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NOTE

From: Permanent Representatives Committee (Part 1)
To: Council

No. prev. doc.: 8621/21

Subject: Conclusions on "Deepening the European Research Area: Providing researchers with attractive and sustainable careers and working conditions and making brain circulation a reality"
Approval

1. The Council conclusions on the New European Research Area (ERA) adopted on 1 December 2020¹ stressed the need to enhance the attractiveness of research careers as a vital element of the "New ERA" for attracting and retaining excellent researchers in Europe, and invited the Portuguese Presidency to take forward the topic in cooperation with the Commission.
2. The Portuguese Presidency placed the improvement of researchers' careers as a top priority under its Presidency term and, in response to the invitation by the Council, presented an outline for draft Council conclusions at the informal videoconference of the members of the Research Working Party (RWP) of 6 January 2021 in order to take this topic forward.

¹ 13567/20.

3. The key messages of the informal videoconference of Ministers for Research held on 3 February 2021 on promoting research careers across Europe were integrated in the first Presidency draft of the conclusions that was presented to the RWP on 15 February 2021.
4. Subsequently, the RWP examined the draft conclusions at its meetings on 29 March and 22 April 2021 and, at its informal videoconference meeting on 6 May 2021, the RWP reached a broad consensus on the text of the draft conclusions.
5. On 19 May 2021, the Permanent Representatives Committee confirmed the consensus reached at technical level and agreed to forward the draft conclusions to the Council (Competitiveness) of 28 May 2021 for approval.
6. The Polish delegation entered a Statement as regards references in the text to "gender equality" (doc. 9009/21 ADD1).
7. The Council (Competitiveness) is therefore invited to approve the draft conclusions set out in the Annex.

**Draft Council conclusions on
"Deepening the European Research Area: Providing researchers with attractive and
sustainable careers and working conditions and making brain circulation a reality"**

THE COUNCIL OF THE EUROPEAN UNION

RECALLING

- the Council Resolution of June 2000¹ establishing a European area of research and innovation (ERA) and including focus on human resources and attractiveness of scientific and technological professions;
- the Council Resolution of 10 November 2003 on the profession and the career of researchers within the European Research Area that called on Member States and the Commission to *inter alia* share and develop evaluation and appraisal systems, improve working conditions for researchers and stimulate intersectoral mobility of researchers and that invited the Commission to report regularly²;
- the Council conclusions of 18 April 2005 on reinforcing human resources in science and technology in the European Research Area³;
- the conclusions of the European Council of 13 and 14 March 2008, which called upon the Member States to remove barriers to the free movement of knowledge by creating a "fifth freedom" based in particular on making the labour market for researchers more open and competitive, providing better career structures, transparency and family friendliness;
- the Council conclusions of 30 May 2008 on family-friendly scientific careers: towards an Integrated Model, which recalled the crucial role of research and technological development policy for Europe in the context of the Lisbon Strategy and stressed the importance of women's role in science and technology and to develop better work-life balanced conditions, as well as making scientific careers more family-friendly⁴;

¹ OJ C 205, 19.7.2000, p. 1.

² OJ C 282, 25.11.2003.

³ 8194/05.

⁴ 10212/08.

- the Council conclusions 26 September 2008 on "Better careers and more mobility: a European Partnership for researchers", stressing the need to keeping a balance between the opening-up at the European level and the autonomy of institutions, reinforcing the principles and values of the European Charter for Researchers and the Code of Conduct for Recruitment of researchers⁵ (hereafter Charter and Code) and the need of monitoring the progress at national and EU levels⁶;
- the report of Ministers Biltgen (LU) and Gago (PT) of 18 May 2009 on a European partnership to improve the attractiveness of research and technology development (RTD) careers and the conditions for mobility of researchers in Europe⁷ proposing diversified research career paths, dual careers, family conditions and flexicurity and invited for synergies with other Council formations;
- the Council conclusions of 2 March 2010 on European researchers' mobility and careers⁸ and its conclusions of 1 December 2015 on research integrity⁹ and advancing gender equality¹⁰;
- the European Parliament Resolution published in April 2010¹¹ on better career and more mobility, in particular asking for a single European career model, urging for a European Pension Fund and calling on Member States to make the returning to home institutions more attractive for researchers;
- the Conclusions of the European Council of February 2011¹² that stressed that Europe needs a unified research area to attract talent and investment and that called for the creation of a genuine single market for knowledge, research and innovation;
- the Council conclusions of 28 and 29 November 2011 on the modernization of higher education asking for open and transparent recruitment procedures and a European Framework for Research Careers;

⁵ 2005/251/EC of 11 March 2005.

