

# Annual Report on Public-Public Partnerships 2019





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### **Foreword**

The new policy approach on European Partnerships and the rationalisation and reform of the partnership landscape that started in 2019 mark the change from Horizon 2020 to Horizon Europe. The first European Partnerships will take the ambition to drive transformational change and achieve impacts for our society and citizens to a new level.

ERA-LEARN has been a great supporter in 2019 and contributed with many activities and products. The website has established itself as the most comprehensive and complete overview on the policy approach and individual candidates for European Partnerships. The thematic screening of the partnerships landscape was used by Commission Services and Member States in the selection process for the next generation of partnerships. Workshops brought together, for the first time, the public-public and public-private partnerships of Horizon 2020. The R&I Partnership Evaluation (RIPE) Toolkit and first country reports support the partnerships and Member States in their monitoring and impact assessment.

This annual report provides a unique overview on the activities and achievement of Public-Public Partnerships that would not have been possible without the fantastic support and meticulous work of Hayley Welsh, Katrina Watson and Angus Hunter from Optimat. We also very much appreciate the continued support from the networks that take the time to provide the data to ERA-LEARN and increasingly use its online system as the central point to display information on their activities and, in particular, their funded projects.

The ERA-LEARN team, led by Roland Brandenburg from FFG, will be key in accompanying the transition to European Partnerships under horizon Europe and we are very much look forward to continuing this close collaboration.

#### Jörg Niehoff

Head of Sector Partnerships DG Research & Innovation

## **Executive Summary**

This is the 5th Annual Report on Public-Public Partnerships (P2Ps) that has been prepared by the ERA-LEARN project team using data provided by the P2P networks. The report provides an updated picture of the evolving P2P landscape and some headline statistics. It also highlights examples of good practice and achievements from networks during 2019 as they seek to address specific challenges and create a wider impact within the community, in an increasingly collaborative manner.

ERA-LEARN has continued to update and enhance its website with material to support the P2P community, becoming a comprehensive resource on the policy approach and candidates for European Partnerships in the forthcoming Horizon Europe. Furthermore, during 2019, it has implemented a number of relevant strategic activities including the development of the R&I Partnership Evaluation (RIPE) Toolkit (which presents a complete monitoring and evaluation methodology that is tailored to the needs of P2Ps), a survey on inclusiveness, a policy brief on the potential coordination between European Structural and Investment Funds and transnational P2Ps and the creation of the first three reports in a series of Country Reports on P2P Participation.

The report also provides a summary of the steps that have taken place over the last year in bringing about a new generation of partnerships. A major simplification and reform of policy on partnerships was put forward, with a more strategic, coherent and impact-driven approach. European Partnerships will allow for the concentration of resources, knowledge and skills on common EU priorities, directly supporting the priorities of the new Commission. Candidate partnerships have been identified as part of the strategic planning process, with the preparatory work on 49 partnerships having started. The first European Partnerships are expected to be launched in 2021 with the adoption of the first Horizon Europe Work Programme.

The current P2P landscape continues to evolve, with the leverage of the ERA-NET Cofund instrument evidenced by the increasing number of additional calls being implemented by the ERA-NET Cofund networks with no EU co-funding. There are also some clear examples of good practice from networks across the community as they work to address challenges related to widening, multilateral collaboration, knowledge transfer and sustainability, among others. Details on some of these have been provided in the report to demonstrate such activities and the wider achievement of long-standing programmes, for example:

- Broadening participation in projects funded by ERA-NETS: The 2019 ERA-NET Cofund call of JPcofuND 2, sought to widen participation of EU-13 countries in its funded projects.
   Opportunities to enhance widening were put in place at all stages of the process, including pre-evaluation and post-evaluation
- Trilateral Collaboration between different partnerships: 2019 saw the design and preparation of a new ERA-NET Cofund network, AquaticPollutants, involving three JPIs – JPI Water, JPI Oceans and JPI AMR – to bring together the research communities in the freshwater, marine and the health sectors to collaborate and create synergies for joint approaches

- Achievements in capacity building, research excellence and multilateral collaboration: In 2019, BiodivERsA, the network of organisations programming and funding research on biodiversity, ecosystem services and Nature-based Solutions, achieved significant strides towards its goals, culminating in the co-creation of a European Partnership on Biodiversity. Among other activities, it continued its effort to support research that can demonstrate academic excellence and that has a potential high impact on society and policy. Most notably, ten transnational projects were funded through the 2018-2019 BiodivERsA Call on biodiversity and its impact on animal, human and plant health
- Celebrating 10 years of excellence: Towards the end of 2019, EURAMET's European
  Metrology Research Programme (EMRP) drew to a close. From its launch, the programme
  stood as a pillar of support for measurement science around Europe. The successful
  implementation of EURAMET's research programme has increased the level of coordinated
  measurement science research across Europe, adding to the region's high standards of
  metrology

ERA-LEARN continues to provide updated statistical data in relation to networks, calls and funded projects. Detailed charts and statistics can be found on the ERA-LEARN website and much of this is summarised throughout this report. Some headlines include:

- 85 networks were active in January 2019, four of which started in this month. Four networks ended during 2019 (three of which were FP7 and one was one of the first ERA-NET Cofunds)
- 57 joint calls closed in 2019, 44% of which were ERA-NET Cofund calls
- Of the 25 ERA-NET Cofund calls that closed in 2019, five were initial co-funded calls and 20 were additional calls (with no EU co-funding). Three networks have already implemented their 4th additional calls and one has implemented its 5th additional call
- By the end of 2019, some 689 joint calls were implemented by P2P networks, with cumulative investment of more than Euro 8.45 billion in almost 8,000 transnational projects

We could not provide the statistical data without the support of the P2P networks that take the time to provide this data on a regular basis and so we thank all of them for their continued support.

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## 1. Introduction

This 5<sup>th</sup> annual report on the P2P landscape, from the ERA-LEARN project, commences with a short overview of the work of ERA-LEARN and some insight into the current situation on European Partnerships and Horizon Europe. It then provides an update regarding the evolving P2P landscape in relation to calls, committed budgets and transnational projects. This is followed by a description of some of the highlights from 2019 across all network types, an outlook on future planned activities, an overview of the monitoring and impact assessment requirements in Horizon Europe and some aggregated country level data prepared as part of a series of country reports being published by ERA-LEARN.

Note that additional statistics are available on the ERA-LEARN website.1

In line with previous reporting, the networks are segmented into seven types:

- ERA-NET Cofund (the Horizon 2020 ERA-NET Cofund instrument)<sup>2</sup>
- JPIs (Joint Programming Initiatives)
- Article 185 Initiatives
- ERA-NET FP6 (the FP6 Coordination and Support Actions)
- ERA-NET FP7 (the FP7 Coordination and Support Actions)
- ERA-NET+ (the FP7 ERA-NET Plus Instrument)
- Self-Sustained Network (P2P networks that continue implementing joint calls after the end of the Commission funding)

<sup>1</sup> www.era-learn.eu/p2p-in-a-nutshell/facts-figures

<sup>2</sup> Analysis of Cofund networks is shown for both the EU co-funded joint calls and the additional calls (without EU co-funding)

#### Limitations

The majority of the information and statistical analysis contained in the report is based on factual data provided by the P2P networks but there are some limitations and gaps. In such cases, informed estimates have been made so that the scale and diversity of the joint calls is fully apparent.

The ERA-LEARN team and the Commission rely on the data that comes directly from the P2P networks in relation to calls and projects to ensure we can provide the community with the most accurate and up-to date information and analysis available. It is, therefore, important that we can count on the continuing support of those network coordinators and call secretariats that have provided the necessary data that will help us to improve the overall quality of the aggregated data.

#### **Acknowledgements**

The ERA-LEARN team would like to sincerely thank the P2P networks that have provided the detailed datasets to support production of this report and the additional statistics available from the ERA-LEARN website. We very much appreciate this ongoing support.

We would also like to thank Jörg Niehoff, Andrei Lintu and their colleagues for providing access to European Commission data, helping to address data gaps and their valuable insight and guidance to support the descriptive analysis.

#### **Feedback**

Any comments on this report and/or suggestions for future reports may be addressed to hayley.welsh@optimat.co.uk.

### 2. ERA-LEARN 2018-2022

The ERA-LEARN Platform entered its next phase of development in the middle of 2018 and will continue to support the P2P community until 2022. Its scope has been extended to build on the lessons from the previous phase, help address policy issues and support the transition from Horizon 2020 to Horizon Europe. Some key activities from 2019 are summarised here.

