Europe needs more scientists!

There is a wide consensus throughout Europe about the need to further attract and retain the best talent for research. Indeed, research is the basis upon which present and future generations will be able to conduct the major transitions our societies are embarked on. This requires increasing the recognition of the research activity and fostering diversified research careers at a European level, across the public and the private sectors, including NGOs and the third sector. By “career” environment we mean the way researchers are recruited, their work assessed, rewarded and eventually disseminated, which employment conditions they are offered and how they, as well as society, can profit from mobility across sectors and countries.

The lasting COVID-19 pandemic, compounded by the invasion of Ukraine by the Russian Federation army and its economic consequences, is bringing unprecedented challenges for the research communities in all EU Member States. It deeply affects researchers, particularly those early in their career. Its negative impact has been widespread and is lasting, denting productivity and career prospects for researchers. While we discuss long-term goals, research organisations must put an immediate priority on the mitigation of the effects of the pandemic and other emerging uncertainties affecting early research careers.

The stress arising from the present crises does not occur in an otherwise serene environment. As the recent REMO Cost Action on “Research Mental Health Observatory” has shown, researchers, especially early career ones, often work in unfavorable psychological conditions. REMO has promoted the discussion about workplace well-being in order to develop tailored, effective and efficient prevention and action programmes.

A big part of the hardship is a consequence of insufficient levels of public and private investment in R&D throughout all European regions. An increase of that investment is necessary, part of which needs to be dedicated to improving young researchers’ careers in Europe. This has been explicitly acknowledged in the September 2020 EC communication, in the Council conclusions on the European Research Area (ERA) of December 2020 and of May 2021 on research careers. More recently, the “Pact for Research and Innovation”, as agreed in November 2021, emphasizes the need for better research careers and it is crucial that all Member States embrace the Pact to ensure that Europe has enough qualified researchers in these very uncertain pandemic and post-pandemic times.

We further argue that European, national, and local investments should be put in place to ensure mechanisms to attract younger students to research careers. These should start with outreach actions for school-aged students developed throughout Europe by a variety of actors: Universities and Research Organisations, Science Centres, non-governmental...
organisations, laboratories, student associations, including the Junior Enterprise Movement. These actions should promote awareness of research and innovation by sharing engaging experiences while encouraging an economic and social entrepreneurial mindset. Career development paths for advanced students, doctoral candidates and post-doctoral fellows must also be implemented. The goal is to improve access to healthy research careers across the entire ERA, thereby ensuring a more multi-directional and balanced brain circulation.

To reach these goals, it is crucial to mobilise all stakeholders, including national funding agencies, private foundations and, more generally, the private sector, in cooperation with the European Commission. We also stress that the European Research Council, which has built a unique consensus across the research community in Europe, should continue to be consolidated and strengthened. The originality of its organisation should also be used as a model for other programmes.

To achieve these goals, an in-depth policy debate about research careers across Europe should be activated. It must articulate related issues mixing public and private systems, while taking into consideration that careers are often a national competence and the autonomy of institutions a feature to be preserved.

The following priority themes need to be carefully addressed throughout Europe:

I. Monitoring:
- A special priority must be given to implementing open monitoring and reporting systems across Europe. Although conclusions on matters as career paths have already been approved at the level of Research Ministers in the Competitiveness Council, the implementation of such systems remains to be done. The monitoring should guarantee open observation, monitoring and reporting systems across Europe about annual progress in framework conditions, healthy working and employment environments and issues such as remuneration, social security, pensions and mental health;
- Monitor the annual mobility “flows” of researchers, as well as of research career paths and progress in training and career development systems at institutional level;
- Include as an immediate goal an in-depth study of the pandemic’s effects on early career researchers and younger students’ intention to engage in PhD programmes.

II. Improve stimulating research careers in Research Performing Organisations (RPOs), Research and Technology Organisations (RTOs) and in Higher Education Institutions (HEIs):
- Focus on early career researchers and improve their employment and working conditions, including mental health and protection from abusive attitudes;
- Implement rapid concrete actions to alleviate the impact of the Covid crisis on early career researchers whose work has been severely hindered;
- Improve recruitment, reward and assessment systems giving more appreciation and value to research performance beyond scientometry in order to encourage openness, collaboration and sharing as a means to increase research quality and impact. A better
balance between educational, research, managerial and entrepreneurial achievements is the goal leading to the establishment of true European practices for recruitment and career development;

- Consider recommendations for a stepwise approach to joint recruitment schemes, piloted among “European Universities Alliances” and their surrounding ecosystem, mainstreamed across higher education and extended to research institutions in EU member states and associated countries.

III. Stimulate healthy research careers and recruitment of PhDs in industry, SMEs and business firms:

- Guarantee that the recently established taxonomy for sustainable financing, in close articulation with the EU New Green Deal, promotes innovative, sustainable and regenerative business activities, facilitating research careers in industry, SMEs and business firms;
- Ensure better matching of transversal skills with the needs of business in search of highly skilled talents, to ensure a better flowthrough of PhD talents;
- Improve employability of trainees by strengthening career development systems involving the non-academic sector from the onset, matching skills with needs, and increasing career guidance;
- Optimise the collaboration between the actors of the ecosystem to leverage talent, at a national/regional level and across employers.

IV. Improve healthy research careers in the third sector, including NGOs and governmental organizations

- Improve employability of young researchers in the third sector, by strengthening career development systems involving the third sector, matching skills with needs, and increasing career guidance;
- Improve recruitment, rewarding and assessment systems in NGOs and governmental organizations.

V. Involve national funding agencies in cooperation with the EC:

- Insure that the principles defined by the July 20, 2022 Agreement on Reforming Research Assessment are enforced by funding agencies, RTOs and HEIs;
- Foster EU-wide recommendations to funding agencies, RTOs and HEIs on post-COVID mitigation;
- Promote the articulation of national programmes with Horizon Europe to enlarge the recruitment, training and career development of early career researchers, through an adequate coordination across countries following open, transparent and merit-based recruitment principles, facilitating joint recruitments by institutions from different countries.

Foster the necessary articulation among national agencies and EC towards a stepwise process leading to a pan European job market for young researchers based on a common framework for research assessment.

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