bodies (e.g. scientific board, stakeholder board), as well as an internal strategy in managing ERA-NETs.

⁹ <https://www.era-learn.eu/publications/ec-publications>.

¹⁰ Most experienced respondents are those with more than 6 years of experience in participating in ERA-NET actions. Least experienced are those that have less than 3 years of such experience.

Figure 2: Key factors for effective management



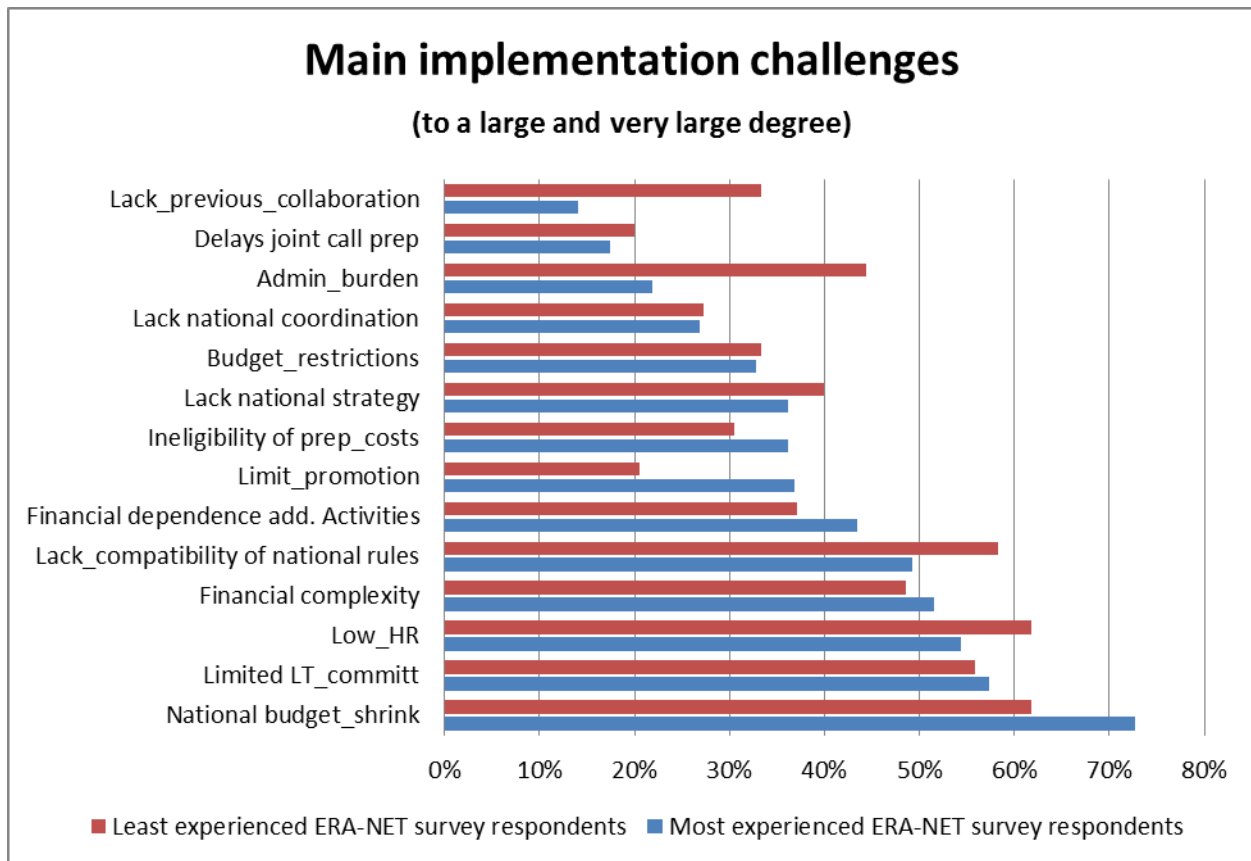
Complementing the key management factors, there are other factors that relate to monitoring that also play a significant role. Following the reporting and monitoring obligations as prescribed in the Grant Agreement is valued by the ERA-NET community as important in this regard, as well as internal monitoring and evaluation reporting procedures and contingency plans agreed within the consortium. External audits do not seem to be a crucial factor possibly implying that the specificities of how an ERA-NET is to be managed cannot be grasped as easily by external auditors.

3.3. Long term commitment challenges are creating more anxieties than operational issues

Shrinking national budgets and limited long-term commitment at the national level are key implementation challenges as expressed by the most experienced respondents. This reflects long-term concerns of the experienced participants. Additional implementation problems may stem from low human resources, financial complexity in using the EC contribution (relevant for the new Cofund instrument) and lack of compatibility of national rules. It is characteristic that for the least experienced respondents the nature of their concerns is more of a short-term nature reflecting their more 'practical' anxiety as newcomers. Equally to shrinking national budgets, they fear low human resources in administration and highlight significantly more than the most experienced respondents the lack of previous collaboration and the administrative burden.

Interestingly, national shrinking budgets and the administrative burden are considered more a key implementation issue by EU13 respondents than their EU15 counterparts.

Figure 3: Main implementation challenges



3.4 ERA-NET partners take part for different reasons reflecting different national needs and perceptions of ERA-NETs

Overall, ERA-NET¹¹ partners present a variety of motivations for participating. The ones that stand out relate to a recognition that certain challenges are better to be dealt with at the international rather than the national level. Associated to this is the opportunity to access complementary research expertise to achieve critical mass in the areas addressed.

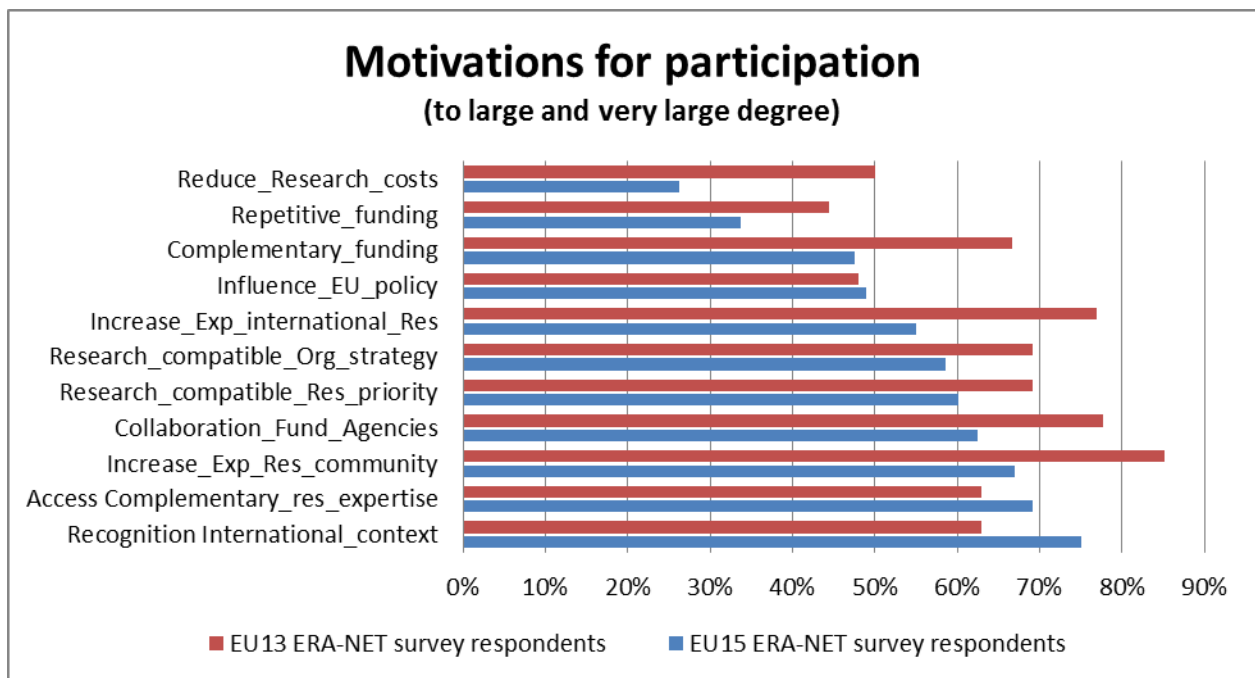
Other motivations are more ‘introvert’ reflecting own interests such as the opportunity to improve the international experience of the national research community and to collaborate with other funding agencies. In this regard, the opportunity to increase experience of agencies in managing internationalisation in research is also highly appreciated. Some motivations also reflect conditions set at the national level for participation in international networks. These are for instance the compatibility of research theme/topic addressed by ERA-NETs with the national/regional research priorities and organisational strategies which

¹¹ By ‘ERA-NET’ we refer to all the different schemes, i.e. FP6 or FP7 ERA-NETs, ERA-NET Plus, and ERA-NET Cofund.

are associated with the opportunity to access complementary sources for funding nationally relevant research activities.

