

ACADEMY OF FINLAND'S PARTICIPATION IN  
EU NETWORK COLLABORATION  
Academy Programme Unit  
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ACADEMY OF FINLAND

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# INTRODUCTION

This report illustrates the relationship between the Academy of Finland (later AKA) and European Research Area (ERA) networks. Mainly, the report describes how AKA is involved in the following forms of cooperation: ERA-NETs, ERA-NET Pluses, ERA-NET Cofunds, Article 169/185 initiatives and JPIs. All these different instruments are presented briefly in this introduction. The report covers the period from the 6<sup>th</sup> Framework Programme (FP6, 2002–2006) to the 7<sup>th</sup> Framework Programme (FP7, 2007–2013) and the first few years of Horizon 2020 (2014–2016, Horizon 2020 continues until 2020). When referring to ongoing networks, the situation applies to the first half of 2016.

The purpose of ERA-NETs is to enhance cooperation and coordination of national or regional research and innovation activities. It is a funding instrument under the EU's Framework Programme for Research and Innovation (currently Horizon 2020), which brings together national research funding agencies, research programmes and funding in order to facilitate exchange of information, organise multinational calls for researchers and map out possible obstacles to cooperation. The essence of ERA-NETs has changed somewhat during the three framework programmes. The latest form, ERA-NET under Horizon 2020 (ERA-NET Cofund), combines features from the previous ERA-NET and ERA-NET Plus instruments introduced in FP6 and FP7.<sup>1</sup>

Joint Programming Initiatives (JPIs)<sup>2</sup> act as strategic platforms for research and innovation. They are launched to pool national research efforts and to tackle global challenges more effectively. Member states participate in JPIs voluntarily, seeking to develop common visions and strategies for European research in a few key areas, such as health and climate. Article 185<sup>3</sup>, previously known as Article 169, aims at long-term cooperation and consists of scientific, managerial and financial integration between voluntary member states. All these different instruments are also aimed at preventing duplicate research activities. CSAs (Coordination and Support Actions), which cover coordination and networking of projects and policies, but not research itself, are not included in this report.

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<sup>1</sup> Read more about the differences, for instance, in the following ERA-LEARN 2020 document: [www.era-learn.eu/manuals-tools/p2p-in-h2020/practical-documentation/ERANET\\_FP7\\_H2020\\_comparison\\_.pdf](http://www.era-learn.eu/manuals-tools/p2p-in-h2020/practical-documentation/ERANET_FP7_H2020_comparison_.pdf) (accessed 6 May 2016).

<sup>2</sup> For more about Joint Programming, go to [http://ec.europa.eu/research/era/joint-programming\\_en.htm](http://ec.europa.eu/research/era/joint-programming_en.htm) (accessed 6 May 2016).

<sup>3</sup> For more about Article 185, go to [http://ec.europa.eu/research/era/art-185\\_en.htm](http://ec.europa.eu/research/era/art-185_en.htm) (accessed 6 May 2016).

The present report is based on data provided by ERA-LEARN 2020<sup>4</sup> (using the database of the European Commission) and on funding information gathered from the Academy of Finland's database. Despite minor shortcomings in the data, especially concerning the FP6 period, the report aims to present a comprehensive picture of the landscape of Finland's and AKA's participation in European Research Area collaboration.

Section 1 presents statistics and figures about the number of networks in which Finland and AKA have participated. Section 2 moves the focus from networks to joint calls. Section 3 of the report studies a number of cases of network participation in more detail in order to better illustrate different modes of participation and give a brief overview of how networks work, how projects are implemented, and what kind of implications they have. Finally, section 4 provides a summary of the main findings of the report.

The report has been prepared at the Academy Programme Unit of the Academy of Finland by trainee Mari Ketola, BSocSc, during April–June 2016, under the supervision of Senior Science Adviser Leila Häkkinen and Science Adviser Hannele Lahtinen. The authors wish to thank the ERA-LEARN platform for providing the data, the Finnish ERA-NET contact points for their input on the case studies and DTPage Oy for the maps on pages 9-10.

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<sup>4</sup> ERA-LEARN 2020 is a Coordination and Support Action (CSA) funded under Horizon 2020 ([www.era-learn.eu](http://www.era-learn.eu).)

# 1 NETWORKS OF COLLABORATION

## 1.1 Participation in networks

By 2016, there have been a total of 241 networks (ERA-NETs, JPIs, Article 169/185), and 89 of them are currently (May 2016) ongoing. Finland has participated in 138 networks during FP6, FP7 and Horizon 2020. At present, there are 51 ongoing networks in which Finland participates. The Academy of Finland has taken part in 53 networks of which 23 are ongoing. As regards the number of networks counted in this report, different periods of a network have been considered as separate networks. This means that WoodWisdom-Net, WoodWisdom-Net2 and WoodWisdom-Net+, for example, have been counted as three networks.

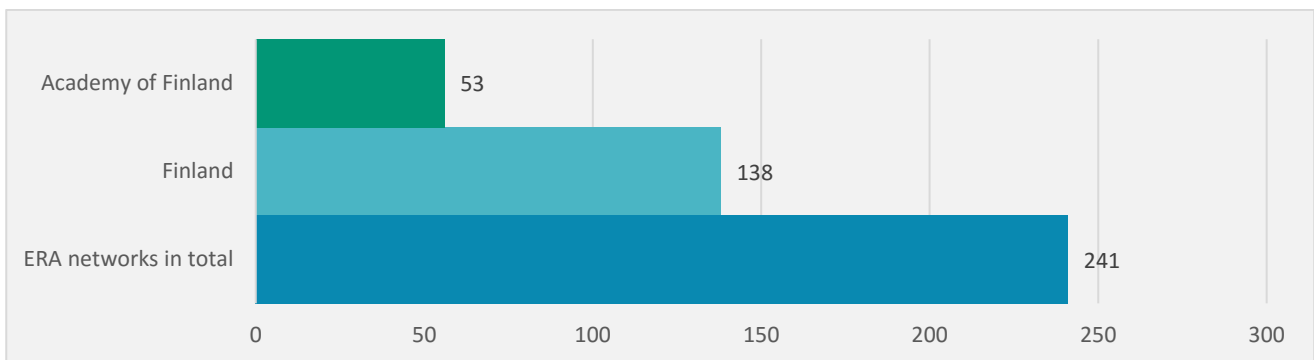


Figure 1. Finland's and AKA's participation in FP6, FP7 and Horizon 2020 networks.

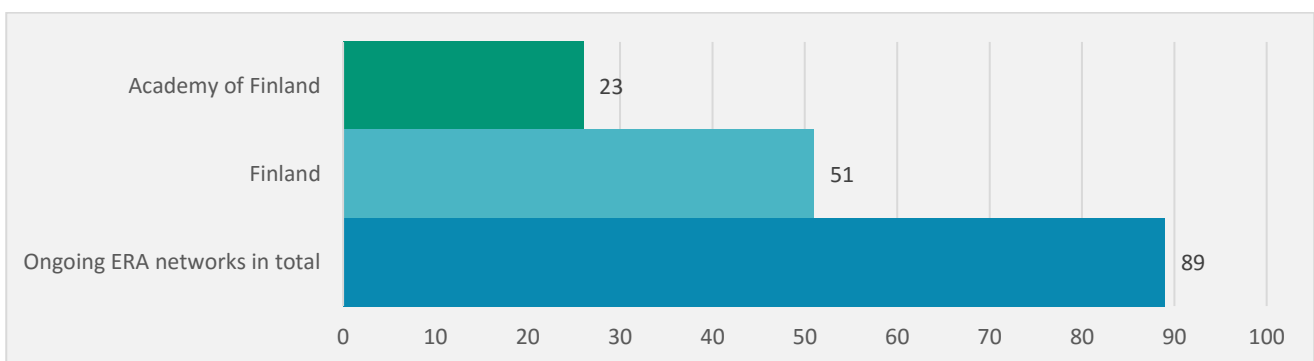


Figure 2. Finland's and AKA's participation in ongoing networks (May 2016).

