

**Opinion on the Green Paper
'Towards a Common Strategic Framework for EU Research and Innovation
Funding'**

Resolution of the 10th General Meeting of HRK, 3 May 2011, Heidelberg

The German universities have taken active part in recent discussions about the future of European Union research and innovation policy. As such, the Executive Board of the German Rectors' Conference (HRK) most recently submitted a comprehensive position paper on the structure of the next Research Framework Programme on 6 January 2011.

With this opinion paper, the HRK is taking part in the consultation process for the European Commission's Green Paper 'Towards a Common Strategic Framework for EU Research and Innovation Funding' on behalf of its 264 member institutions.

1. How should the Common Strategic Framework make EU research and innovation funding more attractive and easy to access for participants? What is needed in addition to a single entry point with common IT tools, a one stop shop for support, a streamlined set of funding instruments covering the full innovation chain and further steps towards administrative simplification?

The attractiveness and accessibility of the next Framework Programme largely depends on achieving a significant simplification of the administrative processes associated with European research funding. The EU Competitiveness Council made an appeal on 12 October 2010 which included comprehensive demands to simplify administrative procedures in both the current and upcoming Framework Programmes. These steps should be undertaken as soon as possible so that all applicants will have maximum legal certainty even before the start of the new Framework Programme in 2014. For the universities, a meaningful step towards greater clarity and transparency—as well as a stronger position within jointly implemented programmes—would be possible if all of the participation rules of the Framework Programme were extended to the funding instruments financed from this budget

Deliberations about a 'Common Strategic Framework' for the EU for research and innovation are, in general, to be welcomed. The primary focus here should be on the complementarity of the various financial instruments (Research Framework Programme, Competitiveness and Innovation Framework Programme, Structural Funds, etc.). This is particularly true in instances where mixed financing from EU funds would prove useful, but has been impossible or, at best, extremely difficult due to legal reasons or conflicting regulations. This has been the case, for example, with any attempt at combining funding from Structural Funds, such as the European Social Fund (ESF) and the European Regional

Development Fund (ERDF), with each other or with funds from the Research Framework Programme.

2. How should EU funding best cover the full innovation cycle from research to market uptake?

The principle of 'pre-competitive' funding for research and development, as well as innovation, should be preserved. Any funding in form of grants that extend beyond these areas must remain the absolute exception, and must also, without exception, comply with the legal requirements of Community Law (EU state aid framework) and the EU's international obligations—particularly those resulting from WTO rules. Funding in the 'competitive' area closer to the markets themselves, which is currently being discussed at the European level, should be carried out through credit-based financing mechanisms or instruments that target the demand side such as public procurement policies or technology standardization.

Comprehensive and bottom-up-oriented funding of basic research lays the groundwork for future innovations. In order to maximise the full potential of the European Research Area, basic research must be funded in the form of support for excellent projects driven by top individual researchers, via the European Research Council (ERC), as well as for collaborative research.

3. What are the characteristics of EU funding that maximise the benefit of acting at the EU level? Should there be a strong emphasis on leveraging other sources of funding?

The fact that the 'excellence' of the research has been established as the sole quality criterion for the current Research Framework Programme has had a positive impact on the process of raising the European research landscape's competitiveness and has helped develop its profile. The instrument of collaborative research in Europe, as well as the activities undertaken to promote the mobility of researchers, have also been established as effective tools that support the development of the European Research Area. These approaches must therefore be maintained in the next Framework Programme in order to ensure the greatest possible European added value.

Co-financing requirements are seen by the higher education institutions as placing them at a considerable disadvantage, as they are mostly public—and often under-funded—research institutions. These requirements should not be extended to research funding programmes other than the COFUND scheme that is part of the 'FP7 People Programme'.

4. How should EU research and innovation funding best be used to pool Member States resources? How should Joint Programming Initiatives between groups of Member States be supported?

It is difficult to tell at this early stage whether the introduction of Joint Programming Initiatives (JP) is likely to play an important role in the development of the European Research Area. An expansion of JP from the current 10 themes to additional research areas should only be considered once joint programme planning has proven to be helpful

for the coordination of national and European funding. This also applies to the creation of major European research alliances such as the European Energy Research Alliance (EERA). The German universities believe that these sorts of 'top-down' approaches to research funding, with their inherent bias for large projects and highly specialised research institutions, cannot replace the instrument of collaborative research in Europe. The research topics covered under these programmes should not be removed from the lists of possible topics for collaborative research for that very reason. It is equally important that the EU research budget will not be used as a source of funding for Joint Programming Initiatives and major research alliances beyond limited activities related to coordination and support.