For EU13 respondents the opportunity to increase experience of agencies in managing internationalisation in research, access complementary funding sources and reduce/rationalise research costs matter much more than their EU15 counterparts.¹²

Figure 4: Motivations for participation



A variety of conditions and factors can also act as de-motivators for participating in ERA-NETs. These may relate to the context outside the network itself i.e. institutional or organisational conditions, as well as the overall national research and innovation system. They may also refer to the specificities of the instrument, the network or the consortium as grouped below.

De-motivators in relation to national context (i.e. institutional specificities or national/regional research and innovation strategy and policy-making)

- Limited or uncertainty of availability of national funds for research area;
- Absence of a clear strategy concerning the research area;
- Incompatibility of research themes with national/regional priorities;
- Change of national/regional priorities and short term governance mode;
- Imbalance between the size of national scientific communities and national funding commitments;
- Low overall long-term commitment at national level;
- Worse performance of networks vis-a-vis national programmes in relation to time and admin efforts required;

¹² These results are largely in agreement with the responses of the Cofund community.

- Lack of experienced / adequate staff in network partners for managing participation; extra administrative job to manage the same national funds;
- No long term vision of own agency;
- Lack of adequate structure at national level to help identify research priorities of common interests;
- Political choices that can pop-up any time and influence levels of national interest;
- Lack of strategic thinking and long-term planning at national organisational level;
- Double submission of proposals necessary, within ERA-NET and at national level resulting in too much administrative effort; different national procedures of project evaluation in joint calls; difficulties to align timing of calls locally with those of ERA-NETs; difficulties in identifying the correct funding scheme at local level.

De-motivators specific to the instrument / network / consortium

- Overly large and complex consortia; lack of openness between partners on key aims; lack of partners' ability to be flexible and compromise; staff changes in partners;
- Lack of continuity of ERA-NETs; the ERA-NET supporting scheme should have a much longer timespan;
- Inability to know how much money EC will contribute to funded projects at the beginning (Cofund) and requirement to earmark national funds way in advance of the cofunded call;
- No privilege to new partners (low performing countries);
- Long application and evaluation processes of proposals within ERA-nets;
- Complex set of rules (ERA-NET Plus and Cofund); high admin burden; bureaucracy;
- Lack of good management as previous experience;
- Projects not selected on the basis of scientific excellence, but on availability of funds in countries concerned (in FP6 and FP7 ERA-NETs);
- Small budgets for calls in comparison to other international programme options;
- Lack of funds to cover management costs;
- Too many sleeping partners with no real strategy and funding possibilities within the area;
- Inequality of financial contribution by partners, leading to high over-subscription/low success rates for certain countries;
- Results are not properly managed; knowledge exchange very poor.

Overall, as noted by respondents to the 'ERA-NET overall' survey *"they (ERA-NETs) have not evolved into programmes that unite national research programmes but, at the national level, have become separate entities with their own funding sources"*. *"The focus is mostly on the extra funding that one yields from EC for international collaboration and research projects. The win-win situation of contributing little financing for national research while yielding results from big consortia seems not enough to convince policymakers of the value and flexibility of ERA-NETs. Other arguments seem required to convince them."*

3.5 Participants in ERA-NETs enjoy a variety of benefits even beyond the 'usual' trans-national collaboration gains

The main benefits as perceived by the majority of the respondents to the 'ERA-NET overall' survey, are:

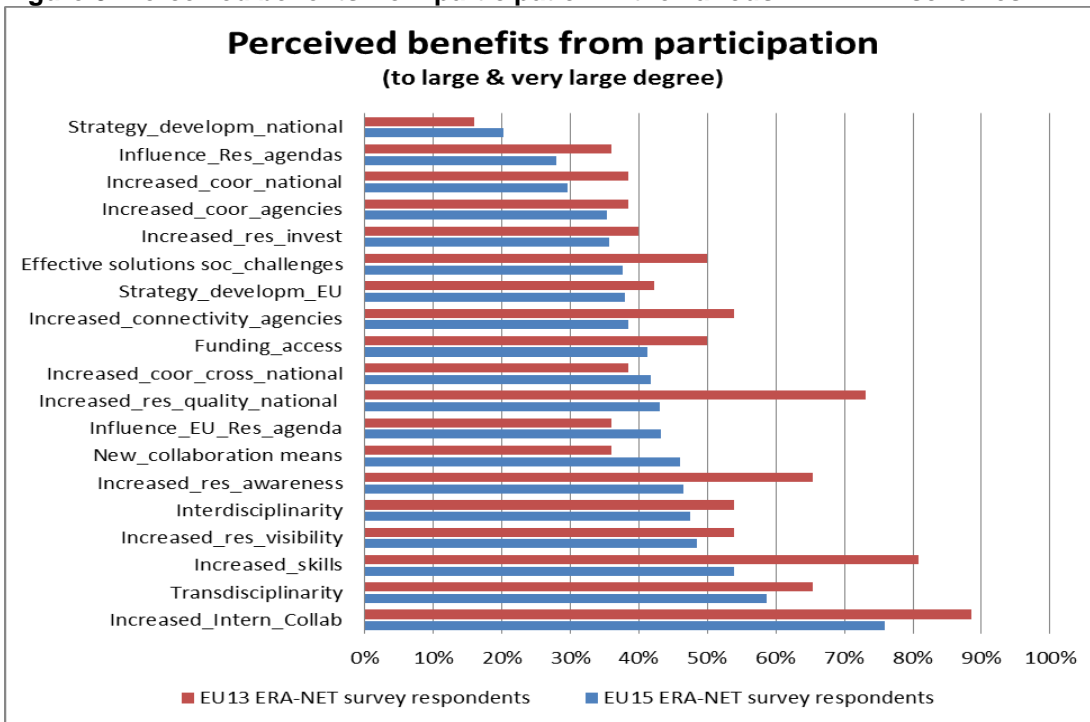
- Increased international collaboration of the national / regional research communities
- Increased capacities and skills (in relation to scientific areas, strategic thinking, international project management)

- Adoption of transdisciplinary approaches in research (collaboration between multiple partners, both academic and non-academic)
- Increased awareness of specific research topics at cross-national level
- Increased quality of research projects at national / regional level
- Increased visibility of certain research issues at national / regional level
- Adoption of interdisciplinary approaches in research (collaboration between multiple academic disciplines)

This is largely in agreement with the benefits as perceived by the ‘Cofund community’ although in the latter case access to additional European funding is more appreciated. This denotes the value of EC top-up funding to national contributions. Other highly perceived benefits include capacity related impacts (increased capacities and skills, adoption of inter-disciplinarity in research and increased quality of research at national level), and connectivity (international collaboration of research communities). As in the case of Cofund results, the list contains a variety of impact types that go beyond the usual type of trans-national collaboration such as attitudinal/cultural impacts (transdisciplinarity approaches in research) and conceptual impacts (increased awareness and visibility of certain research areas/issues).

While overall agreeing with each other, the most experienced respondents value more than the least experienced the connectivity created among funding agencies and the quality of research that is increased at the national level. Naturally, these types of impacts need continued efforts and long-standing participation in networks and thus are more evident in network partners that have accumulated experience. Increasing capacities and skills, improving the quality of research at national/regional level, and spreading awareness of certain research areas across countries is more valued by EU13 respondents than their EU15 counterparts.

Figure 5: Perceived benefits from participation in the various ERA-NET schemes



3.6 A perceived 'chain of impacts' in ERA-NETs

The way that respondents replied in the survey questions regarding the types of benefits they experienced drawing on their overall ERA-NET participation i.e. in the various ERA-NET schemes over the years, reveals a specific logic connecting the various types of impacts together. This suggests that there is inter-dependence across certain types of impacts, i.e. the degree to which certain impacts can be materialised depends on the degree to which other impacts already exist.

Firstly, in the opinion of respondents the increase in capacities and skills (in relation to both scientific skills but also skills regarding strategic thinking and international project management) is positively (and significantly) affected, in order of importance, by:

- (1) the transdisciplinary approach of the scheme (collaboration between multiple partners, both academic and non-academic);
- (2) Increased international collaboration of the national / regional research communities;
- (3) Increased visibility of certain research issues at national / regional level.

Secondly, 'increased capacities and skills' combined with a series of other impacts leads to 'increased quality of research projects at national / regional level'. These other impacts include:

- (1) Increased investments in certain research areas at national / regional level;
- (2) Access to additional European funding for certain areas;
- (3) Increased connectivity across different agencies (at national level),

Thirdly, the ultimate goal of many P2Ps is to find solutions for societal challenges. In the opinion of the respondents, the degree to which this is achieved depends in order of importance, on the following factors:

- (1) Design of new means of collaboration through joint activities (e.g. shared use of infrastructure, joint strategic analysis and foresight, knowledge hubs, etc.);
- (2) Influencing the shaping of research agendas of European / international organisations;
- (3) Increased quality of research projects at national / regional level
- (4) increased awareness of specific research topics at cross-national level.

