

SCIENCE EUROPE RESPONSE
TO THE
**PUBLIC CONSULTATION
ON HORIZON 2020 AND
HORIZON EUROPE**
2023

SCIENCE
EUROPE
Shaping the future of research

Colophon

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Science Europe Response to the Public Consultation on Horizon 2020 and Horizon Europe'

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Introductory Remarks and Key Messages

As representative of major public organisations that fund and perform excellent research in Europe, Science Europe welcomes the opportunity to contribute to the reflection on the past, present, and future of the European Framework Programmes for Research and Innovation (R&I). They are crucial instruments to boost European scientific excellence, facilitate collaboration among the European R&I communities, and further develop the European Research Area (ERA).

Despite a steady increase over the past decades, the budget of the programmes remains insufficient, and a majority of positively evaluated projects remain unfunded. The R&I community must continue to advocate an increase of the budget, and to oppose any reductions over its lifetime, either during the yearly budget negotiations, or when new EU programmes are created. In this respect, it is crucial that citizens understand the importance of research and innovation and support it.

The main objective of the Framework Programmes has shifted since the preparation of Horizon 2020. A bigger focus was placed on a utilitarian purpose of scientific outputs for rapid (economic) impact. Additionally, political agendas became stronger drivers of research and innovation strategies. Science Europe advocates a stronger focus on the generation of knowledge for its own intrinsic value, and on the confidence that excellent research and innovation will lead to impact. It therefore recommends to design instruments with a better balance between all forms of science, including both curiosity-driven and challenge-oriented research.

The Social Sciences and the Humanities are key research fields for understanding the fabric of our societies. They are also crucial to achieve the programmes' goals and should play a role in their own right, not limited to that of a complement to

technological and engineering research. Funding opportunities should reflect that.

The overall approach to international collaboration changed from Horizon 2020 to Horizon Europe. The openness that guided Horizon 2020 was replaced by a more competitive approach. Moreover, two European countries, Switzerland and the UK, are no longer associated countries. This is greatly damaging for the European R&I community, existing collaborations, and the expected impact of Horizon Europe.

Science Europe welcomes the Framework Programmes' forward-looking policies in areas such as gender equality, diversity and inclusion, Open Science, and Research Assessment. It also recommends a renewed push to reduce the research and innovation disparities across Europe and to foster brain circulation. To achieve these goals and strengthen the ERA, efficient co-ordination is needed between national and European initiatives and policy developments.

The following chapters provide a more detailed overview of the observations and experiences of Science Europe and its Member Organisations regarding the objectives, achievements, and challenges in the implementation of both Horizon 2020 and Horizon Europe. They also provide recommendations for the upcoming years of Horizon Europe and future EU Framework Programmes.

HORIZON 2020

1. Evaluation 2014–2020

1.1. Priorities, objectives, and horizontal considerations

Overall objectives and structure

- Horizon 2020 has achieved its stated goals, such as boosting R&I excellence, contributing to economic growth, and responding to societal challenges. It had a clear structure and clear ambitions. The programme's added value is indisputable and provides a significant complement to instruments available at national and regional levels.
- The instruments of Pillar 1 (European Research Council (ERC), Marie Skłodowska-Curie Actions (MSCA), Future and Emerging Technologies (FET), and Research Infrastructures) were highly appreciated and considered extremely useful. They delivered great results and boosted excellence and scientific competitiveness.
- The stronger focus on environment, including the objective of at least 35% climate-related expenditure, was also considered a positive development.
- The flexibility of Horizon 2020 was appreciated when a response to the Covid-19 pandemic was necessary in 2020.
- More broadly, the ambition of aligning priorities and funding programmes was largely achieved. However, it was not always easy for applicants to understand the policy or political background that guided the development of the call texts. This may have impacted the content of applications and of projects' outputs.

Collaboration with national stakeholders

- The ERA-Nets Cofund were considered a very successful and useful scheme with high added value. They enabled an efficient, and straightforward collaboration among European funders to develop transnational calls. They also built strong R&I networks in many research fields and attracted strong interest from national research communities.
- The top-up money has been extremely useful to fund more high-quality research projects. Moreover, the free management of the EU top-up funds by consortia provided them substantial financial independence and allowed for arrangements best suited to the needs of each particular group of partners involved.
- First synergies schemes were tested. A few organisations successfully used structural funds to co-fund some ERA-Net calls. The feedback from those national stakeholders was positive. Other organisations found the synergies' possibilities difficult to use, and highlighted the discrepancies between the rules of Horizon 2020 and the Structural Funds.
- Throughout Horizon 2020, the involvement of the so-called 'widening countries' improved in the ERA-Nets and two of them were even co-ordinated by an institution from a EU-13 country.

