



Plenary sitting

B9-0370/2021

30.6.2021

MOTION FOR A RESOLUTION

further to Question for Oral Answer B9-0000/2021

pursuant to Rule 136(5) of the Rules of Procedure

on a new ERA for Research and Innovation
(2021/2524(RSP))

Cristian-Silviu Buşoi

on behalf of the Committee on Industry, Research and Energy

B9-0370/2021

**European Parliament resolution on a new ERA for Research and Innovation
(2021/2524(RSP))**

The European Parliament,

- having regard to the question to the Commission on a new ERA for Research and Innovation (O-000031/2021 – B9-0000/2021),
 - having regard to the Commission communication of 30 September 2020 on a new ERA for Research and Innovation (COM(2020)0628),
 - having regard to the European Council conclusions of 1 December 2020,
 - having regard to the European Research Area (ERA) Progress Report for the period 2016-2018,
 - having regard to the European Innovation Scoreboard of 23 June 2020,
 - having regard to the judgment of 6 October 2020 of the Court of Justice of the European Union (CJEU) in case C-66/18¹,
 - having regard to the Commission recommendation of 11 March 2005 on the European Charter for Researchers and on a Code of Conduct for the Recruitment of Researchers²,
 - having regard to Rules 136(5) and 132(2) of its Rules of Procedure,
 - having regard to the motion for a resolution of the Committee on Industry, Research and Energy,
- A. whereas the completion of the ERA by achieving the free movement of researchers and free circulation of scientific knowledge and technology is a key priority for the European Union;
- B. whereas the ERA envisaged overcoming the fragmentation of national efforts in research and innovation (R&I) through reducing the disparities between regulatory and administrative frameworks;
- C. whereas the ERA has provided important mechanisms for ensuring the free movement of researchers and the exchange of knowledge technologies and innovation; whereas, furthermore, the ERA is an established, well-known framework that stimulates cross-border joint R&I actions between Member States' researchers and 'ERA hubs';
- D. whereas research must be based on the fundamental principles of research integrity, and the European Code of Conduct for Research Integrity developed by the European

¹ Judgment of 6 October 2020, *European Commission v Hungary*, C-66/18, EU:C:2020:792.

² OJ L 75, 22.3.2005, p. 67.

Federation of Academies of Sciences and Humanities (ALLEA) should be considered as a reference for the research community; whereas independence and objectivity are key elements of building and maintaining trust in science;

- E. whereas accelerating R&I in the European Union and improving collaboration between private and public R&I in the Member States with a view to early market deployment and societal uptake of new technology solutions and the improvement of existing ones is vital to reaching our climate targets, achieving the digital transition and for the recovery of the European economy; whereas creating high-quality employment provides economic opportunities for the EU; whereas investing in fundamental research means investing in the future, and whereas funding such research should not be intrinsically linked to economic profitability; whereas major scientific breakthroughs have come from publicly funded research;
- F. whereas, as a general rule, R&I should respect the principle of technology neutrality; whereas it is important to stress, however, that technological choices have to respect the policy framework in place;
- G. whereas R&I is essential to enabling Europe's recovery, to supporting and accelerating the digital and green transitions in a socially responsible manner, to enhancing the Union's sustainability and competitiveness, and to strengthening its resilience;
- H. whereas the COVID-19 crisis has adversely affected many young researchers who have experienced deteriorating working conditions and reduced access to laboratories and other essential facilities and, as a result, have fewer opportunities to complete their projects and obtain the qualifications required for career advancement;
- I. whereas women occupy only 24 % of top positions in the higher education sector in the European Union; whereas they are still under-represented among doctoral students in several science, technology, engineering and mathematics (STEM) subjects, including ICT and engineering, but also in the fields of manufacturing and construction;
- J. whereas a more synergetic approach to other EU funding programmes and EU policies could capitalise, in particular, on R&I capacities built up over the past decade in less performing countries; whereas this would require pooling resources to support activities promoting human capital development and the introduction of innovative technologies and new business models, as well as to support infrastructure maintenance and development; whereas a targeted combination of structural fund investments under the smart specialisation priorities with excellent R&I initiatives supported by the Framework Programme could significantly improve the performance of certain regions and strengthen the ERA as a whole; whereas in this context, it is also important to stress the need to optimise and better coordinate the use of research infrastructures at EU level;
- K. whereas the Commission's inclusive approach of aligning the ERA with the European Education Area and European industrial policy in order to foster synergies between these interdependent policies should lead to synergies rather than greater complexity in the ERA, the European Education Area or industrial policy;
- L. whereas the ERA should contribute to the EU's multiple strategies and international

commitments, such as the SME and Digital Strategies, the European Green Deal and the UN Sustainable Development Goals;

