

July 2018

## BusinessEurope comments on Horizon Europe

### KEY MESSAGES

- 1 BusinessEurope acknowledges the European Commission's efforts to increase spending on research and innovation but would have liked to see even more ambition. The proposal is not ambitious enough to fill the gap to reach the EU's own 3% of GDP research and development investment target.
- 2 Horizon Europe is a unique opportunity to deepen Europe's innovation capability. It is decisive in the promotion and facilitation of a collaborative approach with all actors of the research and innovation value chain. And it plays a crucial role in leveraging private investments that are indispensable to finance far-reaching research and innovation projects in Europe.
- 3 In 10 specific areas, the proposal needs further work:
  - Increase the budget for Horizon Europe to at least €120 billion.
  - Allocate a larger share of the budget to the second pillar (i.e. at least 60%).
  - Ensure sufficient budget and space for Key Enabling Technologies (KETs) across the whole second pillar.
  - Secure an effective new partnerships landscape, using industry's expertise and current well-functioning partnerships as benchmarks.
  - Gradually implement missions using the full width of the programme.
  - Ensure industry's participation throughout the whole programme and strengthen linkages with academia and education.
  - Strengthen the RD&I ecosystem by making the EIC tap into the wide potential of innovators, including SMEs, and by increasing the EIT's budget.
  - Realise an Open Science agenda based on the principle 'as open as possible, as closed as necessary'.
  - Achieve synergies with other policy areas and take further measures to simplify the programme.
  - Promote and secure participation of third Countries (including EEA / EFTA) based on reciprocity.

### KEY FACTS AND FIGURES

European businesses contribute ~64% of total EU research and innovation spending	A gap of €150 billion a year to reach the EU's 3% of GDP research and development investment target.	€1 invested in Horizon Europe could generate a return ranging €10-11 of GDP gains over 2021-2027.
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### **BusinessEurope comments on Horizon Europe**

In an increasingly globalised world, growth and competitiveness are key for the EU. Scaling up investments in research, development and innovation is needed to gain global economic leadership. The Framework Programmes for Research and Innovation (FPs) play a crucial role in leveraging investments, boosting innovation and funding excellent research. According to the European Commission, each euro invested through Horizon Europe can potentially generate a return ranging from €10 to 11 of GDP gains over the same period (2021-2027).<sup>1</sup> The FPs develop and secure Europe's innovation ecosystem, create jobs and bring through innovations solutions for societal challenges.

European industry welcomes the ambition of the 'Horizon Europe' proposal and many of the proposed improvements compared to Horizon 2020. The explicit emphasis on the role of industry throughout the programme and the efforts to target innovative entrepreneurs to strengthen the innovation ecosystem are important steps. However, in ten areas, the proposal needs further work to better support research, development and innovation in the EU, to foster European technological leadership and ultimately to support a successful EU industrial strategy.

#### **1. Horizon Europe budget**

Businesses believe that the EU's post-2020 budget must concentrate efforts on improving the EU's competitiveness. We acknowledge the Commission's efforts to increase spending on research, development and innovation activities by 29% from Horizon 2020 to Horizon Europe.<sup>2</sup> The budgetary increase underlines the importance of the Framework Programme in financing projects that bring Europe growth and strengthen its competitiveness. However, we would like to see even more ambition.

- *We urge all EU decision-makers to prioritise and build on the Commission's increased emphasis on EU competitiveness, especially research, development and innovation, in the forthcoming Multiannual financial framework negotiations. In 2017, the Lamy Group report "LAB-FAB-APP – Investing in the European future we want" called for doubling the overall budget of the post-2020 EU RD&I programme. We call for matching the strong policy ambition with an even so ambitious budget, increasing the budget to at least €120 billion.*

#### **2. Budget allocation in Horizon Europe**

The second pillar 'Global Challenges and Industrial Competitiveness' combines Europe's ambition for leadership in key technologies with the goal to address global issues.<sup>3</sup> Currently, 54% of the total budget is allocated to pursue these objectives. This is not enough. It risks not being able to deliver on both the Sustainable Development Goals as

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<sup>1</sup> Impact Assessment Horizon Europe, European Commission. Part 2, p. 35.

<sup>2</sup> Comparing the EU-27 Horizon 2020 (excl. UK) with Horizon Europe and with the Horizon Europe budget of 97.6 EUR billion (incl. 3.5 EUR billion for InvestEU). Figures provided by European Commission. Secretariat of the Committee on Budgets, European Parliament.

<sup>3</sup> Pillar 2 'Global Challenges and Industrial Competitiveness' consists of the former 'LEIT' programme (Leadership in Enabling and Industrial Technologies), the 'Societal Challenges' pillar and the non-nuclear actions of the JRC.



well as on the Industrial Strategy ambitions the EU wants to pursue<sup>4</sup>. Industry is committed to play a leading role in tackling global challenges and contributing to EU growth. It does so through ambitious collaborative research and innovation projects involving key stakeholders such as research organisations (RTOs), higher education institutions and public authorities. The second pillar - the true collaborative pillar in Horizon Europe - should therefore be strengthened.

