



EUROPEAN COMMISSION

FACT SHEET

# Horizon 2020: new Work Programme supports Europe's growth, jobs and competitiveness

Brussels, 13 October 2015

## Work Programme 2016-2017

Spanning seven years (2014 to 2020) and working with a budget of €77 billion, Horizon 2020 is the biggest EU research and innovation funding programme ever. Today, the European Commission adopted the second of its two-year work programmes setting out funding opportunities for 2016-2017.

This [Work Programme](#) offers a budget of almost €16 billion. It is based on extensive consultation and stakeholder involvement. All the calls and related information are published on a single [portal](#).

Horizon 2020 will continue to fund researchers and innovators at the cutting edge of their research disciplines, working on the latest breakthroughs in science. It supports projects across the cycle from research to innovation, using a range of financial instruments to facilitate their exploitation and access to markets. It will also invest in training of researchers including exchanges between industry and academia, create opportunities to build research teams in Member States where the research and innovation potential is underexploited, and take a strategic approach to international cooperation in research and innovation.

In line with the "[Open Science, Open Innovation, Open to the World](#)" agenda set by Commissioner Moedas, responsible for Research, Science and Innovation, the Work Programme is designed to open up European research and innovation, for instance, by attracting more SMEs; ensuring better use of research results and strengthening research cooperation with other countries. It will also greatly enhance the impact of EU research funding, in line with the [EU Budget focused on Results](#) strategy launched by the Commission Vice President Kristalina Georgieva, responsible for budget and human resources.

## Key Priorities for 2016-17

Horizon 2020 Work Programme 2016-17 is directly aligned with the [agenda of the Commission President Jean-Claude Juncker](#). It will contribute to the Jobs, Growth and Investment Package helping to strengthen Europe's global competitiveness, create new and sustainable jobs and promote growth. All the calls for proposals and activities will contribute substantially to this policy area as well as contributing in broader terms to one or more of the other areas.

## 1. A new Boost for Jobs, Growth and Investment

The Commission's top priority is to get Europe growing again and to increase the number of jobs without creating new debt. Research and innovation investments will cover both the immediate need to engage the re-industrialisation of Europe as well as the longer-term objective of building solid knowledge needed for the next wave of innovative breakthroughs. Some examples in the Work Programme feeding this priority are:

- Around €2 billion of the total funding in the Work Programme 2016-17 will go to **small and medium-sized enterprises (SMEs)**, including €740 million through a dedicated instrument which should benefit over 2000 highly innovative SMEs. On top of that, financial instruments, targeted in particular to SMEs, will increase the opportunities for funding to support research and innovation. These investments will be intensified with the support of the [European Fund for Strategic Investments](#) (EFSI).
- Through the **European Research Council (ERC)**, the best researchers will be able to investigate the best ideas that could lead to innovative growth-enhancing breakthroughs. [In 2016 alone](#), almost €1.7 billion – worth around 1000 grants - will be available through ERC calls. Also in 2016, almost 10.000 fellows will benefit from high-quality training and career development opportunities abroad thanks to **Marie Skłodowska-Curie actions**.
- Seven Public-Private Partnerships address **strategic technologies that underpin growth and jobs** in key European sectors in fields such as innovative medicine, fuel cells and hydrogen, aeronautics and bio-based industries. Further investment is leveraged through contractual PPPs working in areas such as factories of the future, robotics and green vehicles.
- €140 million will be available to foster the development and long term sustainability of new pan-European **research infrastructures** while further €200 million will support the integration and openness of key national infrastructures.

## 2. A Connected Digital Single Market

The internet and digital technologies are transforming our world. But existing barriers online mean citizens miss out on goods and services, internet companies and start-ups have their horizons limited, and businesses and governments cannot fully benefit from digital tools. Research and Innovation will contribute to innovative digital solutions, for example, through the following actions:

- The **Internet of Things** call (€139 million) will allow complementing technology developments with large-scale pilots in a number of societal challenges.
- The **Digital Security** call (€118 million) will address opportunities as well as vulnerabilities linked to ICT-driven transformation.
- An **Automated Road Transport** call (€114 million over two years) will address a paradigm shift in the automotive sector that promises to drastically improve safety and energy efficiency while reducing congestion and emissions.
- Funding of €50 million in total will contribute to the set up of an **European Open Science Cloud**.

### 3. A Resilient Energy Union with a Forward-Looking Climate Change Policy

A European Energy Union will ensure that Europe has secure, affordable and climate-friendly energy. Wiser energy use while fighting climate change is both a spur for new jobs and growth and an investment in Europe's future. Activities under the new Work Programme will help mobilise Europe's research excellence to generate innovative solutions in this area, for example:

- The **Smart and Sustainable Cities** call (€132 million) aims to bring together cities, industry and citizens to find sustainable integrated energy and transport solutions.
- Projects funded under the **Energy Efficiency** call (€194 million) will trigger direct energy savings of up to 230.000 toe (tonne of oil equivalent) per year.
- The **Competitive Low-carbon Energy** call (€723 million) underpins the commitment to diversify energy sources. In addition, three of the new [Horizon Prizes](#) will focus on boosting innovation in low carbon energy technologies offering €3.25 million to winning solutions.
- The ambition to make Europe the global number one in **renewable energy** will be supported by an investment of more than €400 million in bringing promising technologies closer to the market.
- Activities in the areas of climate action, environment, resource efficiency and raw materials will jointly help to ensure that the **investment of 35% for climate action** and 60% for sustainable development across the whole Horizon 2020 will deliver maximum impact. In the climate area, the Work Programme will invest €178 million in 2016 alone in large-scale innovation actions to demonstrate **future solutions for greening the economy**.