- M. whereas openness to the world and international collaboration are imperative for successful EU R&I policies; whereas countries associated with the Framework Programme are an integral part of the ERA and are already contributing to its goals; whereas the European Neighbourhood deserves particular attention; whereas all of its countries in the East and South should benefit from scientific exchanges and cooperation with EU Member States;
- N. whereas the ERA cannot be completed without guaranteed academic freedom within the Union and without the provisions of the Charter of Fundamental Rights of the European Union relating to academic freedom, the freedom to found higher education institutions and the freedom to conduct a business being upheld; whereas according to the CJEU, academic freedom not only comprises an individual dimension in so far as it is associated with freedom of expression and, specifically in the field of research, the freedoms of communication, of research and of dissemination of results, but also an institutional and organisational dimension reflected in the autonomy of academic institutions;

Objectives

1. Welcomes the Commission communication on a new ERA for Research and Innovation setting out the strategic objectives and actions to be implemented in close cooperation with the Member States, in order to **prioritise investments and reforms in R&I, to reach the 3 % of GDP goal,** to improve access to excellence for researchers across the EU and enable research results to reach the scientific community, society and the real economy, while ensuring that publicly funded R&I genuinely contributes to societal well-being;
2. Calls on the Member States to **adopt a Pact for Research and Innovation in Europe** that includes the following commitments to be achieved by 2030: to increase public spending on R&I from the current average level of 0.81 % of GDP to 1.25 % in a manner coordinated across the EU; to increase national public R&D funding of joint programmes and European partnerships from its current level of just below 1 % to 5 %; and to jointly agree on the priority areas for ERA action (horizontal as well as thematic);
3. Underlines the **strong link between R&I and entrepreneurship,** which creates opportunities for setting up new unicorns, start-ups and SMEs; recalls the importance of creating a digital ecosystem which would contribute to technological innovation and the scaling-up of SMEs **mainly through ‘ERA Innovation Hubs’;**
4. Acknowledges the pivotal role of universities and academic institutions in creating vibrant R&I ecosystems; highlights the central role of students as the next generation of innovators in these ecosystems;
5. Insists that in the context of the ERA, the terms ‘research’ and ‘innovation’ are not limited to technological innovation, but embedded as cross-cutting topics of broad relevance to all aspects of the social sciences and the humanities and fully integrated into each of the general objectives;

