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## BUSINESSEUROPE views on “Horizon 2020” The Framework Programme for Research and Innovation in the EU

### KEY MESSAGES

- 1** BUSINESSEUROPE welcomes the streamlining of the EU research and innovation funding instruments introduced with Horizon 2020 and the increase in funding proposed, from 55€bn for the current period to €80bn over the next one.
- 2** Continued simplification of the procedural rules for participation is needed in order to raise industry’s participation rate in Horizon 2020. BUSINESSEUROPE suggests considering at least 35% of total funding in Horizon 2020 as a yardstick for adequate involvement of the business sector.
- 3** The focus on financing innovation projects, including demonstration, is a positive development to ensure a more effective EU research and innovation policy.

### Introduction

The proposal for Horizon 2020 comes at a crucial time and is strongly supported by BUSINESSEUROPE.

Europe is experiencing a period of uncertainty for markets, budget constraints for national governments and institutional change at EU level. In particular, the debt crisis represents a considerable challenge for many European governments and the resulting tight fiscal policies currently being put in place will no doubt have some impact on the Multiannual Financial Framework negotiations. These will determine the EU budget for 2014-2020 and practically define the political priorities of the EU for the medium term.

However, austere fiscal policies alone will not get Europe beyond the crisis. Measures stimulating growth in Europe, creating new jobs and value for stakeholders are equally important and must be strongly supported precisely at this time of weak economic performance.

As pointed out in the Europe 2020 Strategy, investing in Research and Innovation (R&I) is key to sustain economic growth and employment in Europe. According to the Innovation Union Scoreboard 2011, the EU is lagging behind other developed economies such as the US and Japan and risks being overtaken by emerging

### KEY FACTS AND FIGURES

Industry’s participation to the EU research and innovation Framework Programme (FP):			
43% in FP4	37% in FP5	29% in FP6	31% so far in FP7



economies such as China in the medium term unless a new, holistic approach to R&I is forcefully applied.

In this context, the role of Horizon 2020 is essential to ensure a sustainable recovery and strengthen the European economy through research and innovation.

BUSINESSEUROPE welcomes this proposal as it includes many improvements compared with the current Framework Programme that should make EU R&I spending more effective improving the competitiveness of European companies and speeding up market uptake of innovation.

If properly implemented, Horizon 2020 will allow European business to strengthen its role as a leading global actor, in particular delivering new solutions for the societal challenges identified by the Commission.

## **1. General remarks and principles**

### **Overall structure**

BUSINESSEUROPE supports the streamlining of the EU research and innovation funding instruments introduced with Horizon 2020 bringing together the Framework Programme, the Competitiveness and Innovation Framework Programme (CIP) and the European Institute of Innovation and Technology (EIT).

The three strategic objectives identified by Horizon 2020 – excellent science, industrial leadership and societal challenges – appropriately cover the three main areas of interest for EU research and innovation. It will be crucial to ensure a form of coordination among the strategic objectives so that, for example, projects related to a specific technology financed in one part of Horizon 2020 are coherently implemented in relation to those in other parts. Cross-cutting activities may ensure the needed interaction among strategic objectives.

### **Funding**

The substantial increase in funding proposed for Horizon 2020, from 55€bn for the current period to €80bn<sup>1</sup> over the next one, is a first necessary commitment to translate political priorities into reality. It must be borne in mind that this increase is the minimum amount required if the 2013 level of R&I activities in the current research Framework Programme (FP7), in the European Institute of Technology and in the Competitiveness and Innovation Programme is to be continued. This increase must be forcefully defended during the Multiannual Financial Framework negotiations.

### **More focus on innovation**

The scope of activities eligible for funding has been broadened to cover innovation; we expect it to include demonstration projects, large-scale trials, pilots, test beds, proof of concept and measures to stimulate market uptake. This is a very positive development: knowledge creation is not enough, innovation is about translating knowledge into economic and societal value. This must be supported with substantial funding

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<sup>1</sup> 87bn euro when adjusted to expected inflation



especially for the objectives targeting industrial leadership and societal challenges. The extended funding must, however, still stick to basic principles such as no distortion of competition and subsidiarity.

