

The future of ERA

A Belgian contribution to the debate

The European Research Area (ERA) is a wonderful, dynamic and unifying concept adopted in the year 2000 and since adapted. Its main goal is the creation of a unified research area open to the world. The implementation of its six main priorities has been guided and supported by a roadmap for the period 2015 - 2020 and by its monitoring. This monitoring shows that, even if large disparities between countries persist, Europe made huge progress in unifying its research and innovation (R&I) landscape and in enabling the free circulation of researchers, scientific knowledge and technology. ERA is a framework with strengths, weaknesses, and room for improvement. With the present document, Belgian administrations in charge of R&I hope to jointly contribute to the improvement of ERA and to the preparation of the European Commission's new communication on this subject, expected by mid-2020.

The relevance of the current ERA priorities and the needs to be addressed by the new ERA

The current priorities of ERA are still valid, as nearly all of them (as further explained) can still and should be improved. Moreover, many Belgian players consider these priorities as being more straightforward, consistent and less vague than the ones proposed by ERAC in December 2019. However, Europe and the world have substantially changed since the current priorities were adopted: the emergence of several episodes of pandemics, the digitalisation of our society, the launch of Europe's Green Deal, the trivialisation of fake news, the need for social accountability... All these elements are important enough to be taken into account when reviewing the ERA priorities. The new ERA should capitalise both on the successes and lessons learned from its 20 years of experience to evolve and adapt to Europe's new context. The future of ERA should be an evolution rather than a revolution and lead to an incremental rather than a disruptive ERA.

If we take the priority of having a truly open labour market for researchers in which brain circulation is seen as a plus without creating any rights' penalties (like pension rights) for the researchers or the institutions, we observe that such a level of mobility on the R&I labour market has not yet been achieved. It will also probably need to be re-considered in the light of the impact of the recent corona crisis and possible future pandemics. How should research mobility be organised in the future? How can networks of researchers exchange knowledge in an efficient way without frequent travelling?

Free circulation of knowledge should remain at the core of ERA and be contextualised within the Sustainable Development Goals (SDGs) from the perspective of sustainable growth for improving European competitiveness and well-being. Knowledge should not only encompass science (usually leading to codified knowledge) but also innovation (technological as well as societal/social) and

experience (implicit or even tacit knowledge). When determining the needs for a new ERA or when assessing the current priorities, knowledge circulation has to be considered together with knowledge co-creation, knowledge absorption and knowledge application as elements of a dynamic system. Providing a framework for R&I and linking it to education, training and skills' development is therefore of the highest importance to continuously extending Europe's knowledge base. However, existing barriers to knowledge exchange and to technology transfer show us that there is still some work to be done. Tackling open access and open innovation is certainly a way of progressing. A demand exists for EU-regulation to streamline what constitutes open access. There should be equal guidelines surrounding open access in every EU member state, with the common purpose of improving access to publicly funded research results (e.g., by applying the FAIR principles) and of reducing access costs. ERA should engage in open science solutions ("as open as possible, as closed as necessary") that benefit researchers from all disciplines, including arts and SSH, innovators and citizens.

The current priority "Optimal transnational cooperation and competition, including 'jointly addressing grand challenges' and 'research infrastructures'" achieved an "operational status". The EU R&I framework programme is the major contributor to cooperation around the grand challenges. Also regions and countries all over Europe, inspired by the SDGs and other common challenges, embraced the idea of addressing grand challenges together. Concerning research infrastructures, the European Strategic Forum for Research Infrastructures is a success story with well-designed processes and structures (and probably one of the few well-known ERA achievements). The results of this priority should be further supported but probably no longer as a priority.

Concerning gender equality and gender mainstreaming in R&I, although progress has been made, both dimensions (which should be one of the pillars of our democratic institutions) are far from being achieved. This should certainly remain an ERA priority. Recommendations expressed in the EU Gender Equality Strategy 2020-2025 to achieve a Union of Equality should be supported. These include the availability of funding for gender and intersectional research.

In terms of international cooperation with third countries, although this priority is seen as very valuable, achievements are far from meeting the initial expectations of a Europe 'open to the world' and reinforced in the global R&I landscape, with a clear strategy and visible branding. Elements which still need reflection include the difference of paradigms between the continents concerning the role R&I should play, Europe's capacity to attract the best talented researchers and innovators, multilateral cooperation versus bilateral cooperation and the leading role in tackling global challenges and reaching the SDG's. Finding an answer to these questions will also allow Europe and the ERA to take a stand against more assertive regions or countries.

A renewed ERA should engage the society in general (and not only the academic world) from the perspective of the quadruple helix model involving academia, industry, governments and civil society and spanning multiple levels of governance. It is especially important to develop synergies between research, innovation and education (including the development of attractive career paths for researchers and educators). The ERASMUS+ programme, the European Universities Initiative, as well as the EIT, could be building blocks to this end. Development of interdisciplinary European R&I

partnerships across STEM and SSHA, focusing on societal and environmental benefits, should also be pursued.

