

Empowering Europe's scientific leadership through a renewed European Research Area



The Guild
of European Research-Intensive Universities

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Introduction

The European Research Area (ERA) was established in 2000 to achieve a single market for research, and it has become an ongoing political project that has been adapted several times to reflect the evolving priorities in national and European research and innovation policies. However, during all this time the main objective and purpose of ERA as improving conditions for research excellence has remained unchanged. In 2012, the Commission published a proposal for reinforcing ERA, which was based on the “need to improve Europe’s research performance to promote growth and job creation”, and knowledge “being the currency of the new economy”.¹ This communication reiterated the goal of achieving investment of 3% of EU GDP in research by 2020, and despite positive progress in some countries, it will remain unachieved across the Union.

Increasing the investments in R&I has not been sufficient despite the figures demonstrating that they result in significant economic return: in the case of the 7th EU Framework Programme for Research and Innovation, each euro invested triggered 11 euros worth of direct and indirect economic effects.² The value of research, however, goes much beyond economic returns, as it is a major factor in the well-being of Europeans and in the functioning of democracies. This demonstrates the need to reinvigorate the political commitment to ERA, and to continue its project of boosting Europe’s investments in science and further strengthening its global leadership in this area.

The relevance of ERA for the next decade is emphasised in the way in which knowledge has become even more central in the development of European economies and democracies, and a widely recognised force in building Europe’s capacity to meet the Sustainable Development

¹European Commission (2012). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: A reinforced European Research Area Partnership for Excellence and Growth.

² European Commission (2018). Commitment and coherence. Ex-post-Evaluation of the 7th EU Framework Programme (2007-2013) – Study (2015). Pages 59-60. Accessed through <https://op.europa.eu/en/publication-detail/-/publication/7e74df87-ebb0-11e8-b690-01aa75ed71a1/language-en/format-PDF/source-80689114> in February 2020.

Goals. Moreover, the free circulation of researchers, scientific knowledge and technologies has become increasingly relevant for Europe. When it comes to the free circulation of knowledge, the growing ambition to make the transition to Open Science has been a particular priority in the EU research policy debates in recent years, with its implementation requiring reforms at different levels of the national and European research ecosystems.

Finally, despite the growing importance of science and research in today's society, the commitment to invest in this area has showed signs of weakening in many European countries, and the appreciation of researchers and the need for fundamental research has been questioned by many across Europe. All of these developments make the revitalisation of ERA a high priority, as it should be mobilised to strengthen the high-level political commitment at national and EU-levels to creating the basis for research that our societies need in the future.

1. Scientific knowledge as a core value for Europe

The Guild welcomes the initiative of the Council of the EU and the European Commission to prioritise the development of a renewed ERA as a key initiative for the coming years. As a first step in this process, our network welcomes the work of the European Research Area and Innovation Committee (ERAC) in presenting options for a renewed ERA.³

The Guild fully supports the acknowledgement of ERAC that freedom of science, curiosity-driven research and exchange and the use of knowledge are the very foundations of

scientific excellence, societal progress and quality of life. This is why we strongly support ERAC's recommendation for mobilising ERA to promote scientific knowledge as a core value for Europe.⁴ ERA's new priorities and objectives should be built on this value. The Guild highlights the importance of ERA in the coming decade in strengthening the EU Member States' commitment to protect academic freedom, and setting the standards for excellent science through the strengthening of competitive funding frameworks based on international peer review.

The autonomy of universities and the freedom to pursue academic research are building blocks of a democratic society and the advancement of knowledge, and they act as drivers of economic progress and innovation. Universities can only stay true to their mission and role in society by safeguarding these fundamental principles, which requires the continuous commitment and support from policy-makers at national and European levels. A focus on core academic values must be the bedrock of a renewed ERA, and it should be used to support universities in building their strategies around these values. As highlighted by the Magna Charta Universitatum,⁵ signed by over 900 universities worldwide, research and teaching must be morally and intellectually independent of political authority. Despite academic freedom being included in the EU's Charter for Fundamental Rights,⁶ these values can no longer be taken for granted in an increasingly tense and polarised political climate, where efforts to discredit scientific findings and curtail academic freedom and autonomy are on the rise.

³ European Research Area and Innovation Committee (2020): ERAC Opinion on the future of ERA. Accessed through <https://www.era.gv.at/directory/89> in February 2020.

⁴ Ibid., page 28.