### Industry participation

Whereas large companies and SMEs together perform well over 60% of all R&D in Europe, private sector participation in the research framework programmes has been declining steadily for fifteen years. In terms of funding, industry participation passed from 43% in FP4 to 37% in FP5, to 29% in FP6 and 31% so far in FP7. As the scope of Horizon 2020 explicitly includes innovation, reversing this trend and attracting more industry to the EU funded R&I projects must be a priority; this could be promoted by checking the actual rate of industry participation against an indicative figure. BUSINESSEUROPE suggests considering at least 35% of total funding in Horizon 2020 as a yardstick for adequate focus on innovation and involvement of the business sector and requests the Commission to regularly publish data on progress. Given the appropriate framework, European industry aims at progressively increasing its participation rates and raising the yardstick to 50%.

### Improved simplification

The complexity of governance and the costs of participation in EU programmes have grown out of proportion, with marginal costs of controls and administrative compliance often exceeding the marginal benefits of participating. The Commission's Communication on simplification of the administrative framework from 2010 served as the basis for continued simplification and significant progress has been made in Horizon 2020. Still much more is needed: some concrete suggestions tackling specific problems are outlined in section 3 of this paper.

### Guiding principles

Horizon 2020 should be designed and implemented respecting some guiding principles to ensure its success:

- R&I financing should be allocated on the basis of the criteria of excellence in research and potential to deliver concrete results in innovation; unlike the EU cohesion policy, Horizon 2020 should not aim at promoting regional/national convergence in terms on R&I capabilities across Europe, nor should it attempt at balancing geographically the financing allocated.

BUSINESSEUROPE supports the general objective of empowering the research and innovation capacity of regions currently underperforming in Europe. The EU cohesion policy should devote a substantial amount of money for the development of activities and infrastructures in the field of R&I; this will help eligible regions to catch up and eventually be able to secure more funding from Horizon 2020. In addition, Structural Funds can support some regions for the public procurement of the most advanced technologies, also developed elsewhere in Europe.

- Relationships between the Commission and stakeholders involved in the projects should follow a trust-based approach in order to make procedures as simple and quick as possible while ensuring compliance with the rules.



- Provisions on Intellectual Property Rights should facilitate participating companies to exploit the project results efficiently.
- The bureaucratic burden of procedures should be reduced to facilitate participation of industry, and in particular of SME.
- Horizon 2020 should be as open as possible to the participation of third countries as long as this brings real value to the programme and promotes fruitful contacts for EU actors with non-EU counterparts in the field of innovation and research. Furthermore, there should be a fair degree of reciprocity regarding access to third-country programmes, also for local R&D labs of European multinationals.
- Flexibility will be needed to adapt Horizon 2020 priorities and actions to changing needs and take account of the evolving nature of science, technology, innovation, markets and society. This has rightly been pointed out in the recital 21 and art. 14 of the Framework Regulation. However, this principle still needs to be translated into concrete provisions in the Rules for Participation which fail to provide also ongoing projects with the flexibility needed to adapt to market developments and retain their industrial relevance.

## 2. Comments on proposed Strategic objectives

### Industrial leadership and competitive frameworks

#### European Technology Platforms

BUSINESSEUROPE believes that European Technology Platforms (ETPs) allow for an industry-led holistic approach to innovation, based on a shared vision across all stakeholders and with regulatory and demand-side aspects included right from the start. Through their Strategic Research Agendas (SRAs), ETPs can provide valuable inputs for work programmes and help align fragmented R&D efforts at Community, intergovernmental (e.g. EUREKA), national and regional levels within the European Research Area (ERA). Furthermore, participating in ETP activities can facilitate the formation of consortia for future projects.

ETPs should therefore be continued with Horizon 2020, with the following improvements:

- better manage expectations regarding the chances of success for proposals from ETPs participants (no preferential treatment);
- make more systematic use of Coordination and Support Actions for establishing ETPs and/or their SRAs and – if applicable- PPPs;
- stimulate ETPs to fully explore additional possibilities for funding outside the Cooperation-like actions.

