Horizon Europe – Specific programme
Implementing the framework programme

OVERVIEW

In June 2018, the European Commission proposed a total budget allocation of €100 billion to finance science, research and innovation projects during the 2021-2027 period, of which the vast majority, €94.1 billion in current prices, would be allocated to the Horizon Europe framework programme. The main aims are to strengthen science and technology, to foster industrial competitiveness, and to implement the sustainable development goals in the EU. Horizon Europe introduces new features such as the European Innovation Council, missions to promote research results, and new forms of partnerships. While the proposal for the framework programme set out the general and specific objective of Horizon Europe as well as the structure and the broad lines of the activities to be carried out, the specific programme aims to define the operational objectives and activities, especially for missions, the European Research Council, the European Innovation Council, work programmes, and the committee procedure. In April 2019, Parliament and Council reached a partial agreement on the specific programme. However, the financial aspects were only settled in December 2020 as part of the broader MFF negotiations. The final text was adopted in April 2021 and entered into force retroactively from 1 January 2021.

Proposal for a decision of the European Parliament and of the Council on establishing the specific programme implementing Horizon Europe – the Framework Programme for Research and Innovation

| Committee responsible: | Industry, Research and Energy (ITRE) |
| Rapporteur: | Christian Ehler (EPP, Germany) |
| Shadow rapporteurs: | Dan Nica (S&D, Romania) |
| | Iskra Mihaylova (Renew, Bulgaria) |
| | Jakop G. Dalunde (Greens/EFA, Sweden) |
| | Elena Lizzi (ID, Italy) |
| | Evžen Tošenovský (ECR, Czechia) |
| | Marisa Matias (The Left, Portugal) |
| Procedure completed: | Council Decision (EU) 2021/764 |

Council Decision (EU) 2021/764
Consultation Procedure
Decision (CNS)
NB original proposal was on a legal basis using ordinary legislative procedure.
Introduction

On 7 June 2018, the Commission presented its proposals for the next long-term EU research and innovation programme. The Horizon Europe package consists of proposals for:

- the Horizon Europe framework programme, including laying down its rules for participation and dissemination (COM(2018) 435),
- a specific programme to implement Horizon Europe (COM(2018) 436),

Horizon Europe will be the ninth EU framework programme (FP9). It builds on Horizon 2020, the eighth framework programme, which came to an end on 31 December 2020. The Commission's proposal for a regulation establishing Horizon Europe – the framework programme for research and innovation, laying down its rules for participation and dissemination, envisaged a financial envelope for the implementation of the framework programme of €94.1 billion (in current prices) for the 2021-2027 period. In addition, the Commission proposed another €3.5 billion from the InvestEU Fund for Horizon Europe. Together with the €2.4 billion for the Euratom research and training programme, this made a total budget allocation of €100 billion (€88.7 billion in constant or 2018 prices) for science, research and innovation related projects. This would represent an increase of 29% compared to the 2014-2020 multiannual financial framework (after adjusting for the UK's departure).

This briefing mainly focuses on the specific programme proposal for Horizon Europe – a separate EPRS briefing describes the overall Horizon Europe framework programme.

Context

Every seven years, the European Union decides on its long-term budget. On 2 May 2018, the European Commission proposed the next multiannual financial framework (MFF) for the 2021-2027 period. Ahead of the adoption of the proposal for a long-term budget, the European Commission presented various options (and their financial consequences) for a framework that would deliver efficiently on EU policy priorities after 2020. The 2021-2027 MFF will be the first for the European Union of 27 Member States, taking account of the budgetary consequences of the withdrawal of the United Kingdom from the EU in March 2019.

As per Article 182 of the Treaty on the Functioning of the European Union (TFEU), framework programmes are to be implemented through specific programmes that set out detailed rules for the framework's implementation, fix its duration, and provide for the necessary resources.

Existing situation


Parliament's starting position

On 13 June 2017, the European Parliament adopted a resolution on the assessment of the implementation of Horizon 2020, in view of its interim evaluation and the ninth framework programme proposal.