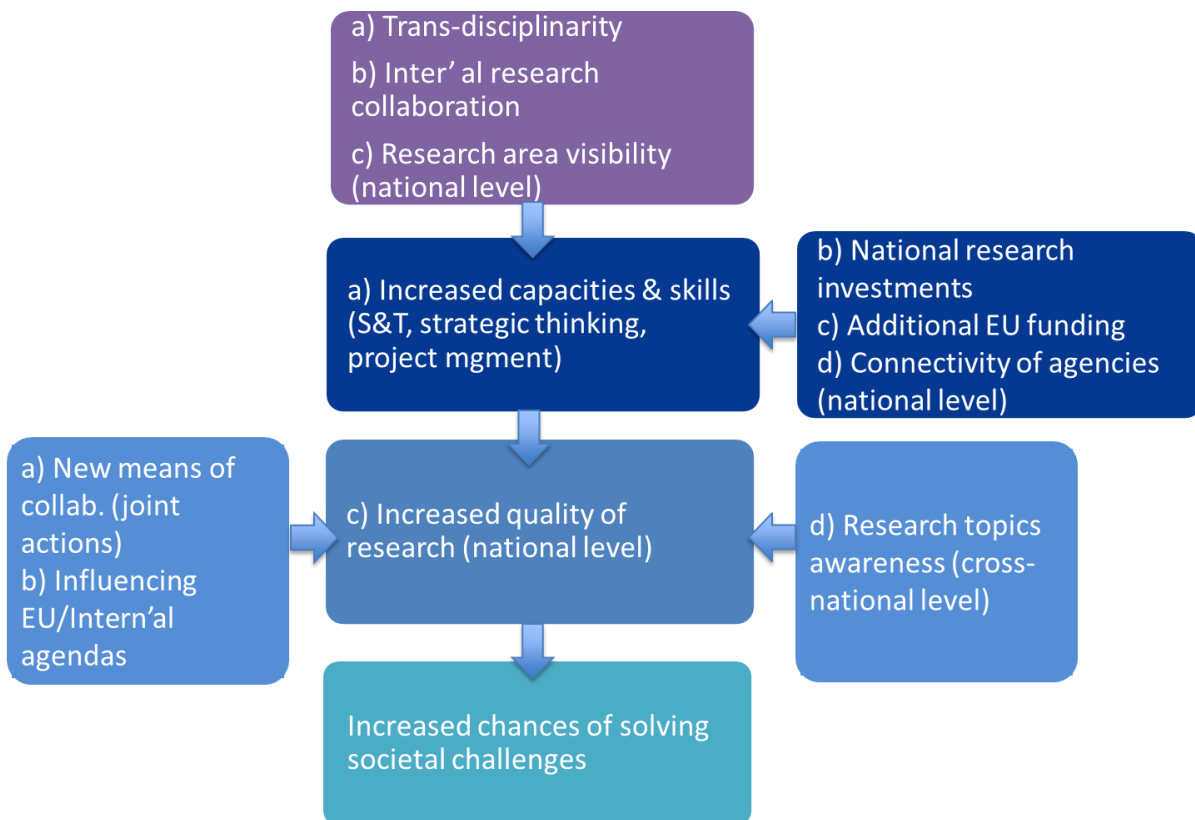
In other words, the degree that capacities and skills required in ERA-NETs can increase depends on the degree to which we apply a trans-disciplinary approach in research, the degree to which our researchers collaborate internationally with peers and the degree to which the specific area attracts attention at the national level. As a result, capacities and skills do not increase by collaborating in research alone. They also depend on the level of 'national' attention to the specific area.

For some participating countries the specific area addressed (although important at the cross-national level) may not be as important as in others. This may be translated in unavailability of dedicated funds or programmes. As the Expert Group Report on the Evaluation of Joint Programming notes, the lack of emphasis on challenge-based, or even thematic, research in many countries is one of the main barriers that limit participation.¹³ Alternatively, the specific area may be among a number of other areas targeted by an umbrella programme or fund and cannot be among the key research competencies in the specific countries. In these cases, even if there is some research capacity in the specific field, the international collaboration among researchers that is enabled in P2Ps may not be enough to increase the research capacity, unless the

¹³ <https://www.era-learn.eu/publications/ec-publications>.

specific area is adequately promoted and supported in the national context. *Thus, increasing research skills is not a matter of research alone but also of adequate policy support at national level including societal challenge stakeholders outside the research community*

Figure 6: The ‘chain’ of perceived impacts perceived in the ERA-NET experience



Naturally, the quality of research is a matter of skills and resources (both national and additional EU resources). This is verified by the way the respondents replied in the surveys. The interesting result is however that connectivity among different agencies at the national level also plays a role. This would possibly deter problems experienced in relation to lack of communication, collaboration and coordination among different agencies in a country that are however all needed to contribute in terms of strategy building and funding for the specific challenge addressed. *Thus, quality of research is not a matter of international collaboration alone, but also of collaboration at the national level.*

Increased quality in research is among the key factors leading to possible solutions to societal challenges. However, solving societal challenges does not only require research, even of high-quality. Other types of joint actions are important too, such as sharing of infrastructures, joint strategy building, etc. pointing to the importance of alignment at strategy and operational levels. Yet, solving societal challenges is also a matter of highlighting the importance of the specific endeavour to the degree to which the increased attention influences European and international agendas. *Thus, solving societal challenges is not a matter of research alone, but also of influencing European / international agendas.*

It becomes evident that *to achieve their ultimate goal, P2Ps, need to focus on excellence, but at the same time, they need to pursue objectives beyond that, by increasing efforts to attract policy attention and support primarily at the national level so that they can then become influential actors at the European / international arena.*

This conclusion is actually in line with the recently published Expert Group report on the analysis of the ERA-NET Cofund Actions in H2020 where the Experts characteristically state that “ERA-NET Cofund actions are not deeply *embedded in national policy portfolios and/or national strategies* possibly reflecting *Member States’ lack of ambition to fully realise the instrument’s potential.*” It is also in line with the conclusions made in the case of JPIs, where, whilst there are some notable exceptions, most countries are neither adapting their national research activities towards the SRA/SRIAs nor the activities of the JPIs.

These conclusions are based on the beliefs of the respondents on how P2P impacts relate to each other and thus how they can be strengthened. Provided their views are based on their long-standing experience in participating in the various ERA-NET schemes over the years and they are guiding the way these people operate in P2Ps, they can be considered as indications of a possible ‘chain of impacts’ in P2Ps.

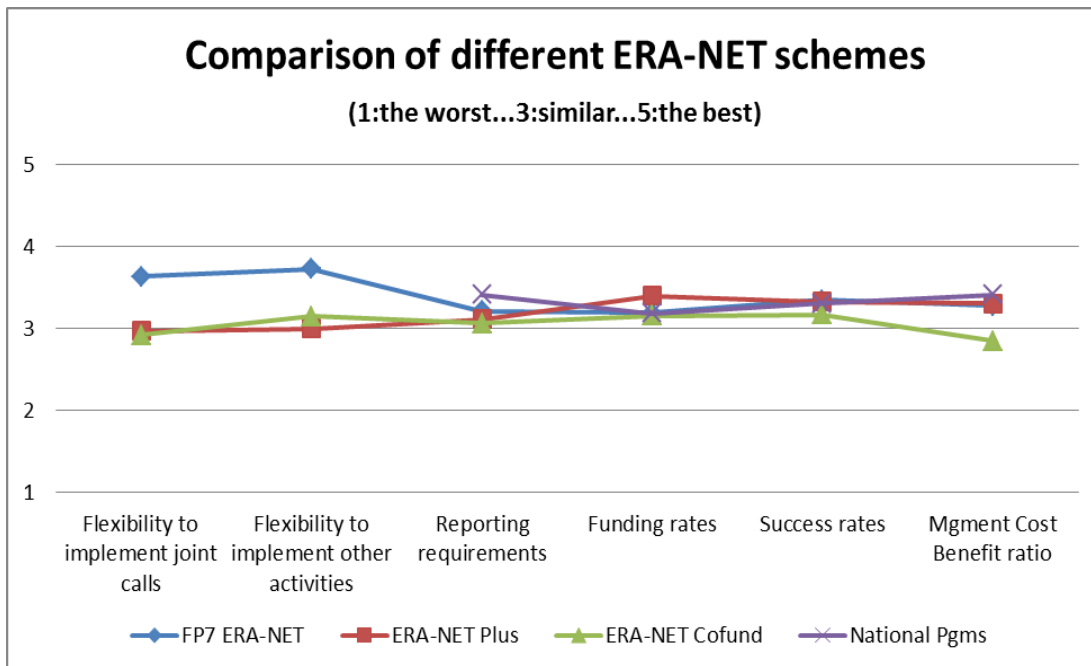
This ‘chain of impacts’ can be validated with ‘hard’ evidence of actual impacts that can be collected in the near future by ERA-LEARN 2020. It can also serve as a framework of key success factors providing a basis for participating countries to appropriately design the level and type of their participation.

