

Impact of Public Funding Organisations' Networks (P2P Funding Schemes)

– A Survey for Finnish Researchers

April 2017



ACADEMY OF FINLAND

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Introduction

This report illustrates the significance and impact of European networks between public funding organisations (ERA-NETs, Joint Programming Initiatives (JPIs) and Article 185 networks) in which the Academy of Finland (hereafter AKA) has participated. The report is based on a survey for researchers who have received public-to-public (P2P) funding through AKA.

Previously, Finnish participation in European P2P networks has been studied at AKA in summer 2016. The resulting report, *Academy of Finland's Participation in EU Network Collaboration*¹, describes the number of networks and joint calls with different countries and fields of research in which Finland and AKA have participated.

In a follow-up survey on the impact of these P2P networks, conducted in autumn 2016, researchers who have received P2P funding through AKA were asked how they view the added value and the pros and cons of their P2P cooperation compared to other EU or national research funding. This report illustrates and summarises the answers and results of that survey. The results serve the implementation of the AKA international policy (2017) and the preparation of the next EU Framework Programme.

The structure of the report mainly follows the structure of the survey as presented in Annex 1. Chapter one describes different P2P networks and the target group of the survey. The following chapters summarise the results of the survey.

The report has been prepared at the Academy Programme Unit of AKA by trainee Laura Mattila during February–April 2017, under the supervision of Senior Science Adviser Leila Häkkinen and Science Adviser Hannele Lahtinen.

1 Background

P2P networks are partnerships between national research and development (R&D) funding agencies aimed at coordination and collaboration between national and regional research and innovation programmes. In this report, the term P2P network refers to ERA-NETs, JPIs and Article 185 initiatives.

ERA-NETs are funding instruments under the EU's Framework Programme for Research and Innovation aimed at implementing the European Research Area (ERA). They are designed to support cooperation and networking between national R&D funders and bring together national and regional research programmes. Once established, ERA-NETs implement transnational joint calls for research and innovation in selected areas or topics.

The form and function of ERA-NETs have changed during the three framework programmes. The focus of funding from the European Commission has shifted from establishing and administrating networks to funding joint R&D calls. In this report, the term ERA-NET includes ERA-NET actions under the Sixth and Seventh

¹ Available online (PDF) at www.aka.fi/globalassets/42julkaisut/eranel_report_final_yhd4.pdf (accessed 28 March 2017).

Framework Programmes (FP6 and FP7), ERA-NET Plus actions under FP7, and ERA-NET Cofund actions under Horizon 2020 (FP8)².

Joint Programme Initiatives (JPIs) are strategic forms of cooperation for research and innovation. They bring together national R&D funding organisations to address major societal challenges that national research programmes cannot tackle effectively on their own. Member states are free to choose which JPIs they wish to participate in. So far, ten JPIs have been launched, and Finland is a member of nine of them³.

Article 185 of the Treaty on the Functioning of the European Union (previously known as Article 169 of the Treaty establishing the European Community) enables the EU to allocate funding and resources to international joint research programmes that offer EU added value but that are not directly linked to FP themes. Article 185 initiatives include scientific, administrative and financial integration between the participating countries.

The survey on the impact of these P2P networks was conducted in English and sent to 115 researchers from 24 networks. The information on funding decisions within P2P networks was collected from the AKA research funding system. The P2P networks included in the survey are presented in Annex 2.

In all 36 researchers from 13 networks responded to the survey, resulting in a response rate of 31 per cent. Seven respondents were coordinators and 29 were partners in their network. Figure 1 illustrates the proportion of different networks represented by the respondents.

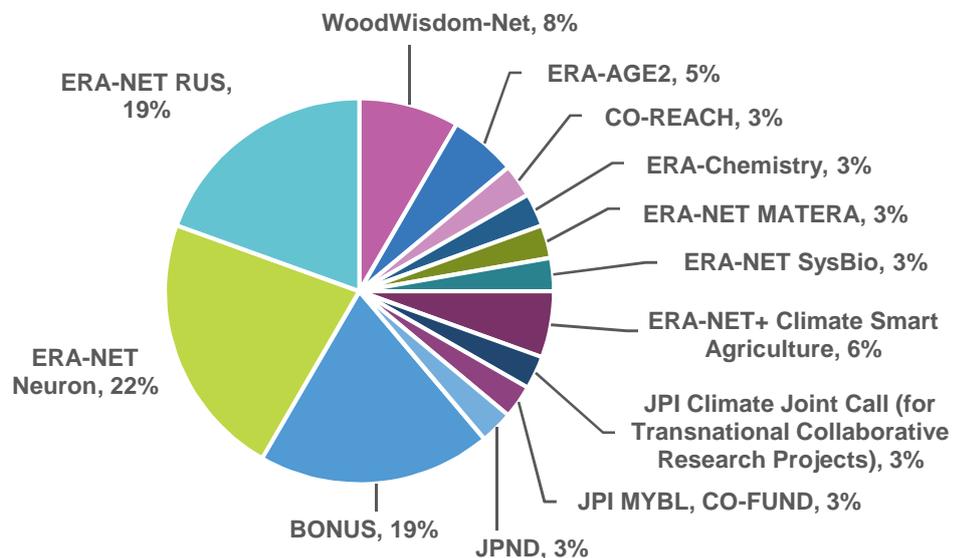


Figure 1. P2P networks represented by the 36 researchers who responded to the survey.

² Read more about the ERA-NET scheme, for instance, at ec.europa.eu/research/era/era-net_en.html and www.era-learn.eu/public-to-public-partnerships/test (accessed 28 March 2017).

³ FACCE JPI, JPI AMR, JPI Climate, JPI HDHL, JPI MYBL, JPI Oceans, JPI Urban Europe, JPND and Water JPI.

To see if the type of network had any effect on the answers, the respondents were divided into categories based on the network they represented and their position in the network. The network types used are ERA-NETs (incl. ERA-NET, ERA-NET +, and ERA-NET Cofund), JPIs and Article 185 networks. A more detailed description of the division is presented in Annex 2. The ERA-NET and JPI categories were merged due to the small amount of JPI respondents. The responses from these two groups did not notably differ from each other. All Article 185 respondents had received funding through the BONUS programme.