5. What should be the balance between smaller, targeted projects and larger, strategic ones?

Small and medium-sized European research projects have often proven to be more efficient than larger projects because they keep the time and effort required for coordination to an acceptable level. These projects also play a decisive role in ensuring that European research funding remains accessible to universities and small and medium-sized enterprises (SMEs). For this reason, it is the consensus of the German research organisations that small and medium-sized collaborative projects must remain the primary instrument of European research funding.

Large-scale and more strategic projects are only useful where there is a need to create a critical mass of research capacity that clearly exceeds what is possible with small and medium-sized projects.

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7. What should be the measures of success for EU research and innovation funding? Which performance indicators could be used?

Given the limited predictability of research findings—and the fact that the socio-economic impacts of research are generally only evident in the long-term—proven measures of success for science (bibliometric indicators, patents, etc.) should be used.

8. How should EU research and innovation funding relate to regional and national funding? How should this funding complement funds from the future Cohesion policy, designed to help the less developed regions of the EU, and the rural development programmes?

The proposal from the European Research Advisory Board (ERAB) to use 30 percent of the Structural Funds and 10 percent of the budget of the Common Agricultural Policy to support research and innovation goals is strongly supported by the HRK as minimum requirements.

The universities, as institutions that truly embody the 'knowledge triangle' of innovation, research, and education, are keen to undertake projects where they can combine their activities in the areas of education and continuing education with innovation and research activities undertaken in collaboration with the private sector. This is a goal that the EU, as

a strong political supporter of the European Institute of Innovation and Technology (EIT), clearly supports. The various funding regulations for the individual Structural Funds, such as the European Regional Development Fund (ERDF) and the European Social Fund (ESF), however, often prevent a combination of funds from various sources and, as such, the creation of these beneficial knowledge triangles. The seamless combination of funding from both funds should be possible for 'cluster' projects that meet certain conditions.

The general under-funding of European universities, an issue that has been openly criticised by the EU Commission, should not lead to the result that Structural Funds are only available to large organizations that can make equally large co-financing contributions. European universities are unable to make such large-scale co-financing contributions as their operating budgets are largely paid for with public funds and EU state aid guidelines often prohibit subsidizing projects through repurposed public appropriations. They are therefore dependent on the willingness of the programme funder at the member state and regional levels to pay for their contributions from additional public funds. As such, the universities have been concerned to see Structural Funds mentioned increasingly often by European political leaders as a key financing source for future large-scale research infrastructure projects. This could result in reduced funding for small and medium-sized R & D and technology transfer projects that are more difficult to administer, but which better reflect better the needs and strengths of both universities and SMEs.

This debate about simplifying administrative processes must be equally lively on the topic of Structural Funds. From the perspective of the applicant, the rules of the European Commission's different Directorates-General and those of the member states and regions (including the programme funders), are often mutually exclusive in this area, which can dramatically increase the administrative burden for the beneficiary of the funds. It is possible, for example, that a large project may be required to use three different costing methods to account for value added tax. The recognition of national and regional accounting methods by the EU—in addition to the question of how the European funding instruments are organised in terms of the grant-making process, access, and advising—demands urgent action. A 'one stop shop' for advice on European funding instruments in R & D and innovation is certainly not the rule at the moment.

The EU's new innovation strategy places great importance on innovation-friendly procurement policies for public organisations. The reality within the projects themselves, however, reveals that the EU competition rules on procurement activities can hamper truly innovative R & D projects, which can often only work with one highly specialised supplier. Even the EU's 'Common Procurement Vocabulary' (CPV) does not take the needs of innovative research at universities and research institutions into consideration.

9. How should a stronger focus on societal challenges affect the balance between curiosity-driven research and agenda-driven activities?

The focus of EU funding for applied research on a number of major societal challenges should be welcomed in principle, because this can lead to efficiency gains and increase the overall societal benefits. The research foci should not, however, be defined too narrowly and must be complemented with 'bottom-up' programme formats for collaborative research. This can reduce the risk of wrong choices on research approaches and technologies (and the resulting path dependencies) to a minimum. The latter could, in

the opinion of the German universities and research organisations, be based on the funding schemes NEST (New and Emerging Science and Technology) in the 6th Research Framework Programme and FET-Open (Future and Emerging Technologies) in the 7th Research Framework Programme.

