

The Horizon Europe framework programme for research and innovation 2021-2027

Impact assessment (SWD(2018) 307, SWD(2018) 308 (summary)) accompanying the Commission proposal for a regulation of the European Parliament and of the Council establishing Horizon Europe – the Framework Programme for Research and Innovation, laying down its rules for participation and dissemination ([COM\(2018\) 435](#))

This note is one of a series of brief initial appraisals of European Commission impact assessments (IA) accompanying the Multiannual Financial Framework (MFF) proposals, tailored to reflect the specificities of the MFF package and the corresponding IAs.¹ It provides an initial analysis of the strengths and weaknesses of the European Commission's [impact assessment](#) (IA) accompanying the above-mentioned proposal,² submitted on 8 June 2018 and referred to Parliament's Committee on Industry, Research and Energy (ITRE).

Political and legal context; objectives

Within the context of the new MFF the Commission is proposing Horizon Europe as the framework programme for research and innovation to succeed Horizon 2020.³ Drawing on the findings from the interim evaluation of Horizon 2020 the Commission concludes that the existing framework programme offers 'clear EU added value' and that it is 'delivering value for money'. It quotes macro-economic projections for the socio-economic impact of Horizon 2020 to be in the order of €600 billion and 179 000 jobs by 2030.⁴

The European Parliament has endorsed the Commission's findings that Horizon 2020 brings clear added value and has also recognised the potential for improvement.⁵ In its recommendations regarding the framework programme to succeed Horizon 2020, Parliament voiced its belief that 'the EU has the potential to become a world-leading global centre for research and science', calling for an increased overall budget of €120 billion (in constant or 2018 prices).

Building on the general objective of Horizon 2020, the **general objective** of the proposed new Horizon Europe programme is 'to strengthen the scientific and technological bases of the Union and foster its competitiveness, including for its industry, deliver on the EU's strategic policy priorities and contribute to tackling global challenges, including the Sustainable Development Goals' (IA, p. 15). The **specific objectives**, taking into account the interim evaluation of Horizon 2020 and stakeholder feedback, are the following:

- 1 to support the creation and diffusion of high-quality new knowledge, skills, technologies and solutions to global challenges;
- 2 to strengthen the impact of research and innovation in developing, supporting and implementing Union policies, and support the uptake of innovative solutions in industry and society to address global challenges;
- 3 to foster all forms of innovation, including breakthrough innovation, and strengthen market deployment of innovative solutions;
- 4 to optimise the programme's delivery for increased impact within a strengthened European Research Area.

Programme structure and priorities; delivery mechanisms of the intended funding

The IA explains that the programme will continue to cover research and innovation in an integrated manner and will keep its three-pillar structure with some redesign to better address the existing challenges:

- Pillar 1 - Open Science: primarily seeks to support basic research to strengthen the EU's science base through the European Research Council, Marie-Skłodowska Curie actions and research infrastructures.
- Pillar 2 - Global Challenges and Industrial Competitiveness: focuses mainly on applied research and incremental innovation and addresses industrial and societal needs. Under pillar 2 a new 'missions' approach is proposed: these missions replace and build upon the Horizon 2020 Focus Areas and are intended to be highly visible, well-defined and self-standing programme parts that clearly and directly incentivise cross-sectoral and cross-disciplinary cooperation. Pillar 2 will be implemented in a way to ensure societal and stakeholder involvement and alignment with research and innovation activities performed by the Member States. According to the IA, this pillar is the one that requires the largest share of resources.
- Pillar 3 - Open Innovation: focuses on innovation, and through the new feature of the European Innovation Council (EIC) offers a one-stop shop for high potential investors.
- In addition to the three pillars, on a horizontal level Horizon Europe will strengthen the European Research Area.

While each pillar has its own focus as described above, the IA explains that each pillar will contribute to all the specific objectives, and that there are inbuilt links between pillars 'to improve the coverage of the entire knowledge and innovation chain' (IA, p. 18).

