

POLICY INPUT

Perspectives on the new
European Research Area
from the university sector

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Introduction

The process to renew the European Research Area (ERA) was launched on 30 September 2020 with the publication of the European Commission Communication “[A new ERA for Research and Innovation](#)” (R&I), coinciding with a Communication on “[Achieving the European Education Area by 2025](#)”. The ERA Communication articulates the Commission’s ambition to broaden and deepen the new ERA, building on past achievements, as well as on the European Research Area and Innovation Committee’s (ERAC) advisory “[Opinion on the future of the ERA](#)” adopted on 17 December 2019. Under the German Presidency of the Council of the EU, the research ministers of the EU member states gave further impetus to the new ERA by signing the “[Bonn Declaration on Freedom of Scientific Research](#)” on 20 October 2020 and adopting “[Council Conclusions on the New European Research Area](#)” on 1 December 2020. The renewed ERA process will continue in 2021 with the support of the upcoming Portuguese and Slovenian EU presidencies.

The European University Association (EUA), as the representative body of European universities and national rectors’ conferences, has been a formal partner in shaping the ERA since 2012 and has provided input on the renewal process. The Association welcomed the process in a [position on 5 March 2020](#) and [responded to the Commission Communication on 15 October 2020](#). In its initial response, EUA welcomed the Commission’s ambition to broaden and deepen the new ERA, as well as the synergies sought between the ERA and the European Education Area. The Association also concurs with the vision set out by EU Commissioner Mariya Gabriel, during the European Research and Innovation Days in September 2020, that excellence and inclusiveness are two sides of the same coin in the new ERA.

This policy input further expands EUA’s position on the new ERA and focuses on the topics that are most important to universities. It will be of particular interest to the European Commission, Parliament and EU member states, as well as representative bodies of other R&I stakeholders. First, it highlights transversal areas in the new ERA, as well as key matters that will be essential to achieve the ERA’s strategic objectives: the governance system and financial support. The report then looks more in-depth into the specific thematic areas of importance to the university sector. After providing a short, informative summary of the relevant points in the Commission Communication and Council Conclusions, each thematic section gives an overview of Association’s and its members views and then concludes by extending an invitation to the Commission and EU member states to take action, together with the representative bodies of universities and other R&I stakeholders. Looking ahead, the aim of this policy input is to serve as a basis for future discussion and engagement with partners in the common dialogue and efforts that will be needed in achieving the objectives of the renewed ERA.

A new ERA with research at its centre, adequate resourcing and capacity building through dialogue

The digital and green transitions together with the Covid-19 pandemic have resulted in greater and more urgent expectations towards universities and other R&I stakeholders to provide innovative and evidence-based solutions. Addressing current and future social, economic, environmental and technological challenges will depend on common and coordinated efforts of a broad range of R&I stakeholders. Appropriate policy and regulatory frameworks, sufficient and sustainable funding and an adequate governance structure are essential elements in strengthening the European R&I system.

From EUA's perspective, three transversal elements will determine the capacity of the new ERA to achieve its objectives for European R&I, in general, and for the key thematic areas included in this policy input, in particular.

Research at the centre of the new ERA

To achieve the objectives of the so-called “twin transition” and to increase the global competitiveness of the European R&I system, investigator-driven and mission-oriented research need to be valued and fostered on par with innovation. While the Council Conclusions stress the importance of “the full range from fundamental to applied research and innovation”, both the Conclusions and the Communication focus to a great extent on innovation, through the market deployment of technological developments and the important role of industry in research. More substantial attention needs to be paid, instead, to the unique and mutually reinforcing contributions of the full range of research activities and the diverse landscape of R&I stakeholders. Frontier research is critical to develop robust and resilient R&I systems and to pave the way for disruptive innovation. In parallel, it is crucial that the ERA leverages the contributions of all R&I stakeholders, from universities and research funding organisations to industry and civil society, in a truly co-created and co-designed process.

The new ERA Communication emphasises the importance of strengthening the R&I dimensions of universities through the Commission's transformation agenda, aimed at increasing cooperation across institutions, circulation of knowledge and sharing of capacity. Universities should lead this discussion based on their unique role in fostering and leveraging synergies between research, innovation, education and culture in service to society. EUA, as the representative body of more than 800 institutions across Europe, is harnessing the sector's dynamic position to develop a forward-looking and comprehensive [vision for Europe's universities in 2030](#) as an important message to policy makers and partners.

Inclusive governance

The governance system will determine the capacity of the new ERA to bring together the Commission, EU member states and other relevant stakeholders. The Council Conclusions include a welcome call for an inclusive ERA governance. However, the Commission Communication only makes occasional references to the role of R&I stakeholders in the renewed process. In the Communication they are yet to be included in the governance system through which the Commission and EU member states will “set and update policy priorities, monitor and assess progress and ensure strategic advice.”

EUA calls on the Commission and EU member states to build a comprehensive dialogue with the representative bodies of universities and other R&I stakeholders, both within the ERAC and the ERA Forum for Transition. Equally important, the ERA governance should enable dialogue and synergies with the European Education Area. Universities should play a central role in this regard, as unique places where research, innovation and education in service to society are managed together. ERA's governance system should also encompass the regional level, in which universities could have an instrumental role in bringing together, fostering dialogue between and coordinating different local R&I stakeholders.

Sustainable funding

Sustainable funding will determine the capacity of the new ERA to achieve its objectives for European R&I. EUA is concerned to see that the level of ambition for the new ERA is not matched by adequate financial investment. R&I is highlighted as a key contributor to the green and digital transitions, to society's recovery from the Covid-19 pandemic, as well as to prepare Europe to face future crisis, whatever they may be. However, [financial commitments in the new Multiannual Financial Framework and Next Generation EU recovery plan fall short](#) of offering sufficient resources by a large margin. While [EUA welcomes](#) the provisional agreement between the European Parliament and EU Council on the new Multiannual Financial Framework with a top-up for both Horizon Europe and Erasmus+, the proposed increase is still not sufficient to match the ambitious objectives of the ERA. It is now important to ensure a fair allocation of funds within Horizon Europe, and that funding for the European Research Council and Marie Skłodowska-Curie actions is increased.