Overall, the Parliament is a supporter of the EU’s research and innovation programme. It welcomed the success of Horizon 2020 and the 1:11 leverage factor, and stated that the EU has ‘the potential to become a world-leading global centre for research and science’ and ‘that in order to promote growth, jobs and innovation to this end, FP9 has to become a top priority for Europe’. Parliament
called on the Commission to propose an increased overall budget of €120 billion for FP9 – €20 billion above the level the Commission proposed for the Horizon Europe programme. In addition, Parliament underlined the importance of keeping reporting obligations to a minimum – in order to prevent ‘red tape’ from obstructing innovation – as well as the importance of greater involvement of small and medium-sized enterprises (SMEs) in collaborative projects and innovation.

The Parliament also urged the Commission to tackle the problem of oversubscription and low success rates. It suggested considering the reintroduction of a two-stage evaluation procedure with a unified first stage and a specified second stage dedicated to the selected applicants.

Furthermore, the Parliament called on the Commission to provide more support in FP9 ‘for young researchers, such as pan-European networking tools and to reinforce funding schemes for early-stage researchers with less than two years of experience after PhD completion’.

**Preparation of the proposal**

In the 2017 *interim evaluation* of Horizon 2020, stakeholders criticised, among other things, the uneven distribution of the framework programme funding across the EU. They also requested greater interlinking of the shared, multi-level governance between the EU, Member States and regions. Finally, the complex funding landscape was criticised as requiring streamlining.

Between January and March 2018, the European Commission ran a public consultation on future EU funds in investment, research and innovation, SMEs, and the single market. The Horizon Europe stakeholder consultation synopsis report summarises the more than 4 000 responses submitted.

According to most stakeholders, the main obstacles to the current programme achieving its objectives are: very complex procedures; high administrative burden; lack of flexibility to react to unforeseen circumstances; insufficient synergies between other EU programmes/funds; and the difficulty of combining EU action with other public interventions and private finance.

On the other hand, most stakeholders expressed their satisfaction with the existing three-pillar structure of Horizon 2020 and asked for minor refinements, such as a better linkages between pillars for better coverage of the whole knowledge chain. Stakeholders also suggested boosting funding for the widely appreciated European Research Council and Marie Skłodowska-Curie Actions and greater promotion of EU funded research results to the public (through, e.g. missions). There were also suggestions to reinforce the role of social sciences and humanities as they offer strong value for tackling societal challenges and achieving missions.

According to some stakeholders, the reimbursement rates under Horizon 2020 work well, although indirect costs for non-profit organisations could be increased. Introducing lump-sum payments would simplify matters. Furthermore, a better model is required for reporting personnel costs, and guidance documents should be streamlined.

Suggestions were also made regarding the definition of the concept of ‘impact’ in the context of research gaps and research results. Some stakeholders called for not only economic, but also social, scientific and cultural impacts to be taken into account.

In the June 2018 *impact assessment* accompanying the new Horizon Europe package, the Commission lists several areas for improvement, such as continued simplification; supporting breakthrough innovation; creating more impact through mission-orientation and citizen involvement; increasing synergies with other EU funding programmes and EU policies; strengthening international cooperation; and reinforcing openness. In this context, the Commission suggests improving the creation and diffusion of high-quality new knowledge and innovation in Europe; reinforcing the impact of research and innovation in policy-making; a rapid uptake of innovative solutions; and strengthening the European Research Area. EPRS prepared an *initial appraisal* of the Commission’s impact assessment.
The changes the proposal would bring

While the proposal for the framework programme sets out the general and specific objective of Horizon Europe as well as the structure and the broad lines activities to be carried out, the specific programme aims to define the operational objectives and the activities which are specific to parts of Horizon Europe.

