

# **CREATING THE ERA "BOTTOM-UP"**

**Cross-border Research Cooperation in Europe - Contributions from National Research Organisations** 

June 2009

#### **EXECUTIVE SUMMARY**

In January 2009 a High Level Workshop between the Research Ministers of several European countries and the Heads of European Research Councils (EUROHORCs) was organised in Lisbon. The workshop focused on 'Implementing the ERA: joining Forces at National Level'. As a result of this workshop Ministers asked EUROHORCs to explore the current status of the European Grants Union by surveying existing cross-border collaborations and joint projects. EUROHORCs subsequently mandated the European Science Foundation (ESF) to conduct this survey.

The objective of this survey is to throw light on the current level of direct cooperation between research organisations (Research Funding Organisations and Research Performing Organisations) and researchers of different countries within the European Research Area (ERA). It seeks to analyse in which fields cross-border cooperation exists, works particularly well and where obstacles persist. This report draws on the information of the 32 organisations that submitted their data.

#### Main Findings of the Survey

<u>Budget:</u> The budgets and number of staff of the EUROHORCs organisations vary significantly. The differences between organisations in Northern, Western and Southern Europe, as compared to those in Eastern Europe, are considerable. However, the highest relative budget on European collaboration is spent by five organisations with relatively small total budgets.

<u>Cross-border collaborations:</u> The organisations, notably in France, Germany, Italy, the Nordic countries and the UK, have a significant number of cooperation agreements and joint programmes with partners in Europe, and beyond Europe especially with Asian organisations. Multilateral collaborations seem to work especially well in the framework of the multi-national organisation ESF (80 member organisations in 30 countries), or multi-national regional alliances like NordForsk (Denmark, Finland, Iceland, Norway and Sweden) and the D-A-CH countries (Austria, Germany and Switzerland). The implementation of the EUROHORCs' Money Follows Researcher' agreement, which allows researchers to transfer their funds to another European country if they move, still remains work in progress.

<u>Cross-border funding</u>: The EUROHORCs organisations across Europe seem to be rather open in letting funds flow across borders when these are linked to joint programmes. There is even readiness to invest in common pots for funding without *juste retour*. The trust between organisations seems to be highest when the programmes are coordinated by a reliable 'handling agent' such as ESF, the D-A-CH network or NordForsk. Hesitance persists to allow cross-border funding for individual research projects outside of bi- or multilateral schemes of the research organisations.

<u>Procedural issues:</u> The organisations have developed considerable experience in the joint handling of programmes at the levels of calls for proposals, peer review and decision-making. A certain prevalence of bilateral collaborations still exists, but multi-lateral endeavours become increasingly relevant. In this respect the so-called 'Lead Agency' procedure between EUROHORCs organisations will become more and more important. The 'Lead Agency' procedure stipulates that cross-border research projects between several research organisations will be peer reviewed and administered by one organisation (Lead Agency), but the projects will be funded separately.

<u>Cross-border cooperation between individual researchers:</u> The knowledge of the organisations about ongoing international collaborations between individual researchers outside joint programmes and about the resulting publications is rather limited. Therefore this data has to be appreciated with reservations. However, the focus of national researchers still seems to be on collaborations within Europe. The preferred collaboration countries for international

joint publications are more or less the same as the favoured partner countries of cooperation agreements between the organisations (France, Germany and the United Kingdom).

<u>Future trends:</u> The EUROHORCs organisations in Europe are faced with strong demands by their national research communities to further extend their European and international collaborations, while having to cope with legal and budgetary limitations as well as with the reservations on spending national tax-payers money abroad. This Survey identified interest in multilateral co-operation in Europe and to some extent beyond, in flexibly responding to the needs of the scientific communities for joint bottom up programmes, in approaches to jointly define relevant research topics, and in joint procedures.

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#### I. Background and Objectives of the Survey

In January 2009 a High Level Workshop between the Research Ministers of several European countries and the Heads of European Research Councils (EUROHORCs) was organised in Lisbon. The workshop focused on 'Implementing the ERA: joining Forces at National Level'. As a result of this workshop Ministers asked EUROHORCs to explore the current status of the European Grants Union by surveying existing cross-border collaborations and joint projects. EUROHORCs subsequently mandated the European Science Foundation (ESF) to conduct this survey. ESF assigned the task to Dr. Beate Scholz, Scholz – consulting training coaching in Germany.

The objective of this survey is to throw light on the current level of direct cooperation between research organisations (Research Funding Organisations and Research Performing Organisations) and researchers of different countries within the European Research Area (ERA). It seeks to analyse in which fields cross-border cooperation exists, works particularly well and where obstacles persist. Certainly, the result of this exercise cannot yield an accurate picture of European cross-border collaboration, but will rather be a "best guess". The survey was conducted in the course of two months using an online questionnaire, which was addressed to all EUROHORCs member organisations and national research organisations that have an observer status in the EUROHORCs General Assembly. In total 32 organisations submitted the data.

#### 1. What is EUROHORCs?

#### Mission and Objectives

EUROHORCs is the informal association of the Heads of European Research Funding and Research Performing Organisations (Annex 1). The acronym originates from «European Heads of Research Councils». Since its establishment in 1992, EUROHORCs has become a key player in the field of European research policy by promoting and enhancing inter-council cooperation and by contributing actively to the development of the European Research Area. By creating an informal platform for discussion, producing policy statements and initiating joint activities, EUROHORCs seeks to strengthen the European Research Area.

EUROHORCs is an independent association dedicated to promoting excellence in all branches of research. EUROHORCs members seek:

- To represent the interests of research nationally and internationally
- To give recognition to excellence and to support frontier research of the highest quality
- To create a platform for discussion, joint activities and the promotion of international research links and collaborations
- To provide independent professional scientific expertise and research policy advice in Europe.

EUROHORCs recognises that research is increasingly collaborative across national borders and that, in many fields, there is a need to combine efforts and reach critical mass. One main objective is to develop and strengthen the European Research Area so that researchers, knowledge and technologies can move freely around Europe.

To fulfil these aims, EUROHORCs is looking into issues such as research infrastructure needs, open access to research results, career development and mobility, cooperation in peer review, harmonisation of funding procedures, and facilitation of transnational collaborative research.

# Membership

EUROHORCs membership is by invitation, based on an agreed membership policy. The basis for membership is institutional; the representation of the Member Organisations is limited to the level of chief executives (Heads of Research Councils).

EUROHORCs' membership is proposed to major publicly funded national research organisations in Europe which are primarily Research Councils and Research Performing Organisations. Academies may be members of EUROHORCs if they have a major function in research funding and/or performing. Universities and University Organisations cannot become members.

Organisations that may potentially be invited for membership in EUROHORCs must demonstrate their independence in scientific decision-making, assessment processes, and scientific peer review through panels/bodies consisting of scientists, generally mandated to make sovereign decisions that cannot or have in practice never been reversed by outside (nonscientific) authorities. The aim of EUROHORCs is to be an umbrella organisation for Research Councils and Research Performing Organisations in Europe and to speak for all research activities. For this reason, the admission of new members aims at a well-balanced membership structure.

#### 2. Methodology & Facts of the Survey

# Methodology

The Survey was conducted with the help of an online questionnaire, which was accessible to the EUROHORCs organisations from April 9 to May 10, 2009. In a total, 32 organisations completed the questionnaire.

The questionnaire (Annex 2) contained six sub-sections:

- 1. Basic information on the organisation (Research Funding or Performing Organisation), its overall budget and the relative budget spent on international cooperation.
- 2. Cross-border collaborations with other organisations, in the form of official cooperation agreements and jointly conducted programmes.
- 3. Cross-border funding. The extent to which the organisations have the legal means for funding of cross-border collaborations and/or for common pots for funding without juste retour. Whether researchers leaving the respective country can take their funding with them to another country, and/or whether the funds of the research organisation are available for foreign incoming researchers.
- 4. Procedural issues. Whether the participating research organisations issue joint calls for proposals and whether they apply joint peer review and decision-making procedures.
- 5. Cross-border cooperation by researchers. To which extent research projects funded by or conducted within the respective research organisation encompass cross-border activities and lead to international publications.
- 6. Future trends. Whether there is demand for more cross-border collaborations by the respective national research community. Whether there (legal) obstacles for cross-border collaboration persist, and whether the organisations have plans for further cooperation agreements and initiatives to develop the European Research Area.

