

# Beyond Horizon 2020

## DIGITALEUROPE's Ideas for the Ninth Framework Programme

Brussels, 18 April 2017

### MAIN RECOMMENDATIONS

1. Consider FP9 an evolution not a revolution – building on the successes of Horizon 2020, pursuing further improvements while keeping the overall structure
2. Ensure an appropriate budget for FP9 – including sufficient support for ICT R&I to make the digital transformation of the European Union a success
3. Reinforce the excellent innovation dimension through increased support for the various innovation initiatives and instruments
4. Reduce fragmentation between instruments, especially at the programmatic level, and increase cross cutting activities between the pillars
5. Foster higher industry participation by tailoring obligations and rules to the needs of companies participating in R&I projects - for a vibrant industry eco-system of large companies, SMEs, and start-ups

### THE VALUE OF EU SUPPORT FOR RESEARCH & INNOVATION

The European Commission has highlighted extensively the importance of creating innovation ecosystems that include collaboration by large industry, SMEs, research institutes and academia across European borders. They are crucial in developing, diffusing and applying new knowledge, building momentum for global standards and creating early access to future markets. However, the EU continues to be less innovative than South Korea, the United States and Japan, while China is catching up, with a performance growth rate five times that of the EU<sup>1</sup>. The funding provided by the European Framework Programmes might be relatively small in monetary terms but adds real benefits as a crucial instrument in the available policy mix of Research & Innovation support. DIGITALEUROPE hopes that the next Framework Programme (FP9) will continue to offer our members a well-established structure for cooperation with skilled researchers all over Europe - exchanging new ideas for state-

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1 [European Innovation Scoreboard 2016](#)

of-the-art research, applying them in addressing societal challenges, building platforms and establishing networks of talented people.

As recognised by the European Commission in their Digital Single Market strategy, the digitisation of Europe’s economy and society necessitates research and innovation in all areas. Digital technologies are fundamentally changing European economy and society, creating highly skilled jobs in knowledge intensive organisations, not only in the ICT sector. Three-quarters of the value of the digital economy for Europe lies in the transformative potential of ICT for other sectors and public services<sup>2</sup>. Given this essential role ICT plays in supporting and enabling innovation in other areas, we strongly recommend that it needs to be kept as an independent area of collaborative research and innovation efforts. Furthermore, ICT must be given sufficient budget allocation within the Programme, to ensure that future generations of technologies can be researched while, at the same time, the latest available ICT products and services based on previous research and innovation investments are used to solve societal challenges and to improve Europe’s competitiveness in vertical sectors. Building upon the focus area in the 2018/20 Work Programme, FP9 should include support for digitisation in all areas as one of its main goals.

## HOW CAN THE NEXT FRAMEWORK PROGRAMME SUPPORT THE EU’S DIGITAL FUTURE?

### 1. Building on the experience gained in Horizon 2020

We believe that Horizon 2020 has established the basic building blocks of a successful Framework Programme with a sustainable structure. Also from a practical point of view, too many changes in rules and procedures would be difficult for potential participants to adapt to. DIGITALEUROPE would therefore see FP9 as an evolution – building on existing successes but continuously improving the implementation.

**Funding:** Given the clear value added by the European Framework Programmes over many years, we emphasise the need for the EU institutions to ensure an appropriate budget for FP9. The European Commission should also consider decreasing the eligible funding rate to 75% for all beneficiaries in Research and Innovation Actions (RIAs) as well as in Innovation Actions (IAs). Grants rather than loans remain the appropriate funding model for collaborative research, effort-based and not results or output-based. We are following the European Commission’s planned pilot for lump sum-based funding<sup>3</sup> with interest, but we emphasise that any changes need to consider all implications, beyond purely administrative reporting, and lead to concrete simplification for beneficiaries. It should also avoid undue penalisation of the beneficiaries for taking the risks that are inherent in advanced research and radical innovation, since this could lead to a dramatic drop in their ambitions.