EUA has consistently called for greater financial means at European and national levels to meet collective ambitions of the European R&I agenda. The renewed call for national investment and associated targets is all the more necessary when considering the [long-term pressures on public funding for universities](#) at the national and regional levels. The [lessons learnt from the 2008 global financial crisis](#) must inform policy-making in this area in order to avoid [aggravating the R&I investment gap in Europe](#).

Better synergies and strategic alignment among funders and funding programmes will equally contribute to a more efficient funding landscape, paving the way for a successful new ERA. It is therefore crucial to [further operationalise these synergies in the next generation of funding programmes](#) by, for example, including a transfer of funds across programmes and working towards common policy goals. It is also essential to promote best practices in this area among member states. The Commission should help unlock this multi-actor alignment and continue communicating around the core added value of enhanced investment in R&I for European economies and society.

EUA thematic recommendations

As a long-standing partner in shaping the ERA on behalf of European universities, EUA welcomes the renewed interest and momentum in further developing the ERA. In the next sections of this policy input, EUA presents a series of thematic areas that are most important for universities in the new ERA. Together with inclusive governance and sustainable funding, these are the areas where the university sector has a wealth of experience and knowledge to share.

EUA is looking forward to working with the Commission, EU member states and the representative bodies of other R&I stakeholders to make the new ERA a reality. EUA is committed to continued dialogue and finding common solutions to the challenges that lie ahead in strengthening the European R&I system. EUA calls on the Commission and EU member states to consider the extensive input from the university sector at large, and from this policy input in particular, when developing the new ERA.

Overview of EUA's thematic recommendations

In this policy input, EUA calls on the European Commission, Parliament and EU member states to develop and implement the new ERA in consultation with representative bodies of universities and other R&I stakeholders. This overview provides short summaries of the key recommendations by theme. More detailed information for each point is further elaborated in the main text.

Build an inclusive governance system

EUA calls on the Commission and EU member states to build a comprehensive dialogue with the representative bodies of universities and other R&I stakeholders, both within the ERAC and the ERA Forum for Transition. Equally important, the ERA governance should enable dialogue and synergies with the European Education Area.

Provide sustainable funding

EUA calls for greater financial means at European and national levels to meet collective ambitions of the European R&I agenda. Better synergies and strategic alignment among funders and funding programmes will equally contribute to a more efficient funding landscape, paving the way for a successful new ERA.

Emphasise academic freedom and institutional autonomy as the underlying principles of the new ERA

EUA calls on the Commission and EU member states to make institutional autonomy and academic freedom integral to every stage of the renewed ERA process. It is important that the common values and principles they articulate are effectively realised and actively promoted in the new ERA, including at the institutional level.

Invest in both investigator-driven and mission-oriented research and innovation

EUA calls on the Commission and EU member states to invest across national and EU-level funding programmes in both investigator-driven and mission-oriented R&I, acknowledging them as mutually reinforcing contributors to both short-term solutions and long-term, sustainable development.

Strengthen the connection between the new ERA and the European Education Area

EUA calls on the Commission, Parliament and EU member states to develop policies that strengthen the connection between research, innovation, education and culture in service to society. The ERA governance should enable a transparent and structured dialogue on synergies with the European Education Area, involving representative bodies of universities and other relevant actors.

Invest in training and sustainable career paths for early-career researchers

EUA calls on the Commission and EU member states to leverage opportunities for early-career researchers, recognising and strengthening the important role of investigator-driven research in training the next generation of researchers.

Adopt a positive and holistic approach to diversity, equity and inclusion

EUA calls on the Commission and EU member states to develop and implement a positive and holistic approach to diversity, equity and inclusion across all aspects of the new ERA. This approach should also connect to actions taken in the European Education Area and take into account the work that has been done so far in the context of the European Higher Education Area (EHEA).

Co-create a broad and forward-looking definition of excellence to guide the new ERA

EUA calls on the Commission and EU member states to co-create with representative bodies of universities and other R&I stakeholders a broad and forward-looking definition of excellence to guide the new ERA.

Fully embrace inclusiveness with a view to closing research and innovation gaps in Europe

EUA calls on the Commission and EU member states to develop and implement an integrated strategy to promote inclusiveness, improve cohesion and help close the R&I gaps in Europe. EU member states, universities and other R&I stakeholders must play an active role in designing appropriate and tailored approaches to build capacity and improve performance.

Strengthen innovation ecosystems for knowledge circulation and valorisation

EUA calls on the Commission and EU member states to support the full array of activities that make ecosystems dynamic sources of ground-breaking science. This can be achieved through well-designed synergies and complementarities between existing and emerging instruments.

Boost incentives and facilitate conditions for mainstreaming Open Access

EUA calls on the Commission and EU member states to boost their efforts in promoting and mainstreaming full and immediate Open Access through actions directed at researchers, universities, research funders and national consortia responsible for negotiating big deal contracts.

Build a FAIR research data culture together with stakeholders and research communities

EUA calls on the Commission and EU member states to boost efforts in setting the right legal and infrastructural conditions and provide sustainable financial support for FAIR data sharing and re-use, as well as supporting skills and training for research data management. Actions to develop FAIR data standards in various disciplines should be undertaken together with stakeholders and research communities and aligned with efforts to establish the European Open Science Cloud (EOSC).

Invest in an open and world-class research infrastructure landscape

EUA welcomes the continued efforts toward a world-class landscape of research infrastructures in Europe. This must be closely linked with the facilitation of access to digital resources and services for research, including through the EOSC.

Support, incentivise and reward citizen science

EUA calls on the Commission and EU member states to work with universities on providing the necessary support and developing adequate incentives and rewards to meaningfully engage in citizen science.

Engage with universities at the forefront of the digital transition

EUA calls on the Commission and EU member states to acknowledge the role and position of universities and other R&I actors in the digital transition. Much can be learned from the experience of universities at the forefront of the digital transition and data ownership in particular. These lessons should especially be considered in future legislative proposals and strategies related to the digital space.