International collaboration

- The international openness of Horizon 2020, and the focus on scientific co-operation was appreciated. Association with close R&I-intensive partners, such as Norway, the United

Kingdom, Switzerland, and Iceland was an important component of the success of the programme. It contributed to the development of a strong R&I landscape in Europe.

- Association status also supported the development of national capacities in countries that are less R&I intensive; Ukraine is one example of that. During Horizon 2020, Ukraine entered the top-7 of associated countries in

Opportunities for all forms of research

- Opportunities for collaborative research in basic science lost ground in Horizon 2020 in comparison with previous Framework Programmes. The FET programme and the creation of the ERC synergy grants was a step in the right direction, but their budgets and success rate were too limited. In other collaborative instruments, the emphasis on (rapid) impact has restricted opportunities for exploratory types of research and led to unbalanced opportunities for the various forms of research.
- The objective was to integrate the Social Sciences and Humanities (SSH) in all Horizon 2020 priorities and make them cross-cutting elements. However, the opportunities for these disciplines – especially in collaborative projects – were considered too limited, and

two main indicators: the number of supported proposals and the amount of funds granted.

- The ERA-Nets Cofund also fostered international collaboration. Several examples are striking, such as the collaboration between the JPI Urban Europe and the Belmont forum and with the National Natural Science Foundation of China, or the collaboration between the ERA-Net on Food Systems and Climate and Latin America and Africa.

their importance was reduced to a support function to STEM disciplines in most instruments of Horizon Europe. Moreover, some SSH fields have struggled with the impact-oriented approach. Indeed, while SSH research does lead to meaningful impact, it can be difficult to quantify, and templates and examples provided were often tailored to STEM research projects.

- The difficulty to design truly transdisciplinary calls and evaluate resulting proposals was also highlighted as a reason for the disappointing integration between SSH and STEM in Horizon 2020.
- International collaboration in SSH under Horizon 2020 was also considered more difficult than in STEM disciplines.

1.2. Implementation and administrative procedures

Administration, communication, and dissemination

- Users of Horizon 2020 highlighted an overall high administrative burden that consumed a great amount of time, energy, and resources from co-ordinators and consortium members. The efforts requested for administration, reporting, communication, and dissemination, sometimes seemed disproportionate.
- The support tools and services for communication and dissemination, such as the Horizon Results Booster and the Horizon Results Platform were very useful, but more can be done to achieve wider societal impact. Difficulty lies in the ineligibility of expenses incurred after the official end date of the project, while most results and knowledge mature after that date. This had discouraged beneficiaries to

continue pursuing impact-related efforts after the projects' closure.

- The description of topics and the call texts in the different thematic areas were not equally clear. This created issues and uncertainties for applicants. Moreover, as scientific disciplines were partly covered by different clusters, the help of National Contact Points was needed to help potential applicants identify opportunities and understand the policy context.
- Reporting in co-funded or cascading actions such as MSCA Cofund or ERA-Nets Cofund could be very burdensome as the granting institutions were required to report data from

a large number of grants (for instance related to publications or gender).

- The Open Science policy was welcomed. The European push in Open Science was instrumental in fostering a change in research and funding culture.

Widening Participation and Spreading Excellence

- The Widening Participation and Spreading Excellence Programme, though undoubtedly valuable, could not solve the challenge of asymmetric participation, including amongst the 'widening countries'. Funded projects demonstrated promising results. Nevertheless, the long-term impact of the Widening and Spreading Programme and its capacity to act as stepping stone towards greater participation and success in the other instruments, still has to be demonstrated.
- Some had the feeling that consortia with EU-13 partners lagged behind those with mostly western or northern European partners. While no bias in the evaluation was demonstrated, the investigation efforts of the European Commission on this issue are appreciated.
- While many excellent information days and opportunities for networking were supported during Horizon 2020, more mechanisms or nudges to encourage Europe-wide collaboration are needed beyond the Widening and Spreading Programme. Positive developments are seen in Horizon Europe.

