



Position Paper of Helmholtz Association of German Research Centres on  
Collaborative Research Projects in Horizon 2020

2012



HELMHOLTZ  
| ASSOCIATION

The Helmholtz Association of German Research Centres with its almost 33,000 employees and an annual budget of 3.3 billion euros is Germany's largest research organisation and one of the largest in Europe. The Helmholtz Association participates in many European projects – often in a coordinating role – and benefits considerably from the established instruments of the Framework Programme of the European Union for Research and Technological Development. The instruments and actions of the Framework Programme contribute significantly towards supporting networking and collaboration between the scientists of the Helmholtz Association and researchers throughout Europe. They facilitate as well activities which cannot be realised at the national level or which provide added value in the form of collaborations at the European level.

This paper presents a consensus of the views of the Helmholtz Association and its centres.

Please direct further questions and comments to:

**Dr. Susan Kentner**  
susan.kentner@helmholtz.de

**Annika Thies**  
E-Mail: annika.thies@helmholtz.de

Helmholtz Association Brussels Office  
Rue du Trône 98  
B -1050 Brussels, Belgium  
[www.helmholtz.de/en](http://www.helmholtz.de/en)

## Collaborative research projects in Horizon 2020

Collaborative research projects in the EU research framework programmes are a proven and effective way of working towards solutions for scientific and societal problems, reinforcing the global competitiveness of Europe and providing the knowledge base needed to formulate and implement European policies. Collaborative research projects provide a platform for bringing together the best scientists in Europe and integrating skills and competencies across disciplines. Because it consolidates the efforts, knowledge and skills of diverse partners, collaborative research is the most appropriate funding instrument for reacting efficiently and flexibly to current or emerging challenges in research and industry. Furthermore, it facilitates the rapid establishment of diverse international partnerships without protracted negotiations because it is governed by a unified body of rules and procedures. European collaborative projects allow for the creation of transnational partnerships that are difficult (or impossible) to realise at the national level and permit flexible links amongst participating groups from all eligible countries.

Collaborative projects are thus the foundation of the European Research Area (ERA) and a "lived" European research culture. They play an essential role in the training of young European scientists, who profit from working together with more experienced researchers as well as partners from industry. Collaborative research also links partners spanning the entire innovation chain from basic research through applications and thus serves to connect different sectors, disciplines and specific regional competencies.

In recent years, two new, clear trends in the European Commission's approach towards RTD funding have become apparent:

- A tendency towards financial support for increasingly large, programmatic initiatives such as the Joint Technology Initiatives (JTIs), initiatives based on Art. 185, Knowledge and Innovation Communities (KICs) in the European Institute of Innovation and Technology (EIT) and, most recently, the Future and Emerging Technologies (FET) Flagship projects
- The requirement that agendas for research and technological development (RTD) be increasingly defined and informed by industry and SMEs, with industry taking the lead in implementing RTD projects and an increasing proportion of demonstration projects.

These trends should be viewed with concern for the following reasons:

- JTIs, initiatives based on Art. 185, etc.:
  - » Can consolidate considerable resources on the one hand, but because of their sheer size can on the other hand discourage the participation of smaller actors, who might not be able to provide the necessary own resources and who might lack

adequate legal and administrative support. In this case, the input of these actors is thus lacking, not only as project participants, but also with regard to their contribution to agenda-setting processes. This pertains not only to SMEs, but also to small universities and research institutes.

- » Furthermore, the trend towards very large instruments means that resources originally earmarked for RTD must increasingly be devoted to internal administration. An inordinate amount of time must be invested in order to make these structures actually operational, and there remains the risk that governance processes will be ineffectual because of the divergent interests of the partners.
  - » By their very size and unwieldy structure, these instruments are not appropriate for reacting in a timely and flexible manner to emerging challenges.
- The increasing role of industry in the definition of European research funding programmes as well as the call for more demonstration activities
    - » Is meant to link RTD results more closely to European industry and thereby strengthen European innovation intensity and industrial competitiveness. Such initiatives are necessary and appropriate in their place. They should not however be the main pillar of the European RTD strategy because they do not in and of themselves generate functional, long-term solutions and more innovations. European industry can and should define its RTD needs for the next 1-5 years, but this short-term agenda will not be sufficient to maintain or strengthen Europe's competitiveness in the global economy if European RTD is not able to contribute the knowledge base and technological building blocks that will be essential for the next 5-10 years. To achieve this goal, the contributions of universities and research institutes in collaboration with industry over the medium to long term are indispensable.
    - » Moreover, industry partners are often less interested in investigating truly break-through ideas and innovative applications in collaboration with other partners because they fear losing competitive advantages. Thus, there is the risk that industry partners will only contribute ideas with less innovative potential to European projects.