The Commission proposal for the specific programme was presented as a 'decision' which contained a total of 15 articles (this was extended to 17 articles in the final agreed text). Article 2, for instance, outlined the operational objectives of the specific programme. These are, amongst other things, reinforcing and spreading excellence; increasing collaboration across sectors and disciplines; strengthening international cooperation; fostering open science and ensuring visibility to the public and open access to results; accelerating industrial transformation; stimulating the creation and scale-up of innovative companies, in particular SMEs; and improving access to risk finance, in particular where the market does not provide viable financing.

Furthermore, the Commission set out specific implementation and programming provisions for the framework programme, especially for:

- Missions (Article 5);
- the European Research Council (Articles 6, 7 and 8);
- the European Innovation Council (EIC) (Articles 9 and 10);
- work programmes (Article 11);
- committee procedure (Article 12).

Legal basis: The European Commission based the specific programme on Article 182(4) TFEU and, due to its support for innovation, also on Article 173(3) TFEU. Article 182 TFEU refers to the Union Research policy, and in its paragraph 4 states that 'The Council, acting in accordance with a special legislative procedure and after consulting the European Parliament and the Economic and Social Committee, shall adopt the specific programmes'. Article 173 TFEU refers to the Union industrial policy, including better exploitation of the industrial potential of policies of innovation, research and technological development; in its paragraph 3 states that 'The European Parliament and the Council, acting in accordance with the ordinary legislative procedure and after consulting the Economic and Social Committee, may decide on specific measures in support of action taken in the Member States'.

Budget: The European Commission proposed €94.1 billion for the implementation of the framework programme 2021-2027 (plus an additional €3.5 billion from the InvestEU Fund).

Structure: The three-pillar structure of Horizon 2020 would be continued, but redesigned to give greater coherence, both between and within pillars, in support of the programme objectives:

- The 'open science' pillar (€25.8 billion) would continue to focus on excellent science and high-quality knowledge. It would support frontier research projects defined and driven by researchers themselves through the European Research Council (€16.6 billion), fund fellowships and exchanges for researchers through Marie Skłodowska-Curie Actions (€6.8 billion), and invest in European research infrastructure.
- The 'global challenges and industrial competitiveness' pillar (€52.7 billion) would directly support research relating to societal challenges, by, inter alia, integrating the Horizon 2020 'societal challenges and leadership in enabling industrial technologies' into five clusters (i.e. health; resilience and security; digital and industry; climate, energy and mobility; and food and natural resources). In addition, it would set EU-wide missions. It would also include activities pursued by the European Commission’s Joint Research Centre (JRC) (€2.2 billion) that support EU and national policy-makers.
- The 'open innovation' pillar (€13.5 billion) would aim at making Europe a frontrunner in market-creating innovation via the EIC (€10 billion), which would become a one-stop shop for
innovators. Furthermore, the Commission suggests a reorganisation of Horizon 2020 instruments (such as the SME instrument). In addition, this pillar would further strengthen the European Institute of Innovation and Technology to foster the integration of business, research, higher education and entrepreneurship (€3 billion).

A further part on ‘Strengthening the European Research Area’ (€2.1 billion) would be dedicated to sharing excellence and reforming and enhancing European R&I systems.

New features: Horizon Europe would also have some new features and enhancements to improve impact and openness, such as:

- **EIC**: this would become a one-stop shop to support high-risk, market-creating innovation projects by bringing promising ideas from the laboratory to real world application through, inter alia, direct financial support provided by two main funding instruments (Pathfinder and Accelerator).

- **EU-wide missions**: outreach and public oriented missions should be conducted to promote research and innovation outcomes, e.g. in the fight against cancer, for clean transport or plastic-free oceans.

- **New European partnerships**: these partnerships would be open to all types of stakeholders (e.g. industry, Member States and philanthropic foundations) and would be limited in time.

- **Open science**: this would become the modus operandi of Horizon Europe; it would require open access to all publications, data, and to research data management plans.