Concerning the place of civil society within ERA, most of the funding agencies and R&I policy makers have little (or no) experience in engaging with citizens in S&T. Popular consultations on questions and topics that move the hearts and minds of citizens could be a way of engaging with citizens, academia, innovators and policy makers on the role and added-value of R&I. For many of us, the European missions will be a first attempt to do that. The new ERA should contribute to sharing best practices and experiences in citizens' dialogue, a field where the local level and the regions, by being closer to people, can certainly help.

Belgian national specificities and the ERA objectives

For a country like Belgium, where R&I policy is a competence shared between different authorities, ERA can certainly contribute to the harmonisation and alignment of measures in favour of R&I e.g., by encouraging the development of tools and platforms to facilitate ERA deployment, to share data, information and knowledge, or by providing a common strategic framework (e.g. codes of conduct, ethic charters, codes of practice, standards, guidelines). For instance, in terms of an open labour market for researchers, the level of bureaucracy is still high and needs to be reduced. The problem often results from the non-alignment of EU policy and national policies. A concrete example is the scientific statute of researchers: for some Belgian research centres it is not possible to give foreign scientists a scientific statute in Belgium; they have to be considered as employees (which contradicts European regulation). It is important to bring the national and the European levels as close as possible.

The new ERA should continue to contribute to harmonise regional, national and European R&I systems (making them interoperable and mutually reinforceable whilst respecting the high degree of diversity: diversity of R&I methodologies, diversity of scientific disciplines, diversity of R&I participants (including gender diversity and different socio-cultural backgrounds), diversity of languages, diversity in the production and in the evaluation of R&I... diversity is, in spite of all the challenges it raises, one of Europe's most fascinating strengths and an asset that ERA should cherish. In that sense, Europe and Belgium share similar diversity strengths and governance challenges.

A successful ERA in 7 years - a glimpse of the *Belgian dreams*

A successful ERA should deliver on the promise of supporting (more and better) the co-creation, free circulation, absorption and application of knowledge. All this must be grounded in a sound logical framework and a well-defined and evidence-based process by which the various countries, together with the Commission, come up with common priorities, actions and goals. A successful ERA should therefore deliver open science and open innovation, with incentives for open access offering conditions that facilitate researcher's access to the best research infrastructures and that support

the exchange, sharing, access and analysis of R&I information and FAIR data in a collaborative spirit at European and global level. To support this, a revised system of research evaluation, going beyond the quantification of publications and patents, with indicators of excellence better adapted to the delivered research activities and/or services (e.g. research infrastructures) and to the need to interact with non-academic players and to inter-sectoral mobility, should be developed and implemented.

Gender equality and gender mainstreaming in R&I need to be pushed forward so that ERA can be successful. After spending decades encouraging gender equality and gender mainstreaming, should not the Commission and the member states now dare to impose provisions that can lead to it...?

With the COVID-19-crisis there is a fear that part of the support of fundamental research will flow to more applied research. ERA should not forget the importance of basic research, from which it is possible to switch rapidly to quick solutions, as the current crisis illustrated. A “smart directionality” approach, containing the right mix of curiosity-driven and mission-driven R&I policies, would certainly reinforce both for the benefit of all. In other words, ERA should support the continuum between fundamental research and applied research, leading to the recognition of researchers and of innovators as essential partners of the value chain.

In the future, we should also have an ERA (or rather a "European Knowledge Area") with improved communication and visibility. Before the current pandemics, research results lacked visibility; Europe and ERA should take the current opportunities to become the window of the dynamics of European R&I and to be known outside the R&I (administrative) world. Thanks to its achievements ERA should become a recognisable and trusted brand within and beyond its borders. Through the ERA, science should be appealing in order, e.g., to help European citizens to develop a critical mind against fake news and complot theories. This requires, as we said, an integrated approach with the European Higher Education Area, including the development of attractive career paths for researchers and educators. Also, the development of appropriate mechanisms and transparent processes to monitor and assess the impacts and the benefits of ERA's achievements is of relevance to improve visibility and communication.

Finally, a crucial enabler for a successful renewed ERA is funding: for accomplishing such an ambitious mission the appropriate level of funding is needed, as symbolised by the 3% R&I investment that consequently should remain an ERA target for every ERA country.

To conclude, Europe and the ERA should remain faithful to its values (of academic freedom, excellence, inclusiveness, solidarity, ethics, reciprocity, diversity...) in order to offer a democratic setting where everyone has the possibility and the knowledge to participate in R&I processes. Europe should distinguish itself from other R&I leaders by supporting excellent R&I for the well-being of people and not only for the ultimate goal of achieving economic growth. This is how the EU should look like in 7 years and this is what the cornerstone of negotiation of scientific agreements with other regional blocs should be.