

# Science Europe Position Statement



Horizon 2020: Excellence Counts  
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**SCIENCE  
EUROPE**  
Shaping the future of research

# Horizon 2020: Excellence Counts

Producing excellent science and research has historically been Europe's key asset for sustainable growth and maintenance of a leading position in a highly competitive global economy. National research systems have vast experience in funding research and building scientific capacity by applying excellence as the main criterion for selection.

National governments, stakeholders, in particular research funding and performing organisations, and European Institutions are pooling their experience in order to continuously develop the European Research Area (ERA), with the aim of increasing the efficiency and impact of research and of co-operating across borders to allow researchers and knowledge to flow freely within Europe.

Realising the ERA to its full potential will require enhanced co-operation between national and European research and funding systems. Diversity and competition between funding programmes at the national and European levels remain indispensable.

In respect of the principle of subsidiarity, Horizon 2020, the European Framework for Research and Innovation from 2014 – 2020, complements national and cross-border efforts and should strengthen the impact of investments into science, research and innovation.

## Excellence Needs Basic Research for Innovation

Horizon 2020 will be a framework programme designed and adopted during a period of financial uncertainty in Europe. The adopting institutions and the stakeholders involved will have to avoid short-sighted visions of research purely as a provider of 'quick gains'. Tackling societal challenges and making breakthrough discoveries is not a linear process, and therefore what is needed is support for science and innovation as a holistic system.

Therefore, Science Europe welcomes the proposed reinforcement under Horizon 2020 of the European Research Council (ERC). The increased funding for excellent frontier research is an encouraging sign, and might help to avoid the danger of neglecting support for basic and fundamental research.

The principle of excellence is already deeply rooted in the ERC, which we strongly support, but Science Europe is convinced that it equally has to be applied, in whatever way is appropriate, across the rest of the programme and along the entire innovation chain.

Similarly, Science Europe welcomes other measures for strengthening basic research in the first pillar of Horizon 2020, such as the open collaborative research financed under Future and Emerging Technologies.

Science Europe believes that basic research in all disciplines should be supported within all three pillars of Horizon 2020.

In order to ensure research excellence in a long term perspective, a continuous supply of young researchers and excellent training is necessary. The Marie Skłodowska-Curie Actions provides this and is therefore an important feature of Horizon 2020.

## **Competition and Co-operation Lead to Excellence**

The success of European research and innovation is based on the right balance between co-operation and competition. Horizon 2020 should support widening of excellence and capacity building through these two principles.

Open competition of funding of the best ideas is essential for scientific progress. Effective competition requires consistently high standards, and transnational mechanisms for reviewing and financing cross-border research. The selection criteria for all parts of Horizon 2020 should be based on scientific quality and impact.

Co-operation in research leads to critical mass, European added value and ultimately better science with higher impact. Collaborative projects under Horizon 2020 will foster free movement of ideas, knowledge and talented researchers.

Countries with less-developed research systems may face particular challenges, such as loss of human capital. Where appropriate, this should be recognised in Horizon 2020, and measures to mitigate such disadvantage should be considered.

Science Europe welcomes the strengthening of interactions between Horizon 2020 and the Structural Funds. These should effectively align and leverage funding opportunities to support research and innovation in Europe, to build scientific capacity, to foster investment in world-class pan-European research infrastructures, and to improve working conditions for researchers.

## **Excellence Needs Simplicity**

Simplicity – that is, a set of simple rules, governance, objectives and instruments – should be at the core of Horizon 2020 in order not to distract researchers from the research itself.

The constantly growing number of instruments, policy initiatives, expert boards, strategic fora, platforms and new types of legal entities during the lifetime of FP7 has led to a less transparent and increasingly complex landscape. Research organisations – and, increasingly, researchers themselves – have to spend time on administrative and political issues leaving less time for research.

It is evident that key scientific aspects of research and innovation framework programmes should be guided by input from the scientific community. The best use of such expert input into Horizon 2020 is achieved by making the procedures through which the scientific community gives input as accessible and as transparent as possible.