⁶ 13671/08, 7652/1/08 REV1.

⁷ 10003/09.

⁸ 6833/10.

⁹ 14853/15.

¹⁰ 14846/15.

¹¹ 2010/C 87 E/20.

¹² EUCO 2/11.

- the Council conclusions of 29 May 2015¹³ on the European Research Area Roadmap 2015-2020 highlighting *inter alia* the role of human capital in the advancement of the ERA and the necessity to strengthen comprehensive human resources strategies and the empowerment of young researchers by providing them with attractive career pathways;
- the Council conclusions of 27 May 2016¹⁴ on the transition towards an Open Science system;
- the Council conclusions of November 2016¹⁵ on measures to support early-stage researchers and increase the attractiveness of the research careers, which link the careers with the Skills Agenda and called upon the Commission in particular to develop monitoring processes for measuring researchers' mobility flows within the European Union (EU) and with third countries;
- the Commission Recommendation (EU) 2018/790 of 25 April 2018 on access to and preservation of scientific information, that in particular call for Member States to set and implement clear policies for adjusting, with regards to scientific information, the recruitment and career evaluation system for researchers, the evaluation system for awarding research grants to researchers, and the evaluation systems for research performing institutions;
- the Council conclusions of 30 November 2018¹⁶ on the governance of European Research Area, which stressed the importance of the development of the labour market for researchers in Europe, linking Open Science with reward and assessment mechanisms, as well as skills development schemes for researchers and called for better synergies with the European Higher Education Area (EHEA);
- the Opinion on the future of the ERA adopted by European Research Area and Innovation Committee (ERAC) on 17 December 2019¹⁷ that outlined the main elements for a "New ERA";
- the Bratislava Declaration on Young Researchers from 2016 conveying the need for better research careers and the Zagreb Call for action on Brain Circulation 2020 linking the improvement of researchers' careers to the need of better performing national/local research ecosystems in order to contribute to a more balanced brain circulation;

13 9351/15.
 14 9526/16.
 15 15013/16.
 16 14989/18.
 17 ERAC 1201/20.

- the European Skills Agenda adopted by the Commission on 30 June 2020 called to develop a European Competence Framework for researchers, supporting the development of a set of core skills for researchers, skills taxonomies, and related training, in line with the European Pillar of Social Rights;
- the Commission communication of 30 September 2020¹⁸ on "A new ERA for research and innovation";
- the Council conclusions of 1 December 2020¹⁹ on the New European Research Area which invited the Portuguese Presidency to develop further in cooperation with the Commission the topic of research careers, and stressed the need for stronger synergies between the ERA and the higher education related elements of the European Education Area (EEA);
- the European Pillar of Social Rights which highlights the ERA as a cornerstone to making Europe competitive and sustainable and unlocking opportunities through innovation, and the related Council Recommendation on social protection²⁰ which encourages Member States to improve access to social protection for all.

I. Introduction

1. RECOGNISES that researchers and other research and development (R&D) personnel across the public and private sectors are at the heart of research and innovation (R&I) systems and that the ERA, established by Article 179 of the Treaty on the Functioning of the European Union, aims at the creation of an internal market for research with free circulation of researchers, knowledge and technology to ensure high quality knowledge production, diffusion and innovation; and HIGHLIGHTS that despite progress made so far, challenges still persist and more coordinated action is needed.

¹⁸ 11400/20 + ADD1.

¹⁹ 13567/20.

²⁰ Council Recommendation 2019/C 387/01 of 8 November 2019.

