



## Rapid Assessment of Research Programmes 2004-2009 and 2009-2014

### Final Report





# RAPID ASSESSMENT OF RESEARCH PROGRAMMES 2004-2009 and 2009-2014

**Final Report** 

November 2017



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### Abbreviations and acronyms

Dpp s	Donor project partner s
DPP s	Donor programme partner s
EC	European Commission
EE	Estonia
ERA	European Research Area
EU	European Union
FMO	Financial Mechanism Office
FP7	7th Framework Programme for Research and Technological Development
H2O2O	Horizon 2020
PL	Poland
PP s	Project Promoter s
RCN	Research Council of Norway
RO	Romania

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### Executive summary

Coffey International Development Coffey was contracted to carry out the Rapid Assessment of Research Programmes 2004-2009 and 2009-2014. The study was carried out over six months, from April to September 2017.

The main goal of the assessment was to document and assess the results of EEA and Norway Grants' support to research, including the extent to which the Grants are generating sustainable partnerships, which support applications for EU research-funding.

This assessment focussed on five main themes:

- 1 Programme results
- 2 The link between the EEA and Norway Grants and EU-funded research initiatives
- 3 Quality of partnerships
- 4 Transfer of knowledge
- 5 Good research management support

This rapid assessment focused on research programmes in the years 2004-2009 and 2009-2014 in three Beneficiary States: **Estonia**, **Poland** and **Romania**.

The methodology deployed for this study included:

- an **online survey of Project Promoters** in the three case study countries and of **Donor project** partners involved in their projects. A total of 102 responses were received to the survey 77 Project Promoters and 25 Donor project partners, equal to 53% response rate among Project Promoters;
- in-depth interviews with seven Norwegian and Icelandic Donor project partners.
- a review of a **selection of project reports**. Projects were selected at random to create a sample of 50% of all of the projects in the three case study countries from the period 2009-2014. There were 111 projects in the total cohort: 13 in Estonia, 75 in Poland and 23 in Romania. From this, a sample of **56 projects was reviewed**: 7 from Estonia, 37 from Poland and 12 from Romania;
- site visits to 19 projects sampled from the pool of all projects carried out in the three countries in the financial periods 2004-2009 and 2009-2014, during which interviews were held with research grant recipient institutions, including Project Promoters, researchers and administrators. Each country visit culminated with a face-to-face focus group with a selection of Project Promoters.

A mixed-methods approach was used to gather evidence from a range of sources to support reliable and insightful answers to the key study questions, which are provided in Chapter 3 of this report.

Below, we provide a set of overarching conclusions, which present our overall assessment of Grants. Following discussions with the FMO, we developed a number of recommendations. These judgements are made on the basis of our analysis and take into account the key findings, which are also presented in this Executive Summary.

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The findings, conclusions and recommendations are structured following the five main themes this assessment aimed to address. Following the **results-based management** approach that guides the implementation of the Grants, we start by presenting findings relating to the programme results. As the Grants aimed to **support further applications to EU research funding** streams, we then provide a short overview of key findings relating to the link between the EEA and Norway Grants and EU-funded research initiatives. Finally, we offer they key findings relating to the 'quality of partnerships', 'transfer of knowledge' and 'research management support'.

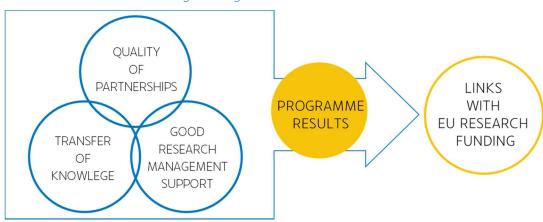


Figure 1: Logic of assessment themes

#### Main findings

#### Programme results

- All of the Project Promoters, who participated in the research survey representing 53% of all of the Project Promoters from the two financial periods reported that involvement in the programme had resulted in their teams increasing their research competence <sup>1</sup>.
- Although part of the rationale for these grants is the assumed knowledge transfer from Donor project partners to organisations in Beneficiary States, Donor project partners also benefited from their partnership with organisations from Beneficiary States. Rather than being a one-sided Donor to Beneficiary type of learning relationship, the data suggest that researchers and research facilities in the Beneficiary States also helped to strengthen the research capacity<sup>2</sup> of participating Donor project partners' organisations. For example, one project in Romania provided Norwegian researchers access to state-of-the-art research facilities, which had been previously funded by EU Research Infrastructure funding.
- Projects also helped both Project Promoter and Donor project partner organisations to increase
  research excellence<sup>3</sup>. In the survey, 86% of Project Promoters and 72% of Donor project partners
  indicated that the research excellence in their organisations had increased to a "large" or "very large"
  extent.

<sup>&</sup>lt;sup>1, 2, 3</sup> For the purpose of this assessment the three concepts were distinguished as follows: *Research competence* refers to the capabilities of researchers and can include e.g. knowledge of new methodologies, tools or approaches. *Research capacity* relates to the ability to conduct research based mostly on external factors, such as access to adequate equipment. *Research excellence* relates to the originality, significance and rigour of the research conducted, and the subsequent peer recognition.

- Partnerships resulting from involvement in EEA and Norway Grants projects had a positive impact on both Beneficiary and Donor State organisations. Almost half of the Donor project partners who participated in this research thought that the partnerships had helped them to access internationally renowned research networks. This suggests that partnerships resulted in more cross-over and exchange between partners as opposed to the expertise being channelled only from Donor partners to beneficiary Project Promoters than may have been initially expected.
- The most significant programme results overall include the large number of scientific publications
  mainly for primary research and the fact that most Project Promoters and Donor project partners
  want to cooperate on more projects in the future albeit this wish for further cooperation is not
  always formalised yet.
- Projects that resulted from a previous cooperation albeit informal tended to be the most effective. For these projects, the grant helped to strengthen the bilateral relationship even further, and to enhance the complementarity of their combined scientific and/or methodological knowledge. This result does not undermine the value of new collaborations. New partnerships can also be very beneficial, even if they take longer to get off the ground. Donor project partners appear to be very keen to develop new partnerships, which confirms that there is scope to promote new partnerships.
- According to Project Promoters, interdisciplinarity is one of the main factors, which underpins project
  success and provides significant added-value vis-à-vis other grants. Unlike other national and
  international research funding streams, these Grants do not limit the focus of the projects to a single
  discipline. This allows for greater knowledge-exchange and supports greater innovation.
- Grant collaborations helped to improve Beneficiary State organisations' understanding of how to write successful bids. All online survey respondents in Poland and Romania confirmed that as a result of their participation in the project, their research teams had to some extent increased their understanding of how to develop successful research funding proposals.
- Some Project Promoters highlighted the broader societal and political impact of the project results,
  especially for projects in social sciences. Such projects contributed to developing new strategies,
  instruments and approaches to address issues of common concern e.g. migration, which also
  contributed to the first objective of the EEA and Norway Grants: reducing economic and social
  disparities in the European Economic Area.
- The current maximum project duration of three years, limits projects' educational outcomes for PhD students. For example, in Romania the duration of a PhD is by law at least 36 months, meaning that the PhDs involved in a project cannot complete their diplomas earlier to comply with the project calendar. Another identified issue related to the ceilings introduced for PhD scholarships within the projects. The relatively low level of this ceiling meant that in practice it was not possible for PhD students to focus on the research as their only project. This was reported to be inconvenient and disruptive and to have a negative impact on project results.

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#### The link between the EEA and Norway Grants and EU-funded research initiatives

- The implementation of EEA and Norway Grants Research Programme is modelled directly on Horizon 2020 from all perspectives including a focus on ERA policy, yet there are areas where there is a disjoint between the intention and the actual practice. While there has been a clear emphasis on Open Science among the consulted Beneficiary States, there have been issues in implementing the European Researchers Charter and Code of Conduct for their Recruitment. Furthermore, with regards to evaluation of project proposals, in principal, the assessment of EEA and Norway Grants are modelled directly on Horizon 2020. However, this study indicates that practice across the Programme Operators is not consistent.
- The review of the final project reports suggests that the number of projects that submitted applications to Horizon 2020 and other EU funded research initiatives was **considerable**: in Poland, for 36 projects reviewed there were 38 planned or submitted applications and an additional 7 funded. The number of submitted applications under Horizon 2020 was even higher in Romania, with a total of 46 proposals submitted by the 12 reviewed projects with three of the projects submitting 37 proposals.
- Overall, from the surveyed Project Promoters (representing 53% of all project promoters in the two
  funding periods and Donor project partners, more than half were successful in securing EU funding.
  While this figure does not show how many applications were submitted to secure funding, the fact
  that half of the respondents received additional EU funding is considerable.
- The Grants have had a **positive impact on applications for EU research funding**. From a Project Promotors' perspective success with EU research applications could be attributed to their participation in EEA / Norway Grants-supported projects. Donor project partners placed less emphasis on the Grants in their assessment of the success of subsequent EU bids.

#### Quality of partnerships

- Project Promoters from all three case study countries have a strong appetite for future collaboration. They were confident that their partnership with a Donor project partner had or would continue after the Grant period. This finding can be attributed to the overall positive experience of the partnerships. Project Promotors praised Norwegian and Icelandic partners for their flexibility and transparency, and considered that the partnerships had been enriching as well as productive.
- Research projects supported by the EEA and Norway Grants undoubtedly strengthen research
  partnerships between participating institutions, particularly by allowing the Beneficiary States'
  researchers gain international exposure, opportunity to collaborate internationally and providing
  additional networking opportunities
- Most Project Promoters had been involved in some form of international collaboration previous to
  their involvement in the Grant. But only few had previously formally worked with Norwegian / Icelandic
  researchers. Based on experiences from the previous funding years, the Grants appear to generate
  bases for sustainable research collaborations and partnerships that are likely to continue beyond
  the current funding period.

#### Transfer of knowledge

- Project Promoters from all three case study countries reported that there was significant knowledge transfer between Project Promoters and Donor project partners. The Donor project partners most often tended to transfer knowledge by sharing raw data, collaborating on scientific articles, and sharing experience and specific knowledge relating to new research methods.
- A number of factors supported knowledge transfer between the partners, including having a prior relationship at personal level, honest communication, trust among partners, as well as complementary skills and resources technical and infrastructural. The interdisciplinary nature of the projects supported a cross-fertilisation of expertise from different areas of science.
- The Grants' main limiting factors seem to be mainly related to the **expected differences in mentality**, with Norwegian partners mostly being seen as "relaxed" and not always recognising the time and budget pressures faced by Project Promoters. Beneficiary States' administrative requirements also sometimes hindered project progress.
- Knowledge is most efficiently and successfully transferred between Donor programme partners and Programme Operators through good practice exchanges in **joint workshops**.
- The transfer of knowledge and good practice takes place both vertically from the Research Council
  of Norway to Programme Operators, and vice-versa, and horizontally between Programme
  Operators from different countries. This highlights the importance of planning and allowing for
  physical meetings between the organisations.
- Although not strictly related to research knowledge-transfer, cooperation with other organisations
  representing the Donor States such as Norwegian Embassies can enhance the visibility of the
  research programme and promote programme results to media and the wider public.

#### Good research management support

- Involvement in EEA and Norway Grants research projects **significantly enhanced researchers**' **management capabilities**, particularly those from Beneficiary States.
- As most of the organisations involved in the Grants were either also simultaneously involved in other
  externally financed research projects, or had been engaged in externally-financed research projects
  in the past, it is difficult to attribute any increase in research-support capacity building directly to the
  EEA and Norway Grants programme. However, undoubtedly, the Grants contribute to increasing
  institutions' research-support capacity, particularly in the Beneficiary States, by providing a good
  learning exercise for the institutions.
- When there is specific budget line dedicated to hiring a research administrative assistants i.e. not a researcher burdened with dealing with the project-related administration, but an **administration professional** project implementation is much smoother.
- Consultations with the Norwegian Donor Project Partner and the Programme Operators in the
  Beneficiary States suggest that there is an element of misunderstanding about the origin of many
  of the administrative requirements, judged as burdensome by the Project Promoters. This suggests
  room for improvement, for example explicitly discouraging Project Promoters from introducing harder
  requirements for financial reporting than explicitly required in the programme and/or call
  documentation.

#### Main conclusions

- Project Promoters and Donor project partners, are generally very satisfied with the collaborations supported through the EEA and Norway Grants. There is a shared strong impetus for partners to work together in the future.
- On the basis of the Rapid Assessment it is difficult to provide fully robust data on programme results, given the use of samples in terms of countries selected for this assessment, and the number of projects reviewed in each country, but the success rate of project teams supported by the EEA and Norway Grants in applying for EU funding appears to be high.
- The Rapid Assessment confirms that the Grants are **going beyond initial expectations** in terms of impact. Researchers in Beneficiary States and Donor States are accruing substantial benefits through their collaboration. Project Promoters in Estonia, Poland and Romania report added-value in a number of key areas, including increasing research competence and skills, to supporting knowhow on how to develop larger funding proposals. Donor project partners also reap significant benefits, including access to state-of-the-art facilities, new methodologies and networks, and enthusiastic and ambitious researchers who are keen to publish results.
- The mutual benefits of the bilateral partnerships supported through the Grants are not always sufficiently recognised in the Donor States. These benefits could be promoted much more widely to encourage greater participation in the Grants from the organisations in the Donor States.
- A key focus of this rapid assessment was a review of the extent that EEA and Norway Grants facilitated successful applications to EU-research funding, including under Horizon 2020. If this is a key goal of the grants, then there is scope to make this goal more explicit, as achievements are more likely to be realised when specific goals are set. The later programmes e.g. in Romania and Poland include 'subsequent EU funding applications' as a target outcome. But there is scope to further tailor certain processes, which might include the application and evaluation processes so that they reflect Horizon 2020 processes and help to increase understanding and provide evidence that will support future applications.
- Reporting requirements have evolved since the start of the EEA and Norway Grants research
  programmes. Consequently they can vary significantly from country-to-country and in some cases
  project-to-project. This can lead to misunderstandings and some resistance on the side of Donor
  project partners to provide the requested administrative inputs. This suggests a need for greater
  standardisation and clarity on the indicators and requirements that are mandatory. This clarity
  would also aide those working in administrative departments in PP organisations, who may be used
  to different rules.

#### Main recommendations

The Rapid Assessment identified several elements of the current approach of the Donors and the Financial Mechanism Office that should be **maintained and reinforced** in the new financial period 2014-2021. In particular it is recommended to:

- Continue promoting widely in the Donor States the fact that the partnerships are mutually beneficial, which helps encouraging greater participation in the Grants from the organisations in the Donor States. This assessment confirmed that bilateral partnerships brought substantial benefits to both Project Promoters and Donor project partners. In the latter case, the benefits related most of all to access to state-of-the-art facilities, new methodologies and networks, as well as enthusiastic and ambitious researchers who were keen to publish results.
- Maintain the requirement of working in research teams and the collaborative nature of the supported projects. One of the largest problems in the beneficiary states' approach to supporting science is the fact that creation of research teams is not encouraged and supported enough, and great research teams with a history of collaboration are difficult to come by.