The respondents from the two network groups were further divided into coordinators and partners. The resulting three categories are ERA-NET/JPI coordinators (7 respondents), ERA-NET/JPI partners (22 respondents) and Article 185 partners (7 respondents). No Article 185 coordinators answered the survey. Figure 2 illustrates the proportions between these three categories.

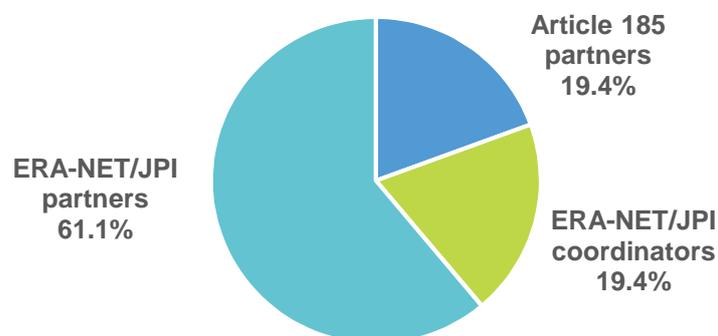


Figure 2. The respondents were divided into three groups based on their funding network and position in the network.

The researchers were asked if they had received funding through any AKA funding instruments other than P2P networks. Only two respondents had not received any other AKA funding or did not answer the question. It was possible to choose multiple options. The results presented in Figure 3 show that the respondents had received funding through all five instruments, however the least through Centres of Excellence and separate mobility calls. The respondents thus seem to have an adequate overall understanding of AKA funding instruments.

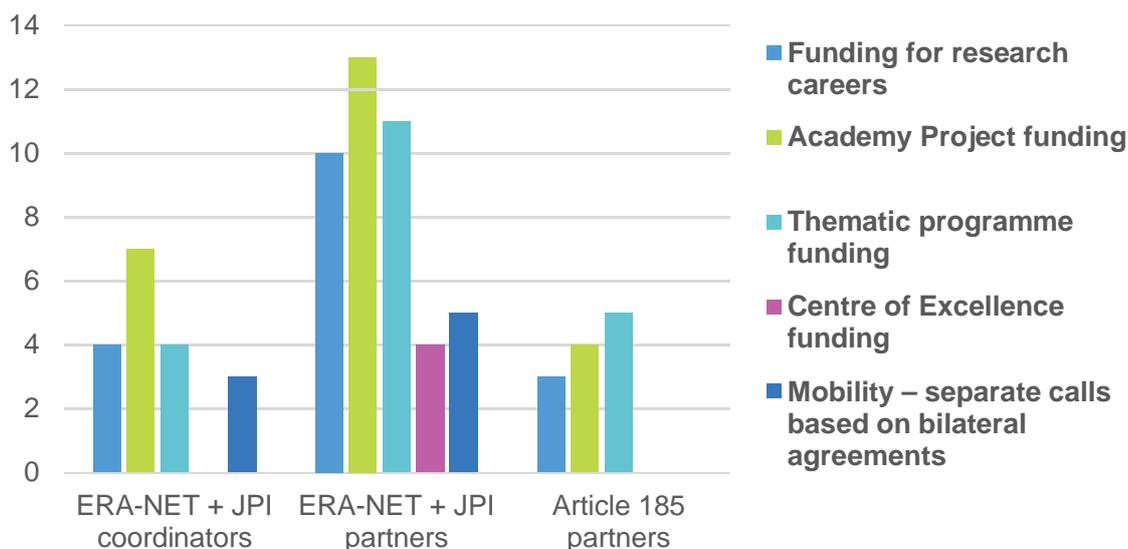


Figure 3. AKA funding received by respondents.

2 Rationale behind applying for funding within P2P networks

The researchers were asked to describe the rationale behind applying for funding within P2P networks. Three examples were given to further define the question: relevance of research topics, availability of optimal consortium partners and creation of added value for the project by network partners.

The answers mainly repeated the three examples phrased in the question. Of these, relevance of research topics was mentioned most often, by almost three in four respondents. More than three in five respondents mentioned the availability of optimal consortium partners, and creation of added value by network partners was mentioned by nearly half of all respondents. Only a few answers brought up other reasons for applying for funding within P2P networks. The following chapters summarise these answers.

Three of the seven ERA-NET/JPI coordinators described that one of the reasons they had decided to apply for funding within a P2P network was the easiness of administration and reporting compared to larger EU projects. One respondent also mentioned a recommendation by a colleague and network-wide events organised by their network.

The relatively low number of partners was mentioned as a positive feature in ERA-NET/JPI partners' answers. The respondents thought that a small consortium size resulted in practical, effective and productive cooperation. Other reasons encouraging ERA-NET/JPI partners to apply for funding within P2P networks were the possibility to further internationalise earlier research, better chances to influence EU policies or stakeholder practices, and the additional prestige of ERA-NET-based funding.

Article 185 partners pointed out that networking is beneficial especially for young researchers, and that increased mobility and international collaboration is an



advantage when training future experts. Added societal value, especially the possibility to produce knowledge for environmental management and decision-making, was also mentioned as a reason to apply for P2P network funding.

3 Results and outputs of funded projects

The researchers were asked to estimate the results and outputs of the collaboration in their P2P network. They were asked to answer the question “To what extent has the joint collaboration in the network contributed to the outcomes that would not have been achieved without the network?” in relation to ten different statements. Figure 4 presents the results of all respondents and Figure 5 elaborates on the answers of researchers from different network types and positions. The researchers were also given an opportunity to provide additional comments, and a few of them pointed out that their project is still ongoing or had just started, and that all results and outputs could not be seen yet.

The collaboration contributed most to production of new data and knowledge, and to the formation of new research contacts and wider networks. Most networks did not achieve or produce joint patent applications or licence agreements (Figure 4).