### 4. A Deeper and Fairer Internal Market with a Strengthened Industrial Base

The Single Market is one of Europe's major achievements and its best asset in times of increasing globalisation. It is an engine for building a stronger and fairer EU economy. This Work Programme will contribute to maintaining and reinforcing the internal market as well as European industrial base, through activities such as:

- The call on **Industry 2020 in the Circular Economy** (€669 million) will contribute to **boosting and renewing Europe's industrial capacities** while ensuring sustainability.
- The call on **personalised medicine** (€659 million) will boost European industry and the so-called silver economy by investing in strategies for earlier and more effective prevention, diagnosis and treatments, and help Europe address the ageing population and chronic disease burden.
- The **Mobility for Growth** call (€436 million) will strengthen transport's role as the artery of the single market.

## 5. A Stronger Global Actor, Towards a New Policy on Migration, and An Area of Justice and Fundamental Rights Based on Mutual Trust

The Work Programme is flexible and capable of addressing topical issues that matter the most to European citizens. Some key examples are:

- To address the challenge of **migration**, research funding will support efforts to ensure the security of the EU external borders, whilst at the same time facilitating the legitimate flow of people and goods. For instance, activities under the topic "Risk-based screening at border crossing" (€8 million) will enable better identification of potentially dangerous people and goods at border crossings. Research will also cover the origins and paths of migration, the impact and influence of radical movements on migration, and the prevention and early detection of radicalisation in the EU.
- The **Fight against crime and terrorism** part of the Security call will develop new ways of fighting and preventing organised crime and tackling terrorist ideas and beliefs, while guaranteeing fundamental rights and values.
- **International cooperation** calls and targeted initiatives will help boost research and innovation cooperation with countries outside Europe and effectively tackle common societal challenges.

## 6. Cross-cutting and other features

- Synergies between Horizon 2020 and **European Structural and Investment Funds** (ESIF), which invest up to €90 billion in innovation and research in 2014-20, will expand the scope and impact of both instruments. ESIF could for example support those project proposals evaluated as excellent but which could not be funded because of insufficient Horizon 2020 budget. To facilitate this process, a [Seal of Excellence](#) will be provided as of 2016 to above-threshold proposals not-funded under the SME instrument.
- **Closing the research and innovation divide** among countries to bring excellence to all corners of the EU will remain a key objective with the "Widespread" call (€202 million over two years).

### More information:

- [Participant Portal](#)
- [Horizon 2020 website](#)
- [IP/15/5831](#)

| <b>Horizon 2020 Work Programme 2016-17</b>  |                                |               |                       |                     |
|---|--------------------------------|---------------|-----------------------|---------------------|
| <b>Funding for calls and financial instruments (in € million)</b>   |                                |               |                       |                     |
|   | <b>2016</b>                    |               | <b>2017</b>           |                     |
|   | <b>Calls</b>                   | <b>Budget</b> | <b>Calls</b>          | <b>Budget</b>       |
| <b>Excellent Science Pillar</b>   |                                |               |                       |                     |
| European Research Council <sup>1</sup>  | 5 calls                        | 1650.9        |                       | 1650.9 <sup>2</sup> |
| Marie Skłodowska-Curie actions  | 5 calls                        | 756.5         | 5 calls               | 839.5               |
| Future and Emerging Technologies  | 4 calls                        | 228.2         | 3 calls               | 162.8               |
| European Research Infrastructures (including e-Infrastructures)   | 5 calls                        | 229.5         | 5 calls               | 284.5               |
| <b>Industrial Leadership Pillar</b>   |                                |               |                       |                     |
| Information and Communication Technologies  | 3 calls                        | 476.5         | 2 calls               | 611.5               |
| Nanotechnologies, Advanced Materials, Biotechnology and Production  | 2 calls                        | 279.8         | 2 calls               | 308.4               |
| Space   | 2 calls                        | 87.7          | 3 calls               | 94.0                |
| Access to Risk Finance  | 1 call + financial instruments | 2.5 + 335.0   | financial instruments | 407.5               |
| Innovation in small and medium-sized enterprises (does not include Eurostars)   | 2 calls                        | 382.0         | 2 calls               | 412.2               |
| <b>Societal Challenges Pillar</b>   |                                |               |                       |                     |
| Health, demographic social change and wellbeing   | 1 call                         | 343.0         | 1 call                | 315.3               |
| Food security, Sustainable Agriculture and Forestry, Marine and Maritime and Inland Water Research and the Bioeconomy | 4 calls                        | 340.5         | 4 calls               | 375.0               |
| Secure, clean and efficient energy  | 2 calls                        | 448.7         | 2 calls               | 468.6               |
| Smart, green and integrated transport   | 3 calls                        | 352.6         | 3 calls               | 403.5               |
| Climate action, environment, resource efficiency and raw materials  | 1 call                         | 142.9         | 1 call                | 183.1               |
| Europe in changing world – inclusive, innovative and reflective societies   | 4 calls                        | 98.0          | 4 calls               | 114.2               |
| Secure societies  | 3 calls                        | 196.8         | 3 calls               | 196.3               |
| <b>In addition</b>  |                                |               |                       |                     |
| Spreading Excellence and Widening Participation   | 1 call                         | 90.8          | 1 call                | 111.4               |
| Science with and for Society  | 1 call                         | 44.0          | 1 call                | 54.6                |
| Cross-cutting activities (focus areas)  | 3 calls                        | 577.5         | 3 calls               | 462.5               |

Please note budget figures do not contain 'Other actions' such as public procurements etc.

<sup>1</sup> separate work programme for 2017

<sup>2</sup> estimated for 2017