

Horizon Europe – Specific programme

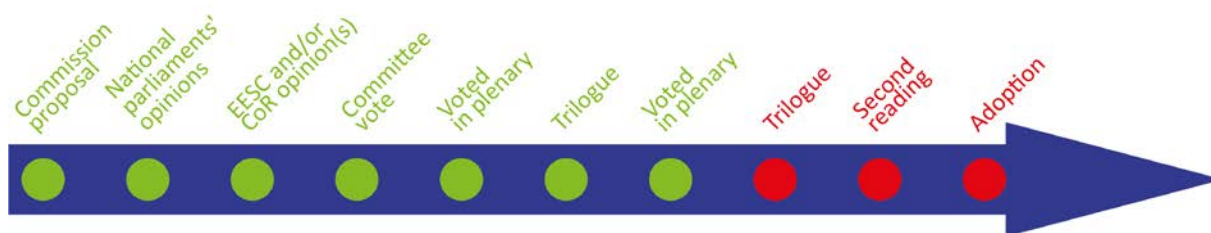
Implementing the framework programme

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 would introduce 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 sets 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, after several trilogue meetings, Parliament and Council reached a partial agreement, covering the specific programme's content. It does not however address budgetary issues, pending negotiations on the EU's overall 2021-2027 long-term budget. Parliament thus adopted its first-reading position on 17 April 2019, and it is expected that further trilogue negotiations will take place in the new term.

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

<i>Committee responsible:</i>	Industry, Research and Energy (ITRE)	COM(2018) 436
<i>Rapporteur:</i>	Christian Ehler (EPP, Germany)	7.6.2018
<i>Shadow rapporteurs:</i>	Soledad Cabezón Ruiz (S&D, Spain) Evžen Tošenovský (ECR, Czech Republic) Lieve Wierinck (ALDE, Belgium) Marisa Matias (GUE/NGL, Portugal) Jakop Dalunde (Greens/EFA, Sweden) Rosa D'Amato (EFDD, Italy) Barbara Kappel (ENF, Austria)	2018/0225 (COD) Ordinary legislative procedure (COD) (Parliament and Council on equal footing – formerly 'co-decision')
<i>Next steps expected:</i>	Relaunch of trilogue negotiations	



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),
- a [research and training programme](#) under the Euratom Treaty complementing Horizon Europe (COM(2018) 437).

Horizon Europe would be the ninth EU framework programme (FP9). It builds on Horizon 2020, the eighth framework programme, which comes to an end on 31 December 2020. The Commission's new [proposal](#) for a regulation establishing Horizon Europe – the framework programme for research and innovation, laying down its rules for participation and dissemination, envisages a financial envelope for the implementation of the framework programme of €94.1 billion (in current prices)¹ for the 2021-2027 period. In addition, the Commission proposes to contribute 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 makes 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%](#) in comparison with the current (2014-2020) multiannual financial framework (adjusted 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 had presented [various options](#) (and their financial consequences) for a framework that would deliver efficiently on EU policy priorities after 2020. The 2001-2027 MFF will be the first for the European Union of 27 Member States, taking account of the budgetary consequences of the expected [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 means deemed necessary.

Existing situation

The current framework programme for research and innovation, Horizon 2020, covers the period from 1 January 2014 to 31 December 2020. Horizon 2020 is based on two legal acts: [Regulation \(EU\) No 1291/2013](#) establishes Horizon 2020, and [Regulation \(EU\) No 1290/2013](#) defines the rules for participation and dissemination of Horizon 2020. As of May 2018, Horizon 2020 has supported over 18 000 projects, with over €31 billion awarded.

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 framework programme 9 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 has proposed for the Horizon Europe programme. In addition, the 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 has 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 specific programme is presented as a 'decision' which contains a total of 15 articles. Article 2, for instance, outlines 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 sets 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 (Articles 9 and 10);
- work programmes (Article 11);
- committee procedure (Article 12).

Legal basis: The European Commission bases the specific programme on [Article 182\(4\)](#) TFEU and, due to its support for innovation, also on [Article 173\(3\)](#) TFEU.

Budget: The European Commission proposes €94.1 billion² for the implementation of the framework programme 2021-2027 (and 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 excellent 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 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 European Innovation Council (€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).