Figure 5 shows that, compared to network partners’ estimation, network coordinators saw the collaboration having a more important contribution to the outcomes in all ten categories. The difference was especially notable in the categories “production of societal impact” and “production of any other scientific outputs”. The coordinators also considered that the collaboration contributed more to the development of joint patent applications or licence agreements.

All coordinators and 45 per cent of partners described what kind of societal impact the project had produced. They often mentioned researcher exchange, mobility and joint presentations. Popular media presence in the form of press releases, articles and videos was also mentioned multiple times. Knowledge for management decisions and contribution to practical implementation of policy at both regional and EU level were also mentioned. Other societal impacts included modelling expected impact of climate change, identifying novel biomarkers, biobanks, improving maritime safety, improving connections to European industry, and comparative research on cultural heritage projects and their impacts.

Other scientific input the researchers described included joint publications, book chapters, researcher mobility, research training and theses. Development of new ideas, models, tools and methods as well as new research locations and datasets was mentioned several times. In addition, the respondents mentioned consortium meetings and proposing and attending symposiums, conferences and research workshops. One respondent summarised that, in terms of tax euros, collaborative projects of this type are good value for money as the risks are shared between two or more partners and countries, as the quality of science is raised at both ends, and as both research partners learn a lot from the experience.

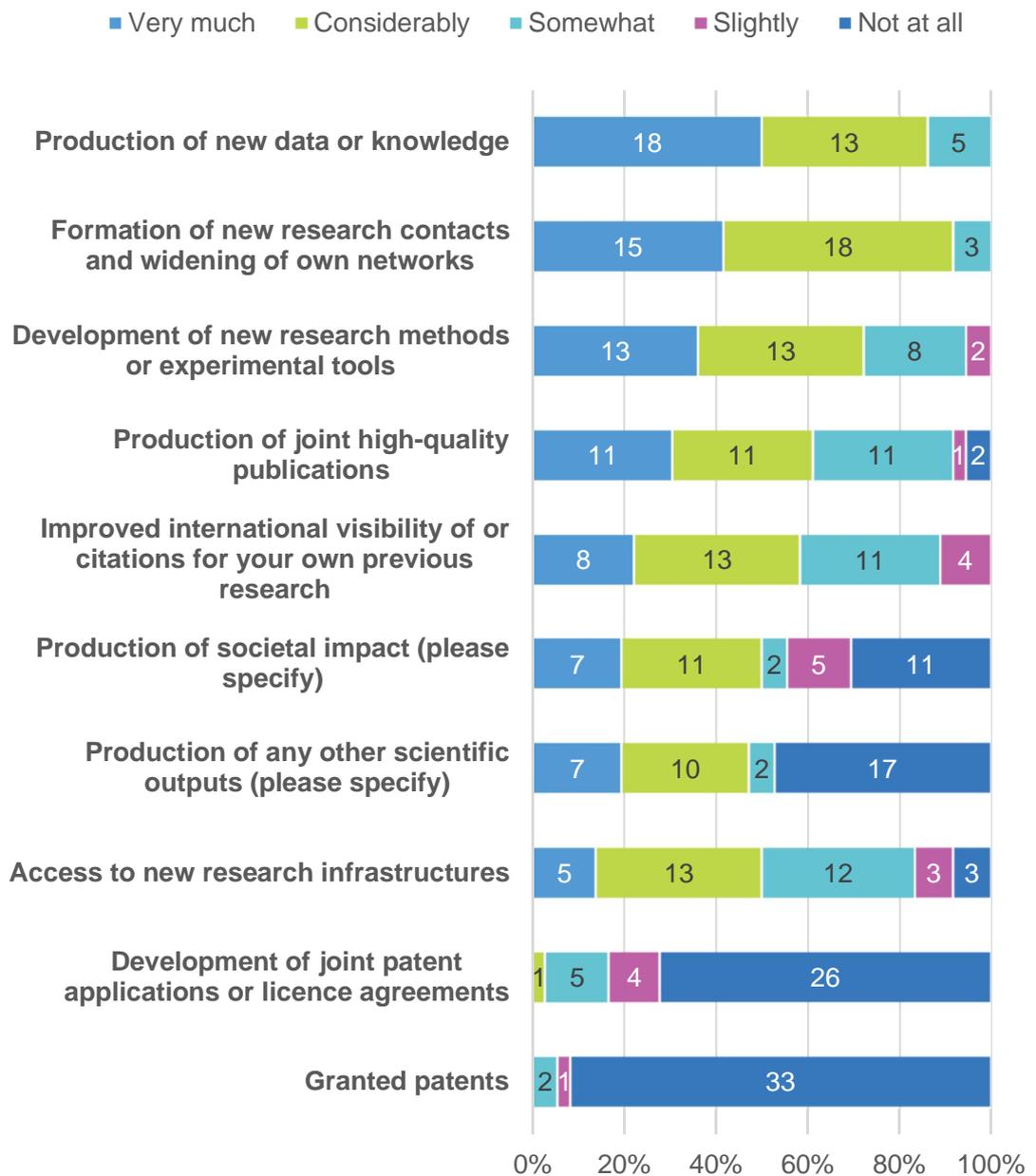


Figure 4. Results and outputs of joint collaboration in P2P networks (all responses).