2. With a view to pursuing an ERA policy agenda, and taking into consideration the ERA Roadmap set out by the Commission, namely on the priority "deepening the ERA", NOTES the importance of adequate framework conditions for research careers, including work-life balance²¹, employability and access to social protection for all²².
3. RECALLS that enhancing the attractiveness of research careers across the Union is a vital element of the "New ERA", by creating inclusive and supportive working and employment conditions, including lifelong learning, for more sustainable and appealing researchers' careers and, consequently, attracting the best talents without any bias and retaining excellent researchers from Europe and abroad.
4. WELCOMES the Commission proposals in the ERA Communication for a toolbox of support measures to strengthen research careers and other related actions, such as those related to open science, inclusiveness and access to excellence (e.g. EURAXESS and facilitate brain circulation).
5. CONSIDERS that research careers go beyond R&I policies, mobilising other public policies like employment, social and education policies, recognising potential for synergies and horizontal coordination; STRESSES the importance of national, regional and sectorial dimensions and of preserving the autonomy of the organisations.
6. STRESSES that cross-border and cross-sectoral cooperation, openness, sharing, fair recruitment, competition and value creation from knowledge underpinned in R&I activities contribute to the development of sustainable and attractive research careers.
7. HIGHLIGHTS that ERA has successfully fostered mobility of researchers, removed barriers to circulation and career development, through among others, the Charter and Code and its implementing mechanisms, including the Human Resources Strategy for Researchers and EURAXESS, the Marie Skłodowska-Curie Actions (MSCA), European Cooperation in Science and Technology (COST) and widening measures; however, despite progress, the European and international dimension of research careers still requires continued joint efforts and commitments by Member States and the Union.

²¹ Directive (EU) 2019/1158 of 20 June 2019.

²² Council Recommendation 2019/C 387/01 of 8 November 2019.

II. Mobility, brain circulation and research and innovation systems

8. RECALLS that geographical, intersectoral and interdisciplinary mobility of researchers and other R&D personnel is a core dimension of the "New ERA", and that the Union and Member States should strive for brain circulation to address the unbalanced flow of researchers; RECOGNISES that brain circulation depends on adequate framework conditions, interoperable and attractive research careers and the overall quality and attractiveness of the research system; ENCOURAGES Member States to improve the quality of the research and innovation systems with adequate framework conditions, including sufficient R&I investment and implementation of reforms as needed.
9. RECOGNISES that impacts of mobility on research careers development is highly relevant in earlier stages of careers, as researchers are more likely to search for suitable positions, mentoring, progress on their career, better remuneration and employment conditions, wellbeing and work life balance as well as by the quality of research ecosystems.
10. EMPHASISES that fair recruitment and competition for talent between institutions and systems; are essential elements to improve attractiveness of research systems; HIGHLIGHTS the need to invest in national and local research systems and create appropriate and fair working conditions for career development, with a view to eliminating a major driver for the imbalances in flows within the internal market and beyond.
11. UNDERLINES that uneven flows of researchers and brain circulation needs to be addressed not only at national level, but also at European level through policy measures and instruments, whereby requiring comparable data from different countries; CALLS on the Commission to develop instruments and measures to attain this aim, such as through the ERA Hubs and ERA4You, the Widening Actions and support instruments to design and implement reforms in the national R&I systems, including with the support of the Horizon Policy Support Facility.

12. HIGHLIGHTS the importance of incentive schemes for the promotion of mobility and career development at European level (ERASMUS+, MSCA, ERC, COST) as well as national return and integration schemes; LOOKS FORWARD, in this context, to the outcome of the study on support measures for researchers to return to their country of origin within and to the Union, foreseen in Horizon Europe that can be a useful tool, if appropriate and justified, to modernise or enhance research training programmes and systems as well as to increase institutions' attractiveness worldwide.

III. Open labour market for researchers

13. UNDERLINES that one of the priorities of the ERA Roadmap 2015-2020 - "Open Labour market for researchers" (ERA priority 3) is to increase mobility of researchers in Europe, by openness of recruitment to achieve a well-functioning labour market for researchers; LOOKS FORWARD to its evaluation, including possible recommendations and measures.
14. STRESSES the increasing trend towards precariousness of employment in academia, loss of talent and reduction of job security in many countries, aggravated by the COVID-19 pandemic; NOTES that suboptimal balance between institutional and project-based funding lead to short-term, project-based contracts that do not give a long-term perspective for researchers, as shown by the fact that temporary grant-based contracts dominate the early-career path in academia; RECOGNISES that the number of academic positions is limited and that researchers are increasingly likely to find a job outside academia or to reach a permanent position in academia at a later stage in their professional careers; and ASKS Member States and the Commission for appropriate instruments and tools promoting attractive working conditions within and beyond academia.
15. RECOGNISES that there are numerous barriers faced by early-career researchers both within and outside academia, lacking adequate guidance mechanisms and involvement of other sectors in their training and career development systems, which can result in a skills mismatch with the available jobs in the labour market; STRESSES that early-career women researchers face additional specific barriers.