#### Public-Private Partnerships



The five existing **Joint Technology Initiatives** (JTIs) have pioneered a novel approach in industry-driven **Public-Private Partnerships** (PPPs). However, the bureaucracy, complexity and rigidity of the current Joint Undertakings set up to implement the JTIs are key problems to be addressed. Also, pooling of national resources proved to be problematic. In this respect, the proposed contractual PPPs are an interesting alternative.

Despite the difficulties, we recommend continuing those initiatives supported by industry which managed to develop critical technologies and capabilities to ensure European industrial competitiveness.

It will be important to secure commitment both of industry and the European Commission by contractually formalising the PPPs whilst maintaining their light structure and procedures. Moreover, PPPs will need to be flexible enough to be able to react quickly and effectively to changes in research priorities over the time of Horizon 2020. It will also be necessary to continue developing cross-sector technology convergence based on interdisciplinary skills. Partnerships between companies and knowledge/excellence hubs (universities, research centres, technology labs) should be promoted.

### **European Innovation Partnerships**

BUSINESSEUROPE acknowledges that European Innovation Partnerships (EIPs) are not formally part of Horizon 2020. However, they have been designed as an overarching governance mechanism for orchestrating a range of activities for a specific societal challenge, including relevant R&I activities financed by Horizon 2020. For this reason it will be important to define and clarify how the EIPs will interact with Horizon 2020. This will have to be done considering that streamlining is one of the key features of Horizon 2020 and new structures must be avoided.

### **Key Enabling Technologies**

The publication of the Final Report of the High Level Group (HLG) on Key Enabling Technologies is a welcome contribution to the EU plan for growth and jobs as set by the Europe 2020 strategy. In line with the Report, we agree that policy solutions to bridge the gap between research and market deployment are urgently needed. Horizon 2020 consequently provides a large share of funding to the development of photonics, micro- and nanoelectronics, nanotechnologies, advanced materials, biotechnology and advanced manufacturing and processing.

BUSINESSEUROPE recognizes the importance of defining political priorities (e.g. fight against climate change) and consequently giving a special support to some technologies. However, technology prioritization should not exclude a revision in the future nor undermine support for other strategically important enabling technologies. It is also of vital importance that industry has the leading role in further defining the objectives and specifications of the KETs.

### **Innovation in SMEs**

BUSINESSEUROPE strongly supports the twin-track approach of Horizon 2020 for increasing innovation in SMEs, which includes:

- mainstreaming SME support throughout Horizon 2020. SMEs will benefit from the interaction with other public and private actors in the innovation ecosystem;



- specific actions geared to SMEs within the objectives “Societal challenges” and “Leadership in enabling and industrial technologies”.

The proposed SME instrument to provide simplified and staged support throughout the innovation cycle is a step forward but its functioning and its implications for SME participation in regular collaborative projects need to be clarified. In particular, more information is needed about the elements of the former Competitiveness and Innovation Framework Programme (CIP) not included in the specific SME Actions.

SME involvement could also be improved by providing specific support via extra funding and/or coaching of SMEs taking part for the first time in EU R&I programmes.

In spite of specific SME actions, SMEs should not operate in a separate environment. Research intensive and non-research intensive SMEs should have the possibility to cooperate with successful innovative companies. Some SMEs typically outsource research to other RTD actors and are therefore not active in EU R&I programmes. Past experience during the FP7 indicates that the involvement of public research organizations, research intensive SMEs and large companies in support actions can be beneficial in these cases.

In view of improving the simplification of the procedures for participation, BUSINESSEUROPE welcomes the setting up of a single entry point for SMEs wishing to participate in Horizon 2020. National Contact Points play an instrumental role in facilitating access to EU programmes and should therefore be staffed and financed adequately.

Finally, BUSINESSEUROPE welcomes the fact that market deficiencies have been recognised with regard to SME access to finance for research and innovation, and that the planned Debt Facility and Equity Facility are meant to play a significant role in addressing this issue. The instruments of these facilities should be truly accessible to SMEs.