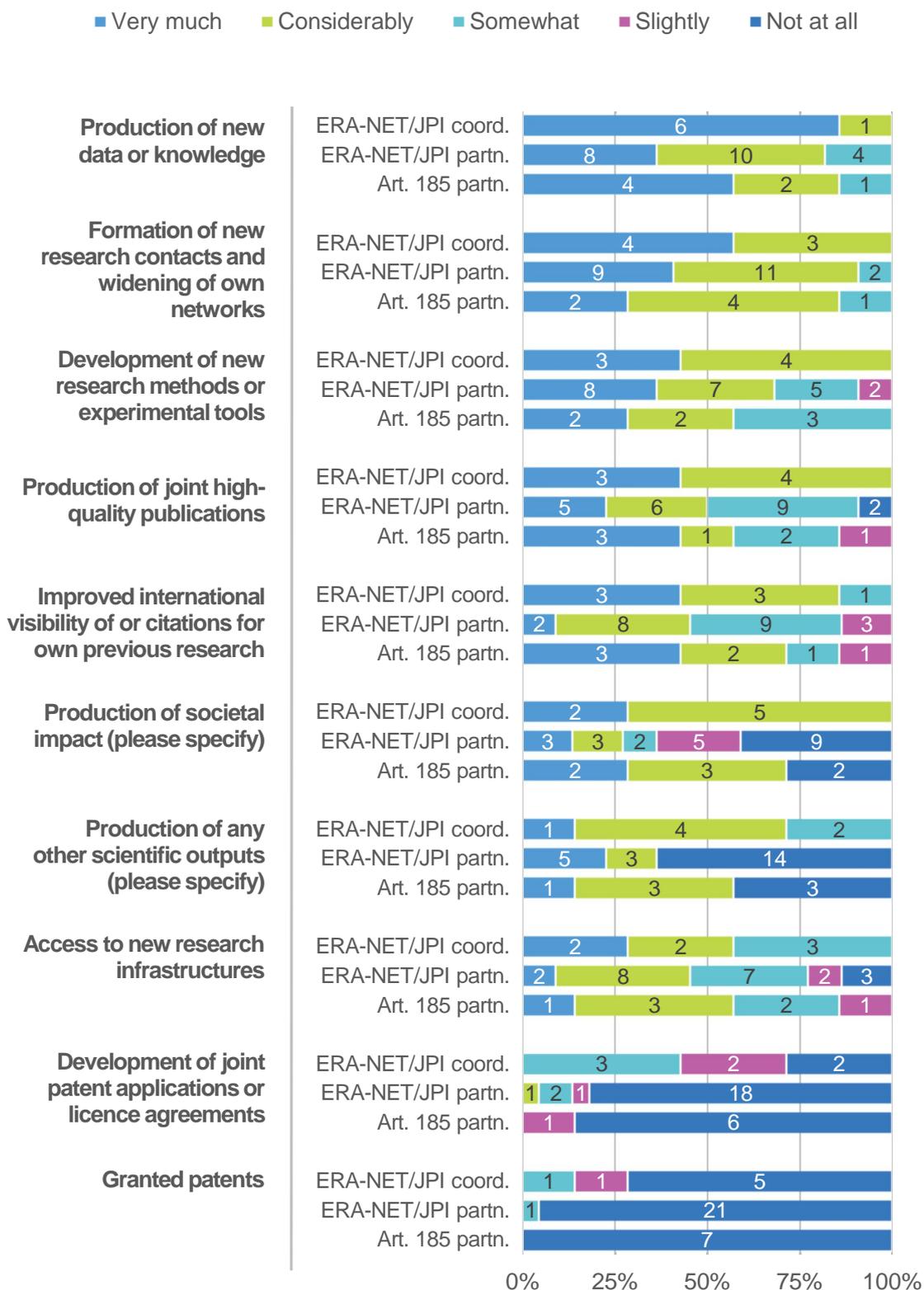


Figure 5. Results and outputs of joint collaboration in P2P networks by category.

4 Major achievements and quality of the collaboration within P2P projects

Reaching the planned targets. Most of the respondents (61%) had reached the planned targets or were proceeding according to schedule. Of the respondents, 31 per cent stated that they had reached most of their targets, and 8 per cent were in such an early stage of the project that it was impossible to evaluate whether the targets would be reached. On average, network coordinators reached their targets more often than network partners, and Article 185 respondents reached their targets more often than respondents from other networks.

Major achievements. When asked about the major achievements of the jointly funded project, respondents most often mentioned new scientific information, knowledge or discoveries. Joint publications and a high quality of science had often been accomplished. New data, models, methods and ideas had emerged from the collaboration, as well as shared research materials and information and joint research protocols and methodology. Development of new kinds of materials, components or catalysts were also mentioned. Societal impact was mentioned by four of the seven Article 185 respondents who considered that the outcome and results of their project would provide tools for improving environmental management and decision-making.

New types of cooperation. When asked about any new type of cooperation induced by the collaborative project, combining basic, experimental, clinical and/or computational research emerged clearly from the answers. Shared protocols, research materials, infrastructures and ideas were described almost as often. Collaboration with the private sector, international mobility and informal cooperation were also mentioned more than once. Networking and collaboration were seen as an achievement per se and as a foundation on which to build future research. Plans to continue collaboration and already prepared joint proposals were mentioned several times.

Consortium size and composition. A clear majority of respondents (83%) considered the consortium size and composition as optimal, while 8 per cent of the respondents judged their consortium as too large. In all 8 per cent of the respondents did not state their opinion clearly.

5 Comparison between P2P and national project funding schemes

The researchers were asked whether P2P funding schemes provided any additional value compared to national project funding schemes, such as Academy Project funding, Academy Programme funding or strategic research funding provided by AKA. Most of the feedback received through this question consists of positive comments about P2P funding schemes. The answers from network coordinators and partners did not differ from each other.

Nearly half of the respondents pointed out that P2P funding schemes entail deeper and more effective international cooperation. Both coordinators and partners emphasised that international cooperation offers added value and brings about



new expertise and increased research capability. Network coordinators considered that P2P funding is a good supplement to Academy Project funding.

The two-stage application procedure of P2P funding schemes received positive feedback. Some respondents found P2P and national project funding schemes rather similar. The only negative feedback concerned the technical aspects of P2P funding schemes, such as the low number of funded projects, the short funding period and the amount of available funding.

ERA-NET and JPI respondents noted that cooperation increases international mobility and provides access to research equipment and other research infrastructures. Confirmed research results from several countries have more impact than those from only one country or research group. Networking and increased research capability are seen as assets for future collaboration and applying for new funding.

