



# Recommendations on the Structure and Organization of FP9

## – Position Paper –

*Note : This document was written collectively by partners of the NESSI ETP. However, any statement or proposal should not be considered the views of any specific NESSI partner or attributed to it, unless explicitly stated by this partner.*

### Introduction

Horizon2020 (H2020), the ongoing Framework Programme of the EU, drives innovation forward thereby not only strengthening competitiveness but also helping to tackle the great societal challenges of our time. Throughout Europe, the best research partners – from academia as well as from the private sector – are working together in order to put the best ideas into reality. Their close cross-industry and transnational cooperation creates a European Added Value fostering economic growth and employment across all Member States. Building on H2020's efforts and achievements, the upcoming Framework Programme 9 (FP9) should aim at being a continuation of H2020 with improvements ("lessons learned") from the H2020 Midterm Review. Most beneficiaries ask for "evolution" not revolution. This means to continue with the instruments that work well and that everyone is familiar with.

There are two crucial points here. *First:* FP9 should set a clear focus on disruptive and market-creating innovations. Only with industrial leadership in key technologies – above all industrial leadership in ICT – can Europe drive the Digital Transition and be able to compete globally. Therefore, the funding for ICT has to be increased significantly. *Second:* FP9 should be as efficient as possible. High transaction costs – mainly caused by the extensive preparation of a proposal – combined with low success rates are not only a hurdle for potential proposers but also imply a massive waste of resources. Therefore, the application procedures need to be as simple as possible whereas the objectives of the calls should be defined much more precise.

In respect to the digital transition of our societies, massive investments in R&I is fundamental for Europe to keep up with global competition. Public and private R&I funding plays a key role in shaping a pro-innovation ecosystem and is crucial to leverage funding also for risky (disruptive) innovation and new technologies.

## Key Messages:

- No switching from grants to loans
- No reduction of funding rates for large companies
- Strengthening of the pillar “Industrial Leadership”
- Digitisation as cornerstone, ICT is key
- Only the best ideas are best for Europe
- Increased budget
- More financial flexibility in the calls
- Focus on the European Added Value
- Efficient and fast procedures, short time to grant
- Better balance of evaluators
- Open Access to research data – as open as possible, as closed as necessary
- Civil research only

### **No switching from grants to loans**

Europe is experiencing an era of "cheap money" – there is no shortage of capital at all, quite the opposite is true. The idea of switching the funding in FP9 from grants to loans therefore lacks any empirical basis. Europe's companies do not do too little research because they suffer from a credit crunch – thanks to the ECB and its policy of quantitative easing credit offer is at a historical high while at the same time interest rates are at a historical low – but because they simply have no incentive to increase their investments in Research & Development. Accordingly, the reduction of grants in FP9 would be completely counterproductive – they are an effective incentive and stimulate companies to invest in Research & Development. The introduction of loans would reduce private expenditure for Research & Development significantly.

### **No reduction of funding rates for large companies**

Publicly funded research projects are not only associated with high economic and technical risks for the companies involved, but also with considerable additional administrative and organizational expenses. If the funding rates for large companies fall below the current level or are even set to zero, FP9 would start with a fatal handicap: The benefits that a company derives from the (unfunded) participation in a public research project would be more than eaten up by the additional costs it has to bear for its

participation. Joint research projects with not only SMEs, but also with SMEs and large companies can be of great mutual value for Europe as both have the opportunity to benefit from their know-how in technical as well as in business terms.

### **Strengthening of the pillar “Industrial Leadership”**

The core objective of the Framework Programmes has always been to strengthen the competitiveness of the economy and thus promote growth and employment in Europe. H2020 has now come a long way from achieving this goal. In the area of ICT, only about 22 percent of the budget is allocated for the pillar "Industrial Leadership". This dramatic underfunding has serious consequences: In many areas of ICT, Europe has lost its former technological leadership, and perhaps more significantly, has failed to take advantage of the potential that ICT and digitalisation offers across all other sectors of the economy. With a few prominent exceptions, almost all digital Champions now come from abroad. In order to initiate the turnaround so urgently needed and thus strengthen Europe's competitiveness in the global digitalised economy, at least one third of the ICT budget in FP 9 must be allocated for the pillar "Industrial Leadership". And at least half of the funds must be reserved for companies.

### **Digitisation as cornerstone, ICT is key**

Not surprisingly, ICT is the key enabling technology for digitization. Without greatly enhanced competences and capacities in strategically important sectors of ICT, Europe is in danger of becoming dependent on third parties and failing to capitalise on the huge economic and societal potential of digitisation. As a matter of fact, the relative ICT budget has fallen continuously since FP5 from one Framework Programme to another. In order to not only stop this trend, but to reverse it and thus securing Europe's prosperity for the future, digitisation must become the cornerstone of FP9. To do so, the relative ICT budget must be raised to the level of FP5. Particularly important in this context is the promotion of core and basic technologies “Made in Europe”, which are of strategic importance for our digital economy.

