



Association of  
European Research Establishments in Aeronautics

# EREA Position on Horizon 2020 Interim Evaluation

## Executive Summary and Key Messages

Achieving the EU's blueprint of smart, sustainable and inclusive growths and jobs, there is an essential need to invest in research and innovation while covering the entire research and innovation chain from TRL levels 1 to 8-9. This starts from novel ideas that emanate from basic research and continue via technology development, technology validation, and system demonstration up to the final development of an innovative product, which can be sold successfully on the market. This approach is crucial to address the grand societal challenges like sustainable energy supply, climate change and sustainable, safe and secure transport.

EREA continues to see Europe and the investment in research and innovation as one of the key global drivers to tackle the grand societal challenges and better equip European citizens, industry and society as a whole for the future. Subsequently, we envisage a stronger commitment of all stakeholders towards a bright future of European research and innovation. This includes a stronger commitment of member states and the European Commission to a more extensive and large Framework Programme to succeed Horizon 2020.

Regarding the implementation of Horizon 2020 and subsequent Framework Programmes EREA continues to be supporter of further simplification for users and calls for an early agreement on the rules of participation of all research granting programmes allowing a more balanced approach between trust and controls.

### *In detail EREA recommends:*

- *To support the entire research and innovation chain with appropriate instruments such as ERC, collaborative research, and PPPs/JTIs. Instruments to support Innovation like EIC using financial instruments (loans) should be set-up only in addition to the current support schemes;*
- *To continue the approach of more precisely outlined WP topics as done in WP2016-2017. A restricted success in the first step is needed to ensure a dedicated success rate of 30 to 40% in the second step;*
- *To better align programming and funding rules of the different EU-funds to allow for better coherence and synergies;*



## Introduction and Motivation

Looking at the magnitude of funding with nearly €80 billion and the number of proposals submitted Horizon 2020 has pushed Europe in leading position on a global scale in terms of excellence in science, crossing national barriers and delivering innovation. EREA and its members are and have been a major contributor to European Framework Programmes. In addition to main activities in “Smart, green and integrated transport”, EREA is also active in activities regarding:

- European Research Council,
- Marie-Sklodowska-Curie Actions,
- Research Infrastructures
- Industrial leadership (LEIT) incl NMBP
- Smart, green and integrated transport
- Climate action, environment, resource efficiency and raw materials
- Secure societies – Protecting freedom and security of Europe and its citizens

Main reasons for EREA and its members to participate in European Framework Programmes such as Horizon 2020 are to collaborate with European / international partners to broaden research activities over the entire Technology Readiness Level (TRL) span. This feature of removing national barriers and supporting is key to achieving a critical mass to tackle grand societal challenges, to secure Europe’s global competitiveness and to foster multicultural education. Supporting only national or even regional programmes will not add value to this superordinate importance. Furthermore, collaboration in research in Europe is essential to get access to and combine knowledge of European partners in order to improve the results (and their exploitation) and avoid fragmentation and duplication. Consistent with the spirit of the current Framework Programme Horizon 2020 EREA strives for interdisciplinary cooperation, e.g. between Academia, Research Establishments and the private sector to deliver innovation.

Investing in research and innovation is essential if Europe wants to move forward, realising its goal to become a true knowledge-based economy and to keep track of global developments. The EU should continue to set the right example by dedicating a considerable part of the budget and efforts to the European Research and Innovation Framework Programmes.



## Relevance and Implementation

Past and current Framework Programmes have been creating successfully the technological basis for a competitive and sustainable European industry by providing continuous support along the entire research and innovation chain from basic research, technology development, and technology verification up to system demonstration. In particular, this holds true for aviation with long product development cycles and long product lifetimes. Assets and equipment in aviation are in operation for 30 and more years, so that support for development and improvement creates a strong demand for a European Framework Programme for Research and Innovation.

In the current system the so called commercial “valley of death” in which companies will have to deploy the demonstrated technologies into the final successful product (TRLs 7 to 9) has been identified in European instruments. The proposed European Innovation Council, which should be set-up in addition to the existing framework programme could complement and cover such a valley of death through loans. It is crucial that this additional instrument flanks existing instruments and does not weaken them by reducing their resources.

However, as the whole research and innovation chain need to be funded in the years to come, the European Research Council (ERC), the European Innovation Council and the European Investment Bank (EIB) should not be the only pillars for funding and financing in Horizon 2020 or future Framework Programmes. In order to avoid silo structures between the various research and innovation stakeholders, the successful collaborative research instruments need to be maintained and strengthened. This will continue to fostered strong cooperation between European universities, research organisations, SMEs and industry, ensuring effective knowledge and technology transfer between the stakeholders. Therefore the, ERC, as well as EIC, should allow access and support to all research stakeholders. A successful European innovation system has to cover the entire research and innovation chain.

Collaborative research funding needs to be based on grants and simply can't be financed by financial instruments. However, in order to nurture promising disruptive ideas and support their implementation, projects might come along which bear higher risks where grants are not always available. In this case, when financial instruments will be used, industry could be encouraged with additional benefits in case universities and research organisations are subcontracted.

***Recommendation: To support the entire research and innovation chain with appropriate instruments such as ERC, collaborative research, and PPPs/JTIs. Instruments to support Innovation like EIC using financial instruments (loans) should be set-up only in addition to the current support schemes.***

With respect to implementation EREA recognises that several improvements have been established for Horizon 2020. Using the participant's portal as single point of entry and a place to gather information and the legal documents is a major improvement. This includes also the common registration using PIC number and relevant central information on the organisation.