3.7 Although the FP7 ERA-NET stands out, the different ERA-NET schemes have not performed significantly differently over the years

ERA-NETs have taken different forms over the years. ERA-NET actions in FP6 and FP7 provided support for actors implementing public research programmes to coordinate their activities e.g. by mapping relevant programmes and identifying common ground for collaboration and eventually developing joint calls for transnational proposals. ERA-NET Plus actions in FP7 provided - in a limited number of cases with high European added value - additional EU financial support to top-up research funding of a single joint call for proposals. The ERA-NET Cofund instrument under Horizon 2020 merged the former ERA-NET and ERA-NET Plus into a single instrument with the central and compulsory element of implementing one substantial call with top-up funding from the Commission. The EC's focus of supporting ERA-NETs has therefore shifted from the funding of networks to the top-up funding of joint calls for transnational research and innovation in selected areas with high European added value and relevance for Horizon 2020.¹⁴

Accordingly, the instrument has changed the level of flexibility allowed, the reporting requirements and funding rules and procedures from one Framework Programme to another. This may have resulted in different success rates and different administrative/managerial burdens. Comparing the different forms of the instrument, however, the most experienced respondents do not see many differences in relation to reporting requirements, funding rates, success rates or the management cost-benefit ratio. The only notable difference is in relation to flexibility in implementing joint calls and other activities where the FP7 ERA-NET seems to perform better than the others.

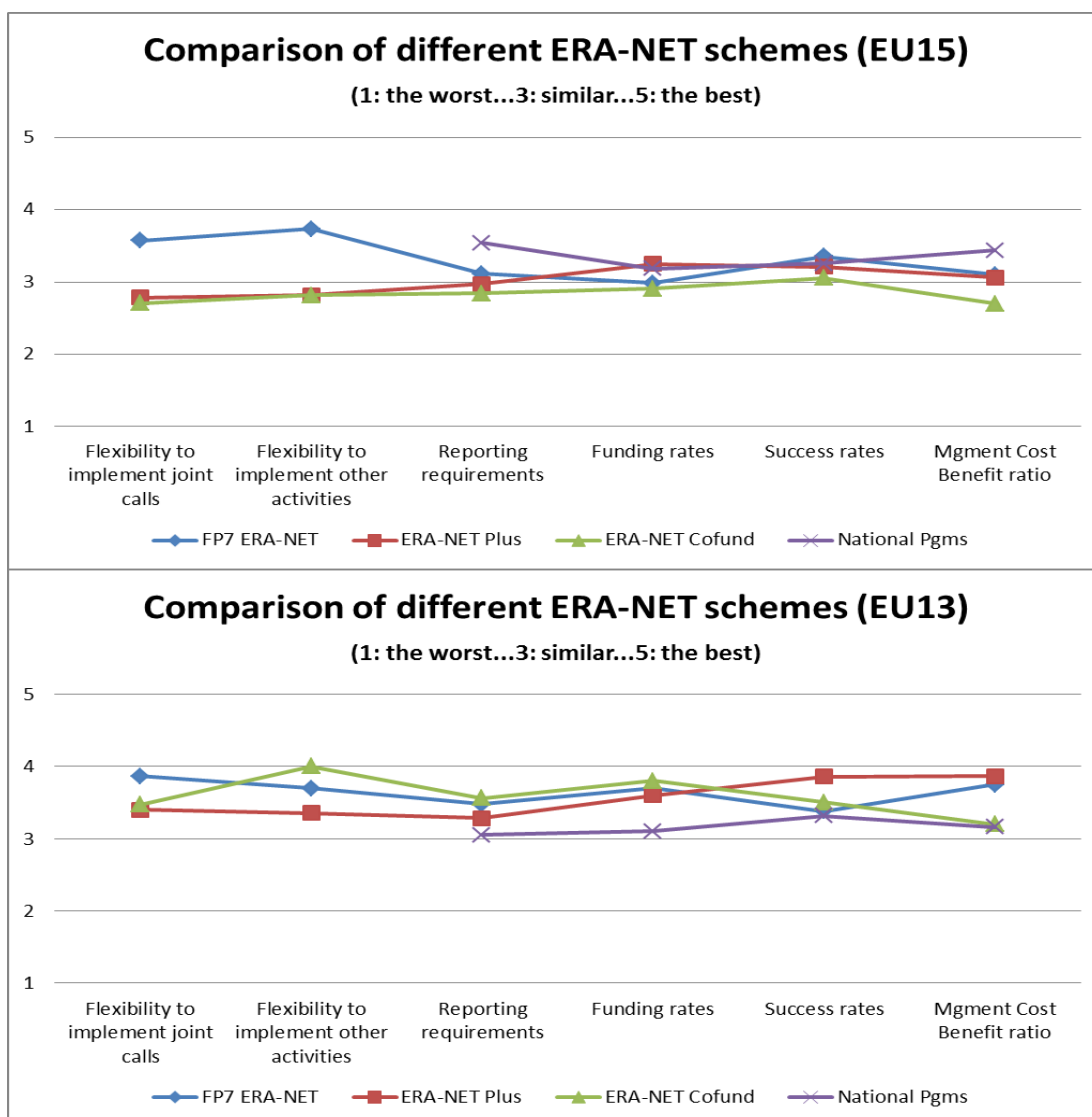
Figure 7: Comparing the different ERA-NET schemes



¹⁴ Expert Group Report on the Analysis of the ERA-NET Cofund Actions under Horizon 2020.

Some respondents also commented that the ERA-NET instrument may be performing worse than their national programmes and this seems to be the case in terms of reporting requirements and overall management cost-benefit ratio, although this may vary from one area to another. Yet, this does not seem to be the case for the majority of the respondents, EU15 respondents indeed considered some of the ERA-NET schemes worse than their national programmes. Interestingly, in the case of EU13 it was actually the opposite as respondents noted that the ERA-NET schemes perform better than their national programmes in all dimensions examined.¹⁵

Figure 8: Comparing the different ERA-NET schemes (EU15 vs. EU13 responses)

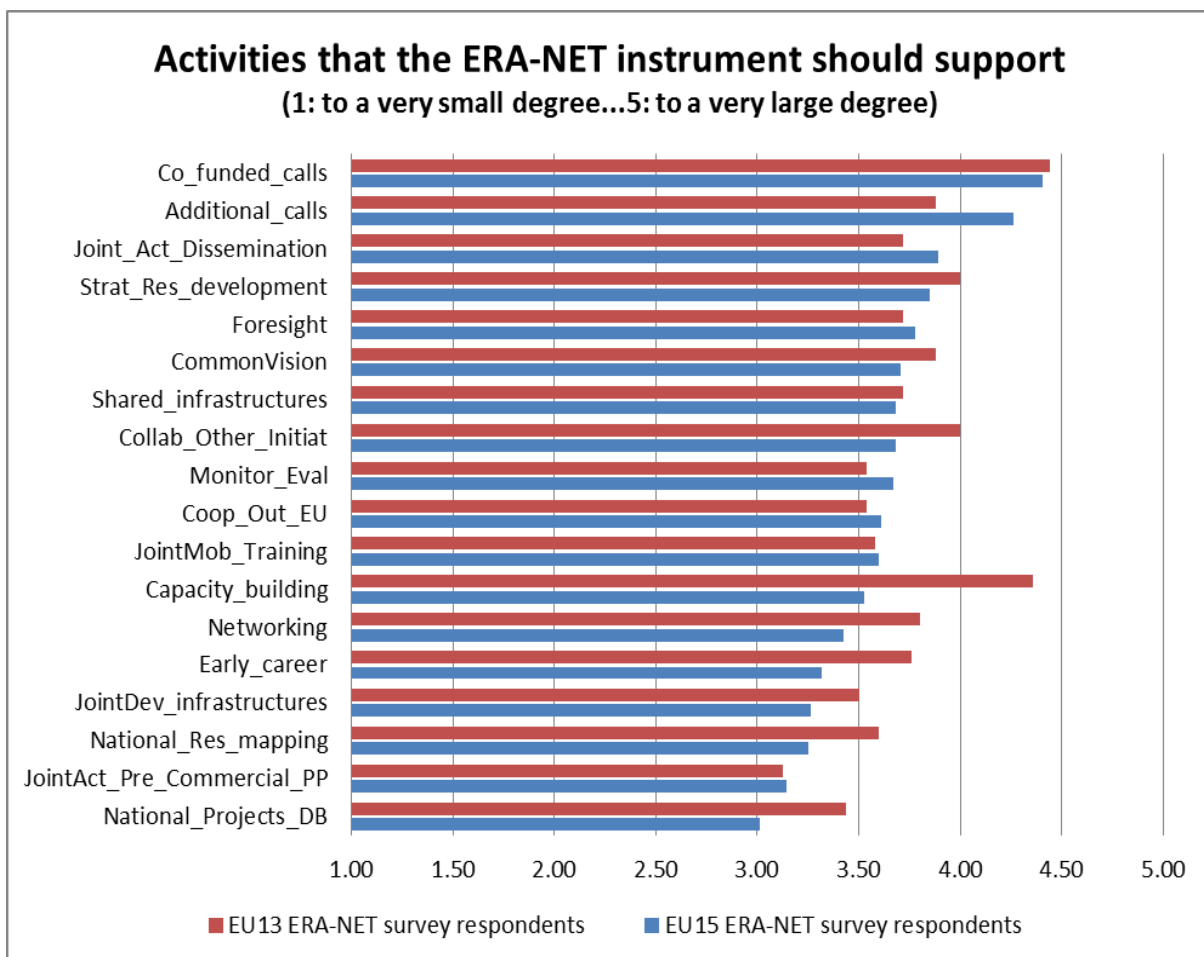


¹⁵ (notwithstanding the small number of EU13 responses in the survey, around 20).