The online portal continues to be enhanced and is the key tool for the dissemination of information from ERA-LEARN. It has been updated with various ERA-LEARN produced reports, discussion documents and policy briefs, as well as regularly updated information from the European Commission on European Partnerships under Horizon Europe. ERA-LEARN is working closely with the European Commission to support the dissemination of information in this regard and will continue to respond with appropriate resources, training events and guidance, as required.

In addition to the provision of training and other support materials, some specific strategic activities were implemented during 2019 to help increase the impact of P2Ps. One of these was the development of the R&I Partnership Evaluation (RIPE) Toolkit, which presents a complete monitoring and evaluation methodology that is completely tailored to the needs of P2Ps. This includes concrete steps, examples, templates and good practice tips based on the work of ERA-LEARN over the years in supporting the P2Ps in their monitoring and evaluation activities. The RIPE Toolkit is available on the ERA-LEARN website and will be enriched and updated as new materials become available. Some information on how this can support the monitoring and impact assessment requirements of Horizon Europe can be found in section 7 of this report.

Another strategic activity undertaken during 2019 was a survey on inclusiveness, the key objective of which was to collect information on measures introduced by Horizon 2020 ERA-NET Cofund and EJP networks to enhance participation of less performing research communities. Over 40 networks responded to this survey and a report on its results will be available on the ERA-LEARN website during Spring 2020.

A further key task within the current ERA-LEARN programme of activities is to help bring about the conditions for more synergistic use of European Structural Investment Funds (ESIF) in order to support national participation in the European Partnerships by providing advice and tools for the drafting of future operational programmes. The first stage of this work is a Policy Brief on the potential coordination between European Structural and Investment Funds and transnational P2Ps. It presents the main findings of a programme of desk research and outlines the next steps in developing effective 'tools for synergies' to support relevant stakeholders and managing authorities. The Policy Brief is now available on the ERA-LEARN website.

In relation to country-specific analysis, the first three reports in a series of Country Reports on P2P Participation were published during 2019. These covered Poland, Austria and Spain. They analyse the current status of P2P participation in each country, providing valuable information to organisations seeking to understand the current situation and the wider R&I context within that specific country. Further reports are in developments and will be published on the ERA-LEARN website as they become available.

Finally, we would like to remind P2P networks undertaking impact assessment work that the common framework questionnaire can be accessed any time to support networks to better understand the wider impact of their funding and support on the beneficiaries of transnational projects.

# 3. European Partnerships and Horizon Europe

The year 2019 marked a major step towards the next generation of partnerships that brings their ambition to the next level.

#### A reformed policy approach

First of all, the European Parliament and Council endorsed, in their common understanding from 27 March, the new policy approach for European Partnerships that the Commission had proposed. This puts forward a major simplification and reform for the policy on partnerships. With a more strategic, coherent and impact-driven approach, they will be key in the transition towards a greener, socially relevant and digitally enabled economy and society. European Partnerships allow for the concentrating of resources, knowledge and skills on common EU priorities, directly supporting the priorities of the new Commission. European Partnerships find their rationale, most often, in addressing systemic and transformational failures i.e. fragmented efforts and value chains that affect the development of innovative solutions and tackling complex challenges. Partnerships are in a unique position to address these because they allow:

- Development of a common vision (Strategic Research and Innovation Agenda/roadmap) and programme of activities
- Coordinated implementation of the joint programme, allowing the creation of large-scale testing and experimental platforms that support the development of systemic innovative solutions for societal challenges and industrial transformation (including regulatory aspects and the innovation principle)
- Joining up of investments towards agreed priorities and developing synergies with other EU and Member States' initiatives to ensure deployment and scaling up, such as Important Projects of Common European Interest, Digital Europe Programme, Connecting Europe Facility, Cohesion Funds or financial instruments

European Partnerships will be established only in cases where they will achieve the objectives of Horizon Europe more effectively than what can be achieved by other activities of the framework programme. They need to adhere to the principles of the EU - added value; transparency; openness; impact within and for Europe; strong leverage effect; long-term commitments of all the involved parties; flexibility in implementation; coherence; coordination and complementarity with Union, regional, national and, where relevant, international initiatives or other partnerships and missions. They also need to have a clear life-cycle approach and include conditions for phasing out the Framework Programme funding.

# A coherent portfolio of candidates for Partnerships, identified in a transparent and inclusive way

Candidate European Partnerships have been identified as part of Strategic Planning, also involving Member States. In May 2019 the Commission submitted to the Shadow Strategic Configuration of the Horizon Europe Programme Committee the initial ideas for 44 partnerships candidates. In parallel, the consultation process for the orientations towards the strategic plan of Horizon Europe collected feedback from the broader stakeholder community. In October 2019, the Commission finalised the discussion on the portfolio of possible partnerships with Member States (in the 'shadow' Strategic Configuration of the Horizon Europe Programme Committee). It confirmed the broad consensus on the proposed 44 partnerships. Five additional candidates were included to the portfolio – four proposed by the Member States, as well as the proposal for a new EIT-KIC on Cultural and Creative Industries. The preparatory work on these partnerships has started and first European Partnerships are expected to be launched in 2021, with the adoption of the first Horizon Europe Work Programmes.

#### **HEALTH**

- 1. EU-Africa Global Health Partnership
- 2. Innovative Health Initiative
- 3. European partnership for chemicals risk assessment
- 4. Fostering an ERA for health research
- 5. Health and Care Systems Transformation
- 6. Personalised Medicine
- 7. Rare Disease
- 8. One Health AMR

#### **DIGITAL, INDUSTRY AND SPACE**

9. High Performance Computing

10. Key Digital Technologies

11. Smart Networks and Services

12. AI, data and robotics

13. Photonics Europe

14. Clean Steel - Low Carbon Steelmaking

15. European Metrology

16. Made in Europe

17. Carbon Neutral and Circular Industry

18. Global competitive space systems

19. Geological Service for Europe

# 40. European Science Cloud (EOSC)

41. EIT Climate-KIC

PILLAR III AND CROSS-PILLAR

39. Innovative SMEs

- 42. EIT InnoEnergy
- 43. EIT Digital
- 44. EIT Health
- 45. EIT Food
- 46. EIT Manufacturing
- 47. EIT Raw materials
- 48. EIR Urban Mobility
- 49. KIC Cultural and Creative Industries

### CLIMATE, ENERGY AND MOBILITY

- 20. Transforming Europe's rail system
- 21. Integrated Air Traffic Management
- 22. Clean Aviation
- 23. Clean Hydrogen
- 24. Built environment and construction
- 25. Towards zero-emissions road transport (2ZERO)
- 26. Mobility and Safety for Automated Road Transport
- 27. Zero-emission waterborne transport
- 28. European industrial battery value chain
- 29. Sustainability, Smart and Inclusive Cities and Communities
- 30. Clean Energy Transition

# FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

- 31. Accelerating farming systems transition
- 32. Animal healt: Fighting infectious diseases
  - 33. Environmental Observations for a sustainable EU agriculture
- 34. Rescuing biodiversity to safeguard life on Earth
  - 35. A climate neutral, sustainable and productive Blue Economy
  - 36. Safe and Sustainable Food System for People, Planet & Climate
    - 37. Circular bio-based Europe
  - 38. Water4All: Water security for the planet

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# 4. Evolution and Diversification of P2Ps

This section provides an update on the evolution of the P2P landscape since the dawn of the ERA-NET scheme in 2003. It builds on data presented in the previous annual reports and includes all network types. Please visit the facts and figures section of the ERA-LEARN website<sup>3</sup> for more detailed graphs and statistics.

#### **P2P Networks**

The analysis indicates that 85 networks were active at the beginning of 2019, four of which started in January 2019 and, during the year, 57 joint calls closed. It is clear, therefore, that not all networks continue to implement joint calls. It is worth noting that four networks ended during 2019, mainly FP7 networks, and there are others that are in the monitoring phase of the work, and hence not implementing calls at this stage. Only one network from FP7 remains active – BONUS.

As mentioned in previous annual reports, some of the ERA-NET Cofund networks are directly linked to a JPI, FP7 ERA-NET or self-sustained network and so, while they appear to be less active than others, there continues to be ongoing joint activities within the thematic area (further details are provided in section 5).

#### **Joint Calls**

Since 2004, some 689 joint calls have been implemented, this excludes those that were launched, but not closed, before the end of 2019. A summary of calls that closed each year is shown in Figure 1. Note that additional data made available since the previous report has updated some historical figures.