Article 185 respondents (BONUS) stressed that multinational and multidisciplinary research consortia provide excellence and expertise that cannot be achieved in national projects. They viewed the Article 185 funding scheme as a good tool for addressing major research questions. Research questions and needs defined by international boards provide added societal value for the whole Baltic Sea region. Networking was seen as fundamental to future exercises.

The researchers were also asked to indicate their preferences in terms of AKA support for international cooperation through different funding opportunities. They were asked to rate AKA funding instruments based on the support they provide for their own purposes. Figure 6 shows the answers from all respondents and Figure 7 presents how the answers of network coordinators and partners and ERA-NET/JPI and Article 185 respondents differ from each other.

Academy Project funding and P2P funding were valued as the most important funding instruments. Funding for research careers was also seen as rather important, followed by Centre of Excellence funding, thematic programme funding, and mobility funding based on bilateral agreements with quite equal ratings (Figure 6).

Perhaps unsurprisingly, all project coordinators rated P2P funding as very important for their own purposes (Figure 7). Article 185 partners rated P2P funding as less important than ERA-NET/JPI coordinators and partners. Otherwise the responses between the three groups differed only marginally.

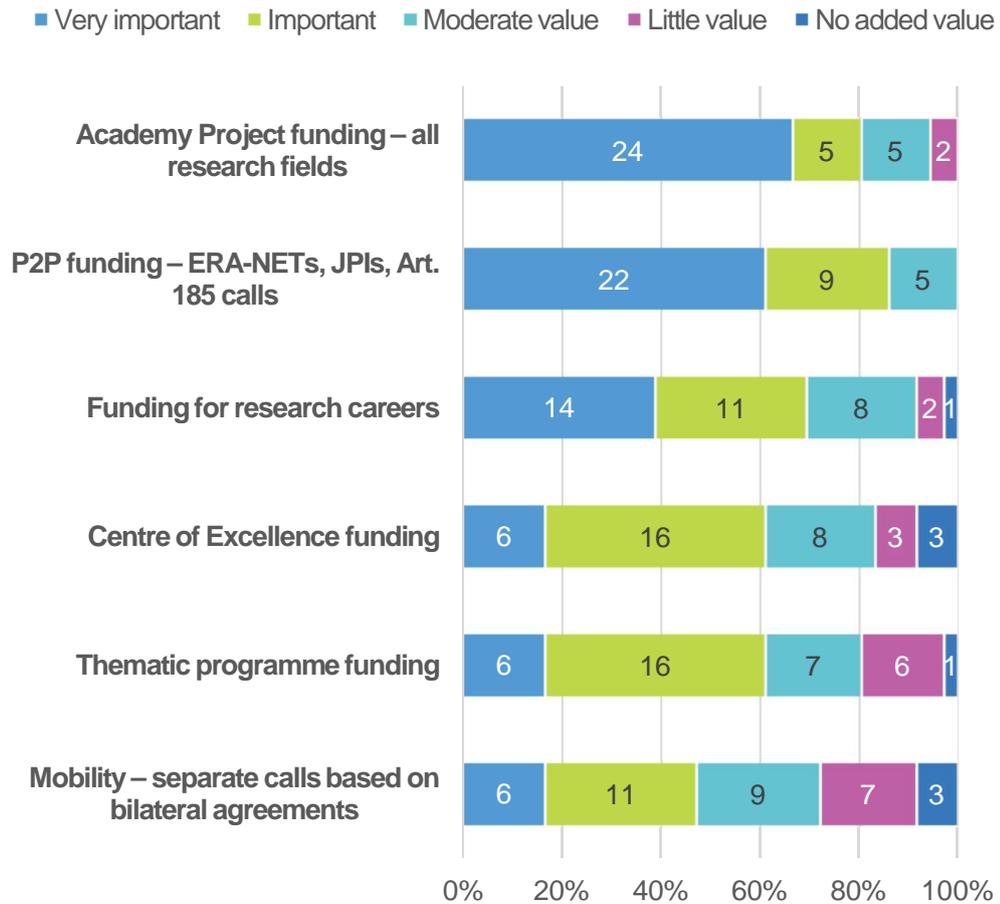


Figure 6. Researchers' preference for AKA support for international cooperation through different funding opportunities (all responses).



■ Very important
 ■ Important
 ■ Moderate value
 ■ Little value
 ■ No added value

