

Serving Europe's Societies: Research, Innovation, and the Future of Europe

A European Union espousing 'human dignity, freedom, democracy, equality, the rule of law and respect for human rights' (Art. 1a, Treaty on European Union, EU) needs to focus on the economic, social and cultural well-being of its peoples. The Union must concentrate on the areas in which collaboration, freedom of movement, and the application of common standards and principles can have the greatest effect. For the next Framework Programme, the EU must significantly increase spending on research and innovation, an area where the EU has provided particular added value beyond what could possibly be achieved at the national or bilateral level. Enhanced knowledge not only sustains economic growth; it provides sorely needed understanding of social change and cultural uncertainty, and it facilitates trust in the very essence of public life and its institutions: trust in rational, fair decision-making. Additional spending on research and innovation is critical for citizens to regain the confidence that Europe's core purpose, as enshrined in the Treaty on European Union, will be sustained and strengthened.

For over 900 years, breakthroughs in human knowledge have been achieved, exchanged and transmitted through European universities. Universities continue to thrive across Europe, in all of its many regions, connecting Europe's generations, cultures, and spaces. Universities generate knowledge, encourage entrepreneurialism, develop intercultural understanding, foster civic engagement, and teach rational argument and critical thinking. Universities are central to the success of the next European Framework Programme, which must foster new ideas and products, but which must also enable a wider popular understanding of change, and an engagement with social transformation and inequality. European Research and Innovation needs to foster economic growth while also responding to challenges around social mobility, regional inequality, and how institutions (including universities) reinforce or undermine it. The next framework programme must bring society, science, and innovation closer together. The Guild proposes that:

1. The Union must invest more in frontier-led science, to maximise its impact on the citizens' social, economic and cultural well-being

From the discovery of relativity, of DNA, and the construction of the first computer, European frontier-led research has transformed our knowledge, our horizons, and our lives. We must strengthen Europe's capacity to lead in frontier-led research, acknowledging that real breakthroughs are unexpected, defy political cycles and eschew 140-character summaries, and yet are fundamental to human progress. Excellent science requires collaboration, communication, and competition. These thrive at the European level, and allow the EU to show how it enables progress that matters to citizens.

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2. We must strengthen innovation eco-systems across all areas of human knowledge and ensure they meet society's needs.

The European Innovation Council must recognise universities as central actors in innovation eco-systems. Universities and other research performing organisations provide unique settings that allow for the building of trusted relationships among different actors (scientists, SMEs, micro-companies, funders, etc.) across all regions of Europe. For the benefit of Europe's societies, we must foster medical, technological and scientific innovation. We also need to apply new knowledge through social and cultural innovation; for instance, to better manage our cities, reduce social inequality, and improve intergenerational care. As important as the creation of innovative products is the seamless absorption of new technologies. This requires a deep understanding of how the individual and society adapt to, and learn to benefit from, new technological advances. It is important to note that many of the examples of transformative innovation (Uber, facebook, Apple) are less about technological advances: they are predicated upon, and in turn stimulate, new forms of social, cultural, legal and regulatory interactions.¹

3. The links between Science, Innovation and Society must be strengthened, through research-led Education, Open Science, and Public Engagement

We must redouble our efforts to fuel a wider understanding of, and a passion for, science and innovation. The freedom of enquiry and ideas, the importance of rational and open argument, and a willingness to embrace the complexity of our world, are increasingly hallmarks of Europe, as they are challenged in most other continents. The EU must embrace this necessity in three ways:

- Open Science. We must focus on key areas of Open Science, with a clear commitment to realise Open Access for scientists and citizens to research output and research data. To ensure that science is fully embedded in society, the European Commission must lead in discussions with scientists, libraries and publishers to create fair conditions for open access, based on the needs of the stakeholders.
- Research-led education. The future of science, innovation and entrepreneurship depends on students, and their education. The next framework programme must foster a closer connectedness between research and education programmes, for instance encouraging research mobility for students and doctoral candidates around FP9-funded collaborative projects (where appropriate). Open Science could be accompanied by 'Open Education', where new learning tools co-created by students could be made available to all.
- As public institutions, universities are deeply committed to engaging with the public around the fruits of their research. EU grants must be more encouraging to diverse forms of dissemination and impact. Neither the EU nor universities can exist outside of Europe's societies, and both must recognise their responsibility to engage non-academic audiences.

