



Federal Ministry  
of Research, Technology  
and Space

Position Paper

# Horizon Europe 2028–2034

German positions on the European Commission Proposal



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# German Federal Government Position Paper

On 16 July 2025, the European Commission published its legislative proposal establishing Horizon Europe, the 10<sup>th</sup> EU Framework Programme for Research and Innovation (FP10) for the period 2028–2034. In this paper<sup>1</sup>, in response to the Commission proposal, the Federal Government sets out its position on the future EU Framework Programme for Research and Innovation. The paper serves as a basis for negotiations within the EU Council. The Federal Government's position on the European Competitiveness Fund (ECF) is only set out here in relation to areas relevant to FP10 and is otherwise unaffected.

## Introduction

The EU Framework Programme for Research and Innovation is a key instrument in ensuring both excellence in European research and the sustainability and strategic autonomy of the EU. To secure **Europe's future**, research and innovation (R&I) must be offered the best conditions to ensure that ideas, talents and technologies can unleash their full potential. Europe must become the world's **leading R&I hub**.

In the **High-Tech Agenda Germany**, the Federal Government has laid down a set of ambitious objectives designed to strengthen Germany's innovativeness and competitiveness, and these will shape the country's research and innovation policy in the years to come. We also aim to use the High-Tech Agenda Germany to strengthen European competitiveness and sovereignty, initially in six priority key technologies. As with the High-Tech Agenda Germany, funding for European R&I should take in the entire innovation chain, from basic research to market-ready, competitive products.

We see a large degree of overlap between national priorities and those at EU level and look forward to joining forces with our partners across **Europe in a concerted effort to advance Europe as a top research and technology location**.

From the outset, the incumbent Federal Government has been committed to the idea of a **stand-alone and strengthened EU Framework Programme for Research and Innovation**. We thus welcome the fact that, with its legislative package for the Multiannual Financial Framework 2028–2034 published on 16 July 2025, the Commission has put forward a proposal for just such a

programme. The strong **Horizon Europe** brand serves to strengthen EU competitiveness, promote research excellence and maintain the EU's attractiveness as a research hub.

We welcome the fact that FP10 is to be closely linked with the **European Competitiveness Fund (ECF)** to strengthen the connection between research, innovation and industrial policy. We believe that, by linking the two programmes, the Commission's approach has the potential to take an integrated view of the entire innovation and investment cycle with the aim of significantly advancing competitiveness, productivity and resilience in the EU. It acknowledges, supports and builds on the central importance of R&I for competitiveness. Making the most of this inter-relationship optimises the contribution that R&I can make to competitiveness.

European collaboration in R&I multiplies opportunities for research breakthroughs and technological advancements. It **pools the strengths and resources of the Member States**, creates critical mass for large-scale projects and provides yet more opportunity for knowledge to be transferred to applications and markets. At national level, the goal of spending **at least** three percent of GDP on R&I investments must remain the guiding principle for all Member States. Innovation leaders and strong innovators should be encouraged and incentivised to invest even more. Germany continues to be committed to the goal of spending at least 3.5 percent of GDP on R&I.

<sup>1</sup> Translation from the German language

We are working to ensure that research and innovation funding in FP10 continues to be based on the **criterion of scientific excellence**. Geographic criteria should play no role when it comes to selecting the best projects. Suitability for relevant European marketing pathways and transfer to practical application should be leading motives in R&I project design. The European values and sustainable development goals remain guiding principles while also having due regard to social relevance and impact. At the point of intersection between research, industry and society, viable innovations can be successfully developed and generate genuine added value. An **open competition** across Europe for the best ideas and projects promotes top research efforts, heightens international visibility and makes Europe more attractive to the world's brightest minds. In this way, Europe becomes a magnet for talents and innovation players, thereby strengthening its position as a leading research and innovation hub. And in all of this, we are committed to achieving a research system that is strong on equality and inclusive.

In future multiannual financial frameworks, R&I must receive adequate consideration and remain reliably plannable. R&I investments must also be supported by **structural reforms** at the European level.

Given the altered geopolitical conditions, we are in favour of opening the Framework Programme for **dual-use funding**. This can contribute to research advancement and to strengthening competitiveness and security. We see opening FP10 for dual-use funding as an opportunity to leverage synergies between civil and defence research. An effective, reinforced EU Framework Programme for R&I fosters not only **European cohesion** and **competitiveness** but also the **resilience** and the **strategic autonomy** of the EU.

The following section sets out the Federal Government's demands concerning the specific design of the Framework Programme based on the elements of the Commission proposal.