- *BusinessEurope calls on increasing the share of the second pillar to at least 60% of the total budget. This will reinforce Europe's capacity to perform collaborative research and innovation projects with a variety of RD&I actors. Besides, this would be a clear sign that research, development and innovation are essential elements of pursuing the EU's core interests of tackling global challenges and strengthening industrial competitiveness.*

### **3. Key Enabling Technologies (KETs)**

On multiple occasions the impact assessment of the Horizon Europe Regulation mentions the need for European companies to take up Key Enabling Technologies.<sup>5</sup> This is in line with the report of Mr Rüttgers' High Level Strategy Group on Industrial Technologies, which states that KETs are essential technology building blocks to strengthen Europe's competitiveness and leadership. The Rüttgers report puts forward a set of six KETs.<sup>6</sup> In the European Commission's proposal, some intervention areas of the 'Digital and Industry' Cluster resemble the KETs, but others go beyond. A total of €15 billion is available for this cluster. However, while KETs have been an important way of structuring calls in Horizon 2020, they do not come back as such in the second pillar of Horizon Europe.

- *The proposal does not take up a thoroughly studied and proven concept as put forward in the Rüttgers report. This risks that the Programme will not effectively and sufficiently invests in KETs. We therefore ask to more explicitly use the six KETs across the whole second pillar. As KETs cut across topical areas, they should not be limited to one cluster only.*
- *The €15 billion of the 'Digital and Industry' for a total of nine intervention areas is too confined to secure a future and stronger leading role in KETs. An increase of the total Horizon Europe budget and of the second pillar should therefore for a substantial part be allocated to back up the essential technologies of tomorrow with an adequate budget.*

### **4. European partnerships**

EU partnerships have a significant positive impact on leveraging public and private funding and bringing together actors from across the full value chain.<sup>7</sup> Horizon Europe outlines a review of the current landscape, introduced through the so-called 'European Partnerships'. However, decisions on how to apply and implement the criteria, conditions

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<sup>4</sup> Article 3.1 of the proposed Regulation establishing Horizon Europe clearly states these aspirations.

<sup>5</sup> Proposed Regulation establishing Horizon Europe, p. 10; p. 18. Impact assessment Horizon Europe, European Commission. Part 1, p. 14.

<sup>6</sup> Rüttgers' High Level Strategy Group on Industrial Technologies. 2018. 'Re-finding Industry – Defining Innovation'. European Commission. p. 22.

<sup>7</sup> Impact assessment Horizon Europe, European Commission. Part 2, p. 110.



and future concept of these European Partnerships have not been made. These important issues will be discussed during the process of strategic planning, which is yet not very well defined. According to the European Commission, decision-making will involve 'the stakeholders'.<sup>8</sup> As industry is the main partner in many successful partnerships, a transparent dialogue with industry is needed to build the European Partnerships on its successful predecessors.

- *Industry's expertise with the current partnerships should be given a central role in transforming them into a new landscape of "European Partnerships", in particular with the formulation and implementation of the criteria and conditions as set out in Annex III of the Regulation.*
- *Existing partnerships should be evaluated on a one-to-one basis using criteria and parameters agreed upon by all stakeholders in an open and transparent process. Well-functioning partnerships, of all sorts, should be used as benchmarks for future collaborations.*
- *The European Commission should clarify why for institutional partnerships (e.g. JTIs) only companies that are active in the industry associations acting as the private partners should contribute cash rather than in-kind contributions.*

## **5. Missions in Horizon Europe**

Communicating the impact of the Framework Programmes to citizens is an important objective as well as the broad mobilisation of means to make deeper progress towards certain objectives, pivotal for addressing global challenges. A 'mission-orientation' might be valuable in that respect. The Commission has also explained it will design 'a limited set of highly visible missions'.<sup>9</sup> BusinessEurope acknowledges the attractiveness of missions but emphasises the importance of clear and strong links with the whole Framework Programme. Also, industry should be strongly involved in co-designing these missions.

- *BusinessEurope welcomes the missions' cross-cutting character. It needs to be ensured that congruence and consistency with the current programme elements and structure is maintained. Furthermore, it should be clear how the missions will relate to all areas of Horizon Europe such as the European Research Council (ERC) and other topics in pillar 1, the clusters and intervention areas of pillar 2, the KETs and EIC calls. Concretely, this can be done by not creating separate calls for mission projects but instead 'mark' projects funded by one of the three pillars as part of the respective mission.*
- *The budget for missions has not been earmarked. Therefore, all pillars should bear a proportionate share of the missions upfront and not be confronted with a sudden decrease in the available budget later.*
- *As there has not been a pilot of 'missions', a gradual implementation should be realised. A transparent process that assesses and prioritises the European added-value of each mission and its accompanying budget to the programme should be at the heart of developing these missions further. Evaluating the*

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<sup>8</sup> Impact assessment Horizon Europe, European Commission. Part 1, p. 49.