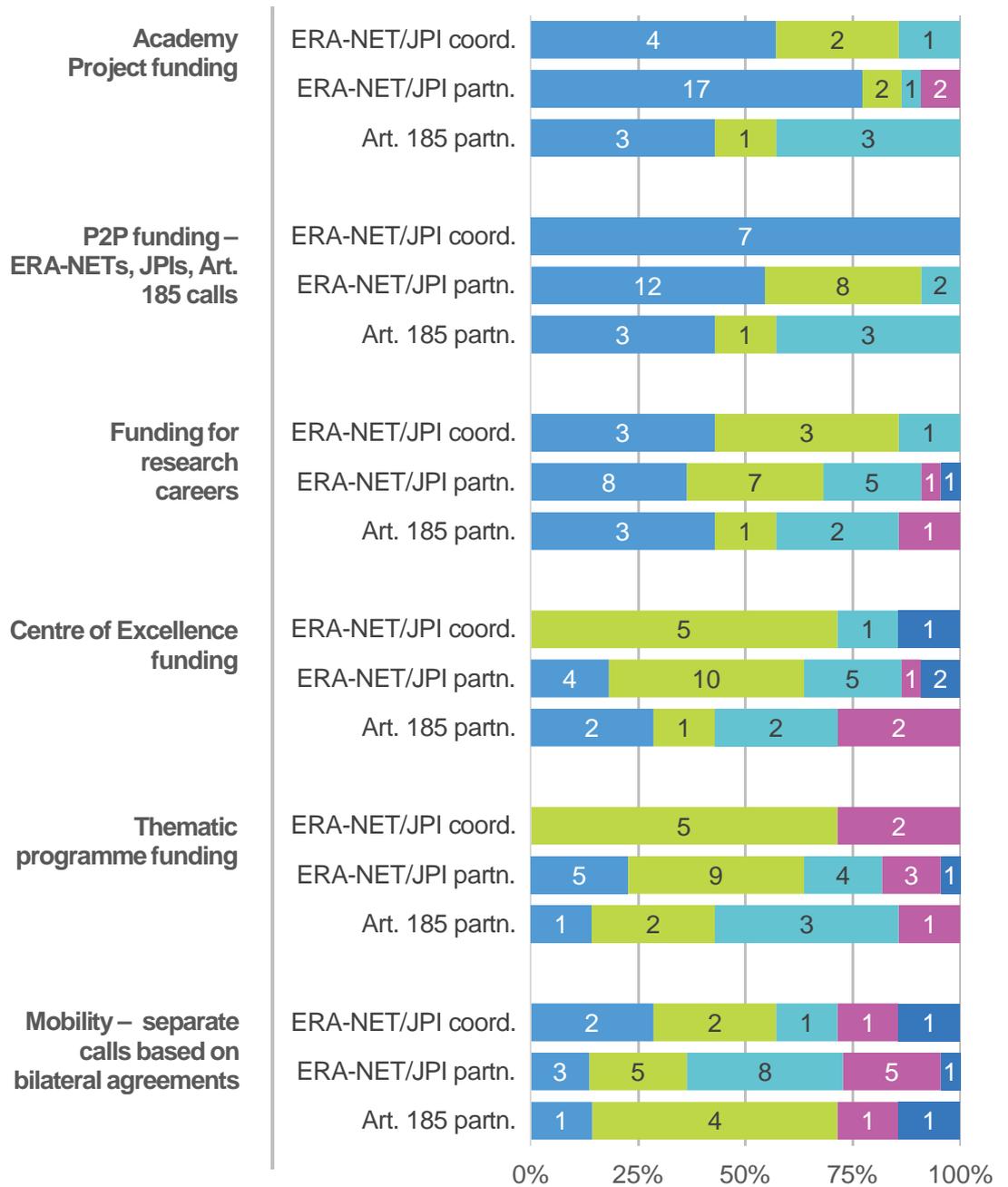


Figure 7. Researchers' preference for the AKA's support for international cooperation through different funding opportunities by group.

The results presented in Figure 6 were compared to a more substantial survey conducted by AKA. In March 2017, AKA adopted a new international policy⁴, which had been prepared, for example, by conducting an extensive stakeholder survey. The survey received 775 responses from stakeholders, mainly consisting of researchers who had received AKA funding during the years 2010–2015.

Among other things, the stakeholders were asked to estimate the impact of AKA funding instruments on supporting internationality in research. Figure 8 shows the stakeholders' views of different funding instruments, including the respondents who did not have an opinion.

Figure 8 shows that ERA-NET, JPI and Article 185 are not as well-known funding instruments as, for example, AKA research career funding or Academy Project funding. Of the respondents who did state their opinion about ERA-NET, JPI and Article 185 funding, 57 per cent regarded them as having very significant and 32 per cent as having significant effect on supporting internationality in research. The corresponding proportions for AKA research career funding are 55 per cent and 31 per cent and for Academy Project funding 35 per cent and 39 per cent. The separate mobility funding was seen in a more positive way in the stakeholder survey than in the P2P survey.

Figure 6 and Figure 8 cannot be directly compared as the answers were given for slightly different questions and the division of funding instruments evaluated is different. They do, however, show rather similar results about the impact and value of P2P funding compared to other AKA funding instruments. The similar results and substantial number of respondents in the stakeholder survey further confirm the results received through the P2P survey.

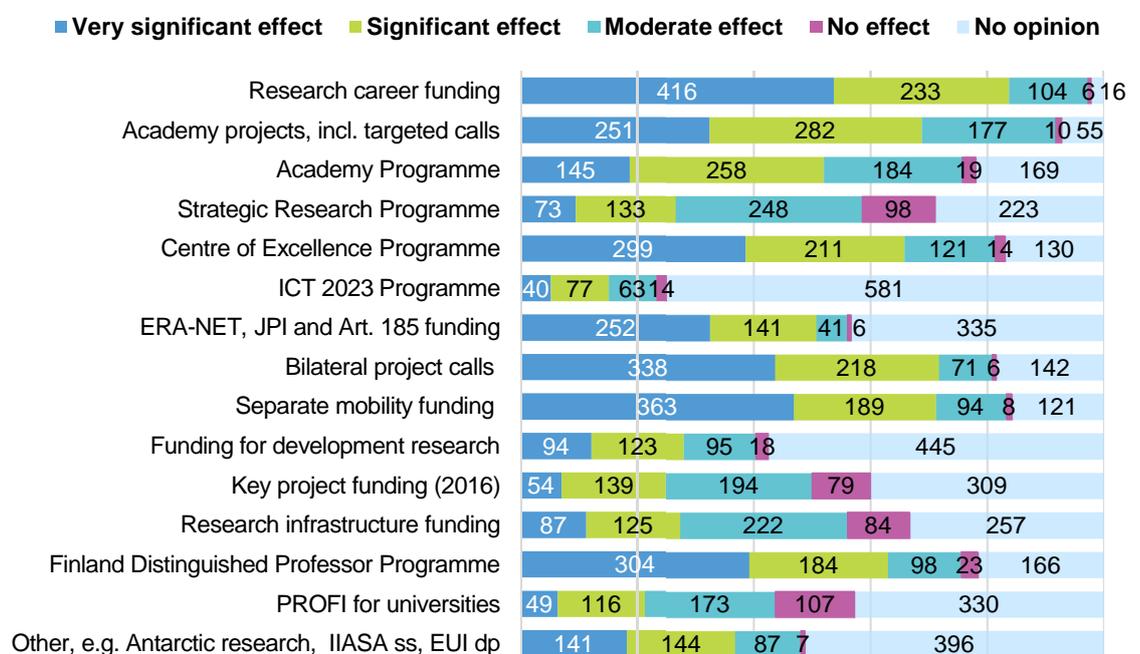


Figure 8. Stakeholders' (n = 775) evaluation of the importance of AKA funding instruments to promoting the internationality of research. The figure is based on a stakeholder survey conducted for the AKA international policy.