Our members have participated in research and innovation across the different parts of Horizon 2020 - including the European Research Council, MSCA, LEIT, various Societal Challenges, the contractual Public-Private Partnerships, Joint Technology Initiatives and EIT. FP9 needs to keep the right balance across the whole research & innovation chain from fundamental to market-innovation driven research. It needs to consider their differences in terms of impact, lead times, leverage effects and European added-value. We consider the current distribution

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<sup>2</sup> [Report on the Digital Transformation of European Industry and Businesses](#)

<sup>3</sup> [Commission Press Release](#)

between investigator-driven research and mission-oriented research (approximately 30-70%<sup>4</sup>) reasonable and it should not be changed.

**Structure:** The current structure of the programme based on three pillars will remain fundamentally suitable. DIGITALEUROPE emphasises that the Industrial Leadership pillar is an essential part of Horizon 2020 where research is translated into innovation, demonstration and standardisation. Therefore, it also needs to remain in FP9 to ensure the continued relevance of EU-funded research & innovation for businesses as well as investment in the key industrial technologies of the future. Excellent research must be accompanied by excellent innovation, and LEIT is an essential link between the fundamental research conducted in Excellent Science and the Societal Challenges to address the big trends of the future. We also stress the need for stronger links and relationships in the triangle Companies - Education - Research meaning the results in research in projects need to be implemented more easily in education. In our view, this should be set as a requirement for upcoming actions in FP9 where education and research need to meet industrial strategic strengths and future needs.

**Evaluation criteria:** Although we have noticed that other policy aspects are slowly but gradually considered informally in the evaluation process, DIGITALEUROPE recommends sticking only to the three formal criteria. The success of Horizon 2020 and previous Framework Programmes is built on excellence and impact and these criteria should not be weakened in FP9. For example, it should be made explicit to proposers and evaluators that the request for a European dimension and the eligibility criterion of minimum three Member States participating do not imply that large artificially built consortia with broad geographical distribution are per se any better than excellent small ones. Similarly, the instruction to evaluators that “partial coverage of a call specific challenge is to be reflected in (a lower) score”, in combination with the explicit mentioning of an indicative proposal budget and duration, de facto discourages and penalises the submission of smaller project proposals despite their possibly higher excellence and impact. We also recommend that in LEIT and Societal Challenges, proposals should be first evaluated on impact and only then on excellence.

## 2. Reinforcing and streamlining the innovation dimension

The European Commission needs to continue the efforts that started in FP7 and Horizon 2020 to bring innovation to the forefront. More support is certainly needed for the commercialisation and exploitation of research results as well as for disruptive, market-creating innovation and for scaling up of new businesses. DIGITALEUROPE specifically supports the following instruments and initiatives fostering innovation:

**Public-Private Partnerships and Joint Technology Initiatives:** Many DIGITALEUROPE members are active participants in the contractual PPPs and/or the ECSEL Joint Technology Initiative (a major institutional PPP on Electronic Components and Systems), as well as in the related private associations and technology platforms. Involving a diverse participation of larger companies, SMEs, research institutes and academia to set the strategic research & innovation agendas, contractual PPPs address the entire innovation and value chain. They have proven to be a successful instrument to increase European competitiveness and innovation in their respective areas and must be continued under FP9. Albeit with a simplified and unified mechanism for co-funding projects from EU and national budgets, also the ECSEL JTI should be prolonged, as electronic components and systems are key for Digitising European Industry.

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<sup>4</sup> [Issue papers for the High Level Group on maximising the impact of EU research and innovation programmes](#)

**European Institute for Technology & Innovation:** Several of our member companies are members of different EIT Knowledge and Innovation Communities (KICs). They appreciate the integration of entrepreneurship, innovation and education (instead of a pure research focus) at the European level. However, there are concerns to ensure that the existing KICs are adequately resourced to be effective. We recommend that the current number of KICs be maintained to ensure that base funding can be guaranteed in the future. Thus, the sustainability criterion should be rethought. In addition, as the EIT was set up to foster an innovative way of working that is different from the traditional instruments, it should be granted more regulatory leeway<sup>5</sup> to do so under FP9.