Engage with universities in accelerating the green transition

EUA calls for the full support of the EU and member states to develop a holistic approach in accelerating the green transition. The role of universities encompasses a balanced contribution of investigator-driven and mission-oriented research in pursuit of climate objectives, and drawing upon the best available expertise in environmental education.

Support openness as a cornerstone of an attractive and performant R&I system

EUA calls on the Commission and EU member states to support openness as a cornerstone of Europe's scientific and industrial competitiveness, as well as to its overall standing in the world. The new ERA must be further strengthened through collaboration with partners around the globe. While acknowledging a changing geopolitical landscape and increasing competition around key technologies, developing European capacity for R&I in strategic sectors must not denote a closing of European research for international partnerships and people.

Emphasise academic freedom and institutional autonomy as the underlying principles of the new ERA

Background

The new ERA should emphasise academic freedom and institutional autonomy as underlying principles of the renewed process. The Commission Communication proposes to articulate these core values in a “Pact for Research and Innovation in Europe” that is to be adopted by EU member states by the first half of 2021. The Council Conclusions also call on the Commission, EU member states and academic institutions to reinforce freedom of scientific research in the new ERA. On 20 October 2020, the German Presidency of the Council of the European Union and EU research ministers took a first step towards this Pact by signing the “Bonn Declaration on Freedom of Scientific Research”.

University perspective

While such political commitments are commendable, it is essential that these core values, enshrined in many legal texts including the “[Charter of Fundamental Rights of the European Union](#)”, become integral to the renewed ERA process and continue to be promoted as lived realities at European universities. EUA strongly supports academic freedom and institutional autonomy, which it considers as prerequisites for universities and their staff to advance knowledge, develop innovative and evidence-based solutions to current and future challenges and engage with society. However, academic freedom is under threat both in Europe and around the world and, as revealed by [EUA's Autonomy Scorecard](#), there is no uniform trend towards more university autonomy in Europe. Attempts to limit or undermine academic freedom and university autonomy are frequent and take many forms both [among EU member states](#) and [in the European neighbourhood](#). The new ERA's geopolitical dimension, (cf. [EUA recommendation on geopolitical openness](#)), which will feed into EU's diplomatic and global outreach, needs to be anchored by the core values of university autonomy and academic freedom.

CALL TO ACTION

EUA calls on the Commission and EU member states to make institutional autonomy and academic freedom integral to every stage of the renewed ERA process. The Bonn Declaration and proposed Pact are welcome developments, but it is equally important that the common values and principles they articulate are effectively realised and actively promoted in the new ERA, including at the institutional level. Academic freedom and institutional autonomy cannot be ensured by governments and policy makers alone as universities must be involved throughout the process. Protecting and promoting academic freedom and university autonomy as fundamental values will remain key to enabling independent, high-quality and societally relevant research now and in the future.

Invest in both investigator-driven and mission-oriented research and innovation

Background

Taking stock of the major achievements and weaknesses of the existing ERA, the Commission Communication delineates a vision on how to build “A stronger European Research Area for the Future”. It recognises that the increase of short-lived, project-based research funding comes with new challenges in attracting and retaining the best researchers in Europe. The Commission Communication and Council Conclusions also mention the need to put a framework in place that is conducive to long-term ambitious investments, which may be at risk during times of crisis. At the same time, and quite surprisingly, the ERA vision is mostly geared towards the innovation part of the R&I spectrum, focusing on a faster deployment, use and transfer of research results into the economy. While the Council Conclusions highlight the importance and value of fundamental research, they also focus to a great extent on innovation.

University perspective

Priorities such as strengthening Europe’s resilience and accelerating the green and digital transformations will undisputedly require significant efforts on many fronts but, first and foremost, they will need a strong research component. Notably, they will need disruptive innovation that comes from investigator-driven research whose impact is all too often underestimated given an increasing number of aspects that are put under the scrutiny of economic measures. Game-changing research outcomes leading to disruptive discoveries are not always visible in the short term. Einstein’s theory of relativity and its essential role in GPS accuracy, the discovery of CRISP-Cas9 enabling easy genome editing, or the World Wide Web are excellent examples of investments in investigator-driven research that led to societally impactful scientific breakthroughs with significant pay off in the long run. The Covid-19 pandemic and the development of several vaccines in record time, have also shown the importance of quickly mobilising and leveraging investigator-driven research in different fields. Therefore, such research should be put at the centre of the new ERA. Linking it with mission-oriented research will reinforce the European R&I system for the benefit of society. [EUA has made the case](#) that only the right mix between investigator-driven and mission-oriented research will enable Europe to tackle today’s major societal challenges, like climate change, and those that are still unforeseen. Such a mix is crucial to ensure diversity in knowledge creation and to balance disruptive and evolutionary innovation activities, which are fundamental for the long-term adaptability of the European economy.

CALL TO ACTION

EUA calls on the Commission and EU member states to invest across national and EU-level funding programmes in both investigator-driven and mission-oriented R&I, acknowledging them as mutually reinforcing contributors to both short-term solutions and long-term, sustainable development. Universities, with their key role in knowledge creation, along with other R&I stakeholders, must be consulted on the appropriate balance.

Strengthen the connection between the new ERA and the European Education Area

Background

The strategic objectives of the new ERA will be reinforced by working together with the European Education Area. The Commission Communication proposes to “develop a roadmap of actions for creating synergies between higher education and research, notably building on the dual role of universities.” However, the Commission Communication in its vision for ERA governance does not specify how a dialogue between the new ERA and the European Education Area will be organised, nor who will be involved. In addition, the role and achievements of the European Higher Education Area (EHEA) in shaping European higher education are only explicitly mentioned in the Council Conclusions.

University perspective

EUA advocates for and works to create real synergies between research, innovation, education and culture in service to society. Universities uniquely combine these missions that build on each other in a single continuum. Examples include the benefits of [research-based teaching at universities](#), innovation through student entrepreneurship and [academic career assessment to include parity of esteem for learning and teaching with research and innovation](#). It is essential to be aware of the many ways in which these different missions mutually enrich one another. Universities, based on academic freedom and institutional autonomy (cf. [EUA recommendation on academic freedom and institutional autonomy](#)), should set the agenda on how to further enable synergies and overcome barriers between the different missions.