Most of the networks in which Finland has participated have been ERA-NETs funded under FP6 and FP7 (Figure 3). The total number of JPIs and Article 169/185 initiatives in

Figure 3 is much smaller, since the total number of these network types at the European level is also smaller. There are ten JPIs in total and Finland is a member of nine of them<sup>5</sup>.

Finland has also participated in all five Article 169/185 initiatives<sup>6</sup>. The category “FP7 Article 169/185” in Figure 3 includes the first phases of AAL, EMPIR (EMRP) and Eurostars, and BONUS. The category “Horizon 2020 Article 169/185” includes the subsequent phases of AAL, EMPIR and Eurostars, and EDCTP2.

The figures also contain the category “None – Other”, which refers to networks that mostly are described as self-sustained or self-funded in the data. These networks have previously (mainly under FP6) been ERA-NETs, but now work as independent networks.

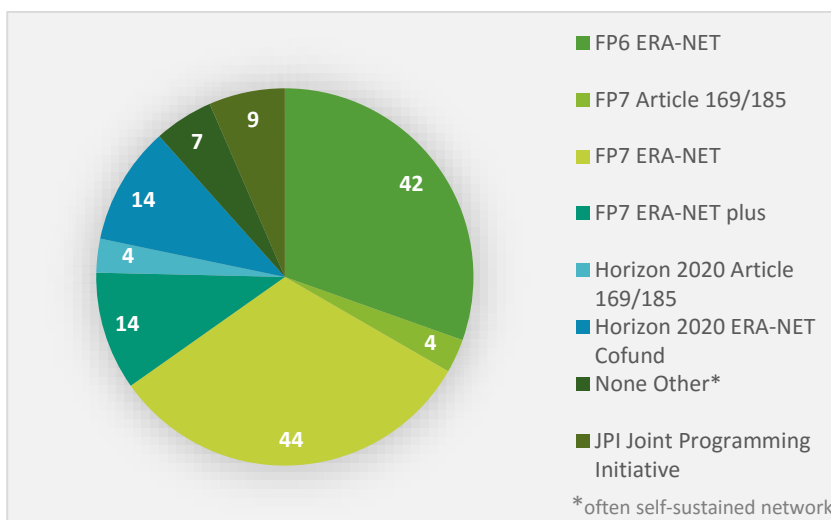


Figure 3. Finland's participation in networks, by framework programme and network type,  $n = 138$ .

Figure 4 shows the Academy of Finland's participation in ERA-NETs, ERA-NET Pluses and ERA-NET Cofunds. In addition, AKA is involved in six JPIs (FACCE JPI, JPI Climate, JPI MYBL, JPI Urban Europe, JPND and Water JPI) and two Article 169/185 initiatives (Bonus and EDCTP2).

<sup>5</sup> FACCE JPI, JPI AMR, JPI Climate, JPI HDHL, JPI MYBL, JPI Oceans, JPI Urban Europe, JPND and Water JPI.

<sup>6</sup> AAL, BONUS, EDCTP, EMPIR and Eurostars.

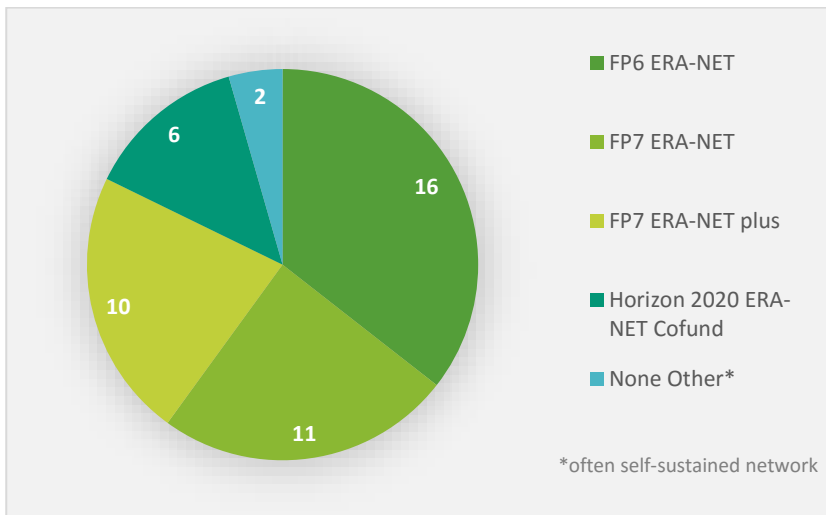


Figure 4. AKA's participation in networks, by framework programme and network type,  $n = 45$ .

Figure 5 illustrates how many networks in which Finland participates have been ongoing during the past decade, and Figure 6 shows the corresponding development with regard to the Academy of Finland. The figures also include a “future forecast”, which is based on the average number of new networks launched per year (Finland 9, AKA 3). Despite what the future forecasts show, the number of ongoing networks has decreased slightly. Without taking into consideration the future forecasts, the decline is even greater. Presumably, Finland has become a country with a selective approach to ERA-NETs.

A more detailed breakdown of the duration of networks is provided in Annex 1 where each network is placed on a timeline.

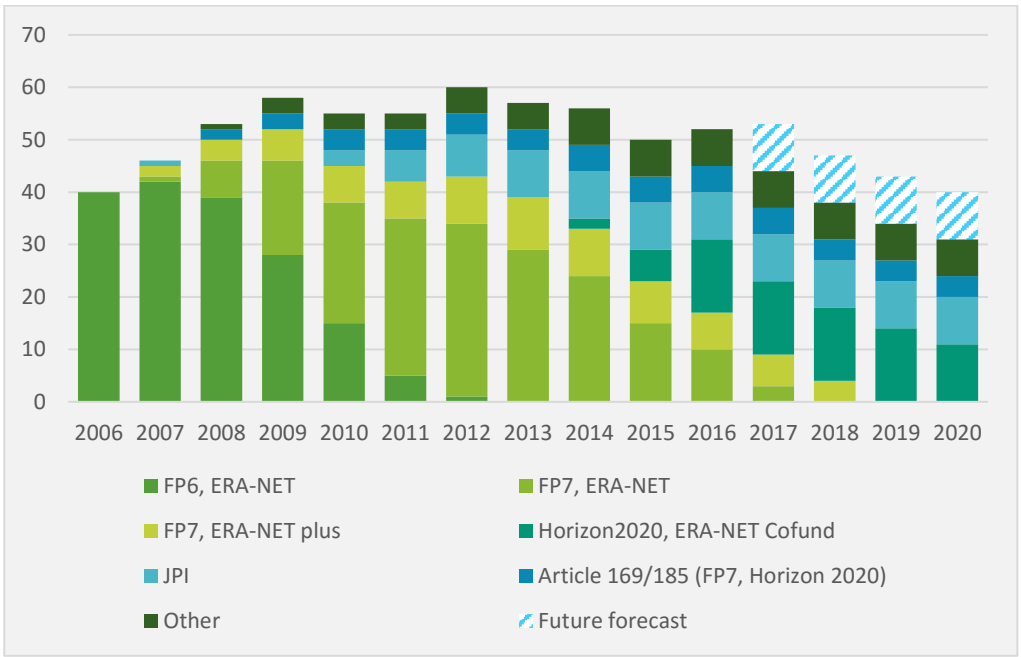


Figure 5. Finland's ongoing networks per year, by framework programme and network type.

