

Commission to invest €30 billion in new solutions for societal challenges and breakthrough innovation

Horizon 2020, the EU's €77 billion research and innovation funding programme, supports scientific excellence in Europe and has contributed to high-profile scientific breakthroughs such as the discovery of [exoplanets](#) and [gravitational waves](#). Over the next 3 years, the Commission will seek greater impact of its research funding by focusing on fewer, but critical topics such as migration, security, climate, clean energy and digital economy. Horizon 2020 will also be more geared towards boosting breakthrough, market-creating innovation.

Carlos **Moedas**, Commissioner for Research, Science and Innovation, said: *"Artificial Intelligence, genetics, blockchain: science is at the core of today's most promising breakthrough innovations. Europe is a world leader in science and technology and will play a major role in driving innovation. The Commission is making a concerted effort – including with the European Innovation Council which takes its first steps today – to give Europe's many innovators a springboard to become world leading companies."*

Supporting breakthrough, market-creating innovation

Since the beginning of its mandate, the Juncker Commission has been working hard to give Europe's many [innovative entrepreneurs](#) every opportunity to thrive. Now, the Commission is launching the first phase of the **European Innovation Council**. Between 2018 and 2020, the Commission will mobilise €2.7 billion from Horizon 2020 to support high-risk, high-gain innovation to create the markets of the future. Moreover, Horizon 2020 will make better use of its "crack the challenge" prizes to deliver breakthrough technology solutions to pressing problems faced by our citizens.

Focusing on political priorities

The 2018-2020 Work Programme will focus efforts on fewer topics with bigger budgets, directly supporting the [Commission's political priorities](#):

- **A low-carbon, climate resilient future:** €3.3 billion
- **Circular Economy:** €1 billion
- **Digitising and transforming European industry and services:** €1.7 billion
- **Security Union:** €1 billion
- **Migration:** €200 million

€2.2 billion will be earmarked for **clean energy** projects in four interrelated areas: renewables, energy efficient buildings, electro-mobility and storage solutions, including €200 million to support the [development and production in Europe of the next generation of electric batteries](#).

Boosting 'blue sky' research

At the same time, Horizon 2020 will continue to fund 'curiosity-driven science' (often referred to as 'blue sky science' or 'frontier research'). The annual [Work Programme of the European Research Council](#) for 2018, adopted in August, will enable support for excellent researchers with nearly €1.86 billion. Marie Skłodowska-Curie Actions, which fund fellowships for researchers at all stages of their careers, receive a boost with €2.9 billion in total over three years.

Enhancing international cooperation

The new Work Programme also strengthens international cooperation in research and innovation. It will invest over €1 billion in **30 flagship initiatives** in areas of mutual benefit. Examples include working with Canada on personalised medicine, with the US, Japan, South Korea, Singapore and Australia on road transport automation, with India on water challenges and with African countries on food security and renewable energies.

Spreading excellence

Between 2018 and 2020, €460 million under Horizon 2020 will be allocated specifically to supporting Member States and associated countries that do not yet participate in the programme to their full potential. The aim is to tap into the unexploited pockets of excellence in Europe and beyond. In addition, the programme also continues to promote closer synergies with the [European Structural and Investment Funds](#).

Simplifying rules of participation further

Another novelty is the introduction of the **lump-sum pilot**, a new, simpler approach to providing financial support to participants. It will shift the focus of ex-ante controls from financial checks to the scientific-technical content of the projects.

Open Science

The programme marks a step change in promoting Open Science by shifting from publishing research results in scientific publications towards sharing knowledge sooner in the research process. €2 billion will be channelled to support Open Science, and €600 million will be dedicated to the **European Open Science Cloud**, European Data Infrastructure and High Performance Computing.

Background

Horizon 2020 is the EU's biggest ever research and innovation framework programme with a budget of €77 billion over seven years (2014-2020). While most research and innovation activities are still underway or yet to start, the programme is delivering.

Horizon 2020 researchers have contributed to major discoveries like [exoplanets](#), the [Higgs boson](#) and [gravitational waves](#), and at least 19 Nobel Prize winners received EU research funding prior or after their award.

As of October 2017, Horizon 2020 has in total funded more than 15 000 grants to the tune of €26.65 billion, of which almost €3.79 billion went to SMEs. The programme has also provided companies, in particular SMEs, with access to risk finance worth over €17 million under the “InnovFin – EU finance for innovators” scheme. Furthermore, 3,143 ERC Principal Investigators in host organisations and 10,176 fellows under the Marie Skłodowska-Curie Actions have received grants worth almost €4.87 billion and €2.89 billion respectively.

Simultaneous to the adoption of the Horizon 2020 Work Programme 2018-2020, the Euratom Work Programme 2018 has been adopted, investing €32 million in research into the management and disposal of radioactive waste. It will also develop a research roadmap on safe decommissioning of nuclear power plants to reduce environmental impact and costs.

For more information

[MEMO](#): Horizon 2020 Work Programme 2018-2020

[Factsheet](#): European Innovation Council

[Factsheet](#): migration-related research

[Factsheet](#): lump sum pilot

[Country factsheets](#)

[Horizon 2020 website](#) and [calls](#)

[Participant portal](#)