The identification of key social challenges is a legitimate task for policy-makers. The question, however, of which research approaches may be able to address these challenges can be only be legitimately answered by science itself. European higher education institutions possess stronger bonds to society than any other research institutions and should be fully involved in the process of 'transferring' the major societal challenges to concrete research topics and project calls.

These major societal challenges can only be successfully addressed using interdisciplinary approaches. Technology-oriented approaches alone are unsuitable, and contributions from humanities and social science research must be incorporated into the research agendas. The German universities believe that the creation of a specific sub-programme with its own budget is necessary. This programme should fund interdisciplinary research related to potential solutions to the various societal challenges and other EU2020 flagship initiatives ('horizontal dimension'), as well as 'stand-alone' humanities and social science research ('vertical dimension').

10. Should there be more room for bottom-up activities?

Bottom-up research activities must be given their appropriate weight in relation to the strategically-orientated 'top-down' programmes. The European Research Council (ERC) and the Marie Curie Actions have become success stories of the Research Framework Programme due in no small part to the fact that they are open to all research topics. They must be continued in this way. It is also important that the core characteristics of the ERC, such as its 'bottom-up' orientation and focus on investigator-driven research, should also continue intact.

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12. How should the role of the Commission's Joint Research Centre be improved in supporting policy making and addressing societal challenges?

An expansion of the Joint Research Centre's competencies or budget makes little sense in the view of the German universities. Policy-makers should focus not only on scientific advising from the research institutions that they fund (and that are, ultimately, directly subordinate to them), but take advantage of the diversity of research findings from the breadth of universities in order to avoid the risk of developing a one-sided opinion.

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15. How should industrial participation in EU research and innovation programmes be strengthened? How should Joint Technology Initiatives (such as those launched in the current Framework Programme) or different forms of 'public-private partnerships' be supported? What should be the role of European Technology Platforms?

The greatest potential for an increase in industry participation undoubtedly lies in efforts to simplify the administrative processes for research funding. High bureaucratic hurdles and the still too-large amount of time between application and approval ('time-to-grant') dissuade many companies from participating in the Research Framework Programme. This is especially true for small and medium-sized enterprises (SMEs) that, in many cases, possess limited administrative capacities and significantly shorter planning horizons.

The German private sector, alongside the German research organisations, has repeatedly made it clear that the instrument of collaborative research has proven its worth, although the inclusion of more small and medium-sized projects should be ensured in future.

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20. How should intellectual property rules governing EU funding strike the right balance between competitiveness aspects and the need for access to and dissemination of scientific results?

The German universities believe that 'Open Access', the policy of granting free internet access to research papers, is an effective mechanism to help spread knowledge within the European Research Area, and, as such, support the recommendations of the European University Association's (EUA) Open Access Working Group from 26 March 2008.

The rules dealing with intellectual property and any associated rights must be uniform for all EU-funded instruments and programmes, and should be based on the 'Responsible Partnering' guidelines developed by European universities in cooperation with representatives from European industry and other research institutions.

21. How should the role of the European Research Council be strengthened in supporting world class excellence?

In order for the ERC to establish itself internationally as a funding body promoting world-class excellence, it is essential to continuously increase its budget and ensure that it will maintain administrative and academic autonomy for the long term. The ERC's Scientific Council must be able to operate free of external influences and with the highest possible degree of transparency in terms of its decision-making processes as well as its appointment policies. The three core principles—'excellence as the sole criterion for funding', 'openness to research topics' ('bottom-up'), and 'investigator-driven research'—were key factors in the success story to date for the ERC and should not be compromised.

22. How should EU support assist Member States in building up excellence?

The promotion of 'capacity-building measures' for universities and other R&D institutions should become one of the primary tasks of EU cohesion policy in order to boost the innovation strengths of emerging companies and universities in less competitive regions. This step must be accompanied by the possibility of using all EU financial instruments to support and develop the knowledge triangle of education, research, and innovation. This will make it possible for more companies and universities in these regions to attain standards of excellence in research and to present themselves as attractive potential

cooperation partners for industry and other research organisations. Investment in higher education, research, and science should be broadly interpreted in the context of cohesion policy as infrastructure policy and investment.