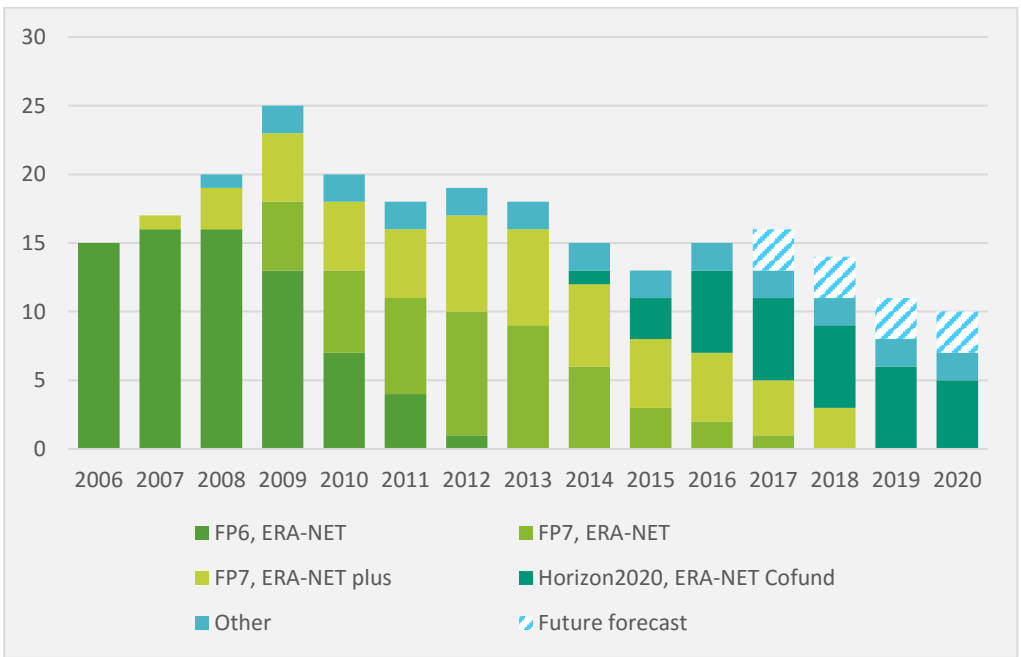


Figure 6. AKA's ongoing ERA-NETs per year, by framework programme and network type.





## 1.2 Countries and organisations to cooperate with

Finland cooperates with several European as well as non-European countries within ERA networks. In total, there are more than 70 different countries with which Finland has joint networks. Finland shares the most networks with Germany, France, the UK and the Netherlands.

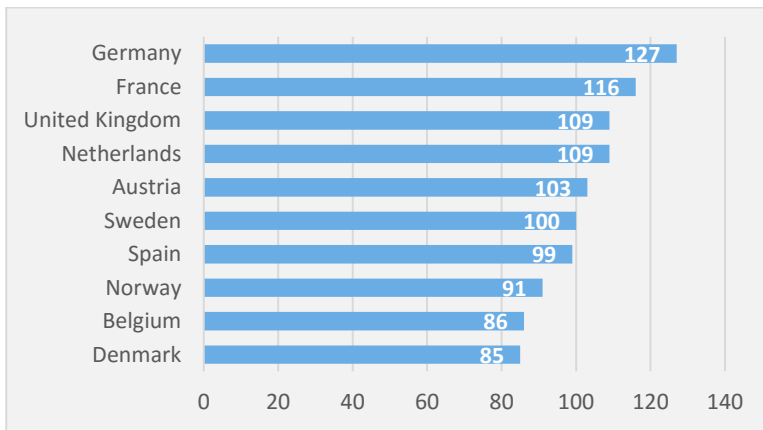


Figure 7. Top 10 partner countries and number of joint networks with Finland. The figure includes all network types (ERA-NETs, ERA-NET Pluses, ERA-NET Cofunds, JPIs, Article 169/185, Other – often self-sustained).

In JPIs, the major partner countries are Belgium, Denmark, France, Germany, Italy, the Netherlands, Norway, Spain, Sweden and the UK. These countries participate in all nine JPIs in which Finland takes part. The major partners are much the same in the case of ERA-NETs. The collaborators in ERA-NET networks are illustrated further in the maps on pages 9-10.

In Article 169/185 initiatives, Sweden, Denmark and Germany top the list of collaboration countries. These countries are members in all Article 169/185 initiatives in which Finland participates. Finland coordinates one of the Article 169/185 initiatives, BONUS (Joint Baltic Sea Research Programme), which focuses on challenges in the Baltic Sea region. The cooperation countries in BONUS are Denmark, Estonia, Germany, Latvia, Lithuania, Poland and Sweden.

Of non-European countries, Finland has joint networks (ERA-NETs, JPIs and Article 169/185 initiatives) for example with Israel (39 joint networks) and Canada (14). There are around 40 countries with which Finland shares only one, two or three joint networks.

Figure 8 lists the first 22 organisations with which the Academy of Finland has the most joint networks. RCN (the Research Council of Norway) is the most significant partner

organisation. It should be noted that Germany, France and Sweden have more than one organisation in the top 22 list of cooperation organisations. In total, AKA has joint networks with more than 200 organisations. For instance, France has 23 different organisations and the UK 16 organisations with which AKA shares networks (Table 1). Correspondingly, there are only three organisations in Norway with which AKA shares networks. This explains also why RCN has a relatively high bar compared to other organisations in Figure 8. Network actions with regard to networks in which AKA participates are not distributed between many organisations in Norway.

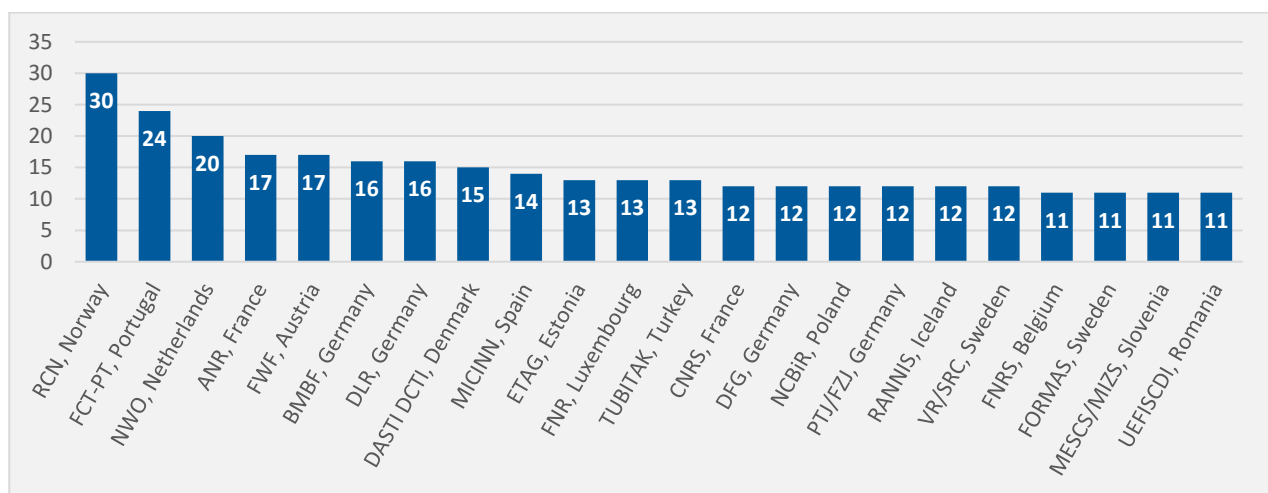


Figure 8. Top 22 organisations that cooperate with the Academy of Finland, by number of joint networks.