3.8 ERA-NETs should go beyond joint calls for research

The ERA-NET instrument should continue to support joint calls (either cofunded or not) and activities in relation to dissemination of project results. Equally important is to carry on jointly developing strategies for the future in the specific research areas addressed including foresight and vision building exercises. Furthermore, the integration of rather ‘new’ activities like the sharing of existing infrastructures is also relevant as well as the collaboration with other similar initiatives to avoid unnecessary overlaps between instruments and thin spread of already shrinking national budgets. Capacity building activities and networking events to foster participation of low performing countries as well as activities to promote early career scientists and young researchers’ programmes seem to be more important for EU13 respondents than their EU15 counterparts.

Figure 9: Activities that the ERA-NET instrument should support in the future



As respondents stressed during the survey “The future scheme should put again a focus on additional activities including cooperation and collaboration activities... Additional co-funded calls beyond the first co-funded call would help incentivize participation (by funders) in all calls and would help an ERA-NET to build momentum.”

3.9 There is still work to do for ERA-NETs to fully realise their potential

The ERA-NET instrument is placed under the framework of EU policies including ERA, the Innovation Union as well as a series of sectoral strategies and policies. Within this framework the examination of the effectiveness of the instrument is important in relation to achieving European policy objectives, namely creating a critical mass of resources, the level of embeddedness in a wider European strategy for tackling societal challenges, and the level of integration in national policy contexts.

Largely agreeing with the Cofund community, the majority of ERA-NET survey respondents consider that the instrument contributes to achieving a critical mass of resources through the implementation of joint calls. The co-funded calls implemented by the ERA-NET Cofund actions submitted in 2014/2015 present on average a much broader participation of countries (16 instead of 10 under FP7) and larger call budgets (on average EUR 21.6 million v EUR 19 million for FP7 ERA-NET Plus and EUR 7 million for ERA-NETs).¹⁶

ERA-NET actions are indeed embedded in a long-term EU strategy (including also other initiatives such as JPIs and Art. 185s) for translational collaboration in tackling societal challenges. The ERA-NET instrument clearly fulfils its target to enhance trans-national cooperation. Thanks to its existence over the years it allowed establishing durable cooperation among partners. Based on the data of the first 27 Cofund actions under Horizon 2020, out of the 27 Cofund networks, 10 are successors of previous ERA-NETs, while 10 are linked to JPIs. Thus, they enjoy prior collaborations, some of which may date back for over ten years.

Furthermore, ERA-NETs promote international collaboration beyond the EU although this is more pronounced in the case of Cofund actions. According to a combination of data from CORDA and ERA-LEARN, participation of non-associated third countries in ERA-NETs¹⁷ has increased from around 3.5 % in FP7 to around 5 % in H2020. This is particularly significant especially when compared against the overall decrease of international participation, from around 4.7 % in FP7 to 2.4 % in H2020.¹⁸

In full agreement with the findings of the Expert Group Report of the ERA-NET Cofund instrument, however, ERA-NET actions fall short in terms of aligning national research strategies. Although they complement national programmes, they are not fully embedded in national policy portfolios and/or national strategies for translational collaboration. It seems that ERA-NET instrument do not go beyond being an extra tool to increase trans-national collaboration among funding agencies and form just one part of their programme portfolio they offer to their research communities. As a respondent put it *“ERA-NETs are flexible tools, but the knowledge about their use and opportunities needs to spread and increase. Many funders, and ministry decision-makers have still not clear ideas how to work with partnering / P2Ps and ERA-NETs”*

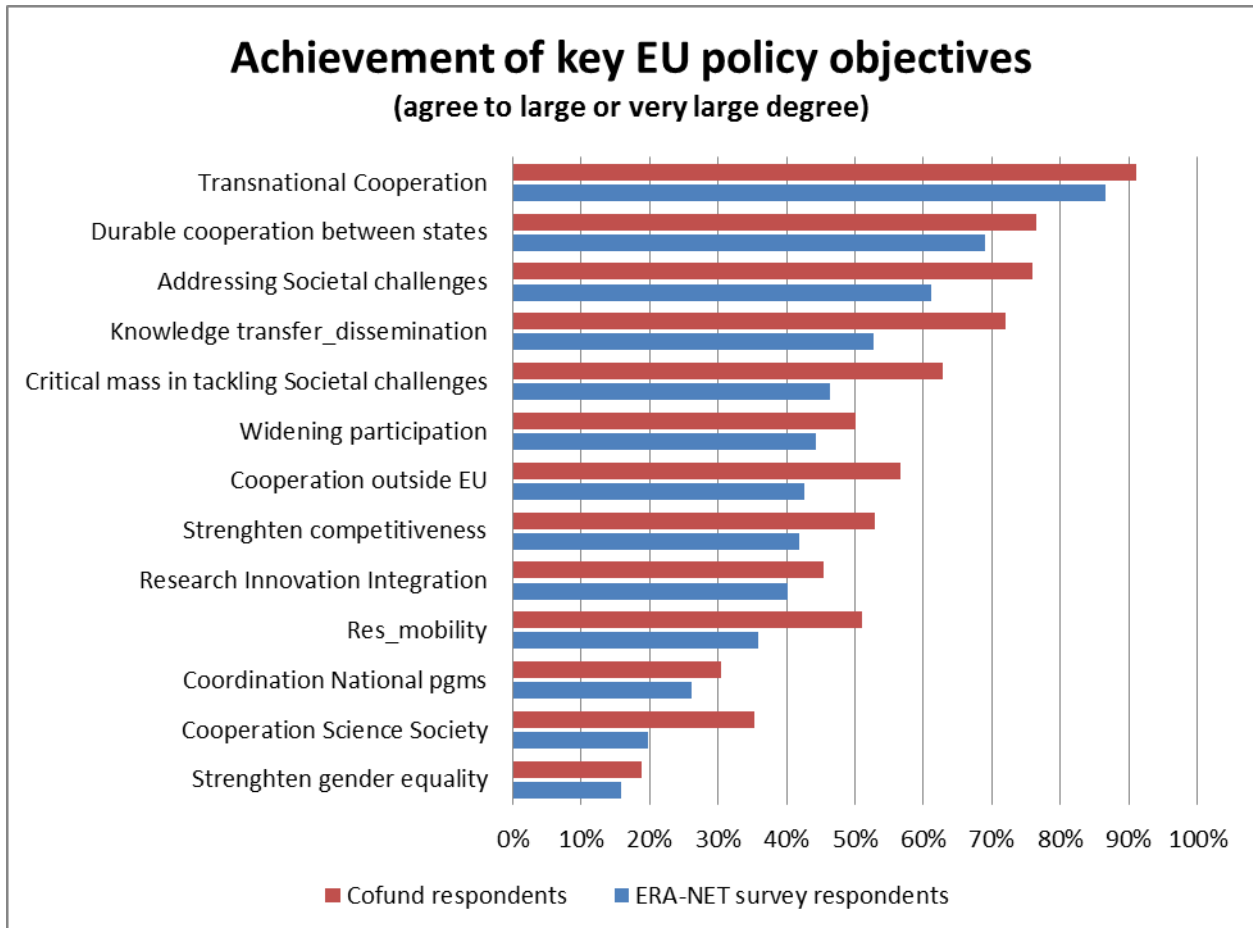
More work also needs to be done in relation to knowledge transfer. As noted by a respondent ERA-NET actions are not that successful in disseminating their results and publicising their impacts. Given that to achieve their aims they need to focus more on attracting policy attention and influencing agendas at both the national and EU/international levels this becomes extremely pertinent.

¹⁶ Expert Group report on Analysis of the ERA-NET Cofund action under Horizon 2020.

¹⁷ Number of times that entities from non-associated countries have participated in ERA-NETs over the number of times that entities from any country have participated in ERA-NETs.

¹⁸ Expert Group report on Analysis of the ERA-NET Cofund action under Horizon 2020.

Figure 10: Achievements of ERA-NETs in achieving key EU policy objectives



There is also room for improvement in ERA-NET actions to help close the research and innovation gap in Europe by widening participation of lower performing countries, and in integrating the research and innovation dimensions. According to a respondent *“For low performing (high potential) countries ERA-NETs are a great instrument allowing for better and easier integration of researchers into ‘old boys’ networks. The ERA-NET Cofund provides potential to allow for even better integration, but partners need to be aware of different ‘inclusiveness’ mechanisms. There are many good practices that should be further showcased as there is still too little coherence between ERA-NETs”*.