6. Believes that the review of the ERA should include a horizontal approach for strengthening cooperation between research institutions, including universities; calls for increased budgetary support for university alliances, as well as the establishment of an enabling framework that allows alliances to develop in a flexible manner; believes, furthermore, that university cooperation should not be limited to alliances alone, but that more funding schemes should also be available for universities to cooperate outside the alliances;
7. Underlines the importance of creating synergies between higher education, research institutions and civil society organisations, as genuine partners in the context of R&I, as well as industrial alliances, thereby fully leveraging the dual role of universities; reiterates, in this context, the necessity of creating favourable conditions and opportunities for researchers by using high-quality research infrastructure; calls on the Commission to ensure the inclusive design of these partnerships based on transparency, a balanced representation of the stakeholders and continuous openness, and to offer sufficient opportunities for such divergent stakeholders to take part;
8. Underlines that any calls for funding must be transparent and announced well in advance; stresses further that the joint industrial technology roadmaps should take better account of ‘bottom-up’ input and inclusive participation, and not take industry alone as the primary source of input, but also accept input from the most recent state-of-the-art R&I, as well as from consumer organisations and social partners;
9. Calls on the Member States to translate the ‘new ERA’ into concrete policies and funding actions aimed at contributing to the ‘green’ and ‘digital’ twin transitions, the implementation of an ambitious European Green Deal and industrial strategy, a resilient recovery and unmet medical needs; stresses the importance of adequate links within and between innovation and industrial ecosystems and their actors, including academia, industry, the public sector at various levels, the general public and civil society across the EU to ensure that research results are applied faster in the economy and society; underlines, in this context, the vital role of SMEs in addressing innovation and technology development and the potential of traditional SMEs that still needs to be unlocked; emphasises the role of the ‘ERA hubs’ as a tool to ensure the availability of high-quality science in all EU cities and regions, and also for boosting regions where there are opportunities for sustainable growth;
10. Is concerned that the process of improving the quality of R&I systems is slowing down and is showing uneven progress across the Union³;
11. Underlines the important role played by R&I during the COVID-19 pandemic in coming up with multi-sectoral and transdisciplinary solutions to overcome the crisis; in this regard, welcomes the ERAvsCorona action plan as an example of a rapidly defined and well-targeted action undertaken together with Member States;
12. Underlines that the COVID-19 pandemic has not only demonstrated the importance of R&I cooperation, but also of open science practices and infrastructures to rapidly deliver solutions to the most demanding societal needs; stresses that the ERA has a key

³ See the ERA Progress Report 2018.

role to play in advancing open science and the sharing of research results, data and infrastructure, as well as in making sure that all scientific publications resulting from publicly funded research should, by default, be published in open access journals, while research results and data should be made available according to the FAIR (findable, accessible, interoperable, reusable) principles;

13. Highlights that the COVID-19 pandemic has increased the demand for better connectivity and has therefore accelerated the digital transition; regrets, however, that technology sharing and intellectual property rights were insufficiently taken into account;
14. Calls for a balance to be struck between fundamental research and more applied research leading to concrete innovation across the ERA, and underlines that both are crucially important;
15. Highlights that fundamental research refers to the activities of scientists who are investigating questions for the sake of building knowledge, independently of economic profitability or short-term applicability;
16. Points out that the new ERA needs to fully embrace the green and digital twin transitions and contribute to accelerating the R&I effort in this context by, inter alia, better aligning and reinforcing R&I investments through exploiting synergies with the Recovery and Resilience Facility (RRF), as well as improving collaboration between private and public R&I not only within, but also between the Member States, in order to accelerate the societal uptake and early market deployment of innovative technologies and solutions which are vital to reaching the EU's climate targets, as well as tapping into the major economic opportunities provided by the twin transitions;

Funding and synergies

17. Stresses that in view of the fact that Europe is facing pressing societal, ecological and economic challenges, aggravated by the COVID-19 crisis, it is high time to retool the ERA in order to deliver on Europe's recovery and build a new socially, economically and environmentally resilient model for the EU; is therefore concerned about the slow pace of alignment between national policies and the policies agreed with the Member States at EU level;
18. Invites the Member States to increase the national budgets devoted to R&I; welcomes in this respect the reconfirmation by the Council of the 3 % of GDP investment objective in the Council conclusions of 1 December 2020; regrets the fact that in these conclusions, the Council did not commit to the proposed investment objective of 1.25 % of GDP for public funding of R&I;
19. Recalls the importance of R&I's contribution to achieving the goals set out in the Paris Agreement and the objectives of the European Green Deal; encourages an overall increase in the national budgets devoted to R&I in clean energy technologies, thereby fostering national objectives and funding targets that indicate concrete and relevant pathways to 2030 and 2050;
20. Insists on the importance of creating and utilising to the full synergies between

European funding instruments, especially between Horizon Europe, Erasmus+, the Cohesion Policy Funds, NextGenerationEU, the Single Market Programme, InvestEU, LIFE +, the Just Transition Fund and the EU external action instruments, the Partnership for Research and Innovation in the Mediterranean Area (PRIMA), EU4Health and the Digital Europe Programme, and asks the Commission to provide clear, simple and practical guidance and streamlined tools to Member States on how best to implement these synergies in the national and regional contexts; in this context, stresses the importance of the Recovery and Resilience Facility (RRF) that will support smart, sustainable and inclusive growth, including R&I infrastructures, and will greatly contribute to the implementation of the ‘new ERA’;