CALL TO ACTION

EUA calls on the Commission, Parliament and EU member states to develop policies that strengthen the connection between research, innovation, education and culture in service to society. While universities uniquely combine these missions in their work, European and national policy and regulatory frameworks should reflect and support these links. In order to develop these, the ERA governance should enable a transparent and structured dialogue on synergies with the European Education Area, involving representative bodies of universities and other relevant actors. The governance structures of the ERA and the European Education Area should be aligned through a formal and structured dialogue. The Commission and EU member states should also play a key role in ensuring that the agendas of the new ERA, European Education Area and EHEA become better aligned in this regard.

Invest in training and sustainable career paths for early-career researchers

Background

Both the Commission Communication and Council Conclusions note that, the new ERA should be based on attracting and retaining talent. The Commission considers key to “promote adequate framework conditions and inclusiveness, help develop the skills that researchers need for excellent science, and connect all actors across Europe, including in education, training and the labour market.” The Commission acknowledges that precarious working conditions have a negative effect on retaining and attracting researchers, while it notes that the “training and career development of researchers insufficiently focuses on entrepreneurship or opportunities outside academia.” It also identifies a “skills mismatch” and is interested, overall, in boosting the inter-sectoral mobility and entrepreneurship of early-career researchers, while calling for the “involvement of the private sector in training and skills development of researchers.” The Council Conclusions also note the need to broaden researchers’ skills and competences and propose an “enhanced European Competence Framework for Research Careers.”

University perspective

Through its [Council for Doctoral Education](#), EUA has been the main protagonist in reforming doctoral education in Europe, notably through the 2005 “[Salzburg Conclusions and Recommendations](#)” and the 2010 “[Salzburg II Recommendations](#)”. The latter note that European universities agree on the principle that the “core component of doctoral training is the advancement of knowledge through original research”, while “doctoral training must increasingly meet the needs of an employment market that is wider than academia.” This is in line with the demands of other economic sectors. EUA’s [Doc-Careers II](#) and [EUIMA](#) projects describe how industry relies on researchers with a solid research training. This makes investigator-driven research a key pre-condition for successful research careers also in the private sector. Therefore, EUA sees a clear connection between investigator-driven research and the support of inter-sectoral mobility and entrepreneurship. EUA stresses that universities are well able to equip researchers with the necessary basic and advanced skills to meet current technological and societal challenges. At the same time, universities also engage in and co-implement numerous collaborations with partners outside of academia. Through collaborative doctoral education schemes, universities foster the involvement of public and private sector actors in doctoral training. [Most universities in Europe](#) have developed structures to support and conduct training and career development of early-career researchers at doctoral and postdoctoral levels. These structures allow universities to respond to additional training needs and strengthen collaborations if resourced adequately.

CALL TO ACTION

EUA calls on the Commission and EU member states to leverage opportunities for early-career researchers, recognising and strengthening the important role of investigator-driven research in training the next generation of researchers. EUA notes a strong need for significant investment in the current support and training structures for researchers, especially in countries with lower R&I capacity. EUA calls on the Commission and EU member states to act swiftly in helping institutions address the issue of precarious employment conditions for early-career researchers, by creating supportive policy, regulatory and funding frameworks. EUA also encourages the Commission and member states to support reforms in the current reward and incentive systems in academic career assessment practices (cf. [EUA recommendation on excellence](#)), both at individual and institutional levels, to enable and support the development of diversified career paths for researchers.

Adopt a positive and holistic approach to diversity, equity and inclusion

Background

The new ERA, [in concert with the European Education Area and the EHEA](#), must adopt a positive and holistic approach to diversity, equity and inclusion. The ERA Communication and Council Conclusions focus on gender equality to strengthen European R&I potential, notably proposing the development of Gender Equality Plans by beneficiaries of EU funding under Horizon Europe. However, while the Communication also acknowledges “a need to address diversity by opening policy to intersections with other social categories”, it stops short of proposing concrete actions or offering an encompassing approach going beyond the gender dimension.

University perspective

Diversity is an opportunity for excellence. Diverse research groups that bring together different backgrounds, perspectives and ways of thinking, have the potential to increase creativity in research. Gender is an important dimension of diversity, but the approach must include other dimensions as well. EUA conducted the [INVITED project](#) (2018-2020), collecting evidence on the topic from 159 higher education institutions in 36 European systems. The findings outline university strategies, drivers, approaches and challenges, as well as needs for support. [The resulting report points to a changing discourse in many universities](#), whereby diversity is increasingly seen as a pre-condition for excellence, rather than a challenge to be solved. In addition to bringing creativity and new perspectives to the discovery process, diversity is important for the relevance and societal impact of R&I in a diverse society - from developing medicine for all groups of patients to avoiding bias based on personal characteristics in AI algorithms.

The inclusion of people from a broad range of backgrounds is a proven element in improving the R&I process and the academic environment. Many universities are active in developing more inclusive research and learning environments, but as [EUA's evidence shows, there are still many challenges](#). Universities need concrete support to change institutional structures and cultures through awareness raising, adapted reward systems and the training of academic and support staff. Financial support to build capacity for the development and implementation of the Gender Equality Plans, as required under Horizon Europe, can be an important incentive to kick-start the process, but it should have a wider scope encompassing other diversity dimensions based on and embedded in wider institutional strategies.

CALL TO ACTION

EUA calls on the Commission and EU member states to develop and implement a positive and holistic approach to diversity, equity and inclusion across all aspects of the new ERA. This approach should also connect to actions taken in the European Education Area and take into account the work that has been done in the context of the EHEA, such as the new [“Principles and Guidelines to Strengthen the Social Dimension of Higher Education in the EHEA”](#). While there can be R&I-specific issues linked to diversity, equity and inclusion, it is important - both in public policies and university strategies - to look at all university missions in conjunction with a view to creating inclusive learning and research environments for all students and staff.

