

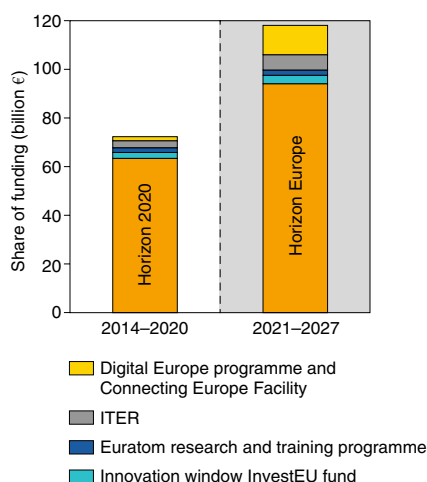
Upping the ante

Lessons learnt from Horizon 2020 and a determination to become a world-class hub for entrepreneurship form the basis of the European Commission's ambitious Research and Innovation budget.

The recently announced spending budget for the European Union (EU) for the period 2021–2027 is a solid attempt to address the polyphony among its member states while remaining faithful to its ambitions. Current issues dividing the Union like migration and security saw a large increase with respect to the previous budget. Fortunately, Research and Innovation (R&I) remains a strong focus for the EU, as the projections are still positive towards future wealth creation. So far, the focus has been on research, with recent frameworks like FP7 and Horizon 2020 supporting academic endeavours more successfully. With the recently announced Horizon Europe¹, there is a clear shift towards nurturing entrepreneurship and supporting the innovation chain from beginning to end.

The current proposal builds on lessons learnt from previous programmes, taking into account the recommendations put forth from two independent High Level Groups on maximizing the impact of R&I programmes (LAB – FAB – APP report²) and on innovation (FAST report³). The EU is ready to invest €114.8 billion for R&I, most of which is poured into the Horizon 2020 (€97.4 billion), while allocating a significant portion to the fusion energy ITER programme (€6.1 billion) and the Digital Europe programme (€9.2 billion) for the digital transformation of Europe's society and economy (pictured). The sum almost meets the €120 billion proposed in the LAB – FAB – APP report² but is far from the €160 billion suggested by the European University Association (EUA)⁴. Still, the increase from the €80 billion allocated for the period 2014–2020 is more than welcome; current statistics reveal a very low average success rate of 11.5% across Horizon 2020, while the Group estimates that about €600 million is wasted every year in unsuccessful proposals.

While the value of research in promoting technology and innovation is recognized through the continued support of successful initiatives like the European Research Council (ERC) grants and the Marie Skłodowska-Curie fellowships (which received only a 10% increase, however), the EU's new budget is focusing on the growth and support of businesses, clearly signifying intent to turn Europe into a start-up machine. The small number of industry EU grant holders is alarming⁵, and the European Commission seems determined to change that, by adopting



EU R&I investments. Credit: courtesy of European Commission, Factsheet, Research and Innovation (May 2018)

a high-risk, high-gain model that provides support throughout the innovation value chain and, more importantly, leaves room for failure; to this end, a solid policy framework becomes a priority while increasing the investment specifically in start-ups through a European Innovation Council^{2,3}, the counterpart of the ERC but for innovation. Such innovation agencies exist already in some countries but its establishment on a pan-European level should be a boon for less-developed member states, as well as for fostering the idea of a true European market. These efforts nicely complement initiatives already implemented to promote innovation among academic circles, like the ERC Synergy Grant or the ERC proof of concept.

What also stand out from the new R&I framework are efforts to make the public an active participant in European R&I efforts. The first step is making all activities and reports public; open access to publications is considered a necessary step for knowledge circulation and is already mentioned in the Horizon 2020 framework. Horizon Europe will expand this commitment to open science, by requesting all data and data management schemes are available, findable and reusable (the European Open Science Cloud, for example, will allow access to data generated and collected by other research infrastructures in Europe).

The EC is also looking to magnify the impact of its investment by involving end-users (such as the public) in pitching ideas. Their participation at the earliest stages of innovation as co-designers could steer initiatives towards addressing meaningful everyday matters that fall under the umbrella of a Grand Challenge (such as health or environment issues), and will ensure the formation of an army of consumers, even before products become available.

Finally, on a more practical level, the EC is looking to tackle the longstanding issue of its complicated and cumbersome bureaucratic processes, be it for applicants or grant holders. The LAB – FAB – APP report² called for further simplification in making the calls themselves more flexible and minimizing the documentation burden and reporting obligations, while replacing it with real-time data on the impact of the projects; the EUA has underlined⁶ the need for simpler rules for participation and in particular making EU funding requirements more compatible with institutional financial management systems. Several pilot activities to this end are being trialled in the last phase of Horizon 2020, from upgrading the reimbursement system to lump-sum project funding and reduced documentation in applications.

The R&I budget constitutes a cohesive effort to translate the EU's research success into wealth, and be able to compete with business powerhouses like the USA and South Korea. At the core of this effort lies the need to shift the European mentality towards entrepreneurship and encourage risk-taking moves. This will probably take longer than a decade but the EU gives a much needed push with its R&I budget, saying loud and clear that Europe is open for business. □

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