### **Innovation in services**

Service innovations should receive more attention in the EU's research and innovation policy as well as EU funding. There is a need to focus on service innovations in parallel with the development of future and emerging technologies as well as enabling and industrial technologies. Important strategic thematic areas of service innovation include investing in multi-disciplinary competences, creation of capabilities, knowledge and value based on service solutions and intangible contents.

### **Access to risk finance**

Currently the Risk Sharing Financial Facility (RSFF) is focusing too much on the risk associated with a company (rating) and not on the risk of each specific R&D project. This implies a rather modest risk taking approach that favours investing in reliable companies. Instead the RSFF should engage in real risk sharing by directly investing in companies' R&D projects that would not necessarily be financed by other financial institutions.



## **Societal challenges**

BUSINESSEUROPE supports the approach based on the societal challenges as outlined in Horizon 2020:

- health, demographics changes and wellbeing;
- food security, sustainable agriculture and the bio-economy;
- secure, clean and efficient energy;
- smart, green and integrated transport;
- climate action and resource efficiency including raw materials;
- inclusive, innovative and secure societies.

Addressing these societal challenges is necessary and, at the same time, will represent a major business opportunity for many companies; hence it will help to maintain the competitiveness of European business and foster social progress, employment and growth.

A challenge-driven EU research policy, with industry in a leading position, will necessarily need to focus on the outcome of programmes funded and the way research findings and inventions can be concretely used. This implies a rebalanced weighting of impact and excellence when proposals are evaluated, depending on the support area. Award criteria must therefore be more flexible, without diverging from common principles and boundary conditions. The right balance between scientific excellence and impact of the results must be struck.

## **The European Institute of Innovation and Technology**

The European Institute of Innovation and Technology (EIT) has shown potential to contribute to innovation efforts and a better coordination of the knowledge triangle (research, education and innovation) in Europe: an issue of the highest importance for safeguarding Europe's competitiveness. The first years of operation have however demonstrated certain persistent shortcomings in the way the EIT functions. These shortcomings must be addressed properly for the EIT to serve the special role in Horizon 2020 that it deserves.

BUSINESSEUROPE supports efforts to foster an entrepreneurial mindset in the field of research and innovation via the Knowledge and Innovation Communities (KICs) in order to bring ideas to the market. The EIT will need to show concretely how the new and simplified approaches to funding and governance will translate in deliverables with tangible market and social impacts and benefits for the business sector.

The proposal for Horizon 2020 allocates more than 2.8 bn<sup>2</sup> euro to the EIT, with the second half subject to the review of EIT activities before the end of 2017; this seems to be an adequate level of funding for the development of its activities.

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<sup>2</sup> 3bn euro when adjusted to expected inflation



## **Excellent science**

### **European Research Council (ERC)**

Establishing the ERC to support “investigator-driven” research at the frontier of knowledge as part of FP7 was a good idea that must be continued under Horizon 2020. In addition to stimulating scientific excellence and providing peer recognition at European level, new opportunities have been created for engaging in top-level research in Europe. This is improving career perspectives for researchers and helps prevent a further brain drain of European talent to other parts of the world. In addition, frontier research plays a valuable role in the training of researchers, including those pursuing a career in industry. Whenever possible, industry should be allowed to take part in these types of “frontier research” projects.

### **Marie Skłodowska-Curie Actions on skills, training and career development**

The inclusion of Marie Skłodowska-Curie Actions in the block “Raising excellence in the science base” should not limit the scope of the R&D activities to fundamental research or hamper the involvement of industry.

BUSINESSEUROPE suggests that the proposed inter-sectoral activities include the Industrial Doctorates building on the pilot in FP7 as well as continue the activities under FP7 of the Industry-Academia Partnerships and Pathways (IAPP) Scheme and the Initial Training Networks (ITN) Scheme. The approach followed for the Industry Host Fellowships under FP5 should constitute a basis for the organization of these activities. Rules for industrial doctorates should be flexible to allow an easy exchange between industry and public research institutions.