The decision-making processes for capacity-building activities on the project level require different regulatory frameworks than those used for the funding of research in which the pursuit of excellence can serve as the sole guiding principle. Nevertheless, research-related projects with capacity-building objectives also need to go through a neutral review process that incorporates the proven method of peer review by experienced and prominent scientists and experts, whenever that is possible. It appears that cross-border cooperation may also be appropriate in many cases to facilitate a high level assessment process that ensures quality.

23. How should the role of Marie Curie Actions be strengthened in promoting researcher mobility and developing attractive careers?

Marie Curie funding for doctoral candidates through the Initial Training Networks (ITN) has, in the eyes of the German universities, also proven its value, yet urgently requires additional funding. It is only in this way—and not through the introduction of co-financing requirements—that the extremely low acceptance rates and the associated rejection of many excellent applications can be meaningfully addressed. Significant redundancies also still remain between the ITN and the Erasmus Mundus Joint Doctorates (EMJDs). These should be eliminated in order to achieve better coherence and efficiency for the programmes.

The Marie Curie Actions should continue to be used as a tool to promote the geographic and intersectoral mobility of researchers and scientists. The underlying concept of 'intersectoral mobility' should not be confined here to cooperation with industry alone. This would make the participation of disciplines, such as the humanities and social sciences, that have no, or only weak, ties with industry much more difficult or even impossible.

The co-financing instrument COFUND should be made available to smaller applicants in future, such as smaller universities. The German universities welcome the planned pilot initiative to support international doctoral candidates completing parts of their doctoral research in industry with EU funds ('Industrial PhD'), as is currently being discussed in talks leading up to the Work Programme for 2012. It should also be kept in mind that it is not the financial incentives, here given in the form of subsidies, but the (anticipated) mutual benefits to companies and researchers that will prove decisive for the realisation and ultimate success of this kind of cooperation. The long tradition of doctoral training organised in collaboration with industry in Germany shows this very clearly. The pilot initiative must be carefully planned to reduce the likelihood of deadweight effects as much as possible.

24. What actions should be taken at EU level to further strengthen the role of women in science and innovation?

The German universities see the goal of equal (career) opportunities for all as one of their duties, and pursue this goal internally as a strategic, cross-cutting issue. At the EU level, the universities have supported the European Partnership for Researchers and were also involved in the creation of the national report from the German Federal Government in 2009/2010. Many of the instruments described here, such as the creation of a fund to cover pregnancy-related absences or the consideration of pregnancy and childrearing periods in the evaluation of individual research achievements, could serve as a model for EU funding.

25. How should research infrastructures (including EU-wide e-Infrastructures) be supported at EU level?

The promotion of European research infrastructures should be based on a coordinated funding approach at the regional, national, and European levels. Combining funds from the Structural Funds and the Research Framework Programme has often proven to be too complicated and excludes the possibility of university participation in a cost-covering capacity. The European Commission's proposed 'Common Strategic Framework' for research and innovation could offer a promising framework for improvement.

The synergistic networking and research use of existing infrastructures—including by international researchers—must be strengthened. The discipline-specific and transnational training activities of European infrastructures, particularly those in cooperation with universities, should also be supported through EU-funded programmes. In the case of EU funding for research infrastructure, Open Access should be established as a fundamental principle for publications.

26. How should international cooperation with non-EU countries be supported e.g. in terms of priority areas of strategic interest, instruments, reciprocity (including on IPR aspects) or cooperation with Member States?

The German universities see the further opening of the European Research Area to cooperation with third countries as a core prerequisite to ensuring its future competitiveness. Science is by definition international. Therefore, the geographical dimension in EU-funded activities that promote the mobility of researchers should be defined even more clearly as 'international' rather than 'European'. The promotion of international cooperation must always be accompanied by measures to increase the attractiveness of Europe as a centre for science and research, as well as consistent support for the development and implementation of individual internationalisation strategies by European universities and research institutions.

27. Which key issues and obstacles concerning the ERA should EU funding instruments seek to overcome, and which should be addressed by other (e.g. legislative) measures?

Collaborative research and the Marie Curie Actions are the central financial instruments of the Research Framework Programme for the creation of the European Research Area. They must therefore be given appropriate weight in the planning for the period from 2014.