



EUA

European University Association

Ambitious funding for excellent research in Europe post-2020

**EU FUNDING
FOR UNIVERSITIES**
• sufficient • sustainable • simple •

Ambitious funding needed to back excellent research ideas in Europe post-2020

Background

Education, research and innovation are central to the development and growth of any society and Europe is an excellent example of how these elements can be combined to promote stronger and better collaboration and dialogue. At a time when the political “European project” is being challenged, universities remain critical to safeguarding a democratic, tolerant and progressive society and fundamental in sustaining and advancing Europe’s cultural values.

As stated in the EUA Vision for the next EU Framework Programme for Research and Innovation (FP9) (3 November 2016), universities in Europe have facilitated the advancement of society over centuries through the generation of new knowledge in all domains and through numerous scientific and technological breakthroughs that have positively impacted economic and technological development and social welfare.

Europe needs to engage its citizenship more than ever before to foster a united, prosperous and knowledge-based society. This strategic goal should be guiding the upcoming discussions on the financial contribution of EU member states and associated countries to research and innovation despite the uncertain political and economic context.

Key message

Against this background, EUA calls on the European Union and its member states to ensure sufficient, sustainable and ambitious funding for the next EU Framework Programme for Research and Innovation (FP9), so as to be able to support significantly more excellent research and innovation proposals. EUA firmly believes that this is the only viable way for Europe to address the grand technological and societal challenges it faces, retain its talent and keep its global position of a leading hub for research and innovation.

Additional funding, through a strategic reallocation within the EU’s Multiannual Financial Framework (MFF), would improve the overall efficiency of FP9 thus enabling better success rates and ensuring a more geographically balanced participation without undermining the fundamental principle of scientific excellence. EUA puts forward several funding scenarios for the upcoming discussions on the MFF, informed by its work on funding, the Horizon 2020 mid-term review and FP9 and based upon consultation of EUA’s Research Policy Working Group and its Expert Group on Regional Strategies for Smart Specialisation.

Why is significantly more funding necessary for the future Framework Programme?

EU-level funding for research and innovation based on grants and open competitive calls creates unparalleled added value and remains paramount to retaining scientific talent and boosting Europe's global competitiveness. Europe is currently facing many financial, economic and political challenges that put the European idea and values under scrutiny. Universities, as key research and education actors, are at the forefront of common action that seeks solutions to these problems.

The EU Framework Programme (FP) has a proven value for research and innovation support in Europe. Every €1 invested by the FP generates on average €13 in increased value added of the business sector.¹

EU spending on the Framework Programmes (FP) in the last decade has not kept up with demand from increasingly knowledge-dependent economies. Since FP6, the funding growth has been almost twice as low as the growth of proposals, and the FP funding commitment has never truly matched Europe's scientific capacity, or the scale of problems that need to be addressed. This funding gap has caused a profound decline in success rates. Of particular concern is the drop for high quality proposals (above the threshold), for which success rates collapsed from 43% in FP5 to 26% in Horizon 2020.²

The problem of low success rates has a particularly drastic impact on basic research projects, which target lower levels of technology readiness (TRL) and lay the foundation for disruptive innovation and thus for Europe's future growth, as such projects are highly dependent on public investment.

Europe can no longer afford for three-quarters of top-ranked proposals to remain unfunded because of insufficient call budgets.

Due to underfunding, the overall efficiency of the FP and the entire EU research funding landscape has been significantly going down. At present, between 30% and 50% of funding that countries receive from Horizon 2020 goes to cover the costs of applications, successful or otherwise.³ In other words, the full cost of participation in FP projects remains too high and hardly affordable for beneficiaries, including universities. As most of the applications are submitted by publicly-funded organisations, national budgets bear the costs of unfunded applications.⁴ Various measures that have been tabled so far to tackle the low success rates (e.g. a more active use of two-stage calls) are mostly palliative in nature and largely ignore underfunding as the root cause of the problem.

1 Commission Staff Working Paper on Impact Assessment, July 2011.

URL: http://ec.europa.eu/research/horizon2020/pdf/proposals/horizon_2020_impact_assessment_annexes.pdf

2 European Commission, Horizon 2020 Monitoring Report 2015.

URL: http://ec.europa.eu/research/evaluations/pdf/archive/h2020_monitoring_reports/second_h2020_annual_monitoring_report.pdf

3 European Commission, Horizon 2020 Monitoring Report 2015.

URL: http://ec.europa.eu/research/evaluations/pdf/archive/h2020_monitoring_reports/second_h2020_annual_monitoring_report.pdf

4 EUA Member Consultation: A contribution to the Horizon 2020 mid-term review.

URL: <http://www.eua.be/Libraries/publications-homepage-list/eua-core-messages-and-recommendations-for-the-mid-term-review-of-horizon-2020-and-beyond.pdf>

The only way to match the demand and reinforce the FP is to provide more funding sufficient to finance significantly more excellent FP proposals, including those targeting lower TRL.