## Rules of participation

- **Reduce unnecessary obstacles:** The next EU Framework Programme for Research and Innovation must be consistently geared to **simplification**. Unnecessary bureaucracy must be eliminated in order to significantly improve accessibility and efficiency for participants.
- **Clear rules for users:** Research and innovation stakeholders must be able to see at a glance what rules apply to them. This means that all relevant information must be available and the necessary documentation provided by the Commission when the Programme begins. Guidance from the National Contact Points should continue to be provided for and be supported by the Commission.
- **Instrument continuity and clarity:** Tried and tested instruments used in the current Framework Programme should be retained and specified in the Horizon Europe Regulation.
- **Same provisions for all programme parts:** With a view to continuity and harmonisation, the Horizon Europe 2028–2034 provisions should apply to the thematic collaborative research in the ECF policy windows. This must be clearly enshrined in the proposed Regulation.
- **Lump sum funding:** We welcome the fact that **lump sum** funding is to be introduced as the new standard, with other funding arrangements also to be retained on an optional basis. If there are clear indications that lump sum amounts do not result in simplification, the Commission should proactively propose the use of other funding methods. To ensure appropriate cost reimbursement for organisations, it must be based on their **usual cost calculation practices**.

- **Third country partners:** Collaboration in R&I can serve as a key lever in strengthening geopolitical partnerships. **Associations** to Horizon Europe should be possible in conjunction with, but also independent of, associations to the ECF. Association to the research activities of the ‘competitiveness’ part should be possible via association to the ECF as well as to Horizon Europe. We must integrate our key partners into research more closely than ever before. Association agreements must be entered into quickly at the start of the Framework Programme and be based on existing agreements.
- **Dual use:** Opening the Programme for dual-use funding will entail additional requirements concerning **research security**. There must be clear

rules to ensure appropriate and risk-based protection of research. And with that, we must ensure that blanket overregulation beyond its intended purposes is avoided and that the specific circumstances of individual participants in the Framework Programme are considered. Research without any dual use must thus be exempt from dual-use requirements. Horizon Europe should continue to be based on openness and should remain open to associated and non-associated third countries as much as possible.

- The existing regulatory framework for **ethics in research**, and particularly for funding of research with human embryonic stem cells and human embryos in FP9, should be retained for FP10.

## Governance

- Management of the complex and finely structured Framework Programme at EU level calls for a clear and **transparent governance structure**.
- Those responsible for research and innovation policy in the Member States must be able to effectively participate in shaping the scope and thematic priorities of the Framework Programme. This is the only way to achieve **meaningful coordination of national and EU research and innovation measures** that is beneficial, avoids duplication and creates synergies for Europe. With its current High-Tech Agenda Germany, the Federal Government can make a valuable contribution towards achieving such coordination.
- The fewer regulatory provisions that are specified in basic legal acts, and the more co-financing the Commission expects from Member States, the greater the need for **effective participation of the Member States** in the decision making process. The Framework Programme is a pan-European funding programme, hence, its strategic design and thematic focus must be supported by all Member States.
- The **work programmes**, which among other things specify the research topics for the top-down funding, must continue to be discussed and adopted by the Member States in the Programme Committees in

accordance with the **examination procedure**. Also, when deciding the **Programme Committee configurations**, it must be ensured that they do not become too big and are thematically focused to enable debate at expert level.

- When it comes to governance for the FP10 programme parts, which are to be programmed via the **ECF policy windows**, the Federal Government’s contribution to the ECF negotiations is as follows: For adequate consideration of R&I needs and topics, it is necessary to have, **at minimum, stand-alone sub-configurations of the thematic ECF programme committees for R&I**.
- Funding decisions and the corresponding evaluation procedures must continue to be transparent, as laid down in Annex III of the current Horizon Europe.
- There is also a continued need for appropriate and transparent **involvement of highly qualified researchers and other R&I stakeholders** in developing the research topics in the top-down areas of the Framework Programme. This is the only way to ensure that the Framework Programme addresses, in a targeted way, the needs of the science and research community, universities, research institutes and companies, as well as current research questions.

- In addition to the link with the ECF, the need also remains for the links between the four pillars of Horizon Europe to be strengthened and for projects to be provided with the option of continuing in another funding format. In general, Horizon Europe should ensure that **social and scientific**

**expertise continues to be integrated into interdisciplinary and transdisciplinary research and innovation measures** (SSH Integration). Only then can generated knowledge and developed innovations adequately address societal needs and be successfully put into practice.

## Programme parts and structure

We welcome the fact that many tried and tested components – and thus the brand essence – of the EU Framework Programme for Research and Innovation are retained in the Commission proposal for FP10. This means that, as in the past programmes, the entire innovation chain is covered, from basic research up to market-ready application. What remains important, however, is strengthening the links between the different programme parts. The four-pillar model provides a clear structure that provides both brand recognition and orientation, thereby continuing to ensure accessibility. The integrated policy windows also create a close link between Pillar II of the stand-alone programme FP10 and the ECF.