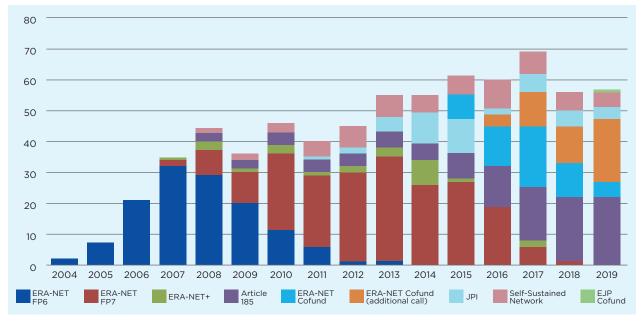


Figure 1: Number of Joint Calls (closed) between 2004 and 2019, by Network Type

<sup>3</sup> https://www.era-learn.eu/partnerships-in-a-nutshell/facts-figures

Figure 1 presents a clear picture of the evolving landscape of P2Ps across the years. The changing pattern of calls from FP6 to FP7 is evident and in 2019 no FP7 calls were implemented, indeed, all FP7 networks have now ended except for BONUS. 2017 remains the peak of joint call activity with some 69 calls closing that year, around 45% of which were from ERA-NET Cofund networks. These networks represent around 44% of all calls in 2019, with Article 185 call numbers following closely behind, reaching the peak of its call activity in this year.

It is also interesting to note that:

- The number of additional ERA-NET Cofund calls (without EU co-funding) was significantly higher than the number of ERA-NET Cofund calls that received EU co-funding in 2019, demonstrating the leverage effect of the initial EU co-funding within this particular instrument. This trend has continued from the position in 2018
- While JPIs and self-sustained networks appear to be less active than other instruments, many are implementing ERA-NET Cofunds to support their programmes and launch calls within specific topics
- Increasing numbers of networks are launching transnational joint calls together and indeed there are examples of networks joining together to create ERA-NET Cofund networks to address specific collective issues

A cumulative picture of the number of joint calls since 2014 is shown in Figure 2. Clearly the FP7 funding framework has spawned the largest number of joint calls since 2004, amounting to 211 over the years but the joint transnational calls within the Horizon 2020 framework follows closely behind. Since 2015, 107 ERA-NET Cofund calls have closed, 46 of which have been additional calls with no EU co-funding.

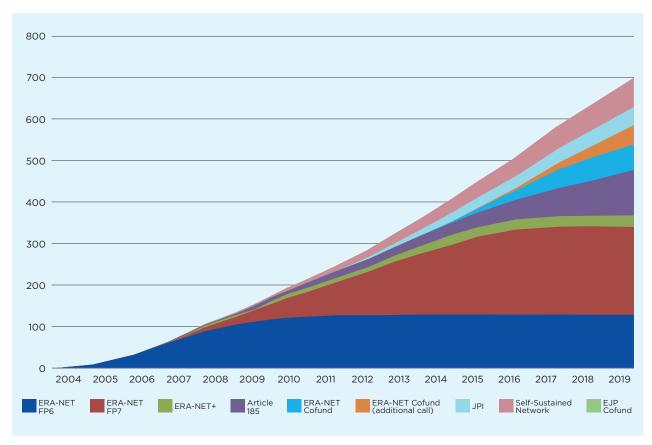


Figure 2: Cumulative Number of Joint Calls, Since 2004, by Network Type

The total national cumulative pre-call budget for all joint calls, since 2004, is more than Euro 8 billion (excluding EU contributions). The annual comparison, by network type, is shown in Figure 3, below. This demonstrates the intention and commitment of the funding agencies participating in the calls rather than the funds that were actually invested following evaluation of, and negotiation with, the selected transnational projects.

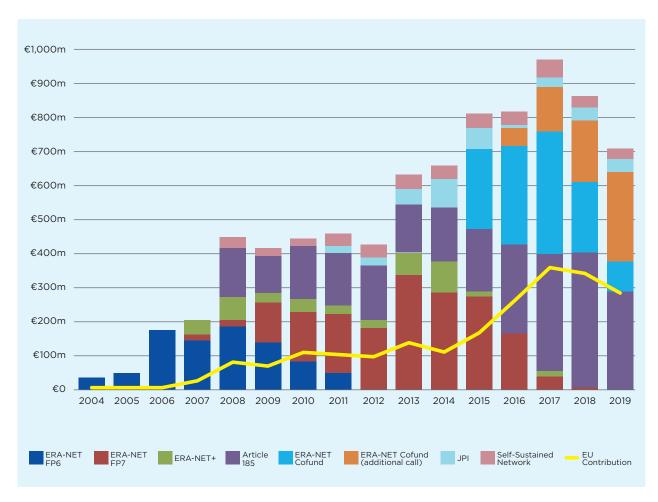


Figure 3: National Joint Call Commitment (with EU Contribution for co-funding of calls overlaid) for all Calls closed 2004-2019, by Network Type

The additional EU contribution to joint calls is highlighted by the yellow line on the graph, equating to more than Euro 2.1 billion of additional committed investment in joint calls since 2004.

Figure 3 suggests that the national financial commitment to calls in 2019 is lower than in 2018, despite having a similar number of calls. It is clear, however, that ERA-NET Cofunds have produced the largest national commitment to joint calls since 2016 (around 46%), with committed funds from Article 185 networks following closely behind (38%). Both EU cofunded and additional calls together accounted for 47% of total committed call budgets in 2019. Article 185 calls accounted for almost 40% in the same year. Total national commitment to joint calls implemented by ERA-NET Cofunds since their inception has been more than Euro 1.8 billion. It is worth noting again, that funding organisations linked to the JPIs and self-sustained networks will have had an impact on the financial commitment to ERA-NET Cofund calls and so the picture presented in Figure 3 should be considered with this in mind.

Figure 4 looks at the source of funding for all joint calls in more recent years (since 2014), based on initial committed budgets. It includes the EU contribution and demonstrates how this has increased from 15% of the total budget in 2014 to 37% in 2019. EU funding peaked in 2017 when there was a significantly higher number of co-funded calls being implemented, in addition to the Article 185 networks. The proportion of funding from Associated and Third countries has remained relatively steady over the years but with some decreases since 2017.

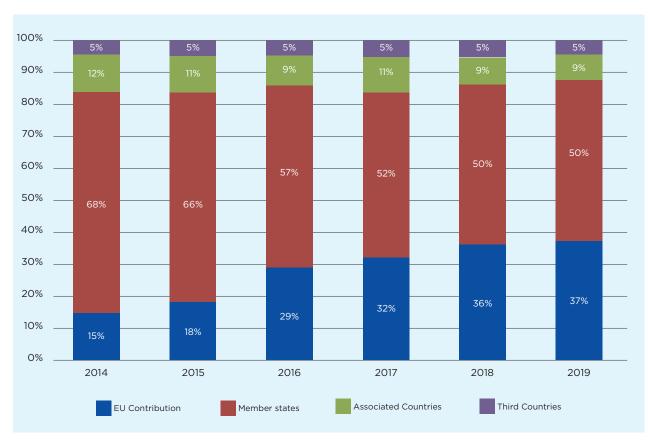


Figure 4: Comparison of the Distribution of Call Budgets for all Calls Since 2014, by Main Funding Source

As might be expected, the total national pre-call committed budget is not always fully utilised and so the actual investment in projects can be lower than planned. Figure 5, below, indicates the cumulative actual investment in projects. This also includes the EU contribution. Note that data in relation to actual national investment in calls is not available for all networks. ERA-LEARN analysis indicates that, on average, the national investment in joint calls is some 90% of the pre-call committed budget and so where actual investment data is not available or has not been provided, the average realisation of budget has been used to produce estimates for the missing population and allow the scale of investment to be approximated.

Without the EU contribution, the estimated actual investment in calls, as expected, is lower than the figures budgeted by the networks. When the EU contribution is added, however, total investment still reaches some Euro 8.45 billion.

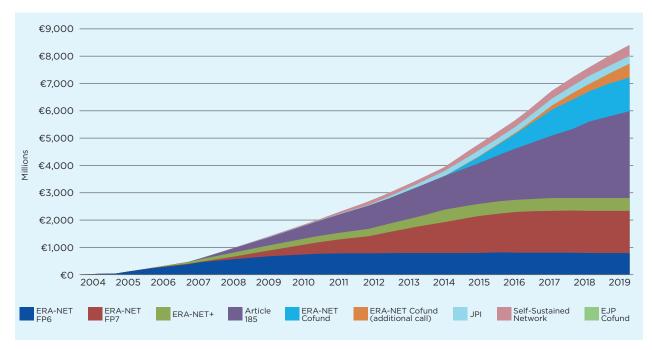


Figure 5: Cumulative Investment in Joint Calls, including EU Contribution, 2004-2018

Note that neither budget nor actual figures include any in-kind contribution to projects (apart from the Metrology Article 185). Complementary investment of institutional funding in Joint Actions, particularly from the JPIs, is also not included.

#### **Portfolio of Funded Projects**

Almost 8,000 projects have been funded by the joint calls since 2004. Figure 6 shows the annual volume by network type (based on the year the call closed).