Co-create a broad and forward-looking definition of excellence to guide the new ERA

Background

The new ERA will be anchored in the principle of excellence according to both the Commission Communication and the Council Conclusions. The Communication defines excellence as “commitment to supporting the best possible research teams and projects” and calls to improve assessment practices. However, a close reading reveals that its meaning in the Communication remains limited to proxy indicators based on publications. At several points in the document, and notably in one of the key actions, research quality is explicitly understood as the “number of highly-cited publications”.

University perspective

EUA promotes a broad understanding of excellence as the basis for enhancing the performance of European universities. The transition to Open Science (cf. EUA recommendations on [Open Access](#) and [citizen science](#)), parity of esteem for learning and teaching with R&I (cf. [EUA recommendation on the European Education Area](#)) and reinforcing societal relevance and impact are a few of the aspects included in the Association’s definition. EUA supports European universities in translating this into practice through its work on academic career assessment. The Association gathers and shares information on the [negative effects and limitations of current assessment practices](#) and organises dialogues between universities and other R&I stakeholders on [improving the reward and incentive system for academics](#). Universities and national rectors’ conferences across Europe are similarly engaged in discussions and initiatives to broaden the definition and assessment of research excellence.

CALL TO ACTION

EUA calls on the Commission and EU member states to co-create with representative bodies of universities and other R&I stakeholders a broad and forward-looking definition of excellence to guide the new ERA. Limiting its definition to proxy indicators based on publications is no longer acceptable and, moreover, is at odds with the transition to Open Science and improved assessment practices that both the academic community and the Commission itself have argued for. Unequivocal political support to a broad definition of excellence, grounded in open research practices, is crucial to improving the European R&I system. Excellence as an anchoring principle of the new ERA will have a cross-cutting impact on the strategic objectives of this renewed process, making a shared understanding and consensus on its meaning crucial to their success.

Fully embrace inclusiveness with a view to closing research and innovation gaps in Europe

Background

The new ERA should fully embrace inclusiveness and the concept of “distributed excellence”, in order to help close the R&I gaps in Europe. The Commission Communication highlights the importance of improving “access to excellence”, as substantial differences in R&I capacity and investment still persist amongst European countries. EU Commissioner Mariya Gabriel stated that excellence and inclusiveness are two sides of the same coin in the new ERA, during the European Research and Innovation Days in September 2020. While the Commission Communication outlines Widening actions, collaboration between more experienced and less experienced regions and countries, as well as policy reforms, it falls short of a clear strategy to strengthen R&I systems in Europe, improve cohesion, and fully explore and leverage the diversity of national contexts, institutional profiles and missions of R&I in Europe. The Council Conclusions further detail the notion of inclusiveness in the ERA, by highlighting the dimensions of gender balance and wide participation of a broad range of R&I stakeholders. The Council Conclusions also identify the main challenges to inclusiveness, such as brain circulation, the gender dimension and the need for the professionalisation of research management.

University perspective

European universities are facing a complex and challenging financial situation, with increasing cuts to public funding. [EUA's Public Funding Observatory](#) reveals that since the 2008 global financial crisis the gap between those countries that have maintained or stepped up investment in universities (even though they remain under pressure), and those that have not corrected downward funding trends, has been aggravated and consolidated. The Covid-19 crisis puts the early recovery signs that had been previously detected further at risk and is likely to worsen the investment gap in universities across Europe. This will in turn further hamper the capacities of universities in countries that already have low participation rates in EU funding programmes. In this context, impactful simplification is a key instrument to reduce the participation gap. Indeed, the acceptance of nationally-recognised institutional accounting practices will make it possible to fully embrace the diversity of participating organisations, lower entry barriers and widen participation, as well as enhance the efficiency and effectiveness of EU R&I investment.

European universities are also engaged in ensuring access to excellence and building capacity in lower performing R&I systems across Europe. There are [many examples of universities](#) as key actors in building R&I critical mass. The impact of their activities is more significant where there is a clearly structured policy linkage between different funding instruments for R&I. The proposed dedicated stream in the ERA Forum for Transition to reform and advance R&I policies in lower performing countries has a potential to facilitate the coordination of different R&I instruments; however, it will require close consultation with stakeholders, including the university sector. In order to close R&I gaps, Europe should also explore stronger synergies between cohesion funding and Horizon Europe. The former has proved to be an important tool in building R&I capacity, especially through [stronger smart specialisation strategies](#). Horizon Europe should contribute to the goals of smart specialisation by capitalising on diverse research and innovation ecosystems (cf. [EUA recommendation on innovation ecosystems](#)). With this, it will be able to address national and regional disparities without compromising the excellence criteria.

CALL TO ACTION

EUA calls on the Commission and EU member states to develop and implement an integrated strategy to promote inclusiveness, improve cohesion and help close the R&I gaps in Europe. EU member states, universities and other R&I stakeholders need to play an active role in designing appropriate and tailored approaches to build capacity and improve performance. While investment targets provide worthy benchmarks, they must be embedded in holistic approaches geared towards strengthening R&I systems. EUA calls on all actors to harness the potential of simplification as a gateway for enhanced participation in the EU R&I funding programme, notably by generating a higher degree of certainty necessary for newly coordinating organisations from countries with lower participation in the programmes. In this context, experiences with lump sums should be scrutinised to evaluate and address any negative impact on widening participation objectives (“closed-network” risk). At the same time, enhancing cross-reliance on audits and assessments could be explored. It is crucial that simplification covers the full project cycle, from application to audit and support for research management capacity-building. EU member states should also strengthen their efforts in continuing to reform national R&I systems, in order to build capacity and help close R&I gaps across Europe.

Strengthen innovation ecosystems for knowledge circulation and valorisation

Background

The Commission Communication and Council Conclusions argue for a higher level of ambition in linking R&I with the economy, as well as with education and training, to put the EU's scientific knowledge to work. The new ERA is premised on the need for diverse stakeholders to be involved in multi-disciplinary and cross-sectorial collaborations, which can foster a truly interconnected knowledge space. In turn, this should contribute to improving Europe's ability to turn excellent research into disruptive innovation and to fully mobilise the research capacities of less R&I developed countries and regions.

