



POLICY FOR RESEARCH AND TECHNOLOGICAL DEVELOPMENT

EU policy for research and technological development (RTD) has been an important area of European legislation since the start, and was extended in the 1980s with a European framework programme for research. In 2014, most EU research funding came under the umbrella of Horizon 2020, which covered the period 2014-2020 and aimed at ensuring the EU's global competitiveness. Its successor Horizon Europe, the current EU research and innovation programme, was launched in 2021 for the period 2021-2027.

LEGAL BASIS

Articles 179 to 190 of the [Treaty on the Functioning of the European Union](#) (TFEU).

OBJECTIVES

Since the Single European Act, the aim of the EU's RTD policy has been to support making EU industry more competitive at international level. Article 179 of the TFEU states that 'the Union shall have the objective of strengthening its scientific and technological bases by achieving a European research area in which researchers, scientific knowledge and technology circulate freely'.

ACHIEVEMENTS

A. Research framework programmes

The first framework programme (FP) was established in 1983, for a four-year period. During the subsequent decades, successive FPs have provided financial support for the implementation of EU research and innovation (R&I) policies. Their objective has evolved from supporting cross-border collaboration in research and technology to encouraging truly European coordination of activities and policies. Today, Horizon Europe, the ninth FP, is the biggest and most ambitious, with a budget of EUR 95.5 billion. In addition, cohesion policy and other EU programmes offer research-related opportunities, among them the European Structural and Investment funds, COSME, Erasmus+, the LIFE programme, the Connecting Europe Facility and the EU's health programmes.

B. (International) coordination and collaboration

The European Research Area Net (ERA-NET) scheme was launched in 2002 with a view to supporting coordination and collaboration among national and regional



research programmes and stepping up the coordination of programmes carried out in the Member States and associated countries through networking, including through the ‘mutual opening’ of programmes and the implementation of joint activities. In this same spirit of coordination and cooperation, Horizon 2020 covered the operational costs of COST, an intergovernmental framework for European Cooperation in Science and Technology designed to help coordinate nationally funded research at EU level. Horizon 2020 also coordinated its activities with the intergovernmental EUREKA initiative to promote international, market-oriented R&I. Horizon Europe is the key tool for Europe’s 2021 [global approach to research and innovation](#), which aims for an R&I environment based on rules and values, and to ensure reciprocity and a level playing field. As part of the global approach, in 2022, the Commission published a [toolkit for tackling foreign interference in R&I](#).

C. European Institute of Innovation and Technology

The [European Institute of Innovation and Technology](#) (EIT) was created in 2008 with a view to stimulating and delivering world-leading innovation through the creation of highly integrated [Knowledge and Innovation Communities](#) (KICs). The KICs bring together higher education, research, business and entrepreneurship in order to produce new innovations and new innovation models that can inspire others to follow suit.

PARTICIPATION

A typical EU-funded project involves legal entities, i.e. universities, research centres, businesses (including small and medium-sized enterprises (SMEs)), and individual researchers from several Member States and from associated and non-EU countries. The EU has several means at its disposal to achieve its RTD objectives within specific programmes:

- Direct actions carried out by the Joint Research Centre (JRC) and entirely financed by the EU;
- Indirect actions, which may be: (i) collaborative research projects carried out by consortia of legal entities in Member States and associated and third countries; (ii) networks of excellence – a joint programme of activities implemented by a number of research organisations, integrating their activities in a given field; (iii) coordination and support actions; (iv) individual projects (support for ‘frontier’ research); or (v) support for the training and career development of researchers, mainly for the implementation of [Marie Skłodowska-Curie Actions](#) (MSCA).

THE HORIZON 2020 PROGRAMME

In November 2011, the Commission brought forward its legislative package for Horizon 2020, the EU’s FP for 2014-2020. Horizon 2020 was the first EU programme to integrate R&I, with strengthened support for public-private partnerships (PPPs), innovative SMEs and the use of financial instruments.

By introducing a single set of rules, Horizon 2020 simplified matters significantly and addressed challenges in society by helping to bridge the gap between research and the



market, for example by helping innovative enterprises to develop their technological breakthroughs into viable products with real commercial potential. This market-driven approach included creating partnerships with the private sector and Member States to harness the resources needed.

In addition, attention was paid to broadening participation in EU programmes on the part of SMEs and industry, female researchers, newer Member States and non-EU countries.

Horizon 2020 was focused on three main pillars:

- Excellent science: supporting the EU's position as a world leader in science with a dedicated budget of EUR 24.4 billion, including an increase in funding of 77% for the European Research Council (ERC);
- Industrial leadership: aiming to help secure industrial leadership in innovation with a budget of EUR 17.01 billion. This included an investment of EUR 13.5 billion in key technologies, as well as greater access to capital and support for SMEs;
- Societal challenges: setting aside EUR 29.68 billion to address seven European societal challenges, namely health, demographic change and well-being; food security, sustainable agriculture, marine, maritime and inland water research, and the bioeconomy; secure, clean and efficient energy; smart, green and integrated transport; climate action, resource efficiency and raw materials; Europe in a changing world – inclusive, innovative and reflective societies; and secure societies – protecting the freedom and security of Europe and its citizens.

A number of priorities were addressed across and within all three pillars of Horizon 2020. These included gender equality and the gender dimension in research; social and economic sciences and humanities; international cooperation; and fostering the functioning and achievements of the European Research Area and the Innovation Union, as well as contributing to other Europe 2020 flagship initiatives (e.g. the Digital Agenda).