Despite the structural changes implemented so far, there are still large geographical imbalances in participation in Horizon 2020 in the use of its resources. The problem of geographic imbalances is highly complex and goes beyond North/South or East/West disparities. Not only has country participation varied across different pillars and thematic priorities of the FP, but also within the member states' regions (so-called centre/periphery divide). Many top research actors in the "underrepresented" areas cannot engage according to their potential and Europe as a whole loses out on their excellent ideas.

The problem of the participation gap must be addressed by the FP if the EU is to exploit its full potential. Additional funding provided to the FP could therefore be used not only to increase success rates for excellent proposals, but also to considerably widen geographic participation and make a qualitative step forward towards a more cohesive and inclusive European Research Area (ERA).

While scientific excellence and the intrinsic quality of projects must remain at the heart of the FP, additional funding is needed to close the participation gap. New approaches that offer real incentives for collaboration and partnerships between various member states are key to enhance scientific excellence and achieve more balanced participation in the interest of Europe as a whole.

According to the European Commission, Horizon 2020 would have required €41.6 billion more in the first two years in order to fund all proposals deemed excellent by independent evaluators.⁵ Projecting this logic to the entire FP, an additional €145 billion, or a total of around €200 billion would have been needed to fund all top R&I ideas and, thus, deliver on the ambitious goals of Horizon 2020 and fulfil Europe's urgent demand for novel solutions and products.

Given the current financial uncertainties entailed by BREXIT, the weak Eurozone economy, the impact of the migration crisis and security issues, it is very difficult to make financial projections about the scale of the next MFF. It is nevertheless clear that significantly more money is necessary to fund more excellent research proposals submitted to the FP, and thus significantly improve its efficiency.

EUA proposes to open a discussion on strategic reallocations within the EU's multiannual financial framework to improve the overall efficiency of the FP, providing more added value and at the same time reducing the participation gap.

⁵ European Commission. Two years on Horizon 2020.
URL: http://ec.europa.eu/research/evaluations/pdf/h2020_2-years-on_brochure.pdf

FP9 funding scenarios

The underfunding of excellence and underrepresentation are two major issues that currently prevent the FP from harnessing its full potential. Therefore, various funding scenarios proposed for FP9 revolve around these issues. While an increase in FP9 funding is absolutely necessary, the choices of funding sources become quite limited in challenging times of austerity. Excellence in research as the main criterion as well as the importance of cooperation at the European level are integral core components of these scenarios. A third critical point is the need to better fund lower TRLs. EUA will make proposals on this with a separate paper.

1. “Business as usual”

The “business as usual” scenario proceeds from the looming financial uncertainties and involves a budget for FP9 equivalent to the current level or even slightly less. As a result, only a marginal amount of top proposals would be funded, with FP9 becoming the programme with the lowest success rate so far (below 10%). This would mean that more than 90% of ideas would be lost, and up to 50% of money allocated would be wasted in resources through the costs of unfunded proposals.

Naturally, proceeding on the basis of “business as usual” would not deliver any substantial impact or radical solutions in the post-2020 term. Nor would it help achieve a more inclusive ERA, or boost the attractiveness of Europe as a top destination for talented researchers.

Therefore, it is important to design new original funding solutions, developed in full consideration of the challenges involved and required changes to the current procedures. The following funding scenarios proposed by EUA are based on the assumption of a bigger budget for excellent FP9 proposals secured from various sources.

2. Ring-fencing resources within ESIF to fund more excellent FP9 proposals

With the total budget of €454 billion in EU funding, the European Structural and Investment Funds (ESIF) provide one of the biggest sources of funding for infrastructure projects, but also include research, development and innovation in Europe. Some ESIF activities, particularly those pursued via the European Regional Development Fund (ERDF, total EU budget of €196 billion) and to some extent via the Cohesion Fund (total budget of €63 billion) - especially regional innovation strategies for smart specialisation (RIS3) - focus on building the capacity of national and regional actors to deliver excellent research results and become full-fledged participants in the FP.

ESIF’s focus on R&I will have to be stronger in the future, as most regions have built some critical mass of infrastructure by now and seek to re-orient to the future economy, research, innovation and digitalisation. In parallel, it has become clear that the regions’ current efforts are not sufficient to empower local R&I actors, particularly in “underrepresented” member states and regions, to compete at the European level. As previously noted, top research actors in such areas cannot engage according to their potential in the FP and Europe as a whole loses out on their excellent ideas.