More attention should be devoted to Outgoing International Fellowships.

### **Research Infrastructures**

Industry should be more involved, not only as supplier of scientific equipment or user of public infrastructures, but also as provider of private research facilities.

## **3. Comments on rules for participation and other issues**

### **Ownership, licensing and transfer of results**

With regard to joint ownership, substantial barriers for the exploitation of the jointly owned intellectual property still exist.

As a general principle, partners and their affiliates should be able to use jointly owned intellectual property (IP) in the same unrestricted manner as they can use solely owned IP. The default regime for joint ownership should be a regime that supports exploitation and does not drive parties away from genuine collaboration. That regime should support unrestricted use by a joint owner and its affiliates of its joint IP, without giving notice or paying compensation to another joint owner. Parties however should have the freedom to deviate from that if they explicitly so agree.

BUSINESSEUROPE advocates that it should be left to the participants in the individual project to decide whether or under which circumstances they want to notify each other about envisaged transfers of intellectual property (as long as access rights of





participants are protected in line with the obligations set forth in the Rules for participation). It's also important to ensure proper protection for background knowledge.

### **Access rights for exploitation: access rights to affiliated entities**

The provision allowing for access rights to affiliated entities is limited to affiliated companies in the EU and Associated Countries. This limitation would significantly hinder exploitation of results of Horizon 2020 projects in the case where components necessary for such exploitation are only available outside of Europe. BUSINESSEUROPE therefore advocates a removal of the territorial limitation on eligible affiliated entities.

### **Transfer and exclusive licensing – right to object by the EU Commission**

With regard to results which are generated by participants having received EU funding, in principle the Commission should not interfere with transfers of ownership or to grants of an exclusive licence to third parties established in a third country not participating in the programme. This would significantly limit companies' rights to sell patents and therefore the value of patents generated from EU funded projects would decrease.

However in limited circumstances this right to object to a transfer might be in the interest of Europe. We therefore propose that obtaining the consent from the EU Commission is not set as the rule, but as the exception for specific circumstances when the European interests are at stake. The Rules therefore should only provide a basis that grants the Commission the right to object, by means of a special clause in the specific grant agreement of those projects in which it is likely that EU interest might be at stake in case of a transfer outside Europe.

### **Open access and results dissemination**

BUSINESSEUROPE agrees with the principle of open access to scientific publications, however believes that some clarifications are needed in order to avoid an obligation to disclose all data and results for any funded project. This would have a serious impact on the exploitation potential of the results and the willingness of parties to invest in such projects.

A good compromise could be found by extending the obligations in the current open access pilot under FP7 to Horizon 2020. Such an extension should have the same boundary conditions as the present pilot:

- the scope must be limited to published versions or final manuscripts accepted for publication resulting from EU-funded or co-funded research projects;
- there must be no obligation to publish;
- there must be no interference with commercial exploitation of research results or the possibility to protect results by intellectual property rights such as patents.

### **Promotion of guidelines for a trust-based approach**

In order to simplify the participation procedures and to ensure that the right projects are financed, there must be a shift from a control-based system to a trust-based system.



In connection to this, BUSINESSEUROPE welcomes the proposed financial audit of a representative sample of expenditure across the whole framework programme.

To encourage a trust-based approach, BUSINESSEUROPE calls on the Commission to elaborate guidelines for EU officials dealing with project financing as a clarification for the provisions on personal financial liability in the Financial Regulation and Staff Regulations. This could possibly be done by drawing on the experience of member states on the matter and should incentivise a more proactive and risk taking attitude in full compliance with Commission internal regulations.

### **The Charter for Researchers and the Code of Conduct for their Recruitment**

BUSINESSEUROPE supports the basic principles of the Charter for Researchers and the Code of Conduct for their Recruitment. Nevertheless, there are some serious concerns regarding their implementation. Whereas to a large extent Charter and Code are already being applied in industrial research labs, a full implementation of every element may not be possible for all the stakeholders.