The Helmholtz Association therefore considers that the effects of these factors should be carefully weighed in order to achieve the right balance in the mix of instruments and projects:

- Depending on which RTD phase is involved, industry and research carry out different and complementary roles and participate in RTD activities to varying degrees. During the initial phase, in which developing

the knowledge base is the primary objective, the work is mostly carried out by research actors, who must however remain open to the needs of industry (market feasibility, profitability, risk, legal aspects, etc.). In later phases of technological development, the role of industry takes on increasing importance as the “product” is developed, until finally the industry partner takes over responsibility for the pilot phase, including financing. In these later phases, financing through public sources can even lead to problems: Financial support for a consortium, for example, undermines the need for confidentiality until the right moment for disclosure or bringing the product to market, whilst support to individual industry partners can go against competition rules.

- As a publicly financed programme, the financial resources for Horizon 2020 should therefore be primarily invested in pre-commercial RTD activities, since these prepare solutions for the future challenges facing our society and create a sustainable knowledge base to strengthen European competitiveness. Financial support for demonstration projects should be limited to a very few carefully selected and well-justified cases.
- Large initiatives such as the JTI, etc., can fulfill certain needs effectively, provided they have appropriate rules and governance procedures. This means that (a) research organisations and universities must be able to participate on an equal footing with industry in order to ensure that the innovative ideas needed beyond the short-term time frame of 5 years can actually be generated, (b) that the financial and administrative rules and procedures do not deviate from the Rules of Participation in Horizon 2020, in order to avoid unnecessary administrative effort, and (c) the administration of these initiatives is carried out wherever possible by already existing and functional entities such as the Commission or its agencies, rather than creating new administrative structures.
- • Leveraging public financial support through other sources should also be used with caution, since resources contributed by different partners of equal standing can lead to long, controversial discussions on the rules and procedures to be applied. In contrast, support from one principal source (in particular the EU budget) gives a clear and legitimate mandate to the main funder to define the funding rules.

In summary, the Helmholtz Association strongly urges that collaborative research projects should remain the backbone of Horizon 2020, in particular for the programme areas “Societal Challenges” and “Industrial Leadership”.

# BRIEF PORTRAIT OF THE HELMHOLTZ ASSOCIATION

In the Helmholtz Association, 18 German research centres have joined forces to share their resources in strategically oriented programmes to investigate complex questions of societal, scientific and technological relevance.

They concentrate on six major research areas: energy; earth and environment; health; aeronautics, space and transport; key technologies and structure of matter. The scientists work closely together across the centres on these issues.

The Helmholtz Association provides the necessary resources, a framework for long-term planning, a high concentration of scientific competence and an outstanding scientific infrastructure with major projects, some of which are unique worldwide.

The research objectives of the Helmholtz Association are set by the funding bodies after discussions with the Helmholtz centres and the Helmholtz Senate and Assembly of Members. Within this framework, the scientists of the Helmholtz centres determine the themes of their research through strategic programmes in the six research areas across centres.

(Source: "Strategy of the Helmholtz Association," Berlin 2009, updated 2012)

[www.helmholtz.de](http://www.helmholtz.de)

## Helmholtz Centres

- Alfred Wegener Institute for Polar und Marine Research
- Deutsches Elektronen-Synchrotron DESY
- German Cancer Research Center
- Deutsches Zentrum für Luft- und Raumfahrt
- Deutsches Zentrum für Neurodegenerative Erkrankungen
- Forschungszentrum Jülich
- GEOMAR | Helmholtz Centre for Ocean Research Kiel
- GSI Helmholtz Centre for Heavy Ion Research
- Helmholtz Centre Potsdam GFZ, German Research Centre for Geosciences
- Helmholtz Centre for Environmental Research – UFZ
- Helmholtz Centre for Infection Research
- Helmholtz-Zentrum Berlin für Materialien und Energie
- Helmholtz-Zentrum Dresden-Rossendorf (HZDR)
- Helmholtz-Zentrum Geesthacht Centre for Materials and Coastal Research
- Helmholtz Zentrum München, German Research Center for Environmental Health
- Karlsruhe Institute of Technology
- Max Delbrueck Center for Molecular Medicine (MDC) Berlin-Buch
- Max Planck Institute for Plasma Physics (associated member)