The questionnaire encompassed quantitative and qualitative questions. The quantitative data are summarised in figures and tables. The answers to qualitative questions have been categorised and are occasionally quoted in order to illustrate specific trends.

The Survey seeks to analyse in which fields cross-border cooperation exists, works particularly well and where obstacles persist. Given the very limited timeframe for this exercise as well as the primarily quantitative approach of the analysis, the result of this exercise cannot yield an accurate picture of the European research landscape, but rather is a "best guess". Consequently, the analysis of the Survey results will raise a number of additional questions, the answers of which fall outside of the objective of the present Survey.

#### Facts

The 32<sup>1</sup> organisations which participated in the Survey, represent 22<sup>2</sup> countries out of the 24 countries in which EUROHORCs organisations reside. Thus, the geographic coverage of member countries is close to complete. It has to be noted that this Survey describes activities of the participating organisations rather than the activities of any particular country.

<sup>1</sup> Exceptional is the case of Denmark from where three questionnaires were received: The Danish organisation regularly taking its seat in EUROHORCs is the Danish Council for Independent Research (DFF) which itself participated in the survey. The two additional Danish questionnaires were submitted by the 1) Danish National Research Foundation, which itself is not a member of EUROHORCS, but indicated to have been asked by the Danish Agency for Science, Technology and Innovation to contribute and 2) the Danish Council for Strategic Research. In order to make use of the full set of information, we have chosen to include the two questionnaires in the analysis, but will highlight cases in which the two additional Danish questionnaires become relevant for specific conclusions. Particular is also the case of the Foundation for Polish Science (FNP) which is not a full member of EUROHORCs, but has a regular observer status.

<sup>&</sup>lt;sup>2</sup> Including Poland, organisations from 23 countries participated in the survey.

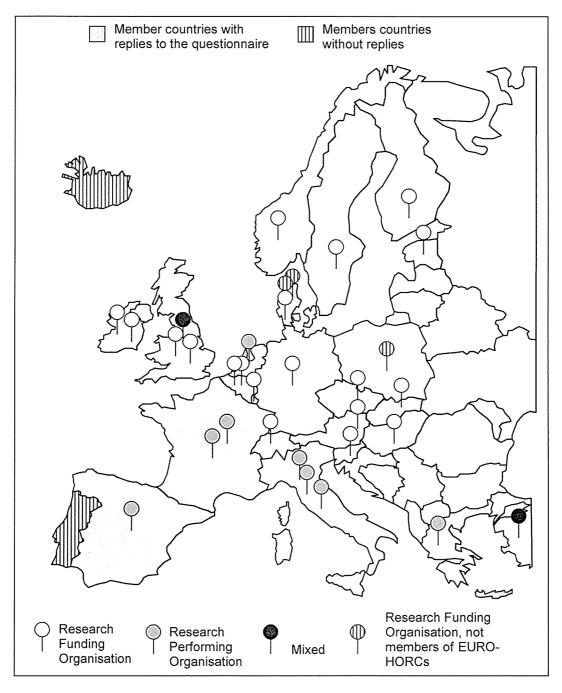
# II. Main Findings

# 1. Basic Information on Organisations Participating in the Survey

#### Type of Organisation

From the participating organisations, 22<sup>3</sup> are research funders, 8 research performers and 2 are mixed Research Funding and Performing Organisations (see Annex 1). Out of the non-respondents, 8 are Research Performing and 9 are Research Funding or Mixed Organisations. Hence, the questionnaire appeared to be as suitable for both types of organisations.

Figure 1: Participating organisations, geographic distribution and type of organisation



<sup>&</sup>lt;sup>3</sup> Including the Danish National Research Foundation and the Danish Council for Strategic Research.

#### **Budget**

EUROHORCs organisations' budgets vary considerably. From the top five organisations three are Research Performing Organisations (the French National Center for Scientific Research, the Spanish National Research Council and the Italian National Research Council Italy) and two are Research Funding Organisations (the German Research Foundation and the British Engineering and Physical Sciences Research Council). The organisations with the smallest budgets represent Central and Eastern European countries (the Slovak Research and Development Agency, the Hungarian Scientific Research Fund, the Foundation for Polish Science and the Estonian Science Foundation), with the exception of the National Research Fund, Luxembourg.

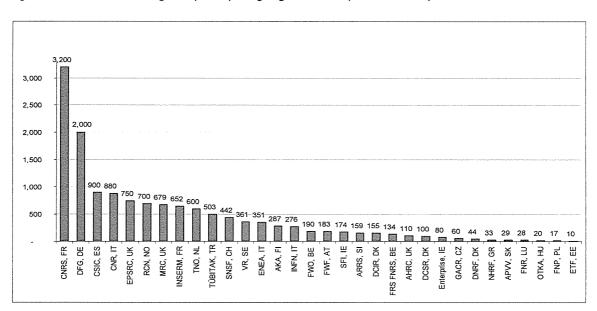


Figure 2: Total annual budget of participating organisations (Million EURO)

In order to understand the variations in research budgets it is important to take into account the respective countries' Gross Domestic Product (GDP). A comparison between figures 2 and 3 shows the strong correlation between the respective organisations' budget and the domestic GDP.

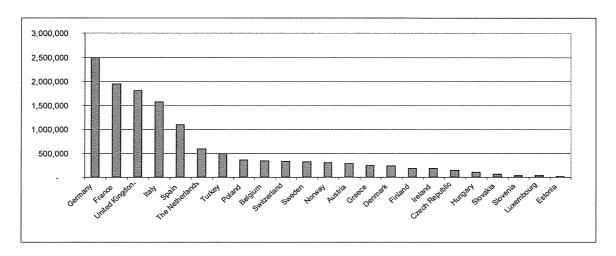


Figure 3: Gross Domestic Product, nominal, 2008 (Million EURO), Source: EUROSTAT

It appears to be difficult for several of the EUROHORCs organisations to identify the share of their budget for international cooperation. Only twenty organisations have available data which they wished to provide. Interestingly, five organisations with low overall budgets have relatively high budget shares available for European collaborative activities (the Foundation for Polish Science, the Greek National Hellenic Research Foundation, the National Research Fund of Luxembourg, the Estonian Science Foundation and the Slovak Research and Development Agency).

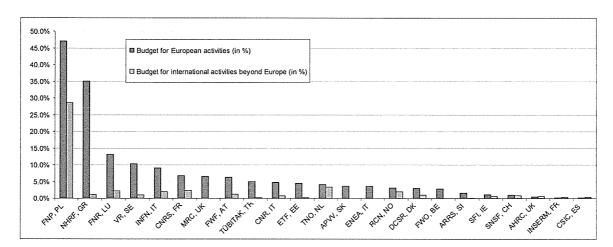


Figure 4: Budget share for European and international activities (beyond Europe)

#### 2. Cross-border Collaborations between Research Organisations

#### Formal cooperation agreements with organisations in other European countries

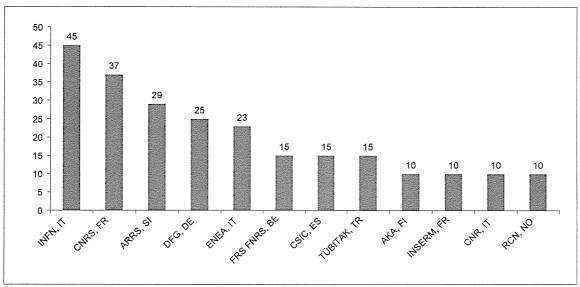
Formal agreements on cross-border research cooperation in Europe seem to be frequent. 26<sup>4</sup> out of the 32 organisations (81%) have signed such agreements, whereas 6<sup>5</sup> organisations have not. About half the number of signatories of agreements (14) maintain less than ten agreements, at least twelve are engaged in more than 10. The Italian National Institute for Nuclear Physics is in the lead with 45 agreements, followed by the French National Center for Scientific Research with 37 and the Slovenian Research Agency with 29.