16. HIGHLIGHTS that the skills mismatch observed in the labour markets of many countries result from the fact that doctoral training tend to focus on an academic research career path, research skills and standard academic incentives, thus not providing the right transversal skills for talents to move to other sectors, whose absorption capacity for academic profiles is limited; UNDERLINES the need to support career development and counselling services, including advice regarding career choices in all career stages; and ENCOURAGES a stronger role for skills intelligence in informing policy decisions and the considerations on researchers and research careers when designing national measures or strategies in this field; and UNDERLINES that doctoral training in collaboration with the private sector helps to bridge the difference in culture and boost the required research skills outside the academia, thus fostering employability.
17. UNDERLINES in these contexts the importance of upskilling and reskilling and transversal skills, in particular digital skills; and INVITES the Commission to promote initiatives in synergy with the Pact for Skills to maximise the impact of skills investment by bringing together public and private stakeholders.
18. HIGHLIGHTS the need to enlarge the doctoral training programmes building on the example of the MSCA Doctoral Networks, beyond academic training, including transferable skills valuable to other sectors, and the involvement of other sectors in the training systems for early-career researchers from the onset in order to improve matching with skill requirements beyond the academic sector. In this regard, RECOGNISES the importance of policy measures that promote wider access to training and of career development instruments, as well as the promotion of value creation from knowledge, entrepreneurship and support to start-up creation, where relevant; and INVITES the Commission to explore these options in the design of ERA4You on the basis of Member States' best practices.
19. NOTES that the range of factors that influence uneven flow of researchers are, amongst others, remuneration levels, pensions, social security and other employment conditions, which are largely determined at national, regional or institutional level.

20. NOTES the diverse and essential roles highly skilled talents play in successful research and innovation systems across the ERA like data stewards, research (e-)infrastructure operators, research facilitators, knowledge brokers, innovation and technology transfer managers and coordinators, among others; NOTES that these roles need to be acknowledged and supported via training and career development instruments to optimise job opportunities; and INVITES Member States and the Commission to develop measures in support of career diversification and multiple career paths.

IV. Attractive European Framework for research careers

21. NOTES that a European flexible framework for research careers is essential for creating conditions to retain and attract talents to Europe facilitating interoperability, comparability, career breaks and mobility; WELCOMES the technical work undertaken by the Commission towards the 2021 update of the ESCO classification²³ and the development of a European Competence Framework for researchers to allow the profession to be recognised at European level; similarly, NOTES the work to be done on EURES²⁴, and ASKS the Commission to develop a taxonomy of Skills for researchers²⁵ in order to allow the statistical monitoring of brain circulation and to discuss with Member States on a set of indicators accordingly, and propose a training scheme to foster national expertise.
22. RECOGNISES that coherent global, European and national taxonomy levels will facilitate interoperability between careers of different sectors and intersectoral mobility, in full respect of the autonomy of the universities, research organisations and businesses.

²³ ESCO: European Skills Competences, Qualifications and Occupations.

²⁴ Regulation (EU) 2016/589 of 13 April 2016 on a European network of employment services (EURES), workers' access to mobility services and the further integration of labour markets.

²⁵ 9349/20.

23. UNDERLINES that current reward and assessment practices are largely based on bibliometrics rather than on what researchers deliver and how (excellence and impact), and should evolve towards a more qualitative assessment, which may impact on the diversification of research careers, taking into account open collaboration and knowledge and data sharing, valorisation of research, intersectoral aspects and, where relevant, societal engagement; HIGHLIGHTS the need to explore more talent-based and diversity-sensitive quality measurement, going beyond publication and citation metrics and taking into account excellence of research, teaching and skills, impact, services to society (e.g. patient care), open science practices, team science, mobility, management and leadership skills, entrepreneurship and collaboration with industry, among others; NOTES the experiences and reforms underway in Member States and in the research organisations and universities asking for a European approach to the evaluation of researchers' talent; WELCOMES the Commission ongoing consultation on reforming research assessment, among policy makers (EU, Member States levels), research funders, research performers and other stakeholders.
24. NOTES that the revision of the scope addressed by the Charter and Code is in progress in the ERA-related groups and the Commission in co-creation with stakeholders, and CONSIDERS analysis of further evolution to a single framework with a more holistic approach addressing all challenges beyond values and principles and broadening its focus to sectors beyond the academia; HIGHLIGHTS that the renewed "Charter & Code" should provide guidelines for further improvements in the recruitment, selection, rewarding and assessment systems of researchers across Europe; in this context, INVITES the Commission to analyse best practices at national level and present proposals by 2022, *inter alia* for tenure track systems, research assessment, career diversification, work-life balance, incentives to hire early-career researchers and to address gender equality, interoperability with industry and improving EURAXESS governance and services.