⁵ See <http://www.magna-charta.org/magna-charta-universitatum>. Accessed in February 2020.

⁶ The EU's Charter for Fundamental Rights, article 13. Accessed through <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:12012P/TXT> in February 2020.

The key mission and basic values of universities need to be actively defended, nurtured and pursued through international collaboration. ERA as a platform for strategic alignment between national and European R&I policies is particularly well placed to strengthen a culture that values and promotes academic freedom and the institutional autonomy of universities in Europe.

2. Reformed governance for a more effective and impactful ERA

To improve the effectiveness and impact of ERA as a strategic framework, The Guild endorses the need for increased and regular engagement of higher-level politicians in its governance. This would ensure a deeper commitment of the ministries at the national level, and result in more effective progress towards the objectives.

At the same time, achieving deeper engagement with research stakeholders is an important reform that ERA should develop. This would help in addressing the current lack of engagement and distancing of ERA from the research communities, that it is supposed to empower. As universities represent the end-users of ERA policies, their commitment, advice and awareness are crucial to achieving progress in the national and European R&I systems. The Guild recommends that stakeholders such as universities be involved in structured dialogues with the renewed ERA governance bodies in the early stages of the planning of new ERA policies, ahead of their adoption, and during their implementation. As part of this ongoing dialogue, it is necessary to establish also regular national meetings to discuss the ERA

objectives and their national implementation and development between the responsible ministries and the key research stakeholders. These measures are imperative for improving the effectiveness, outreach and transparency of ERA.

3. Guiding principles for a renewed ERA

The Guild strongly recommends that ERA maintains its focus first and foremost on advancing and empowering the national and European systems in supporting scientific research excellence and the development of knowledge-based societies. We acknowledge that ERA needs to adapt to the emerging needs that the R&I systems are facing, and create better outreach and links to other policy areas. However, broadening the scope of ERA from its core mission could divert the attention from the challenges stemming from the research sector that need addressing, and regard research as only having a role for serving needs arising from other sectors.

Based on this guiding principle, The Guild makes the following recommendations:

- Improving the national and European frameworks for excellent science should remain the core mission of ERA. It should be the focus of all of its priorities.
- Objectives related to the current six priorities of ERA⁷ should form the basis for a renewed and ambitious ERA strategy.

⁷ 1. More effective national research systems; 2. Optimal transnational cooperation and competition, including 'jointly addressing grand challenges' and 'research infrastructures'; 3. An open labour market for researchers; 4. Gender equality and

gender mainstreaming in research; 5. Optimal circulation, access to and transfer of scientific knowledge, including 'knowledge circulation' and 'open access'; 6. International cooperation.

- The involvement of stakeholders in the planning and implementation of ERA priorities should be improved to ensure their impact and increase the engagement with the research sector.
- To ensure the effectiveness of the renewed ERA strategy, ERA countries need to demonstrate an increased commitment to their jointly agreed commitments, beginning with realizing their goal of investing at least 3% of their GDP in R&I. The European Semester process should be used to monitor the public investments in research, including in universities through institutional and competitive funding.
- The implementation of the concrete objectives should be systematically embedded in national and regional R&I strategies, as well as at the European level through the implementation of Horizon Europe.
- ERA should serve as a platform for promoting the openness of the European R&I sector to international collaboration and the value of scientific knowledge production to global partners.

4. Recommendations for revitalised ERA priorities

4.1. Achieve balanced development of the national research systems

This objective remains one of the most important elements of ERA, and it should be maintained at the core of the renewed

strategy. Development in ERA countries with regard to this priority has been uneven, and the majority of the countries are lagging behind the goal of investing 3% of their GDP in research and innovation. Moreover, according to the ERA Progress report of 2018, the average growth rate of research excellence in EU countries had halved to 3,2% in 2016, as compared to the rate in 2010-2013. This is connected to some countries either cutting or not increasing their public investment in R&I, and to a lack of competitive funding in some countries that have less developed R&I systems.⁸ Increasing investments in excellent science, through sufficient competitive and institutional funding and adopting high-quality processes for international peer review need to be at the centre of the renewed ERA.

For Member States and other ERA countries to increase their commitment in ERA, they need to feel its benefits in their national contexts. A fully functioning ERA is particularly well placed to advance efforts to capture the full potential of research talent across Europe. Whilst respecting the diversity of national R&I systems is important, the EU can never focus on supporting excellent science in just a small number of universities and research institutes in the way it is done in many other research systems, but instead it needs to be effective in achieving structural advancement in a geographically broad area and support research excellence in all countries involved in its activities.