Yet, the data from the first Cofund actions show that EU-13 country participation is better when compared to the overall participation in Horizon 2020. And it also improved in relation to FP7 public-to-public networks (P2Ps). EU13 participation in FP7 P2Ps accounted for 13% of all countries’ participation. This increased to 20% in the Cofund scheme in H2020 while the share of EU13 participation in the other H2020 calls is only 8.5%.

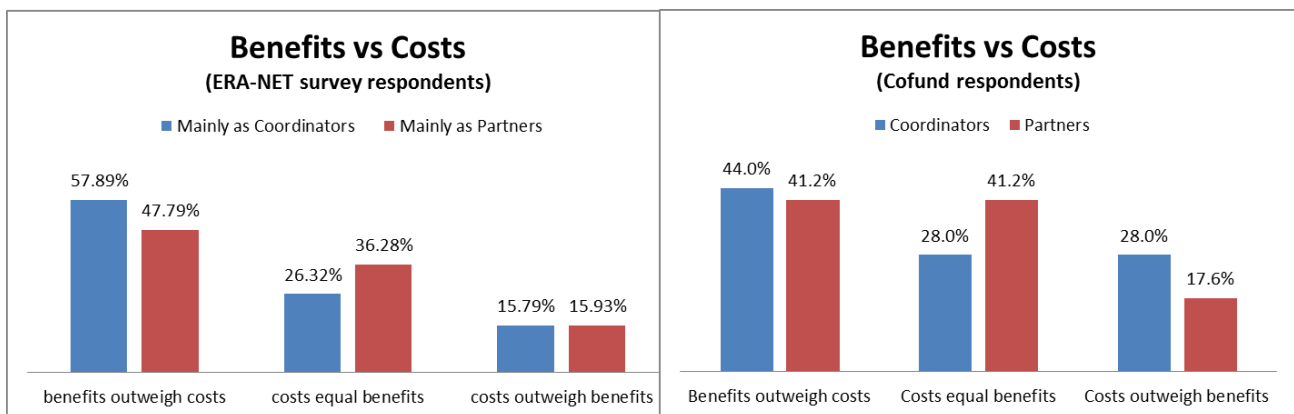
Table 1: Participation in P2Ps in FP7 and H2020

	FP7	H2020
Number of countries per call	10	15
Average call budget incl. EU [Euro million]	8,8	29,0
Share of EU13 - participation - budget	13% 5%	20% 5%
H2020 comparison - participation - Budget		8,5% 4,5%

Source: Niehoff’s presentation at the Workshop on the ‘Future of Joint Programming and its Instruments’, Brussels, 9th November 2016.

Notwithstanding the shortcomings, the majority of the two surveys respondents state that the costs of their participation are either equal or less than the benefits gained. This is valid for both EU15 and EU13 respondents as well as for the most and least experienced respondents. Cofund Coordinators, however, are more critical as costs outweigh benefits for 28% of them possibly reflecting their discontent with the ineligibility of management costs and uncertainty in applying the new financial rules in the latest version of the instrument.

Figure 11: Benefits vs. Costs of participation in ERA-NETs



4. Conclusions

The two cohorts (Cofund partners and the rest of the ERA-NET partners) have responded largely in agreement with each other to the ERA-LEARN 2020 survey questions. While, they seem to be quite satisfied with the support provided by the EC over the years, some work needs to be done for concepts introduced recently (such as the 'Unit Cost' and 'Black Box') to be clearly understood especially by newcomers. Ineligibility of management costs of ERA-NET actions for direct EC funding also causes concerns. However, for the experienced partners it is more long-term difficulties that are more serious such as the shrinking national budgets and limited long-term commitment at national level.

The ERA-NET instrument should continue to support joint calls as well as other activities in relation to dissemination of project results and activities with regards to joint strategy development. This would strengthen the actual coordination of national strategies among countries. 'New' activities like the sharing of existing infrastructures are also relevant as well as the collaboration with other similar initiatives to avoid unnecessary overlaps between instruments and thin spread of already shrinking national budgets. Capacity building activities and networking events are also pertinent and important especially for the low performing countries.

ERA-NET partners participate in ERA-NETs for a variety of motivations reflecting a recognition that certain challenges are better dealt with at the international, on the one hand, and own interests on the other. Similarly, they perceive a variety of benefits that span several types (scientific, cultural, capacity building, conceptual, etc.). Interestingly, the way they responded to the survey questions imply interdependence across certain types of impacts, i.e. degree to which certain impacts are materialised depends on the degree to which other impacts exist. Overall, it can be concluded that to achieve their ultimate goal, ERA-NETs need to focus on excellence, but at the same time, they need to pursue objectives beyond that, by increasing efforts to attract policy attention and support primarily at the national level, so that they become influential actors at the European / international arena.

It is largely acknowledged as well as supported by evidence that the ERA-NET instrument contributes to achieving a critical mass of resources and durable cooperation among countries. In addition, ERA-NETs promote international collaboration beyond the EU more successfully than Horizon 2020. On the other hand, ERA-NET actions fall short in leading to actual alignment of national strategies. Although exceptions exist, they are not considered more than another part of the programme portfolio that the funding agencies offer to their research communities. There is also the need for improved coordination and synergy building across the different initiatives as well as among ERA-NETs within the same area and more work needs to be done in relation to knowledge transfer, disseminating and publicising ERA-NET results and impacts. However, most of the ERA-NET participants consider their participation worthwhile.

Annex I: Advanced statistical elaboration of survey responses

Data Analysis of the 'Cofund' and 'ERA-NET overall' Surveys

Total complete responses = 311

Variable list:

To what extent do you perceive the following benefits from participating in the ERA-NET schemes?

(0 – not at all, 1 – to a very small degree, 2 – to a small degree, 3 – moderately, 4 – to a large degree, 5 – to a very large degree, 'Don't know', 'Not applicable')

- Design of new means of collaboration through joint activities (e.g. Shared use of infrastructure, joint strategic analysis and foresight, knowledge hubs, etc.)
- Adoption of interdisciplinary approaches in research (collaboration between multiple academic disciplines)
- Adoption of transdisciplinary approaches in research (collaboration between multiple partners, both academic and non-academic)
- Increased capacities and skills (in relation to scientific areas, strategic thinking, international project management)
- Increased international collaboration of the national / regional research communities
- Increased quality of research projects at national / regional level
- Increased investments in certain research areas at national / regional level
- Access to additional European funding for certain areas
- Increased connectivity across different agencies (at national level)
- Increased coordination within the national level (at ministerial/funding agency level)
- Increased coordination at cross-national level in relation to research funding and strategies
- Increased coordination across different agencies in relation to funding, monitoring and evaluation procedures
- increased awareness of specific research topics at cross-national level
- Increased visibility of certain research issues at national / regional level
- Influencing the shaping of national research agendas and programmes
- Development of strategies in new areas at national level
- Influencing the shaping of research agendas of European / international organisations
- Development of strategies in new areas at European / international level
- Increased chances of finding effective solutions to societal challenges

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Increase_skills	293	1	5	3.88	.902
Increase_res_quality	281	1	5	3.78	1.043
Soc_challenges	285	1	5	3.57	1.132
New_collaborations	283	1	5	3.59	1.018
Interdisciplinarity	287	1	5	3.64	.957
Transdisciplinarity	287	1	5	3.73	.983

	N	Minimum	Maximum	Mean	Std. Deviation
Increase_Intern_Collab	294	1	5	4.30	.809
Increase_Res_invest	284	1	5	3.35	1.113
Funding_acces	269	1	5	3.65	1.165
Increase_connectivity	273	1	5	3.26	1.243
Increase_coor_nat	258	1	5	2.97	1.253
Increase_coor_cross_national	281	1	5	3.41	1.162
Increase_coor_agencies	281	1	5	3.32	1.209
Increase_Res_awareness	287	1	5	3.61	1.072
Increase_Res_visibility	292	1	5	3.56	1.045
Influence_Res_agenda	279	1	5	3.14	1.207
Strategy_developm_national	270	1	5	2.95	1.197
Influence_EU_Res_agenda	273	1	5	3.42	1.161
Strategy_developm_EU	272	1	5	3.34	1.180

Reliability:

Cronbach's alpha = 0.903 -> reliable threshold = 0.7

Anova

	Sum of Squares	df	Mean Square	F	Sig
Between People	1213.814	181	6.706		
Within People					
Between Items	272.340	15	18.156	27.787	.000
Residual	1773.972	2715	.653		
Total	2046.312	2730	.750		
Total	3260.126	2911	1.120		
Grand Mean = 3.57					

The model used in the remainder is linear OLS. We suppose that the relations between the various degrees of agreement to the statements expressed by the respondents are linear (i.e. the variables are scaled). Ordinal logistic (calculated on the ordinal scores) confirmed the findings. Therefore, we consider the use of Ordinary Least Square to appropriately represent the phenomena.