25. WELCOMES the reform and broadening of EURAXESS network, services and portals towards a talent management platform, with linkages with EURES and EUROPASS, and other transnational networks, in particular Widening national contact points, bridging researchers and institutions and helping absorb talent in countries and regions while continuing to ensure seamless quality services across the network; CALLS on the Commission and Member States to co-design and co-develop the next phase of EURAXESS towards an ERA Talent Platform.
26. STRESSES the importance of safeguarding and enhancing freedom in scientific research and research careers; NOTES the fact that researchers are increasingly exposed to threats and hatred when they participate in debates, share their result and contribute to the advancement of knowledge; HIGHLIGHTS that Member States, Research Organisations and Higher Education Institutions need to address this problem.
- V. *Providing research careers with better working conditions and family friendliness***
27. RECOGNISES that researchers' careers tend not to be developed within a single sector or country and that mobile researchers tend to have multiple research career paths while their social protection benefits²⁶, including pensions, are often not portable or comparable and tend to be valid only in the country where they were acquired.
28. ACKNOWLEDGES that social security and pension schemes are national competences and NOTES the progress realized by the pan-European supplementary Pension scheme RESAVER and the need for more visibility and diversification of portfolios to facilitate adoption by organisations, including foundations and the business sector and better articulation with national systems; EMPHASISES that analysis of existing instruments and tools and share of best practices should be promoted.

²⁶ See footnote 22.

29. UNDERLINES the need to promote a better work-life balance and family friendly environment as part of career prospects including childcare and schooling provisions, career breaks, parental leave and dual-career opportunities.
30. HIGHLIGHTS the importance of promoting equal opportunities, inclusiveness and gender balance namely in career accession and progression, including in top leading positions, reducing precarity as well as assessing the impact of COVID-19, among others, on women's and minority groups' careers.

VI. Access to excellence, nurturing talent and reduction of inequalities

31. HIGHLIGHTS the need to strengthen public and private investment in R&D in Europe and to support lower performing research systems to increase their attractiveness to avoid brain drain, loss of competitiveness due to persistent inequalities and promote retaining talent in all its diversity; STRESSES that aiming at achieving the 3% GDP R&D target, and ensuring synergies among EU programmes and EU and national programmes will contribute to these purposes.
32. STRESSES the importance of supporting reforms in the national research systems to ensure the attractiveness of research careers and address the divergence in the remuneration levels while improving the reward and assessment systems. Revamped Commission tools, such as the Technical Support Instrument and the Horizon Policy Support Facility, can help in designing and implementing these needed reforms; CONSIDERS that the Gender Equality Plans in Horizon Europe could be a promising tool to achieve more equality within research careers.

VII. Intersectoral, interdisciplinary, virtual and international mobility

33. HIGHLIGHTS the importance of interdisciplinary research to contribute to excellent science and of intersectoral mobility on fostering scientific employment, obtaining better knowledge exchange and uptake, acquiring a wider set of research related skills and better matching these to the needs beyond academia.
34. STRESSES the importance of inter-sectoral mobility to provide significant opportunities for employment and career development especially for early-career researchers; HIGHLIGHTS that mobility between sectors can take many shapes (from academia to industry, business, public entities, non-profit organisations, cultural sectors, and *vice versa*, as well as business creation) and STRESSES that the training and career development systems should build mobility opportunities and guidance mechanisms for STEM domains as well as for social sciences and humanities; RECOGNISES the importance of appropriate criteria for the proper evaluation and rewarding of researchers undertaking intersectoral mobility.
35. CONSIDERS that ERA4You scheme needs to be co-designed by the Commission and Member States in order to foster mobility and access to excellence, including for those researchers in countries with low R&I performance, and should primarily target early-stage career researchers preparing them for career opportunities beyond academia; EMPHASISES the need to foster international and intersectoral mobility and improve links between academia, businesses and society, offering opportunities at Member State and EU level, by exploring best practises and new schemes building on those offered through programmes such as MSCA which equips its fellows with intersectoral and international experience.