HORIZON EUROPE

2. Evaluation 2021–2023

2.1. Priorities and objectives

Overall objectives and structure

- Horizon Europe is a highly valuable programme for Europe, and the efforts of the European Commission to make it more structured, strategic, and easy to access are appreciated. The structure was a logical follow-up from Horizon 2020, but the reshaping of the ‘horizontal pillar’ brought additional clarity and value for the development of the European Research Area.
- Horizon Europe addresses societal needs and policy priorities, and broadens the range of actors involved. More emphasis is placed on the engagement of non-R&I actors and on increasing cross-sectoral collaboration.
- The flexibility of the programme has allowed for the development of specific support to emerging issues, such as the situation in Ukraine, or the Covid-19 pandemic. Combined with support provided by Member States, this currently greatly contributes to safeguarding Ukrainian R&I capacity.
- Recent actions to strengthen European technological sovereignty, such as the Chips Act, has caused major disturbances in the Horizon Europe budget. This has led to a difficult situation, particularly in Cluster 3 ‘Civil Security for Society’. The Horizon Europe budget should be ring-fenced.
- The orientations included in the Strategic Plans provides predictability and demonstrates the alignment of Horizon Europe with key global challenges.

Objectives of the new instruments

- The idea of missions is promising, but the implementation is not as advanced and clear as hoped for (see 2.3 Implementation and administrative procedures).
- The relationship between the missions and partnerships should be considered to avoid overlaps. The landscape is not easy to navigate.
- The role and added value of the ‘New European Bauhaus’ in Horizon Europe is questioned, as it does not follow the objectives of a R&I funding programme.
- The general idea of the European Innovation Council (EIC) was promising and the pilot phase under Horizon 2020 was successful. The implementation has proved chaotic, however (see 2.3 Implementation and administrative procedures).
- The rationalisation of the Partnerships to create a simpler and more strategic landscape is supported. However, the resulting set of Partnerships is disappointing for the research community. Initiatives considered as ‘old closed clubs’ led by industry, continued and received significant funding, while most smaller, more accessible, Co-funded Partnerships were not considered. Several topics that still seem worth investing in have been left behind, and the Partnerships are unevenly distributed among the Pillar II clusters. There is a lack of opportunities for SSH.
- The new mechanism ‘Programme level collaboration between national R&I programmes’ might help fund initiatives that did not become a Partnership under Horizon Europe. However, the heavier workload linked with the current partnerships makes it difficult for new initiatives to arise. The concurrent launch of all partnerships, their complexity, and the difficulties faced by partners – for instance at the grant agreement stage (see 2.3 Implementation and administrative procedures) – created a significant workload for national funders and performers. Moreover, the absence of (top-up) funding to fund research activities in this instrument limits its attractiveness.

Opportunities for all forms of research

- Horizon Europe has put an even greater emphasis on (rapid) impact than Horizon 2020. This has resulted in a greater lack of opportunities for basic research in collaborative projects.
- The ERC should not provide the only opportunity for basic research. In Pillar II, a greater focus should be on scientific performance. Failing to invest enough in basic science (which has an element of unpredictability) poses the risk of missing the 'next big thing'.
- Efforts were made to increase opportunities for SSH in Pillar II. The addition of Cluster 2 'Culture, Creativity and Inclusive society' was also a positive development. However, more actions are still needed to strengthen SSH collaboration horizontally, and sufficient guidance should be provided on expected SSH contributions for call topics to achieve the related objectives.
- To achieve the programme's goals, it is crucial to enable a good balance between all forms of research and innovation.

Widening Participation and Spreading Excellence

- Increasing the budget for the Widening Participation and Spreading Excellence actions was a positive signal. It showed the importance of this objective for the ERA. However, there are still many challenges ahead, as described in [the Science Europe Recommendations to Reduce Research and Innovation Disparities and Foster Brain Circulation](#).
- Brain circulation in Europe has not yet reached the desired level and the participation in Horizon Europe projects remains very unbalanced (especially in ERC and collaborative projects). More efforts are needed to strengthen R&I capacities, reinforce so-called 'support expertise' (research managers, open science experts, and so on), and improve the inclusion of all researchers in relevant networks. Partnerships could be instrumental.
- The new 'Hop On' mechanism is an interesting instrument, but still has to find its way. Consortia can be reluctant to add a new partner after the approval of a proposal.
- The size and budget of projects in Pillar II have increased, making it difficult for participants from 'widening countries' and newcomers to take leading roles. More opportunities for smaller projects should be provided.

2.2. Policies and horizontal issues

International collaboration

- The overall approach to international collaboration has changed in Horizon Europe. The guiding principle of openness was replaced by a more competitive approach.
- Established and upcoming association agreements with new countries are most welcome. However, the non-association of Switzerland and the UK is extremely problematic and greatly affects the entire European R&I community. The high expertise of researchers from these two countries no longer benefits the Horizon Europe projects; the networks erode, and it is not clear if they can be built again. Science Europe advocates a fast association of these two countries.
- A thorough analysis of the negative impact resulting from the non-association of the UK and Switzerland should be performed.
- Delays in other association agreements, such as with Canada or New Zealand, are also an issue and create uncertainties for consortia interested in involving non-EU partners.
- The current variety in statuses (countries with transitional arrangements, countries in negotiation, and so on) leads to very practical issues. The introduction of an organisation from a country that is still going through the various phases of the association process is particularly tricky for consortia. A change

of status for a country leads to changes for the organisation in the consortium (such as going from Associated Partners to Beneficiaries, for example) and has budgetary and administrative consequences. This leads to discouragement in taking on board international partners.