Step 1:

Factors affecting **increased capacities and skills in relation to scientific areas, strategic thinking, and international project management**

Correlation matrix

	(1) Increase _skills	(2) Transdisciplinar ity	(3) Increase_Intern _Collab	(4) Increase_Res_vi sibility	(5) National Strategy_dev
(1)	1				
(2)	.440	1			
(3)	.360	.314	1		
(4)	.400	.324	.265	1	
(5)	.314	.153	.275	.565	1

Note: high correlation between the variables 4 and 5 (restriction on VIF)

Dependent variable Increased capacities and skills in scientific areas, strategic thinking, international project management					R squared	Adj. R squared	F – stat
Independent variables					0.295	0.283	25.579***
	Coefficient (st. Error)	Standardised coefficient	t – stat	VIF			
Constant	1.326 (0.297)	-	4.461***	-			
Transdisciplinarity	0.271 (0.050)	0.178	5.422***	1.525			
International Collab.	0.184 (0.067)	0.160	2.755***	1.174			
Research Visibility	0.146 (0.054)	0.178	2.680***	1.525			
National Strategy	0.088 (0.046)	0.124	1.932*	1.440			

***= sig. < 0.01; ** = sig. < 0.05; * = sig. < 0.10

In the opinion of respondents, 'increased capacities and skills in scientific areas, strategic thinking, and international project management' are positively (and significantly) affected, in order of importance, by:

- (4) the transdisciplinary approach of the scheme (collaboration between multiple partners, both academic and non-academic);
- (5) Increased international collaboration of the national / regional research communities;
- (6) Increased visibility of certain research issues at national / regional level.

The variable: Development of strategies in new areas at national level is only statistically significant at the 10% level; therefore, we do not consider it relevant in explaining the phenomenon.

Step 2:

Factors affecting **increased quality of research projects at national / regional level**

Correlation Matrix

	(1) res_quality	(2) skills	(3) Res_invest	(4) Funding_acces	(5) Connectivity
(1)	1				
(2)	.576	1			
(3)	.463	.372	1		
(4)	.384	.285	.464	1	
(5)	.363	.242	.371	.429	1

Note: high correlation between the variables 4 and 5 (restriction on VIF)

Dependent variable: increased quality of research projects at national / regional level					R squared	Adj. R squared	F – stat
Independent variables					0.470	0.461	50.175***
	Coefficient (st. Error)	Standardised coefficient	t – stat	VIF			
Constant	0.211 (0.261)	-	0.812	-			
Skills	0.508 (0.061)	0.437	8.386***	1.160			
National/Regional investments	0.244 (0.056)	0.248	4.396***	1.362			
Access to EU funds	0.110 (0.052)	0.118	2.104**	1.342			
Connectivity	0.108 (0.046)	0.129	2.358**	1.270			

***= sig. < 0.01; ** = sig. < 0.05; * = sig. < 0.10

In the opinion of the respondents, 'increased quality of research projects at national / regional level' is positively (and statistically significant) affected, in order of importance, by:

- (4) increased capacities and skills in scientific areas, strategic thinking, and international project management;
- (5) Increased investments in certain research areas at national / regional level;
- (6) Access to additional European funding for certain areas;
- (7) Increased connectivity across different agencies (at national level)

Step 3:

Factors affecting **Increased chances of finding effective solutions to societal challenges**

	(1) Soc_ch allenge s	(2) res_quali ty	(3) New_col laborati ons	(4) cross_national_ Coord	(5) Influence_EU_ Res_agenda	(6) Res_a waren ess
(1)	1					
(2)	.384	1				
(3)	.398	.239	1			
(4)	.403	.339	.275	1		
(5)	.503	.238	.296	.369	1	
(6)	.454	.328	.329	.575	.373	1

Note: high correlation between the variables 4 and 5 (restriction on VIF)

Dependent variable: Increased chances of finding effective solutions to societal challenges					R squared	Adj. R squared	F – stat
Independent variables					0.395	0.382	29.033***
	Coefficient (st. Error)	Standardised coefficient	t – stat	VIF			
Constant	-0.114 (0.325)	-	-0.352	-			
New Collaborations	0.259 (0.065)	0.223	4.015***	1.137			
Influence EU Res Agenda	0.258 (0.057)	0.264	4.531***	1.484			
Research Quality	0.245 (0.061)	0.224	4.014***	1.144			
Research awareness	0.157 (0.071)	0.141	2.218**	1.484			
Cross-National Coord.	0.109 (0.064)	0.108	1.690*	1.245			

***= sig. < 0.01; ** = sig. < 0.05; * = sig. < 0.10

In the opinion of the respondents, 'increased chances of finding effective solutions to societal challenges' are positively (and statistically significant) affected, in order of importance, by the following factors:

- (5) Design of new means of collaboration through joint activities (e.g. Shared use of infrastructure, joint strategic analysis and foresight, knowledge hubs, etc.);
- (6) Influencing the shaping of research agendas of European / international organisations;
- (7) Increased quality of research projects at national / regional level
- (8) increased awareness of specific research topics at cross-national level.

The variable: Increased coordination at cross-national level in relation to research funding and strategies is only statistically significant at the 10% level; therefore, we do not consider it relevant in explaining the phenomenon.

Annex II: ERA-NET Survey 2016 – organised by ERA-LEARN 2020

Data of the Respondent

1. Name
2. Organisation
3. Department
4. Position of respondent in their organisation
5. Country
6. Years of your personal experience in participating in ERA-NETs¹⁹

(options: 0-3; 3-6, >6 yrs)

7. Type of experience in participating in ERA-NETs²⁰

(options: mostly as Coordinator; mostly as Partner; almost equally as Coordinator and Partner)

8. In which versions of the ERA-NET Scheme have you participated in? (tick – multiple ticks possible)

	Tick
FP6 ERA-NETs	
FP7 ERA-NETs	
FP7 ERA-NET Plus	
H2020 ERA-NET Cofund	

A. Proposal and grant preparation

1. To the best of your knowledge how would you assess the quality of advice/guidance provided by the Commission services over the years in relation to the following?

(1 – it was bad and further worsened over the years; 2 – it was bad but improved over the years; 3 – it was of adequate quality and remained stable over the years; 4 – it was good but slightly worsened over the years; 5 – it was good and further improved over the years; ‘Don’t know’, ‘Not applicable’)

- a. operational aspects
- b. financial aspects
- c. administrative aspects
- d. technical content of proposal
- e. setting up the consortium agreement
- f. preparation of the grant agreement
- g. increasing the geographical scope of the networks

B. Management and monitoring

1. Based on your overall experience, which of the following play an important role in addressing the management aspects in an ERA-NET project effectively?

¹⁹ By ERA-NETs we refer to all the different versions of the scheme, i.e. ERA-NETs, ERA-NET Plus, and ERA-NET Cofund.

²⁰ By ERA-NETs we refer to all the different versions of the scheme, i.e. ERA-NETs, ERA-NET Plus, and ERA-NET Cofund.

(0 – not at all, 1 – to a very small degree, 2 – to a small degree, 3 – moderately, 4 – to a large degree, 5 – to a very large degree, 'Don't know', 'Not applicable')

- a. A manageable and well-resourced Coordination office
- b. Manageable, internal governance structures (steering committee, WP leader group, etc.)
- c. Active external bodies (advisory boards/stakeholders boards/etc.)
- d. A manageable and well-resourced Call Secretariat
- e. An internal strategy in managing ERA-NETs within own organisation/agency
- f. Responsibility for the management of the call secretariat and implementation of the call(s) to the same partner
- g. Outsourcing of management tasks to service providers
- h. ...Other....(please explain)

2. Based on your overall experience which of the following are necessary to ensure adequate monitoring of the actions in an ERA-NET project?

(0 – not at all, 1 – to a very small degree, 2 – to a small degree, 3 – moderately, 4 – to a large degree, 5 – to a very large degree, 'Don't know', 'Not applicable')

- a. Reporting and monitoring obligations resulting from the Grant Agreement
- b. Internal reporting procedures set up additionally by the project partners
- c. Internal evaluation procedures set up additionally by the project partners
- d. Contingency plans and measures to avoid or mitigate risks during project implementation (e.g. selected projects not going forward, delays in delivery of tasks, disputes among partners, withdraw of a partner, etc.)
- e. External audits
- f. ...Other....(please explain)

C. Implementation

1. Based on your overall experience, what are usually the main problems encountered in the implementation of activities in an ERA-NET project (referring to both joint calls and additional activities)?