In terms of prospective changes to the Research Programme it is recommended to:

- Ensure that the new Research Programme has an **evaluation system** built in to its design. Clarity from the start on what, how, and when is to be evaluated with relation to the new Research Programme 2014-2021 would help the Project Promoters, Programme Operators, and the Financial Mechanism Office to collect relevant information and data to showcase the Programme results consistently, in line with FMO's focus on results-based management. Clear evaluation provisions at all levels would ensure that the outcomes of the programme, and the individual projects, would clearly contribute to reaching the overall objectives, as well as impacts for the individuals targeted by the actions.
- Consider creating an additional strand of the EEA and Norway Grants Research Programme
  focused solely on research management capacity building in the Beneficiary States' research
  institutions as opposed to supporting conducting research). This could bring benefits and
  strengthen not only the direct research outputs of the Beneficiary States' institutions, but also
  contribute to them successfully applying for larger research funding streams, such as Horizon2O2O.
  The newly-introduced call to develop capacity building networks could be modelled on the
  H2O2O National Contact Point NCP networks.
- Consider creating a programme area to support mid-career researchers in establishing their first research groups. The consulted stakeholders recognised the plight of mid-30s researchers, who are stuck between qualifying for early-career support and having enough scientific achievements to successfully lead a research team of their own.
- Consider creating an additional small grant scheme destined only for organisations that have
  already completed another Grants-supported project, to enhance sustainability of project results
  and expand the potential applicability of primary-research focused projects. This follow-up
  funding could provide means for the researchers to fully mine and process the data they obtained
  in their previous projects, potentially leading to more project results in terms of publications, and
  new scientific breakthroughs.

- Consider introducing a dedicated budget line in all projects for administrative staff being hired by the project to provide management support. The consultations with the Project Promoters suggest that involving a research management professionals in the projects is still a relative rarity, mostly due to the lack of such persons in the Project Promoters' organisations. For the individual researches taking part in Grants-sponsored projects, one of the most significant challenges was to carry out the research work and manage administrative aspects at the same time. Put greater emphasis on the need for Programme Operators to provide clearer information to both Project Promoters and the Donor project partners, on the administrative requirements of the Grants. This could include examples of types of information or data that is not required, which should help improving the low trust levels in the parts of the processes handled by the national administrations.
- Where feasible, increase standardisation of the reporting requirements and data harvesting
  for Project Promoters across countries, to ensure that more management insight can be
  provided in the future. This should include providing clear instructions to Programme Operators
  regarding which of the indicators and requirements are mandatory as there is a lack of clarity
  in this area.
- Consider making it clear to the Programme Operators that the project duration of three years is not a strict time limit. Prolongation of project duration beyond three years could significantly improve educational outcomes, particularly for the PhD students: it would allow the PhDs involved in a project to complete their diplomas before the projects draw to a close. Consideration should also be given to discouraging Programme Operators from establishing financial ceilings on PhD scholarships. If the scholarships would be sufficient for the students to be their sole income source, the PhD candidates could focus solely on the one project, without needing to switch between several works.

#### 1 Introduction

This document is the Final Report of the Rapid Assessment of Research Programmes 2004-2009 and 2009-2014 supported by the EEA and Norway Grants. The report is submitted by Coffey to the Financial Mechanism Office FMO

The main aim of the study was to document and assess the results of EEA and Norway Grants' support to Research, including the extent to which the EEA and Norway Grants are leading to sustainable partnerships in getting EU-funding in the field of research.

This report consists of the following chapters:

- The Executive Summary presented at the outset of this report showcased the main findings
  accompanied by the main conclusions to the questions required by the Terms of Reference to the
  study. It also provided recommendations on how programming could be improved in the future.
- Chapter 2 summarises the purpose and approach to the study, and provides an overview of the main methods used to collect and analyse data.
- Chapter 3 provides the overall findings regarding the EEA and Norway Grants' support to Research, ordered by assessment theme and by question. Each individual section in this chapter contains the conclusions and recommendations relating to the assessment's individual themes.

This report is accompanied by a separate Technical Annex, which provides the detailed findings from the data collection tools.

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### 2 Subject and methodology of the study

This study is a rapid assessment of the Research Programmes supported by the EEA and Norway Grants. The purpose of a "rapid assessment" is not to provide a full, detailed account of all aspects of the intervention, but rather to provide a time-specific snapshot of a situation, conducted over a relatively short period and aims to answer a few specific questions.

Rapid assessment can be defined as intensive, team-based qualitative inquiry using triangulation, iterative data analysis, and additional data collection to quickly develop a preliminary understanding of a situation from the insider's perspective<sup>4</sup>.

#### 2.1 Subject and scope

The EEA Grants and Norway Grants are the financial contributions of Norway, Iceland and Liechtenstein donor countries aimed at reducing the social and economic disparities in the EEA and strengthening bilateral relations with 16 EU countries Beneficiary States:

- Bulgaria,
- Croatia,

· Czech Republic,

- Estonia,
- Greece,
- Cyprus,Hungary,
- Latvia,

- Lithuania,
- Malta,

- Poland,
- Portugal,

- Romania,
- Slovakia,
- Slovenia,
- Spain⁵

Each Beneficiary State agrees on a set of programmes with the donor countries, based on national needs and priorities and the scope for cooperation with the donor countries. All programmes must adhere to standards relating to human rights, good governance, sustainable development and gender equality.

The funding is targeted on areas where there are clear needs in the Beneficiary States and that are in line with national priorities and wider European goals. Grants are available for non-governmental organisations, research and academic institutions and public and private sector bodies.

**EEA Grants 2004-2009** supported research projects in eleven Beneficiary States. Over EUR 82 million have been awarded to 93 projects including individual projects, programmes and funds. Poland was the main recipient of research funding, receiving more than 50 percent of the total funding for academic research EUR 42.8 million, followed by Hungary EUR 13.7 million and the Czech Republic EUR 8.5 million.

In the 2009-2014 period the support for research under the two financial mechanisms. EEA Grants and Norway Grants was split into two programme areas, with similar objectives and expected outcomes. The objective of the first programme area was "enhanced research-based knowledge development in the Beneficiary States," and for the second programme area: "Enhanced research-based knowledge development in the Beneficiary States through enhanced research cooperation between Norway and the Beneficiary States."

<sup>&</sup>lt;sup>4</sup> Beebe, J. 2001 Rapid Assessment Process: An Introduction. Walnut Creek, CA, ISBN 0-7591-0012-8.

<sup>&</sup>lt;sup>5</sup> Spain ceased to be a Beneficiary State after the 2009-2014 financial period

In the 2009-2014 period the EEA Grants and Norway Grants supported a total of 6 programmes within the research priority sector. Projects that were financed under this financial period were implemented until 2016 or 2017:

- CZO9 The Czech -Norwegian Research Programme Programme Grant: €14,516,377
- EE06 Research Cooperation Programme Grant: €3,000,000
- GRO7 Research Programme Grant: €2,996,311
- LVO5 Research and Scholarship Programme Grant €5,510,250
- PL12 Bilateral Research Cooperation Programme Grant: €63,180,500
- RO14 Research within Priority Sectors Programme Grant: €20,000,00

This study focused on research programmes in the years 2004-2009 and 2009-2014 in three Beneficiary States: **Estonia**, **Poland** and **Romania**.

#### 2.2 Objective of the study and key questions

Research and innovation are a key priority of Europe's sustainable growth strategy, and it is widely acknowledged that social and economic development depends on it. The European Commission has set a goal for the EU to increase research investments to 3% of GDP so as to contribute to meeting the goals of the Lisbon Strategy<sup>6</sup> and Europe 2020<sup>7</sup>. One of the key priorities to support this goal is to increase transnational European research cooperation.

Specific EU-wide programmes such as the EU Framework Programme for research, technological development and demonstration, currently in its eight iteration known as "Horizon 2020" aim to promote this kind of cooperation.

The EEA and Norway Grants Research Programmes are a consequence of the recognition that Eastern and Central European States have low success rates in Horizon2O2O. The main purpose of the EEA and Norway Grants research programme is to spread scientific excellence through increased research capacity and the application of research results, and to widen participation in EU-funded research projects amongst Eastern and Central European States.

The **overall objective** of this rapid assessment was to document and assess the results of EEA and Norway Grants' support to research, including the extent to which the EEA and Norway Grants lead to sustainable partnerships, which are successful in bidding for EU research funding.

Following the implementation of the 2004-2009 and the 2009-2014 Research Programmes, the FMO was interested to explore if the Grants had contributed to an increase in Beneficiary States' participation in H2020 and future FP9 research funding programmes. In addition, the prospective element of this assessment was to consider possible improvements to programming aspects of the Grants by drawing on good practices used in Horizon2020.

The objectives of this assessment translated into 12 specific questions, grouped under five themes, as listed overleaf.

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<sup>&</sup>lt;sup>6</sup> See http://www.consilium.europa.eu/en/uedocs/cms\_data/docs/pressdata/en/ec/00100-r1.en0.htm

<sup>&</sup>lt;sup>7</sup>https://web.archive.org/web/20100401082914/http://ec.europa.eu:80/commission\_2010-2014/president/news/documents/pdf/20100303\_1\_en.pdf

#### Table 1: Key questions

#### Programme results

- 1A. What are the most significant programme results?
- 1B. Is there further evidence of the application of research results?
- 1C. How did the programmes affect Donor research organisations?
- 1D. What types of interventions were most/least effective and why?

#### The link between the EEA and Norway Grants and EU-funded research initiatives

- 2A. To what extent did the supported projects lead to successful subsequent applications joint or bilateral under Horizon 2020 and other EU funded research initiatives?
- 2C. Do the programmes contribute to implementation of ERA?

#### Quality of partnerships

- 3A. Did the EEA and Norway Grants help research institutions build strong partnerships that enabled them access to internationally renowned research networks?
- 3B. Have the BS been more successful in attracting excellent research partners?

#### Transfer of knowledge

- 4A. To what extent have the programmes helped transfer knowledge between DS and BS researchers?
- 4B. To what extent have the programmes helped transfer knowledge between national research agencies/ministries of education and national research funding?

#### Good research management support

- 5A. To what extent have the programmes helped increase awareness of good research management support?
- 5B. To what extent have the programmes enabled the BS to build strong research management skills on an institutional level?

#### 2.3 Methodology

The robust mixed-methods approach to data collection using a range of on-line, telephone and face-to-face tools, including focus groups, on-line surveys, and individual and group interviews to gather insights from all relevant stakeholders national ministries responsible for research, Programme Operators for the Research Programmes if different from the ministries, recipients of the Grants, and a sample of Donor project partners allowed us to gather evidence from a range of sources to support reliable and insightful answers to the key study questions.

#### 2.3.1 Online survey of Project Promoters and Donor project partners

The study team implemented an online survey of Project Promoters PPs and Donor project partners Dpps in the three case study countries Estonia, Poland and Romania. The purpose of the survey was to gather wide-ranging and comparable information on Project Promoters' experiences of other EU-funded research initiatives following their projects, including the success rate of consortia, applicability of project results, and research management support received. The survey also allowed us to compare the experiences of the Project Promoters with those of the Donor project partners.

The potential survey participants were identified from the Doris database: the project managers and Donor project partners in the respective Research programme areas from the periods 2004-2009 and 2009-2014:

country	2004-2009	2009-2014
Estonia	11 projects	13 projects
Poland	20 projects	75 projects
Romania	2 projects	23 projects
TOTAL	33 projects	111 projects

A total of 102 responses were received to the survey 77 Project Promoters and 25 Donor project partners, equal to 53% response rate among Project Promoters.

#### 2.3.2 Interviews with Donor project partners

The last question of the online survey asked the participants who were willing to discuss their projects in more detail to provide their contact details. Seven Donor project partners expressed a willingness to be contacted, and interviews were carried out during July and August 2017:

Position	Organisation
Professor, School of Science and Engineering	Reykjavik University
Professor, Department of Psychosocial Science, Faculty of Psychology	University of Bergen
Head, Research Department	Cancer Registry of Norway
Scientist, Division for Maps and Statistics	Norwegian Institute of Bioeconomy Research
Senior Research Economist	Institute of Transport Economics
Chief Scientist, Head of Section for Earth Observation	Norwegian Computing Centre
Chief Scientist, Medical Technology	SINTEF

#### 2.3.3 Desk review

In July 2017, we undertook a desk-based review of a selection of project reports provided by the Programme Operators in the three case study countries. Projects were selected at random to create a sample of 50% of all of the projects from the period 2009-2014.

There were 111 projects in the total cohort: 13 in Estonia, 75 in Poland and 23 in Romania. From this, we reviewed a sample of 56 projects: 7 from Estonia, 37 from Poland and 12 from Romania. The project sample consisted of a representative balance in the research areas represented.

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Research areas	# of reviewed projects
environment	14
health	13
climate change	12
social sciences	10
gender	4
carbon capture	3

This element of the study aimed to get insights into the impact of EEA and Norway Grants in terms of the:

- project outcomes in each country,
- sustainability of project collaborations, as well as
- influence on improving Grant recipients chances of securing EU research funding.

#### 2.3.4 Site visits

We carried out site visits to 19 projects sampled from the pool of all projects carried out in the three countries in the financial periods 2004-2009 and 2009-2014. The detailed list of projects visited is included in the Technical Annex to this document.

Estonia Poland Romania

Poland Romania

Cluj-Napoca

Tartu

Galati

Galati

Z0004-2009

Z0009-2014

Figure 2: Numbers of projects visited by country

Site visits focused on understanding project results and identifying relevant examples to illustrate the answers to the key questions in this Rapid Assessment. During the visits, we **interviewed research grant recipient institutions**, including **Project Promoters**, **researchers** and **administrators**. Each country visit culminated with a face-to-face **focus group** with a selection of Project Promoters.

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#### 2.3.5 Interviews with national research agencies

During the country visits, we also carried out **interviews with representatives of national agencies responsible for research** in Estonia, Romania and Poland. These interviews complemented the insights provided by project site visits and focus groups with Project Promoters. More specifically, the focus when interviewing national research agencies related to questions on research management support and the link / comparison of the Grants with other EU research funding streams.

#### 2.3.6 Collaborative workshop

The analysis of data collected culminated in a **collaborative workshop**, whose purpose was to review the individual country findings and the initial analysis. The workshop included the team who carried out this assessment, joined by representatives of two Donor countries organisations:

- Research Council of Norway
- Icelandic Centre for Research RANNIS

The overarching objective of the workshop was not only to arrive at **findings** that relate to each study question, but also to reach consensus for the supporting narrative for the **general recommendations** regarding how programming could be improved in the future.

The detailed findings from each data collection method are presented in the Technical Annex to this Report.

### 3 Key findings

The following section describe our key findings from this study, that are presented as answers to the questions set in the Terms of Reference, which are grouped as follows:

- Section 3.1: Programme results
- Section 3.2: The link between the EEA and Norway Grants and EU-funded research initiatives
- Section 3.3: Quality of partnerships
- Section 3.4: Transfer of knowledge
- Section 3.4: Good research management support

Each section states the corresponding research questions, followed by a short explanation of the judgement criteria and methods used to collect data. The evidence to answer the question is presented subsequently. Each section culminates with highlighting the conclusions and recommendations corresponding to each theme.

#### 3.1 Programme results

Question 1A: What are the most significant programme results?

Question 1B: Is there further evidence of the application of research results?

Question 1C: How did the programmes affect Donor research organisations?

Question 1D: What types of interventions were most/least effective and why?

This section presents the key findings from the study regarding the first three questions, which concern the results of the research programmes, the way the interventions benefit Norwegian and Icelandic organisations, and the most effective types of project.

To answer these questions, we investigated the extent to which national Programme Operators and national research agencies consider research outputs and outcomes to be significant and their reasons . To determine the significance of the programme results, we searched for evidence of concrete project outcomes achieved by the research groups and / or universities, and examined whether the Grants' support helped to increase research excellence in specific fields in participating organisations from the Beneficiary States and the Donor States.

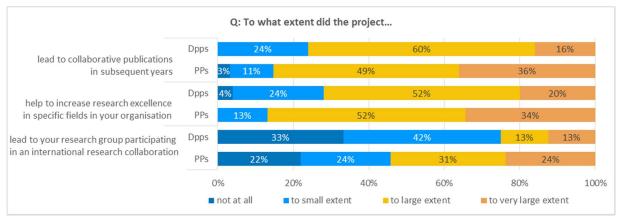
To add depth to the findings on results, we analysed the factors that the Programme Operators, Donor project partners and Project Promoters reported enhanced (and limited) the extent to which the individual projects and programmes as whole were able to strengthen Beneficiary States' research capacity.

