

## POSITION ON FP9

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### From Excellent Research to Excellent Innovation – driving the European Research Area

Successive Framework Programmes (FPs) have been fundamental in establishing and developing the European Research Area (ERA). The Ninth Framework Programme (FP9) should **drive ERA forward by ensuring that Europe's excellent research leads to excellent innovation.**

#### *From excellent research...*

Based on a strong tradition of investigation, independence and academic freedom, universities are in a unique position to identify and address long-term challenges at global level. Building on Europe's excellent science base, **FP9 should go even further in stimulating cutting-edge research focusing on the fundamentally new ideas to ensure that Europe wins the global battle for top talent.**

#### *... to excellent innovation*

A promising approach to **secure higher impact from research is offered by Europe's innovation eco-systems**, each consisting of a dynamic microcosm of actors from the academic, industrial, public and financial sectors. It is widely recognized that a well-empowered research-intensive university is core to the success of any innovation ecosystem. Connected to the forefront of global scientific knowledge, **universities translate excellent research into innovation to the benefit of the actors in the eco-system**, especially small companies. The powerful relation between excellent scientific research and education at universities leads to creative and disruptive technological innovation within these ecosystems thanks to the transfer of scientific knowledge to the next generation of researchers, entrepreneurs and skilled employees for industry.

While we welcome the approach of HORIZON 2020 to embrace research and innovation under one programme, we have major concerns about a potential movement towards a two-tier approach – one for basic research and the other for innovation. To ensure maximum impact, **FP9 should focus less on incremental improvements of existing technologies and more on fundamentally new ideas which prepare the grounds for the disruptive innovations of tomorrow.**

The EuroTech Universities Alliance provides a unique framework for four leading research-intensive universities to combine their complementary strengths and connect their innovation ecosystems across borders. Through doing so, we support the scaling-up of Europe's industries and help address the innovation challenge. We advocate that **part of FP9 is allocated to the support of connecting Europe's innovation ecosystems**, with a view to ensuring that excellent research leads to excellent innovation.

The next pages outline our vision on FP9, based upon **three Calls for Action:**

- 1. Reallocation of Funding in favour of more Disruptive Innovation**
- 2. An International Framework Programme, with Excellence as the key criterion**
- 3. A Simplified Structure, based on Trust**

## 1. Reallocation of Funding in favour of more Disruptive Innovation

### *More focus on fundamentally new ideas*

To ensure maximum impact from the EU's investment in research, **FP9 should focus less on incremental improvements of existing technologies and more on fundamentally new ideas** which prepare the grounds for the disruptive innovations of tomorrow. While HORIZON 2020 has been successful in bringing both research and innovation under one programme, Europe still does not create the same level of high growth businesses as other parts of the world. The Public-Private Partnership model promoted under HORIZON 2020 to develop long-term roadmaps for research and innovation tends to lead to results that are incremental in nature and thereby provide limited impact. **FP9 should therefore reallocate funding to more competitive initiatives adapted to the participation of smaller companies and start-ups as the ultimate drivers of disruptive innovation.**

As Europe lags behind its main world competitors in terms of industrial investment in research and development, it is vital that FP9 develops new models to incentivise industry to increase their research budgets. While continuing the efforts to support SMEs with 100% funding rate is important, FP9 should explore different rates of funding according to the size of the company.

### *Support Europe's Open Innovation eco-systems*

Thanks to the development of powerful start-up eco-systems - driven by leading top technology-creating universities - tech-driven entrepreneurship and thereby potential for disruptive innovation is on the rise in Europe. Big companies based in Europe are increasingly seeking to buy innovative start-ups, playing a key role in these local ecosystems and at the same time contributing to Europe's industrial leadership. For Europe to gain from the scaling up of its best disruptive innovations, **FP9 should focus more on supporting the growth of and connections between its innovation eco-systems.**

## 2. An International Framework Programme, with Excellence as the key criterion

### *Open to the World*

To further promote Europe's leading position in excellent research collaboration and science diplomacy, **FP9 - including the European Research Council (ERC) - should be opened to the world.** The grand societal challenges are of global relevance and therefore addressing them requires global collaboration in excellent research. Since HORIZON 2020 was launched, international collaboration has decreased under the Framework Programme. To reverse this trend, we advocate **that all industrialized countries outside of the EU – regardless of geographical or political position – should be given the opportunity to contribute to the FP9 budget and participate based on a 'pay as you go' model.**

Today, the financial contribution of associated countries to HORIZON 2020 is based on GDP, after which partners from these countries participate freely with no limits. For some research-intensive countries – such as Canada, Russia or the US - this GDP-based model hinders their participation. 'Pay as you go' is based on a model, which earmarks funds contributed by countries outside of the EU to cover their participation in full. This would greatly simplify the participation of international partners and thereby reduce the barriers to collaboration between the best researchers across the world. Further, this model could help to overcome the exclusion of excellent UK partners from the European research community, as a direct consequence of Brexit. Developing countries should continue to benefit from FP9 as per the current model under H2020.

