

A new ERA for Research and Innovation - a spotlight on the relevance for European Partnerships

This article summarizes the Communication on a new European Research Area for Research and Innovation, adopted by the European Commission on 30 September 2020, with a view to European Partnerships.

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1. Key findings with a view to European Partnerships

The New ERA Communication sets out a collaborative framework for the Commission, Member States and R&I stakeholders to achieve four key strategic objectives: prioritising investments in R&I to successfully accomplish the green and digital transformation, improving access to excellence, translating R&I results into the economy and deepening policies that promote the free circulation of knowledge.

European R&I partnerships, with Member States and industry, in key policy areas¹ are seen to be essential for prioritizing investments and reforms in research and innovation towards the green and digital transition and to support Europe's economic recovery. Therefore, a target of spending 5% of national public funding to joint research and development programmes and European partnerships, by 2030 has been set.

The 'Widening participation and strengthening ERA' package shall support less performing Member States, to valorise and connect existing ecosystems. It will support collaborations with more experienced counterparts in order to enhance access to excellence.

For speeding up the transfer of research results into the economy, the Commission will guide the development of common technology roadmaps. These roadmaps shall be part of the Strategic Innovation Agendas agreed with Member States and industry, under the Horizon Europe R&I Partnerships.

For achieving greater societal impact and increased trust in science, high emphasis shall be put on the engagement of citizens, local communities and civil society for the new ERA. The communication calls Member States, research organisations and industry to involve citizens in technology choices and to agree on principles, recommendations and good practices for incentivising and rewarding citizen participation.

For the governance of the ERA, a European Pact for Research and Innovation will set out commonly agreed values and principles and indicating the areas where Member States will jointly develop priority actions. A transparent monitoring system will be accomplished through the publication of a yearly ERA Scoreboard which will address the progress at EU and national level. ERAC will continue to provide strategic advice on priority setting, monitoring and assessment, to deliver on the new ERA vision.

¹ The communication mentions health, accessibility, digital, industrial competitiveness, to climate, energy, mobility, natural resources and food systems.

2. Summary of the Communication

2.1. Past achievements and new challenges

In the context of the Lisbon Strategy devised in 2000, the European Research Area (ERA) aimed at creating a single market for research and innovation, fostering free movement of researchers, scientific knowledge and innovation, and encouraging a more competitive European industry.

Over the past 20 years, the process of creating the ERA, effectuated more than EUR 7 billion of national investments in joint research programmes since 2004, with current annual joint spending of EUR 800 million. Under the European Strategy Forum for Research Infrastructures (ESFRI) framework, 55 European Research Infrastructures (thereof 37 already implemented), are mobilising close to EUR 20 billion in investments. Significant progress has also been made in removing geographical barriers to researchers' mobility and the fragmentation of research careers in Europe. The ERA has also enhanced the access to open, free of charge, re-usable scientific information.

But at the same time, the communication acknowledges that EU R&D investment is still far from reaching the 3% of GDP target, science quality and innovation activity show significant discrepancies within the EU, and Europe is still lagging behind in translating R&I results into the economy, calling for a strengthening of technology transfer, public-private cooperation and industrial innovation. Despite continuous policy attention also progress in reaching gender equality in R&I remains insufficient.

Acknowledging these gaps in achieving the ERA, the communication also outlines key challenges ahead, which the COVID-19 pandemic has even more aggravated. These relate to 1) a green-transformation for achieving self-committed climate neutrality of the EU by 2050, 2) a digital transformation, based on European values, 3) the conversion of the outcomes of its excellent research into disruptive innovation, and 4) the ability to autonomously source and provide crucial materials, technologies and services that are safe and secure for industry and people. Overall, delivering on Europe's recovery is seen as a pressing priority, while the green and digital transitions (twin transition) are more important than ever.²

² IPCC Special Report on the impacts of global warming of 1.5°C (2018)

2.2. *Vision and objectives of the new European Research Area*

Against the challenges ahead, the new ERA aims at improving Europe's research and innovation landscape, accelerating the EU's transition towards climate neutrality and digital leadership, supporting its recovery from the societal and economic impact of the coronavirus crisis, and strengthening its resilience against future crises.

The principles of the new ERA will be 'based on excellence, competitive, open and talent-driven'. The Communication defines four strategic objectives, of which the first three broaden the concept of the ERA towards new priorities, and the fourth deepens the ERA in existing priorities:

1. **Prioritise investments and reforms in research and innovation towards the green and digital transition, to support Europe's recovery and increase competitiveness.**

For delivering research and innovation that has impact on the ground in key policy areas from health, accessibility, digital, industrial competitiveness, to climate, energy, mobility, natural resources and food systems - pursuing joint strategic agendas with Member States and industry through a streamlined set of "R&I Partnerships" are seen to be essential, as well as new forms of collaborations such as the future R&I "R&I Missions". The Communication reaffirms the target of 3% of GDP to be invested on EU research and innovation and sets new targets of 1) raising public R&D efforts from 0.81% to 1.25% of GDP and 2) spending 5% of national public funding to joint research and development programmes and European partnerships, by 2030.