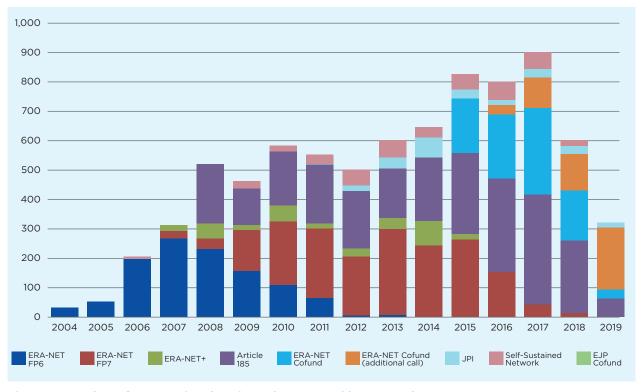


Figure 6: Number of Transnational Projects, by Year and by Network type

The figures for 2019 are low due to the time lag between the joint call being closed and the transnational projects being evaluated and started, which can often be many months. A number of networks have not yet been able to provide project specific data in relation to their 2019 calls and the data collection process is ongoing.

Note that where no project level data has been provided by the networks, an average figure has been applied to the call to allow reasonable assumptions to be made regarding the overall number of projects that have been funded. Historically the figure for the latest year has increased when accurate data has been provided by the networks. Figure 6 will be updated on the ERA-LEARN website during 2020 as more information becomes available.

The cumulative picture of transnational funded projects is shown in Figure 7.

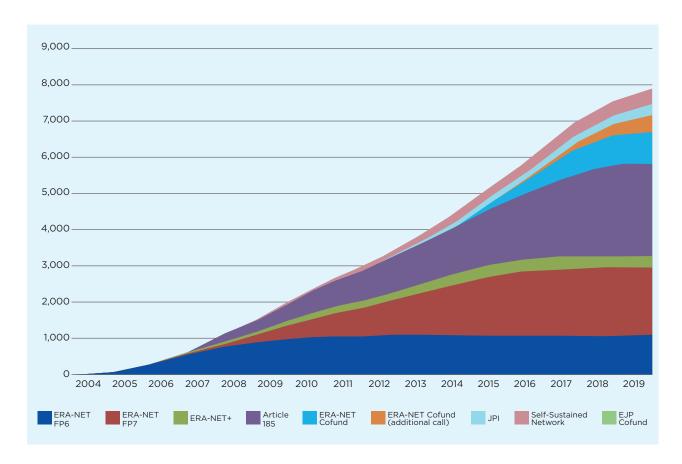


Figure 7: Cumulative Number of Transnational Projects Funded

ERA-NET Cofund networks have funded around 1,400 transnational projects since 2015, with around 35% of these resulting from additional ERA-NET Cofund calls (without any EU cofunding).

# 5. Highlights from 2019

This section of the report provides a number of highlights from 2019 to demonstrate the breadth of activities being undertaken across the P2P community. This includes good practice examples in relation to widening, knowledge transfer, collaboration and impact as well as the accumulation of long-term achievements.

#### 2019 Joint Calls

In 2019, 57 joint calls closed, across all networks. A breakdown of these is presented in Figure 8 below. ERA-NET Cofund and Article 185 networks continue to be most prominent in terms of the number of calls being implemented. Note, however, that one specific network, EDCTP, accounts for half of the Article 185 calls closing in 2019. As mentioned previously, no FP7 ERA-NET joint calls were implemented in 2019. The EJP Cofund networks also started to implement calls, with EJP RD closing its first call in 2019.

As in previous reports, the ERA-NET Cofunds that are specifically related to a JPI have been highlighted separately within the overall ERA-NET Cofund totals to demonstrate the additional work of the JPIs beyond their own joint calls. In 2019, eight JPI related ERA-NET Cofund calls closed, six of which were additional ERA-NET Cofund calls (without EU co-funding).

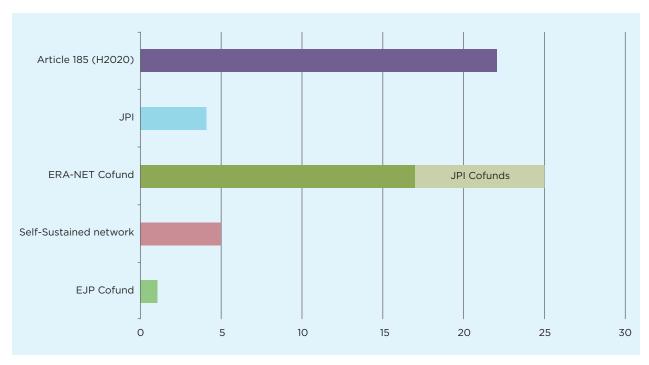


Figure 8: Number of Joint Calls closing in 2019, by Network Type

#### **ERA-NET Cofunds**

In relation to the whole population of ERA-NET Cofunds, five EU co-funded calls closed during 2019, alongside 20 additional calls. Of the additional calls, nine were 2nd calls, seven were 3rd calls, three were 4th calls and one was a 5th call (4th additional call). In 2020, the number of additional calls planned already stands at 14, with the NEURON Cofund network launching its 5th and 6th additional joint calls.

Figure 9 highlights the changing picture of ERA-NET Cofund calls, both EU co-funded and additional calls, since 2015. There are many ERA-NET Cofunds that will only ever implement one joint call, but others are using the instrument to launch multiple calls and leveraging the effects and the momentum gained from the initial EU co-funding.

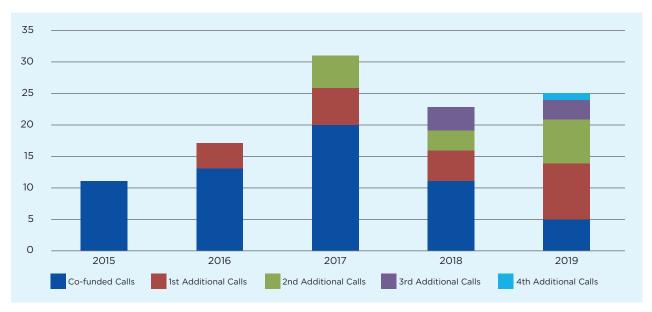


Figure 9: ERA-NET Cofund Calls by Year Call Ended

Two of the additional calls that closed in 2019 were joint calls between two different networks; e.g. BESTF 3's third additional call was in conjunction with the 13th joint call of ERA-NET Bioenergy; and JPI Oceans and JPI Climate launched a call together on next generation climate science in Europe for Oceans. This trend has continued from previous years and appears to be an effective way in which to catalyse activity on a wider platform and harness synergies within the topics covered by the networks.

Some selected examples of good practice being undertaken within the Cofund networks is provided here to demonstrate the work being done to address specific challenges.

#### Addressing Widening - JPcofuND 2

The 2019 ERA-NET Cofund call of JPcofuND 2, sought to widen participation of EU-13 countries in its funded projects. Opportunities to enhance widening were put in place at all stages of the process, including pre-evaluation and post-evaluation. Following evaluation of the preproposals, groups from EU-13 countries, and other under-represented countries, had the opportunity to join the consortia that had been invited to submit full proposals; coordinators of these consortia were asked to share the abstract of their proposal with these groups. The response from coordinators was extremely positive and consortia were able to add one new eligible partner from the underrepresented countries. The pre-evaluation widening activities were successful, with new partners from Poland, Czech Republic, the Azores and Luxemburg being added to project consortia. At the post-evaluation widening stage, projects that were selected for funding had another opportunity to include additional partners from EU-13 countries and other under-represented countries that could not spend their budgets. In this call Hungary, Romania and Turkey were involved at the post-evaluation stage. Note that postevaluation widening applied only if it was beneficial to the project and the joining teams had already been involved at the pre-proposal stage. Following the development and agreement of new work packages among the consortia, and acceptance or rejection by the funding organisations, the accepted new partners sign the consortium agreement and become full members of the relevant projects. Several Hungarian and Turkish groups successfully joined new projects as a result of the widening measures, funded by their own respective funding agencies.

# BiodivERsA Highlights from 2019 - Promoting research on biodiversity, ecosystem services and Nature-based solutions

In 2019, BiodivERsA, the network of organisations programming and funding research on biodiversity, ecosystem services and Nature-based Solutions, continued its effort to support research that can demonstrate academic excellence and that has a potential high impact on society and policy. Most notably, ten transnational projects were funded through the 2018-2019 BiodivERsA Call on biodiversity and its impact on animal, human and plant health,⁴ including 2 projects exploring animal reservoirs for viruses and risk of emergence of zoonoses (one in Europe, one in tropical Africa). A brochure presenting the results of these projects is available on the BiodivERsA website. In addition, through the BiodivClim Cofund action, BiodivERsA launched a new call on biodiversity and climate change ⁵. 34 funding organisations from 26 countries are joining this call (incl. Brazil, South Africa, Tunisia) and have reserved – together with the European Commission – a total amount over 25Mio €. This call is already a huge success in terms of number of applications submitted. The results will be known later in 2020.