### Advisory committees

The European Economic and Social Committee (EESC) appointed Gonçalo Lobo Xavier (Employers – Group I, Portugal) to draft an opinion. The opinion was adopted in plenary during the 17 and 18 October 2018 session. The opinion welcomed the Commission proposal. It suggested, however, that missions should focus on a specific, quantifiable and achievable target and should take the high importance of low technological readiness level into account. Furthermore, the opinion urged that the European Innovation Council should particularly focus on very innovative SMEs and start-ups. The EESC supported the open science policy approach, but stressed the need to introduce ‘a certain timeframe’ for publishing all the scientific results. It welcomed the aim of further simplifying state aid rules to facilitate the combination of different funds that can be instrumental in overcoming the major disparities between Member States and regions.

The European Committee of the Regions (CoR) appointed Christophe Clergeau (France, PES) to draft an opinion on the proposal. The opinion was adopted in the plenary session of 9 October 2018. The opinion welcomed the Commission proposal, but called, inter alia, for the level of scientific excellence to be improved in Europe ‘as a whole and not in just a few large regions and cities’. To this end, the full involvement of cities and regions, as stakeholders in the strategic planning of the future European Innovation Council forum, was requested. Moreover, the CoR was ‘disappointed’ to note the lack of recognition of the territorial roots of scientific excellence and the contribution made by regional ecosystems and innovation hubs. The Committee considered the budget allocation for the ‘European innovation ecosystems’ as ‘too low’. The opinion also urged strengthening the ties with smart specialisation strategies and developing synergies with other EU and national programmes. In this regard, the CoR criticised the fact that the option of transferring a share of cohesion policy funds to the Horizon Europe programme was systematically decided by the Member States and not by the managing authority concerned, which is often a region.

### National parliaments

The deadline for the submission of reasoned opinions on the grounds of subsidiarity was 13 September 2018. No reasoned opinion has been issued.
Stakeholder views

The European Association of Craft, Small and Medium-sized Enterprises, UEAPME, recommended the application of a less restrictive definition of innovation (to ensure access for innovative SMEs) and to include a 20% target for SME participation (including start-ups) in the Horizon Europe programme. It also recommended increasing the share of the budget dedicated to the European Innovation Council from 10% to 15%, and ensuring preferred access for SMEs and start-ups to these instruments.

TP Organics, the European technology platform for organic food & farming, welcomed the proposal, but urged the European Parliament and Member States to ensure Horizon Europe makes a clear choice for sustainable development. They considered it is unclear how the objectives on ‘food and natural resources’ (in respect of the sustainable development goals) would be achieved. They called for stronger organic and agro-ecological principles by, for example, promoting circular systems, building on systemic interactions, using diverse crops and animals, and relying on biological processes for soil fertility and for controlling pests.

The European Council of Doctoral Candidates and Junior Researchers, Eurodoc, welcomed calls for cross-cutting open science in the framework programme, but urged an increase in the funding targeted at basic science and young researchers. The budget increases for the Marie Skłodowska-Curie Actions (MSCA) and for the European Research Council (ERC) are considered insufficient to adequately support early-career researchers.

The Guild, an association of 19 European research-intensive universities in 14 countries, urged that scientific excellence should be the sole evaluation criterion for the ERC and opposed geographical criteria in ERC grant evaluation. The association was also against limiting the ERC’s focus to young researchers, ‘as the programme should be open to the best scientific talent regardless of their age or the stage of their career’. The Guild welcomed the support for research in the social sciences and humanities (SSH) and the targeted budget for SSH, but opposed proposals related ‘to the boosting of the cultural and creative industries. The focus of Horizon Europe should remain in fostering excellent research and innovation, and not in subsidising sectors’.

The Association of European Research Establishments in Aeronautics, EREA, called for a significantly increased budget for Horizon Europe, to at least €120 billion. EREA criticised ‘the vagueness on exactly which topics and technologies would be supported, and with how much of the budget’, as this makes the present proposal difficult to assess. EREA welcomed the concept of missions in research and innovation, but expected a more detailed concept for missions in the Horizon Europe proposal.

Legislative process

In the European Parliament, the file was assigned to the Industry, Research and Energy (ITRE) committee, which appointed Christian Ehler (EPP, Germany) as rapporteur. The draft report was published on 19 July, and a total of 1,986 amendments were tabled. The ITRE committee adopted its report on 21 November 2018.