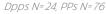
#### 3.1.1 Most significant programme results

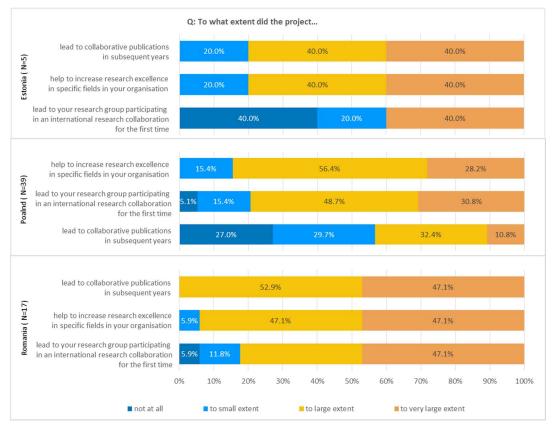
In terms of project outcomes, the survey results suggest that the projects most often led to **collaborative publications** in subsequent years. All of the Romanian respondents agreed that this had happened to a **large or very large extent**, a view supported by close to 80% of Estonian and Polish respondents.

Most responding Project Promoters also agreed that the projects helped them to increase research excellence in their specific fields. The increase in research excellence seemed to also apply to their Norwegian and Icelandic partners, as 72% of them believed their research excellence increased to a "large" or "very large" extent. For most survey respondents projects didn't tend to lead to their participation in international research collaborations for the first time.

Figure 3: Project outcomes







The survey respondents were also asked to name three concrete outcomes of their projects. Fifty-four of the surveyed Project Promoters and 21 Donor project partners answered this question, and their responses can be summarised as demonstrated in the table below, where the answers are listed in a descending order according to the number of respondents mentioning the given type of outcome.

Table 2: Most significant project outcomes according to Project Promoters and Donor project partners

	Project Promoters	Donor project partners	
<ul> <li>Positive outcomes</li> </ul>	<ul> <li>creating new knowledge in their field</li> <li>publications</li> <li>applications of research</li> <li>developing new methods and methodologies</li> <li>increase of networking opportunities and partnerships</li> <li>patent applications or granted patents</li> <li>gathering new data that can be used in research process</li> <li>provided opportunities for career development of research staff</li> <li>creation of new infrastructure for research in beneficiary organisation</li> </ul>	<ul> <li>generation of new knowledge</li> <li>publications</li> <li>partnership and networking</li> <li>collecting data that can be used to advance research</li> <li>application of research</li> </ul>	<ul> <li>Positive outcomes</li> </ul>
	<ul> <li>dissemination channels and tools conferences, online resources, toolboxes .</li> <li>contributed to knowledge exchange between institutions</li> </ul>	<ul><li>excessive amount of bureaucracy</li><li>financial losses unpaid invoices</li></ul>	Negative outcomes

More details on the project outcomes were discussed during the focus groups. For the Project Promoters in all of the countries the answers were positive. In fact, most believed that they managed to obtain much more benefits than just reaching the targets. In addition to positive and valuable cooperation experience, some said that the project has given them excellent motivation to search for partners from other countries. It was the basis for further developments which enabled sharing useful contacts and go further.

"This project gave us a very good impulse to search for other partners from other countries. If you do a valuable, good work, it will be noticed and you will definitely attract partners from other countries."

Another positive aspect in addition to reaching the main goal, was organizing project related seminars, conferences and writing publications, which had an overall positive impact on the university's image as well as an essential achievement in personal career.

The findings from the review of completed project reports support these findings:

A review of Estonia's project reports shows that the Grants were conducive for transferring knowledge and know-how between Donor States and Beneficiary States and have often helped boosting the beneficiary states' universities research capacity.

Some projects highlighted that Norway's involvement had helped integrating different skills and knowledge from the involved institutions from the Beneficiary States, which result in more successful publishing of primary research.

On average, Estonia's projects published between 5 and 8 scientific papers. Moreover, the majority of project partners were **keen for the collaboration to continue**, suggesting overall satisfaction with the partnership and project results. The number of joint publications is a good indicator for research excellence amongst the projects we reviewed.

A review of the project reports shows that the programme contributed to **producing high quality publication**s and developing the respective disciplines of the projects.

#### PROJECT EXAMPLE.

Language and auditory brain: studies on central sound representation in auditory cortex University of Tartu, Estonia and University of Bergen, Norway

The objective of the project was to unravel how different brain mechanisms of speech processing are determined by certain characteristics of the language. This understanding can help in finding treatment to neurological conditions e.g. patients losing speech after strokes but also for learners of foreign languages, for example supporting integration of migrants who need to learn a new language.

#### PROJECT EXAMPLE:

"Automated Assessment of Joint Synovitis Activity from Medical Ultrasound and Power Doppler Examinations using Image Processing and Machine Learning Methods" MEDUSA.

The project joined the Silesian University of Technology Poland with several Donor State partners. Project results have direct medical applications: the project created a new computerized method for detecting and evaluating rheumatoid changes in ultrasound images, in which the software allows collecting and evaluating the changes in the joints automatically. It also created one of the world's largest databases of images of rheumatoid-impacted joints, which is of great value for teaching young medics.

In Poland, the projects led to the publication of 232 scientific papers, around 50 more than originally planned. Out of these, 57 were joint publications involving at least one researcher from the Donor State and Beneficiary State.

Most projects met their set target of joint publications, and overall 7 more papers than planned were published this way by the assessed projects.

Moreover, 649 researchers and PhD students undertook research and educational activities within the reviewed sample of projects. The project partners and Project Promoters seemed keen for the collaborations to continue, yet **few had formalised** these at the time of writing the final project reports.

A review of the reports shows that while three quarters of the projects were planning to continue the cooperation, only a small number had a formal cooperation plan already in place.

In Romania, several projects had a notably higher number of international publications than planned<sup>8</sup>, as well as a higher number of researchers involved. These publications also increased international visibility of the partner universities, and were accompanied by the participation in international scientific events, as well as an increased mobility of researchers.

Several reports also highlighted that the projects had **led to significant scientific advancements in their respective fields**, while at the same time contributing to **educational outcomes** through the involvement of MSc and PhD students in the project. From the reports, project coordinators were keen for the collaborations to continue, be it in the form of a continuation of bilateral relations in areas of common interest or through the applications to additional funding.

The majority indicated that they were keen to build on the projects' findings and to further develop the networks that resulted from each project. For example, at the time of writing, several POs were thinking of applying for further funding. There are also cases in which the implementation of the project contributed to settling long-term cooperation amongst partners.

#### PROJECT EXAMPLE.

"Perovskites for Photovoltaic Efficient Conversion Technology" National Institute of Materials Physics in Bucharest, Romania with University of Reykjavik and University of Oslo

The project resulted in significant scientific improvement in the microtechnology of the solar power cells. This achieved several international awards and filed a patent application for a printer for successive deposition of ultra-thin films with different physical-chemical properties. This printer has been designed especially for the manufacture of perovskite solar cells. This type of solar cells requires successive deposition of several ultra-thin layers of different composition and structure.

#### 3.1.2 Application of research results

It is important to note that the project promoters emphasized that in most cases of projects from the 2009-2014 period, the results of their research were still being implemented.

The Project Promoters agreed that the Grants helped them to work out new research strategies and develop instruments which they considered important for both societies and countries that participated in the scientific collaboration:

"The results are being implemented and help to work out new strategies and instruments e.g. in politics and social sciences, so it is something more than just cooperation between two universities. Implementation of these results on local level brings excellent achievements and benefits."

#### PROJECT EXAMPLE.

Remote sensing, model and in-situ data fusion for snowpack parameters and related hazards in a climate change perspective "Snow Ball")

The project joined The National Meteorological Administration of Romania NMA with three other Romanian partners and The Norwegian Computing Center. The project aimed to deliver a prototype snow monitoring system. The theme of the project, and the project itself, became of great interest at the highest levels of Romanian authorities after an accident in the winter of 2016/2017 when an avalanche killed two young people in the Carpathian Mountains. The NMA received a visit from the Romanian Senate committee to discuss the themes covered by the project, increasing the visibility and positive publicity for the Grants.

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<sup>&</sup>lt;sup>8</sup> There is a caveat regarding the values of targets set, as these were set by the PPs themselves. Please see section 3.1.4.

However, at the same time it became clear that significant proportion of the projects were engaged in **primary research** and that the research teams are still processing their results, which proved a very pertinent issue for the participants:

"Our project was clean-cut primary research ... We know that we achieved all of our objectives and we will most likely get out of it far more than we planned in terms of data and publications. But we've not finished processing all the data yet"

"Our research was primary and it gave us results applicable for several reach fields. We ended up with 140% of the number of planned publications and we are not done yet, there are still new findings we dig up from our datasets"

"From what we know the research station that we created offers ways of measuring [the subject in question] that are unique world-wide. But we will be processing the data that we're still getting for the next two-three years. We are thinking of entering another international cooperation in the future, but that we can only do once we've finished processing the primary results, so that we have some concrete results to work on when we start"

#### PROJECT EXAMPLE:

Physicochemical effects of CO2 sequestration in the Pomeranian gas bearing shales SHALESEQ: Silesian University of Technology, University of Wrocław, University of Warsaw, University of Oslo.

This primary research project joined physicists and geologists in investigating the processes happening in shales under the influence of CO2. By scientifically testing an option for extraction that had never before been used anywhere in the world, the research contributed to assessing the feasibility of new methods of shale gas extraction. This has great potential for the petroleum industry and energy producing sector.

"I would say what we got is a »curse of plenty«. We ended up with too much data. They are great data though, we think they would be very useful, but the project finished before we had the time to analyse it all"

#### PROJECT EXAMPLE:

"Development of advances modalities of medical imaging, distributed data mining, transfer and archivisation applied to support an integrated clinical care system for acute coronary syndrome" (University of Warsaw with Trollhetta AS, Norway)

The project joined IT specialists and practicing medical doctors in creating computer visualisation of blood-circulation processes, based on so far known computer representation of mechanics of hydraulic vessels. This new imagining techniques were used in supporting acute coronary syndrome diagnostic and therapy. One of the results of the project was a new computer centre, which is now focusing on computer visualisation of mechanical processes in human joints.

At the same time, there were reports of long-lasting results of the Grants' support: in case of one of the projects financed by the 2004-2009 research programme, the specialised laboratory created for the purpose of the project was still functioning and producing research results.

What is more, the desk review showed that a significant number of patents applications were submitted by projects in different thematic areas: 28 patent applications were submitted from the sample of 49 reviewed projects. Out of the 12 projects reviewed in Romania, two health-related projects submitted a total of 11 patent applications. In Poland, nine projects submitted a total of 17 patent applications. Out of these, six were within the health field, five in the environment field, and three in the field of climate change. The remainder were submitted by projects focussed on carbon capture and storage two and social sciences one.

#### Success factors of the EEA and Norway Grants research programme

The consulted Project Promoters were keen to comment on the differences they observed between operating at national level or within their own institution and as part of the project supported by the Grants.

There was universal agreement that operating only on a national level, they would not have been able to run research projects with such a degree of **interdisciplinarity** as the projects supported by the Grants. This was mostly attributed to the fact that national funding systems are too "rigid". One focus group participant in particular admitted to having ideas for the project from as early as 2001, but "could not fit the project into any other research funding streams, as our idea was too interdisciplinary".

The issue of interdisciplinarity and **complementarity** of various research fields represented by the Beneficiary States and Norwegian partners was a repeated theme:

"I have managed dozens of research projects in the course of my career. None of those were as interdisciplinary as this one. We had quantum physicists and natural scientists. And thanks to our project >physics< finally started talking to >nature< about issued that were of great interest to both".

"Our Norwegian partner is a high-quality crystallographer. We are molecular biologists. We gave them what they didn't do, and we got from them what we didn't have. The mutual benefits were immense. It's a shame the project was only for three years, we'd love to process all the data that came out of our research"

#### 3.1.3 Effects for Donor research organisations

To examine this issue we focused on investigating if the Grants' funding **helped to increase research excellence** in specific fields in participating Donor project partners, and whether or not the projects lead to longer partnerships between the Donor States' and the Beneficiary States' organisations.

The majority of surveyed Donor project partners reported that the projects had helped increase research excellence in their organisations. A majority 52% thought that the project had helped 'to a large extent', and 20% thought the project had helped 'to a very large extent' see Figure 4. Only a minority 4% felt that the project did not help at all. Surveyed Donor project partners also confirmed that the project had **led to collaborative publications** in subsequent years. A majority 60% thought that it helped to a large extent, and 16% to a very large extent. The survey also suggests that the majority of Norwegian and Icelandic research organisations had already participated in international research collaborations, as only ¼ of respondents said that the project had lead them to collaborate internationally for the first time.

<sup>9</sup> Only the projects in Poland and Romania were required to report on the number of patent applications and granted patents.

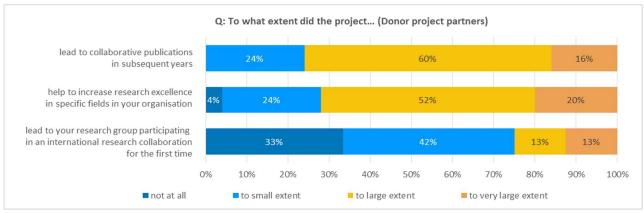


Figure 4: Contributions of projects according to Donor project partners

N= 24

From interviews with a sample of Donor project partners, we found that the collaborations allowed exploiting synergies between partners which led to **high quality research outputs**, as well as **more cost-effective research projects**. On two occasions, interviewees mentioned that Romania had "state of the art facilities" in their research field, which considerably contributed to strengthening the research outputs of the Project.

From the perspective of the interviewed Donor project partners, the programming set-up of the Grants contributed to increasing the quality of research outputs: the **broad themes of the calls** made the Grants particularly appealing in their eyes, as it allowed them to submit tailor-made proposals for the partnerships, as well as building on existing research streams and partnerships. The interviewees felt that this had contributed to the successful completion of projects. They also found that bilateral partnerships were **straightforward to manage** compared to other international research projects in which they had previously been involved with. From their experience, limiting the number of countries to two reduced the required coordination efforts, making communications easier and saving time. This allowed the Norwegian and Icelandic researchers to focus on conducting the actual research and delivering high quality outputs.

With regards to sustainability of partnerships, the survey results suggest that the programmes were very successful in achieving their objective of building strong research partnerships which continued after the grant period. Both the 2004-2009 and 2009-2014 programmes supported Norwegian and Icelandic organisations in forming long-term partnerships with the organisations from Beneficiary States. According to the survey, 62% of the Donor project partners will continue their collaboration with Beneficiary States' partner organisation after the current grant period.

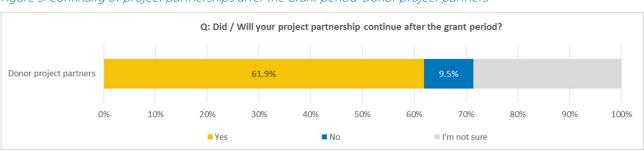


Figure 5: Continuity of project partnerships after the Grant period Donor project partners

N= 21

The interviews with Donor project partners from the 2009-2014 programmes also confirmed a tendency for projects to continue beyond the Grant period. However, while the majority of interviewees expected and hoped for the collaboration to continue, in most cases no formal collaborations were in place. Most of the time, the researchers were still waiting for appropriate calls to surface so as to be able to apply for funding and continue the collaboration.