Accounting for the spending of Horizon 2020 funding has to be as simple, and as little prone to errors, as possible. Accepting nationally-approved accounting practices implemented by participants ensures consistency, reduces the source of errors and simplifies the management of projects for the beneficiaries.

Science Europe welcomes the increased proposed maximum reimbursement rate for research projects. Nevertheless, beneficiaries who have been implementing analytical accounting systems, consistent with policy guidelines issued by the European Commission, that allow them to clearly identify the real costs of a project should have the option of declaring, and claiming on the basis of, those costs.

In addition, Science Europe looks forward to further clarification on the cost model, especially on the definition of what constitutes direct and indirect costs; stability and consistency of definitions is a key concern for all participants in Horizon 2020.

## **Excellence Needs Interdisciplinarity and Relevance**

A key to future scientific breakthroughs lies in interdisciplinary research. Particularly when addressing societal challenges, Horizon 2020 has to strike the right balance between supporting research in all scientific disciplines, including the social sciences and the humanities, and creating opportunities for both large-scale and small-scale projects that break through disciplinary boundaries.

In this spirit, Science Europe supports a redefinition of the sixth Societal Challenge, separating into two areas, a sixth challenge, 'Europe in a changing world' and a seventh challenge, 'Secure societies: protecting freedom and security of Europe and its citizens' as proposed in the European Council partial general approach.

At the same time, a strong and genuine role for the Social Sciences and Humanities is needed in all funding areas of Horizon 2020.

Of critical importance is the practical question of how the societal challenges directly addressed by Horizon 2020 can be linked to the rest of the Framework Programme, as well as to a series of partnership initiatives beyond Horizon 2020 within ERA.

Scientific excellence requires long-term commitments and continuity. The two large projects, GMES and ITER, need to be funded through the multiannual financial framework of the EU, in a way that assures their sustainability. However this cannot be to the detriment of the proposed budget for Horizon 2020 and its presently-proposed programme parts.

## **Excellence Needs Openness**

Science Europe, in line with its commitments to the ERA, fully supports gender equality and welcomes further opportunities in Horizon 2020.

Another area in which Horizon 2020 can make a real difference is Open Access. Open Access to the results of publicly-funded research will have clear benefits for the research community, for industry, and for the public, as

all research and innovation builds on the capacity of scientists, research institutions, businesses and citizens to openly access, share and use scientific information.

Science Europe's member organisations are convinced that publication and dissemination are an integral part of the research process. Scientific publications (together with the underlying datasets if applicable) are often the most important results of any research project.

Science Europe advocates that Open Access shall apply in all areas of Horizon 2020. With regard to dissemination through research publications, Open Access shall apply as a default policy with the aim of free of charge, on-line public access to EU-funded research publications. Horizon 2020 should make provisions that allow and ensure different models of Open Access publishing, including both the 'Golden Road' and the 'Green Road' to fully and freely accessible publications.

The role and operation of digital infrastructures and repositories for the visibility and dissemination of Horizon 2020 research results should be strengthened. Together, these measures will not only ensure that findings are communicated more quickly, but also facilitate an open exchange of scientific results, thereby increasing the benefits of the relevant investments for as large a circle as possible. We consequently strongly welcome the Commission's proposed policy on Open Access to research results from EU-funded research.

## Summary

Science Europe supports the Horizon 2020 proposal put forward by the European Commission.

However, there remain some concerns regarding its overall coherence and the risk of duplication and fragmentation; as details are further developed, attention will need to be paid to the relationships between the different elements of the programme, both in terms of policy and implementation.

Science Europe is committed to contributing to making Horizon 2020 a success and offers its expertise whenever helpful.

Science Europe is a Brussels-based association of 51 European national research organisations. It was founded in October 2011 with the aim of promoting the collective interests of members and providing them with a platform to collaborate at both policy and activity level. More information is available at [www.scienceeurope.org](http://www.scienceeurope.org)