<sup>9</sup> Proposed Regulation establishing Horizon Europe, p. 10.



*mission-orientation should not wait until the interim-evaluation of Horizon Europe but should be done as soon as this is meaningful.*

- *Industry should be represented within the envisaged mission boards, which should follow clear appointment criteria. Furthermore, European businesses should play a central role in the co-design process and in the missions' implementation.*

## **6. Industry's role and the strategic planning**

Industry's competitiveness hinges on a strong position across the whole value chain. Through RD&I collaboration between higher education institutions, RTOs, public authorities and business, European ideas can be brought to the market more easily, achieving EU-added value and high impact. BusinessEurope welcomes the Horizon Europe's objective to search 'full engagement' of industry'.<sup>10</sup> This ambition should translate into a concrete participation figure. Industry-led stakeholder forums allow for a continuing dialogue with the Commission and are therefore a condition for realising 'full engagement' and should thus be strengthened. Furthermore, collaboration between industry and academic and public actors should be enhanced as it has high potential to create positive spill-over effects. In this respect, we welcome that the Commission calls for universities to become more entrepreneurial and interdisciplinary to realise a true European Education Area of excellent science.<sup>11</sup> Last, the multiannual strategy planning will represent the starting point for the development of the Work Programmes, missions and partnerships. Industry should be strongly involved in this process.

- *An industry participation yardstick of at least 35% should be introduced, replacing the aim of having a "commensurable" participation level as currently formulated.<sup>12</sup>*
- *ETPs, European Technology Platforms and other industry-led forums, should be fostered and strengthened. A structured dialogue between industry and the European Commission is needed to optimise the impact of Horizon Europe on the RD&I ecosystem.*
- *To optimise the impact of the pillar 1, 'Open Science', coherence and mutual reinforcement with other programme parts should be sought. Furthermore, collaboration between universities and entrepreneurs should be strengthened. Concretely, this could be realised through involving industry observers in the European Research Council (and involving academia/research observers in industry-led bodies in other parts of the programme).*
- *The strategic planning process should be closely linked and aligned to the EU industrial policy strategy, including for instance the on-going process of definition of the strategic value chains within the IPCEI Strategic Forum. Industry should be involved in decision-making and implementation on all relevant areas, including the Work Programmes, missions and partnerships.*

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<sup>10</sup> Recital 11 of the proposed Regulation establishing Horizon Europe.

<sup>11</sup> European Commission, 2018. A renewed agenda for research and innovation. p. 16.

<sup>12</sup> Recital 11 of the proposed Regulation establishing Horizon Europe. 'Participation' as used by the Commission meaning project participation.



## **7. Strengthening the RD&I ecosystem**

The EU lags on its competitors in scaling up ideas and turning scientific findings into marketable and profitable products. The European Innovation Council (EIC) is welcomed as a new structure that focusses on bringing products to the market. However, the ‘Open Innovation’ pillar risks not sufficiently supporting companies of all sizes and nature that can drive (breakthrough) innovation and ultimately overcome the valley of death (i.e. turning ideas into marketable products and solutions). For example, the new programme mentions that SMEs will “reap the benefits” of activities funded by the EIC. However, Horizon Europe lacks equally concrete measures to streamline this, compared to Horizon 2020 where, for example, the SME Instrument was dedicated to answer the specific needs of innovative small and medium size enterprises.<sup>13</sup> A more holistic approach to innovation and the whole value chain should therefore be introduced in pillar 3 and linkages with pillar 2 projects ensured. Additionally, the Knowledge and Innovation Communities (KICs) of the European Institute of Innovation and Technology (EIT) are important to strengthen the knowledge triangle (business, higher education and applied research). Sufficient budget should therefore be available to fund these communities.