**Pre-Commercial Public Procurement:** The latest information<sup>6</sup> about PCP shows that the instrument is slowly beginning to generate results in its goals to build critical customer mass for new technologies and solutions. With the widening digitisation of public services, the participation of the ICT sector becomes even more crucial in this instrument. PCP should be further promoted to attract an even larger number of companies.

**European Innovation Council:** The new EIC should aim to better align existing EU support for disruptive, market-creating innovation and for scaling up new businesses and fill in any gaps. We especially welcome the set-up of a European Venture Capital Fund-of-Funds<sup>7</sup> and propose that parts of its budget for FP9 will be earmarked for radical innovation. DIGITALEUROPE welcomes the suggestion to incorporate the Fast Track to Innovation and SME instruments in the EIC and calls for additional budget for both instruments, instead of creating new instruments with comparable purposes.

Horizon 2020 integrated the continuation of the Framework Programme (FP7) with the parallel CIP (Competitiveness & Innovation Programme) and the EIT (European Institute for Innovation & Technology) activities. These efforts to minimise fragmentation need to be continued and reinforced for FP9 where appropriate and necessary. Especially the internal cohesion between the societal challenges and other areas of the programme should be increased. For example, we found 17 different initiatives<sup>8</sup> addressing Health within H2020. To ensure impact, projects in different areas and instruments addressing the same topic or challenge need to be better connected.

At the programmatic level, synergy both with the member states' research and innovation strategies and priorities and other EU instruments should be sought, and aligned along societal challenges and/or sectors as appropriate. This would lead to more efficient investment generating higher impact across the innovation chain. A promising example is the Seal of Excellence to create synergy with ESIF. However, we would advise caution regarding any mandatory synergies at the project or implementation level. In our members' experience, the complexity created by combining different systems of accounting and reporting within a single project disproportionately increases the burden on participants. Project funding should come from a single funding source to provide consortia with the needed certainty for the successful implementation of the project.

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5 See European Court of Auditors [Special Report No 04/2016](#)

6 [Results from EU funded Pre-Commercial Procurements](#)

7 [Commission Press Release](#)

8 1 Societal Challenge, 2 Joint Technology Initiatives, 5 contractual Public-Private Partnerships, 2 Public-Public Partnerships, 2 Joint Programming Initiatives, 2 Large Scale Pilots on Internet of Things, 2 EIT Knowledge & Innovation Communities, 1 European Innovation Partnership.

### 3. Ensuring industry participation

Two-thirds of R&D investment in Europe comes from the business enterprise sector. The ICT industry's participation in EU R&D funding programmes has brought many important benefits and has allowed stakeholders from academia, institutes and other industries to take advantage of such resources. However, over both FP7 and Horizon 2020, industry participation (including SMEs) has remained between 25% and 30%<sup>9</sup> only. To ensure the impact of the next Framework Programme, it is of utmost importance to enhance the participation of key industrial sectors and companies and tailor those obligations that are currently mainly geared towards the specificities of research, to the possibilities and needs of all actors in innovation. Drawing on our members' previous experiences, DIGITALEUROPE would like to emphasise the following aspects:

**Oversubscription:** Decreasing success rates have a direct impact on the effectiveness of the Programme and its ability to attract the most talented and innovative applicants. There is a significant risk that industry might increasingly choose not to submit or join proposals since the chances of success are so low (even for highly rated ones) and not commensurate with the cost of writing them. Solutions to the problem of oversubscription that we are currently discussing<sup>10</sup> include: (1) more focussed strategic objectives in the forthcoming Work Programme, and (2), broader use of two-stage submissions, especially for Societal Challenges. However, this would only work if the first stage is made more selective (leading to a success rate of at least 33% or even 50% in the second stage), and if it does not excessively prolong time-to-grant. Furthermore, first stage evaluation should be based on all three criteria, however simplified, and should be made entirely remote, including consensus making, to ensure adequate participation of experts from relevant private sectors in all evaluation teams.