### **Only the best ideas are best for Europe**

The success of H2020 is based solely on the fact that only the best ideas are funded. In order to increase the economic impact of FP9, it is essential to harmonize it with the various EU programmes – notably with EFRE and ESF – as well as to realize synergies between the different programmes and instruments where it is expedient. However, harmonization and synergies do not mean alignment. FP9 has to keep its focus on Research and Innovation. Without scientific, organizational and economic excellence, Europe has no chance to compete with its international challengers. Regional or socio-economic aspects must therefore not play a role in the selection of proposals for funding, it is all about excellence. Any attenuation of the “Excellence” criterion – for example by taking regional policy aspects into account or even by introducing a fixed country quota – would therefore undermine the success of FP9. It would no longer be guaranteed that only the best ideas will be funded. Scientific, organizational and economic excellence has therefore to remain the sole selection criterion.

### **Increased budget**

In order to keep pace with international competitors, the budget of FP9 must be increased significantly. Despite Brexit, the budget of H2020 has to be at least kept; ideally the annual budget growth within the Framework Programme is continued. In any case, there is no shortage of excellent ideas in Europe, quite the opposite is true: More and more often the budget of a call is not even sufficient to fund all excellent proposals (at least 14.5 points of 15 points).

### **More financial flexibility in the calls**

There are an increasing number of cases where proposals of high quality (evaluation score of 14 or sometimes of even 15 points) cannot be funded due to budget limitations. Vice versa, it happens that proposals of mediocre quality (evaluation score of 10 Points or slightly above) are funded only because the budget needs to be spent. To protect excellent proposals from being ignored due to insufficient budget, the budget of such a call should be increased subsequently with left over budgets from other calls or measures. Additionally, the score of proposals ranking above the threshold – in the area of ICT the overwhelming majority of proposals scores between 10 and 15 points – should be broken down into 100 (sub) points and more segments, thereby increasing the point range and thus generating more opportunities for differentiation between proposals of high quality.

### **Focus on the European Added Value**

The European Added Value – historical and strategic cornerstone of the Framework Programmes – must become the fixed star of FP9 again. As it has unfortunately happened again and again in H2020, it must not be misused to compensate for (missing) research funding at national level. The Framework Programmes are a supplement or extension of national activities, not a substitute. In accordance with the fundamental principle of subsidiarity, FP9 must therefore restrict itself to those fields in which the pooling of national competences and capacities creates a real European Added Value – thematically as well as in terms of instruments.

### **Efficient and fast procedures, short time to grant**

In most industrial sectors and technology fields the innovation cycle time is getting shorter and shorter – and that is true especially in the software area. In H2020 a complex and extremely detailed full proposal has to be submitted usually, but only every 8<sup>th</sup> proposal is funded, which means on individual level a great deal of effort for the applicant, which adds up to enormous costs on aggregated level. Therefore, the application procedures should be reviewed so that they will be simplified and more efficient while keeping the quality and time to grant at least at today's level. In order to reduce the massive oversubscription, the calls should be as precise as possible with clear and well defined objectives.

### **Better balance of evaluators**

Thanks to their daily business and their exclusive market insights, experts from industry are familiar with the state of the art in their domains and therefore particularly suitable for assessing the innovation potential of an idea. However, experts from industry are clearly underrepresented in the expert panels of H2020. So there is a serious danger that the innovation potential of an idea is currently not sufficiently taken into account. In order to prevent the market from being ignored in the proposal reviews, at least one-third of the experts in FP9 should come from industry. In the medium term, a quota of 50 percent should be achieved in the pillar "Leading Industry".

### **Open Access – as open as possible, as closed as necessary**

Research data often contains competitive information and thus could allow third parties to gain deep insights into the business secrets of the companies involved in the research project. If companies had to fear that they would have to disclose this highly sensitive internal material to their (international) competitors via the mandatory open access to research data, they would no longer be able to participate in FP9. And without the broad participation of companies, the whole Framework Programme would be at risk. In order to prevent this from happening, the research partners must be able to decide whether they share their research data with the public or keep them confidential to protect their business secrets.

### **Civil research only**

The establishment of the European Defence Union is an important step. The pooling and coordination of the national, at present highly fragmented defence policies will raise the efficiency of defence projects and thus expand Europe's military capabilities drastically. Without a doubt the European Defence Union can also create a real European Added Value in the armament research. Nevertheless FP9 has to retain its civilian character without any financial losses. As a consequence, research with a purely military application like armaments must be located outside FP9 and is to be provided with its own (additional) funds.