The IA does not provide alternative options to achieve the objectives, as required in the Commission's Better Regulation [Guidelines](#). What it does instead is to describe the proposed changes from the previous programme, explaining why those changes are needed in comparison to the current situation and suggesting what added value such action at EU level would offer. The IA delves into what the expected implications of the changes would be and analyses their inherent risks. For each of the changes the IA examines the position of the European Parliament and the other EU institutions.

With regard to the delivery mechanisms, the IA describes the different aspects of the new set-up (for example, the increase in the share of the budget delegated to executive agencies), briefly outlines the other alternatives contemplated and gives some limited consideration to the expected implications.

Budgetary or public finance implications

The financial envelope for the implementation of the Horizon Europe Framework Programme is €94 100 million. To this are added €3 500 million allocated under the InvestEU Programme to contribute to the research, innovation and digitisation policy window of that programme. The financial envelope for the implementation of the research and training programme of the European Atomic Energy Community is €2 400 million.⁶ This leads to a total envelope for Horizon Europe of €100 billion in current prices.

SME test / Competitiveness

The IA consistently takes SMEs into consideration in its argumentation, but it does not seem to make a specific analysis of the impacts on SMEs in the form of an SME test, despite the fact that the interim evaluation of Horizon 2020 found that there is a limited scale-up of innovative SMEs at EU level. In particular, the SME Instrument under Horizon 2020 is integrated within the EIC and the consequences of this change are not clear.

The competitiveness of the EU's economy is one of the main *raison d'être* of the entire Horizon Europe programme and is a core element of the general objective of the proposals as defined by the IA. However, despite also the fact that the second pillar of the programme concerns industrial competitiveness, the IA does not include a structured analysis of impacts on competitiveness.

Simplification and other regulatory implications

Simplification is one of the cross-cutting MFF objectives. The IA advances simplification as an important aspect, spurring the changes made in the delivery mechanisms of Horizon Europe in an effort to improve on the simplification measures already introduced by Horizon 2020 and support faster innovation cycles and lower administrative burden.

Subsidiarity / proportionality

In terms of subsidiarity the IA states that ‘action at EU level is necessary’, backing this statement by citing a [study](#) conducted for the Commission that found that ‘more than four out of five Horizon 2020 projects would not have gone ahead without Horizon 2020 funding’.⁷ It affirms that the Union’s multiannual framework programmes for research and innovation ‘produce undeniable added value in terms of scale, speed and scope compared to national and regional-level support to R&I (without replacing it)’ (IA, p. 9).

The IA also asserts that the proposal is proportionate, not going beyond what is required for Union objectives. It offers little to no argumentation, however, to back this assertion.

Quality of data, research and analysis

The IA draws on a number of sources for its data, most notably the interim evaluation of Horizon 2020 and the Lamy High-Level Group Expert [Report](#) on the impact of EU research and innovation programmes.⁸ Macro-economic modelling (drawing on three models: NEMESIS, QUEST and RHOMOLO) is used to quantify the economic impact of Horizon Europe in terms of GDP gains (estimated to range between +0.04 % to +0.1 %) and job creation in the EU (up to 100 000 jobs in the ‘investment phase’ (2021-2027), fostering an indirect gain of up to 200 000 jobs over 2027-2036)). Annex 5 of the IA describes the models and their limitations, the key assumptions used for the IA, presenting and comparing the results in brief.

Stakeholder consultation

The Commission conducted six online public [consultations](#) for the MFF proposals clustered by policy areas, rather than carrying out one online public consultation for each accompanying IA as normally required by the Better Regulation Guidelines. Instead of the mandatory 12-week duration, these six public consultations ran for 8 weeks, from 10 January to 9 March 2018. For the purposes of the open public consultation, research and innovation was grouped with investment, SMEs and the single market. This [consultation](#) received 4 052 replies. Of the funds covered by the consultation, Horizon 2020 was by far the programme with which the respondents had most experience (89.2 %, against the second placed European structural and investment funds with 21.7 %). Annex 2 of the IA also gives details of other consultation activities undertaken to gather stakeholder feedback in view of the design of the new programme. The views of stakeholders appear to have been reflected in the IA.