COUNTRY/AREA	NUMBER OF ORGANISATIONS	COUNTRY/AREA	NUMBER OF ORGANISATIONS
France	23	India, Israel	7
UK	16	Denmark, Finland, Switzerland	6
Italy	14	Romania, Russia	5
Spain	13	Hungary, Latvia	4
Ireland	11	Canada, Czech Republic, Estonia, Greece, Lithuania, Norway, Slovakia	3
Belgium	10	Bulgaria, Moldova, Portugal, Slovenia, Turkey	2
Germany, Netherlands	9	Argentina, Brazil, Chile, Croatia, Cyprus, Egypt, Iceland, Luxembourg, Malta, Mexico, Panama, Peru, South Africa, Taiwan, Tunisia, USA	1
Austria, Poland, Sweden	8		

Table 1. Number of cooperation organisations by country. Note that these numbers take into account only those organisations with which AKA has joint networks. Also note that the total number of organisations participating in ERA networks can be even greater in these countries.

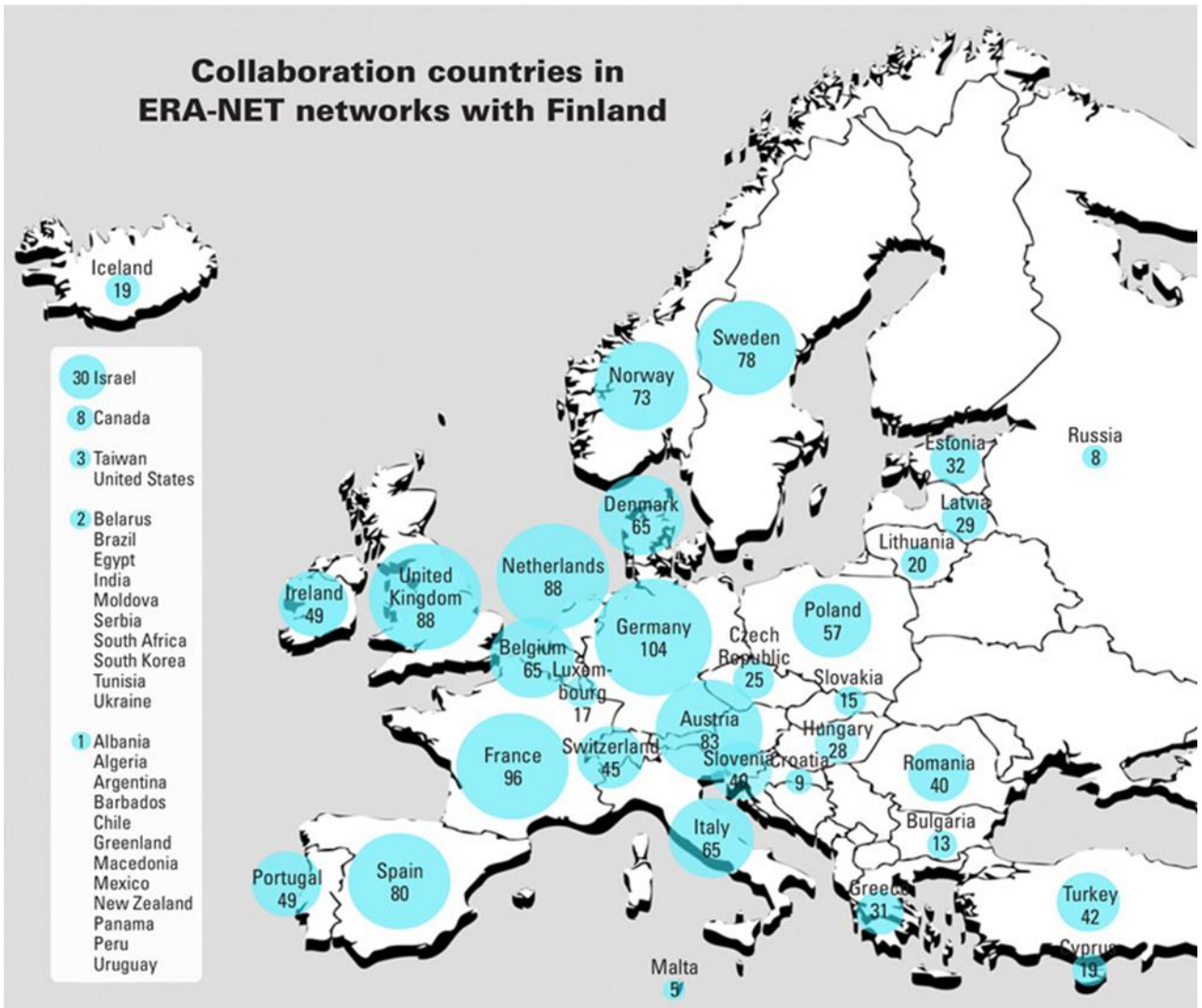


Figure 9. Finland's collaboration countries in ERA-NET networks and the number of joint networks.

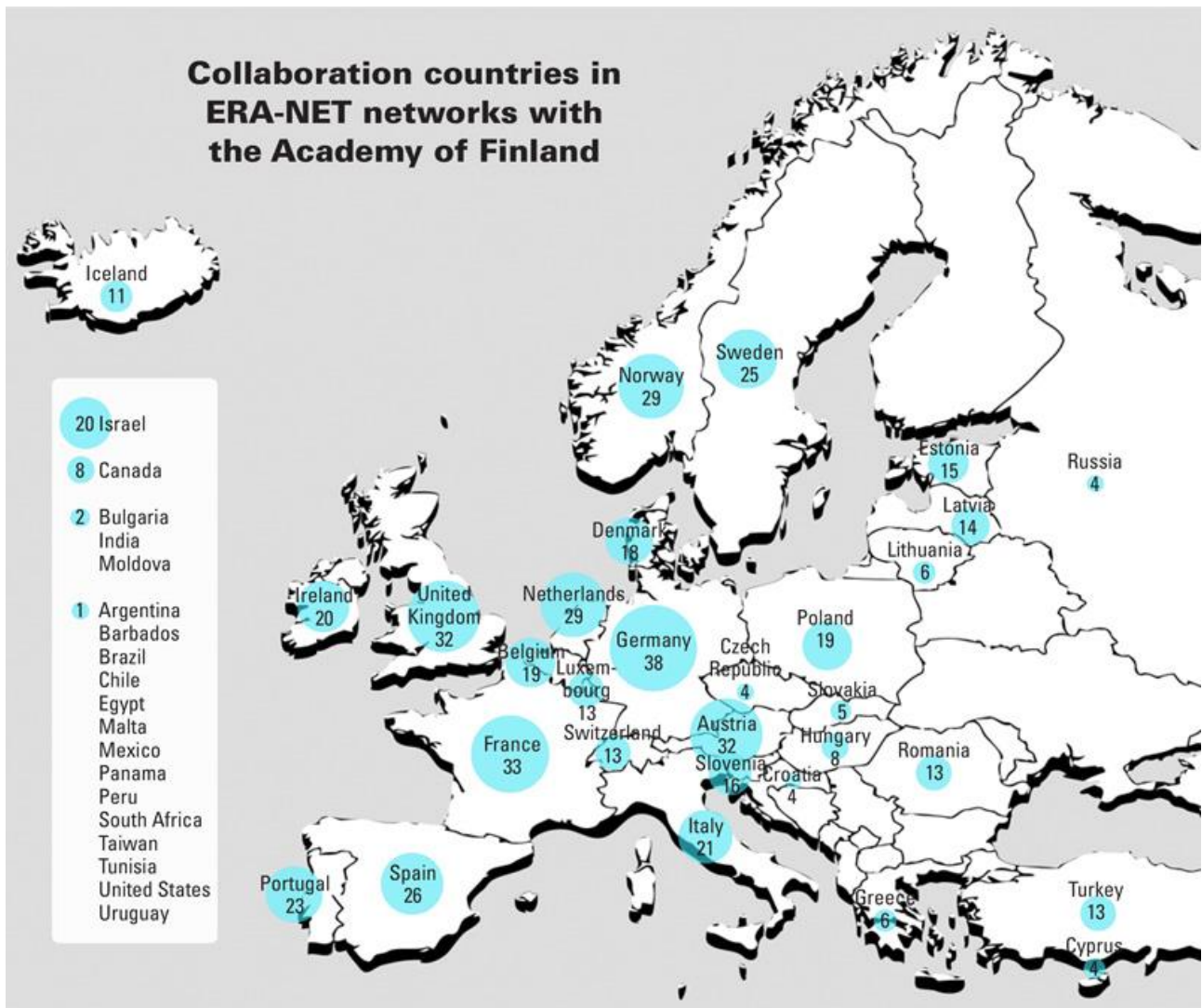


Figure 10. The Academy of Finland's collaboration countries in ERA-NET networks and the number of joint networks.