BiodivERsA also implemented major activities for capacity building and promoting uptake of research outcomes, including:

- (i) the development of a guide on data management plans<sup>6</sup> in the context of the BiodivScen Cofund action (jointly implemented with the Belmont Forum) on "scenarios of biodiversity and ecosystem services";
- (ii) the organisation of a **Research and Innovation workshop on the use of biodiversity** scenarios by private stakeholders in tourism, agriculture and forestry sectors in the context of the BiodivScen Cofund action:

<sup>4</sup> http://www.biodiversa.org/1643

<sup>5</sup> http://www.biodiversa.org/1587

<sup>6</sup> https://zenodo.org/record/3448251#.Xse-Mi-ZNXt

- (iii) the implementation of the 2nd edition of the prize for excellence and impact,<sup>7</sup> which aims at showcasing through animated videos the achievements of BiodivERsA-funded projects that have produced excellent science with concrete impacts for policy and/or society. For this 2nd edition, the BUFFER project<sup>8</sup> was awarded the opportunity to to present its work in an animated video;
- (iv) the production of **two policy briefs** based on the research projects funded under different calls. The briefs are focusing on "Green infrastructures in agricultural landscapes strengthens the supply of ecosystem services" and "Policy tools to manage synergies and trade-offs between ecosystem services".<sup>10</sup>

BiodivERsA pursued its efforts in **promoting biodiversity research linked to Nature-based Solutions** (NbS), and joined a consortium with the IUCN, ICLEI, Oppla, and Steinbeis 2I to continue the development of a platform on NbS, acting as a meeting point between research, business, policy and society around this theme. The NetworkNature project was selected in December 2019 and will start in June 2020.

BiodivERsA's collaboration with the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) was also significantly reinforced in 2019. Most significantly, BiodivERsA was selected to co-host the Technical Support Unit on knowledge and data, focusing on the catalysis of new knowledge generation. In 2019, it also produced a brochure<sup>11</sup> explaining how BiodivERsA has collaborated with IPBES across its four functions since the inception of IPBES in 2012.

Lastly, largely building on its achievements, BiodivERsA started to co-develop a proposal for a Co-funded European partnership on biodiversity as part of Horizon Europe, in close link with the European Commission (DG RTD and DG ENV) and to a range of stakeholders. This included the organization of a workshop allowing discussion with a broad range of actors about the framing of a possible European partnership on biodiversity, its main objectives, activities, and expected impact.

<sup>7</sup> http://www.biodiversa.org/1550

<sup>8 &</sup>lt;u>http://www.biodiversa.org/1580</u>

<sup>9</sup> https://www.biodiversa.org/1584/download

<sup>10</sup> https://www.biodiversa.org/1566/download

<sup>11</sup> http://www.biodiversa.org/1684

#### **JPIs**

In 2019, a total of 12 JPI related calls closed. Four of these were specific to the JPIs (one of which was a call between two JPI networks), two were initial ERA-NET Cofund calls (i.e. EU co-funded) and six were additional ERA-NET Cofund calls with no EU co-funding. The pattern of JPI related calls since 2015 is shown in figure 10.

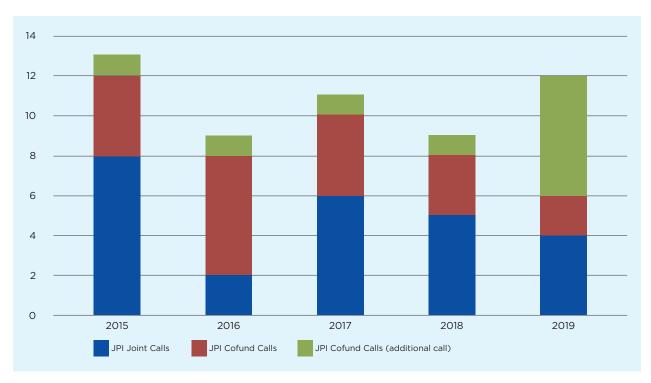


Figure 10: JPI Calls by Year Call Ended

This demonstrates the continued level of call activity within the JPI networks, both within their own programmes and their related ERA-NET Cofund networks.

Joint calls are clearly an important element in the work undertaken by the JPIs and there are excellent examples of collaboration between JPIs to implement these together, one of which is described here. We also highlight examples of other activities that have taken place in 2019 that are vital elements of the JPI work programmes including increasing collaboration, fostering knowledge exchange and securing the long term sustainability of the partnership.

#### Trilateral Collaboration between JPIs - AquaticPollutants

2019 saw the design and preparation of a new ERA-NET Cofund network, which brought together three JPIs – JPI Water, JPI Oceans and JPI AMR. Several meetings took place to discuss the key and hot topics that should be addressed in the different activities to be undertaken by the network. Primarily this involved a joint multilateral call (with 32 Funding organisations from 26 countries) and, for the first time on a European level, a Transfer project (for accompanying funded projects and accelerating their uptake of results). Furthermore, a Thematic Annual Programming Action was envisaged for clustering nationally funded projects and, if possible, a PhD forum and roadshows in different countries for facilitating mobility and disseminating best practices (pending applications submission and selection of funded projects).

The ERANET Cofund network AquaticPollutants, launching in January 2020, uses its EU co-funded call to address risks posed to human health and the environment by pollutants, pathogens and antimicrobial resistant bacteria in our water bodies and oceans. To face these challenges in a comprehensive way and to develop multidisciplinary and practical solutions for the provision of safe drinking water and healthy aquatic environments, the Joint Transnational Call (JTC) aims to make the research communities in the freshwater, marine and the health sectors work together and create synergies for joint approaches. It will also be an opportunity to develop a joint strategy document based on the JPI Strategic Research and Innovation Agendas.

#### Fostering Knowledge Transfer - Water JPI

The year 2019 brought about significant experience of knowledge transfer for the Water JPI. The Knowledge Hub on Contaminants of Emerging Concern (KHCEC) produced several outputs of note including a policy brief, an extended stakeholder brief and five infographics to inform and propose solutions to the wider community regarding the challenges of contaminants of emerging concern threatening our fresh water resources. The KHCEC community used various communication channels, including social media, to disseminate these important messages to different stakeholder groups. In parallel, a second Knowledge Hub was launched in 2019, addressing water scarcity challenges in the face of the global SDGs agenda - WATER4SDGs. This new Knowledge Hub will continue to foster the translation of excellent research findings on the Water - Energy - Food - Ecosystems NEXUS into applicable policy recommendations throughout 2020 and 2021.

#### Enhancing Knowledge Exchange and Collaboration - JPND

JPND hosted a final symposium of the JPcofuND network, in November 2019, to bring together the researchers and project consortia funded from both JPcofuND and other JPND joint calls, the object of which was to exchange knowledge, make new connections and disseminate project results. It provided an opportunity for them to showcase their achievements to policymakers, industry and Patient and Public Involvement (PPI) representatives. The event was held at the Royal Flemish Academy of Belgium for Sciences and the Arts. Those attending the event came from far and wide and from a host of different stakeholder organisations. In addition to more than 100 JPND project beneficiaries, this included representatives from the JPND Scientific Advisory Board (SAB), European Commission, various funding organisations and the JPND Management Board. External speakers also joined the event as well as industry stakeholders, representatives from Bill Gates Venture and the World Dementia Council as well as representatives of Patient and Public Involvement. Project topics presented during the event ranged from Alzheimer's to Parkinson's diseases to rarer maladies such as Huntington's disease, amyotrophic lateral sclerosis, spinocerebellar ataxia and Sporadic Creutzfeldt-Jakob disease (sCJD). The scientific sessions were complemented with sessions covering areas including PPI, cooperation with industry, data sharing and knowledge dissemination.

Whilst several project consortia are already collaborating with other JPND / JPco-fuND projects, the symposium offered participants a host of networking opportunities, as well as a unique chance to get a glimpse of each other's work and progress and encouraged researchers to further explore new ways to collaborate and connect.

#### Ensuring Governance Sustainability - JPI Cultural Heritage

Since the end of 2018, the JPI Cultural Heritage has been coordinated by the French Ministry of Culture. The main objective during 2019 was to secure the continuity and self-sustainability of the JPI CH governing structures. These structures, therefore, were completely reshaped for the establishment of the JPIs Long-Term Strategy (LTS). A LTS working group was implemented during 2017 and 2018 to consider this aim, resulting in several recommendations: make the LTS a living document; define clear goals and priorities to implement the LTS in the coming years; and create working groups and task forces to implement these priorities.