In order to encourage SMEs to get involved, the Commission had a dedicated financial instrument providing grants for research and development and assisting with commercialisation, through access to equity (finance for early and growth-stage investment) and debt facilities (e.g. loans and guarantees).

In November 2013, Parliament adopted the multiannual financial framework (MFF), allocating Horizon 2020 a budget of EUR 77 billion (in 2013 prices). However, in June 2015 the adoption of the European Fund for Strategic Investments (EFSI) reduced the amount to EUR 74.8 billion.

THE HORIZON EUROPE PROGRAMME

A. Horizon Europe 2021-2027

[Horizon Europe](#) will boost the EU's competitiveness and help it to deliver on its strategic priorities.

- Open Science: The continuation of the Horizon 2020 excellent science pillar with a budget of EUR 22 billion.



- Global Challenges and Industrial Competitiveness: addresses European industrial competitiveness and implements EU-wide research-driven missions to tackle specific societal challenges with a budget of EUR 47.6 billion.
- Open Innovation: aims at making Europe a frontrunner in market-creating innovations, developing an innovation ecosystem and strengthening the European Institute of Innovation and Technology (EIT) to foster the integration of business, research, higher education and entrepreneurship with a budget of EUR 12 billion.

In March 2021, the Commission published the [Horizon Europe strategic plan](#) 2021-2024, which set out four key strategic orientations for investments, including in key technologies, sectors and value chains, as well as in a resilient European society. In May 2022, the Commission [amended](#) the Horizon Europe Work Programme 2021-2022, increasing the budget, including for [WomenTechEU](#), to support women-led deep-tech start-ups.

B. UK participation and Horizon Europe

The [Trade and Cooperation Agreement](#) reached by the EU and the United Kingdom explicitly gives the UK access to five EU funding programmes, including Horizon Europe^[1]. The UK will pay for the ‘Associate Country’ status which was granted to the 16 non-EU countries formerly associated with Horizon 2020. The UK’s association with Horizon Europe was stalled since 2021 due to negotiations over the implementation of the Northern Ireland protocol, until a political [agreement was reached](#) on 7 September 2023. This agreement envisages access to Horizon Europe funding for researchers and organisations in the UK as of 1 January 2024.

ROLE OF THE EUROPEAN PARLIAMENT

For more than 20 years, Parliament has been calling for an increasingly ambitious EU RTD policy and a substantial increase in total research spending in the Member States to maintain and strengthen the EU’s international competitiveness. Parliament has also advocated more collaboration with non-EU partners, the close integration of activities between the Structural Funds and the FPs, and a targeted approach to optimise the involvement of SMEs and facilitate the participation of promising weaker actors. Parliament has furthermore insisted on simplifying procedures and building more flexibility into FPs to make it possible to shift resources to more promising areas and to react to changing circumstances and newly emerging research priorities.

In the trilogue negotiations on the Horizon 2020 package, which resulted in an agreement with the Council in June 2013, MEPs succeeded in securing a number of changes to the proposal, in particular the insertion of two new objectives with separate structures and budget lines:

- Stepping up cooperation and dialogue between the scientific community and society and increasing the attractiveness of research and development careers for young people;

[1]Article 719 and 720 of the Trade and Cooperation Agreement.



- Widening the range of participants in the programme by teaming up institutions, pairing research staff and exchanging best practices.

In addition, SMEs were to receive at least 20 % of the combined budget of the ‘industrial leadership’ and ‘societal challenges’ pillars.

On 27 April 2021, Parliament approved a Horizon Europe programme with a budget of EUR 95.5 billion, which includes EUR 5.4 billion from the European recovery plan [NextGenerationEU](#), as well as an additional investment of EUR 4 billion from the EU (MFF). The programme was already provisionally put in place by the Commission from 1 January 2021. Finally, in the 2021-2027 period, Horizon Europe will have a total budget allocation of EUR 95.517 billion in 2021 prices.

In its [resolution of 8 July 2021](#) on a new ERA for Research and Innovation, Parliament acknowledged that the completion of the [European research area](#) by achieving the free movement of researchers and free circulation of scientific knowledge and technology is a key priority for the EU. It underlined the importance of creating synergies between higher education, research institutions and civil society organisations, as well as industrial alliances. Parliament also pointed to the important role played by R&I during the COVID-19 pandemic in coming up with multi-sectoral and transdisciplinary solutions to overcome the crisis.

In its [resolution of 6 April 2022](#) on a global approach to research and innovation: Europe’s strategy for international cooperation in a changing world, Parliament recalled the need for continuous investment in researchers’ skills and careers. It also emphasised the need for rules-based multilateral cooperation and stressed that association agreements under Horizon Europe can only be signed with countries that are committed to a rules-based open market economy, including fair and equitable dealing with intellectual property rights and respect for human rights, backed by democratic institutions.

In its [resolution of 1 March 2022](#) on the Russian aggression against Ukraine, Parliament called for funding for all R&I cooperation programmes with Russia supported with EU funds to be immediately blocked or withdrawn and for interregional programmes to be suspended.

In its resolution of 4 October 2023 on EU-Switzerland relations, Parliament, noting that Switzerland is currently a non-associated third country in Erasmus+ and Horizon Europe, underlined the importance of EU-Switzerland cooperation in research, innovation and development and called for the parties to find a common approach for Switzerland’s participation. Parliament highlighted the significance of joint EU-Swiss efforts in addressing global challenges, such as climate change, health and energy security, through research and development.

For more information on this topic, please see the [Committee on Industry, Research and Energy](#) (ITRE) website.

Kristi Polluveer
11/2023