### 1.3 Themes

Most ERA-NETs cover more than only one research theme. Figure 11 illustrates the thematic coverage of all ERA-NETs in which Finland has taken part. The environment (17%), food, agriculture and fisheries (12%), and energy (12%) have been the most significant themes. Correspondingly, space (0%), services (1%), security and defence (1%) and government and social relations (2%) have been less frequent themes. When it comes to Article 169/185 initiatives and JPIs, networks of these types are distributed quite evenly under different themes.

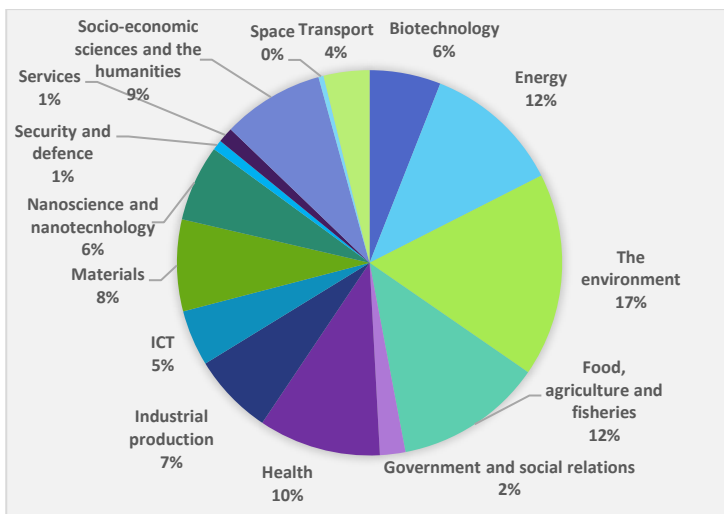


Figure 11. Thematic coverage of ERA-NETs in which Finland has participated.

The Academy of Finland's ERA-NETs (Figure 12) cover largely the same themes as Finland's ERA-NETs. However, some of the themes stand out more in AKA's ERA-NETs than in the overall picture of Finland's ERA-NET themes. For instance, nanoscience and nanotechnology is a theme that is somewhat more emphasised in Figure 12 (AKA) than in Figure 11 (Finland), with 9 per cent vs 6 per cent. Also the proportions of biotechnology, materials, health, and socio-economic sciences and the humanities are somewhat larger for AKA than in the overall picture. Correspondingly, transport, ICT, industrial production, and food, agriculture and fisheries are less emphasised for AKA than in the overall picture. Other Finnish organisations are most likely responsible for the ERA-NETs in these themes.

The last thematic figure shows an overview of the themes covered by the Academy of Finland's ongoing ERA-NETs. The environment (24%), energy (16%) and health (13%) are the most significant themes in ongoing ERA-NETs. Biotechnology is not as prominent

now as it has been in the overall picture of AKA's ERA-NET themes (2% vs 8%). None of the ongoing ERA-NETs cover the themes of transport, space, services or security and defence.

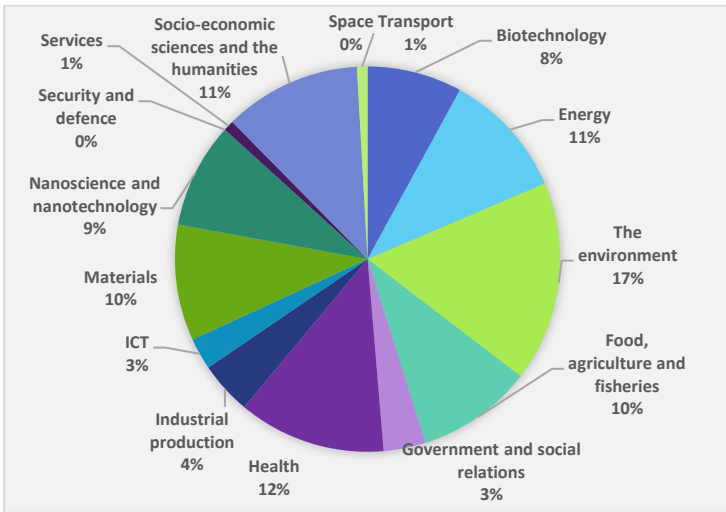


Figure 12. Thematic coverage of the ERA-NETs in which AKA has participated.

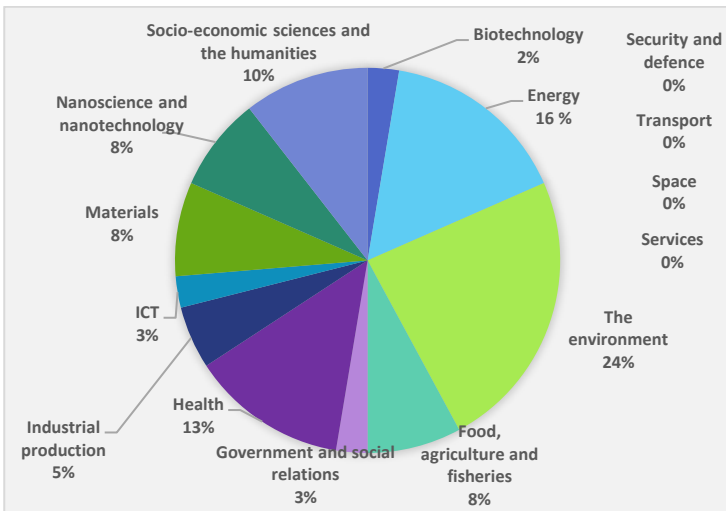


Figure 13. Thematic coverage of the ongoing ERA-NETs in which AKA participates.





Figure 14. Illustration of the thematic distribution of the Academy of Finland's ERA-NETs. ERA-NETs carrying the same name but funded under different Framework Programmes are grouped together, and the amount of grouped networks is shown in brackets. E.g. ERA-NET RUS (2) includes networks ERA-NET RUS and ERA-NET RUS Plus and at least one of these networks is related to a given theme. Networks that are included in this picture are listed in Annex 1.

## 2 JOINT CALLS

This section does not provide exact funding amounts, since the data on which this analysis is based were partly imperfect. Where possible, the deficiencies have been supplemented by collecting funding amounts from the Academy of Finland's database. The following figures are provided in order to provide an overall picture of participation volumes as well as the scale of funding amounts in ERA-NET, JPI and Article 169/185 calls.