According to the definitions, Charter and Code apply not only to basic research and strategic research, but also to all professionals in applied research, experimental development, innovation and a wide range of support functions related to R&D. Its full implementation would be unworkable for the private sector and could prove to be particularly burdensome for SMEs.

Therefore, the Charter and Code should not be made mandatory and the rules for participation should specifically emphasize their voluntary character, as stated in recital 22 of the Framework Regulation. Also, adherence should not be made a prerequisite for participation and funding in Horizon 2020.

### **Evaluation of projects**

BUSINESSEUROPE supports the Commission's proposal of weighing three criteria - excellence, impact, quality and efficiency of the implementation – when evaluating projects. This will strengthen the participation of industry, particularly in those areas dedicated to the development of the industrial competitiveness.

For the activities under Industrial Leadership and Societal challenges, a greater involvement of evaluators from the industrial sector would be desirable as the evaluation process is currently very "academia-oriented".

BUSINESSEUROPE proposes that in Industrial Leadership at least 50% of the evaluators should be indicated by the industrial sector (they may also come from universities, as long as they have specific skills in the field of industrial processes or relevant experience in industry).

### **Eligible direct and indirect costs / Charging of project costs**

For industrial companies, usually maintaining an analytical accounting system, it is very important to be able to charge direct and indirect project costs that are determined according to their usual accounting principles and management practices. If rules require them to do otherwise, they would have to establish and maintain a parallel system to determine their projects costs. Such a situation has to be avoided.



BUSINESSEUROPE demands that the participant's usual accounting principles are widely accepted. Consequently, the application of the flat rate on direct eligible costs to determine indirect eligible costs should not be mandatory.

### **Reimbursement rates**

The proposed maximum reimbursement rate of 100% for total eligible costs is definitely positive and is strongly supported by BUSINESSEUROPE.

With regards to the 20% flat rate applied on direct eligible costs to determine indirect eligible costs, we would like to voice some concerns as it could discourage the participation of some companies, in particular SMEs,

Indirect costs affect companies' total budget, and in particular in small and medium enterprises, by more than 50%. Moreover, usual cost accounting practices (full cost), is very burdensome for SMEs, usually not well equipped with analytical and/or industrial cost accounting systems. This is also one of the reasons explaining for the poor participation of SMEs in FP7.

Therefore, in order not to penalize companies, particularly SMEs, we suggest to increase the flat rate to determine eligible indirect costs to 30% of the direct eligible costs concerned.

As stated above, companies should also have the possibility to opt for usual accounting principles.

### **Financial responsibility of participants**

BUSINESSEUROPE believes that the provision limiting the financial responsibility of each participant to its own debt is unclear and needs to be better specified to avoid a too far reaching interpretation.

Since participants in a project have a joint and several liability for the technical implementation of the project, "own debt" could also be extended to the debt that is incurred for reason of not performing the obligations from another participant under the joint and several technical liability. It should be clarified in the Rules that a participant can never be financially liable for funding that it has not directly received itself.

### **State aid rules**

The statement in recital 31 of the Framework Regulation and recital 14 of the Rules for Participation that funding provided by Horizon 2020 should be designed in accordance with State aid rules could lead to legal uncertainty. Specifically this would mean that articles 22-24 and all provisions in the Rules for Participation on access rights and transfer of results may become meaningless provisions. Hypothetically state aid rules could set maximum funding rates at a lower level than the percentages mentioned in Horizon 2020, exclude the eligibility for reimbursement of certain costs, or rule out certain IP arrangements allowed by the Rules for Participation.

State aid rules have been specifically designed for Member States and their application to EU actions will lead to an unclear situation. Instead of referring to the State aid rules, it would be better if the Horizon 2020 proposals were to clearly indicate which boundary conditions will apply.



## **Public Public Partnerships**

Joint Programming Initiatives between member states through **Public Public Partnerships** will need to be carefully implemented in order to address three fundamental problems observed in the past when pooling national resources: synchronizing national project funding between countries, balancing oversubscription levels between countries and balancing national and common interests in joint selection of proposals.

In this respect, there is a clear need for improving existing instruments of the European Research Area for pooling member states' resources, with or without EU co-financing.