- *BusinessEurope underlines recital 11 of the proposed Regulation, namely that innovation applies to industry at all levels. It is therefore necessary to ensure a broad industry participation with companies of all nature and sizes. The EIC should be developed in such a way to tap into this wide potential of innovators, contributing to strengthening the RD&I ecosystem.*
- *As innovative SMEs are important drivers for innovation, it needs to be secured that sufficient measures are taken to avoid SMEs participation in Horizon Europe significantly drops, leading to a weakening of the RD&I ecosystem. An easy access point for calls for SMEs facilitating their participation in the programme and ensuring that all innovation dimensions are covered should be explored.*
- *The budget for the EIT has been set at €3 billion. This is a minor increase in real terms, i.e. taking into account inflation. However, this is not enough budget to develop the KICs, including two new ones, to their full potential. Therefore, an increase in budget is needed.*

## **8. Open Science agenda**

In Horizon Europe, the Open Science agenda has been given full priority. BusinessEurope acknowledges the potential benefits of making research data and output more accessible. Protecting data and output is not covered in recital 5 of the Regulation, although there are good reasons for ensuring such protection.<sup>14</sup> European ideas need to be protected so that they can be harvested and capitalised in Europe. As efforts are made to extend the Open Science agenda to the whole programme, a sustainable model that takes into account all relevant stakeholders is needed. This is a condition of a competitive Europe which uses the principle “Open where possible, closed where necessary”.

<sup>13</sup> Recital 24 of the proposed Regulation establishing Horizon Europe. In contrast with Recital 35, Regulation establishing Horizon 2020 which provided a minimum participation rate for SMEs of 20%.

<sup>14</sup> Recital 5 of the proposed Regulation establishing Horizon Europe



- *There are ample reasons where protection of data and output is necessary. EU competitive advantage is a main argument but is not included in the Rules for Participation. Together with confidentiality reasons, these two principles should be added to the reasons for opting out from the general obligation to provide open access.*
- *To allow for fruitful science-business collaboration on strategic topics, a specific article on confidentiality should be included in the Rules for Participation for Horizon Europe, similar to article 3 of the Rules of Participation of Horizon 2020.*
- *Competitive advantage, confidentiality, intellectual property considerations, privacy and security issues together with other legitimate interests should be given clear attention in applying the exploitation and dissemination rules.*
- *BusinessEurope calls for a constructive dialogue in which all involved parties will have proportional influence to pursue an Open Science agenda that “shares knowledge and protects ideas”.<sup>15</sup> This way, the public and private actors along the R&D and innovation value chain will be able to formulate a structure that best strikes a balance between as open as possible, as closed as necessary.*

## 9. Simplification and synergies with other policy areas

The EU Framework Programme is only able to fund a limited number of the proposals. The success rate over the first three years implementing Horizon 2020 is 11.6%.<sup>16</sup> BusinessEurope recognises the steps taken by the European Commission to make the programmes more accessible and with less administrative burdens. We also welcome steps to reduce the burden of audits by using results of audits in order schemes where relevant. Still, further simplification is needed, both to ensure higher success rates as well as less bureaucracy. Furthermore, enabling synergies with other EU (structural) funds is important. Allowing holders of the Seal of Excellence to be funded by the European Regional Development Fund is a concrete step in this direction. BusinessEurope applauds these measures as they will strengthen the European research and innovation ecosystem. In addition, it suggests exploring the possibilities of funding missions through other policies also.

- *To make the two-stage proposal procedure<sup>17</sup> more meaningful, the success rate of projects entering the second stage should be substantially higher. A more selective first stage selection should be implemented, leading to a higher success rate in the second stage.*
- *National and regional funding schemes should be more aligned with the European research programme. This allows for proposals that could not be funded on a European level to be funded through other programmes, on other levels. This should not mean exchanging European for national or regional research funding, but rather be complementary programming and funding.*
- *In developing missions, true European horizontality is needed, extending and applying the missions to European instruments such as the Structural Funds, IPCEI, the ETS Innovation Fund and Connecting Europe Facility.*

<sup>15</sup> Commissioner Carlos Moedas in interview with Politico. 7 June 2018.

<sup>16</sup> Impact assessment Horizon Europe, European Commission. Part 1, p. 43.

<sup>17</sup> Two-stage selection is not always appropriate (for instance in JTIs). Evaluation of this selection process is needed in close cooperation with the participants, such as businesses, RTOs and academia.



## 10. International cooperation

Horizon Europe rightly promotes a stronger participation of international partners. BusinessEurope strongly supports international collaboration with countries that have a strong track record on science and innovation. It must be with the goal of strengthening European competitiveness, on the condition that they help realise the EU's objectives and with reciprocal co-funding or access to funding in the partner country. It is also important that partnering countries show similar levels of commitment as the EU to respect and enforce Intellectual Property Rights. It is equally important to make sure that the objectives are driven by the EU and not the other way around. This might be a concern when talking about countries that have planned economies or a strong intervention of the state in the economy.

Lastly, it is difficult to understand why the Regulation proposal (art. 18, point 5 and art. 12a) opens the possibility to limit the access to certain parts of the programme for the EEA / EFTA countries while this is not the case in Horizon 2020 as well as in previous framework programmes.

- *The EEA Agreement – and the terms and conditions regulated by this Agreement – should continue to form the basis for participation in Horizon Europe from EEA / EFTA countries. The EEA Agreement states that when EEA / EFTA countries participates in an EU programme, they shall have access to all parts of the programme.*

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