Open Science

- With Horizon Europe, the European Commission keeps being a frontrunner in Open Science – and especially in Open Access to research publications – and in Data Management.
- The modification of the application forms and evaluation criteria was an important step towards a better recognition and reward of Open Science practices. This is a pioneering development designed to provide incentives, and skills, for applicants and grant beneficiaries to practice Open Science.
- The investment in infrastructures such as the European Open Science Cloud (EOSC) and the Open Research Europe publishing platform (ORE), is a notable achievement. Joint efforts at EU and national level are still needed to

Gender and Diversity

- The broader focus on gender equality in Horizon Europe is a great evolution. Dedication of specific funding to gender research, and developing inclusive gender equality policies is an important step forward towards creating gender-equal working environments across Europe.
- Despite delays in the adoption of Gender Equality Plans (GEP) in some organisations, this requirement was positively welcomed. Addressing sexual harassment could also become a requirement in the GEPs. Any extension of the GEP requirement to other categories of stakeholders should be communicated well in advance.
- Gender information on researchers that is provided in the application form is used to determine the priority order of same-score

- Building synergies with international initiatives such as the Belmont Forum has also become more difficult in Partnerships than under Horizon 2020.
- Finally, the late communication of work programmes is an additional obstacle to better integration of non-European partners.

guarantee their long-term sustainability and viability, and to attract users and contributors.

- A number of challenges should be recognised: to create their Data Management Plan, consortia have to assess national policies and practices of all project members and then work out a common framework. Some legal frameworks may be contradictory, and it is necessary to have time to negotiate the common legal standpoint. This is time-consuming and should be envisaged within the timetable of the project.
- The rights retention strategy should be explicitly mentioned in the Horizon Europe documents (in line with the engagements of cOAlition S).

proposals. In this context, the logic behind only including researchers in this table is not clear, as Horizon Europe puts increasing emphasis on the involvement of other actors such as 'impact/exploitation partners' or end users. The 'researchers table' should be modified to gather information on all staff that plays a major role in the project.

- Clear guidelines for Horizon Europe applicants on gender balance in staff composition should also be provided. There is currently a discrepancy between the goal stated in the GEP to achieve gender balance at all levels of personnel assigned to the action, and the goal at project level, which focuses on balance at the level of researchers or Work Package leaders only.

2.3. Implementation and administrative procedures

Administration, Evaluation, and Reporting (Reduction of Errors)

General remarks

- The administrative burden related to administration and reporting remains very high, especially in comparison to national funding programmes.
- Simplification attempts are very welcome. However, such attempts – such as the adoption of lump-sums – are not always a simplification for applicants. Every change in the participation rules also creates complexity and a need for adaptation. Accordingly, any change should be justified (through a risk/benefit analysis) and considered against the need for stability. The implementation speed should also carefully consider related difficulties, such as the co-existence of several mechanisms.
- Allowances in MSCA do not seem sufficient to cover costs for doctoral and post-doctoral students, and do not add to the attractiveness of the programme.

Evaluation

- The evaluation method, which has so far been very similar to Horizon 2020, is considered still suitable. Evaluators should be better trained, however, to provide more substantial feedback and guarantee the highest quality of evaluation.
- The 'right to react' mechanism in the framework of the evaluation process was also welcomed with enthusiasm by applicants.
- More transparency is needed on the evaluation process in the framework of a 'portfolio approach' (mainly for Missions projects). This would help to provide more certainty to applicants.
- The outcome of the upcoming pilot on blind evaluation will have to be carefully assessed.
- More information is needed on the selection methodology for projects on the reserve lists.

Project administration and reporting

- After two years of implementation, major guidelines for beneficiaries are still missing, including the Annotated Model Grant Agreement.
- There is also a clear need of clarification and annotations to the Lump Sum Grant Agreement. The guidance note does not contain sufficient details; this endangers the successful implementation of lump-sum grants and positive introduction by stakeholders.
- The administration and calculation of eligible personnel costs is very complicated, and discrepancies exist between the grant agreement (which has a legal status) and the draft Annotated Model Grant Agreement (which has not been adopted yet, but is recommended for use).
- An Indicative Audit Programme (IAP), including indications for lump sums, should also be provided without further delay. This guiding instrument is useful for beneficiaries at the start of project management and contributes to the reduction of errors.
- The introduction of the System and Processes Audit (SPA) will help to reduce the administrative burden for the most active beneficiaries related to financial audits. The community looks forward to concrete plans to investigate synergies in audit processes between Horizon Europe and national/international R&I funders.