Parliament supported, inter alia, the following operational objectives: strengthening and widening Europe’s scientific and technological base; reinforcing and spreading excellence; facilitating broad access to research infrastructures across the European research area; and reinforcing the link between research, innovation, education, and other policies, including the Sustainable Development Goals and Paris Agreement.

Special attention was put on supporting innovative SMEs. The EIC Accelerator, for instance, was asked to provide support in the form of grants to SMEs, including start-ups, to carry out a range of innovation types, from incremental to breakthrough and disruptive innovation, which are aiming to scale up in a subsequent stage.
Furthermore, the Commission was invited to integrate gender aspects appropriately throughout the programme and specific gender research was required to support the implementation and design of better EU gender equality policies.

Parliament also proposed that the financial envelope for the implementation of the Specific Programme for Horizon Europe over the period 2021 to 2027 should be €120 billion (in constant 2018 prices), compared to the €94.1 billion proposed by the Commission.

On 12 December 2018, the plenary adopted Parliament’s position and provided the mandate to enter into informal negotiations (trilogues) with the Council.

In the Council, the Competitiveness configuration (Internal Market, Industry, Research and Space) dealt with the Commission proposal on several occasions.

On 24 September 2018, Council published a progress report. Although most delegations welcomed the Commission proposal, a number of issues were raised. One main issue was the legal basis of the specific programme proposal. As it constitutes a departure from the legal bases proposed for Horizon 2020, several Member States asked the Council Legal Service to give its opinion on the legal bases proposed by the Commission for its proposal and, in particular, on the use of Article 173(3) TFEU as one of the two legal bases for that proposal. According to the Council Legal Service, the legal bases proposed by the European Commission for the framework programme regulation were appropriate, but the specific programme decision should be based on Article 182(4) alone. Accordingly, the specific programme decision should be adopted pursuant to a special legislative procedure (adoption after consulting the European Parliament and the European Economic and Social Committee).

The European Commission submitted a non-paper on 11 September 2018, confirming its choice of double legal basis for its proposal for the specific programme decision. However, a majority of Member States wanted to follow the Council Legal Service’s advice. Finally, the institutions agreed on keeping only Article 182(4) as the legal basis, and consequently on adopting the decision using the consultation procedure.

Besides the legal issues, delegations expressed, inter alia, concerns about scope, instruments and new elements: although defence research was included in the Commission framework programme proposal (Article 5), a majority of Member States insisted on a clear separation between the two programmes within Horizon Europe, i.e. with a separate specific programme for defence research in the European Defence Fund, and stressed the importance of maintaining the civil character of Horizon Europe. The Council Legal Service advised that the Council strengthen the references regarding the Defence Fund in the proposed regulation, to make a clearer link between the programmes.

Furthermore, several Member States criticised the lack of a targeted instrument in Horizon Europe for small and medium-sized enterprises, of the type which benefited thousands of SMEs across Europe in Horizon 2020.

Trilogue meetings for both the framework programme and the specific programme implementing Horizon Europe started on 9 January 2019. During the 19 March 2019 trilogue meeting, Parliament and Council reached a partial agreement. On this basis, Parliament adopted its first-reading position on 17 April 2019.

The co-legislators again highlighted the importance of spreading excellence without undermining the broader participation of underperforming Member States as well as the role of Horizon Europe in strengthening the European research area.

Furthermore, for each research and innovation mission, a mission board will be established, unless existing advisory structures can be used. The mission board is to be composed of a maximum of 15 independent high-level individuals with broad expertise, from across Europe and beyond, including relevant end-user representatives. The members of the mission boards shall be appointed
by the Commission, following a transparent procedure (selected for up to five years, renewable once). The mission board will advise, without having decision-making powers, the Commission on the following: (i) identification and design of one or more missions in the respective mission area (according to the provisions set out in Article 8 of the framework programme regulation); (ii) content of work programmes and their revision as required for achieving the mission objectives; (iii) characteristics of project portfolios for missions; (iv) adjustment of actions, or termination if appropriate; (v) selection of independent expert evaluators; (vi) framework conditions which help achieve the objectives of the mission; (vii) communication, including on the performance and the achievements of the mission; (viii) policy coordination between relevant actors at different levels, in particular regarding synergies with other Union policies; (ix) key performance indicators. The advice of the mission boards shall be made public.