The coordination of R&I investment and reform should occur by 1) setting funding targets, in particular for supporting the twin transition and the recovery priorities, 2) by joint programming with priority areas for action and ambitious budgets to facilitate the critical mass needed in key areas with a strong focus on deployment of new technologies, and 3) through engaging in Horizon Europe Missions and Partnerships to support the alignment of national strategies and industrial and business investments towards common EU objectives.

2. **Improve access to excellent facilities and infrastructures for researchers across the EU.**

Member States' research and innovation investment remains uneven, which translates into gaps in scientific excellence and innovation output that need to be bridged. The Commission proposes that Member States lagging behind the EU average ratio of R&I investment in GDP increase their R&I investments by 50% in the next 5 years and that Member States lagging behind the EU average on highly cited publications should reduce the gap to the EU average by at least one third in the next 5 years. The EC will support less performing Member States, through the 'Widening participation and strengthening ERA' package, to valorise and connect existing ecosystems. It will support collaborations with more experienced counterparts in order to enhance access to excellence. The Widening programme will continue to operate in synergy with the

Cohesion Policy. In order to nourish talent for excellence, the ERA4You initiative will be launched to deepen the European Research Area by strengthening the mobility opportunities for researchers to access excellence and expand their experience through dedicated mobility schemes between industry and academia. It will include, targeted mobility measures to support researchers in Member States with low R&I performance to learn and develop excellence, in order to broaden the talent capacity.

3. Transfer results to the economy to boost business investments and market uptake of research output, as well as foster EU competitiveness and leadership in the global technological setting.

To speed up the transfer of research results into the economy, the Commission will guide the development of common technology roadmaps with industry to include R&I investment agendas from basic research to deployment. These roadmaps will allow an efficient use of the full set of support mechanisms to crowd in private investments in key cross-border projects. These roadmaps will be part of the Strategic Innovation Agendas agreed with Member States and industry, under the Horizon Europe R&I Partnerships.

For strengthening innovation ecosystems for knowledge circulation and valorisation, the European Commission suggests developing an ERAHubs initiative, to facilitate collaboration and exchange of best practices, with the incentive to maximise the value of knowledge production, circulation and use. The initiative is supposed to build on existing capacities, such as the Digital Innovation Hubs and clusters, and linking to the Enterprise Europe Network and StartUpEurope.

4. Deepening ERA – research careers, open access, infrastructures and gender equality

For strengthening the mobility of researchers and a free flow of knowledge and technology, through greater cooperation among Member States, to ensure that everyone benefits from research and its results the commission seeks setting up a European Framework for Research careers, enhance open science, foster European research and technology infrastructures, strengthen the public science system through synergies with the European Education Area and reinforce Gender equality measures. Core elements of actions are: 1) the provision of a toolbox of support for researchers careers by the end of 2024, 2) provision of a platform of peer-reviewed open access publishing and ensuring a European Open Science Cloud, 3) support ESFRI to work towards a world-class research infrastructures ecosystem focusing on the broader range of the EU's policy priorities, 4) developing roadmap of actions for creating synergies between higher education and research, and 5) developing inclusive gender equality plans with Member States and stakeholders in order to promote EU gender equality in R&I.

2.3. *Citizen's engagement & international cooperation*

For achieving greater societal impact and increased trust in science, the communication puts high emphasis on the engagement of citizens, local communities and civil society for the new ERA. The communication calls Member States, research organisations and industry to involve citizens in technology choices and to agree on principles, recommendations and good practices for incentivising and rewarding citizen participation to promote trust and facilitate the uptake of science, technology and innovation. The Commission will therefore, with Member States and stakeholders organize Europe-wide participatory citizen science campaigns to raise awareness and networking, crowdsourcing platforms and pan-European hackathons, in particular in the context of Horizon Europe Missions.

The communication also stresses the relevance of international cooperation. Creating partnerships globally, in order to enhance knowledge sharing and skills as well as research and innovation capacities, without accelerating brain drain, will be key, particularly for the benefit of young people. Cooperation will be based on multilateralism, reciprocity and purposeful openness, combined with strategically targeted actions with partners on the Green Deal, health and the digital transition. Geographically, the communication stresses that the European Neighbourhood deserves specific attention.

2.4. *Governance of the New ERA*

The communication acknowledges, that the new ERA requires action at national and EC levels, supported by a process to set and update policy priorities, monitor and assess progress and ensure strategic advice towards common objectives. Therefore, the communication foresees that 1) a European Pact for Research and Innovation will set out commonly agreed values and principles and indicating the areas where Member States will jointly develop priority actions, 2) the ERA Forum for Transition may also contribute to the identification of investments and reforms to help Member States prepare their national Recovery and Resilience plans, and 3) a transparent monitoring system will be accomplished through the publication of a yearly ERA Scoreboard which will address the progress at EU and national level, revise priorities and actions in the ERA Roadmap and provide evidence and analysis for the European Semester. The ERAC will continue to provide strategic advice on priority setting, monitoring and assessment, to deliver on the new ERA vision.

Links:

- [Communication on A new ERA for Research and Innovation](#)
- [Fact Sheet 14 ERA actions](#)
- [Commission Staff Working Document Accompanying the Communication](#)

Imprint

AUTHORS
Michael Dinges