The evolution of ESIF points to good momentum to better align it with the future FP. One way would be to ring-fence some parts of ESIF (e.g. parts of ERDF and the Cohesion Fund) to finance excellent R&I proposals with participation from less represented countries or regions in the FP. That way the member states could get higher value for their investment. The costs of unsuccessful proposals are mostly borne by the respective member states, as shown by the latest EUA cost analysis. Ring-fencing can be approached in two possible ways:

(a) Decentralised ring-fencing

In more concrete terms, some ESIF funds could, for example, be earmarked to fund proposals that have received a Seal of Excellence for their FP applications. Such resources could be distributed by the national or regional authorities in the member states in order to unlock the potential of the Seal of Excellence and transform it into a much more efficient and attractive scheme.

One of the disadvantages of this approach, however, consists in the implementation complexities for transnational collaborative research, as the authorities in the member states would have to engage in the procedurally-heavy coordination of their funding priorities and procedures.

(b) Centralised ring-fencing

Alternatively, the resources ring-fenced for FP9 within ESIF in the form of a dedicated pot could be distributed on a more centralised basis, so that the grants for proposals holding the Seal of Excellence are issued by the Commission directly to beneficiaries (universities, research institutes, SMEs, etc.). A central distribution could rely on the rigorous evaluation and implementation procedures that were designed and tested on several generations of the FP. However, this would require equally complex coordination and procedures about ring-fencing money for the allocation. Therefore, another scenario for consideration is based on a shift of parts of ESIF funds to FP9.

3. Shifting funds from ESIF to FP9 to fund more excellent proposals

The funding that could be shifted from ESIF to ensure a higher budget for FP9 could be channelled into a joint pot of money within the new FP that funds high-quality proposals (above the threshold) based on the additional criteria of geographic diversity. With full respect of the fundamental principle of excellence, this measure could help to fund more excellent proposals put forward by consortia with actors from less represented areas.

While being technically feasible and affordable, this scenario may also reap some benefits at the system level. In the short term, the member states could reduce their costs related to the dismissal of excellent research proposals. In the medium to long term they would benefit from the positive societal and economic outcomes of the funded research; and finally they would contribute to a simplified, more efficient and coherent European funding landscape, which further reduces the unwanted costs.

4. Mobilising other EU programmes to fund excellent proposals in FP9

Finally, to fund more excellent proposals and improve participation in FP9, other sources of funding might need to be explored. For example, the Common Agricultural Policy (CAP), with a total budget of €408 billion, could be another source of contribution to FP9 in a similar way as explored for ESIF.

The proposals other than “business as usual” are challenging and require open discussions as well as development of further technical details concerning their implementation. But they are attempts to tackle the two biggest challenges, i.e. underfunding and underrepresentation, to the future success of research and innovation in Europe.

Conclusions

Despite its high-proven impact on society and economy, Horizon 2020 is significantly underfunded and, thus, inefficient. Excellent science is one of Europe’s major assets and there is no reason for thwarting ambitions in this regard. No goals should be set that fall short of supporting more excellent research proposals. No matter what the sources of additional funding for FP9 could be, it is of utmost importance to ensure sufficient funding spread fairly across Europe to support all excellent R&I proposals in the post-2020 outlook.

European universities have a long tradition of leading global innovation in social sciences, arts and humanities as well as in science, engineering and medicine and this should be continuously supported by European policies and funding programmes. Higher education and research constitute the foundation of societal progress. Europe cannot waste opportunities for better coordination and qualitative improvement. Great advancement has already been achieved in developing Europe’s R&I performance and further ambitious investment is required to keep up with Europe’s development goals.

EUA advocates for a quantitative and qualitative leap in EU research funding, and therefore suggests to open a discussion on a possible ring-fencing or shift of funding from ESIF or other big sources (e.g. CAP) for a more ambitious and well-functioning research programme.

The European University Association (EUA) is the representative organisation of universities and national rectors' conferences in 47 European countries. EUA plays a crucial role in the Bologna Process and in influencing EU policies on higher education, research and innovation. Thanks to its interaction with a range of other European and international organisations EUA ensures that the independent voice of European universities is heard wherever decisions are being taken that will impact their activities.

The Association provides a unique expertise in higher education and research as well as a forum for exchange of ideas and good practice among universities. The results of EUA's work are made available to members and stakeholders through conferences, seminars, website and publications.



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