#### 3.1.4 Effectiveness of intervention types

From the desk review of the final project reports it is possible to observe trends related to the effectiveness of intervention types. However, it is important to note that programme reporting varied for each of the three countries, both in format and substance. The programme targets were not included in Estonia's final project reports, as this was only required for subsequent programmes <sup>10</sup>. In Poland, on the other hand, the final reports included quantitative indicators that covered the main outcomes of the projects. In particular, they include baseline values, target values, as well as the final project outcome, making it easier for the evaluators to assess whether the project achieved what it set out to do. Similarly to Poland, Romania's reporting distinguished between the planned outcomes and the achieved outcomes.

The study team is aware that these target values were decided by beneficiaries and ought to be taken with a pinch of salt. These indicators were intended to provide an overall sense of direction for the programming and were therefore non-binding. However, researchers in Beneficiary States might not have been necessarily aware of that, as the workshop with Donor Programme Partners revealed. This makes it difficult to assess the effectiveness of intervention type based on the project results in the report. The below analysis shows tentative findings.

In **Estonia**, some trends emerge when looking at the thematic area on which its activities focused e.g. 'environment', 'climate change', 'social sciences' and 'health'. Programmes in the 'environment' field were particularly prolific in terms of publishing scientific papers, and also performed above average in terms of the number of scientific methods acquired i.e. 3 new scientific methods acquired per project, as compared to an average of 2 for the remainder of the projects. One environment project stands out in terms of the number of published scientific publications i.e. 43 publications in total. It is also the project with the highest number of PhD students involved i.e. 3 students, compared to 1 or no student for other projects, which might go towards explaining the high number of publications.

In Poland, projects that resulted from previous cooperation's were more likely to further develop the bilateral relations and to harness synergies between the project partners. Conversely, when the cooperation was established through the independent search for partners or through fund operators, the cooperation was less likely to continue after the project. This suggests a need for additional efforts to be made when new collaborations are established and the FMO could consider whether any structural/programming changes could be made. In specific research domains, the continuity of research is particularly important given the nature of the subject of the research. Some researchers highlighted that the established relationships, as well as the databases and tools developed during the projects, formed a solid basis for new long-term collaboration.

<sup>&</sup>lt;sup>10</sup> Estonia was one of the first countries to benefit from the programme.

In Romania, projects mainly focused on two types of R&D activities, 'Basic Research' and 'Applied Research'. Only one of the reviewed projects focused solely on 'Experimental Development' activities, and an additional 4 had an 'Experimental Development' element to it. The desk review suggests that in Romania, projects including 'experimental development' types of R&D activities were most prone to submitting and winning proposals to other calls under Horizon 2020, and also tended to lead to a higher than average number of publications.

#### PROJECT EXAMPLE:

Development of a cost effective Romania-Norway joint plant-based technology platform for production of vaccines against human hepatitis viruses B HBV and C HCV

The project already resulted in two high-level publications about HCV and HBV viral vaccine antigens: in Plant Biotechnology Journal with impact factor 7.443 top 10 in over 200 plant science journals and Antiviral Research with impact factor over 4.0. As of September 2017, a third manuscript is under preparation.

#### Impact on research excellence and proposal writing

The survey results demonstrate that 83% of the project promoters in Romania, and 68% in Poland felt that their teams have increased their research competence very much. The remaining respondents in each country believed that as a result of the project their team have increased their research competence to some extent. The fact that 100% of the respondents believed that their participation in the programme resulted in their teams increasing their research competence to some extent or very much, confirms that the programmes have been a great success in this aspect.

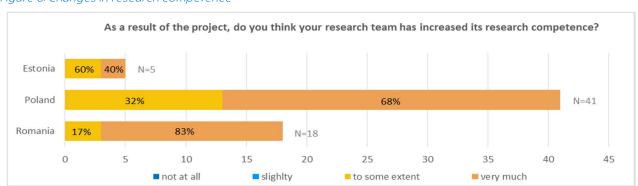


Figure 6: Changes in research competence

What is more, 100% of the survey respondents in Poland and Romania believed that as a result of their participation in the project their research teams have increased their understanding of how to develop successful research funding proposals very much or to some extent. The programme has been less successful in achieving this objective in Estonia, where 3 of 5 respondents believed that as a result of the project their research team has very much increased its understanding of developing successful research proposals, with remaining two believed that the teams have developed their capacity in this field only slightly.

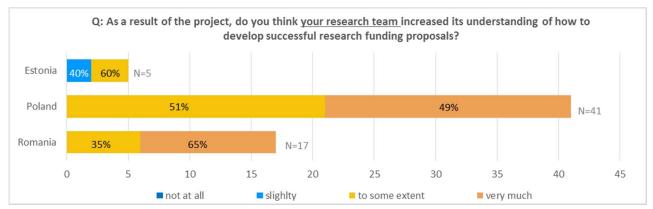


Figure 7: Changes of understanding how to develop successful research proposals

#### Factors contributing to improved research capacity and excellence

In the survey both Project Promoters and Donor project partners were asked if the projects contributed to increasing their research capacity, and if yes, they were requested to name three main factors in the projects that improved their research capacity. The responses from the surveyed Donor project partners and Project Promoters suggest that both the donor country partners and the Beneficiary State partners recognised the international exposure, opportunity to collaborate internationally and the networking opportunities afforded by projects as important factors contributing to strengthened research capacity. Donor project partners and Project Promoters mentioned the importance of access to funding and infrastructure. They survey participants also listed a number of other factors contributing directly to increasing their research capacity and excellence. The factors in the table below are listed in descending order of the number of respondents listing a given factor:

Table 3: Factors in the projects contributing to increasing research capacity according to Project Promoters and Donor project partners

Project Promoters	Donor project partners
<ul> <li>learning and mastering new methods and methodologies.</li> <li>knowledge and expertise shared by their partners</li> <li>conducting interdisciplinary research</li> <li>being exposed to new knowledge area</li> <li>getting access to new data</li> <li>publishing results of their research in recognised international journals</li> </ul>	<ul> <li>international collaboration</li> <li>networking opportunities</li> <li>exposed to new knowledge or a new field of investigation</li> <li>being exposed to a novel approach or methodology</li> <li>additional funding available through the project</li> <li>access to new data or new sample populations or data collection areas</li> <li>hiring additional staff</li> <li>improved administrational procedures and organisational performance</li> <li>working in interdisciplinary teams</li> </ul>

#### Conclusions and recommendations

- The most significant programme results overall seem to be the large number of scientific publications mainly for primary research and the fact that the Project Promoters and Donor project partners want to cooperate on more projects in the future albeit this wish for further cooperation is not always formalised yet. Extending the maximum project duration, or creating a small follow-up fund to fully process the data created in the projects would likely enhance the project results further.
- Although one of the main concepts behind these grants is the knowledge transfer from Donor
  project partners to organisations in Beneficiary States, Donor project partners also benefited
  from their partnership with organisations from Beneficiary States. Rather than being a onesided Donor to Beneficiary type of learning relationship, the data suggest that in researchers
  and research facilities from the Beneficiary States also helped to strengthen the research
  capacity of participating Donor project partners' organisations.
- Projects which resulted from a previous cooperation albeit informal tended to be most effective. For these projects, the grant helped to strengthen the bilateral relationship even further, and to enhance the complementarity of their combined scientific and/or methodological knowledge. This result does not undermine the value of new collaborations. New partnerships can also be very beneficial, even if they take longer to get off the ground. While Project Promoters are clearly interested in working with the Donor project partners on more projects, the fact that Donor project partners appear to be very keen to develop new partnerships, confirms that there is scope to promote new partnerships.
- According to Project Promoters, interdisciplinarity is one of the main factors which underpins
  project success and provides significant added-value vis-à-vis other grants. Unlike other
  national and international research funding streams, these Grants do not limit the focus of the
  projects to a single discipline. This allows for greater knowledge-exchange and supports
  greater innovation.
- The contribution of the collaboration to an improved understanding of successful proposal
  writing was substantial according to the online survey, 100% of the survey respondents in
  Poland and Romania believed that as a result of their participation in the project their research
  teams have increased their understanding of how to develop successful research funding
  proposals very much or to some extent.

#### 3.2 The link between the EEA and Norway Grants and EU-funded research initiatives

Question 2A: To what extent did the supported projects lead to successful subsequent applications joint or bilateral under Horizon 2020 and other EU funded research initiatives?

Question 2C: Do the programmes contribute to implementation of ERA?

To investigate the nature of the link between the Grants and EU-funded research initiatives, we firstly present a comprehensive overview of European policy framework in the field of research.

We then examine the extent to which the Project Promoters and their research teams had applied for EU research funding. We also investigate the success rates for both joint and bilateral applications, and the extent to which bid success could be attributed to the support by EEA and Norway Grants. Finally, we explore whether the programmes contributed to any of the five priorities of European Research Area<sup>11</sup>.

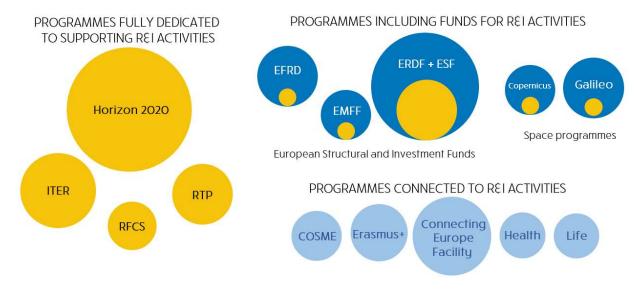
#### 3.2.1 European Funding for Research: Past, Present and Future

#### 3.2.1.1 Introduction

Since the 1950s, collaboration in research across the European Union has increased dramatically. Currently there is an overall budget of €120 billion in EU funds for research and innovation activities 2014-20.

The funds are shared across of number of interconnected programmes, as depicted in Figure 8 below. This has come a long way from the original funding of research at the beginning of the EU when it focused on coal and steel; now reduced to a very small component of the overall effort.

Figure 8: EU R\(\xi\)! Funding programmes 2014-2020



Source: Coffey based on European Commission, DG Research.

<sup>&</sup>lt;sup>11</sup> 1 More effective national research systems; 2 Optimal transnational co-operation and competition; 3 An open labour market for researchers; 4 Gender equality and gender mainstreaming in research; 5 Optimal circulation and transfer of scientific knowledge.

The main research funding programme is **Horizon 2020** which is the eighth Framework Programme for research. This funds research spanning the spectrum from frontier science to meeting key societal challenges including energy, climate change and security. The final Work Programme for the current Horizon 2020 programme was launched on 27 October 2017<sup>12</sup> and plans are well advanced for the next Framework Programme, FP 9.

There are also sectoral programmes also fund research and innovation activities in the fields of **space research** Copernicus, Galileo; **nuclear energy** Euratom Research and Training Programme, International Thermonuclear Experimental Reactor; and **coal and steel production**.

The European Structural and Investment Funds, implemented by Member States at regional level, can be used to support the development of research and innovation capacities at local levels.

The initial practical collaboration to support the coal and steel industry has blossomed into a programme that funds the full spectrum of research from frontier to applied. There is now support for fundamental science through the European Research Council, the Marie Sklodowska Curie Actions including researcher career development and Future & Emerging Technologies. Collaborative research on common challenges for Europe Societal Challenges on issues including energy, food, climate change and security is supported. There is now funding for with industry large, medium and SME through the Industrial Leadership programme supporting research and innovation to improve European competitiveness.

However, it should not be concluded that this is spread evenly across the EU. There are still significant disparities between countries both North and South, West and East. It is challenging for some countries to build research capacity even with European Structural and Investment Funds. There is still as significant brain drain from certain countries. That being said, the Framework Programmes have undoubtedly changed the research landscape across Europe.

#### 3.2.1.2 Role of the European Commission in sponsoring research

The original approach in the 1950s was to bring together European expertise to work on common issues. The focus at that point was the need to support the European Coal and Steel Community which reflected the economies of the founder countries of the European Union. Also, working together to develop atomic energy was a clear investment in a future that would bring in a clean form of cheap energy.

In the early 1980s the European Commission introduced the concept of the Framework Programme FP as a structured to organise research funding in planned and consistent manner. From the beginning the approach was always to respect the principal of subsidiarity. The FPs would bring added value to national efforts across Europe through support for collaborative research and innovation.

There were no bases in existing treaties for the FPs but the first was introduced in 1983 FP1. Research policy did not gain a Treaty base until the Single European Act SEA in 1986. The Treaty provisions of the SEA, which have over the years remained largely unchanged, institutionalize the funding mechanism of the Framework Programmes as the central element of European research policy and allow for Community support for cooperation and co-ordination between Member States under the principle of subsidiarity. In 1987 and 1990, FP2 and FP3 were adopted with increasing budgets. They focused principally on pre-competitive research and the mobility of researchers.

The Treaty of Maastricht 1993, changed the legal basis for the FPs making them financial tools for EU research activities. This also broadened the range of topics that could be covered by the FPs. FP4 and FP5

<sup>12</sup> http://europa.eu/rapid/press-release\_MEMO-17-4123\_en.htm

were adopted in 1994 and 1998 respectively. For these the scope of research was broadened to address societal challenges and support more activities in the innovation process.

While there was the basis for the FPs in the aforementioned Treaties, there was no overarching policy for research. Only in the year 2000 was there a move to put the R&D investment in the context of EU policy for growth and a better society.

The launch of the European Research Area ERA <sup>13</sup> in 2000 was a major change. It envisioned Europe as a single marked for research and researchers where knowledge and people could flow freely across borders. In 2003 there was range of measures towards building a Knowledge Economy that was encapsulated in the target of an average EU spend of 3% of GDP on research and innovation. The Sixth and Seventh Framework Programmes were planned to implement the ERA strategy.

The Lisbon Reform Treaty of 2009<sup>14</sup> introduced the ERA into primary law and broadens the scope of Community action to include the establishment of guidelines and indicators, the sharing of best practice and peer evaluation. The extract form the Treaty below emphasizes this point:

'The Union shall have the objective of strengthening its scientific and technological bases by achieving a European research area in which researchers, scientific knowledge and technology circulate freely... it shall support their efforts to cooperate with one another, aiming, notably, at permitting researchers to cooperate freely across borders.....'

Lisbon Treaty, Article 179

Moreover the Framework Programmes are identified and the implementation tools for the ERA. The Europe 2020 Strategy<sup>15</sup> and the European Innovation Union Flagship initiative <sup>16</sup> 2010 both helped shape the structure of the Eight Framework Programme, known as Horizon 2020.

#### **Evolution of the Framework Programmes**

It is useful to look at the funding for the Framework Programmes in the context of the total EU budget and proportion of national research budgets.

The funding for research and innovation is **about 4% of the total EU budget**. Also it represents about 10-15% of the combined national investments in R&D across the EU. However this is not all like-for-like comparison as EU funding does not provide support for core infrastructure in Member States that is part of national R&D budgets. Significantly, comparing Framework funding with similar types of national investments bring the total amount of FP support as about 18% of the EU total.

Traditionally, the FPs were divided into the thematic and horizontal activities. While this is no longer explicit in H2O2O, the difference is still present. For example, the Marie Sklodowska Curie Actions MSCA <sup>17</sup> are horizontal as they focus on the research training and development of researchers across all disciplines.