This priority has special relevance to the objective of reducing the R&I divide between European countries that is addressed through the actions for Widening Participation and Spreading Excellence in Horizon 2020 and Horizon

⁸ European Commission (2019): European Research Area - Progress report 2018, page 5. Accessed through <https://op.europa.eu/en/web/eu-law-and-publications/publication-detail/-/publication/5641328c-33f8-11e9-8d04-01aa75ed71a1> in February 2020.

Europe. The effectiveness of the growing investments from the EU budget to support these measures can only be guaranteed if they are coupled with national strategies that support the necessary reforms and investments needed to improve the attractiveness of the national R&I systems.

Collaborative initiatives between Member States and other ERA countries can also act as role models for attracting leading researchers to lower performing regions. For example, the Dioscuri Centres of Scientific Excellence,⁹ that are jointly managed by the Max Planck Society and the National Science Centre in Poland, aim to support outstanding researchers in leading ten Dioscuri Centres at Polish research institutions in the next decade. Since their work is supported by partners from German institutions, the initiative contributes to research quality in the region, but also to the integration of Dioscuri Centres into leading scientific networks.

In order to guarantee a balanced development of the national R&I systems, ERA should develop more nuanced objectives for public investment directed at scientific research. Within the goal of investing 3% of the GDP to research and innovation, ERA should work to guarantee that sufficient funding for the publicly funded universities is allocated, and monitor this as part of the European Semester Process. Advancing the institutional autonomy and financial capacity of universities would enable them for example to improve the competitiveness of salaries, thus making research careers more attractive to national and international talent.

Finally, the alignment of funding systems and their rules for participation between national

and European levels also requires more work, as well as avoiding the overlapping of funding frameworks at these levels.

4.2. Coordinate and support R&I systems' contributions to SDGs

This priority's relevance is demonstrated by the growing investments of the EU and many national research funding agencies in challenge-driven research. Also, the emerging links between the R&I strategies and the national and European contributions to the Sustainable Development Goals (SDGs) require better coordination at the strategic level. As compared with the approach of the current ERA priorities running until 2020, new instruments going beyond the current Joint Technology Initiatives (JTIs) require new levels of cooperation between national and EU funding that ERA could facilitate.

Addressing the contribution of R&I to the SDGs could provide ERA with new levels of visibility at the national levels and opportunities for dialogue between decision-makers and researchers on how national and EU funding should be targeted to address global challenges in complementary ways. ERA could also aim to achieve alignment between national and regional approaches to the SDGs and the Smart Specialisation Strategies for research and innovation (RIS3), which are not always compatible. This would also require the inclusion of universities in the process of setting strategic priorities towards the SDGs and RIS3 at the regional and national levels. The lack of structured ways of including them in these policy development processes has in many cases led to the fragmentation of priorities, and prevented universities from fully participating and bringing their

⁹ See <https://ncn.gov.pl/dioscuri/call-announcement.html>, accessed 21 February 2020.

crucial contributions to the activities supported under these strategies.

ERA should also ensure that the national and European R&I systems' engagement with global challenges is not only limited to areas with high potential for technological development. This could be achieved by working towards addressing the challenges from a broader perspective that allows a diverse range of disciplines to contribute, including the Social Sciences and Humanities. Given the breadth of the SDGs, contributions from a wide range of disciplines are critical in addressing the challenges of a complex and global environment, and multidisciplinary universities are particularly well-placed to contribute to them and to the ERA strategy in the broadest way.

At a more general level, the role of researchers in creating knowledge on the present and future challenges should be promoted by ERA. This requires openness in the process of defining priorities for challenge-driven research at all levels of research funding, which cannot be defined only through political priorities. The Guild also welcomes ERAC's proposal to approach scientific freedom and the exchange of knowledge as key indicators of the progress of European societies and their quality of life. Therefore, the renewed ERA should introduce measures to improve the use of scientific knowledge in policy-making, which will create links with other sectoral policies and provide them with evidence.

Finally, at a time when the importance of addressing SDGs is growing at the political level, it is important for ERA to make sure that increases in funding for challenge-based research is coupled with increasing public funding for bottom-up fundamental research. The impact of such research might take longer to observe, but it plays a significant role in contributing to the constant development of the

knowledge base on which European societies are founded.