University perspective

EUA's work in this area has focused extensively on [universities' central role in innovation ecosystems](#). By showcasing their contributions to regional development and industrial competitiveness, the Association has demonstrated the value of human talent and soft skills to fulfill Europe's innovative potential. These have ushered in a new connectivity with industry and society, which goes beyond the short-term project-based transfer of already established knowledge. As innovation turns from a linear into a reiterative process, universities are pivotal to the mutual enrichment of investigator-driven and mission-oriented research, as well as the technological development that facilitates the green and digital transitions (cf. EUA recommendations on [green transition](#) and [digital transition](#)).

CALL TO ACTION

Based on the experiences of its members, EUA calls on the Commission and EU member states to support the full array of activities that make ecosystems dynamic sources of ground-breaking science. This can be achieved through well-designed synergies and complementarities between existing and emerging instruments, such as smart specialisation, mission-oriented research, the European Innovation Council (EIC), the European Institute of Innovation and Technology (EIT), and newly-announced initiatives like ERAHubs or the ERA Forum for Transition. The aim of such synergies and complementarities should be a [more balanced approach](#) to technological development and sovereignty, so that market valuation does not take precedence over non-commercial or long-term contributions to the ecosystem, such as working with civil society or the development of human capital. Regions can play to their strengths while still nurturing open environments for new and disruptive discoveries.

This should also be considered when revising European principles for knowledge valorisation, especially since meaningful contributions to societal welfare are often disregarded when IP generation is the main measure of success. Universities, as one of the main actors in knowledge valorisation, should be closely involved in the process of updating the guiding principles. EUA also urges the Commission to clarify and address any potential tensions between the focus on Open Science and open innovation, and the renewed focus on IP, apparent in the ERA Communication, namely through the launch of the Unitary Patent.

Finally, ERA should assure a proper balance between long-term and short-term perspectives in the provision of funding channeled into local innovation ecosystems. Specifically, it means stable public support that continues the [success of Structural Funds](#) in bolstering university research and innovation activities and scientific collaboration.

Boost incentives and facilitate conditions for mainstreaming Open Access

Background

Open Access to research publications is critical to increase research efficiency and promote research excellence, and its importance has been reinforced with the Covid-19 pandemic. In the new ERA Communication, the Commission proposes to “analyse authors’ rights to enable sharing of publicly funded peer-reviewed articles without restriction.” The Commission also commits to launching an Open Research Europe publishing platform to help accelerate the Open Access momentum in Europe. EUA welcomes this initiative as one important infrastructure to facilitate the mainstreaming of Open Access, as well as the Open Access requirements expected for Horizon Europe. The Council Conclusions further note that “bibliodiversity, multilingualism and the acknowledgement of all scientific productions are relevant elements of an ERA policy on open science.”

University perspective

From EUA’s perspective, Open Science in general, and Open Access in particular, reinforce core academic values, such as research integrity, cooperation and knowledge sharing, a view that is also shared in the Council Conclusions. EUA has been actively engaged in promoting Open Access and Open Science for many years and has identified two elements that are key in the transition towards Open Science: ensuring Open Access to research publications; and supporting institutions and authors in retaining their rights and being able to openly share their research outputs without restrictions. EUA [has therefore supported the principles of the Plan S initiative](#), while emphasising that its realisation will depend on [turning principles into practice](#). Since 2014, EUA has also monitored the implementation of Open Access policies in European universities. The [latest data from 2017-2018](#) shows that a vast number of institutions have already implemented Open Access policies on research publications, although this is still not a ubiquitous reality throughout Europe. In addition, [researchers’ awareness and engagement in Open Access is lagging](#) and monitoring mechanisms of Open Access are still at an early stage of development.

In parallel, universities still spend [substantial funds on scholarly publishing big deal contracts](#) to ensure reading access to publications based on publicly-funded research. Controlling the constantly increasing costs incurred by these contracts is one of the drivers behind the exploration of alternative approaches. While transformative agreements have started to gain traction across Europe, more community-run, non-commercial publishing platforms are seen as an [alternative and desirable way forward](#) in realising Open Access.

CALL TO ACTION

EUA calls on the Commission and EU member states to boost their efforts in promoting and mainstreaming full and immediate Open Access through actions directed at researchers, universities, research funders and national consortia responsible for negotiating big deal contracts. For Open Access and Open Science to become the norm, it is crucial that they become an integral part of academic research assessment practices, in the framework of a more comprehensive definition of research excellence (cf. [EUA recommendation on excellence](#)).

Moreover, to accelerate the transition to Open Science, it is critical can the Commission and EU member states continue to support countries and institutions in implementing Open Access policies and open infrastructure, as well as promoting awareness on the benefits of Open Access, in particular to early-career researchers. EUA also calls on EU member states and national research funders to adopt and promote the use of the Open Research Europe publishing platform. A future integration between this platform and the European Open Science Cloud (EOSC) will be important to create a seamless space linking publications and data at the EU level. Finally, EUA calls on the Commission and EU member states to explore the possibility of cross-national and European-level big deals negotiations and to continue to promote, and financially support, current and future transparent, diverse and sustainable Open Access publishing venues for articles and books.

Build a FAIR research data culture together with stakeholders and research communities

Background

Widespread data sharing and re-use, supported through the EOSC, and underpinned by the Findable, Accessible, Interoperable and Reusable (FAIR) data principles are a major ambition of the new ERA. This requires a strong commitment from the European Commission, EU member states and associated countries to set the right legal and infrastructural conditions and sustainable financial support, as well as support skills and training for research data management.

University perspective

EUA has been a leading [advocate for data sharing and Open Access to research data](#). Universities are actively developing the necessary services, policies, governance frameworks and skills for professional research data management. EUA, as the representative body of European universities, and individual institutions are [contributing to the creation of the EOSC](#) and the EOSC Partnership. Fostering a FAIR research culture will be a long-term, collective effort uniting different stakeholders and communities, ranging from building interconnected digital infrastructures, training researchers and staff, developing policies, and reforming academic career assessment systems in order to recognise a wide range of researcher contributions.