21. Is of the opinion that the recovery plans and the NextGenerationEU represent an opportunity to reinforce the knowledge triangle and to strengthen skills, education and research; stresses the need for more structured links with the initiatives to reinforce the European Education Area and the European Innovation Area; welcomes the Council’s plan to include the strengthening of the ERA in the national recovery plans;
22. Underlines the importance of cooperation, from the design phase of projects between academia, research institutions and industry onwards, in order to promote science, as well as innovative technologies and solutions aimed at sharing resources and complementary advantages, and to complete technological innovation projects together in order to create market-ready products, services or processes and increase well-being; encourages, in the context of the ‘new ERA’, mutual exchanges and increased collaboration between different actors with the objective of enhancing the educational experience, speeding up the knowledge transfer process, raising awareness and providing solutions to overcome social, environmental and economic challenges;
23. Highlights the potential of a multidisciplinary and multi-stakeholder approach to ecosystems, combining Europe’s creative and cultural strengths and assets; notes the synergy benefits created by uniting different sectors and scientific disciplines, including art, design and the creative fields, and social science and the humanities;
24. Recognises the role that the private sector plays in improving our R&I capacities, in scaling up new innovations and in boosting Europe’s competitiveness and sustainability; underlines that a significant societal impact can be created, inter alia, by the uptake of the latest research knowledge in start-ups, established businesses and industry; highlights the need to strengthen strategic long-term cooperation between academia and business in order to advance public interest objectives and to integrate the knowledge triangle to bring about better societal outcomes; stresses that industry and SMEs can have a major role in contributing to long-term investments and to bridge the ‘valley of death’, and invites the Commission to look into how to better exploit synergies between public and private R&I investments, also in relation to training, skills and the development of research activity;
25. Reiterates, in the context of the ‘new ERA’, the importance of applying the existing intellectual property framework and supporting the forthcoming Unitary Patent and all necessary flexibilities, in order to strike a balance between the enforcement of effective intellectual property rights and the push for innovation; highlights the potential role of the forthcoming Unitary Patent in streamlining procedures and reducing administrative

burdens for European innovators;

Reducing the gap

26. Believes that one of the keys to the success of significantly increased public spending on R&I lies in **integrating the different** European, national and private funding streams, including the convergence of funding through Horizon Europe, the RRF, the EU Cohesion Funds **and national R&D funding**;
27. Calls for an ambitious Horizon Europe ‘Widening participation and strengthening the ERA’ package that supports collaborations between Member States in order to achieve balanced access to excellence;
28. Calls on the Member States, as soon as possible, while taking into account the recovery from the pandemic, to support the ‘new ERA’ with national reforms and resources complementing the EU funding instruments through the implementation of new tools, namely the part on ‘Widening participation and strengthening the European Research Area’ under Horizon Europe that will help narrow the R&I performance gap and reduce inequalities between different countries and regions; in this regard, highlights the need to address investments and reforms in R&I; welcomes the creation of the ‘ERA Forum for Transition’ and the prospective Pact for R&I; notes that success of the pact will depend on broad support for it within the sector and **therefore calls for the inclusion of Parliament and stakeholders in the process of developing the pact**;
29. Acknowledges the significant role of regional governments in promoting R&I policies, as well as the importance of regional R&I ecosystems; calls on the Commission and the Member States to embrace a **multi-level form of governance that includes regional and local governments in order to enhance regional ecosystems and ‘ERA hubs’**;
30. Underlines the need to ensure **synergies between the ‘ERA Hubs’** and other R&I-related hubs such as the European Institute of Innovation and Technology (EIT) Innovation Hubs, the Digital Innovation Hubs and networks, such as the AI Digital Innovation Hubs, among others, and the European Enterprise Network;
31. Encourages initiatives aimed at further enhancing investment in skills, research and innovation in the Member States that, according to the European Innovation Scoreboard, are still considered modest and moderate innovators; welcomes the initiatives already in place to bridge the gap which these Member States face, including the EIT Regional Innovation Scheme;
32. Stresses that the ERA should prioritise access to excellence, the mobility of researchers and the free flow of knowledge, promote inclusiveness and spread opportunities throughout the whole territory of Europe, strengthening links and synergies between different R&I communities, thereby contributing to the full use of Europe’s R&I potential; highlights that by prioritising excellence, the ERA can play a central role in reducing disparities within the Union and help bridge the research gap that still exists;
33. Stresses that **societal needs and interests should be at the centre of R&I and that the engagement of citizens**, local communities and civil society should therefore be at the core of the new ERA in order to facilitate societal uptake and thereby achieve greater