<sup>13</sup> http://ec.europa.eu/research/era/index\_en.htm

<sup>&</sup>lt;sup>14</sup> http://www.lisbon-treaty.org/wcm/the-lisbon-treaty.html

<sup>15</sup> https://ec.europa.eu/info/strategy/european-semester/framework/europe-2020-strategy\_en

<sup>16</sup> http://ec.europa.eu/research/innovation-union/index\_en.cfm

<sup>&</sup>lt;sup>17</sup> https://ec.europa.eu/programmes/horizon2020/en/h2020-section/marie-sklodowska-curie-actions

# 3.2.1.3 Research Funding in Horizon 2020

The current Eighth Framework Programme Horizon 2020 is composed of three main pillars each of which addresses a European issue:

- Excellent Science <sup>18</sup> focuses on building up the capacity of excellent scientists and the research capacity of Europe. This is the first time that an FP has put such an explicit emphasis on frontier research. In fact, it is the first time that "science" has been mentioned in one of the main areas of a Framework Programme. The goal is to strengthen the Union's world-class scientific excellence and make the Union research and innovation system more competitive. Under this heading there is the European Research Council ERC, the Marie Sklodowska Curie Actions MSCA and Future & Emerging Technologies FET. While the MSCA programme has been an integral part of Framework Programmes since the beginning, the ERC was only established at the beginning of FP7 in 2007 but has grown to be a major activity rivalling the US National Science Foundation. Overall its aim is to support the best ideas, develop talent within Europe, provide researchers with access to priority research infrastructure, and make Europe an attractive location for the world's best researchers.
- Competitive Industries <sup>19</sup> pillar aims at making Europe a more attractive location to invest in research and innovation, by promoting activities where businesses set the agenda. It will provide major investment in key industrial technologies, maximise the growth potential of European companies by providing them with adequate levels of finance and help innovative SMEs to grow into world-leading companies.
- Better Society<sup>20</sup> addresses major societal challenges and respond to the priorities identified in the Europe 2020 strategy. These include Health, Food, Energy, Transport, Climate Change, Security and Inclusive Societies. These are of concern not only to European citizens but at a global level and with a new focus on innovation led activities. In addition, the Better Societies' challenge will allow the social sciences and humanities scientific community to study issues such as smart and sustainable growth, social transformations in European societies, social innovation and creativity, the position of Europe as a global actor, as well as the social dimension of a secure society.

In addition, there are two horizontal programmes, Spreading excellence and widening participation <sup>21</sup> and Science with and for society <sup>22</sup>. The first of those programmes is highly relevant to the EEA and Norway Grants as it addresses directly the causes of low participation by fully exploiting the potential of Europe's talent pool. Its aim is to ensure that the benefits of an innovation-led economy are both maximised and widely distributed across the European Union. Synergies with European Structural and Investment funds are an important component.

It should be noted, however, that the budget allocated to this programme is only about 1% of the total Horizon 2020 fund. It includes activities on Teaming, Twinning and ERA Chairs. In fact, the Twinning programme is similar to the EEA and Norway Grants in that is connects researchers in one of the identified countries which include the EEA  $\xi$  Norway grants Beneficiary Countries with leading counterparts elsewhere in Europe.

<sup>18</sup> https://ec.europa.eu/programmes/horizon2020/en/h2020-section/excellent-science

<sup>&</sup>lt;sup>19</sup> https://ec.europa.eu/programmes/horizon2020/en/h2020-section/industrial-leadership

<sup>&</sup>lt;sup>20</sup> https://ec.europa.eu/programmes/horizon2020/en/h2020-section/societal-challenges

<sup>&</sup>lt;sup>21</sup> http://ec.europa.eu/programmes/horizon2020/en/h2020-section/spreading-excellence-and-widening-participation

<sup>&</sup>lt;sup>22</sup> https://ec.europa.eu/programmes/horizon2020/en/h2020-section/science-and-society

There are also three smaller blocks in Horizon 2020: the EIT European Institute of Innovation and Technology <sup>23</sup>; JRC Joint Research Centre <sup>24</sup> and Euratom<sup>25</sup>.



Figure 9: Structure of Horizon 2020

Source: CERN EU Projects Office

The next section describe in greater detail the three main steps in implementation of the programme:

- Calls for proposal and selection of projects to be funded
- Project Implementation, and
- Final evaluations of projects and evidencing results

It should be noted that the ensuing sections are for informative purposes, and should not be treated as a recommendation for a simple copy-paste into the EEA and Norway Grants' architecture, although alignment with H2O2O would be recommended wherever feasible.

<sup>&</sup>lt;sup>23</sup> https://eit.europa.eu

<sup>&</sup>lt;sup>24</sup> https://ec.europa.eu/jrc/en

<sup>&</sup>lt;sup>25</sup> https://ec.europa.eu/programmes/horizon2020/en/h2020-section/euratom

# Calls for proposal and selection of projects to be funded

All of the funding for Horizon 2020 is distributed through a competitive grant based system. Over the eight Framework Programmes the EC has developed a highly streamlined assessment process for proposals. These are managed by the executive agencies and ensure that there is single system applied to all proposals.

All of the procedures associated with proposal assessment are done though an online electronic system. Proposals are submitted through the H2O2O Participant Portal<sup>26</sup> and assessed through the SEP portal<sup>27</sup>. The full process is presented and discussed below.

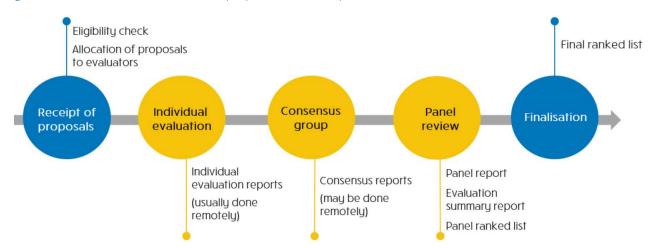


Figure 10: Overview of the Horizon 2020 proposal evaluation process

Source: Coffey based on European Commission, DG Research and Innovation

Once proposals are received they are checked for eligibility and sent to at least 3 international experts in the relevant thematic area. The European Commission maintains a database of experts for the review of proposals. Individuals may sign up to this database and then may be invited to participate in evaluations.

Each of the experts assigned to a proposal, evaluate it based on the three criteria of Excellence, Impact and Implementation assigning scores O-5 to each of these and providing detailed comments. A summary of the three criteria is given below:

- **Excellence** research and innovation quality of the proposal; soundness of the concept; research methodology.
- Impact impact on the objectives set out in the call impact on researcher career for MSCA; dissemination and communication activities.
- Implementation planning for the implementation of the project, management structure, risk analysis, complementary of participants and their expertise.

For each call there may be some differences in the details, however the three criteria are common to all.

<sup>&</sup>lt;sup>26</sup> http://ec.europa.eu/research/participants/portal/desktop/en/home.html

<sup>&</sup>lt;sup>27</sup> https://ec.europa.eu/research/participants/evaluation/

Following the individual remote reviews a rapporteur, who is not one of the individual experts, is appointed to prepare an overall Consensus Report on the proposal. They can do this in full independence, bringing together the individual reviews. This part of the process usually takes place in Brussels and is managed by the relevant Executive Agency<sup>28</sup>.

This stage of evaluation seems to have been an issue with the EEA and Norway Grants in the periods 2004-2009 and 2009-2014. The stakeholders consulted as part of this assessment reported that the rapporteurs were chosen from amongst the individual experts. It seems that in some cases there was no panel review nor calibration of results by a third party.

Following agreement of all the Consensus reports and scores a ranked list is prepared. Final decision rests with the Programme Committee that is composed of representatives from the 28 Member States and countries Associated to the Framework Programme the latter do not have voting rights. This list is then presented to the relevant Programme Committee for approval. It should be stressed that this is in almost all cases a formality as the evaluation and ranking by the experts is considered paramount.

All applicants receive a report the Evaluation Summary Report or ESR. This includes the scores for each section along with the comments that identify the strengths and weaknesses of the proposal.

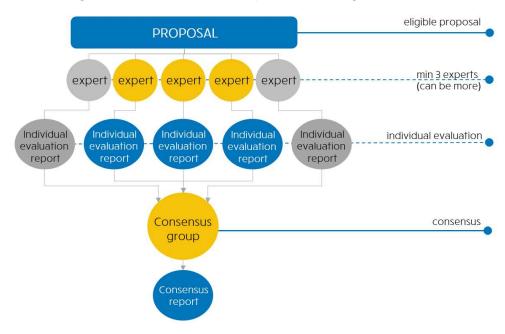


Figure 11: Details of the evaluation process - reaching consensus

Source: Coffey based on European Commission, DG Research and Innovation

#### Framework Programme Project Implementation

While there is often speak of the admin burdens associated with research projects supported by the EU, the fact is that the EC Framework programmes are far lighter in terms of oversight than many national schemes. From the financial, where there is an **upfront payment** at the beginning of the contract, followed by **clearly defined staged payments** over the contract period. Annual financial reporting is required along with a progress report on the project.

 $<sup>^{28}</sup>$  For some calls for proposals with particularly large numbers of proposals e.g. the MSCA Initial Training Networks, the consensus meetings are held remotely through an online forum.

In the planning for Horizon 2020, the watchword was "simplification". There was strong pressure from all Member States to simplify the whole process and this has be done to a certain extent. There is no doubt that organisations new to the FPs do find it challenging to implement the contracts. Those institutions that have a long history of participation have built capacity in terms of support staff for the Framework Programmes. Usually this is structured as pre and post award. The pre award provides practical support in terms of providing information to researchers, practical support on proposal preparation and engaging the National Contact Points. When successful, the post award staff assist in any contract negotiations and run the contract and financial management of all institutional Framework grants. This centralised approach is highly efficient and effective. Moreover it has the impact of reducing the administration burden on researchers.

With regards to **project administration**, one of the aspects of H2O2O funding is the option to use indirect costs to take on a project assistant that can deal with the day to day administration of the grant. This can build institutional capacity to manage Framework Programme contracts and reduce the time that researchers spend on administration.

Furthermore, EU research funding supports opportunities for peer-learning and capacity building. As part of National Contact Point NCP <sup>29</sup> training, the EC funds network of the NCPs for training. Part of this is the secondment of less experienced staff to more developed organisations where they can learn first-hand how to administer H2O2O proposals and contracts. A similar approach may be something to consider as part of future EEA and Norway Grants funding to build capacity in Beneficiary States, for example with regards to the National Focal Points or Programme Operators.

There is also the organisation EARMA, the **European Association of Research Managers and Administrators**<sup>30</sup>. EARMA provides training and mentorship for Horizon 2020 administration and implementation, as well as providing grants for visiting other research institutions to exchange experience and for the attendance of conferences organised by EARMA or its Sister Professional Associations. EARMA is also the founding member of the International Network of Research Management Societies INORMS.

#### Final evaluations of projects and evidencing results

Since the beginning of Horizon 2020 there have been over 140,000 proposals submitted with over 16,000 funded. This gives an average success rate of about 12%. It should be noted that the actual success rates vary widely across and within programmes. For example, the MSCA Initial Training Networks have very low success rate around 5%. In contrast, the MSCA COFUND Doctoral programmes have success rate of over 25%.

The monitoring of the implementation of EU Framework Programmes is an essential part of the overall evaluation and monitoring system<sup>31</sup>. It supports the management of programmes, provides transparency on programme activities and contributes to the information base used for major evaluations of framework programmes. The latest comprehensive monitoring report is put to and including 2015<sup>32</sup>.

Each proposal is constantly monitored through annual reporting that includes deliverables and finances. Periodically the EC carries out site visits to assess progress and develop case studies and success stories<sup>33</sup>.

<sup>&</sup>lt;sup>29</sup> http://www.net4society.eu/public/860.php

<sup>30</sup> http://www.earma.org/

<sup>&</sup>lt;sup>31</sup> https://ec.europa.eu/research/evaluations/index\_en.cfm

<sup>&</sup>lt;sup>32</sup> https://ec.europa.eu/research/evaluations/pdf/archive/h2020\_monitoring\_reports/second\_h2020\_annual\_monitoring\_report.pdf#view=fit&pagemode=none

<sup>33</sup> http://ec.europa.eu/research/infocentre/success\_stories\_en.cfm?item=Research%20policy&subitem=Horizon%202020

#### 3.2.1.4 Interim Evaluation of Horizon 2020 and FP9

All of the Framework Programmes are evaluated on a regular basis to ensure that they are meeting their objectives. The interim evaluation of Horizon 2020 was published earlier this year. The interim evaluation aims to contribute to improving the implementation of Horizon 2020 in its last Work Programme 2018-2020, to provide the evidence-base for the report of the High Level Group on maximizing the impact of EU Research and Innovation programmes and to inform the design of future Framework Programmes.

As mentioned in the introduction to this section, the final Work Programme for Horizon 2020 was published on 27 October. It took into account a number of issues that have arisen so far that have been identified in the Interim Evaluation of Horizon 2020<sup>34</sup>. It has been clear for a number of years that H2020 is over subscribed. This is a combination of the increased in popularity of EU funding combined with reductions in national funding across many European countries.

Another issue is that overall much of the research being proposed is incremental in nature whereas what is needed now are jumps forward. Also there is a clear lack of links to civil society. The latter is not just about communicating results, rather it is engaging citizens in research. It has also taken on board criticisms of bureaucracy and seeks to simplify further the evaluation and contractual processes. There will be, for example, a pilot topic on lump sum reimbursement.

The consequence of these issues is that the total number of topics has been reduced from 12 to 5. There is greater emphasis on reaching out to citizens. There will be five mutually reinforcing strategic orientations addressing main concerns of citizens, including an 'EC Open Research Publishing Platform', that will provide a fast, cost efficient and high quality service, targeted towards the grantees of Horizon 2020.

In summary, the 2018-2020 Work Programme will:

- Increased investment in sustainable development and climate related R\$I
- Integrating digitisation in all enabling technologies and societal challenges
- Strengthening international R&I collaboration
- Societal resilience
- Market creating innovation EIC pilot.

Also when Commissioner Carlos Moedas<sup>35</sup> was appointed, the Horizon 2020 programme had already been agreed. In the interim period there has been a policy focus on the 3'Os: Open Science, Open Innovation and Open to the World<sup>36</sup>. There has also been work done on introducing a European Innovation Council EIC along the lines of the ERC but with the focus clearly on industry and innovation. About 10% of the final WP budget €30bn will be for the development of the European Open Science Cloud EOSC <sup>37</sup> and other Open Science activities.

<sup>&</sup>lt;sup>34</sup> https://ec.europa.eu/research/evaluations/index\_en.cfm?pg= h2O2Oevaluation

<sup>35</sup> https://ec.europa.eu/commission/commissioners/2014-2019/moedas\_en

<sup>36</sup> https://ec.europa.eu/research/openvision/index.cfm

<sup>37</sup> https://ec.europa.eu/research/openscience/index.cfm?pg=open-science-cloud

In summary, the 2018-2020 Work Programme will:

- Focus on impact of innovation: highly integrated 'focus areas', market creating innovation measures, better dissemination of results, open access to data
- Boosting open science: European Open Science Cloud
- Continued support of European Research Council and Marie Sklodowska Curie Actions
- Testing new approaches: European Innovation Council pilot, lump sum pilot, simplification, international cooperation flagships.
- Flexibility for 2020, with minimum content at this stage.

A specific aspect of the Work Programme will be the introduction of a new scheme within the Marie Sklodowska Curie Actions. These will be individual fellowships to countries within the remit of the Spreading Excellence and Widening Participation. It may be worth considering the introduction of a similar scheme within the ambit of the EEA and Norway Grants. Specifically, it may be worth considering targeting these grants at senior researchers who could spend time in Beneficiary States' institutions to help build research capacity.

In terms of FP9, at the end of 2017 there will be an open consultation. The next step will be the agreement of the total EU budget for 5 or 7 years in March 2018 that will ring-fence funds for FP9. In June 2018, the Commission will make the formal proposal for FP9. Note that for the final year of H2020, plans have been left open so as use funding for a bridge to FP9.

# 3.2.2 Subsequent applications for EU research funding

One of the objectives of the EEA and Norway Grants' research programme is to increase the participation in Horizon 2020 by the Beneficiary States. In fact, for this reason the Grants' application procedure, proposal assessment, contract management and reporting are reportedly being restructured to function in a similar manner to Horizon 2020.