Looking at the geographic spread and the types of organisations which have been especially active in signing cooperation agreements, no obvious trend can be identified: we find both Funding and Performing Organisations from all parts of Europe.

<sup>4</sup> Including the Danish National Research Foundation (not member of EUROHORCs);

<sup>&</sup>lt;sup>5</sup> Including the Danish Council for Strategic Research (not member of EUROHORCs), Danish Council for Independent Research, Enterprise Ireland, Slovak Research and Development Agency, Engineering and Physical Sciences Research Council, UK, Medical Research Council, UK.

Figure 5: Research organisations having ten or more cooperation agreements with other countries in Europe



Next we analysed in which countries the organisations reside that are the most frequently mentioned partners of collaborative agreements. France (specifically the National Center for Scientific Research) and Germany (notably the German Research Foundation) rank at the top of the list. Remarkable is the relatively strong position of smaller countries such as Austria and Belgium (4 agreements each), as well as Czech Republic (4 agreements) followed by Hungary and Poland (3 agreements each).

Table 1: Top five partner countries and organisations of cooperation agreements in Europe

Partner countries	;
Country	No. of agreements
Germany	19
France	18
Italy	6
United Kingdom	6
Austria	4
Belgium	4
Czech Republic	4
Spain	4
Hungary	3
Poland	3

Partner organisations	
Research organisation	No. of agreements
German Research Foundation	9
National Center for Scientific Research, France	7
National Research Council, Italy	5
Max Planck Society, Germany	4
Academy of Sciences of the Czech Republic	3
French National Research Agency	3
Foundation for Polish Science	3

#### The EUROHORCs' 'Money Follows Researcher' Agreement

The EUROHORCs' 'Money Follows Researcher' (MFR) agreement "shall authorise researchers moving to the country of another organisation participating in this scheme<sup>6</sup> to use the remainder of a current research grant for the continuation of their research abroad".

<sup>&</sup>lt;sup>6</sup> I.e. the Money Follows Researcher scheme, cf. EUROHORCs Letter of Intent: Transfer of Grants, Article 2, <a href="http://www.eurohorcs.org/SiteCollectionDocuments/EUROHORCs">http://www.eurohorcs.org/SiteCollectionDocuments/EUROHORCs</a> MFR Letter of Intent Revised 081105.pdf.

About two thirds of the organisations (20) have signed the agreement and 12<sup>7</sup> have not. Of these 20 signatory organisations eight have not implemented the agreement yet or have not received requests for implementation.

Particularly interesting is the set of statements regarding the implementation of the agreement: 16 organisations chose to reply to the question 'If yes, have you implemented it and how?'. Two statements throw light on potential difficulties associated with the implementation of the agreement:

- The Slovenian Research Agency (SRA) raises an issue which might be equally relevant to other organisations: "All bilateral cooperation is formally based on agreements between governments of two states and further implemented by the SRA."
- The French National Center for Scientific Research (CNRS) faces challenges in another respect: "Received several researchers from DFG. CNRS, being an RPO, does not fund individual researchers, but provides support to laboratories. Individual researchers cannot take money or equipment from a lab when they move, even if it is to another CNRS laboratory." Other research performers may face the same problem, as almost all organisations which have implemented the agreement are Research Funding Organisations.8 They may be able to receive incoming researchers with their grants from Research Funding Organisations, but are not in the position to let their researchers transfer institutional funds to another institution.

Not surprisingly, the MFR agreement seems to be especially well implemented in those countries where it was developed and tried out in a pilot phase, the so called D-A-CH countries (Germany, Austria and Switzerland)9. But also other countries have meanwhile developed their policies in implementing the MFR agreement:

- Both the Flemish Fund for Scientific Research and the National Research Fund of Luxembourg use the agreement to enable mobility of early career researchers (doctoral candidates and/or postdocs).
- The Danish Council for Independent Research, the Swedish Research Council and the British Medical Research Council (MRC) consider applications for transfers of grants on a pragmatic case by case basis. In addition the MRC points out: "Usually the mechanism is that the universities involved in the transfer are given permission to transfer money as appropriate."

All in all a preliminary conclusion can be drawn that the implementation of the MFR agreement seems to need further exercise and exchange of information and practice between the organisations. The cooperation between the D-A-CH countries may be seen as a first hint to the growing importance of regional alliances.

#### Formal Cooperation Agreements with Organisations beyond Europe

EUROHORCs and ESF highlight in their joint 'Vision on a Globally Competitive ERA and their Road Map for Actions to Help Build It 10 the ambition to connect "European research to the world". 11 It is therefore important to analyse the extent to which collaborations between member organisations and research organisations beyond Europe have been set up, at least in the framework of formal cooperation agreements.

<sup>11</sup> Ibid., p. 5.

12

<sup>&</sup>lt;sup>7</sup> 12 organisations including the Danish Council for Strategic Research and the Danish National Research Foundation, 10 organisations without these two Non-EUROHORCs organisations.

<sup>&</sup>lt;sup>8</sup> With the exception of the British Medical Research Council being a mixed organisation.

<sup>&</sup>lt;sup>9</sup> The Austrian Science Fund, the Swiss National Science Foundation and the German Research Foundation have established a permanent cooperative association named D-A-CH.

10 Cf. http://www.eurohorcs.org/SiteCollectionDocuments/EUROHORCs ESF ERA RoadMap.pdf.

The same number of organisations, 26, have set up such agreements with Non-European organisations as with other European ones, whereas 6<sup>12</sup> organisations have not (Table 2). Largely the same organisations that have signed cooperation agreements beyond Europe also maintain cooperation agreements with partners in Europe. However, the German Research Foundation which is fourth in European agreements is first in agreements with non-European organisations (Table 1). Notably strong is the position of organisations from Southern European countries, Turkey and from rather small countries like Finland and Belgium (Table 2).

Table 2: Research organisations having ten or more cooperation agreements with other countries <u>beyond</u> Europe

Country	Organisation	No. of agreements
Germany	German Research Foundation	60
France	National Center for Scientific Research	50
Italy	National Institute of Nuclear Physics	40
Finland	Academy of Finland	29
Spain	Spanish National Research Council	29
France	National Institute of Health and Medical Research	19
Belgium	Fund for Scientific Research	18
Italy	National Research Council	13
Belgium	National Fund for Scientific Research	12
Turkey	Scientific and Technological Research Council of Turkey	10

The countries and organisations with which EUROHORCs members establish agreements, point to the concept of the upcoming 'Asian Century' (Table 3): China has clearly outdone the United States, in cooperation agreements between research organisations. Except for the US and Russia, which was considered as "beyond Europe" by Survey participants, the remaining of the top five countries are all Asian states: Japan, India, South Korea and Taiwan. The US National Science Foundation has even been overtaken by the National Natural Science Foundation of China (9 compared to 10 agreements).

Table 3: Top five partner countries and organisations of cooperation agreements beyond Europe

ements
23
19
10
9
9
9
6

Country	Organisation	No. of agreements
	National Natural Science Foundation	
China	of China	10
USA	National Science Foundation	9
China	Chinese Academy of Sciences	8
	Japan Society for the Promotion of	
Japan	Science	6
	Russian Foundation for Basic Re-	
Russia	search	4

<sup>&</sup>lt;sup>12</sup> Including the Danish Council for Strategic Research (not member of EUROHORCs), Danish Council for Independent Research, Enterprise Ireland, National Research Fund of Luxembourg, Slovak Research and Development Agency, Netherlands Organisation for Applied Scientific Research.

#### Participation in Joint Programmes with other Organisations in Europe

The vast majority of organisations participating in this Survey are prepared to actively collaborate beyond the framework of schemes offered by the European Commission. Once more, as many as 26<sup>13</sup> participating organisations indicated their involvement in joint programmes with other research organisations in Europe, whereas again 6<sup>14</sup> organisations indicate that they have not been engaged.

