



Brussels, November 2018

Knowledge is Europe's engine

The Presidents of Consiglio Nazionale delle Ricerche (CNR), Centre National de la Recherche Scientifique (CNRS), Consejo Superior de Investigaciones Científicas (CSIC), Helmholtz-Gemeinschaft, Leibniz-Gemeinschaft and Max-Planck-Gesellschaft, six major European research organizations that lead the way in terms of skills, networks and interdisciplinary research convened at a meeting in Brussels. With the strong conviction that **knowledge will be the most powerful engine to lead Europe towards sustainable development and common progress**, they issue the six following recommendations as key principles to guide the future of research and innovation in Europe.

1. Spending for science is investing in the future

Increasing research budgets is the only way to maintain our position with our key competitors - particularly in Asia - who are massively increasing their funding for research, to improve our ranking among the global competition and to maintain our scientific and industrial leadership.

2. There is no alternative to excellence

Excellence is an imperative of the first order if Europe wants to remain one of the most attractive and competitive global research hubs. Therefore, excellence should be the backbone of all programmes and instruments that structure the European Research Area, promoted as an integrative priority and spread widely throughout Europe along with the relevant means and expertise.

The ERC must be confirmed as the globally recognized label it has become over the course of a decade and preserved from any change, which could endanger its success story.

3. Disruptive innovation depends on fundamental science

The future of Europe depends on groundbreaking new ideas and disruptive innovations that go far beyond the gradual improvement of existing technologies and generate economic growth and social impetus. Disruptive Innovation builds on strong curiosity-driven fundamental research as a major driving force.

It is also of critical importance to encourage the cooperation between academic and industrial research systems in order to share and juxtapose ideas and translate high-risk fundamental research into wholly new products and solutions.

4. European research relies on large infrastructures

World-class research in many fields relies on advanced infrastructures. These infrastructures build on cutting-edge technology development and attract international communities of talented scientists. This is also an excellent way to develop sustainable interdisciplinary networks and innovative approaches in certain areas.

Europe is an ideal environment for developing and exploiting prominent large-scale research infrastructures, including SSH infrastructures. Making them accessible to all European researchers will also help to stabilize the less research-intensive regions that still exist in Europe.

5. Cooperation is in the European DNA

Cooperation between scientists and the exchange of ideas have led Europe to tremendous achievements. This cooperative mind-set is more than ever the essential condition for the construction of an integrative Europe with no barriers. It can serve as a major catalyst for the European idea. This is also the best way to convince top-level students and renowned scientists from across the globe to come to Europe and settle here.

Along with existing instruments encouraging collaborative projects that represent the cornerstone of the framework programme, Europe should be innovative and propose specific measures to build critical masses and to attract or bring back the best talents working all over the world.

6. Science nurtures good governance

Fake news, climate scepticism or fundamentalism: science carries a high responsibility to tackle some of these issues which constitute a threat to all democracies. In developing open science, in promoting new ways of science communication and in supporting evidence based political decision making, European research is playing a key role in consolidating democracy, social cohesion and cultural integration.

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