### 2.1 Participation in joint calls

Figure 15 shows the number of calls in which the Academy of Finland has participated each year during the past decade. This includes participation also in those calls, where AKA is not a partner of the network itself (e.g. ERAfrica, NewIndigo). The number varies between two and ten. The height of the bars should be treated with a degree of caution: the numbers are small, and just one or two missing calls could change the bar significantly. The 2012 bar is quite striking, showing that AKA has participated only in two calls that year. 2012 differs from other years in the 2010s. One possible explanation for this decline is the fact that only 18 calls were announced in 2012, while in 2011, 2013 and 2014, for example, the corresponding numbers were 21, 29 and 31 respectively. Also, the calls in 2012 were mostly announced by the networks in which AKA does not participate.

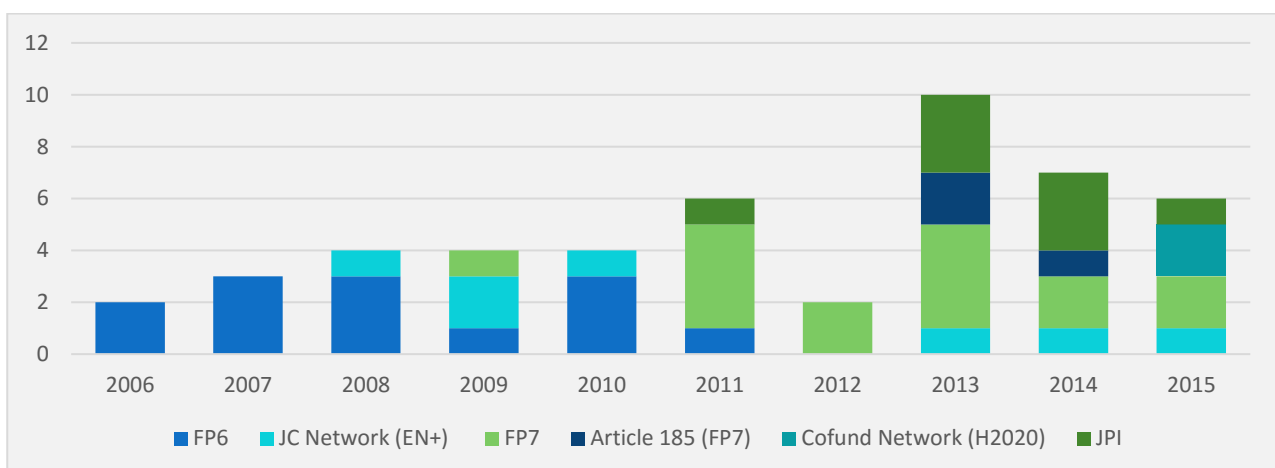


Figure 15. Number of calls in which AKA has participated, by framework programme and per year,  $n = 48$ .



## 2.2 Funding

When it comes to ERA networking, the most significant benefit is not how much money is awarded through a single joint call. Networks create new and more consistent cooperation and trust, which can further lead to more extensive projects and better funding opportunities. Nonetheless, Finnish researchers have done relatively well in joint calls, since there are only a few of calls of the 48 calls in which the number of funded projects has been 0. On the other hand, Figure 16 shows that there are also years when the funding through joint calls has not been very significant.

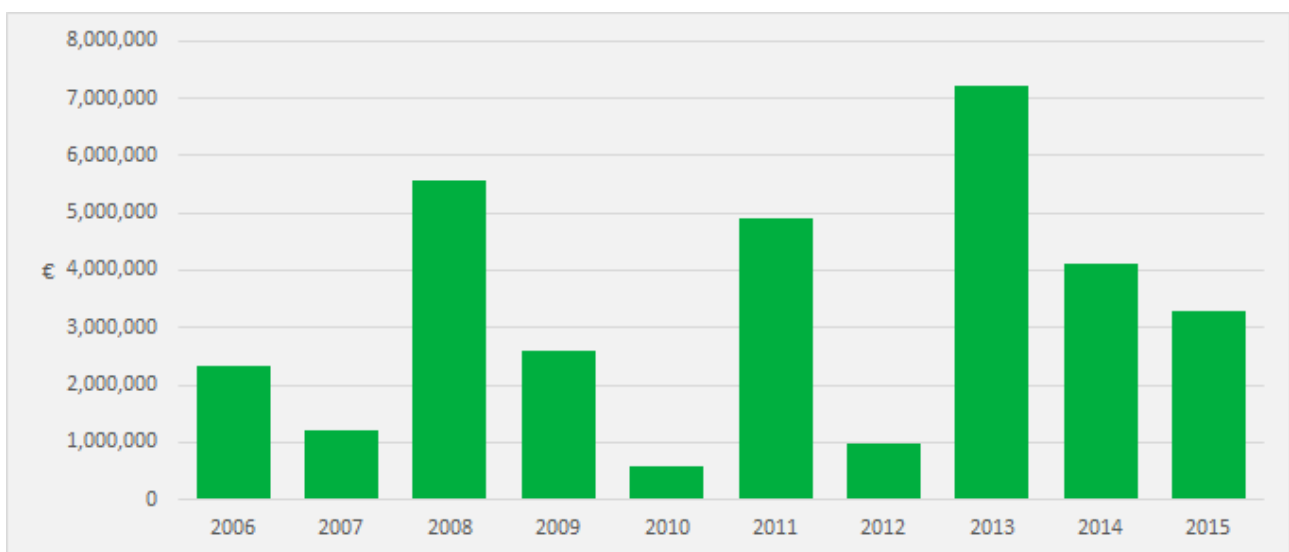


Figure 16. The Academy of Finland's funding amounts through joint calls.

Figures 17–24 in the funding section show a few examples of the funding contributions through joint calls. The examples consist of a sum of joint calls in which the Academy of Finland has participated, and the calls are indicated in the caption. The following statistical figures also illustrate AKA's contributions. The minimum contribution was 0 per cent (none of the projects gained funding) and the maximum contribution was 28.6 per cent. The mean contribution was 6.1 per cent and the median contribution 4.3 per cent. Since the total funding amounts were not available in the European Commission data for all of the joint calls in which AKA has participated, the analysis covers only those calls where both the total sum and AKA's contribution were available ( $n = 40$ ).

<b>MIN</b>	0.0%
<b>MAX</b>	28.6%
<b>MEAN</b>	6.1%
<b>MEDIAN</b>	4.3%

Table 2. Statistical figures of AKA's contribution in joint calls 2006–2015 ( $n = 40$ ).

Several factors may affect the Academy of Finland's funding contribution in relation to a call's total funding. One factor is the number of countries or funding organisations that participate in a call, another factor is the proportion of successful partners of the total number of funded projects. The number of countries in the joint calls in which AKA has participated has varied between 3 and 25. The contribution of each funding organisation is of course greater in those calls that involve a smaller number of participating countries. Usually, AKA funds one to three project participants in a single call. However, in the case of the 2013 New INDIGO call, AKA funded participants in four out of seven projects, and thus AKA's contribution in that call became quite significant (29 per cent of the total funding). Moreover, joint calls are implemented following national funding principles, and the national funding sums may vary also depending on the funding models countries apply. As of 1 January 2009, AKA has applied the full cost model in its calls. Since the adoption of the model, the amount of funding per project has been higher compared to other countries.