4.3. Continue improving conditions for the mobility of researchers

Europe has experienced growing levels of research mobility, which is demonstrated by the undisputable popularity of the Marie Skłodowska Curie Actions. At the same time, this goal faces challenges as the directions of mobility have caused some European regions to experience growing outward mobility without being able to attract research talent to their home institutions – a development which requires action at European and national levels.

It is essential that these imbalances are addressed not by putting limits on the mobility of researchers, but by providing ideal conditions for researchers in all areas of the ERA. The mobility of researchers must remain a central priority for ERA, hence removing barriers to mobility remains an area where more progress is required (for example on qualifications, professional recognition and aspects related to pensions and healthcare). In addition, ensuring sufficient training opportunities, resources and structures for supporting the development of viable career paths for the wider research community will remain an important area to be covered by ERA.

By adopting a holistic approach to attracting and retaining talent, the ERA framework can be beneficial in responding to the systemic causes of brain drain in certain countries and regions of Europe. In this context, complementarities between national and EU level actions are crucial. To reinforce national commitments to reaching ERA objectives, we encourage the Commission to use the European Semester process for monitoring reform efforts.

It is important to support flexibility and bottom-up approaches when implementing ERA

objectives, not least to account for the diversity of national R&I systems. Here, Member States should be incentivized to use the European Structural and Investment Funds (ESIF) with a particular focus on advancing national research systems and attracting international talent from abroad. This would entail a much-needed shift for the European Regional Development Fund (ERDF) to start supporting more research activities besides innovation-oriented projects. For example, to encourage balanced circulation of talent within Europe, ESIF funding could be used to support the mobility of researchers to Widening countries, and in this way advance their internationalisation. One such example is the Estonian Mobilitas Pluss programme¹⁰ where inward mobility, not just in areas related to the regional strategy for Smart Specialization but across all scientific disciplines, has been funded through the ERDF.

4.4. Ensure progress towards inclusive and equitable R&I systems

The Guild welcomes the concept of “broad Inclusiveness” introduced by ERAC as a means of articulating an all-encompassing view and strategy not only for gender but also for minority groups.¹¹ Nevertheless, ERA should approach the question of inclusiveness from the perspective of intersectionality, as a means of recognising the interplay between elements of different natures (economic, ethnic, social, gender, etc.) in creating barriers to research careers. In this sense, R&I policies should aim at ensuring equity, recognising that researchers are unevenly placed in their access to opportunities, and find ways of compensating these

disparities to ensure a level playing field in access to research careers.

Slow progress in gender equality and gender mainstreaming in research¹² demonstrates the need to improve developments in this area. The Guild considers that further investment in existing tools to develop gender equality plans is needed (such as the GEAR tool¹³). Whilst the current tools provide guidance, there is a lack of common standards to evaluate and compare the progress made at the institutional, regional, national and European levels. Together with stakeholders and research institutions, ERA should establish a common set of indicators to monitor progress on gender equality. By doing so, it would facilitate the appropriation of gender equality plans by Member States, bridge the divide and benchmark progress made at the EU level.

At the same time, The Guild considers it crucial for ERA to promote training actions against unconscious bias on gender and diversity in recruitment processes, peer evaluations, and in conducting research. It is essential to coordinate these actions already at the level of training for basic research skills. The development of concerted actions with the European Education Area would enable addressing the question of gender and diversity from the start of academic integration, mainstreaming related values from student to researcher level, from education to research. By taking this approach to training, ERA would contribute to inclusive research careers and research content.

¹⁰ See <https://www.etag.ee/en/funding/programmes/mobilitas-pluss/>.

¹¹ European Research Area and Innovation Committee (2020): ERAC Opinion on the future of ERA. Page 36. Accessed through <https://www.era.gv.at/directory/89> in February 2020.

¹² European Commission (2019): European Research Area - Progress report 2018, pages 9-10. Accessed through

<https://op.europa.eu/en/web/eu-law-and-publications/publication-detail/-/publication/5641328c-33f8-11e9-8d04-01aa75ed71a1> in February 2020.

¹³ Gender Equality in Academia and Research – GEAR tool. See <https://eige.europa.eu/gender-mainstreaming/toolkits/gear>. Accessed in February 2020.