societal impact and increased trust in science; calls, therefore, for enhanced science communication and awareness-raising campaigns, as well as the close involvement of civil society and end users from the beginning of the R&I processes, including representative organisations of groups at higher risk of exclusion such as persons with disabilities and other under-represented groups in society, in order to address critical issues related to their exclusion in the R&I, as well as to make sure that the subsequently developed technologies and innovations indeed serve society and not the other way around;

34. Welcomes the Commission's plans to improve access to institutions of excellence and infrastructures for researchers from across the EU; underlines, however, the need for more targeted support aimed at helping to close the R&I gap in the Union;
35. Underlines the importance of reducing fragmentation in access to research data and recognises the importance of the European Open Science Cloud (EOSC) in the context of the 'new ERA' aimed at bringing together institutional, national and European stakeholders, initiatives and data infrastructures in order to develop an inclusive open science ecosystem in the EU; asks that participation in open science and data sharing initiatives be promoted by improving European data sharing infrastructures and fostering the use of data standards;

Careers

36. Stresses the importance of empowering women and girls to enter STEM careers and asks the Member States and the Commission to draw up measures to improve the conditions for women to pursue research careers and reduce the leaky pipeline effect; calls for the attractiveness of employment opportunities for young researchers and under-represented groups to be improved, also in the light of the crucial contribution of women to scientific and R&D activities, while decreasing the gender pay gap in the sector; encourages the Member States and research organisations, including universities, to support flexible working conditions and arrangements for both women and men in R&I, including support for the equal sharing of care responsibilities, and to review the assessment of researchers' performance in order to eliminate gender bias; insists, furthermore, on a better integration of the gender dimension in the R&I content and on improved collection of disaggregated data and results;
37. Expresses its appreciation for the ERA4You initiative of targeted mobility measures aimed at supporting researchers in Member States with a low R&I performance to learn and develop excellence and to foster the mobility of researchers between industry and academia;
38. Takes note of the launch of the ERA Forum for Transition to support Member States in the coordination and prioritisation of national R&I funding and reforms;
39. Notes that talent circulation and R&I opportunities vary greatly between Member States; believes that the Commission and the Member States should strive for talent circulation as a balanced circular movement of researchers, thereby tackling the problem of the 'brain drain'; considers that achieving such a balance requires action at European level through policy measures and instruments;

40. Highlights the importance of incentive schemes encouraging the mobility of researchers (ERASMUS+, Marie Skłodowska-Curie actions, European Research Council); recalls, in this context, the study on support measures for researchers to return to the Union and to their country of origin within the Union, provided for in Horizon Europe, which can be a useful tool to demonstrate the need for measures to promote the return of researchers;
41. Calls on the Commission to develop further instruments and measures to attain this aim, such as through the ERA Hubs and ERA4You, the Widening Actions and support instruments, in order to design and implement reforms in the national R&I systems, such as the Horizon Policy Support Facility;
42. Welcomes the initiative to develop a toolbox to support research careers; regrets the fact that the Commission only envisages adopting it by 2024 and asks for its early adoption in order to enhance mobility, develop competences and skills, provide targeted training courses and improve employability;
43. Calls for the Commission to identify and break down the persistent barriers faced by researchers when they consider moving to other European countries and regions, including non-research-related barriers, such as social security, pensions and human resources policies involving recognition and reward systems, as well as childcare facilities and work-life balance; to this end, calls on the Commission and national agencies to work together and improve the collection and comparability of information on researchers' recruitment and mobility, and career development patterns;
44. Supports the Commission's plan to build on the pan-European pension fund for researchers (RESAVER) and develop an overarching researchers' careers framework to further promote cross-border and cross-sector mobility, to enhance comparability and transparency in relation to career opportunities and to better attract highly skilled talent from third countries;
45. Is convinced that researchers are one of the most important resources of research systems, innovation and sustainable growth and that they must be provided with adequate conditions to perform their work; also believes that employers and funders should ensure that the working conditions for researchers provide the flexibility and the autonomy deemed essential for successful research performance, allow both women and men researchers to combine family and work, and improve access to infrastructures, computing power and opportunities; calls for the systematic acknowledgement of the opportunities offered by virtual researcher mobility;
46. Emphasises the essential role of skills; is of the opinion that 'putting knowledge first' represents one of the crucial pillars of the new ERA; underlines the role of universities in promoting lifelong learning, skilling and re-skilling in order to enhance opportunities for all workers and meet the skills needs of the labour market arising from the green and digital transitions and in contributing to a swift recovery from the COVID-19 crisis;
47. Calls on the Commission to work together with the Member States to identify policies and procedures that could support the better management of research careers, reduce precariousness, promote inclusion and diversity, and ultimately increase the quality of the science produced;