Implementation of the new instruments

Partnerships

- The implementation of the Partnerships, especially the co-funded Partnerships, was very chaotic. Many contradictory instructions were issued and the Partnerships turned out to be more complex and bureaucratic, in contradiction to the initial goal of simplification. Long delays and numerous technical difficulties also impacted the various stages of the build-up and launch of these Partnerships.
- The lack of alignment between the long-term commitment expected from national funders and short-term grant agreements is considered a big issue.
- Resolving all issues is a necessity before considering a new wave of Partnerships.

Missions

- The implementation of the Missions has been slower than expected. The budget coming from Horizon Europe should mainly focus on research and innovation activities, and the involvement of other European programmes is not fully visible.
- National and local stakeholders are struggling to understand the process and the governance (Mission Boards, Mission Hubs, and so on). They do not see how they can contribute.

European Innovation Council

- The European Innovation Council (EIC) is facing major problems in the implementation of the Accelerator, and this endangers the credibility of the whole EIC. A temporary solution has been found to manage equity funding, but a long-term solution is still needed. The Pathfinder, on the contrary, is a useful programme that replaces the opportunities provided by the previous FET.
- EU contributions for Pathfinder Open projects (which require a larger consortium) should be increased to the level of Pathfinder Challenge projects (where smaller consortia and even single beneficiaries are eligible).
- The concerns linked to the differences in the intellectual property provisions between the EIC Pathfinder and EIC Transition and the rest of Horizon Europe should be addressed.
- The EIC Transition instrument, which has so far mainly supported follow-ups of ERC Proof-of-Concept Projects, is an interesting instrument. The added value of opening up this instrument to a broader range of projects will have to be monitored.
- The support measures provided by the EIC to the funded projects are considered a very positive development.

Synergies

- Various levels of synergies were expected: among Partnerships, between Partnerships and Missions, and between Horizon Europe instruments and European instruments outside of Horizon Europe (Cohesion Funds, Digital Europe, Life Programme, and so on). Unfortunately, they are not widely used yet.
- Different timings for different programmes (publication of work programmes, opening and closing of calls, and so on) make it more difficult to make full use of the potential for synergies (including identifying possibilities for sequential funding).
- Financial and technical engineering and related guidance are needed to actually combine the funds of several European programmes while respecting the programmes' different rules. Some successful examples can be noticed, however, regarding the use of Cohesion Funds. Sharing of best practices of successful implementation should be encouraged.

HORIZON EUROPE

3. Strategic Plan 2025–2027, Key Lessons and Messages for the Future

Beyond what is highlighted in the previous chapter, the following considerations should be taken into account in the preparation of the Strategic Plan 2025–2027, and more broadly in the preparation of future programmes.

Budget

- The Horizon Europe annual budgets must be at the level planned by the MFF ceilings.
- The budget must be ring-fenced and any new programme or initiative should be funded by additional money.

Content of research

- A good balance between all forms of research is needed. Horizon Europe should ensure more opportunities for fundamental research and trust that such projects will deliver a substantial impact in the future.
- More opportunities should be ensured for SSH to achieve the targets of the programme.
- The new geopolitical situation, due to the Russian war against Ukraine and evolving relations with non-European countries such as China, raises major challenges that should be tackled jointly. Horizon Europe could contribute to this by funding research on areas affected by these events, on improving the European knowledge related to these situations, and on facilitating the valorisation and use of existing and new knowledge.
- Reflections on the concept of strategic autonomy should also be continued, as this can be in tension with Open Science and a global approach.

Widening Participation and Spreading Excellence

- Reducing the disparity in participation and in R&I capacity across Europe should remain a priority. Joint efforts at EU and national level should be made to develop, maintain, or restore R&I capacity, internationalisation, and R&I support capacity throughout Europe.

Policy developments

- The active contribution of the European Commission in the joint effort to reform Research Assessment is highly valuable. Reflections on how this will influence Horizon Europe and the subsequent Framework Programmes should be launched in the years ahead.



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Our vision is for the European Research Area to have the optimal conditions to support robust education and research & innovation systems.

We define long-term perspectives for European research and champion best-practice approaches that enable high-quality research for knowledge advancement and the needs of society.

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