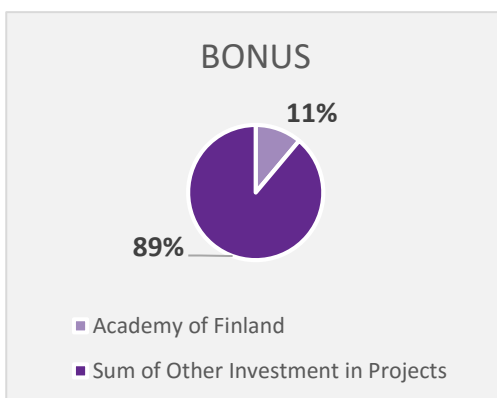


Figure 17. Joint calls included:  
 Bonus+ Call 1 (2008)  
 Bonus-169 Call 2 (2013)  
 Bonus-169 Call 3 (2013)  
 Bonus-169 Call 4 (2014)

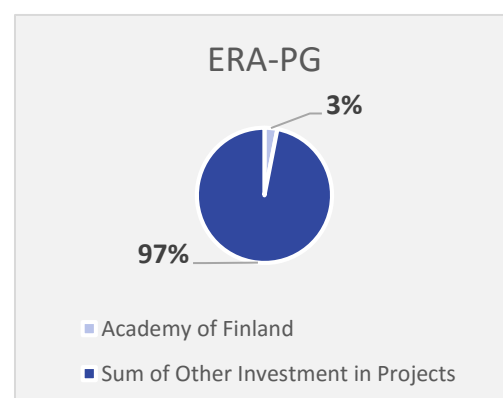
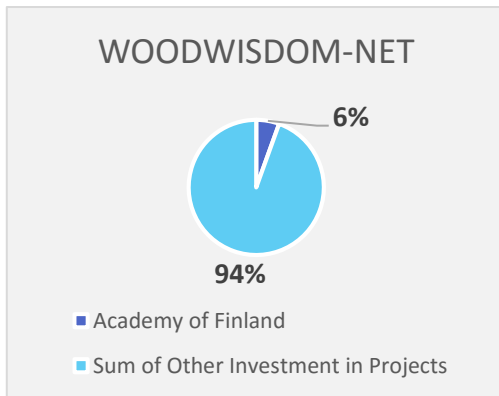
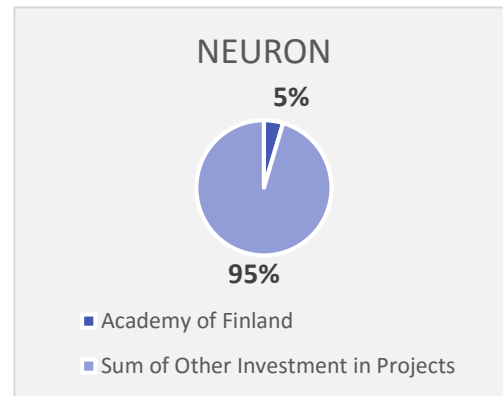


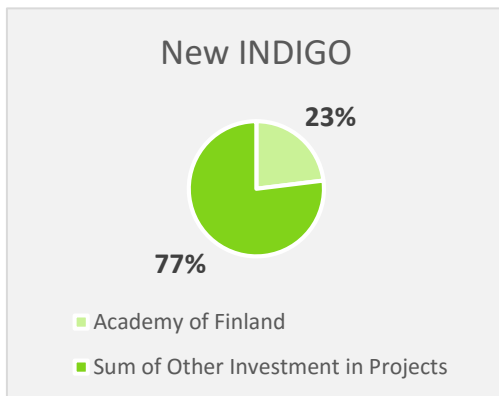
Figure 18. Joint calls included:  
 ERA-PG Call 1 (2006)  
 ERA-PG Call 2 (2008)



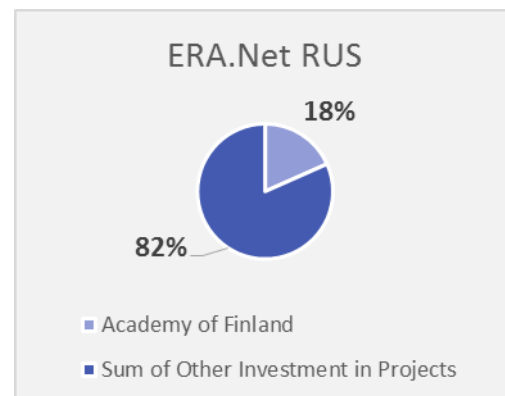
*Figure 19. Joint calls included:  
WOODWISDOM-NET Call 1 (2007)  
WoodWisdom-Net 2 Call 3 (2011)  
WoodWisdom-Net + Call 4 (2013)*



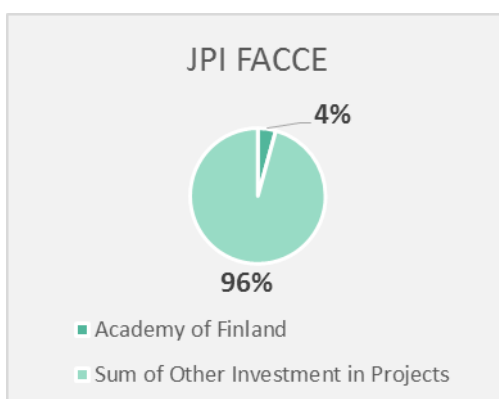
*Figure 20. Joint calls included:  
NEURON Call 1 (2008)  
NEURON Call 2 (2009)  
NEURON Call 3 (2010)  
NEURON Call 4 (2011)*



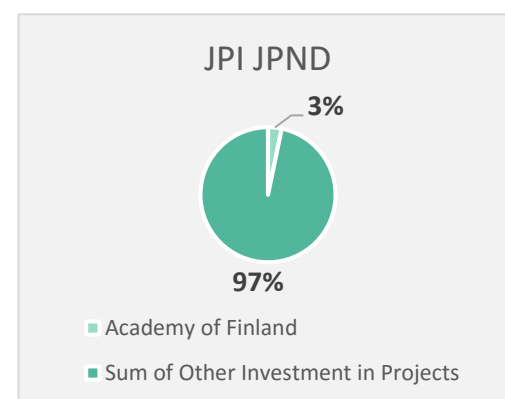
*Figure 21. Joint calls included:  
New INDIGO Call 2 (2011)  
New INDIGO Call 4 (2013)*



*Figure 22. Joint call included:  
ERA.Net RUS Call 2 (2011)*



*Figure 23. Joint calls included:  
JPI FACCE Call 1 (2014)  
JPI FACCE Call 3 (2014)*



*Figure 24. Joint calls included:  
JPI JPND Call 1 (2011)  
JPI JPND Call 2 (2013)  
JPI JPND Call 4 (2014)  
JPI JPND Call 5 (2014)*

## 3 CASE STUDIES

In order to present some of the ERA networks more thoroughly, four examples have been chosen here as case studies. Each network has a distinct profile. WoodWisdom-Net is an ERA-NET with a long history that started from national cooperation and that was further developed into Nordic, European and finally into global cooperation. NORFACE is an ERA-NET in the field of social and behavioural sciences. ERA.Net RUS is an ERA-NET cooperating with a country outside the EU and JPND is the first operative Joint Programming Initiative.

### 3.1 WoodWisdom-Net

In 2001, the Academy of Finland participated through its own research programme Material Science of Forest-Based Products (1998–2001) in a national forest cluster called Wood Wisdom. A year after that, a Finnish-Swedish research programme on wood material science (2003–2006) was jointly initiated and funded by AKA, the Ministry of Agriculture and Forestry and the National Technology Agency (Tekes) from Finland and the Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning (Formas) and the Swedish Agency for Innovation Systems (Vinnova) from Sweden. Funding was made available to projects in which cooperation between Finnish and Swedish research teams was expected to generate scientific added value.

The transnational research collaboration was enhanced in 2004 with the launch of the first stage of the ERA-NET WoodWisdom-Net. Finding new uses for wood first brought together an ERA-NET consortium of five countries, which was then increased to twelve countries during the second stage of the network in 2009. These first two WoodWisdom-Net ERA-NETs built a strong community at a European level involving different countries, which was in itself a great achievement. This provided the advantage of building a strong community with experts, enabling the project to provide faster and better solutions as well as creating a specialised research community across several EU countries.