This exercise resulted in updated terms of references<sup>12</sup> and the corresponding governing structures, based on pillars and task forces, guaranteeing an active involvement of all JPI CH partners. At this stage, four pillars have been set up: Strategy, Programming, Communication and Impact. These pillars are incorporated in a three-tier Governance Model, whose sustainability has been conditioned by the implementation of annual fees. Members have the option to contribute to these fees either in cash or in-kind, with concrete activities that directly support the different Pillars. This is already leading to an ambitious programme of activities for the next three years, which includes updating the Strategic Research and Innovation Agenda, implementing common activities and considering calls for proposals with other JPIs, such as the JPI Climate.

#### **Article 185s**

In 2019, 22 Article 185 calls closed, with 50% of these being implemented by one network, EDCTP. This is due to the nature of the work carried out by this network and the types of grants being awarded for clinical research. The broader pattern of call activity since 2015 is shown in figure 11, demonstrating a relative consistency in number of calls implemented each year by each network.

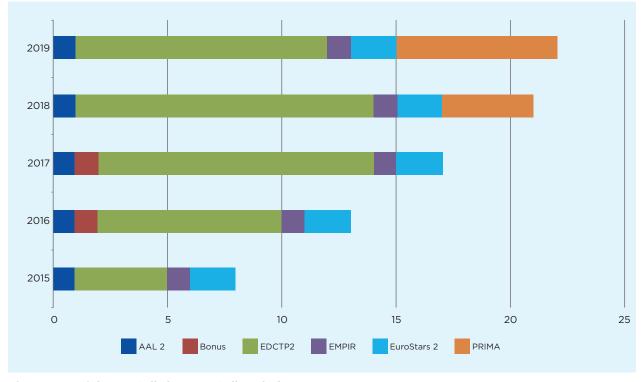


Figure 11: Article 185 Calls by Year Call Ended

Two examples are provided below that demonstrate the work being undertaken by a relatively new Article 185 network and the achievements of another network that has recently concluded. The first example (PRIMA) showcases the successful implementation of the first joint calls within its ambitious joint programme to build research and innovation capacity for agro-food systems and enhance Euro-Mediterranean cooperation. The other highlights the achievements of the EMRP programme, the predecessor to EMPIR, over a 10 year period and the scientific impacts and innovations that have resulted from successful project funding, and other activities.

#### Successful Implementation of First Joint Calls - PRIMA

PRIMA is a long-term (2018-2028) public-public partnership (P2P), consisting of 19
Participating States (11 EU Member States, three Associated Countries and five Third Countries) and the European Commission. With a distinctive geographical focus on the Mediterranean region, PRIMA has a strong strategic dimension, achieved through a high level of integration at management, financial and scientific level among all the countries involved in the partnership.

PRIMA is also the first public-public partnership under Horizon 2020 to see the full participation of third countries that are not associated to the EU research framework programme, Member States and Associated Countries on an equal footing basis. Such third countries, namely Algeria, Egypt, Jordan, Lebanon and Morocco have signed scientific and technological cooperation agreements with the EU, in order for their researchers to receive EU funds and fully participate in the programme.

In its work programme, PRIMA seeks to foster R&I efforts and resources contributing to the achievement of climate neutrality. In particular, PRIMA will focus on climate mitigation and adaptation actions, through the deployment of innovative solutions and application of sustainable agro-ecological practices preserving and restoring ecosystems and biodiversity, but also through the development of affordable, nutritious, healthy and safe food system produced with minimum impact on nature.

During the period 2018-2019, nine calls for proposals were launched, which resulted in 83 projects being awarded a total budget of approximately 100 million Euro. Of these 83 projects, 27 were funded with EU funds and 56 were funded with PRIMA Participating State (PS) funds. 740 research entities from both shores of the Mediterranean are involved in the projects selected for funding. On average, 25% of participants are from the private sector (mainly SMEs), and are located in both EU PS as well as non-EU PRIMA PS, specifically Algeria, Egypt, Morocco, Tunisia and Turkey. Six coordinators of the PRIMA projects are from private sector organisations, with SMEs receiving approximately 18% of funding from the calls.

By way of derogation from Horizon 2020 Rules of Participation, the minimum eligibility condition for a consortium is to involve at least three independent legal entities, of which at least one from an EU PRIMA PS and one from a non-EU PRIMA PS, in line with PRIMA's equal footing principle and to facilitate international cooperation in the Mediterranean. The participation of entities located in non-EU PS was very good across both years (38% of applicants, on average) and all of them benefited from EU funding (30% of funds awarded, on average). In order to increase both project participation and coordination of legal entities established in less active PS, PRIMA elaborated an Action Plan which led to the organisation of trainings and workshops in several countries (all non-EU PS), to foster proposal writing capacities of potential applicants. Training sessions were led by PRIMA staff and hosted by the National Funding Agencies.

#### Celebrating 10 Years of Measurement Science Excellence - EMRP

Towards the end of 2019, EURAMET's European Metrology Research Programme (EMRP) drew to a close. From its launch in 2008 (under Article 169 of the European Treaty) to its conclusion in 2019, the programme stood as a pillar of support for measurement science around Europe. The structured and organised route provided by the EMRP played an instrumental role in shaping the collaborative research initiatives of European metrology stakeholders, leading to the successful realisation of 119 projects in total – in various, well-defined research areas such as industry, energy, the environment and health.



The successful implementation of EURAMET's research programme has increased the level of coordinated measurement science research across Europe, adding to the region's high standards of metrology. Strategic planning under the EMRP has helped to reduce the duplication and fragmentation of research around Europe, improve project outputs and enable the development of new standards that are traceable to the International System of Units (the SI) - which governs all types of measurements around the world.

By pooling together research expertise and coordinating research timescales, the EMRP has resulted in outstanding scientific impact – with a particularly noteworthy example being Europe's role in the historical SI redefinition of May 2019. Other remarkable achievements include the innovation of atomic clock metrology to advance telecommunications and navigations, the development of liquefied natural gas measurement systems to support the uptake of alternative transport fuels, improvements to oceanographic data to increase the reliability of ocean-based climate predictions, and advancements in the MRI field to enhance the accuracy of critical healthcare diagnoses. Additionally, through its researcher grants, the programme has provided further support for formal cooperation between individual research groups; also encouraging the development of emerging metrology institutes in countries such as Bosnia and the Czech Republic.

Today, the EMRP's successor programme, the **European Metrology Programme for Innovation and Research (EMPIR)**, continues to inspire and support measurement science communities

around Europe, with a renewed focus on innovation and capacity building. Furthermore, the European Metrology Partnership is included in the shortlist of candidate European Partnerships for Horizon Europe.

More details on the achievements of the EMRP can be found on the Euramet website.<sup>13</sup>

#### **Other Networks**

In addition to the main types of networks that the annual report has historically focussed on, we would like to provide a summary of the new European Joint Programme, EJP SOIL. The consortium brings together 26 leading European research institutes and universities across 24 countries.

#### European Joint Programme - EJP SOIL



The European Joint Programme EJP SOIL is building a cross-European framework for research and stakeholder cooperation in climate-smart sustainable agricultural soil management systems. Launching in February 2020, its overall goal is to provide sustainable agricultural soil management solutions that contribute to key societal challenges including climate change and future food supply.

EJP SOIL will develop knowledge, tools and an integrated research community to foster climate-smart sustainable agricultural soil management, i.e. agricultural soil management that allows sustainable food production, sustains soil biodiversity, as well as other soil functions that preserves the ecosystem services that the soils deliver.

24 countries have joined the programme. Total funding amounts to 80 million, of which 40 million comes from the European Union and 40 million from the Partners themselves. There will be three transnational internal calls for research projects open to EJP SOIL partners and linked third parties to address identified research and development gaps. Two external calls, during the implementation of the EJP SOIL, will be open to research actors outside of the EJP SOIL consortium. This widens the participation, integrates external expertise, and enhances the impact of the EJP SOIL activities.

The implementation of climate smart sustainable soil management differs from region to region, between agricultural practices and obviously between different soil types. EJP SOIL will involve European and national stakeholders in identifying knowledge gaps and differences in existing regional and national activities. Stocktaking will establish the baseline of available knowledge and tools that will enable the construction of a roadmap that will function as a strategic prioritized research agenda. In addition, it will develop a strong collaborative research community (supporting network creation, training, dissemination and communication); raise awareness and understanding of agricultural soil management; develop context specific guidelines for farmers, landowners, land managers and industry; and provide advice and evidence-based recommendations to policy makers at European and regional levels.

