



Future Research and Innovation Funding of the European Union

Position Paper of the Deutsche Forschungsgemeinschaft

Introduction

EU Research Framework Programmes have evolved into an important networking instrument for research in Europe. Even though, as a matter of subsidiarity, the overwhelming share of research funding is granted at the national and regional levels, the significance of the Research Framework Programmes for European research is growing steadily.

As a representative of the scientific community, the Deutsche Forschungsgemeinschaft takes it as its duty to continually contribute to the improvement of the framework for science and especially for academic research in Europe. In this spirit, the DFG sets forth in this paper its recommendations and expectations regarding the most important aspects of upcoming EU research and innovation funding, possibly an 8th Research Framework Programme.

The present position paper builds on a couple of previous DFG statements. In a short paper released in January 2010, the DFG has already stated its basic position on the 8th Research Framework Programme. The present paper also builds on a statement by the EUROHORCs and the ESF of July 2009, entitled *EUROHORCs and ESF Vision on a Globally Competitive ERA and their Road Map for Actions*, and on a DFG strategy paper published in late 2008, entitled *The DFG and the European Research Area: Position and Outlook*.

The individual recommendations regarding future EU research and innovation funding ensue from certain basic positions of the DFG: (a) the inseparability of innovation and basic research, (b) the commitment to the European Research Area, (c) the demand for continuity and simplification, and (d) the demand for proximity to science.

- a) Innovation and basic research go hand in hand. Basic research provides the underpinnings for all applications and is the first link of the innovation chain. Thus, it is important to honour the significance of basic research in the political concept of the Innovation Union (published 6 October 2010). The DFG welcomes the fact that the Treaty of Lisbon assigns to the EU clear responsibility for basic research. By establishing the ERC, the 7th Research Framework Programme embodies this responsibility. The research community considers the ERC a successful model. It must therefore be developed significantly further in the future—both structurally and financially—in order to secure the foundation of Europe’s innovative potential over the long term.
- b) Future EU research and innovation funding will need to serve the goal of building the European Research Area. Europe can only maintain and strengthen its scientific and economic position in the world if it continues to improve the framework for science and research across the union. This includes overcoming the fragmentation of the European research landscape wherever it is scientifically detrimental, e.g. when it comes to mobility. The creation of synergies between the different approaches and levels of research funding in Europe should continue to be pursued as a guiding principle. At the same time, the European Research Area benefits from its productive diversity. Diversity and competition—also among research funding organisations—promote the quest for the best solutions and are thus important drivers of progress.
- c) The European Union should provide funding instruments for research projects that could include cooperation partners in several European countries. In order to better exploit the innovation potential of Europe’s research, the funding should be flexible and compatible with

larger consortia in the same way as with small and medium-sized teams. It is these, above all, who bring with them the urgently needed potential for innovation. To gain access to this potential, EU research and innovation funding should attract the best researchers with user-friendly regulations at all levels. Currently, the EC financial regulations constitute a major obstacle here. Obviously, researchers must be held accountable for their use of taxpayer money; however, this should be done according to rules that are appropriate for scientific projects rather than for agricultural subsidies or large industrial consortiums.

- d) Science-driven and science-oriented decision-making and administrative processes should increasingly be implemented. Aspects of quality and cohesion must be kept separate. Proposal reviewers must be selected even more strictly based on their scientific qualifications. Effective quality-assurance mechanisms, in which representatives of the scientific community are actively involved, should be established here. The ERC has been a first step in this direction. But a wealth of pertinent experience that should be leveraged is available in many other places as well, especially at the national level.

In the spirit of these four basic positions, the DFG would like to set forth the following specific recommendations and expectations for future EU research and innovation funding with regard to early career support for researchers, approaches for funding collaborative research, and the funding of research infrastructures.

1. Early Career Support for Researchers

Early-stage researchers must be funded by way of science-driven procedures. EU-doctoral programmes must be expanded and better funded. Their diversity must be preserved. The DFG observes the COFUND activities with constructive criticism.

From administration to selection to implementation, doctoral programmes must reflect the primacy of research. The administration of doctoral programmes should therefore be handled by the Directorate-General for Research. Proposal selection—which, considering its highly competitive nature and lengthy processing times, should include two-steps—must focus on scientific quality even more strongly than in the past. Structural criteria, such as the requirement to cooperate with industrial or non-university partners, should be handled more flexibly to make programmes equally accessible and attractive to all disciplines, regardless of their specific needs. Particularly in the humanities, such a requirement presents a very high entry hurdle. But even for application-oriented disciplines, mandatory cooperation should be made more flexible, e.g. by allowing ad-hoc partnerships. Finally, the implementation of a doctoral programme should be driven by scientific criteria alone. Doctoral researchers should be recruited in transparent procedures only on the basis of their scientific qualifications.