The table below follows the **four-pillar structure of the Framework Programme**. First, two components of the proposal are considered which are not or not clearly assigned to the pillars: The newly proposed ‘moonshots’ are merely referred to in the explanatory memorandum preceding the FP10 Regulation; they are considered here solely due to their mission-oriented nature and the explicit proposal that individual moonshots should be funded under FP10. In FP9, the **European partnerships** are part of Pillar II. As these are not so clearly assigned in the FP10 proposal, and because European partnerships also harbour huge potential for linking various programme elements, for connecting national and European research funding, and for the design of intersections with the ECF, they are also addressed separately here.

### European Commission Proposal for Horizon Europe (2028–2034), as per July 2025

Pillar I Scientific Excellence	Pillar II Competitiveness & Society	Pillar III Innovation	Pillar IV European Research Area
<p><b>European Research Council (ERC)</b>  <b>Marie Skłodowska-Curie Actions (MSCA)</b>  <b>Science for EU Policies</b>                      (former JRC, excluding nuclear)</p>	<p><b>Competitiveness</b></p> <ol style="list-style-type: none"> <li>1. Clean Transition and Industrial Decarbonisation</li> <li>2. Health, Biotech, Agriculture and Bioeconomy</li> <li>3. Digital Leadership</li> <li>4. Resilience and Security, Defence Industry and Space</li> </ol> <p><b>Society</b></p> <ol style="list-style-type: none"> <li>1. Global Societal Challenges</li> <li>2. EU Missions</li> <li>3. New European Bauhaus</li> </ol>	<p><b>European Innovation Council (EIC)</b>  <b>Innovation Ecosystems and integration of the knowledge triangle*</b></p> <p><small>*) Higher education, research and innovation, and business</small></p>	<p><b>Reforming and enhancing the European R&amp;I system</b>  <b>Research and technology infrastructures</b>  <b>Widening participation and spreading excellence</b></p>

## Moonshots

- To be able to assess the potential effectiveness of ‘moonshots’ as an instrument for **mission-oriented funding, a clear objective and a definition** of the moonshot concept is needed in the Horizon Europe Regulation. Objectives and thematic focuses, selection criteria, procedures, decision-making structures, co-financing via public and private funding, and the role of the Member States have not yet been defined; the moonshot concept is merely mentioned in the explanatory memorandum.
- Clarification is also needed as to in what form a decision would need to be made **jointly with the Member States** regarding moonshot implementation and what form of coordination at national and European level and/or what national funding is expected.
- To avoid overlapping and duplication, **clear distinction from existing missions and partnerships** is needed. When introducing new instruments, consistency with existing EU instruments must be ensured.

## European partnerships

- We welcome the fact that the European partnerships will continue to be seen as **key instruments** in cross-border and cross-sector collaboration.
- We support the **goal of simplified and coordinated implementation**.
- This means using a coherent, transparent and **needs-based design** to ensure **accessibility** for all relevant stakeholders from science and research, industry, society, government and public administration, prevent conflicts of interest, and maintain and enhance the **added value** of established partnership formats. Implementation models must be designed in a timely manner and in close coordination with the Member States. The aim should be a partnership landscape with coherent implementation processes and provisions. The possibility must be retained for partnerships to be co-financed by the European Commission. And the creation of institutionalised partnerships under Articles 185 and 187 TFEU must continue to be possible, where appropriate, in achieving the goals and objectives.
- Early **involvement of the Member States** in the strategic coordination process and selection of the European partnerships is essential to ensure true co-ownership of the partnerships and effective dovetailing of the national and European levels.
- In particular, the Member States must work with the European Commission in designing the processes for decision-making concerning the continuation, consolidation and termination of existing partnerships, as well as the identification and **selection of partnerships**.
- Partnerships must be used **more selectively and more strategically**. But in doing so, the partnership landscape must not be seen in isolation. The focus must instead be placed on the necessity of, demand for, accuracy of fit, impacts and added value of a partnership, as well as its consistency with Horizon Europe and ECF work programmes for the respective thematic areas and within the European Innovation Ecosystem.
- The potential of partnerships needs to be exploited for strategic **linking of different programme components** and to define intersections with the ECF. Joint undertakings should serve as a tool for integrating FP10 and ECF – the aim being to strengthen innovation-driven competitiveness in industry.

## Pillar I: Excellence and thematic openness as the basis

We welcome the continuation of the European Research Council and the Marie Skłodowska-Curie Actions as key components of the open-topic, excellence-based research funding with international reach. They support top-tier research in Europe, improve mobility and career development, and strengthen Europe as an outstanding place for research and innovation.