Number of countries:	24
Number of participating organisations:	26
Starting date:	01/02/2020
Duration:	60 months
Total budget:	<b>80M€</b> - The EJP SOIL programme has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 862695
Topic:	European Joint Programme on agricultural soil management
Coordinator:	Claire Chenu, INRAE ejpsoilcoord@inrae.fr
EJP SOIL website:	www.ejpsoil.org

13 https://www.euramet.org/metrology-for-societys-challenges/emrp-achievements/

## 6. Outlook

This section provides a brief overview of planned joint calls during 2020.

#### **Planned Calls for 2020**

There are currently 43 transnational joint calls that have been launched and will close during 2020 (14 of these are ERA-NET Cofund additional calls). A further six joint calls are expected to launch during 2020, giving a total of 49 calls that we are currently aware of.

#### **New ERA-NET Cofund Networks**

A number of new Cofund proposals were successfully submitted during 2019 and these will implement EU co-funded calls during 2020. A summary of these new networks is provided here:

Network		1st Call Closure Date
Biodiv- Clim	Promoting and implementing joint programming to reinforce transnational research at the crossroad between biodiversity and climate change.	Apr-20
FOSC	Assessing the impact of climate change on food and nutrition security and designing more sustainable and resilient food systems in Europe and beyond.	Jul-20
ICRAD	International Coordination of Research on Infectious Animal Diseases	Aug-20
ICT-AGRI- FOOD	Strengthening the cooperation in research, development and innovation between EU Member and associated States to foster, verifiably and perceptibly, the use of smart digital technology to make European food systems more sustainable, resilient and secure.	Jul-20
EN-UAC	Aiming to create and consolidate a transnational ecosystem for inter- and transdisciplinary research and innovation and enhanced science-policy cooperation to drive transitions towards such sustainable, inclusive models for urban accessibility and connectivity.	Sep-20
Aquatic- Pollutants	Strengthening the European Research Area (ERA) in the field of clean and healthy aquatic ecosystems and to leverage untapped potential in the collaboration between the freshwater, marine and health research areas.	May-20 Aug-20
EJP SOIL	Creating an enabling environment to enhance the contribution of agricultural soils to key societal challenges such as climate change adaptation and mitigation, sustainable agricultural production, ecosystem services provision and prevention and restoration of land and soil degradation	unknown
EnerDigit	A joint programming initiative that aims to enhance the transnational collaboration in digital transformation of energy systems and networks. It will help to unleash the potential of digitalisation for the energy transition towards a de-carbonised, secure and resilient European energy system.	unknown

Table 1: New ERA-NET Cofund networks launching calls in 2020

Details of all ERA-NET, JPI and Article 185 networks and calls can be found on the ERA-LEARN website.

# 7. Monitoring and Evaluation in Horizon Europe

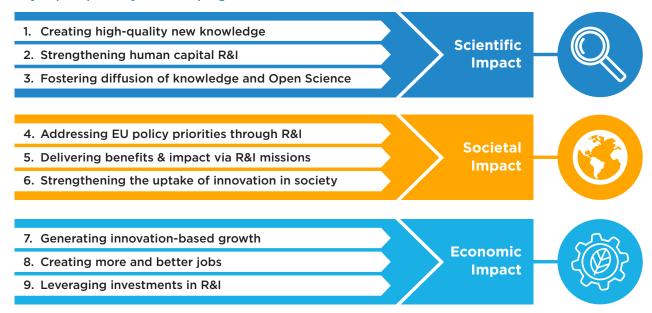
#### The Horizon Europe Context for Monitoring and Evaluation

Key Impact Pathway indicators were defined for the evaluation of projects supported under Horizon Europe. These include:

- Scientific impact: related to supporting the creation and diffusion of high-quality new knowledge, skills, technologies and solutions to global challenges
- Societal impact: related to strengthening the impact of research and innovation in developing, supporting and implementing EU policies, and supporting the uptake of innovative solutions in industry and society to address global challenges
- Economic/innovation impact: related to fostering all forms of innovation, including breakthrough innovation, and strengthening market deployment of innovative solutions

The impact pathways are distinguished between the short, medium and long term and the indicators serve as proxies to report on the progress made towards each type of Research and Innovation (R&I) impact at the FP-level. Additional indicators may be used to monitor individual programme parts, where relevant (Annex V of the regulation establishing Horizon Europe COM(2018) 435 final).<sup>14</sup>

#### Key impact pathways to track progress



The Key impact pathways were based, among other inputs, on the work of the Expert Group on 'Monitoring the Impact of EU Framework Programmes' by van den Besselaar, Flecha and Radauer. After extensively reviewing the available literature and current practices at EU and Member State level, up to that point, the report concludes with a specific set of indicators. It also defines what data is needed, who should be collecting this, how it should be collected and how often. In addition, the authors assess the quality of the suggested indicators in comparison with existing practices, as well as the estimated cost and level of reporting burden. This is a valuable source of information in setting up relevant indicators for specific activities or programmes or for adjusting the final set of Key Impact Pathway Indicators to Horizon Europe instruments, including Partnerships.15



#### Monitoring and evaluation (M&E) of European R&I Partnerships

In the context of the valuable work done on Key Impact Pathways in view of Horizon Europe and amidst the new approach in setting and implementing transnational collaboration, European R&I Partnerships have to set up their own monitoring and evaluation (M&E) systems to respond to the new requirements. Most importantly, they need to do this to be able to demonstrate their impact and thus establish their added value vis-à-vis other EU and national programmes.

Monitoring is a continuous and systematic process of data collection about an intervention. Monitoring and evaluation are complementary activities; ideally, the design and requirements for each should be considered together. In the absence of a clear data collection strategy an evaluation may not be possible or be limited.

Before doing an evaluation it is important to plan and set up a monitoring and evaluation system that can serve the needs of evaluation at the right time with the right information. In addition, a number of things should be decided, such as the timing and type of evaluation to be conducted and the key evaluation questions to answer.

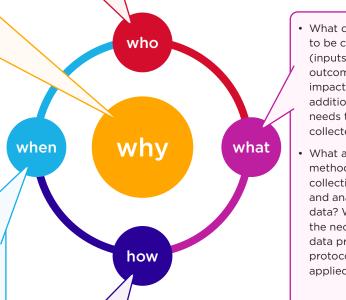
It is highly important to understand who should be involved in M&E, doing what, how and when. Most importantly, however, we should understand WHY we need to monitor and evaluate.

Despite the valuable work and guidance that has been done in view of Horizon Europe, European R&I Partnerships still need to check the appropriateness of what is proposed and to adjust indicators to their special characteristics. The appropriateness of indicators is case and context dependent. Results from European R&I Partnerships span various different levels (project level & network level, national & trans-national level). This must be reflected in the indicators and the overall M&E approach. Indicators are subject to a number of limitations. The combination of quantitative and qualitative information is invaluable. European R&I Partnerships still need to select the appropriate methods for collection and elaboration of data and indicators.

15 https://op.europa.eu/en/publication-detail/-/publication/cbb7ce39-d66d-11e8-9424-01aa75ed71a1

- We ultimately monitor and evaluate to draw useful lessons on how to improve
- Thus we not only need to estimate what but also to understand why and how
- Numbers and shares monitor things but do not evaluate – evaluation is about critical judgement based on synthesis of indicators, synthesis of findings, accumulated intelligence, benchmarking, counterfactual exercises, etc.
- Engaging the relevant stakeholders is key in this process
- When should the relevant data be collected (during the monitoring phase, reporting phase, ex-post, how often, etc.)?
- When should ad hoc data be collected? (ex ante, ex-post, other?)

- By whom should the required data be collected (e.g. central management team, project team, a centralised P2P systems)?
- Is the required capacity available?
- · Who will verify the data for accuracy and consistency with requirements



- What data needs to be collected (inputs, outputs, outcomes, impacts)? What additional data needs to be collected (ad hoc)?
- What are suitable methods for collecting, storing and analysing data? What are the necessary data protection protocols to be applied?
- · How much will the setting up of the M&E system cost and what resources will be needed to run it?
- Are these resources (human, financial, time) in place or can they be ensured?
- Can this M&E system be aligned with other existing systems (e.g. national level?)
- How / where will required data be gathered and stored?
- Can the process be aligned with the reporting schedule for the evaluation/impact assessment?
- How will the data be verified for accuracy and consistency with requirements?

After planning the monitoring and evaluation system, comes the implementation phase where, first, we need to understand and possibly (re)create the intervention logic. Provided we have decided which evaluation questions to examine, we then proceed to collecting the necessary data and information. This step also includes defining indicators for outputs, outcomes and impacts.