(0 – not at all, 1 – to a very small degree, 2 – to a small degree, 3 – moderately, 4 – to a large degree, 5 – to a very large degree, 'Don't know', 'Not applicable')

- a. Delays in the preparation of the joint call
- b. Financial complexity in using the EC contribution
- c. Administrative burden/disagreements related to the preparation and acceptance of the consortium agreement
- d. (Financial) dependence of additional activities on the availability of funds after the implementation of the joint call (relevant for ERA-NET Cofund only)
- e. Restriction of budgets for additional activities within the limits of the unit costs (relevant for ERA-NET Cofund only)
- f. Costs of the preparation of additional joint call not eligible for EC contribution (relevant for ERA-NET Cofund only)
- g. Limited promotion of the joint call within the national / regional communities
- h. Lack of compatibility or complexity in timing, funding and participation rules across national / regional programmes
- i. Low availability of human resources at the national administrative level
- j. Lack of coordination at national level
- k. Lack of national/regional strategies for participating in international activities

- l. Shrinking national research budgets
 - m. Limited long-term commitment at the national level
 - n. Lack of previous collaboration between ERA-NET partners
 - o.other (please explain)....
2. Overall, how would you assess the participation of your organisation in the ERA-NET Scheme in terms of cost-benefit ratio?
(options: 'costs outweigh benefits', 'costs equal benefits', 'benefits outweigh costs')

D. Motivations and benefits of participation

1. Based on your overall experience, to what extent do the following reflect your organisation's motivation for participating in the ERA-NET scheme?

(0 – not at all, 1 – to a very small degree, 2 – to a small degree, 3 – moderately, 4 – to a large degree, 5 – to a very large degree, 'Don't know', 'Not applicable')

- a. recognition of the international context of the specific challenge area
- b. access to complementary research expertise to achieve critical mass in certain areas
- c. access to complementary sources for funding nationally relevant research activities at EU level
- d. compatibility of research theme/topic addressed by ERA-NETs with the national/regional research priorities
- e. compatibility of research theme/topic with the organisational strategy and focus of research
- f. opportunity to ensure stable, repetitive funding for certain research domains
- g. opportunity to influence European policy in the specific challenge area
- h. opportunity to collaborate with other funding agencies
- i. opportunity to increase experience in managing internationalisation in research
- j. opportunity to improve the 'international' experience of the national research community
- k. opportunity to reduce / rationalize the costs of research activities
- l. ...other (please explain)...

2. Based on your overall experience which could be possible de-motivators for participation in the ERA-NET Scheme?

Comments

3. Based on your overall experience, to what extent have you realised the following benefits from participating in the ERA-NET scheme?

(0 – not at all, 1 – to a very small degree, 2 – to a small degree, 3 – moderately, 4 – to a large degree, 5 – to a very large degree, 'Don't know', 'Not applicable')

- a. Design of new means of collaboration through joint activities (e.g. shared use of infrastructure, joint strategic analysis and foresight, knowledge hubs, etc.)
- b. Adoption of interdisciplinary approaches in research (collaboration between multiple academic disciplines)
- c. Adoption of transdisciplinary approaches in research (collaboration between multiple partners, both academic and non-academic)
- d. Increased capacities and skills (in relation to scientific areas, strategic thinking, international project management)
- e. Increased international collaboration of the national / regional research communities
- f. Increased quality of research projects at national / regional level
- g. Increased investments in certain research areas at national / regional level
- h. Access to additional European funding for certain areas
- i. Increased connectivity across different agencies (at national level)
- j. Increased coordination within the national level (at ministerial/funding agency level)
- k. Increased coordination at cross-national level in relation to research funding and strategies
- l. Increased coordination across different agencies in relation to funding, monitoring and evaluation procedures
- m. increased awareness of specific research topics at cross-national level
- n. Increased visibility of certain research issues at national / regional level
- o. Influencing the shaping of national research agendas and programmes
- p. Development of strategies in new areas at national level
- q. Influencing the shaping of research agendas of European / international organisations
- r. Development of strategies in new areas at European / international level
- s. Increased chances of finding effective solutions to societal challenges
- t. ...other (please explain)...

E. Added value of the ERA-NET instrument

- 1. *Optional*** Based on your overall experience how do the different ERA-NET versions compare with each other as well as with national programmes in terms of the following features?

(options: 1 - the worst, 2 - worse than the others, 3 - similar to the others, 4 - better than the others, 5 - the best, 'Don't know', 'Not applicable')

	FP7 ERA-NET is...	FP7 ERA-NET Plus is...	ERA-NET Cofund is...	National Programmes are...
	options: 1 - the worst, 2 - worse than the others, 3 - similar to the others, 4 - better than the others, 5 - the best, 'Don't know', 'Not applicable'	options: 1 - the worst, 2 - worse than the others, 3 - similar to the others, 4 - better than the others, 5 - the best, 'Don't know', 'Not applicable'	options: 1 - the worst, 2 - worse than the others, 3 - similar to the others, 4 - better than the others, 5 - the best, 'Don't know', 'Not applicable'	options: 1 - the worst, 2 - worse than the others, 3 - similar to the others, 4 - better than the others, 5 - the best, 'Don't know', 'Not applicable'
a. Flexibility of the instrument to implement additional joint calls				
b. Flexibility of the instrument to implement additional activities (other than joint calls)				
c. Reporting requirements of the instrument/programme				
d. Funding rates of the instrument/programme				
e. Success rates of (co)funded projects under the instrument/programme				
f. Cost/benefit ratio of managing the instrument/programme				

2. According to you should which joint activities should the ERA-NET instrument support?

(0 – not at all, 1 – to a very small degree, 2 – to a small degree, 3 – moderately, 4 – to a large degree, 5 – to a very large degree, ‘Don’t know’, ‘Not applicable’)

List of activities	
a. Mapping of national research in the specific thematic area	
b. Creating a database of funded national projects in the specific thematic area	
c. Implementing joint foresight activities to explore the future in the given thematic area	
d. Developing a common vision in the thematic area	
e. Developing/Updating a Strategic Research (and Innovation) Agenda in the thematic area	
f. Launching and implementing a co-funded call for proposals	
g. Launching and implementing additional call for proposals	
h. Organising joint mobility and/or researcher training activities	
i. Shared Use of existing infrastructures	
j. Joint development of (new) infrastructures	
k. Implementing joint activities related to pre-commercial public procurement or procurement of innovative solutions	
l. Implementing joint activities related to dissemination and up-take of research results	
m. Networking and brokerage events to extend participation to additional countries	
n. Capacity building and networking activities to foster participation of low budget/ performing countries	
o. Additional activities related to extending cooperation to third / non-EU countries	
p. Monitoring and evaluation/assessment activities both in relation to the network itself or the co-funded projects	
q. Collaboration activities with other initiatives in the same thematic area	
r. Activities promoting early career scientists and young researchers’ programmes	
s. Other....(please explain)	

F. Relevance and coherence of the ERA-NET Instrument with EU/national policies

1. Based on your overall experience, how much would you agree to the following statements

(0 – not at all agree, 1 – agree to a very small degree, 2 – agree to a small degree, 3 – moderately agree, 4 – agree to a large degree, 5 – agree to a very large degree, ‘Don’t know’, ‘Not applicable’)

- a. The ERA-NET instrument corresponds to the needs of the beneficiaries (ministries, research funding organizations, research performing organisations).
- b. The ERA-NETs are implemented in areas in which the European added-value is clearly demonstrated.
- c. The ERA-NETs achieve a critical mass of resources with the calls they implement
- d. The ERA-NET actions are embedded in a long-term EU strategy for translational collaboration in tackling Societal Challenges (including also Joint Programming Initiatives, Art. 185s, etc.).
- e. There is adequate complementarity and synergies between ERA-NETs and other initiatives and/or instruments which have similar objectives (Article 185, JPIs, EJP Cofund, CSA, etc.)
- f. There is adequate coherence and complementarity between ERA-NETs within a same sector/area.
- g. ERA-NET actions are embedded in national policy portfolios and/or national strategies for translational collaboration in tackling Societal Challenges.
- h. ERA-NET actions complement national research programmes.

G. Achievement of key objectives of EU policies (ERA, H2020)

1. Based on your overall experience, to what extent do you think the ERA-NET scheme contributes to...

(0 – not at all, 1 – to a very small degree, 2 – to a small degree, 3 – moderately, 4 – to a large degree, 5 – to a very large degree, ‘Don’t know’, ‘Not applicable’)

- a. strengthening the competitiveness of the European economy?
- b. addressing major societal challenges?
- c. enhancing trans-national cooperation?
- d. facilitating mobility of researchers?
- e. facilitating dissemination of results and transfer of knowledge?
- f. strengthening gender equality?
- g. promoting international cooperation beyond the EU?
- h. coordinating national programmes?
- i. Creating critical mass at European level in tackling societal challenges?
- j. establishing a durable cooperation between partners?
- k. Widening participation across the Union in research and innovation and helping to close the research and innovation divide in Europe?
- l. Promoting cooperation between science and society (e.g. participation of civil society organisations, citizens, non-governmental organisations)?
- m. Integrating the research and innovation dimensions?



2. Please provide any additional comments in relation to ways/means to improve the ERA-NET scheme

Comments

Thank you for your collaboration – The results will be presented in the Annual Joint Programming Conference in Nov. 2016