In order to find out more about the type of cooperation in joint programmes the organisations were asked for specification. Figure 5 indicates the number of replies to each of the five answer categories. It turns out that the focus is on the cooperation within jointly funded (21 replies) and jointly performed research programmes (20 replies).

The exchange of personnel between the organisations, however, seems to be important as well: 13 organisations cooperate in this field. Only 6 organisations state that they are involved in programmes which are geared to support the career advancement of (early stage) researchers.

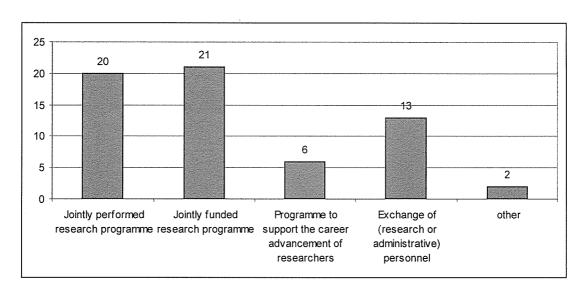


Figure 5: Type of cooperation between organisations in Europe

The organisations were asked to name the most relevant partner countries and organisations with whom they cooperate in joint programmes. Again France, Germany, the United Kingdom and Italy are the most frequently mentioned countries (Table 4) The NordForsk appears to efficiently support joint programmes in the Nordic countries.

<sup>13</sup> Including the Danish National Research Foundation and the Danish Council for Strategic Research (not members of EUROHORCs).

<sup>&</sup>lt;sup>14</sup> Including the Fund for scientific Research (Belgium), National Hellenic Research Foundation (Greece), the Hungarian Scientific Research Fund, Enterprise Ireland, Science Foundation Ireland and the National Research Fund (Luxembourg).

Table 4: Top five partner countries of cooperation in joint programmes

Country	No. of joint pro- grammes
France	11
Germany	9
Nordic Countries	6
United Kingdom	5
Italy	4

The organisations, which have a minimum of three different international partners for cooperation in joint programmes, are listed in Table 5, where the Nordic countries (Denmark, Finland, Iceland, Norway and Sweden) are aggregated to one entity in the context of the multi-national Nordic organisation NordForsk<sup>15</sup>.

Table 5: Preferred collaboration partners in joint programmes (named by three or more organisations)

Organisation	No. of joint pro- grammes
National Center for Scientific	
Research, France	4
German Research Foundation	4
Max Planck Society, Germany	3
NordForsk, Nordic Countries	3

In total 26 organisations answered the question whether their engagement in joint programmes mainly encompasses bilateral or multilateral collaborations. Fourteen of them focussed on bilateral collaborations, whereas 12 organisations favoured multilateral programmes.

14<sup>16</sup> of the responding 32 organisations shared their views on good practice in multilateral collaborations:

- Seven organisations viewed the European Science Foundations' EUROCORES Scheme as the leading example of good practice. The EUROCORES Scheme runs European-wide joint research programmes, the themes of which are proposed by the scientific community, and which are funded by the national organisations and coordinated by the ESF. Currently, 27 research programmes are funded at a total level of about 120 Million EURO, involving 1000 researchers and 66 funding organisations.
- Four organisations from the Nordic countries highlight the collaborations in the framework of NordForsk with special emphasis on its Nordic Centres of Excellence Programme, which aims at bringing together top quality research groups in order to form internationally visible centres or networks.

In summary the EUROHORCs organisations are considerably engaged in cooperation agreements and joint programmes with partners in Europe (with a prevalence of France, Germany, Italy, the Nordic countries and the United Kingdom) and beyond (with a growing emphasis on Asia). Multilateral collaborations seem to work especially well in the framework of multi-national organisations like the ESF, the D-A-CH partnership and NordForsk.

<sup>16</sup> Including the Danish Council for Strategic Research.

15

<sup>&</sup>lt;sup>15</sup> NordForsk is a Nordic Research Board. It operates under the Nordic Council of Ministers for Research and Education and supports research and research training.

#### 3. Cross-border Funding

The willingness to allow for national taxpayers' money to cross borders can be seen as a strong indicator for the development of the ERA or a 'European Grant Union' 17. It was therefore important to ask the organisations if they are allowed to invest in research outside their national boundaries in the form of contributing to common pots of funds without *juste retour*. allowing for the portability of grants and opening their schemes to researchers based abroad.

#### Legal Mandate to Fund Research Outside the Country

By now a clear majority of 18<sup>18</sup> out of the 32 (56%) participating organisations have the right to fund research outside the country, whereas 14 (43%) are not entitled to do so. Of these organisations which are legally in the position to enable cross-border funding, 13<sup>19</sup> stated that their cross-border collaborations in joint programmes also include cross-border funding. For 8 organisations cross-border funding is not possible in their cross-border programmes.

#### Common Pots for Funding

The readiness of research organisations to invest in a common pot for funding is clearly a rather radical step towards a joint 'Grant Union'. It is therefore remarkable that a majority of 14<sup>20</sup> organisations are involved in joint schemes which operate with a common pot for funding without juste retour. 12 organisations cooperate in joint programmes without common pot fundina.

Next the organisations were asked to provide examples of good practice for common pot funding. The most frequently mentioned programmes (4 times each) are:

- The European Young Investigator (EURYI) Award Programme had been launched by the EUROHORCs in cooperation with the ESF in 2003. Four calls for proposals were published on an annual basis until 2007. The Awards covered a period of 5 years. The EU-RYI programme was terminated and the concept was taken up by the European Research Council in its Starting Grant scheme.
- The Nordic Centres of Excellence Programme which is offered by the multinational organisation NordForsk.

#### Portability of Grants Outside the 'Money Follows Researcher' Agreement

As has been shown in Chapter 2 the implementation of the MFR agreement is still largely work in progress. Outside this agreement the opportunities for researchers to transfer grants to another country are even more limited. Only 8 organisations allow their grantees to transfer funds abroad, mainly on a case by case basis, 19 organisations do not offer this possibility and 5 organisations provided no answer to this question.

 <sup>17</sup> Cf. ESF/EUROHORCs ERA Roadmap, p. 3.
 18 Including the Danish Non-EUROHORCs organisations.

<sup>&</sup>lt;sup>19</sup> Including the Danish Non-EUROHORCs organisations.

<sup>&</sup>lt;sup>20</sup> Excluding the Danish National Research Foundation.

#### Openness of National Programmes to Researchers Based Abroad

Out of the 32 organisations a majority of 17<sup>21</sup> has opened their national programmes to researchers based abroad. 12 organisations limit their funding to national applicants and 3<sup>22</sup> organisations provided no answer. Regarding the different types of organisations no major differences can be observed. Some of the Research Performing Organisations operate units abroad and by this means also fund researchers in the countries where these units are based. (e.g. the French National Center for Scientific Research and the French National Institute of Health and Medical Research).

Overall we can identify three categories to classify the answers by research organisations why they opened their schemes to researchers outside the country:

- For several organisations the main motivation is
  - to support the qualification of young researchers (mentioned by the Belgian Flemish Fund for Scientific Research, the Italian National Agency for New Technologies, Energy and the Environment, the Spanish National Research Council and the Swedish Research Council) or
  - to (re-)attract researchers to the respective country (stated by the Belgian Fund for Scientific Research of the French Speaking Community, the Foundation for Polish Science and the Swiss National Science Foundation). The Academy of Finland offers a visiting researchers programme which allows its fellows to spend at least half of the funding period abroad.
- The Danish Council for Independent Research (DFF) and the British Medical Research Council (MRC) are especially flexible in handling applications from outside the country.
  - The DFF points out that "According to Danish law, funding schemes are open to researchers based abroad (and regardless of their nationality), provided that their research is judged to be of benefit to Danish research."
  - The MRC states: "Overseas researchers can be co-applicants on MRC grants. They can request costs from the grant, which we provide to the UK university who then use their own methods to transmit the funds to the co-applicant. Overseas funding is approved on a case by case basis by an MRC Programme Manager."
- Other research organisations emphasise to have opened their programmes to the participation of foreign researchers, but require that the research is carried out in the respective countries. This is the case for Science Foundation Ireland, the Hungarian Scientific Research Fund and the Scientific and Technological Research Council of Turkey. The Czech Science Foundations and the Research Council of Norway also perceive limitations, but have not further specified them.