Monitoring and evaluation

According to the IA the monitoring and evaluation framework of Horizon Europe is based on ‘three main building blocks’: (i) annual monitoring of the programme performance according to key impact pathways (scientific, societal and economic impact) towards programme objectives; (ii) continuous collection of programme management and implementation data; and (iii) two evaluations at mid-term and upon completion. In accordance with the outline set in the IA, the proposal for a regulation establishing Horizon Europe includes a monitoring framework; its Annex V sets out progress indicators along impact pathways.

Commission Regulatory Scrutiny Board

The Regulatory Scrutiny Board issued a positive [opinion](#) with reservations on a draft version of the IA on 13 April 2018. The shortcomings that RSB recommended to be tackled are that the IA does not sufficiently spell out the rationale, risks and implications of the proposed structure and priorities, or the rationale and value added of the additional structures and initiatives, and that it is not convincing in demonstrating that the new programme will effectively streamline its delivery mechanisms. Although in its Annex 1 the IA explains how the RSB’s comments were addressed, it is doubtful whether the observed shortcomings were fully tackled in the final IA, and in any case it would appear that the desired clarity was not sufficiently achieved.

Coherence between the Commission's legislative proposal and IA

The proposals appear to be coherent with the line of action proposed in the IA.

Conclusions

In its opinion on the IA, the Regulatory Scrutiny Board explains that on account of proportionality, the IA template has been adjusted to focus 'on those changes and policy choices that the MFF proposal leaves open'.⁹ It should be said, however, that while the IA report sets out the rationale for the new Horizon Europe programme and explains the choices made in its design, and does this rather effectively, the extent of the departure from the standard methodology and format of impact assessments (as set out in the Commission's Better Regulation Guidelines) is questionable.

ENDNOTES

¹ The almost parallel adoption of the spending programmes and the MFF proposals had an impact on the IA process and resulted in simplified IAs, with their format and scope differing from the standard IAs as defined by the Commission's Better Regulation Guidelines (see also [Toolbox 10 Financial Programmes and Instruments](#)).

² The impact assessment also covers the proposals 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 ([COM\(2018\) 436](#)), and for a Council regulation establishing the Research and Training Programme of the European Atomic Energy Community for the period 2021-2025 complementing Horizon Europe – the Framework Programme for Research and Innovation ([COM\(2018\) 437](#)). This initial appraisal focuses mainly on the analysis in respect of the proposed regulation of the European Parliament and of the Council establishing Horizon Europe – the Framework Programme for Research and Innovation, laying down its rules for participation and dissemination ([COM\(2018\) 435](#)).

³ The proposal provides for a date of application as of 1 January 2021 and is presented for a Union of 27 Member States, in line with the notification by the United Kingdom of its intention to withdraw from the European Union and Euratom based on Article 50 of the Treaty on European Union. For more information on the proposal see C. Karakas, [Horizon Europe - Framework programme for research and innovation 2021-2027](#), EPRS, European Parliament, October 2018.

⁴ Communication on the Horizon 2020 Interim Evaluation: maximising the impact of EU research and innovation, [COM\(2018\) 2](#), European Commission, January 2018, pp. 2-3.

⁵ [Resolution](#) of 13 June 2017 on the assessment of Horizon 2020 implementation in view of its interim evaluation and the Framework Programme 9 proposal, European Parliament.

⁶ In line with Article 7 of the Euratom Treaty, the current proposal covers only 5 years (2021-2025) with an envelope of €1 675 million. The years 2026 and 2027 will subsequently be covered by a separate proposal.

⁷ Assessment of the Union added value and the economic impact of the EU framework programmes, European Commission, 2017 (PPMI).

⁸ LAB-FAB-APP Investing in the European Future we want, European Commission, 2017.

⁹ [Communication](#) on a modern budget for a Union that protects, empowers and defends - The Multiannual Financial Framework for 2021-2027, COM(2018) 321, European Commission, May 2018.

This briefing, prepared for the Committee on Industry, Research and Energy (ITRE), analyses whether the principal criteria laid down in the Commission's own Better Regulation Guidelines, as well as additional factors identified by the Parliament in its Impact Assessment Handbook, appear to be met by the IA. It does not attempt to deal with the substance of the proposal.

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