⁴ The international policy is available online (PDF) at www.aka.fi/globalassets/40akademia/academy-of-finland-international-policy-23-feb-2017-valmis.pdf (accessed 28 March 2017).

6 Comparison between P2P and other international project funding schemes

The researchers were asked whether P2P funding schemes provided any additional value compared to direct international project funding schemes, such as schemes under the EU framework programmes. A variety of answers was received.

Both coordinators and partners found the administration and reporting of P2P funding schemes lighter than in direct international project funding schemes. P2P funding schemes allow for smaller consortia sizes compared to EU framework programmes. This was perceived as positive, since a compact consortium enables flexible and dynamic cooperation, as well as easier coordination. Network-wide events support networking and collaboration between projects. Joint marketing possibilities for the projects through the internet were mentioned as an asset. Some Article 185 respondents considered that regionally defined priorities and research questions provided added value for the consortium and collaboration.

Several respondents pointed out that P2P funding schemes promote a more scientific approach and allow for a possibility to tackle bottom-up research topics, compared to the more top-down EU framework programmes. One respondent stressed that P2P projects are important for the freedom and productivity of European science, and should be available to top-quality research projects across all disciplines. Another respondent pointed out that P2P funding schemes are the only EU-wide funding instrument for collaborative basic scientific research.

The respondents considered that national funders mostly ease the practical issues included in P2P funding schemes. Some challenge is caused by differences in funding periods and amounts between consortium partners, and by budget changes or other bureaucratic difficulties faced by consortium partners.

Five network partners and one network coordinator found the funding schemes very similar. As a point of interest, one of them mentioned the reason being that the home university takes care of the financial and administrative work. On the other hand, one project coordinator preferred the P2P funding schemes over direct international funding schemes because of the light administrative work load, and pointed out that coordinating a framework programme proposal would be impossible as the home university did not provide administrative help.

7 Follow-up and future prospects

The researchers were asked whether the collaboration in their P2P network had led to any new joint funding applications (e.g., a collaborative EU framework programme proposal) and to the granting of further joint research funding. With both questions, it was possible to divide the answers into three categories: yes, not yet and no. The category 'not yet' consists of researchers who are looking for new funding possibilities or are currently preparing new joint funding applications. The division of the answers is presented in Figure 9. The figure should be viewed with a degree of caution: the numbers have been categorised from open answers,

and include some interpretation. Most, but not all, respondents presented their opinion as clearly and briefly as presented in Figure 9.

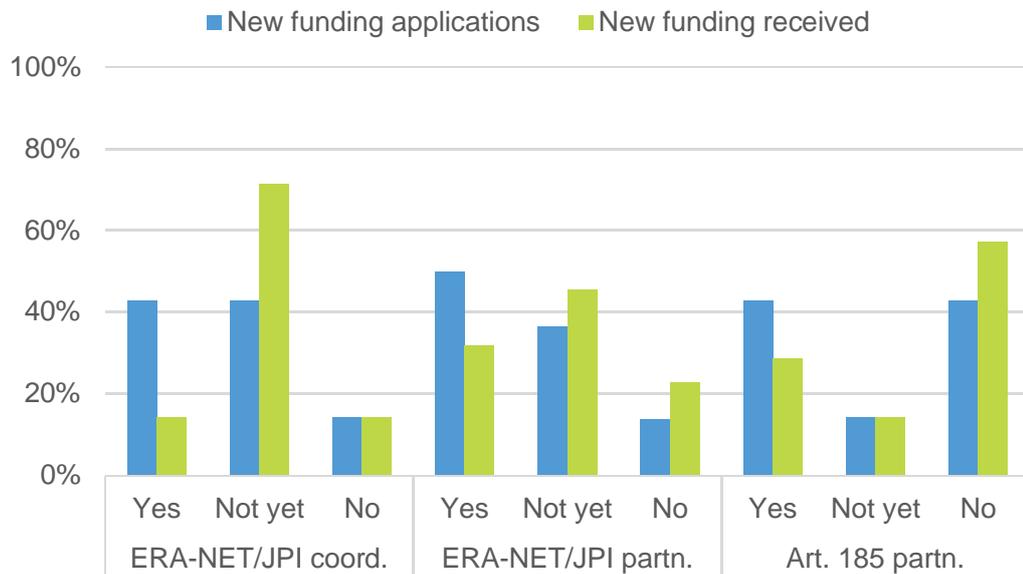


Figure 9. New joint funding applications prepared and grants received based on collaboration in P2P network(s). The column height is relative to the category to which it belongs (7 ERA-NET/JPI coordinators, 22 ERA-NET/JPI partners, 7 Art. 185 partners).

The researchers had applied for new joint funding from a variety of sources. The funding instruments mentioned most often included the EU framework programme and Innovative Training Networks (ITNs) (such as Marie Skłodowska-Curie ITN). Funding had also been applied for from ERA-NETs, Article 185 calls, Interreg Europe, NordForsk, bilateral call(s) with a country outside Europe, and national funding agencies. One researcher also stressed that their partnership did not suit the applied nature of EU framework programme applications.

The researchers had received new joint research funding through the EU framework programme, Interreg Europe, bilateral call(s) with a country outside Europe, national funding from AKA, and NordForsk or other Nordic sources.

8 Suggestions for improving P2P funding schemes

The respondents' most common suggestion for improving P2P funding schemes was to increase the amount of funding or to extend the funding period. Multiple respondents stressed that three years is too short a time to achieve deeper collaboration, and that longer funding periods would lead to much better scientific and societal outputs. It was also suggested that the number of funded projects should be increased. Two suggestions were given for solving the funding issues: the possibility to apply for another three-year funding based on a review of the first period, and granting some post-project funding for dissemination of results.

Allocating different amounts of funding per country and project is considered to be problematic. Excellent proposals from one country might not get funded because



the country has not budgeted sufficient funds for the call. A more equal amount of funding per project would ensure that collaborating partners could start and end their projects at the same time.