EUROHORCs organisations across Europe seem to be rather open in letting funds flow across borders when these are linked to joint programmes. Even the readiness to invest in common pots for funding in which no *juste retour* is guaranteed is considerable. The trust between organisations seems to be highest in the case of jointly run funded programmes and when they are managed by a reliable 'handling agent' such as the multinational European Science Foundation or NordForsk. However, we can observe a remaining hesitance to allow for cross-border funding when this is linked to individual research projects outside specific bior multilateral schemes which are geared to cross-border research cooperation.

<sup>&</sup>lt;sup>21</sup> Including the Danish Council for Strategic Research.

<sup>&</sup>lt;sup>22</sup> Including the Danish National Research Foundation.

#### 4. Procedural Issues

Financial cooperation may be seen as a strong indicator of mutual trust between research organisations in Europe. A high level of confidence is also required when essential procedural issues of research management are concerned, like calls for proposals, peer review and decision-making procedures. Hence, it is important to analyse to which extent the participating organisations are prepared to engage in joint procedures and which kind of experience they have gained.

# Joint Calls for Proposals

A vast majority of 24<sup>23</sup> of the 32 organisations (78%) indicates to issue joint calls for proposals beyond the framework of programmes offered by the European Commission, 7 organisations (12%) have not (yet) done so. It is interesting to see that not only Research Funding Organisations are involved in joint calls for proposals, but also some research performers such as the French National Institute of Health and Medical Research, the Italian National Agency for New Technologies, Energy and the Environment, the Spanish National Research Council or the British Medical Research Council, which is a mixed Funding and Performing Organisation.

Analysing the 24 participating organisations' replies regarding best practice examples<sup>24</sup> for joint calls for proposals we find:

- The majority (16 organisations) names bilateral initiatives which are not limited to collaborations within the European Research Area, but involve organisations from all over the world with whom the participating organisations maintain cooperation agreements. In this respect the research organisations obviously do not see major differences between partners within or outside Europe. The answers also underline that the cooperation agreements are actually implemented or have even been consolidated ex post in order to legitimise already existing collaborations.
- Regarding joint calls for proposals the most frequently mentioned multilateral scheme (7 replies) is the ESF's EUROCORES programme, followed by the Nordic Centres of Excellence Programme (3 replies) and joint calls in the D-A-CH framework (1 reply). This finding underlines again the high relevance of multinational organisations or alliances as facilitators of cross-border research cooperation in Europe.

#### Joint Peer Review

Looking at joint peer review procedures the results are very similar: 23<sup>25</sup> organisations (72%) have gained experience in this respect, 9 (18%) have not. Again 4 Research Performing or Mixed Organisations stated they have been involved in joint peer reviews<sup>26</sup>. In total 22 organisations reported examples of good practice<sup>27</sup>:

Not surprisingly, the majority of organisations (17) have gained positive experience in bilateral collaborations. Some organisations can build on long-standing practices like the

<sup>&</sup>lt;sup>23</sup> Including the Danish National Research Foundation and the Danish Council for Strategic Research.

<sup>&</sup>lt;sup>24</sup> Several nominations were allowed.

<sup>&</sup>lt;sup>25</sup> Including the Danish National Research Foundation and the Danish Council for Strategic Research.

<sup>&</sup>lt;sup>26</sup> INSERM, France, the Italian National Agency for New Technologies, Energy and the Environment, the Spanish CSIC and the British MRC.
<sup>27</sup> Several answers were allowed.

German Research Foundation which has used joint peer review in the context of 57 International Research Training Groups. This programme is geared to support bilateral structured programmes for doctoral education.

- Some organisations once more named the two non-European partner organisations which are the preferred partners in cooperation agreements beyond Europe: the Chinese National Natural Science Foundation and the US National Science Foundation (each mentioned by three organisations).
- As before the EUROCORES programme is the most frequently named multilateral programme (4 replies), followed by the D-A-CH framework (2 replies) and the Nordic Centres of Excellence programme (1 reply).

#### Joint Decision-making

Finally, the organisations were asked to share their experience regarding joint decision-making. 24<sup>28</sup> of them answered to the corresponding set of questions, whereas 8 provided no reply.

Neglecting the 'no answer' category three types of answers can be distinguished:

- Only 4 organisations pointed out that they do not implement joint decision-making in jointly operated programmes. In contrast 20 organisations allow for some kind of joint decisions.
- Ten organisations stated to have joint decision-making structures in place. Especially the three participating British organisations have gained considerable experience in this field as well as some of the Research Performing Organisations like the Italian National Research Council and the Spanish National Research Council. The following quotations illustrate how joint decision-making is carried out:
  - The British Arts and Humanities Research Council states: "Both organisations meet to agree the number of projects to be funded according to funds available."
  - The British Engineering and Physical Sciences Research Council underlines: "EPSRC provides referee information, but the process is operated by overseas agency. EPSRC abides by overseas peer review decision."
  - The British Medical Research Council emphasises: "Yes, there is a joint decision-making procedure through having a joint panel to conduct the reviews."
  - The Austrian Science Fund and the Swiss National Science Foundation refer to the 'Lead Agency' procedure which had first been launched in the framework of the D-A-CH cooperation and is now being gradually extended.
- The remaining 10 organisations use combined approaches which build on joint peer review and then let the respective national organisations take their decisions individually, before coming up with a joint final decision. Paradigmatic in this respect is the statement by the Czech Science Foundation (GACR): "Decision on awarding grants is based on result of evaluation process from partner funding organization. Grant can be awarded only after final approval from both research funding organizations (GACR and partner funding organization)."

<sup>&</sup>lt;sup>28</sup> Including the Danish National Research Foundation and the Danish Council for Strategic Research.

So far the EUROHORCs organisations have been able to develop considerable experience in the joint handling of programmes at all three levels: calls for proposals, peer review and decision-making. A certain prevalence of bilateral collaborations still exists, but multilateral endeavours are relevant, too. It can be expected that the 'Lead Agency' procedure will become more and more relevant especially for collaborations between a limited number of organisations.

#### 5. Cross-border Cooperation by Individual Researchers

The cooperation between individual researchers is a component of this Survey. The organisations were asked

- to estimate the number of cooperative cross-border research projects outside formal agreements or specific schemes and
- secondly to estimate the number of publications stemming from such kind of international research collaborations.

As these data do not seem to be systematically collected by the organisations the answers have to be taken with some reservations.

#### Cross-border Research Projects without Formal Agreements or Specific Schemes

Fifteen organisations dared a guess regarding the number of cross-border research projects outside formal cooperation agreements or joint schemes (Table 6). Three organisations stated that the number was zero. In all other cases we can find that the number of research projects within Europe significantly outweighs the number of research collaborations beyond Europe.

Table 6: Estimated number of cross-border research projects without formal agreements or specific schemes

	Name of Research Organisation (RO)	Projects within Europe	Projects be- yond Europe
		(approx. no.)	(approx. no.)
Austria	Austrian Science Fund	500	200
Belgium	National Fund for Scientific Research	100	30
Estonia	Estonian Science Foundation	400	100
France	National Institute of Health and Medical Research	4797	3000
France	National Center for Scientific Research	18000	10000
Germany	German Research Foundation	4000	2000
Greece	National Hellenic Research Foundation	40	5
Ireland	Science Foundation Ireland	732	539
Italy	National Institute of Nuclear Physics	0	0
Luxembourg	National Research Fund	0	0
Poland	Foundation for Polish Science	10	3
Slovakia	Slovak Research and Development Agency	20	2
Slovenia	Slovenian Research Agency	0	0
Spain	Spanish National Research Council	1000	500
Switzerland	Swiss National Science Foundation	1050	300

#### Publications Stemming from International Collaborations

To estimate the number of publications resulting from projects funded by the respective participating organisations outside of formal agreements seems to be an even more difficult task (Table 7). Thus, only 13 Survey participants provided answers offering a large spectrum of figures which cannot be further analysed in the framework of the present survey. The data have to be seen with reservations especially because the timeframe in which these publications were achieved had not been specified.