**Funding for large firms:** FP9 should continue to provide EU funding for large firms, for many reasons. Accounting for half of all R&D expenditure in the EU, large firms play pivotal roles in innovation ecosystems and PPPs and are actually better positioned<sup>11</sup> for entrepreneurship than startups. Large firms are essential for exploiting the results from FP projects, as they have the critical mass and market access channels needed to ensure exploitation, standardisation and market uptake. They should be incentivised to spend more on R&D, as they are the main cause of the current gap with respect to the EU R&D target of 3% of GDP. Finally, receiving no more than 13% of H2020 funding, their share is relatively small, so leaving out large firms would only marginally contribute to solving the oversubscription problem, with a maximum 2% increase of the average success rate for other applicants.

**Selection of evaluators:** In 2015, only 16% of evaluators were selected from the private sector, including SMEs. This is an alarming decrease from the previous year when 21.9%<sup>12</sup> of evaluators were drawn from the private sector. In our experience, it is not necessarily a lack of Industry experts being offered that is an issue but the selection of experts. As the programme puts increased emphasis on innovation, it is crucial that evaluators contribute the necessary knowledge to assess the impact of projects<sup>4</sup>. The goal must be 30% of evaluators drawn from the private sector (in line with current project participation). A broader use of remote evaluation, and its extension to the consensus-making phase, would certainly contribute to the solution of the problem.

**Intellectual Property Regime:** The global nature and high complexity of the ICT industry, as well as the speed of technological innovation, require straightforward, uncomplicated contractual arrangements. The successful commercialisation and exploitation of research results depends critically on guaranteeing contractual freedom

9 Private Sector Participation (funding) [DG RTD Annual Monitoring Reports](#)

10 [DIGITALEUROPE position on oversubscription and evaluation in Horizon 2020](#)

11 1,700 times better according to Chris Zook in Harvard Business Review, December 2016

12 Private Sector Participation in Evaluation [DG RTD Annual Monitoring Reports](#)

to consortium partners. For example, the default regime for jointly generated results should be a regime that supports exploitation rather than driving parties away from genuine collaboration.

**Open Access policy:** While DIGITALEUROPE supports open access to scientific publications, the existing right to opt out of the obligation of granting Open Access to Research Data must remain in FP9. A tailor-made approach is needed where public and private consortium partners decide on a voluntary and case-by-case basis whether access can be granted, and if so, to which data and to whom. This approach respects the essential protection of intellectual property, security, confidential information and personal data as well as legitimate commercial interests.

**Research Integrity:** Acting with integrity is a core value in the business sector and a key element of the business principles of our member companies. DIGITALEUROPE has gladly participated in the recent revision of the Code of Conduct and expects that any changes to the rules in FP9 will take account of the views of industry actors on this issue.

**Agility:** Budgeting resources in a company beyond 12-18 months and/or precisely defining an R&D work plan with deliverables for 3 to 4 years is often difficult. In many industrial sectors (for both start-ups, SMEs and large companies) and especially the digital industry agility is key. Shorter (12 to 18 months) and agile projects should therefore be an option for consortia. Agile projects require agile workplans (precise work plan for one year, updated every year) and agile partnerships.

**Further simplification:** We appreciate the European Commission's efforts and focus on simplification measures, and with the latest measure<sup>6</sup> to accept the participants' own accounting principles a further step in the right direction. Nevertheless, there is always room for improvement, as simplification of the implementation of projects is an important means to increase participation of the private sector in collaborative research. DIGITALEUROPE has commented<sup>13</sup> extensively on issues our members have identified with the implementation of Horizon 2020 and made recommendations to address common problems. We hope that these issues will be addressed in FP9 to create a system that trusts beneficiaries and minimises the administrative burden as far as possible.