Other improvement suggestions included increasing the number of networking events and joint activities related to dissemination already during the project, introducing a broader choice of themes and providing more space for risk-taking and new openings. Respondents also expressed a concern about networks getting too large. One respondent suggested that a lot of money from Horizon 2020 should be moved to the European Research Council, and then supplemented with suitably small P2P joint projects.

9 Summary

Finnish researchers funded through P2P funding schemes agree that the advantages of P2P-funded projects lie in the possibility to collaborate within compact international consortia and in the relatively low administrative and reporting work load. Light administration and reporting is what makes P2P funding schemes attractive in the eyes of researchers, especially for consortium coordinators.

The size of the consortia seems to be near-optimal to achieve effective cooperation. Many respondents raised a concern about P2P networks and consortia eventually becoming too large for efficient collaboration.

The collaboration contributes especially to the production of new scientific information and the formation of new research contacts. Combining basic, experimental, computational or clinical research is an important part of many joint projects. Several researchers mentioned plans to continue collaboration and already prepared joint proposals.

The international nature of P2P networks was seen as valuable per se. In addition, the networking and sharing of scientific knowledge contribute to both scientific publication and dissemination of results, which provides visibility both to the project and to the researchers. P2P funding schemes promote international mobility and offer a good environment for training future researchers.

P2P networks are important and possibly the only EU-wide funding instrument for international collaborative basic scientific research. They also provide a possibility to receive funding for bottom-up research topics, compared to the more top-down EU framework programme calls.

In conclusion, the feedback received through the survey was very positive towards P2P networks and shows the importance of P2P funding schemes for European research collaboration.

Annex 1



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P2P Questionnaire

Please choose your network here: *

Please choose your role within the network: *

- Coordinator
 Partner

Q1 Results/outputs of the joint collaboration in your Public-Public-Partnership (P2P) network(s) *

To what extent has the joint collaboration in the network contributed to the outcomes that would not have been achieved without the network?

	Not at all	Slightly	Somewhat	Considerably	Very much
Production of new data or knowledge	<input type="radio"/>				
Development of new research methods or experimental tools	<input type="radio"/>				
Formation of new research contacts and widening of own networks	<input type="radio"/>				
Access to new research infrastructures	<input type="radio"/>				
Improved international visibility of or citations for your own previous research	<input type="radio"/>				
Production of joint high-quality publications	<input type="radio"/>				

Development of joint patent applications or licence agreements	<input type="text"/>	<input type="radio"/>				
Granted patents	<input type="text"/>	<input type="radio"/>				
Production of any other scientific outputs (please specify)	<input type="text"/>	<input type="radio"/>				
Production of societal impact (please specify)	<input type="text"/>	<input type="radio"/>				

Please write your additional comments here

Q2 Rationale behind applying funding within the P2P network(s) *

For example: relevance of research topics; availability of optimal consortium partners; creation of added value for the project by network partners

Q3 Major achievements and quality of the collaboration *

Did you reach the planned targets?

What has been the major achievement of this jointly funded collaborative project?

What (type of new) cooperation has been induced by this collaborative project? Please specify.

Was the consortium size and composition optimal?

Any additional comments?

Q4 Compare the P2P funding scheme (of your network) with other national project funding schemes (e.g. Academy Project funding, Academy Programme funding, strategic research funding). *

Did this type of joint funding scheme (P2P) produce any additional value? Please specify.

Q5 Compare the P2P funding scheme (of your network) with direct international project funding schemes (e.g. funding from EU framework programme). *

Did this type of joint funding scheme (P2P) produce any additional value? Please specify.

Q6 As a funding scheme, do you have any suggestions to improve this P2P scheme? *

Q7 Follow-up/future prospects *

Has collaboration in your P2P network led to any new joint funding applications (e.g., a collaborative EU framework programme proposal)? Please specify.

Has collaboration in your P2P network led to granting of further joint research funding?

Q8 Please indicate your preference for the Academy's support for international cooperation through different funding opportunities. How would you rate them to provide the best support for your own purposes? *

	No added value	Little value	Moderate value	Important	Very important
Funding for research careers – Postdoctoral Researchers, Academy Research Fellows, Academy Professors	<input type="radio"/>				
Academy Project funding – all research fields or targeted calls	<input type="radio"/>				
Thematic programme funding – Academy Programmes or Strategic Research Programmes	<input type="radio"/>				
Centres of Excellence funding	<input type="radio"/>				
Mobility – separate calls based on bilateral agreements with certain countries	<input type="radio"/>				



P2P funding – ERA-NETs, JPIS, Art. 185 calls –
Academy's funding and collaboration with
other funding organisations in Europe and
European Commission



Please also mark if you have received funding from:

- Funding for research careers – Postdoctoral Researchers, Academy Research Fellows, Academy Professors
- Academy Project funding – all research fields or targeted calls
- Thematic programme funding – Academy Programmes or Strategic Research Programmes
- Centres of Excellence funding
- Mobility – separate calls based on bilateral agreements with certain countries



Annex 2

Table 1. Networks in which researchers who have received P2P funding through AKA have participated. In this report, the networks were divided into three categories.

CATEGORY	NETWORK
Art. 185	BONUS
ERA-NET	CO-REACH ELSA Genomics ERA-AGE2 ERA-Chemistry ERAfrica ERA-NET CIRCLE NORDIC ERA-NET ERASynBio ERA-NET MATERA ERA-NET NanoSciE+ ERA-NET Neuron ERA-NET PathoGenoMics ERA-NET Plant Genomics ERA-NET RUS ERA-NET SysBio NewIndigo ERA-NET N-INNER WoodWisdom-Net
JPI	ERA-NET+ Climate Smart Agriculture - FACCE FACCE Multi-Partner Call on Agricultural Greenhouse Gas Research JPI Climate Joint Call (for Transnational Collaborative Research Projects) JPI MYBL, CO-FUND JPND Water JPI