What might still be more interesting than the numbers of publications are the main partner countries with which these joint publications are achieved (Table 7): Germany is in the lead (12 replies), followed by the US (9 replies), the UK and France (6 replies each). Sweden, Finland, China, Belgium, the Czech Republic and Austria were all mentioned once.

Table 7: Estimated number of publications stemming from international collaborations funded by or conducted within the respective research organisation

Country	Organisation	(approx. no.)	Three main	partner cour	ntries
Estonia	Estonian Science Foundation	6300	Sweden	Finland	Germany
	National Institute of Health and				
France	Medical Research	6408	USA	England	Germany
_	National Center for Scientific Re-				
France	search	14000	USA	Germany	UK
	National Hellenic Research Foun-	000		F	1.00
Greece	dation	200	Germany	France	UK
Hungany	Hungarian Scientific Research	3000	Gormany	USA	France
Hungary	1	3000	Germany	USA	France
Italy	National Institute of Nuclear Physics	1450	USA	Germany	France
Italy	Italian National Agency for New Technologies, Energy and the Environment	230		Germany	China
Luxembourg	National Research Fund	10	Belgium	France	USA
Poland	Foundation for Polish Science	40	Germany	USA	UK
Slovakia	Slovak Research and Develop- ment Agency	40	Czech Re- public	Austria	Germany
Slovenia	Slovenian Research Agency	1000	Germany	USA	UK
Spain	Spanish National Research Council	55000	France	Germany	UK
United Kingdom	Medical Research Council	221 <sup>29</sup>	USA	Germany	France

#### 6. Future Plans and Concerns

Finally, the organisations were asked to comment on some forward looking aspects: the demand by the respective national research community for more support and/or resources for cross-border collaboration, persisting legal and other hurdles to cross-border funding and plans to enter in existing cooperation agreements or to launch new ones. Eventually, the participants could share their views on initiatives which they considered to be important for the realisation and future development of the European Research Area.

<sup>&</sup>lt;sup>29</sup> Figure covers first 10 months of 2008.

# Demand for More Support/Resources for Cross-border Collaboration by the National Research Community

Again a large majority of 26 organisations (81%) states that such demand exists, 3 organisations are not aware of this demand and another 3 organisations provided no answer. There is obviously a strong push by the national research communities for more means and possibilities for international research cooperation. Analysing the replies we find:

- Those three organisations which are not confronted with the demand to offer more means for international collaborations provide the following interpretations: The Danish Council for Independent Research has to meet requests to increase the funding for national cooperation. In the case of Poland sufficient funding for cross-border collaborations is available according to the Foundation for Polish Research, but is partly not even spent. The Swedish Research Council perceives a high degree of satisfaction with the status quo.
- The organisations which currently have to deal with demands to expand cross-border collaborations mention the following specific claims,
  - to make more funds available for cross-border cooperation,
  - to sign additional cooperation agreements,
  - to foster international researchers' mobility connected with international collaborations,
  - to simplify their reviewing and/or decision-making procedures in joint programmes,
  - to provide more opportunities to use international large scale facilities and thus to enable long-term cooperation with international partners.

#### Main (Legal) Hurdles to More Cross-border Funding

Without legal, operational or budgetary constraints the participating organisations would surely be in a better position to meet the demands of their respective research communities for more cross-border cooperation or could encourage such collaborations even more proactively. At least 21<sup>30</sup> organisations named existing legal and other obstacles.

The following topics were mentioned:

- Mainly research organisations from Eastern European countries see financial limitations often in addition to legal constraints as major impediments (Czech Science Foundation, Estonian Science Foundation, Hungarian Scientific Research Fund, Slovenian Research Agency). However, some of the major players in cross-border research cooperation such as the French National Center for Scientific Research and the Italian National Research Council also state that budgetary constraints inhibit further international endeavours.
- In a number of Central, Western and Northern European countries the provision of funds for cross-border cooperation is limited by legal and/or societal reservations against the investment of national taxpayers' money outside the country. The primary task of the respective national organisation is thus seen in supporting the domestic research community. This issue was raised by Science Foundation Ireland, the Swedish Research Council, the Swiss National Science Foundation and the Netherlands Organisation for Applied Scientific Research.

<sup>&</sup>lt;sup>30</sup> The Danish National Research Foundation and the Danish Council for Strategic Research did not reply to this question.

- For several other organisations persisting differences between the national research systems are still major barriers for cooperation, e.g.
  - country-specific regulations and the heterogeneity of national systems especially when common pot funding is involved (Austrian Science Fund, Research Council of
  - the lack of confidence in other organisations' review procedures or administrative handling (German Research Foundation, the British Arts and Humanities Research Council).

On the other hand 8<sup>31</sup> organisations mentioned neither legal nor other hurdles to further international collaboration. The Danish Council for Independent Research states: "In the Nordic context, it is general procedure to follow the rules of the administrating country." The National Research Fund of Luxemburg points out: "Almost all legal hurdles have been overcome. Common pot funding is quite difficult but possible."

#### Plans to Enter Existing Cooperation Agreements or to Launch New Ones

Almost 90% of the participating organisations (2832 out of 32 including all Research Performing Organisations) plan to sign new cooperation agreements, whereas 4 organisations do not have such plans.

The organisations were also asked to specify the types of cooperation agreements they would like to conclude. All of the 28 organisations which are prepared to sign further agreements replied. They provided the following sets of answers:

- A majority of 14<sup>33</sup> organisations was rather unspecific and mainly highlighted that they were open to all types of agreements, be they bi- or multilateral, formal contracts or Memoranda of Understanding.
- Four organisations (the two Belgian organisations, the Italian National Agency for New Technologies, Energy and the Environment and the Research Council of Norway) would prefer to sign bilateral agreements.
- The three D-A-CH organisations unanimously prioritise the enlargement of the 'Lead Agency' agreement.
- Individual replies highlighted:
  - Joint programming (Czech Science Foundation) or "joint calls ERA-Net type" (Estonian Science Foundation),
  - A "collaboration regarding graduate fellows with NSF, US" (Danish National Research Foundation",
  - Agreements concerning large facilities (The National Institute of Nuclear Physics, It-
  - "Launching the Top Research Initiative (NordForsk)" (Swedish Research Council),
  - Lowering "the barriers to collaboration through eliminating double jeopardy in peer review" (Engineering and Physical Sciences Research Council, UK),
  - A "global partnership in chronic non-communicable diseases" (Medical Research Council, UK).

Including the Danish Council for Strategic Research.
 Including the Danish Council for Strategic Research and the Danish Research Foundation.
 Including the Danish Council for Strategic Research.

# Initiatives from National Research Organisations for the Future Development of the ERA

The final question on initiatives to be taken by national research organisations for the development of the European Research Areas was answered by 26<sup>34</sup> organisations. Altogether we find strong support for the goals which have been defined by the EUROHORCs and ESF ERA Road Map: At least 11 organisations mentioned as top priorities the implementation of the EUROHORCs ESF Road Map, the realisation of the European Grant Union, the mutual opening of national programmes and more specifically the realisation of the 'Lead Agency' procedure as well as multilateral collaborations (involving selected partners also from outside Europe).