The financial envelope for the implementation of the Specific Programme for Horizon Europe over the period 2021 to 2027 will be €84.9 billion (in constant 2018 prices). Pillar I 'Excellent Science' will be allocated €22.2 billion (in constant 2018 prices); Pillar II 'Global Challenges and European Industrial Competitiveness' will receive €47.6 billion in constant 2018 prices; Pillar III 'Innovative Europe' receives a budget allocation of €12.1 billion (in constant 2018 prices); the programme 'Widening participation and strengthening the European Research Area' will receive €3 billion (in constant 2018 prices). Details of the budget negotiation process can be found in the EPRS briefing Horizon Europe - specific programme - Framework programme for research and innovation 2021–2027.


EP SUPPORTING ANALYSIS

Karakas C., European research area (ERA) – Regional and cross-border perspectives, EPRS, April 2019.
Karakas C., Research and Innovation - Thinking about future EU policy, EPRS Ideas Paper, November 2020
Reillon V., Preparing FP9: Designing the successor to the Horizon 2020 research and innovation framework programme, European Parliament, EPRS, April 2018.
Spinaci S., Establishing and implementing Horizon Europe, European Parliament, EPRS, April 2021

OTHER SOURCES

Specific programme implementing Horizon Europe framework programme for research and innovation 2021–2027, European Parliament, Legislative Observatory (OEl).
ENDNOTES

1. Current prices make no adjustments for inflation, whereas constant prices adjust for the effects of inflation, as they are expressed in the price terms of a base period (normally a year – 2018 in this briefing).

2. According to the Commission, each euro invested by the programme can potentially generate a return of up to €11 in gross domestic product (GDP) over 25 years (known as the ‘1:11 return’). Union investments in research and innovation are expected to directly generate an estimated gain of up to 100,000 jobs in the programme period (2021-2027).

3. Article 182(4) TFEU states ‘The Council, acting in accordance with a special legislative procedure and after consulting the European Parliament and the Economic and Social Committee, shall adopt the specific programmes’.

4. Article 173(3) states: ‘The European Parliament and the Council, acting in accordance with the ordinary legislative procedure and after consulting the Economic and Social Committee, may decide on specific measures in support of action taken in the Member States’ referring to Article 173(1) TFEU on industrial competitiveness. But ‘This Title shall not provide a basis for the introduction by the Union of any measure which could lead to a distortion of competition or contains tax provisions or provisions relating to the rights and interests of employed persons.’

5. All amounts in this section are expressed in current prices.

6. This section aims to provide a flavour of the debate and is not intended to be an exhaustive account of all different views on the proposal. Additional information can be found in related publications listed under ‘EP supporting analysis’.

7. In advance of the vote, a public hearing on ‘Horizon Europe – EU’s research and innovation excellence’, in which the Commission and external experts participated, took place in Parliament on 8 October 2018.

DISCLAIMER AND COPYRIGHT

This document is prepared for, and addressed to, the Members and staff of the European Parliament as background material to assist them in their parliamentary work. The content of the document is the sole responsibility of its author(s) and any opinions expressed herein should not be taken to represent an official position of the Parliament.

Reproduction and translation for non-commercial purposes are authorised, provided the source is acknowledged and the European Parliament is given prior notice and sent a copy.


eprs@ep.europa.eu (contact)

www.eprs.ep.parl.union.eu (intranet)

www.europarl.europa.eu/thinktank (internet)

http://epthinktank.eu (blog)

Third edition of a briefing originally drafted by Cemal Karakas. The ‘EU Legislation in Progress’ briefings are updated at key stages throughout the legislative procedure.