Some monitoring indicators might only be developed while the activity is implemented, because you need the cooperation and agreement of stakeholders in developing them and in collecting the relevant information. Never underestimate the need to make others deliver the information you need!

Synthesizing the findings and writing a high-quality report that meets the requirements of the key stakeholders needs to have adequate resources and is key for achieving the objectives of the evaluation.

To help European R&I Partnerships in setting up their M&E system, ERA-LEARN developed The R&I Partnership Evaluation (RIPE) Toolkit.¹6 RIPE presents a complete monitoring and evaluation methodology with concrete steps, examples, templates (for online surveys, interviews and case studies) and good practice tips, based on the work of ERA-LEARN over the years in supporting public-to-public partnerships and the work that the partnerships themselves have carried out in M&E until now. RIPE offers a M&E methodology completely tailored to the needs of European R&I Partnerships. This is available now on the ERA-LEARN website.

<sup>16</sup> https://www.era-learn.eu/support-for-p2ps/monitoring-and-assessment/r-i-partnership-evaluation-toolkit-ripe/about-the-r-i-partnership-evaluation-toolkit/setting-up-a-monitoring-and-evaluation-system

# 8. Aggregated Country Data for EU R&I Partnerships under H2020

As part of the process of developing the Country Reports series of publications, aggregated data<sup>17</sup> has been produced in relation to the participation of each country in P2P networks in Horizon 2020. A brief analysis of the data is presented here and the relevant data table can be found on the following page.

Although most countries participate in multiple networks and multiple joint calls across the different P2P partnerships in Horizon 2020, the group of countries that are engaged in the highest number of partnerships includes Spain, France, Germany, Belgium, the Netherlands and Italy. France and Germany, however, take a coordination role in a strikingly larger number of different partnerships than the others.

The same six countries noted above, also represent the highest number of participations in transnational joint calls, although three more countries stand out - Norway, Poland and Romania - with more than 100 call participations each (out of the 227 joint calls that have been launched under Horizon 2020 until now).

It might be expected that the most active countries within P2Ps would, in turn, fund the highest number of projects from the calls in which they participate. This is not the case, however, for some countries such as Norway that, while taking part in many calls, does not have a correspondingly high number of supported projects. The same is also valid for Poland and Romania, although the number of projects funded by these counties is not the lowest among the EU27. It is interesting to note that the number of projects that have received funding from organisations in Germany, France, the Netherlands, Spain, Italy and Sweden account for 59% of all supported projects.

In relation to the participants of the funded projects, the average number of projects in which participants take part ranges from one to two in most countries. The case of Estonia stands out, however, with around eight participations. Another group that includes Finland, Czech Republic, Italy and Latvia also have a higher than average number of projects per participant, at around three projects per participant.

In general, it appears that most countries absorb the national contributions that are initially committed to calls, with around 80-95% of the budget being used to fund successfully evaluated projects. Some countries, however, have an absorption rate (i.e. funds actually invested in selected projects / funds committed at the pre-call stage) that is much higher than 100% - these are Bulgaria, Lithuania and Denmark.

Overall, the differences between EU13 and EU14 are striking. The average EU13 country takes part in half of the partnership that an average EU14 country joins (28 vs. 54) and in 60% of the respective calls. Furthermore, EU13 countries find that they have participants in less than 20% of all funded projects compared with those of EU14 countries (91 vs. 568 projects with EU14 beneficiaries).

The table on the next page provides an overview of the data on which this analysis is based.

17 The ERA-LEARN data (cut-off date April 2020) refer to partnerships that were launched and are supported under Horizon 2020. This data (especially the financial data) is 75% complete, as not all required information has been fully updated by the partnerships. It is important to emphasise that the data collected in terms of pre-call budget committed or the actual investments in selected projects do not take into account the differences across countries in the eligibility of certain expenses; for example, in some countries only additional costs of a research project are eligible and not personnel costs. In addition, the in-kind contributions made by funding organisations when participating in P2Ps are not usually considered as national investments in partnerships, although this will possibly change under Horizon Europe.

Country Name	Number of networks	Number of calls	Number of organisations	Number of network participations	Number of network coordinations	Number of projects (distinct)	Number of project participants (distinct)	Total project participations	Average no. participations/ participant	National contributions pre-call	Actual contributions post-call (*)	Absorption rate (**)
Austria	52	94	21	74	5	298	207	515	2.49	98,715,430	95,193,658	96.43%
Belgium	99	137	26	141	2	336 (*)	163	368	2.26	117,776,695	84147266,32 (*)	71.45%
Bulgaria	16	36	9	17		17	15	21	1.40	7,705,696	10,257,769	133.12%
Croatia	14	48	80	16		25	10	26	2.60	5,888,185	5,219,748	88.65%
Cyprus	19	26	5	20		42	26	19	2.35	10,235,571	8,805,303	86.03%
Czech Republic	25	20	15	28		118	42	141	3.36	28,192,974	27,244,871	96.64%
Denmark	45	71	16	57	2	286	215	459	2.13	81,870,504	93,526,042	114.24%
Estonia	35	99	10	42		49	9	53	8.83	7,828,003	7,152,409	91.37%
Finland	48	9/	16	29	_	17.7	63	237	3.76	80,269,257	62,112,948	77.38%
France	71	144	47	122	19	929	369	1019	2.76	253,235,599	219,616,941	86.72%
Germany	89	149	53	149	18	996	899	1717	2.57	519,184,598	500,291,732	96.36%
Greece	26	78	13	35		62	39	82	2.10	37,062,478	34,413,770	92.85%
Hungary	25	26	13	30		99	42	68	2.12	15,946,895	14,817,700	92.92%
Ireland	49	84	15	57		107	53	148	2.79	38,915,358	32,750,916	84.16%
Italy	62	132	37	116	2	465	215	728	3.39	158,205,133	141,721,971	89.58%
Latvia	36	9/	6	42		38	14	44	3.14	21,372,589	19,853,886	92.89%
Lithuania	23	44	11	26		43	28	54	1.93	6,288,523	8,454,314	134.44%
Luxembourg	16	89	4	16		26	11	31	2.82	18,133,212	17,391,269	95.91%
Malta	5	36	4	5		7	4	7	1.75	2,747,500	2,320,721	84.47%
Netherlands	29	111	29	93	7	653	413	981	2.38	187,653,488	188,825,978	100.62%
Poland	54	114	11	55	1	197	100	294	2.94	63,771,029	59,967,631	94.04%
Portugal	50	92	10	61	1	140	73	199	2.73	27,878,671	23,974,521	86.00%
Romania	48	108	11	54		156	107	251	2.35	56,693,772	48,936,212	86.32%
Slovakia	26	64	10	28		33	13	35	2.69	12,585,428	10,034,420	79.73%
Slovenia	34	80	6	35		100	41	112	2.73	19,107,784	18,050,257	94.47%
Spain	71	158	37	134	5	609	395	865	2.19	164,826,794	156,532,480	94.97%
Sweden	57	88	18	81	-	416	234	603	2.58	159,813,203	150,842,876	94.39%
United Kingdom	52	79	28	29	S	506	337	840	1.50	171,076,881	175,468,289	102.57%
Norway (***)	59	108	77	19	2	324	212	469	2.21	142,870,075	146,769,200	102.73%
Average EU15	54	104	25	84	ıo	383	230	586	ъ	140,974,487	135,190,242	95.90%
Totals EU15			370	1262	70	5703	3455			2,114,617,299	1,976,810,658	93.48%
Average EU13	28	64	o	31	-	69	34	16	1.99	19,874,150	18,547,326	93.32%
Totals EU13			122	398	-	891	448			258,363,948	241,115,240	93.32%
Aver. EU13/ EU15	51.54%	61.61%	38.05%	36.39%	18.57%	17.88%	14.96%	15.59%	77.60%	14.10%	13.72%	
Average El 28	7.7	98	ă	Q.	r	626	170	27.5	M	022 077 78	828 800 62	QZ 2E%
Average E020	7	0	21 0	000	n (	707	133	000	0	04,749,330	13,020,030	93.23/0
IOTAIS EOZO			1,0	660	60		I GOC			2,7,111,17,2	1,500,009,1	0.00

(\*) The Belgian data includes information from the funding agencies for calls that ERA-LEARN has not received data for yet by the respective networks. (\*\*) The actual investments post-call are based on the financial information is missing (around 25-30% of the calls), 90% of the pre-call budget is used instead. Thus, the figures might not represent reality by 100%. They may be higher or lower to different extent per country depending on the existing gaps. The actual investments post-call do not include EU top-up funding. (\*\*\*) Absorption rate are the funds actually invested / funds earmarked pre-call. (\*\*\*\*) Norway is included as the most active Associated Country.