### 3. A Simplified Structure, based on Trust

While HORIZON 2020 has introduced some important simplification measures, FP9 must be much more ambitious to ensure the participation of Europe's best scientists and entrepreneurs. **FP9 must redress the risk-trust balance, as the current risk-averse culture of the Framework Programme may undermine the research most likely to result in genuine breakthroughs.** Reporting should focus less on implementation and timesheets and more on the impact and results of the project.

#### *More flexible and proactive*

The current pillar structure under HORIZON 2020 should be made more flexible and more open in nature. Calls for proposal under FP9 should simply describe the sought impact at mission-level, thereby offering a **more bottom-up approach for the research and innovation community to define how they will solve the challenge in question.** Such an open approach would ensure a more proactive and flexible response to urgent needs, currently hindered by the lengthy process for developing work programmes. A more proactive response can help to quickly find solutions to e.g. medical epidemics, cyber-attacks and other examples where technology has been misused.

#### *Personalize evaluations*

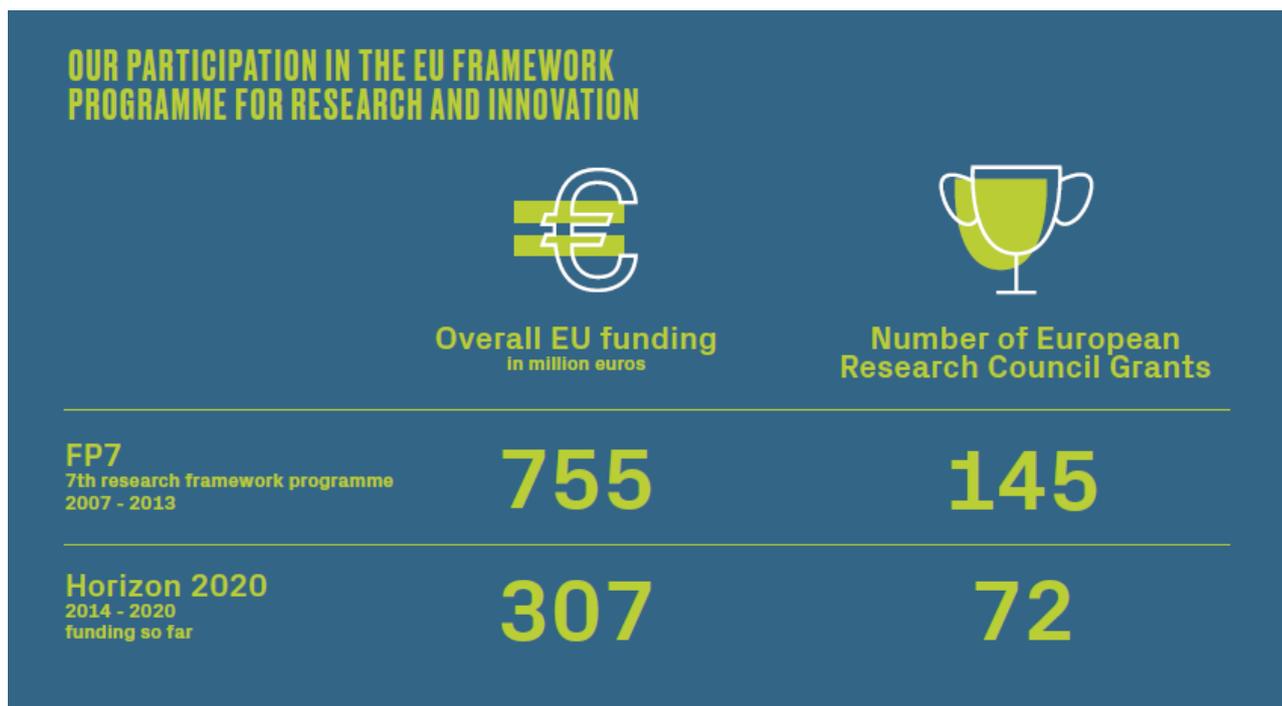
The Framework Programme will only be ever as good as its evaluation process. High oversubscription rates under HORIZON 2020 can undermine high standards and procedures. FP9 should seek to simplify evaluations by **introducing two-stage calls for proposals across all instruments** as follows:

1. **Written proposals should be submitted in stage one**, taking considerably less time and effort than currently
2. Retained proposal should be evaluated in a second stage through **pitches and personal interviews**, as is currently implemented by the ERC

## About the EuroTech Universities Alliance

The EuroTech Universities Alliance is a strategic partnership of leading European Universities of Science & Technology committed to excellence in research and developing solutions to the grand challenges of society. The members are **Technical University of Denmark (DTU)**, **École Polytechnique Fédérale de Lausanne (EPFL)**, **Eindhoven University of Technology (TU/e)** and **Technical University of Munich (TUM)**.

As part of their mission to address the major societal challenges, the EuroTech Universities have close ties with industrial partners and operate in strong eco-systems of start-ups, SMEs and large multi-national companies. They **seek to inspire society about the opportunities offered by science and technology** – raising awareness among policy makers, industry and the next generation of students.



Source: FP7 Data from eCorda October 2014 and ERC funding activities 2007-2013 report & internal source; H2020 data from Open Data Portal, December 2016.