**International collaboration:** We welcome the recent decision<sup>13</sup> by the European Commission to remove the administrative burden for third-country project participants that do not receive funding through Horizon 2020. As ICT is a global industry, we believe that increased collaboration between countries and regions will benefit global innovation and European competitiveness. The European Commission needs to encourage the free flow of ideas and continue to promote reciprocal access to third country programmes by ensuring transparent information and procedures. These should include budget, selection of the project proposals, scope, requirements, evaluation process and results announcement and clear rules on IPR in line with global practice, including simplified access to and transfer of IP to as well as exploitation of results by participants' international affiliates.

DIGITALEUROPE and our members are looking forward to participating in the following definition of the next Framework Programme with further contributions and ideas. We expect that FP9 will offer the same opportunities to all beneficiaries as Horizon 2020 and contribute to a flourishing European research & innovation eco-system.

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13 DIGITALEUROPE positions on [H2020 implementation](#) and [oversubscription/evaluation](#)

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## ABOUT DIGITALEUROPE

DIGITALEUROPE represents the digital technology industry in Europe. Our members include some of the world's largest IT, telecoms and consumer electronics companies and national associations from every part of Europe. DIGITALEUROPE wants European businesses and citizens to benefit fully from digital technologies and for Europe to grow, attract and sustain the world's best digital technology companies.

DIGITALEUROPE ensures industry participation in the development and implementation of EU policies. DIGITALEUROPE's members include 62 corporate members and 37 national trade associations from across Europe. Our website provides further information on our recent news and activities: <http://www.digitaleurope.org>

## DIGITALEUROPE MEMBERSHIP

### Corporate Members

Airbus, Amazon Web Services, AMD, Apple, BlackBerry, Bose, Brother, CA Technologies, Canon, Cisco, Dell, Dropbox, Epson, Ericsson, Fujitsu, Google, Hewlett Packard Enterprise, Hitachi, HP Inc., Huawei, IBM, Ingram Micro, Intel, iQor, JVC Kenwood Group, Konica Minolta, Kyocera, Lenovo, Lexmark, LG Electronics, Loewe, Microsoft, Mitsubishi Electric Europe, Motorola Solutions, NEC, Nokia, Nvidia Ltd., Océ, Oki, Oracle, Panasonic Europe, Philips, Pioneer, Qualcomm, Ricoh Europe PLC, Samsung, SAP, SAS, Schneider Electric IT Corporation, Sharp Electronics, Siemens, Sony, Swatch Group, Technicolor, Texas Instruments, Toshiba, TP Vision, VMware, Western Digital, Xerox, Zebra Technologies, ZTE Corporation.

### National Trade Associations

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| <b>Austria:</b> IOÖ                                      | <b>Germany:</b> BITKOM, ZVEI            | <b>Slovakia:</b> ITAS  |
| <b>Belarus:</b> INFOPARK                                 | <b>Greece:</b> SEPE                     | <b>Slovenia:</b> GZS   |
| <b>Belgium:</b> AGORIA                                   | <b>Hungary:</b> IVSZ                    | <b>Spain:</b> AMETIC   |
| <b>Bulgaria:</b> BAIT                                    | <b>Ireland:</b> ICT IRELAND             | <b>Sweden:</b> Foreningen<br>Teknikföretagen i Sverige,<br>IT&Telekomföretagen |
| <b>Cyprus:</b> CITEA                                     | <b>Italy:</b> ANITEC                    | <b>Switzerland:</b> SWICO  |
| <b>Denmark:</b> DI Digital, IT-BRANCHEN                  | <b>Lithuania:</b> INFOBALT              | <b>Turkey:</b> Digital Turkey Platform, ECID                                   |
| <b>Estonia:</b> ITL                                      | <b>Netherlands:</b> Nederland ICT, FIAR | <b>Ukraine:</b> IT UKRAINE   |
| <b>Finland:</b> FFTI                                     | <b>Poland:</b> KIGEIT, PIIT, ZIPSEE     | <b>United Kingdom:</b> techUK  |
| <b>France:</b> AFNUM, Force Numérique,<br>Tech in France | <b>Portugal:</b> AGEFE                  |  |
|  | <b>Romania:</b> ANIS, APDETIC           |  |