



COST FP9 Position Paper

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Key position points

- The next European Framework Programme for Research and Innovation should provide sufficient funding for **open networks** that are selected under a **bottom-up** and **inclusive** approach, ensure scientific and technological **excellence**, have a **multidisciplinary** character, and encourage involvement along the whole value chain of **production and dissemination of knowledge**.
- The activities of these networks should create links and synergies between **all European countries** and enable the **connection** of various **islands of excellence in Europe and beyond**; and ensure the **maximization of resources**, the **defragmentation of knowledge** and effective **leveraging of nationally funded research**.
- Within these networks, there should be a special focus on **young researchers** allowing them to fully use their talent and encouraging 'brain circulation'.

COST has the tools and experience to contribute to these objectives through activities that produce scientific results, propel careers, and use an inclusive approach to strengthen European scientific and technological development.

COST can become the leading open networking programme within the ERA through the critical impact it achieves by pooling national investment for research and innovation projects. COST addresses societal challenges by focusing on emerging topics of research and breakthrough knowledge that will provide relevant input for the next Framework Programme for Research and Innovation. COST's policies, objectives, and activities, will contribute to the DG R&I's 'three O's' priorities: Open Science, Open Innovation, Open to the World. COST activities will enhance brain circulation, and contribute to production and exploitation of excellent European science and innovation. In order to fulfill these objectives, COST will need its budget to be reinforced in the next European Framework Programme for Research and Innovation, as well as a funding scheme that is better suited to its organisation.

How to ensure the future of Europe through research and innovation?

Europe faces changes that will affect our societies and environment with unanticipated speed. As social and economic challenges mount, research and innovation provides the best prospect for solutions. Investment in research and innovation is key for the EU to realise its ambition of becoming a smart, sustainable and inclusive economy and to make an important contribution to the future well-being of society. The next Multi-Annual Financial Framework should allocate a significantly larger share of the overall EU budget to the next Framework Programme for Research and Innovation (FP9), increasing it from the current 8% of the overall EU budget for Horizon 2020.

For research and innovation to ensure the future of Europe, EU decision-makers must attribute sufficient funding for following objectives:

1. Foster excellent collaborative, transdisciplinary, bottom-up research undertaken by networks

Cooperation - across disciplines and areas of science, as well as with stakeholders outside the science system - is an essential precondition to achieving real breakthroughs in research and innovation. Collaborative, bottom-up research projects will enhance European excellence and bring clear added value by drawing together various kinds of expertise, knowledge and cultures. The open nature of bottom-up research allows researchers the freedom of thought that leads to solutions to societal challenges and identifies new emerging topics. Multidisciplinary research often results in discoveries and innovations that, in turn, will help the European Union to realise its ambition to boost jobs, economic growth, investments, and improve the quality of life of its citizens and the environment.

2. Closing the innovation divide in Europe

Under the current implementation of Horizon 2020, not enough is being done to narrow the participation gap and close the innovation divide, or to support excellent researchers and institutions located in all geographical areas of Europe. Structural Funds play a part in building up excellence, but they must be complemented by actions that focus on inclusiveness in order to create strong links and synergies between researchers all across Europe. It is crucial to eliminate structural disadvantages, reduce disparities and close the innovation gap between regions and countries, so that researchers from every part of Europe can participate in EU programmes on an equal footing.

3. Focus on the next generations

Europe is currently building a next generation of researchers and innovators capable of leading the European Union into the future. Europe must take advantage of the enormous amount of talent that exists in the young generation and offer career perspectives that will enable them to develop and exploit their full potential. Networks and contact with more experienced researchers will empower young researchers and open their career perspectives. It is important for young researchers to broaden their scope and knowledge beyond their own scientific discipline, and to be exposed to transferrable and transversal skills, so that they can pursue multiple career pathways.

How is COST contributing?

COST activities contribute to all these objectives. COST has accumulated more than 45 years of experience of creating open networks of excellence in all scientific fields, where knowledge is freely shared among all types of specialists using bottom-up principles. COST nourishes open, free spaces where people and ideas can grow. This helps to internationalise the scientific community and leads to true breakthroughs in science and technology in Europe and beyond. In 2016, 327 COST Actions were running, with more than 45,000 researchers involved.