- In the first calls of Horizon 2020 we experienced dramatic low success rates. In several calls the success rate in the second stage of the chosen two-stage approach was lower than the success rates in the one stage approach in FP7. This holds true in particular for Transport and in particular aviation. Amongst others, the most significant reasons are as follows: The lack of focused prescriptive topic descriptions resulted in another negative aspect which encouraged many applicants to submit a proposal that only addresses marginal parts of the call as its true scope and intended objectives are imprecise.
- Too many proposals were positively evaluated in the first stage and given access the second stage.

For WP2016-2017 EREA experienced a major improvement, as on the one hand the topics in the work program were formulated more focused, so that less but much better fitting proposals were sent in. Furthermore, the success in the first stage of the two stage calls was limited so that for the second stage a dedicated success rate of 30 to 40% could be guaranteed.

The lack of focus in topic descriptions resulted in a difficulty to find appropriate evaluators covering the entire potential scope. As a consequence, the quality of evaluators' comments and feedbacks to the proposers decreased compared to FP7. With the precisely outlined WP2016-2017 topics more adequate evaluators could be selected, which improved, according to EREA's experience, the quality of the evaluation and the feedback to proposers. Furthermore a more focused formulation in the descriptive topics for the future calls of Horizon 2020 would allow a coherent implementation of European Research and Innovation strategies.

The frequency of calls for proposals with a two-stage approach is rather challenging as we experience a permanent phase of application. Along with an increased amount of effort that needs to be put in a two-stage proposal compared with former single-stage proposals, EREA calls for a reduction of work load. A postponement of the second step, however, will not lead to a positive effect as time to grant will be further prolonged and the research needs might have shifted in between.

***Recommendation: To continue the approach of more precisely outlined WP topics. A restricted success in the first step is needed to ensure a dedicated success rate of 30 to 40% in the second step.***

Currently in the 3<sup>rd</sup> year of Horizon 2020 EREA experienced the 6<sup>th</sup> version of the model grant agreement respective the annotated one. In particular smaller organisations like Universities or SMEs are not capable to follow these kinds of quick changes of administrative boundary conditions. Even in larger research organisations like EREA members these short-lived modifications cause bureaucratic burden, hence administration needs sound boundary conditions to set-up appropriate processes.

The use of one single model grant agreement including all options is not a simplification in many cases as the complete document needs to be always handled even if large parts are not relevant in the context. The previous set-up in FP7 with a light model grant agreement with specific annexes, to be added when needed was simpler to be managed than the current one.



Due to the fact that project monitoring is handled by agencies the overall quality of reviews and reports suffer significantly. The main arguments EREA intends to highlight at this point are as follows:

- timely delivery of results outweighs the quality of documents;
- the first point becomes apparent with hardly any interest in the project outcome. Projects are rather seen as bureaucratic effort by the agencies and decisions are based on administrative issues and not on expertise.

Summarizing this trend of delegation to executive agencies, EREA does not see any added value of it towards the goals of Horizon 2020. Quite contrary to the EU's blueprint to foster growth and innovation potential, the management of parts of Horizon 2020 by agencies leads to an institutional separation. As there is lacking flow of information between the agency and the European Commission identification of successful projects and the granting of promising follow-up projects is hampered as a consequence.

## **Coherence**

### **Coherence of Horizon 2020 with European R&I policies/Strategies.**

EREA sees former FPs as well as Horizon 2020 as the European instrument to implement European policies and European Research and innovation strategies, like SRIAs developed by ETPs and other fora. In order to ensure a coherent implementation of European Research strategies via the FP a structured approach like the current set-up of societal challenges (e.g. transport incl. aeronautics, energy, security) is necessary.

### **Internal coherence of Horizon 2020 and its instruments**

There are still a lot of different instruments inside Horizon 2020 and further simplification must be continued.

EREA calls for a harmonised set of procedures for announcing calls and describing the expected impact. The existing lack of coherence results in an ambiguous demarcation of contents that comes along with an unavoidable underperformance.

### **Synergies with other programmes**

Even though the current legislation of the different EU Funds, such as Horizon 2020, Erasmus+ and the European Structural and Investment Funds (ESIF) allow for synergetic application, the reality is that the different funds hardly correspond. The different funds need to have their own purpose and goal, but should be perfectly aligned with one another, to allow for synergies where possible.



Furthermore, despite Horizon 2020 introduced synergy with Structural Funds, one need to recognise that the governance, process and regulations are different thus synergies are not yet really in place.

Other programmes containing some research and innovation activities (ESIF, COSME, ...) bring a blurred message and a reduced overall efficiency due to risks of duplication and complexity.

*Recommendation: To better align programming and funding rules of the different EU-funds to allow for better coherence and synergies.*

## **Efficiency and Added Value of Horizon 2020 to Europe**

Horizon 2020 has also put Europe on the map globally, not only as a continent with excellent universities and research organisations, but also as a reliable, innovative funder of research and innovation. Notable outputs from the consecutive Framework programmes have proven the drive for excellence amongst researchers from different countries and different disciplines. Staying on track, sticking to the principle of a competition in excellence and collaboration amongst European nations and also international partners when appropriate will create value for Europe and pave the way for jobs and economic growth.

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