Research-enabling conditions

48. Is of the opinion that the Union should be equipped with world-class infrastructures and equipment in order to perform R&I activities, support industries and SMEs, and unlock the innovation potential to deliver on European policy objectives;
49. Recognises the importance of the European Strategy Forum on Research Infrastructures roadmap for the development of R&I infrastructures which represent a key pillar of the ERA, and underlines the importance of developing new pan-European infrastructures;
50. Calls on the relevant institutions to support young researchers by providing adequate conditions and opportunities and to adopt urgent measures, such as extending the duration of grants and projects, adjusting deadlines and improving access to facilities;
51. Asks for new and existing talent to be promoted and for the provision of a focal point for exchange and interaction for researchers at all stages of their careers, across all areas of Artificial Intelligence, given that it has become a major driver of innovation, future growth and competitiveness and is crucial in addressing the major challenges faced by society, such as climate change, energy and mobility, food and natural resources, health and inclusive societies; highlights the importance of fostering the development of 'ERA Hubs' around the EU, which increase access to these tools and contribute to the reduction of the skills gap in that field;
52. Highlights that it is crucial to quickly develop an EOSC based on the FAIR principles; is concerned at the slow progress towards this objective; urges the Commission to accelerate the scaling up of the EOSC into a trusted R&I data space; recalls the importance of connecting all initiatives related to data sharing, such as those related to the creation of European Data Spaces for health, energy, manufacturing, mobility, agriculture, finance, skills and public administrations;

Principles

53. Underlines that the ERA cannot be completed without guaranteed academic freedom within the Union; welcomes the principle of academic freedom as a fundamental pillar in the new ERA;
54. Calls on the Commission to ensure that the ERA promotes respect for academic freedom in all European countries in order to guarantee scientific excellence, and in line with Article 13 of the Charter of Fundamental Rights of the European Union;
55. Highlights the need to respect ethical practices and fundamental ethical principles, as well as ethical standards, as documented in the different national, sectoral or institutional Codes of Ethics; recalls the importance of applying the principles laid down in Article 19 of the Horizon Europe Framework Programme on ethics to EU research programmes;
56. Stresses the need to engage citizens to contribute to the development of new knowledge and innovation for our society; calls on the Commission to enhance the dialogue with civil society, raise awareness and favour active participation in all stages of scientific inquiry, thereby enabling citizens to co-design solutions, contribute to ideas and create

constructive attitudes towards science and its mission; invites the relevant institutions to pay special attention to the opportunities to engage young people and students;

Global dimension

57. Stresses that international cooperation is an important component allowing the ERA to enhance knowledge sharing and skills, and to improve R&I capacities;
58. Underlines that reforming the ERA and updating the EU's and Member States' strategic approach to international collaboration beyond the ERA need to go hand in hand; calls, therefore, for an update of the Commission's 2012 communication on international collaboration in R&I, which should include a fresh approach to collaborating with low- and middle-income countries;

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59. Instructs its President to forward this resolution to the Commission, the Council and the governments and parliaments of the Member States.