EU-doctoral programmes must be expanded and better funded because early-stage researcher training in Europe continues to require special support. The overall budget for these programmes must grow in order to achieve acceptable approval rates and to pre-

vent closed-shop effects. Furthermore, the number of doctoral researchers should be increased to ensure the critical mass necessary for a self-supporting international network of doctoral researchers, which is a key factor for the success of international doctoral programmes. In addition, more flexible-use funding is needed, e.g. for coordination. Finally, the funding period should be extended.

Considering the great diversity of funding structures within Europe, a doctoral programme that works equally well for all member states is all but inconceivable. However, EU-doctoral programmes must complement the support offered by the national funding organisations. Such programmes are particularly helpful when they facilitate the mobility of doctoral researchers within larger multinational networks (e.g. Marie Curie Initial Training Networks, ITN), or the development of international doctoral programmes through one-stop funding rather than complicated matching-funds schemes.

The COFUND scheme is an interesting model for supporting national funding organisations in enhancing their post-doc programme activities when their budgets are restricted. This scheme might open access to more user-friendly financial management: the participating organisations could exert their own regulations that are approved and appropriate for scientific projects.

2. Different Approaches to Fund Collaborative Research

When it comes to making the European Research Area a reality, the DFG is committed to the European Research Grant Union of the EUROHORCs. Topics for Joint Programming must be selected through a science-driven process. ERA-Nets can support this and should be continued by future EU research and innovation funding.

To be successful and competitive, European science needs dependable structures for the funding of networked research. The DFG is therefore committed to building the European Research Area. Along the lines of the EUROHORCs Road Map (*EUROHORCs and ESF Vision on a Globally Competitive ERA and their Road Map for Actions*), the DFG wants to establish the European Research Grant Union. This would entail further development of the EUROHORCs instruments “Money Follows Researcher” and “Money Follows Cooperation Line” to all EUROHORCs partner organisations. Furthermore, the new lead-agency procedure, following its test phase, would be Europeanised by the EUROHORCs. The ultimate vision is that grant approvals will be mutually acknowledged by all participating organisations and redeemable in the country where the investigation is carried out.

In parallel to these endeavours, the EU member states have initiated Joint Programming in research. As a minimum standard, Joint Programming should ensure appropriate involve-

ment of the scientific community in topic selection and implementation. To this end, transparent participation schemes along the entire process must be established. In addition, all Joint Programming subject areas should cover the entire range from basic research to applied research, because only strong basic research can keep a discipline dynamic and attract the best and most creative researchers.

When it comes to implementing science-driven and science-oriented decision processes for Joint Programming, it makes sense to take advantage of the experience of ERA-Nets. ERA-Nets have accumulated valuable experience on issues concerning the participation of large consortiums in programme development and on how to operationalise wide-ranging topics into clearly defined calls for proposals. In some instances they have established themselves as the European voice of research funding organisations for certain subject areas. Here they are well positioned to mediate between the bottom-up initiatives from the research community and the strategic priorities of policymakers and society. But even beyond that, ERA-Nets have triggered a comprehensive and rewarding learning process in the realm of international research-funding cooperation and should therefore be continued.

3. Funding of Research Infrastructures

The European Union should provide for the funding of existing and new research infrastructures. The corresponding measures must be coordinated closely with key players and funders. Universities should be strengthened as pillars of research infrastructure; standardisation should be pursued; and the re-use of data should be enabled.

Via information infrastructures, research data and publications are often accessible worldwide at no charge, even though the local operations that make this possible are quite costly. To ensure sustainability, mechanisms must be developed to enable cost-sharing at the national, European and international levels. The corresponding measures within future EU research and innovation funding must be coordinated closely with the other players and funders.

As carriers of research infrastructure, universities should be strengthened, since they host numerous sophisticated if not unique infrastructures for research and higher education. Given the enormous variety of infrastructures at universities, they provide optimum conditions for modern integrated approaches and for sharpening the profiles and priorities of the universities. Researchers must be enabled to use these infrastructures in efficient, simple and customised ways.

Local research infrastructures must be made more available to external users. International networking and virtualisation of research infra-

structures must be advanced further. Open access and back access are gaining in significance across all disciplines. The future EU research programmes should therefore provide for measures to fund and further develop these features. To make existing, decentralised research infrastructures available for European and even world-wide use, an incentive system is needed that complements basic national funding with additional grants for internationalisation. Such internationalisation requires that resources be made available for support by means of professional facility management. Networking should drive specialisation at individual locations, thus enabling optimum responses to enquiries.

International networking of research infrastructures requires standardisation. In order to gain interoperability, suitable data formats must be identified at the international level. Standardisation should be promoted at the European level as should the exchange of best practices.

The re-use of data, the supply of services and the access to research findings must be facilitated by providing them in a form that allows for their possible integration into various research contexts. This entails, for example, distributing data, services and research findings under open licenses to indicate whether and on what conditions they may be reused in other countries or contexts.



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