In the table overleaf, the summary statistics for Poland's, Estonia's and Romania's participation in Horizon 2020 are given. For comparison those of Austria are also presented.

The average success rates of the three BS are similar however it is clear that in comparison to population size, Estonia is a high performing in relation to population size. Norway is also a very successful participant in Horizon 2020 with above average success rate.

Table 4: Summary participation statistics in Horizon 2020 for Poland, Estonia, Romania, Austria and Norway

	Poland	Estonia	Romania	Austria	Norway
Total number of participants, total EU financial contribution € million	938 participants receiving € 216,96 m in H2020	270 participants receiving € 71,21 m in H2020	536 participants receiving € 85,92 m in H2020	1.627 participants receiving € 656,01 m in H2O2O	616 participants receiving € 392m in H2020
Number of applicants	8.271 2,23 % of EU-28	2.137 O,58 % of EU-28	4.367 1,21% of EU-28	10.164 2,74 % of EU-28	4,134
Success rate EU-28 = 13.3%	11.7%	12.7%	12.1%	16.6%	14.9%
Rank in number of participants signed contracts EU-28	15	22	18	10	n/a
Rank in budget share EU-28	15	22	19	9	n/a
Total population \$ EU 28 population share <sup>38</sup>	38.533.299 7.6% of EU-28	1.320.174 0.3 % of EU-28	20.020.074 4.0% of EU-28	8.451.860 1.7% of EU-28	5.233.000

A review of the final project reports revealed that the number of subsequent applications under Horizon 2020 and other EU funded research initiatives was considerable given the short time-frame within which the projects took place. The time and effort required to submit applications is not negligible, and it is an achievement in itself that researchers were able to apply for further funding while running the projects. The number of applications was high in Poland and Romania, and a number of them were successful. For Estonia, is not clear from the desk review whether any projects were successful in applying for subsequent EU funding. This is due to the early reporting, which did not include subsequent applications as a target outcome. Nevertheless, when asked in the online survey whether they had applied for EU research funding, most of Estonian respondents said they had submitted applications for EU research funding as per Figure 12.

Results from the online survey also reveal that Estonia was the only country which saw an increase in EU funding application after the completion of the project. Indeed 40% of respondents have applied for EU research funding after completing the project funded by EEA and Norway Grants, compared to 20% before and in parallel. Polish and Romanian Project Promoters, as well as Donor project partners all saw the number of applications to EU funding decrease after completion of the projects. This, however, is not necessarily a negative results for the following reasons:

- the number of proposals 'before' the project would be over a longer time scale than the number 'after';
- the number 'after' is in a limited time and does not include proposals in planning.

<sup>&</sup>lt;sup>38</sup> source: Eurostat

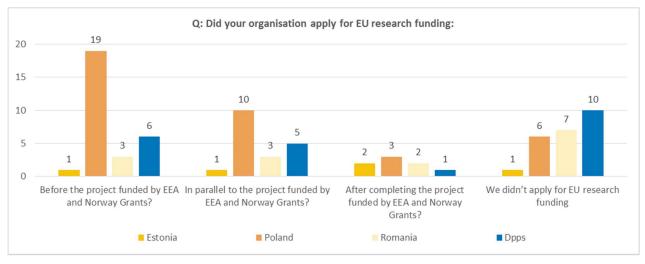


Figure 12: Project Promoters' and Donor project partners' applications to EU research funding

The survey captured information in the number of proposals actually submitted. The desk review which also included proposals in planning showed a different picture. From the desk review, the number of applications per project was substantial in Poland, with a total of 38 planned or submitted applications and an additional 7 funded applications for 36 reviewed projects. Out of the 36 projects, 8 hadn't taken any steps towards applying for EU funding at the time the final reports were published. The number of submitted applications under Horizon 2020 was even higher in Romania, with a total of 46 proposals submitted by the 12 reviewed projects. However, this finding needs to be nuanced since the large majority of these proposals were submitted by 3 projects, who submitted 37 out of the total 46 proposals. This suggests that the number of submitted proposals per project varies greatly. The online survey confirms this trend for Romania. Of the Romanian Project Promoters that took the survey, almost half said that they had not applied for EU funding see Figure 12).

The online survey also revealed that 25% of the organisations from Estonia, 60% of the organisations from Poland, 33% of the organisations from Romania and 55% of the Donor project partners have received the funding that they applied for. Overall, from the surveyed organisations, 53% were successful in securing EU funding. This is a significant result and is well above the overall success rates of the three countries, Estonia 13%, Poland 12% and Romania 12%, as depicted in the previous section.

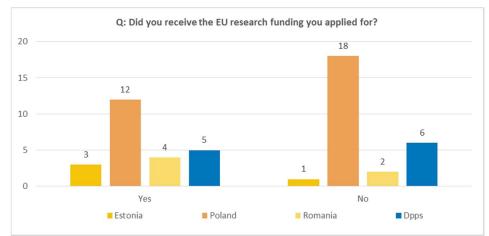


Figure 13: Success of the EU research funding applications

The successful applicants were asked to provide details of the projects for which they received the funding. All of the mentioned successful projects were funded by either FP7 including Marie-Curie actions or Horizon 2020, and were in the fields of environment, renewable energy, or health.

The extent to which the programme participants attribute their success in receiving the EU research funding to them taking part in the research project supported by EEA and Norway Grants varied.

- Romanian respondents were the most positive about the contribution of the EEA and Norway grants
  to their success in receiving EU research funding: 20% respondents believed they would not have been
  successful without the support from the EEA and Norway Grants, and a further 60% believed that the
  support they received has contributed to a large extent to their success. Only 20% believed they
  would have gotten the EU research funding anyway.
- Among the organisations in Estonia, two respondents believed that they would not have been successful without the support from the EEA and Norway grants, while the other two believed the support from EEA and Norway grants contributed to a small extent to their success.
- On the other hand, among the Polish organisations, 46% believed they would have gotten the EU
  research funding anyway, and only 8% believed they would not have been successful if it was not for
  the support they have received from the EEA and Norway grants.
- A third of the Donor project partners believed that the support they have received from the EEA and Norway grants have helped them to secure the EU funding to a large extent or a very large extent, while 66.7% believed the support they have received have not contributed to their success at all or only to a small extent.

The extent to which the programme participants attributed their success in receiving the EU research funding to their taking part in the research project supported by EEA and Norway Grants is presented in

Project example: Atlantic Water Pathways to the Arctic: Variability and Effects on Climate and Ecosystems (PAVE).

Institute of Oceanology Polish Academy of Science and the Norwegian Institute of Marine Research are now partners in a Horizon 2020 project INTAROS (Integrated Arctic Observation System). The Polish organisation is certain that their participation in the Horizon2020 project was a direct effect of their collaboration in PAVE, as it was one of their project partners who invited them to join the steering group and work on the largest work package within INATROS.

Figure 14. Close to 60% of all Project Promoters believed that participating in the Grants-supported project was helpful, with 39% believing that they would have received EU research funding anyway.

A third of the Donor project partners believed that the support they have received from the EEA and Norway grants had helped them to secure the EU funding to a large extent or a very large extent, while 50% believed the support that they had received contributed to their success only to a small extent, and just 17% believed it had not contributed at all.

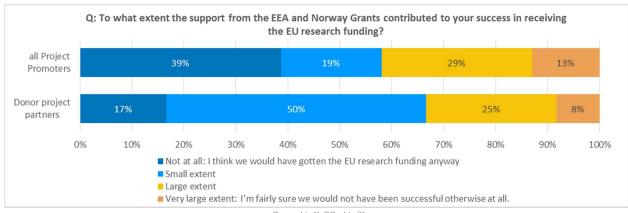


Figure 14: Attribution of EU research funding success to project participation: comparison

Dpps N=11, PPs N=31

# PROJECT EXAMPLE: Mild Oxy Combustion for Climate and Air MOCCA

The aim of the project was to develop techniques that can make the process of carbon capture more realistic. By using pure oxygen instead of air in the combustion of a carbonaceous material, the waste products are only CO2 and water. The project has developed a technique that enables a lower combustion temperature, without facing issues of nitrogenous elements. SINTEF (the Norwegian partner) was very pleased with the cooperation with the Polish partner, the University of Silesia, and has invited them to join the Horizon 2020 project "Cheers", in which SINTEF plays a central role.

The opinions of survey participants from different Beneficiary States varied. In Romania, one respondent believed they would not have been successful without the support from the EEA and Norway Grants, and three believed that the support they received has contributed to a large extent to their success. Only one believed they would have gotten the EU research funding anyway. Among the organizations in Estonia, one respondent each believed that they would not have been successful without the support from the EEA and Norway grants, and believed the support from EEA and Norway grants contributed to a small extent to their success. On the other hand, among the Polish organizations, eleven believed they would have gotten the EU research funding anyway, and only two believed they would not have been successful if it was not for the support they have received from the EEA and Norway grants.

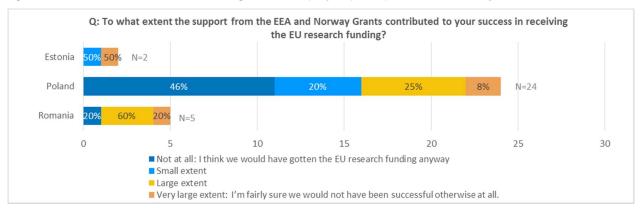


Figure 15: Attribution of EU research funding success to project participation - Beneficiary States

The surveys also revealed which type of EU research funding they have applied for. The majority of respondents either applied for the Horizon2O2O funding 15 respondents or the previous Framework Programmes for Research FP5, FP6 or FP7 14 respondents. Six respondents indicated other types of EU

**funding** EU structural funding in the area of energy efficiency or transport, INTERREG, Eurostars, and Jean Monnet programmes, while further five indicated that they applied for funding under the **Marie Skłodowska-Curie actions scheme**. Three respondents indicated that they applied for more **EEA or Norway grants** for further bilateral research cooperation.

Albeit being the most popular choice when it comes to submitting funding applications, the focus groups with Project Promoters also showed that several participants had some reservations when it came to applying to Horizon 2020 Grants. While the grants were valued for their considerable size, they were generally seen as overly bureaucratic and restrictive. In the words of one of the focus group participants:

'Technical projects supported by Horizon are usually very big, but very restricted: you need to do everything step by step in accordance with the agenda. You are not allowed to deviate even a bit. Need to deliver documents all the time, updates of the progress. That means more bureaucracy and more restrictions.'

# 3.2.3 Contribution to ERA priorities

As described in the previous section, the concept of the European Research Area ERA for the free movement of knowledge and people was first introduced in 2000. The current policy focus identifies five ERA priorities:

- 1 More Effective National Research Systems Boosting investment and promoting national competition.
- 2 Optimal Transnational Cooperation and Competition On common research agendas on grand challenges and infrastructures.
- 3 An Open Labour Market for Researchers Facilitating mobility, supporting training and ensuring attractive careers.
- 4 Gender Equality and Gender Mainstreaming in Research Encouraging gender diversity to foster science excellence and relevance.
- 5 Optimal Circulation, Access to and Transfer of Scientific Knowledge To guarantee access to and uptake of knowledge by all.

The significance of aligning policy with these priorities is that they form the policy basis for the Framework Programmes. In the current Horizon 2020 there is a focus on the Open Labour Market by insisting on an open and transparent recruitment process for researchers hired under H2020 funded projects<sup>39</sup>. Ensuring gender equality is an explicit part of H2020 evaluation criteria.

The survey carried out as a part of this assessment investigated the extent to which the programmes had contributed to implementation of the above ERA priorities.

<sup>&</sup>lt;sup>39</sup> This is Article 32 of the Model Grant Agreement. It specifies that the European Charter for Researchers and Code of Conduct for their Recruitment must be implemented.

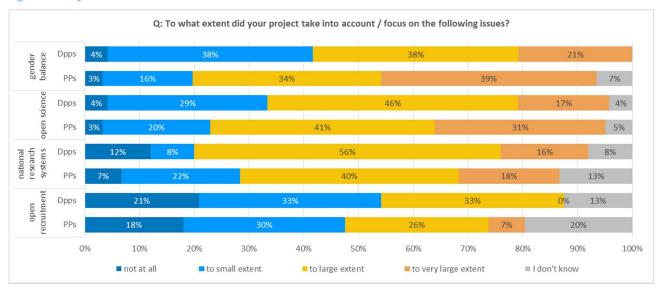


Figure 16: Projects' focus on ERA Priorities

*Dpps N=24, PPs N=61* 

As is visible from the figure above, an **open labour market for researchers** is an area that appears to have most room for improvement, among all Project Promoters and Donor project partners. Only two projects executed by organisations from Estonia, a fifth in Poland, less than half in Romania and a third of the Donor project partners have placed a large or very large focus on open recruitment, while 26% of all respondents indicated that their projects did not focus on this issue at all, or only to a small extent. In Annex 12 of the Regulation guiding the implementation of the Grants<sup>40</sup>, there is a clear statement than the European charter for Researchers and code of conduct for their Recruitments should be applied.

This must, however, be balanced by the fact that due to budgetary spend pressure there was a very short time interval between the launch of the programme and projects commencements. This hampered the organisation of a systematic open recruitment procedure across the funded projects. The important point is that open recruitment increases talent pool from which excellent researches can be selected.

In contrast, as insisted by the Research Council of Norway, **gender balance** was an area of focus; to a large extent or a very large extent for 77% of all of the Project Promoters: 3 of the organisations in Estonia, 28 of the organisations in Poland and 13 in Romania, compared to 58% of Donor project partners.

The Donor project partners and organisations from Romania were more likely than others to place emphasis in their projects on promoting effective national research systems: 72% of Donor project partners' projects and 77% of organisations from Romania took this aspect into account to a large extent or a very large extent, compared to only a quarter of respondents in Estonia and half of respondents in Poland.

It is interesting that the Project Promoters put a greater emphasis on Open Science; 72% to a large or very large extent 66% for the Donor project partners. This is a significant result as current EU policy is putting greater emphasis on Open Science<sup>41</sup>. This emphasis will be piloted in the final three-year Work Programme for Horizon 2020. It is also expected that this will be fully integrated into the next Framework Programme FP9.

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 $<sup>^{40}\</sup> https://eeagrants.org/Results-data/Documents/Legal-documents/Regulations-with-annexes/EEA-Grants-2009-2014$ 

<sup>&</sup>lt;sup>41</sup> Open Data access was made mandatory in Horizon 2020 from 1 January 2017.