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

- European Innovation Council: this new platform 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 welcomes the Commission proposal. It suggests, 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 urges that the European Innovation Council should particularly focus on very innovative SMEs and start-ups. The EESC supports the open science policy approach, but stresses the need to introduce 'a certain timeframe' for publishing all the scientific results. It welcomes 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 welcomes the Commission proposal, but calls, 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, is requested. Moreover, the CoR is 'disappointed' to note the lack of recognition of the territorial roots of scientific excellence and the contribution made by regional ecosystems and innovation hubs. According to the Committee, the budget allocation for the 'European innovation ecosystems' is 'too low'. The opinion also urges strengthening the ties with smart specialisation strategies and developing synergies with other EU and national programmes. In this regard, the CoR criticises the fact that the option of transferring a share of cohesion policy funds to the Horizon Europe programme is 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.

Stakeholders' views³

The European Association of Craft, Small and Medium-sized Enterprises, UEAPME, recommends 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 recommends 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, welcomes the proposal, but urges the European Parliament and Member States to ensure Horizon Europe makes a clear choice for [sustainable development](#). They consider it is unclear how the objectives on 'food and natural resources' (in respect of the sustainable development goals) will be achieved. They call for

stronger organic and agro-ecological principles by, e.g. 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, welcomes calls for cross-cutting open science in the framework programme, but urges 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, urges that scientific excellence should be the sole evaluation criterion for the ERC and opposes [geographical criteria](#) in ERC grant evaluation. The association is 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 welcomes the support for research in the social sciences and humanities (SSH) and the targeted budget for SSH, but opposes 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, calls for a significantly increased budget for Horizon Europe, to at least €120 billion. EREA criticises 'the vagueness on exactly which topics and technologies will be supported, and with how much of the budget', as this makes the present proposal difficult to assess. EREA welcomes 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 Council, its Competitiveness configuration (Internal Market, Industry, Research and Space) has dealt with the Commission proposal on several occasions.

On 24 September 2018, Council published a [progress report](#). Although most delegations welcomed the Commission proposal in general, a number of issues were raised. One main issue is 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 are 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 a double legal basis for its proposal for the specific programme decision. However, a majority of Member States expressed the view that they would like to follow the Council Legal Service's advice.

Besides the legal issues, delegations expressed, inter alia, concerns about scope, instruments and new elements: Although defence research is included in the Commission framework programme proposal (Article 5), a majority of Member States insist 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 stress the importance of maintaining the civil character of Horizon Europe. The Council Legal Service advises 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 has benefited thousands of SMEs across Europe in Horizon 2020.

Some delegations welcomed the establishment of a European Innovation Council. However, there have been a number of questions regarding governance and implementation and the coordination of activities with the European Institute for Innovation and Technology.

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 2018.⁴

Parliament supported, inter alia, the following operational objectives: strengthening and widening Europe's scientific and technological base; reinforcing and spreading excellence; facilitating wide 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 into supporting innovative SMEs. The EIC Accelerator, for instance, will 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 subsequently.

Furthermore, the Commission is invited to integrate gender aspects appropriately throughout the programme and specific gender research should also be 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 the period 2021 to 2027 be €120 billion (compared to €94.1 billion as 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.

The trilogues 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-users' 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 7 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) communication, including on the performance and the achievements of the mission.

Budgetary issues were left outside of the scope of the negotiations at this stage, as they require the completion of negotiations on the multiannual financial framework for 2021-2027.

Parliament and Council are expected to continue work on the file in the new term with a view to reaching an early second-reading agreement.

EP SUPPORTING ANALYSIS

[Assessment of Horizon 2020 Programme](#), Policy Department for Budgetary Affairs, European Parliament, January 2016.

Dalli, H., [The Horizon Europe framework programme for research and innovation 2021-2027](#), Initial appraisal of a European Commission impact assessment, EPRS, November 2018.

Karakas C., [European research area \(ERA\) – Regional and cross-border perspectives](#), EPRS, April 2019.

Karakas C., [Establishing and implementing Horizon Europe](#), European Parliament, EPRS, April 2019.

Karakas, C., [Horizon Europe: Framework programme for research and innovation 2021–2027](#), European Parliament, EPRS, October 2018.

Reillon V., [Preparing FP9: Designing the successor to the Horizon 2020 research and innovation framework programme](#), European Parliament, EPRS, April 2018.

[Scrutiny in Horizon 2020 Focusing on the European Parliament's Priorities](#), Policy Department for Economic and Scientific Policy, European Parliament, February 2016.

OTHER SOURCES

[Specific programme implementing Horizon Europe framework programme for research and innovation 2021–2027](#), European Parliament, Legislative Observatory (OEIL).

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 All amounts in this section are expressed in current prices.
- ³ 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'.
- ⁴ 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.

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