36. NOTES the need to establishing solid partnerships between academia and non-academic sectors for identification of skills needs, researcher training and career development systems; UNDERLINES the importance of doctorates under the responsibility of academia, generated in partnership with industry, as a good practice example, already implemented in the MSCA, also taking advantage of virtual means.
37. CONSIDERS that attraction and retention of talent in Europe needs improved conditions for early-career researchers, promoting gender equality, taking away remaining administrative barriers and fostering meritocracy as well as adapting systems of remuneration, social security and pensions to non-linear careers.
38. CONSIDERS the merit in using the recently established taxonomy for sustainable financing to promote innovative businesses, entrepreneurial activities and stimulating research careers in industry, SMEs and business firms, together with an increasing level and scope of business and private R&D.

VIII. Synergies between European Higher Education Area and European Research Area

39. RECALLS that stronger synergies and interconnections between the ERA, the higher education related elements of the EEA and the EHEA (the Bologna Process), are to be developed further; CONSIDERS that synergies between the "New ERA" and the EEA could possibly be realised through a comprehensive Higher Education Transformation Agenda, developed together with Member States and stakeholders, will enable empowering the European higher education sector in their education, research, innovation and service to society missions; HIGHLIGHTS that strengthening research careers and reinforcing research links with learning and teaching and supporting research-based education should be a major component of this Agenda.

40. To ensure full synergies between ERA, EHEA and EEA, CALLS on the Commission to support Member States in designing policy measures for seamless and ambitious transnational cooperation between higher education institutions in Europe notably in the area of academic and research careers which are often intertwined, promoting inclusiveness, leveraging excellence and raising the international competitiveness of Europe's higher education sector, thereby increasing attractiveness for talents from within and outside Europe.
41. CONSIDERS that the European Universities Initiative, supported in ERASMUS+ and complemented under Horizon 2020, is another crucial element in terms of synergies; AGREES that European Universities alliances and their partnerships with local ecosystems are suitable platforms to test possible models fostering interoperability of research careers, and to explore possibilities for joint recruitment schemes, training and career development systems accommodating both research and teaching aspects, as well as for testing new reward and assessment systems, including for research-based teaching; and INVITES the Commission to analyse the results of these pilots and make proposals taking into account the aforementioned aspects.
42. HIGHLIGHTS the potential that the European Innovation Council (EIC) and the European Institute for Innovation and Technology (EIT) have with regard to the higher education sector to nurture entrepreneurship in researchers and support the creation and scaling up of start-ups and SMEs in Europe.

IX. Monitoring

43. CONSIDERS the development of an observatory for monitoring of research careers trajectories, doctoral and post-doctoral holders flows of talent, including geographical and sectoral mobility and working conditions to allow for the assessment of sustainability and attractiveness of research careers, and of the level of change in inequalities; AGREES that a European approach on research profession is key to develop statistical data on mobility and talent circulation and identification of trends, patterns, skills and gender gaps and labour market dynamics; and INVITES the Commission, in cooperation with Member States, to set a permanent, comprehensive and transparent monitoring system that takes into account the needs of various stakeholders to allow the evaluation of EU actions; ASKS the Commission to diffuse the results of the study currently underway with the OECD to develop better data on stocks and remuneration conditions; in addition, ASKS the Commission to collect and transparently present the data on EU Framework Programme-facilitated mobility flows within the EU.

X. ERA Priority Actions

44. CALLS on Member States and the Commission to improve skills and training for early-stage careers to boost recruitment and career progression and to promote measures to reduce precarity of research careers, inter-generation inequality and provide early-career researchers with sustainable, predictable and attractive research careers; and ASKS future presidencies to further develop and explore this outstanding issue.
45. INVITES the Commission to propose an implementation roadmap for the Observatory on Research Careers in order to provide sound data for mobility, career paths, employment and working conditions.

46. SUGGESTS to Member States, research and technology organisations and non-academic sectors, in particular business sector, to consider coordinated action towards the creation of diversified career paths to reduce skills mismatch and matching expectations of the doctoral trainees.
 47. ENCOURAGES Member States to take as a priority the issue of R&I investments and reforms in the above-mentioned areas in their national policies; and INVITES Member States and the Commission to bring this issue further in the context of the future ERA policy agenda.
 48. INVITES Member States, the Commission, higher education institutions (HEIs) and research performing organisations (RPOs) and Research Funding Organisations (RFO) to work together towards a broad development and application of modern assessment and rewarding practices in order to set the right incentives including for open science practices.
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