#### Conclusions and recommendations

- The implementation of EEA and Norway Grants Research Programme is modelled directly on Horizon 2020 from all perspectives including a focus on ERA policy. However there are areas where there is a disjoint between the intention and the actual practice:
  - In terms of ERA policy, there are clear references to two of the priorities, Open Labour Market and Gender. While there has been a clear emphasis on Open Science among the consulted Beneficiary States, there have been issues in implementing the European Researchers Charter and Code of Conduct for their Recruitment. Future EEA and Norway Grants should reference all of the ERA priorities and insist on the implementation of the European Researchers Charter and Code of Conduct for their Recruitment. Also, particular attention should be paid to Open Science, especially as it will be piloted in the last call of Horizon 2020 and will be fully integrated into FP9.
  - With regards to evaluation of project proposals, in principal, the assessment of EEA and Norway
    Grants are modelled directly on Horizon 2020. However, this study indicates that practice across
    the Programme Operators is not consistent. As the European Commission has developed a very
    robust and well respected proposal evaluation process, the Programme Operators should
    implement in full the EC proposal assessment procedure, paying particular attention to
    experts' consensus practices.
- A key part of capacity development is building knowledge of the H2O2O grant process in the
  administration of institutions. This increases capacity for both: preparing proposals and
  implementing contracts. However, in the EEA and Norway Grants research programmes, the use of
  grant funding for hiring project assistants does not seem to be widespread. Beneficiary States
  institutions could build administrative capacity by joining organisations like EARMA, the European
  Association of Research Managers and Administrators.<sup>42</sup>
- The review of the final project reports suggests that number of subsequent applications under Horizon 2020 and other EU funded research initiatives was considerable and can be seen as an achievement in itself. Overall, from the surveyed Project Promoters and Donor project partners, 53% of their organisations were successful in securing EU funding. While this figure does not show how many applications were submitted to secure funding, the fact that half of the respondents received additional EU funding is noteworthy.
- The volume of applications to EU research funding streams such Horizon2020 application may have been somewhat limited by the H2020's structural issues and corresponding research management support insufficiencies in the beneficiaries' institutions. The Project Promoters recognise that a H2020 application was not something that could be written on top the 'day job'. Without extensive support from their institutions, managing a H2020 project on top of conducting 'daily' research and teaching duties seemed unfeasible.
- Different data sources confirm that the successful applications for EU research funding can be attributed to a certain extent to collaborating with partners on an EEA and Norway Grants funded project. Overall, Project Promotors are more prone to attributing the success to the collaboration than Donor project partners, suggesting that Project Promoters benefit more from the collaboration than Donor project partners.

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<sup>&</sup>lt;sup>42</sup> http://www.earma.org/

• The unexpected link between the Grants and EU funding related to the fact that in some Beneficiary States, EU Structural Funds supported purchasing of research equipment and creation of research facilities which were then used by the Project Promoters and Donor project partners within the Grant-supported projects. This highlights the potential synergies between the two types of research funding.

# 3.3 Quality of partnerships

Question 3A: Did the EEA and Norway Grants help research institutions build strong partnerships that enabled them access to internationally renowned research networks?

Question 3B: Have the Beneficiary States been more successful in attracting excellent research partners?

To offer findings relating to the quality of project partnerships, we investigated how many of the Grants-supported research projects partners resulted from previous collaborations between the Project Promoters and Donor project partners. We then examined the extent to which it was possible to identify a set of key characteristics for "strong partnerships" and whether the partnerships/consortia established for the Grants-supported projects continued after the grant period. We also investigated if participating in a Grants-supported project allowed project partners both Project Promoters and Donor project partners to access internationally-renowned research networks and to attract excellent research partners - and what were the enabling factors and obstacles to this.

# 3.3.1 Sustainability of partnerships

The majority of Project Promoters consulted as a part of the assessment had previous experience in international or bilateral research collaborations, several having a long collaboration history with partners in Germany, USA, Sweden and the UK, as well as other international projects most often financed by EU's Framework Programmes for research.

Many had heard of, and even personally knew, the Norwegian researchers working in their respective field, and a few already had previous experience working with them.

PROJECT EXAMPLE: Gender equality and quality of life - how gender equality can contribute to development in Europe. A study of Poland and Norway.

Institute of Sociology of the Jagiellonian University in Krakow Poland and the Center for Gender Research CGR at the University of Oslo have been cooperating on various levels since 2008. In the years 2009-2010 they jointly run a Postgraduate Programme on Gender. What is more, researchers from the Institute carried out a study visit to the CGR and discussed opportunities for a joint research project – the study visit was followed by the Norwegian researchers' visit back to Poland. It is then when the two organisations decided to apply for the Norway Grants supported research project.

To assess the sustainability of partnerships, we considered the propensity of project participants from both sides to continue the collaboration beyond the Grant period. The majority of participants from Beneficiary States were certain that the project partnership had - or would - continue after the Grant period.

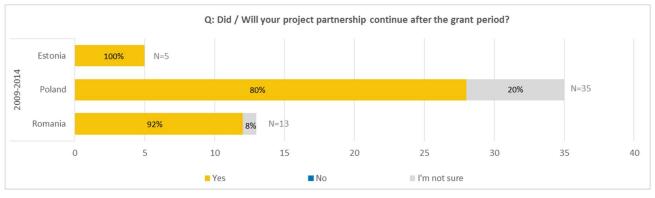


Figure 17: Continuity of project partnerships after the Grant period Project Promoters

A majority of focus group participants from all three Beneficiary States thought that the collaboration had been successful, highlighting the transparency of Norwegian partners, effective communications, as well as good relationships at personal and institutional level. They also provided anecdotal evidence of instances in which Norwegian partners went above and beyond of what would normally be expected from a project partner, going as far as using own funding to cover the project activities after the payment from the Programme Operator to the Project Promoter was delayed.

The main challenges encountered that somewhat strained the relationships were caused by budget constraints, overly ambitious targets set by Project Promoters and substantial reporting requirements which the Norwegian partners found somewhat disconcerting.

PROJECT EXAMPLE: DNA-based early detection and diagnostics of alien invasive forest pathogens and tracing of their introduction pathways into northern Europe

Estonian University of Life Sciences and Norwegian Institute of Bioeconomy research collaborated on a niche project focused on an issue of great importance to both countries: timber. The collaboration with experts in molecular biology and bioinformatics in Norway exposed Estonian researchers to state-of-the-art technologies used for metagenomic studies and for population and evolutionary studies

From the Desk Review, there appeared to be a strong appetite for future collaborations amongst Beneficiary State participants. However, only few collaborations had been formalised. Interestingly, according to the focus group participants, the reason why more partnerships had not materialised to date was mainly due to the lack of appropriate calls. Some researchers were waiting for the new EU Framework Programme FP9 to be revealed before starting to apply for funding. Others had concrete plans for the new EEA and Norway Grants funding period 2014-2021 but had to wait until it was clear which kind of project proposals could be submitted. One participant disclosed that they had already tried applying for funding as partners but without success.

## 3.3.2 Accessing research networks

We looked at the extent to which the partnerships had helped beneficiaries to access internationally renowned research networks. The survey results depicted in the figure below show that opinions varied amongst beneficiaries: 48.5% of organisations in Poland, 57.2% of organisations in Romania and 45.5% believed that the partnerships they formed during the project definitely or to some extent helped them access internationally renowned research networks. In Estonia, only 20% of respondents believed that this was the case.

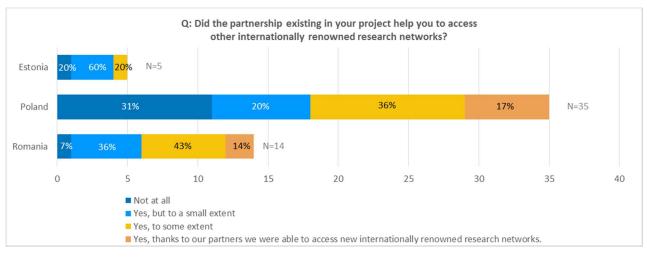


Figure 18: Continuity of project partnerships after the Grant period Project Promoters

Several surveyed Project Promoters mentioned the specific research networks COST actions, ILCCO, BEARCONNECT, Nordic Network on Disability Research, European Sociological Association, SuperSmartRack, M-ERA.NET, Community and sanction working group of ESC, European and Global Geopark Network while others explained that although thanks to their participation in the projects they have built partnerships and relations that were likely to extend into the future, those did not translate into a participation in an official research network.

What is perhaps more surprising, is that almost half of the Donor project partners thought the partnerships had to some extent helped them access internationally renowned research networks, suggesting that the partnerships resulted in **more cross-over and exchange between partners** as opposed to the expertise being channelled only from Donor partners to beneficiary Project Promoters than may have been initially expected.

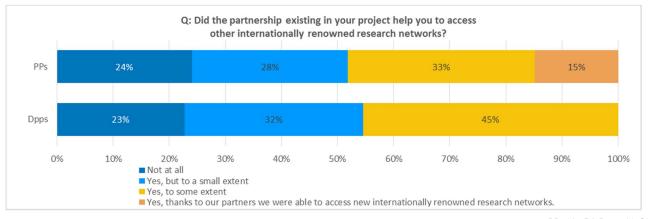


Figure 19: Continuity of project partnerships after the Grant period comparison

PPs N= 54, Dpps N=21

From the responding Donor project partners, five answered the question asking them to name the specific research networks that they were able to access thank to the partnership existing in the project. Only one respondent named a specific network M-ERA.NET, while others indicated they formed good connections and partnerships and indicated thematic areas in which they are likely to continue to work on with their established project partners.

# 3.3.3 Attracting excellent research partners

When it comes to the ability to attract excellent research partners, the programme seems to have made a **substantial contribution**, while benefitting the organisations from the Beneficiary States more than it has the organisations from Donor States.

Q: To what extent involvement in the Grants has enhanced your ability to attract excellent research partners? PPs 21% 11% 68% Dpps 29% 38% 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% ■ Not at all We found new partners but they are not excellent in research ■ Thanks to the project we attracted new excellent research partners

Figure 20: Attracting excellent research partners comparison

PPs N=56, Dpps N=21

On individual country level, a definite majority of survey respondents from Poland and Romania believed that involvement in the Grants allowed them to attract new excellent research partners.

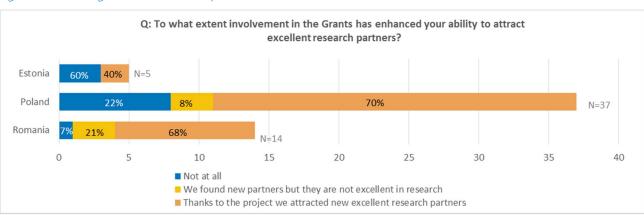


Figure 21: Attracting excellent research partners - individual countries

However, the focus groups with Project Promoters in the three case study countries highlighted that the greatest obstacle in attracting **foreign** research talent were the **substantial differences in wages** that they could offer compared to other western counties with whom they were competing. For example, participants in the focus group in Estonia shared that they knew a relevant professor in Norway who might have been "a perfect match for project cooperation", but this person was either not interested in collaboration or did not have the capacities to work on the project. For that reason they suggested forming a lobbying group at Norwegian universities promoting Norway Grants and motivating relevant people to join Estonian teams:

"In Norway you might have chosen a professor who is an ideal partner for you, but the funding we can offer is not enough and they do not want to apply. The most important is how to motivate Norwegian partners to cooperate. There could have been an administrative lobby in Norwegian university, who supports and motivates Norwegian partners more."

What is more, particularly in Poland, the focus group participants stressed that it is not only other countries they are **competing** with when trying to recruit researchers, but also domestic and foreign **industry**.

#### Conclusions and recommendations

- There appears to be a strong appetite for future collaborations amongst Project Promotors
  from all three case study countries, who were confident that the project partnership had or
  would continue after the Grant period. This can be attributed to the overall positive experience
  of the partnerships. Project Promotors praised Norwegian and Icelandic partners for their
  flexibility and transparency, and thought the partnerships had been enriching as well as
  productive.
- Research projects supported by the EEA and Norway Grants undoubtedly strengthen research
  partnerships between participating institutions. The Grants have the greatest effect in
  improving and growing partnerships that already existed on some level, even if the previous
  cooperation was not formalised.
- Most Project Promoters had been involved in some form of international collaboration previous
  to their involvement in the Grant, but only few had previously formally worked with Norwegian
  / Icelandic researchers. Based on experiences from the previous funding years, the Grants
  appear to generate sustainable partnerships which are likely to continue beyond the current
  funding period.
- The strengthening of partnerships resulting from involvement in projects supported by EEA and Norway Grants seems to have had an impact on the organisations from the Beneficiary States, as well as the Donor project partners. Almost half of the Donor project partners who took part in the survey thought the partnerships helped them to access internationally renowned research networks, suggesting that the partnerships resulted in more cross-over and exchange between partners as opposed to the expertise being channelled only from Donor partners to beneficiary Project Promoters than may have been initially expected.
- This suggests that the Beneficiary States' organisations that participate in the Grants were already active on the international scene and, most often, had established contacts with research networks - although not necessarily the same networks as their Donor States counterparts.

# 3.4 Transfer of knowledge

Question 4A: To what extent have the programmes helped transfer knowledge between DS and BS researchers?

Question 4B: To what extent have the programmes helped transfer knowledge between national research agencies/ministries of education and national research funding?

The issue of knowledge transfer has been examined from two perspectives. Firstly, we focused on the project level, assessing how, and to what extent, the Project Promoters and Donor project partners have shared know-how to support enhanced research competence. Secondly, we looked at the programme level, investigating the modes and perceived effectiveness of good-practice sharing between the Programme Operators and the Research Council of Norway RCN - the Donor Programme Partner.

# 3.4.1 Transfer of knowledge between Project Promoters and Donor project partners

The desk review of the final report of a sample of completed projects suggests that a substantial part of the project outputs involved the **sharing of knowledge** and which arguably required the exchange of know-how from both partners. For instance, the majority of projects successfully submitted joint publications authored by project participants from both BS and DS, suggesting that the projects were truly collaborative.

Project Promoters from all three case study countries confirmed that knowledge transfers between Project Promoters and Donor project partners were **significant**, although results varied from country to country. The results from the online survey with Project Promoters show that Romania had the most positive experience, with almost <sup>3</sup>/<sub>4</sub> respondents saying that the Donor partners had 'very much' shared their know-how. In Poland, a third of survey respondents felt the Donor partners had 'very much' shared their know-how with them, and slightly more than a half believed this has taken place "to some extent".

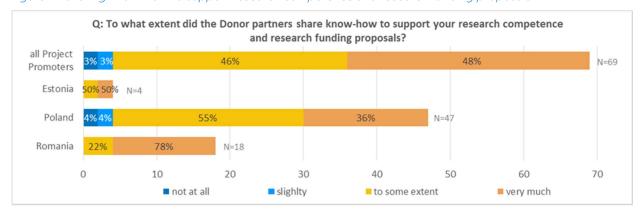


Figure 22: Sharing know-how to support research competence and research funding proposals

According to Project Promoters, Donor project partners did effectively share different types of know-how and knowledge during the collaboration. The online survey reveals that the projects were primarily successful in transferring know-how related to research excellence and academic competencies, with less perceived impact when it comes to increasing competence in the field of producing research funding proposals. When asked what type of know-how had been shared, the majority of surveyed Project Promoters mentioned that the partners shared know-how related to methodology 22 respondents, 40%, followed by content knowledge 11 respondents, 20% and research techniques 10 respondent, 18%. Only 9 respondents 16% said to have learned how to apply for funding or write proposals and reports.

Q: What type of know-how was shared? (summary analysis of responses types)

methodology
content knowledge
research techniques
how to apply for funding, write proposals and reports
technology
application of research
3

Figure 23: Type of know-how shared according to PPs

*N=55 Project Promoters* 

Focus group participants gave concrete examples of knowledge sharing from the Donor Countries. The ways of transferring knowledge were most often in the form of sharing raw data and collaborating on scientific articles or during mutual study visits. In Estonia, Project Promoters mentioned continuous trainings from Norwegian partners, sharing experience guided by Norwegian specialists, acquisition of new useful methods and high level knowledge. The Project Promoters of the projects visited during case studies also believed that they managed to develop harmonised approaches, combining knowledge and expertise of both parties and there was a valuable input from both sides.

In Poland, focus group participants agreed that the knowledge shared related predominantly to **subject-matter** and **technical issues**, as opposed to e.g. research management practices. As in Romania, some of the Project Promoters believed the knowledge transfer from Project Promoters to Donor project partners was 'actually greater', in particular with regards to sharing raw data and collaborating on scientific articles.

Also in Romania, emphasis was put on **financial management** and project **management**, as well as **scientific know-how** that was facilitated through continuous exchange of ideas as well as training and knowledge exchange of the team members.