4. European science and innovation must aspire to leadership in addressing the UN's Global Sustainable Development Goals

We urge a clear focus of challenge-driven research programmes on the UN's Sustainable Development Goals (SDGs), as the EU's key contribution (and commitment) to solving global problems. This would

¹ Alex Moazed and Nicholas L. Johnson, Modern Monopolies: what it takes to dominate the 21st Century Economy (New York: St. Martin's Press, 2016).

allow European research and innovation to articulate its mission directly in response to the most fundamental ecological, cultural, economic, social and political challenges experienced by Europe's citizens. It would result in a broader, more comprehensive thematic agenda for research and innovation that is inclusive of the Social Sciences and Humanities. A focus on the SDGs would open up new avenues for research-led teaching, as universities build up knowledge and capacity in tackling SDGs across the disciplines. By embracing the SDGs we could develop more international partnerships in research, education and innovation and thus complement other EU policies to help build capacity and strengthen international links, including with the global south.

6. The engagement of European researchers worldwide is central not only to the quality of European research, it also forms a critical contribution to global issues.

Europe will improve its own research capacity (and its cultural and political leverage) the more it engages with fruitful collaborations in Africa, Asia, and South America, as well as North America and Australia. Europe's focus must be on collaboration and facilitating the movement of excellent researchers and ideas across continents, and this can only work through strategic collaboration with international research agencies, and the simplification of access to EU collaborations. 'Open to the World' is essential not only so that Europe has access to the best researchers. EU leadership can also help increase the global visibility of European research, not least in smaller EU countries.

6. Actions must be simplified and streamlined

It has never been more critical to ensure that the framework programme for research and innovation, the motives driving it, and the structures and language through which it can be accessed, are clear and intelligible to citizens – and researchers. Over thirty years after the creation of the first framework programme, it is time to take stock to ensure that the range of Actions is limited to those that can add most value at a European level. Actions for which the success rate is below 10% need to be recalibrated.

7. We must enhance the capacity for excellence across all of Europe.

Europe has a unique concentration of outstanding universities. We must take care never to compromise on quality and the pursuit of excellence. But we must also find ways to enhance the capacity for excellence across Europe. A significantly increased budget for research and innovation must be used as a lever for realizing national reforms where appropriate, to enhance institutional autonomy for universities and other research-performing organizations. It is critical to address structural impediments to the pursuit of excellence in lower performing regions, including addressing undue imbalances in salary levels. We endorse the Spreading Excellence and Widening Participation Actions, but call for a much closer linkage to structural funds. It must be a requirement that any such Action receive at least 50% additional funding from Structural Funds, thereby enlarging the amount available to building research capacity. We need to find ways to enhance the movement of researchers between institutions, ensuring outwards and return mobility to avoid a brain drain, without impairing the freedom of movement.

8. Investment in research, innovation and education must be a core component of regional policy

There is insufficient evidence that over the past twenty years the benefit of regional funds has been proportionate to expenditure. Stark and unacceptable regional inequalities continue to exist throughout Europe, threatening the social and cultural cohesion of its nations. And yet, Europe continues to derive its strengths from the cultural diversity of its regions; universities are a key driver for science, innovation and entrepreneurship in all of them. For universities, their regional rootedness is a source of strength and identity, as they engage with global questions within their localities through research, teaching, innovation, and wider public engagement. As a result, the use of regional funds must be completely rearticulated, in support of science and innovation. This requires much closer synergies between structural funds and R&I spend, including a structural alignment (e.g. in the way applications are made, so that excellent facilities are linked to excellent researchers and innovators). We must also ensure that 'smart specialisation' is effective, strategic and co-ordinated, corresponding to the strengths of research communities across Europe.

Based on our commitment to engage our communities on the future of Europe, we will develop these points further through wider academic debate among our members, and submit more detailed proposals on these issues in the coming months.