COST plays an active role in the Spreading Excellence and Widening Participation part of Horizon 2020 by providing access to international networks for excellent researchers and innovators who may lack sufficient involvement at the European and international level. As concern about the innovation divide in Europe moves up the agenda in the years to come, COST should play an even more important part of the effort to realise Europe's potential in research and innovation.

COST will continue to fund advanced, cutting-edge, innovative networks that invite the participation of all relevant players - from researchers to SMEs and civil society organisations. COST will become the most efficient and user-friendly research networking mechanism for researchers and it will be the leading community for exchange of knowledge in the ERA. COST Actions are selected through a proposal and evaluation process that is peer-reviewed and multi-disciplinary, friendly, simple, transparent and competitive. COST activities will need to address digitalisation and big data management challenges. Networks will exploit the virtual environment and digital opportunities, while also continuing to encourage 'face-to-face' activities such as workshops, conferences, short-term missions and training schools. Research topics will remain a core network activity, but at the same time, COST has learned that users need to take up other activities such as mentoring and mobility schemes, training in the use of digital tools and methods, and training in innovation. These will all be on offer for COST Action participants. Young researchers will have access to training in transferrable skills that will enhance and broaden their career perspectives.

As well as continuing to fund advanced, cutting-edge, innovative research networks, COST will link participants in COST activities with other ERA instruments, making a tangible contribution to achieving the goals of the ERA. COST will establish partnerships with other research and innovation stakeholders creating a unique network and abundant opportunities for researchers across Europe. These links will be established within the framework of regular COST activities as well as on a higher level that will systematically link COST activities with key ERA stakeholders (such as the European Commission DG R&I, JRC, JPIs, EIT/KICs, etc.) and other European research communities that are working on similar topics or with similar objectives. This will strengthen the contribution of COST to the ERA through mutualisation and pooling of resources at European level.

COST activities will not only focus on Europe. With its Open to the World approach, and targeting the greater participation of non-COST member countries (or countries that could become partners), COST will explore possibilities for future international cooperation.

For more than 45 years, COST has proven to be a valuable networking mechanism in Europe building trust and cooperation with, and within, scientific communities in Europe and beyond. COST provides European added-value through opportunities to collaborate and access new knowledge and know-how, with a modest budget. COST will continue to work to build efficiency, and a fit-for-purpose organisation that maximizes its resources as it provides user-friendly networking platforms. But as COST moves to a more advanced set of activities designed to keep up with trends in networking and how people connect and collaborate, COST will need a reinforced budget in FP9 that is adapted for the enormous societal challenges ahead and allows COST to fulfil the objectives described above. A larger budget, as well as a more sustainable EC funding mechanism, are required.

What impact will COST create?

COST has a clear target for societal outcome and impact: to attract and keep talent in Europe in order to help address the challenges of European society. The impact is on three levels: at the level of the researchers/COST participants, at the level of the COST Action, and at the level of the overall ERA framework.

At the **individual level** of researchers and innovators, COST will:

- boost careers in research and beyond by preparing and empowering individuals with greater certainty; establish Europe as an attractive environment to pursue their careers; and connect them to international reference networks inside and outside Europe;
- promote brain circulation in Europe by integrating all types of specialists (researchers, innovators, policy makers, civil society) within international networks of excellence - constituting an effective brake on the brain drain from peripheral to central regions in Europe or to other attractive ecosystems.

At the **level of the COST Action activities**, COST will:

- promote knowledge creation and its application, through new models, theories, methodologies, processes, and databases as well as standardisation, policy contributions and technological applications;
- defragment knowledge production and boost scientific and technological productivity, through the leveraging effect of COST Actions;
- assist in the identification of emerging topics and breakthrough knowledge, making a contribution to programming and priority setting within FP9.

At the **level of the overall ERA framework**, COST will:

- contribute to the achievement of the ERA by pooling national resources and linking research and innovation communities to other initiatives taken at the European level and beyond;
- continue to have a positive impact on the priorities of the ERA, including priorities such as gender equality, mobility of human resources, Open Science, Open Innovation and International Cooperation;
- contribute to the integration of knowledge and encourage true cooperation between engineering, humanities, natural and social sciences, incorporating stakeholders from the research community at large as well as industry, SMEs, governmental actors and civil society.

Through its enhanced networking activities, COST will contribute to resilient and prosperous societies that are built on research and innovation, and that are capable of adapting to the significant changes that have already occurred or will come, transforming Europe and the world.