4.5. Ensure long-term policy approaches that cover all dimensions of Open Science

It is important that future European and national policy approaches cover all dimensions of Open Science (e.g. research data management and FAIR data, research integrity, education and skills development, etc.), and not only Open Access. It is also crucial that any policy approach on Open Science is developed through structured dialogue and in co-creation with the research community, taking into account the existence of differing practices across disciplines, countries and social contexts.

The Guild also stresses that if ERA has the ambition to continue supporting the move towards Open Science, concrete progress can only be achieved if adequate financial and political support and incentives are provided to universities and researchers to work towards this goal. Therefore, the level of ambition in the Open Science objectives should be coupled with a corresponding level of support and commitment to implement this agenda, not only at European but also at national levels. The funding allocated to support this should be long-term and reserve resources for training and skills development in all areas related to Open Science. In addition, sufficient funding should be allocated to data management, storage and archiving.

Finally, we encourage policy makers to embed a long-term perspective into Open Science policy approaches. Open Science practices should be encouraged beyond the lifespan of a research project. For example, to meaningfully promote access to research data and make it openly available for further use,

policies must also support researchers on issues such as data storage and its long-term preservation.

4.6. Foster bottom-up solutions in the development of career evaluation frameworks that reward Open Science practices

The Guild acknowledges the potential benefits of creating a European framework for career evaluation and career progression for researchers, that takes into account the Open Science principles. Such a framework would contribute to the ERA's goal of achieving free movement of researchers and scientific knowledge by creating a level playing field and boosting the implementation of Open Science.

While we recognise the importance of using more responsible metrics and moving away from the journal impact factors as the main proxy, we also urge the Commission and ERA countries to abstain from quick-fix solutions in this area. Any top-down or legally binding approach would simply be ineffective. A one-size-fits-all strategy that disregards the different national contexts, different needs across disciplines and level of establishment of Open Science practices would lead to unintended consequences, rather than the desired harmonisation. In this respect, we endorse the opinion expressed by the expert report on "Indicator Frameworks for Fostering Open Knowledge practices in Science and Scholarship",¹⁴ which highlights that there cannot be universal or generic indicators of Open Science, and advises to rather develop "indicator frameworks" that take into account different contextual dimensions, and that are designed together with the scientific community.

¹⁴ Wouters P., Ràfols I., Oancea A., Kamerlin S.C.L., Holbrook J.B., Jacob M., Schomberg, R (2019). Indicator frameworks for fostering open knowledge practices in science and scholarship. Independent Expert Report. Accessed through

<https://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetailDoc&id=39522&no=1> in February 2020.

In the light of these considerations, we recommend that in working towards a European framework for career assessment that rewards Open Science practices, ERA makes use of soft tools such as the sharing of good practices, guidelines and recommendations. Guidelines should be developed and implemented jointly with the scientific community. Such a participatory approach could be a much more powerful driver for change than an attempt to steer harmonisation through top-down solutions.

4.7. Build on the successful collaboration to develop research infrastructures

This remains an important objective for ERA, as the openness and sustainable long-term funding for research infrastructures require improvement both at national and European levels. The availability of high-quality research infrastructures in national contexts is an important requirement for attracting and retaining research talent, and this must be reflected in national strategies. At the same time, the need for state-of-the-art infrastructures transcends national boundaries; pooling resources at a European level to establish European research infrastructures that are accessible is an essential component of the open circulation of knowledge and international research collaboration.

4.8. Promote the societal role of science through the empowerment of researchers

We support the acknowledgment of ERAC that more should be done to increase the visibility of ERA, and the awareness of the benefits that R&I brings to society in a broader sense. The Guild recommends that ERA should take a leading role in promoting the indispensable role of science in democratic systems and in informing policy-making, at a time when evidence-based discourse is challenged by an overflow of information and fake news. Citizens' trust, and their understanding of and access to scientific knowledge, are a crucial elements in the functioning of democracies, which should be addressed by ERA.

Promoting citizen engagement in research and citizen science can be important tools to achieve this goal. While it is important to continue sharing good practice and supporting researchers willing to engage in this area, it is crucial to avoid one-size-fits-all approaches as they do not necessarily fit all types of projects and disciplines. To provide researchers with the autonomy to design their approaches to citizen engagement, The Guild recommends that ERA pursues a flexible approach that allows room for the fostering of a diverse range of strategies, and also addresses the resources that are needed to realise them. This would enable citizen science approaches to be used when it genuinely enriches the research process, without it being imposed when it does not fit the scope of the project.