CALL TO ACTION

EUA calls on the Commission and EU member states to boost efforts in mainstreaming Open Science through funding programmes such as Horizon Europe, as well as [establishing a clear framework for legal data sharing and cross-sectoral collaboration](#). Given that Open Science is not yet the norm everywhere, [Horizon Europe and national programmes must empower R&I stakeholders](#) with supportive measures to build capacity and infrastructure. Actions to develop FAIR standards in various disciplines should be undertaken together with stakeholders and research communities and aligned with efforts to establish the EOSC. Likewise, the governance of the latter must be responsive to community needs and representatives of stakeholder communities.

Invest in an open and world-class research infrastructure landscape

Background

The development and coordination of a European research infrastructure landscape through the European Strategy Forum on Research Infrastructures (ESFRI) has been one of the major successes of the ERA. Working towards world-class research infrastructures, supported through e-infrastructures and ultra-fast connectivity, is reiterated as a key ambition in both the Commission Communication and the Council Conclusions. A new trend is the exploration of the relevance of so-called “technology infrastructures” in innovation ecosystems.

University perspective

Using research infrastructures and their associated services is crucial for researchers at any career stage. EUA has contributed to the development of the “[European Charter for Access to Research Infrastructures](#)”. Meanwhile, many [universities already connect research and innovation infrastructure facilities with technology](#) through the local, regional, national and European innovation ecosystems in which they are deeply embedded.

CALL TO ACTION

EUA welcomes the continued efforts toward a world-class landscape of research infrastructures in Europe. Due to the increasingly-data intensive nature of research, this process must be closely linked with the facilitation of access to digital resources and services for research, including through the EOSC. Funding for research infrastructures from national and European programmes (e.g. European Regional Development Fund) must be ensured. For new initiatives, scientific benefits should be driving the prioritisation at the pan-European level.

Finally, EUA welcomes the intention to develop a clearer articulation of the role, relationship and governance of technology infrastructures with respect to existing mechanisms at the EU level, such as ESFRI. This should take into account [the role of university facilities and services in local and regional innovation ecosystems](#).

Support, incentivise and reward citizen science

Background

The Commission Communication and Council Conclusions introduce citizen's engagement in research as part of the new ERA, specifically, as the Commission puts it, for its potential "to achieve greater societal impact and increased trust in science." The Council calls to develop Europe-wide citizen science campaigns, while the Commission proposes raising awareness and building capacity for universities and other R&I stakeholders, as well as mainstream citizen engagement in Horizon Europe Missions. These are welcome starting points for a dialogue, as a meaningful engagement in citizen science will require support, incentives and rewards for researchers and universities.

University perspective

European universities are exploring and promoting the potential of citizen science to bring academic research closer to society by involving citizens in all aspects of the research process. Numerous projects and a small but growing number of structured initiatives are leading the way in showing the benefits of engaging citizens from the initial stages of the research process and the collection of evidence, to the communication of the research outcomes. However, at present, citizen science is rarely part of institutional strategies and approaches to academic career assessment. This will be key to providing the necessary support, incentives and rewards to encourage interested institutions and academic staff to pursue citizen science where appropriate, while also removing ethical, legal and other barriers accentuated by the involvement of citizens. Questions on the ownership of the research process and outcomes, as well as how to safeguard and evaluate research quality, will all have to be answered.

CALL TO ACTION

EUA calls on the Commission and EU member states work with universities on providing the necessary support and developing adequate incentives and rewards to meaningfully engage in citizen science. EUA has [advocated for more citizen engagement by bringing together European universities in a dialogue on the opportunities and challenges of citizen science](#). The Association is also [gathering information on the place of citizen science in institutional strategies and approaches to academic career assessment](#) (cf. [EUA recommendation on excellence](#)). EUA is ready to build on these activities and work together with the Commission, EU member states and other R&I stakeholders.

Engage with universities at the forefront of the digital transition

Background

The new ERA has been conceived in large part to facilitate the contribution of European R&I to the green and digital transitions, the so-called “twin transition”. Regarding the digital transition, the Commission Communication and Council Conclusions propose a variety of actions to bring together and deepen cooperation between national and European-level R&I policies in order to achieve “Europe’s Digital Decade”.

University perspective

Universities are at the forefront of the digital transition. They have a long track record of [experimenting with online or blended courses](#) and [learning and teaching have rapidly \(and to an unprecedented extent\) moved online](#) during the Covid-19 pandemic. The [rise of data-intensive research](#), combined with the [potential of artificial intelligence](#) and other developments including the [transition to Open Science](#), have all been made possible through R&I, leading to a revolution in digital technologies. Universities play a central role in these developments by providing an institutional home and by nurturing the digital transformation of research, innovation and education.

Universities also play a crucial role in innovation ecosystems, facilitating the uptake of new technologies through partnerships with business and the public sector, start-ups and spin-outs, student entrepreneurship and the development of human capital. Within the innovation ecosystems, it is important that there are synergies between EU funding programmes, including the Digital Europe programme, when it comes to [development of digital skills](#), investments in digital infrastructure and the Digital Innovation Hubs.

Universities are heavily impacted by legislation to regulate the digital space. In recent years, EUA has been involved in procedures that have led to the EU directives on Copyright in the Digital Single Market (entered into force June 2019) and Open Data and the Re-use of Public Sector Information (July 2019). While neither of these directives were primarily conceived to regulate the activities of universities, they have proven to be a double-edged sword for the university sector. On the plus side, they have provided legal backing for research data to be “as open as possible and as closed as necessary”; however, [explicit exemptions were needed to avoid interference with learning and teaching and R&I](#). Moreover, these exemptions themselves needed to be considered carefully to allow universities to continue collaborating with other public and private partners.

CALL TO ACTION

EUA calls on the Commission and EU member states to [acknowledge the role and position of universities and other R&I stakeholders in the digital transition](#). Much can be learned from the [experience of universities at the forefront of the digital transition](#) and data ownership in particular (cf. [EUA recommendation on FAIR data and EOSC](#)), notably that “establishing a clear framework for legal data sharing and cross-sectoral collaboration [in the new ERA, for example through the EU Digital Strategy,] will be beneficial for academic R&I in business alike.” These lessons should especially be considered in future legislative proposals and strategies related to the digital space.