Regarding the main factors that contributed to, or conversely, hindered knowledge sharing between project partners, the Project Promoters mentioned what follows:

#### **Limiting factors Helping factors** prior relationship at personal level differences in mentality, with Norwegian partners mostly being seen as "relaxed" and not always being honest communication among understanding towards the time and budget partners trust among partners pressures faced by Project Promoters complementary skills and resources Beneficiary States' bureaucratic requirements, which technical and infrastructural sometimes hindered project progress e.g. the need interdisciplinary of the projects, of applying price as the main criterion in Polish public allowing cross-fertilisation of expertise procurement from different areas of science • Norwegian partners recruiting project staff only after the project has been approved, as opposed to staff being already in place on the beneficiaries' side, sometimes resulting in delayed launch of the full

What is important, it was not only the Project Promoters self-reporting that, the knowledge transfer was judged as being a two-way process. As confirmed during the in-depth interviews with the sample of Donor project partners, from their perspective the partnerships were very much mutually beneficial. One example that stood out was that the partnership gave Norwegian researchers access to state of the art facilities in Romania, which had been previously funded by EU Research Infrastructure RI funding. This increased the research capacity of the Norwegian partners while also giving the Donor project partners an opportunity to learn from the Romanian team how to use the new equipment.

cooperation

# 3.4.2 Transfer of knowledge between Programme Operators and the Donor Programme Partners

The Programme Operators in the three case study countries universally **praised their cooperation with the Research Council of Norway.** In terms of knowledge transfer between the RCN and the individual POs, although the POs are aware that activities and approaches of the NRC cannot be transferred one to one to Beneficiary States, they all recognise the importance of cooperation between them and the NRC as an activity complementary to the main focus of the programme supporting individual research projects.

What received the most praise were the annual workshops that the RCN holds for all Programme Operators. The interviewed POs believed the workshops to be of great value, as they not only allow the POs to exchange knowledge vertically with and from the RCN, but also horizontally between themselves. In the words of one of the POs: "We have an opportunity to discuss different aspects of executing the program, can share our troubles and success stories, get advice from each other and learn from each other's lessons".

Example: transfer of good practice between the Research Council of Norway (RCN) and the National Centre for Research and Development in Poland (NCBiR)

After several mutual study visits and observing the activities of RCN, the NCBiR is currently working on preparing a programme of small technology transfer grants. An idea for such a programme is reportedly directly inspired by the working of the RCN.

The POs also highlighted other elements of the workshops that they found useful, in particular:

- getting to know project success stories from the perspective of Norwegian scientists, and
- exchanging examples of good practice s on how scientists present the results of researches to the public and the media.

With regards to the transfer of good practices and knowledge of administrative aspects of the programme, one of the Programme Operators questioned the administrative burden relating to what was perceived a plethora of audits and evaluations. Suggestions were made to formally align the evaluation processes of the Financial Mechanism Office, the National Focal Points, and individual Programme Operators.

In terms of collaboration between national research institutions in the Beneficiary and other Donor States institutions, what was highlighted in Estonia was the role played by the Embassy of Norway in Tallinn, with whom the Estonian Research Council stays in close touch. The Embassy seems particularly helpful in supporting the Council in outreach and promotional activities for the research projects.

Example: cooperation between the Embassy of Norway in Estonia and the Estonian Research Council

The Embassy of Norway in Estonia has been very supportive of the Estonian Research Council, facilitating the participation of the Ambassador at events organised by the Council and helped organising a study visits for journalists of *Postimees* second largest newspaper in Estonia) to Norway to interview Donor project partners.

#### Conclusions and recommendations

- Project Promoters from all three case study countries reported that knowledge transfers between Project Promoters and Donor project partners were significant. From their experience, the Donor project partners mainly transferred knowledge in the form of sharing raw data and collaborating on scientific articles or during mutual study visits, as well as continuous trainings from Norwegian partners, sharing experience guided by Norwegian specialists, acquisition of new useful methods and high level knowledge.
- Different sources showed that both Donor project partners and Project Promoters saw knowledge transfers as a two-way process. During interviews, Donor project partners were vocal about the partnerships being very much mutually beneficial: they were given access to state-of-the-art facilities in Beneficiary States, gained knowhow on how to using these and were also pushed to adapt methodologies to new contexts i.e. outside of Norway. This kind of knowledge transfer is likely to have resulted in tangible outcomes in terms of strengthening research outputs and, incidentally, funding applications.
- According to the online survey, a number of factors said to help the knowledge transfer
  between the partners, including having a prior relationship at personal level, honest
  communication among partners trust among partners as well as complementary skills and
  resources technical and infrastructural. Interestingly, the interdisciplinary of the projects also
  arguably allowed cross-fertilisation of expertise from different areas of science.
- The hindering factors seem to be mainly related to the expected differences in mentality, with Norwegian partners mostly being seen as "relaxed" and not always being understanding towards the time and budget pressures faced by Project Promoters. The Beneficiary States' bureaucracy requirements also sometimes hindered project progress.

- The transfer of knowledge between Donor Programme Partners and Programme Operators is
  deemed most efficient and successful when taking place of good practice exchanged in form
  of joint workshops. What is more, transfer of knowledge and good practices take place not
  only vertically from the Research Council of Norway to Programme Operators, but also
  horizontally between Programme Operators from different countries, which highlights the
  importance of planning and allowing for physical meetings between the organisations.
- Although not strictly related to research knowledge-transfer, cooperation with other
  organisations representing the Donor States such as Norwegian Embassies can enhance the
  visibility of the research programme and promote programme results to media and the wider
  public.

# 3.5 Good research management support

Question 5A: To what extent have the programmes helped increase awareness of good research management support?

Question 5B: To what extent have the programmes enabled the BS to build strong research management skills on an institutional level?

To answer the two questions under this theme, we firstly examined if there was any shared understanding of what constitutes 'good research management support' and the types of issues that the Project Promoters face in this aspect. We then asked university research administrators, Project Promoters and Programme Operators to confirm whether or not their institutions' specific research management skills had been enhanced as a result of their engagement with the Grants. We also tried to identify the enabling factors and limitations to individual researchers, and their institutions, building research management skills.

## 3.5.1 Awareness of good research management support

With regards to the understanding of good research management support in the Project Promoters' PPs institutions, the survey results suggest that the programmes have achieved their objective of promoting understanding of what strong research management skills are, at least to some extent: close to 80% of Project Promoters from each of the Beneficiary States believed that participation in the project has enhanced their institutions' research management capacity to some extent or very much. Only one PP in Estonia, five PPs in Poland 12% and two PPs in Romania 11%) felt their institutions have benefitted from improved research management skills only slightly, and two PPs in Poland and one PP in Romania indicated that the project has not contributed to strengthening of research management skills in their institutions at all.

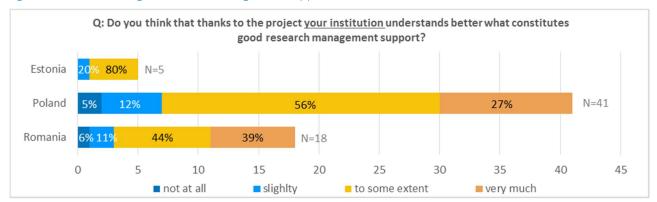


Figure 24: Understanding of research management support - institutional level

What is more, with regards to individual Project Promoters' understanding of research management support, the survey showed that more than half of all of the surveyed PPs have indicated that thanks to the EEA and Norway Grants-supported project they had **significantly better understanding** of what constitutes **good research management support** 20% in Estonia, 58.5% in Poland and 66.7% in Romania . A significant proportion also believed that thanks to their participation, their understanding has increased to some extent one in Estonia, 24 in in Poland 37% and 12 in Romania 22% . Poland was the only country in which one PP believed that their participation in the project did not help them to better understand what constitutes good research management support at all.

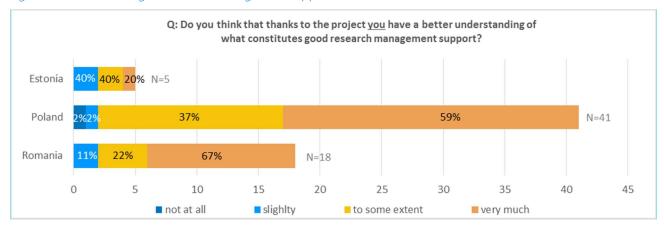


Figure 25: Understanding of research management support - individual researchers' level

The Project Promoters consulted during the case studies tended to define the features of good management support as opposed to support that fell far below their needs and expectation, with which they most often had to deal.

Speaking about research management and administration, the majority of consulted Project Promoters came to the common conclusion that one of the most significant challenges was to carry out the research work and manage administrative aspects at the same time. They felt that this type of management poses significant difficulties for scientists and researchers. It appeared to be quite time consuming and disturbing their work, because instead of working on the actual research, a lot of their time was spent on preparing financial reports.

Overall, the Project Promoters in Estonia, Poland and Romania broadly agreed on the features of what they would see as good research management support:

- existence of a dedicated project management office at their institution
- staffed by persons who spoke and read English
- research support managers with experience of international projects and the rules of financial accounting for international projects, as well as national public procurement
- research support managers aware of the terms and language preferred by Donors for a given programme, capable of proof-reading proposals, and
- ideally, their institution offering study visits and exchanges of research support staff to consult with their counterparts in partner organisations abroad.

# 3.5.2 Building research management skills

Knowing that institutional set-ups can work against smooth research management, we set out to explore if there is evidence that EEA and Norway Grants helped fund projects which developed these capacities.

Through the analysis of a sample of final project reports we found that one of the key outcomes confirming increasing research management skills in the research organisations in the Beneficiary States is the successful completion of complex research projects involving a large number of researchers in different countries. This finding can be corroborated by statements made during one of the focus groups,

when the participants stated that they were very much aware about the way the **Norwegian partners** were supported by their institutions in all the phases of the project preparation and implementation and declared they learned from this experience as well.

While there is evidence in the project reports that the knowhow of the donor project partners in terms of managing large, complex and interdisciplinary research projects substantially contributed to achieving the outcomes of many projects, there is little evidence in the reports suggesting that this knowhow has been institutionalised formally taken on board and included in the management systems by the research organisations in the Beneficiary States. What is more, almost all of the consulted Project Promoters judged the support they receive from their institutions as "woefully insufficient".

This is in strong contrast to managing the individual research projects by the Project Promoters, where in definite majority of the cases, no serious managerial problems were reported. As one PP phrased it:

"[the project was] very well managed, there were separate levels of coordination: central coordination for the whole project and local coordination for the work packages".

On the other hand, there was anecdotal evidence of **institutional learning** in terms of improving research management support over time, yet participants agreed that it is **impossible to attribute** any institutional learning in terms of research administrative support to their involvement with Norway Grants only. All of the institutions deal with multiple research support financial schemes and with time the relevant units within the institutions are reported to have improved their processes. As one participant put it:

"It's our instruction's 3rd Norway Grant. On top of that we have other research grants. They are becoming more efficient, year on year the changes are very small, but it is getting better"

In the survey, the Project Promoters were asked to elaborate on the specific research management skills that have been enhanced within their institution as a result of their engagement with the Grants. Out of 51 survey participants that answered this question, most 23 respondents) pointed to **specific management** capacities gained by the institutions, project participants and the managers, namely:

- project management,
- organisation and coordination skills,
- documenting and reporting of projects,
- coordination of research work,
- activities planning and control or financial management.

Fourteen respondents pointed out that their institutions have benefitted from being exposed to research-based international cooperation and an additional seven respondents 14% acknowledged that the ability to work in international teams has been enhanced in their institutions as a result of their participation in the project.

Five respondents gave specific examples of **institutional development** that was catalysed through the institutions' participation of the project, for instance through learning from partners how to simplify bureaucratic procedures, creating a new administrative unit responsible for grant support or improving relations between research personnel and administration.

Four respondents highlighted that participation in the project helped them to improve **communication** skills.

Overall, the consultations with the Project Promoters suggest that involving research management professionals in the projects is still a rarity, mostly due to the lack of such persons in the PP's organisations.

On the other hand, there is anecdotal evidence that as time passes, skills of this type or personnel are being developed and the professionalisation of research management has slowly started to take place:

"Our research development support office learned the Grants together with us. With the Grants, we got the money to actually pay someone to handle the admin. The money was not a lot, but it was additional money for a specific person, so this person did all their best to help us. She learnt, and we learnt with her".

#### Administrative burden

The Project Promoters repeatedly mentioned that financial reporting on research projects constitutes the most significant administrative burden for them, and that this is the area where support from a research management staff at their institutions would be the most appreciated. However, in the course of this assessment the consultations with the Norwegian Donor Project Partner and the Programme Operators in the Beneficiary States suggest that there is an element of misunderstanding about the origin of many of the administrative requirements that were judged as burdensome by the Project Promoters.

There is anecdotal evidence that in some countries the Project Promoters tend to adhere to far stricter financial reporting requirements than would be anticipated from the Donor's side. Although this might be the result of the difference in administrative mentality of the Beneficiary States, who in general prefer requesting very robust and strict evidence of any expenditure, this suggests the scope for aligning the Grants' financial reporting requirements to those required by EU research funding, such as Horizon2020 and communicating those in no unclear terms to the Project Promoters.

#### Conclusions and recommendations

- The evidence suggests that the engagement in the EEA and Norway Grants supported research projects significantly enhances management capabilities of the involved researchers, particularly from the Project Promoters' side.
- As most of the organisations involved in the Grants-supported projects are either also simultaneously involved in other externally financed research projects, or have been engaged in externally-financed research projects in the past, it is impossible to unequivocally attribute the increase in research-support capacity building to the EEA and Norway Grants programme only. However, undoubtedly, the Grants do contribute to increasing institutions' capacity in this respect and due to their relatively straightforward administrative requirements e.g. when compared to Horizon 2020 projects can be a learning ground for the institutions.
- At the same time, there is some evidence to suggest that creating an additional strand of the EEA/
  Norway Grants Research Programme focused solely on research management capacity
  building in the institutions as opposed to supporting conducting research) could bring benefits
  and strengthen not only the direct research outputs of the Beneficiary States' institutions, but also
  contribute to them successfully applying for larger research funding streams, such as
  Horizon2020.
- The European Commission provides support to develop the capacity of the National Contact Points for Horizon 2020. This is a good model for knowledge and expertise exchange, which should be replicated. What is more, The POs are highly appreciative of the annual workshops held by the Research Council of Norway RCN.

- It would be highly beneficial to building capacity in the Beneficiary States by introducing the means for greater networking and training in how to implement the Horizon 2020 and EEA and Norway Grants, for example by introducing a call within the Research Programme to develop capacity building networks modelled on the H2020 National Contact Point NCP networks.
- When there is specific budget line dedicated to hiring a research administrative assistants i.e. not
  a researcher burdened with dealing with the project-related administration, but an
  administration professional project implementation is much smoother. This suggests foreseeing
  a dedicated budget line for administrative personnel in the projects is an example of good
  practice and should be replicated throughout the programme.
- Consultations with the Norwegian Donor Project Partner and the Programme Operators in the
  Beneficiary States suggest that there is an element of misunderstanding about the origin of
  many of the administrative requirements, judged as burdensome by the Project Promoters. This
  suggests room for improvement, for example verbatim discouraging Project Promoters from
  introducing harder requirements for financial reporting than explicitly required in the programme
  and/or call documentation.



\* The EEA Grants are jointly financed by all the three donors, where contributions are based on their GDP. The estimated share of contributions equates to: Norway

# Working together for a green, competitive and inclusive Europe

The EEA (European Economic Area) and Norway Grants represent the contribution of Iceland, Liechtenstein and Norway to reducing economic and social disparities and to strengthening bilateral relations with 15 EU countries in Central and Southern Europe and the Baltics.