- The organisations have different opinions whether future joint programmes should be purely researcher-driven or whether they should build on top-down Joint Programming initiatives. At least nine statements address these topics. Some organisations suggest potential ways forward:
  - "A EUROCORES / TOPCORES / ERA-Net Call style of instrument for collaboration of larger transnational consortia (bottom-up and top-down), based on reliable and properly dimensioned financial commitments of the respective organisations." (Austrian Science Fund, Austria).
  - "Improving cooperation among research funding agencies, in joint calls and programmes as well as Joint Programming." (Academy of Finland),
  - "The ideal situation will be to dedicate some of the national funding to joint European programmes in specific areas of interest for Europe and the difficulty is to find the best scheme. The topics should be selected by the organisations and the programmes should be open to the number of organisations involved (small or large number)." (Spanish National Research Council, Spain)
- Two topics which were named by 5 organisations are:
  - Increasing the mobility of researchers (e.g. by enlarging the 'Money Follows Researcher' agreement to more partners).
  - More cooperation in peer review based procedures (remarkable is the strong support for this topic by Eastern European organisations from Hungary, Poland, Slovakia and Slovenia plus the British Medical Research Council).
- Budgetary issues were mentioned by the Academy of Finland and the Swedish Research Council. Both organisations express their support for European common pot funding. The National Research Fund of Luxembourg is in favour of providing "more national funding dedicated to international cooperation at a serious level".
- Two organisations (the Danish Council for Independent Research and Italian National Research Council) would like to support regional initiatives or clusters of excellence as contributions to building the ERA.

In summary, organisations in Europe are faced with strong demands by their national research communities to further extend their European and international collaborations. However, they have to cope with legal and budgetary limitations as well as with societal reservations on spending national tax-payers money abroad. All in all we can find some focal points of common interests, such as multilateral collaborations between organisations in Europe

<sup>&</sup>lt;sup>34</sup> The Danish National Research Foundation and the Danish Council for Strategic Research did not reply to this question.

and partly beyond, flexible responses to the needs of the scientific communities, e.g. by introducing joint researcher-driven programmes, by developing flexible procedures for the definition of commonly relevant research themes and for supporting the mobility of researchers.

# III. Annexes

# Annex 1: List of EUROHORCs Organisations (Respondents and Non-respondents to the Survey) and Other organisations having Responded to the Survey (RFO, Research Funding Organisation; RPO, Research Performing Organisation)

Country	Research Organisation			Type of Research Organisation	Response
Austria	Fonds zur Förderung der wissen- schaftlichen Forschung	FWF	Austrian Science Fund	RFO	Yes
Belgium	Fonds de la Recherche Scienti- fique	FNRS	National Fund for Scien- tific Research	RFO	Yes
Belgium	Fonds Wetenschappelijk Onder- zoek	FWO	Fund for Scientific Research	RFO	Yes
Czech Re- public	Grantová agentura České repub- liky	GACR	Czech Science Founda- tion	RFO	Yes
Denmark	Det Strategiske Forskningsråd	DCSR	Danish Council for Stra- tegic Research	RFO	Yes
Denmark	Danmarks Grundforskningsfond	DNRF	Danish National Research Foundation	RFO	Yes
Denmark	Det Frie Forskningsråd	DFF	Danish Council for Independent Research	RFO	Yes
Estonia	Sihtasutus Eesti Teadusfond	ETF	Estonian Science Foundation	RFO	Yes
Finland	Suomen Akatemia	AKA	Academy of Finland	RFO	Yes
France	Institut National de Recherche en Informatique et en Automatique	INRIA	French National Institute for Research in Computer Science and Control	RPO	No
France	L'Institut National de la Recherche Agronomique	INRA	French National Institute for Agricultural Research	RPO	No
France	Institut français de recherche pour l'exploitation de la mer	INFREMER	French Research Institute for Exploitation of the Sea	RPO	No
France	Agence Nationale de la Re- cherche	ANR	French National Research Agency	RFO	No
France	Institut de recherche pour le Dé- veloppement	IRD	Research Institute for Dvelopment	RPO	No
France	Institut National de la Santé et de la Recherche Médicale	INSERM	National Institute of Health and Medical Re- search	RPO	Yes
France	Centre National de la Recherche Scientifique	CNRS	National Center for Scientific Research	RPO	Yes
Germany	Helmholtz-Gemeinschaft Deutscher Forschungszentren	HGF	Helmholtz Association of German Research Cen- tres	RPO	No
Germany	Max-Planck-Gesellschaft	MPG	Max Planck Society	RPO	No
Germany	Fraunhofer-Gesellschaft	FhG	Fraunhofer Society	RPO	No
Germany	Leibniz-Gemeinschaft	WGL	Leibniz Association	RPO	No
Germany	Deutsche Forschungsgemein- schaft	DFG	German Research Foundation	RFO	Yes
Greece	Εθνικό Ίδρυμα Ερευνών	NHRF	National Hellenic Research Foundation	RPO	Yes
Hungary	Országos Tudományos Kutatási Alapprogramok	ОТКА	Hungarian Scientific Research Fund	RFO	Yes
Iceland	Rannsóknamiðstöð Íslands	RANNIS	Icelandic Center for Research	?	No
Ireland	Enterprise Ireland	Enterprise	Enterprise Ireland	RFO	Yes
Ireland	Science Foundation Ireland	SFI	Science Foundation Ire- land	RFO	Yes
Italy	Instituto Nazionale di Fisica Nucleare	INFN	National Institute of Nuclear Physics	RPO	Yes
Italy	Ente per le Nuove tecnologie, l'Energia e l'Ambiente	ENEA	Italian National Agency for New technologies, Energy and the Environ-	RPO	Yes

Country	Research Organisation			Type of Research Organisation	Response
			ment		
Italy	Consiglio Nazionale delle Ricer- che	CNR	National Research Council	RPO	Yes
Luxembourg	Fonds National de la Recherche	FNR	National Research Fund	RFO	Yes
The Nether- lands	Nederlandse Organisatie voor Wetenschappelijk Onderzoek	NWO	Netherlands Organisation for Scientific Research	Mixed	No
The Nether- lands	Nederlandse Organisatie voor Toegepast Natuurwetenschappe- lijk Onderzoek	TNO	Netherlands Organisation for Applied Scientific Research	RPO	Yes
Norway	Forskningsrådet	RCN	Research Council of Norway	RFO	Yes
Poland	Fundacja na rzecz Nauki Polskiej	FNP	Foundation for Polish Science	RFO	Yes
Portugal	Fundação para a Ciência e a Tecnologia	FCT	Science and Technology Foundation	RFO	No
Slovakia	Agentúra na podporu výskumu a vývoja	APVV	Slovak Research and Development Agency	RFO	Yes
Slovenia	Javne agencije za raziskovalno dejavnost Republike Slovenije	ARRS	Slovenian Research Agency	RFO	Yes
Spain	Consejo superior de investiga- ciones cientificas	CSIC	Spanish National Research Council	RPO	Yes
Sweden	Vetenskapsrådet	VR	Swedish Research Coun- cil	RFO	Yes
Switzerland	Schweizerischer Nationalfonds zur Förderung der wissenschaftli- chen Forschung	SNSF	Swiss National Science Foundation	RFO	Yes
Turkey	Türkiye Bilimsel ve Teknolojik Araştırma Kurumu	TÜBITAK	Scientific and Technologi- cal Research Council of Turkey	Mixed	Yes
United Kingdom	Science and Technology Facilities Council	STFC	Science and Technology Facilities Council	RFO or Mixed?	No
United Kingdom	Biotechnology and Biological Sciences Research Council	BBSRC	Biotechnology and Bio- logical Sciences Re- search Council	RFO or Mixed?	No
United Kingdom	Natural Environment Research Council	NERC	Natural Environment Research Council	RFO or Mixed?	No
United Kingdom	Economic and Social Research Council	ESRC	Economic and Social Research Council	RFO or Mixed?	No
United Kingdom	Engineering and Physical Sciences Research Council	EPSRC	Engineering and Physical Sciences Research Council	RFO	Yes
United Kingdom	Arts and Humanities Research Council	AHRC	Arts and Humanities Research Council	RFO	Yes
United Kingdom	Medical Research Council	MRC	Medical Research Council	Mixed	Yes

#### Annex 2

#### The Questionnaire Used for this Survey:

#### Cross-border research cooperation in Europe

Cross-border research cooperation in Europe: Contributions from national research organisations

About this questionnaire: background and objectives

In January 2009 a high level workshop between EUROHORCs and ministers of research from various European countries took place focusing on 'Implementing the ERA: joining Forces at National Level'. As a result of this workshop European ministers asked EUROHORCs to explore the current status of the European Grants Union by surveying existing cross-border collaborations and joint projects. EUROHORCs have invited the ESF to conduct this survey; ESF assigned the task to Dr. Beate Scholz, Scholz – consulting training coaching in Germany.