Engage with universities in accelerating the green transition

Background

The new ERA should contribute to EU climate ambitions through a coherent interplay of R&I policies and through Europe's industrial base. The Commission's Communication points to the need to accelerate R&I and improve public-private collaboration towards market deployment of clean technology solutions. It also urges prioritising EU and national investments and reforms to keep up with an accelerated climate transition. For its part, the Conclusions call on the Commission and interested member states to "carry out an agenda process for a green hydrogen R&I ERA pilot action". While the imperative of crisis recovery makes the economic case for a green transition ever clearer, it is important to be aware of specific prerequisites that allow R&I systems to contribute to it.

University perspective

Monitoring and modelling new phenomena in climate change and global warming depends on [indispensable evidence produced by research](#). Interdisciplinarity is a key factor here, especially as it helps examine how the various UN Sustainable Development Goals interact, and whether there are trade-offs and mutual reinforcements between well-being, the environment, and the economy. EUA has been at the forefront of adapting study programmes to meet this challenge, by launching an [Action Agenda in energy education and research](#). In addition to its involvement in the EU's energy research agenda via the European Commission's SET-Plan, it has also created an [EUA Energy & Environment Platform \(EPUE\)](#). By mapping and surveying hundreds of universities in this field, the Association has produced [clear calls to invest in investigator-driven research](#) that balances urgent environmental issues with long-term energy targets. EUA has also emphasised the necessity of coupling social sciences and humanities with science and technology, as a key enabler for innovation and insights into the societal dimensions and challenges of sustainable energy systems.

Through the coordination of national and European R&I policies, the ERA can bring these calls to fruition by ensuring that resources are devoted to [building a science and knowledge base](#) for a low-carbon or zero-carbon future. This should encompass all the different professional profiles and skill sets that contribute to the green transition, especially in the field of education where much of the awareness-raising, training, and behavioural change for climate neutrality originate. Moreover, the green transition should benefit from opportunities for international cooperation and intersectoral mobility that the ERA will boost through the single market. The merits of doing so have been proven by the EIT and its Knowledge and Innovation Communities, which must continue to nurture local talent through education, training and entrepreneurship support in Europe's regions (cf. [EUA recommendation on innovation ecosystems](#)). In collaboration with the EIC and other funding sources, such as Structural Funds, this support will ensure that Europe's universities and innovators can develop their projects from the early stage to market deployment and contribute to climate neutrality.

CALL TO ACTION

Achieving all of this and accelerating the green transition necessitates a holistic approach, and EUA calls on the full support of the EU and member states to implement it. Through their position at the centre of regional ecosystems, universities can contribute to this most effectively if investigator-driven and mission-oriented research are balanced in pursuit of climate objectives (cf. EUA recommendation on investigator-driven and mission-oriented R&I), and if they draw upon the best available expertise in environmental education. Well-functioning synergies between ERA and the European Education Area (cf. EUA recommendation on the European Education Area) would further guarantee that the upcoming educational guidelines for achieving sustainability can benefit from rapid uptake through the European R&I system. Finally, universities and researchers must be able to deepen their existing ties with local civil society, while closer with industry to co-develop fundamental and applied knowledge, technologies and services. This would ensure that the latter are designed with the most relevant societal challenges in mind, with the result that their deployment sets in motion a just transition.

Support openness as a cornerstone of an attractive and performant R&I system

Background

International research collaboration has been part of the ERA from the very beginning and the geopolitical dimension of R&I is reaffirmed in the renewed process. The Commission Communication introduces a measure of uncertainty by highlighting potentially competing priorities and leaving their relationship unresolved. This includes the Commission's concept of technology sovereignty in the realm of R&I policy, with an added emphasis on open strategic autonomy and reciprocity in international R&I collaboration, as well as the ambition "to protect and promote EU vital interests and sovereignty in strategic technology areas". While the Council Conclusions are explicit on "the importance of a continued openness to international collaboration", the same tension between potentially competing priorities is present.

University perspective

EUA considers openness as a cornerstone of Europe's scientific and industrial competitiveness as well as to its overall standing in the world. It is an indispensable component of meeting global challenges, ranging from the Covid-19 pandemic to sustainable development and climate change. International cooperation allows for the pooling of resources and exchange of different perspectives that drives research forward. It also contributes to capacity building around the world, and it is an important vehicle for soft power through science diplomacy. The new ERA must be further strengthened through collaboration with partners around the globe. At the university and project level, the new ERA must continue to be bolstered through the attractiveness of an open research environment in which international talent and partners are welcome, based on, as mentioned in the Commission Communication, "Europe's shared values of democracy, solidarity and equality".

Global challenges, such as the Covid-19 pandemic or achieving sustainability, need global answers including global research collaboration. Working with international partners and in diverse teams has clear scientific benefits and produces, on average, more impactful results. [Europe's universities welcome international students and researchers](#) and international partnerships are a core priority of Europe's higher education institutions. Openness to the world and the transition to Open Science (cf. EUA recommendations on [Open Access](#) and [citizen science](#)) based on the ERA core values is therefore a vital component for a high-performing ERA. Introducing strategic autonomy and reciprocity as part of a broader discussion on the EU in a shifting global context is not necessarily in contrast to an open approach to R&I. But it may lead to conflicting priorities and will need to be carefully balanced with a view to maintaining and further expanding international cooperation and exchange.

CALL TO ACTION

The attractiveness of the ERA must be put in the global context, looking at ways to mitigate unbalanced flows of talent and knowledge. Europe should work towards an inclusive and equitable global research community, where knowledge is produced in all world regions. Facilitating capacity building around the world and sharing knowledge globally will enrich research for humanity as a whole. It will also provide European research with new partners and new inspiration. Brain drain, instead, will diminish our common effort as humanity to understand the universe, our societies and the human condition.

While acknowledging a changing geopolitical landscape and increasing competition around key technologies, developing European capacity for R&I in strategic sectors must not denote a closing of European research for international partnerships and people. EUA cautions against the risk of harming Europe's R&I competitiveness and attractiveness based on a misinterpretation of strategic autonomy or technology sovereignty that misses the reality and benefits of international academic partnerships.

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