Now the network is into its third chapter under the ERA-NET Plus scheme of FP7. The 23 new projects selected for funding under the WoodWisdom-Net + joint call will explore new ways of managing forest resources more sustainably and using them more efficiently in industrial processes. The teams will also develop new value-added products and design competitive solutions to meet market demand.



WoodWisdom-Net has successfully combined national and European strategies, priorities and programmes into an evolving chain of up to four joint calls, forming the WoodWisdom-Net research programme of around 85 million euros and 62 projects. In total, AKA has invested around 3.8 million euros in 15 transnational research projects, with a total value of approximately 17.5 million euros. Besides the participating EU countries, there have been a larger number of participants from third countries, including the US, China, Brazil and New Zealand, demonstrating that the project has turned from European interest into worldwide interest.

WoodWisdom-Net is coordinated by Tekes, the Finnish Funding Agency for Innovation.

### 3.2 NORFACE

New Opportunities for Research Funding Agency Co-operation in Europe (NORFACE) is a collaborative partnership of national research funding agencies in the area of social and behavioural sciences. NORFACE offers unique opportunities for participating funding agencies by developing common research funding instruments, thus creating opportunities for facilitating and building new networks of research collaboration in the social sciences. The partnership was formed by six partners in 2004. Today it consists of 18 national funders, mostly from European countries.

After three rounds of the NORFACE seminar series in 2005–2007, major achievements have been the initiation of three transnational research programmes: “Re-emergence of Religion as a Social Force in Europe?” (call 2006, €5.4m), “Migration in Europe – Social, Economic, Cultural and Policy Dynamics” (call 2008, €29m ERA-NET Plus) and “Future of the Welfare States” (call 2013, €22m ERA-NET Plus). The NORFACE Network Board is currently developing two new research programmes: Dynamics of (In)equality during the Life Course (DIAL) and Transformations To Sustainability (T2S).

From the beginning of the network to the first transnational research programme Migration in Europe the coordination office of NORFACE resided at the Culture and Society Research Unit of the Academy of Finland. Besides creating new research networks, initiatives and research that has provided results with valuable knowledge to be used by policy-makers at the national, European and international levels, NORFACE has also administratively succeeded in creating and using the real common pot (projects in



2004–2009) in its funding and arranging valuable staff exchange programmes and research infrastructure mapping reports.

At present, the coordination office of NORFACE is located at NWO (Netherlands Organisation for Scientific Research).

### 3.3 ERA.Net RUS

The ERA.Net RUS (2009–2014) initiative was set up under FP7 to encourage durable partnerships as well as bilateral research programmes between the EU and Russia. It has put the focus on the largest neighbouring country of the EU, one of its main strategic partners. ERA.Net RUS has enhanced the significance of EU-Russian partnerships and helped reach a new level in EU-Russian S&T cooperation.

The initiative was implemented by opening a pilot joint call by a consortium of 20 prominent partners, 14 from EU Member States or Associated Countries and six from Russia. The call included the following main themes (each main theme included three subthemes): 1) innovative materials and cutting-edge technological processes, 2) environmental research and climatic change, 3) research on serious human health problems, and 4) contemporary socio-economic studies.

The Academy of Finland participated in the *intelligent materials and nanomaterials* subtheme of the first main theme. Altogether 212 proposals were submitted in the call; 750 research institutions were involved; and 31 joint projects were granted funding. Among the funded projects were six projects with Finnish research teams. AKA allocated 1 million euros to the call.

Thanks to a successful establishment of a funding mechanism and good feedback from the research community on the joint call, ERA.Net RUS was continued with a follow-up initiative. The new ERA-NET Plus with Russia (ERA.Net RUS Plus) began in November 2013 with 22 funding parties across Europe and Russia. A single joint call was organised in 2014 with additional financial support from the EU. The call included the following themes (each with three subthemes): 1) nanotechnologies, 2) environment/climate change, 3) health, and 4) social sciences and the humanities.

AKA participated in the following subthemes: *Environmental impact and risk of raw materials extraction and transportation*; *Extreme climate events and their impact on the environment*; and *Understanding conflict, identity and memory: past and present*. Almost 300 project proposals were submitted. In July 2015, the ERA.Net RUS Plus group of

funding parties selected 45 S&T projects with a national funding volume of 12.3 million euros including EU top-up funding. The funded projects included six Finnish research teams.

Both ERA-NET RUS initiatives have been coordinated by DLR, Project Management Agency (Germany).

### 3.4 JPND

The EU Joint Programme Neurodegenerative Disease Research (JPND) is the largest global research initiative aimed at tackling the challenge of neurodegenerative diseases. JPND aims to increase coordinated investment between participating countries in research aimed at finding causes, developing cures and identifying appropriate ways to care for people with these diseases. There are currently 30 member countries participating in JPND. Finland is represented by the Academy of Finland.

Neurodegenerative diseases such as Alzheimer's and Parkinson's disease are debilitating and largely untreatable conditions that are strongly linked with age. Among these disorders, the dementias are responsible for the greatest burden of disease, affecting more than seven million people in Europe, and this figure is expected to double every 20 years as the population ages. It currently costs approximately 130 billion euros each year to care for people with dementia across Europe, highlighting age-related neurodegenerative disease as one of the leading medical and societal challenges faced by European societies.

Through its research strategy, JPND has identified common research goals that would benefit from joint action between countries in order to accelerate progress on solutions that can alleviate the symptoms and lessen the social and economic impact for patients, families and healthcare systems.

JPND supports transnational research projects and working groups that enable researchers to collaborate across borders. In 2015, JPND launched a joint transnational co-funded call in partnership with the European Commission under the ERA-NET Cofund scheme. The 21 projects funded in this call include five research groups from Finland. Since 2011, JPND member countries have jointly funded 51 transnational projects with a total of 96 million euros. The funded projects include 369 research groups from different countries.



Other major activities aim to increase the impact of existing research and promote the alignment of research activity across Europe. The activities include longitudinal population cohorts, animal and cell models, optimisation of biomarkers, palliative care and assisted living technologies. In addition, JPND seeks new ways to open up opportunities for industry and society at large.

JPND is coordinated by INSERM (Institute National de la santé et de la recherche médicale), France.



## 4 SUMMARY

The purpose of this report was to illustrate the Academy of Finland's as well as Finland's participation in European Research Area network activities under three Framework Programmes: FP6, FP7 and Horizon 2020. Both Finland and AKA have participated in ERA-NETs, JPIs and Article 169/185 initiatives relatively actively, but a slight decline in ongoing networks can be observed during the past few years. Still, Finland participates in slightly more than half of the ongoing networks and AKA in around one-third of them. Among Finnish organisations, AKA is also a major player as it participates in half of the ERA-NETs in which Finland is involved. AKA has also participated in at least a couple of joint calls annually. The amount of funding awarded through these calls has varied considerably over the past decade (€0.5–7.5m).

The Academy of Finland's collaboration countries are very much the same as Finland's ERA-NET collaborators in general. AKA has joint networks with dozens of countries, the most significant collaboration countries being Germany, France, the UK and the Netherlands. There are also several non-European countries with which AKA has joint networks. This report also lists AKA's most significant collaboration organisations. In some countries, network participation is distributed between several different organisations, which shows that AKA has more collaboration organisations in these countries than in those where there are fewer participating organisations.

The thematic coverage of the research themes covered by the Academy of Finland's ERA-NETs is fairly extensive. Some themes are more prominent than others. The environment, energy and health have been the most common themes of the ERA-NETs in which AKA has participated. In contrast, transport, space, services and security and defence have been much less common.

In addition to funding opportunities, ERA networking provides a significant instrument for the internationalisation of research, for searching new collaborators and for increasing the visibility of research.



# ANNEX 1

The networks in which the Academy of Finland has participated.