The objective of this questionnaire is to throw light on the cooperation between both research organisations (excluding collaborations connected to initiatives by the European Commission, e.g. ERA-Nets) and researchers within the European Research Area. It seeks to analyse in which fields cross-border cooperation exists, works particularly well and where obstacles persist. Certainly, the result of this exercise cannot yield an accurate picture of the European research landscape, but will rather be a "best guess".

Please note that this questionnaire needs to be completed in one pass; intermediate stages can't be saved.

\* indicates that this question is obligatory.

Please complete the questionnaire by 30th April 2009.

#### Basic info

Other

1.	Name	of Research Organisation (RO) *
2.	Туре	of Research Organisation *
	C	Research Funding Organisation (RFO)
	$\mathbb{C}$	Research Performing Organisation (RPO)
	C	Mixed

	accord.	
	***	
Budo (pleas	get se enter integer numbers)	
a. To	otal annual budget of RO (in 2008)	<b>€</b>
b. Bu	udget for European activities (in 2008)	€
c. Bu	udget for international activities beyond Europe (in 2008)	€
d. Bu	udget for bottom-up research projects or people funding	% of total budget
e. To	pp-down research programmes or initiatives	% of total budget
- 183 - 183	ss-border collaborations between ROs	
Does	s your organisation have formal cooperation ag	reements with ROs in other European countries
<b>F</b> ~7		
. C	No	
C	Yes	
	, how many? se count only such agreements which are actually in use	
riode	as south only such agreements when are actually in acc	•
Pleas	se name the five most relevant ROs your organisation co	onerates with
1 1003	Organisation	Country
•	O gameation	
1		}
1		
***************************************		
a. На:	s your organisation signed the EUROHORCs' 'Money fo	ollows researcher' agreement?
C	No	
· C	Yes	
_	have you implemented it and how?	

			Constitution and the section is the production of the constitution
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•	and the second formal f		,
	1		¥1
		es your organisation have formal cooperation agreements	with other ROs beyond Europe?
		No	
		Yes	
	If yes,	how many?	
		COS AND	
	Please	e name the five most relevant organisations	
		Organisation	Country
	Ī		
	I .		
	1		
	Websterook		
	Does	your organisation participate in joint programm	es with other ROs in Europe? *
5. ——	(exclu	ding collaborations connected to initiatives by the Europe	an Commission, e.g. ERA-Nets)
		No	
		Yes	
		es, please indicate the scope of these programmes	
	T	Jointly performed research programme	
	Γ	Jointly funded research programme	
	T	Programme to support the career advancement of rese	archers
	r	Exchange of (research or administrative) personnel	
		other	
		dh- manan	
		Constitute	
		*	
	Please	e name the five most relevant ROs with which your organ	isation maintains joint programmes
		Organisation	Country

	b. Do these joint programmes mainly encompass bilateral or multilateral collaborations?
	☑ Bilateral
	── Multilateral
	c. If multilateral collaborations exist, please provide the best examples regarding the type of scheme and the cooperating
	organisations (incl. countries)
	All property of the state of th
	E
	Cross-border funding
6.	Does your RO have the legal means to fund research outside of the country? *
	© No
7.	If yes, do the cross-border collaborations referred to in the previous part of the questionnaire, incorporate cross-border funding?
	rate cross-border funding?
	□ No
	☐ Yes
	a. If yes, please indicate the budget share of such cross-border funding with respect to the overall funding of your organisa-
	tion (% of total research funding budget in 2008)
	Do any of these exhamps ensure with a common not for funding?
8.	Do any of these schemes operate with a common pot for funding?  (i.e. no juste retour, e.g. like in the case of the EURYI Award)
	© No
	☐ Yes
	a. If yes, please provide the best examples
	(type of scheme, organisations involved, overall annual budget for common pot)

	₩ da	
9.	Does your RO allow the portability of grants outside the framework of the 'Money follows res agreement?  please explain	earcher
10.	Has your RO opened funding schemes to researchers based abroad?  please explain	
	Procedural issues	
11.	Does your organisation issue joint calls with cooperating ROs? *	
I   I.	(excluding collaborations connected to initiatives by the European Commission, e.g. ERA-Nets)	
	■ No	
	☑ Yes	
	a. If yes, please provide the best examples     (type of programme, organisations/countries involved)	
12.	Do you implement joint peer review procedures? *  (excluding collaborations connected to initiatives by the European Commission, e.g. ERA-Nets)	
	□ No	
	☑ Yes	
	a. If yes, please provide the best examples (type of programme, elements of peer review)	

	Que de la constant de
13.	Do these collaborations include joint decision-making procedures e.g. regarding the provision of funds?
	No, please explain
	Yes, please explain
	-control -
	Cross-border cooperation by researchers
	At the principal investigator level, please estimate
14.	the number of cooperative cross-border research projects funded by or conducted within your RC which have cross-border collaboration without formal agreements or specific schemes
	i. within Europe (approx. no.) ii. beyond Europe (approx. no.)
15.	the number of publications stemming from international collaborations funded by or conducted within your RO
	(approx. no.)
	i. Please list the three main partner countries:
	Future actions
16.	Is there demand for more resources and/or support for cross-border collaboration by your research community?  Please explain

	acceptant of the second of the
#Anthreeoverida	
Which are the ma	nin (legal) hurdles to more cross-border funding by your organisation?
PROPORTING	anoidani d American
relinharine	*
Is your RO consid	dering entering into existing cooperation agreements or launching new agreem
F-9	
C No	
C Yes	
If yes, which type?	
	office and the second s
	descent.
The state of the s	w d
Which initiatives to velopment/realisation	from national research organisations would you consider important for the futuation of the European Research Area?
Which initiatives to velopment/realisa	from national research organisations would you consider important for the futuation of the European Research Area?
Which initiatives to velopment/realisa	from national research organisations would you consider important for the futuation of the European Research Area?
Which initiatives to velopment/realisa	from national research organisations would you consider important for the futuation of the European Research Area?

Organizer: Michaela Dreike, Winzerstr. 30a, 53129 Bonn, Deutschland,



Berne, 01. July 2009

Creating the ERA Bottom-up - results of a survey on cross-border collaborations

Dear Minister,

In January 2009, a High Level Workshop of the Research Ministers and EUROHORCs took place in Lisbon. One of the conclusions of the participants was that the ERA should also be constructed through initiatives of the national research funding and performing organisations. However, it also became clear that an overview of existing cross-border collaborations between national research organisations was missing, thus making it difficult to assess to which extent such initiatives were already in place.

As a result, EUROHORCs, thanks to the support of the European Science Foundation, was able to carry out a survey on bi- and multinational collaborations. I am glad to send you the conclusions of this survey, to which 32 national research organisations responded.

Given the short time at hand, this survey does not claim to answer all questions about cross-border collaborations within Europe. However, I strongly believe that it shows two things: firstly, national research organisations have created numerous creative initiatives to support bilateral and multilateral co-operation; and secondly, they identify additional potential for international co-operation which they want to explore in the future.

As agreed in Lisbon, EUROHORCs will use this survey as a basis to prepare suggestions about where the national frameworks to support this bottom-up creation of the ERA could be improved. A number of measures to reinforce and enlarge initiatives such as the Lead Agency Procedure are currently already being looked into. These activities take place

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especially within the context of the creation of a European Grant Union outlined in the ESF-EUROHORCs Road Map, which was approved by both organisations in April 2009. The Road Map will be published shortly under www.eurohorcs.org.

I hope that you will find this document useful. I gladly remain at your disposal should you have any questions.

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Yours sincerely,

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President of EUROHORCs

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Encl.

Report: Creating the ERA Bottom-up