### European Research Council (ERC)

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- The scientific **autonomy** of the European Research Council (ERC) is key to its success. This autonomy must be retained in the forthcoming programme and must not be weakened in any way.
- The strength and continuity of the **Presidency** contribute to the autonomy, acceptance and visibility of the ERC. We reject the proposed reduction in the presidency's term.
- In the future, the **outcomes of bottom-up ERC funding** must be made more visible and accessible so they can be addressed or supported even more specifically and effectively in other components of the FP10 and ECF programmes.
- Against this backdrop, we support the proposed **information and analysis obligations** for the ERC. This enables us to build on previously established analysis work. But the autonomy of the ERC Scientific Council must not be undermined as a result.

### Marie Skłodowska-Curie Actions (MSCA)

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- The success of the Marie Skłodowska-Curie Actions (MSCA) rests on the fact that researchers can **freely choose their research topics** without restrictions. This openness is a guarantee for excellence and creativity.
- This also sends an important message to the global science community that top researchers from all disciplines are equally welcome to conduct their excellent research projects here in Europe. And with that message, we strengthen **Europe's standing as a research hub** for the longer term and across all disciplines.
- This is why we are committed to maintaining bottom-up MSCA funding and **oppose the introduction of directional (top-down) approaches** in which research topics are prescribed.

### Joint Research Centre (JRC)

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- As an independent scientific service, the Joint Research Centre (JRC) makes a **key contribution to fact-based and scientific policy advice** for the Commission and the Member States.
- We support the integration of the JRC into **Pillar I** of FP10.
- To harness the full potential of the JRC, **involvement of JRC expertise** should continue to be made possible beyond the boundaries of pillars and programmes.

## Pillar II: Cooperative, transnational research forms the core

Collaborative research forms the **core of EU funding for research and innovation** now and will continue to do so in the future. The unique **European added value** comes from bringing together expertise, opportunities, ideas and minds that are available throughout Europe and beyond.

To generate this added value throughout the entire innovation cycle, it is important that collaborative research covers the **bandwidth of Technology Readiness Levels (TRL)** up to and including TRL 8. Research projects in basic research are also crucial in ensuring the competitiveness of Europe in the short and longer term. But at the same time, there is a need to strengthen the mid-TRL levels, which form a link in the innovation chain between basic research and the further development of already advanced innovations up to market maturity.

When deciding thematic areas, it must be ensured that **R&I is not hindered by excessive prescription of topics** and that **new research approaches and their transfer** continue to remain possible to the extent they meet relevant standards. Horizontal research fields that span individual thematic areas should also be given appropriate consideration. At the same time, it is important to avoid a situation where high levels of oversubscription lead to disproportionate use of resources and frustration.

### Collaborative research in the areas of ‘competitiveness’ and ‘society’

- We see the close link between collaborative research in the Framework Programme and the new ECF as an opportunity to **focus EU funding activities on a pan-European strategy across major thematic areas**. In the thematic focus of the policy windows, we see **both convergence and complementarity with the priorities of the High-Tech Agenda Germany**. The Federal Government is contributing to the design of the policy windows in the course of the ECF negotiations.
- Alongside improved coordination with the Member States, we see tremendous potential to **make investment in and funding of strategic priorities more effective Europe-wide**. What must be remembered here is that the Member States must be closely involved in setting priorities, in drafting work programmes within the policy windows and in programme implementation. This is lacking in the Commission proposal.
- Funding from the EU budget in the area of competitiveness must concentrate on supporting truly strategic key technologies and activities. This calls for clear prioritisation regarding the areas deemed most effective in contributing towards the Union’s competitiveness, security, resilience, strategic autonomy and transition to a long-term, sustainable model for prosperity. How this can be achieved across the full TRL bandwidth must be worked out in more detail.
- When it comes to the individual policy windows, the R&I needs and research priorities under Pillar II are to be determined by R&I expertise in, at minimum, stand-alone sub-configurations of the thematic ECF programme committees. The **overarching lines** should not, however, be determined at work programme level. For research and innovation stakeholders, it is important at the start of the programme to know its content and the instruments it contains, also to enable coordination between activities at national and European level. In addition, close **coordination within and between the policy windows** is needed so that synergies can be considered in a systematic and coherent way.
- We welcome the fact that, in addition to the ECF topics, the area of ‘society’ is included in FP10 funding, thereby making it possible to leverage the contribution of society-related research in addressing global challenges.

An overview of our current research policy vision regarding topics and content for the proposed policy windows for ‘competitiveness’ under Pillar II of FP10 and for ‘society’ is provided in the Annex.

## EU missions (up to 2030)

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- When **continuing the existing five EU missions** ('Adaptation to Climate Change, Cancer, Climate-Neutral and Smart Cities, Restore our Oceans and Waters, and A Soil Deal for Europe'), the objectives must continue to be ambitiously pursued and evaluated, with successes and results made even more visible and available for use.
- Given the overarching nature of the missions, which go far beyond R&I, **closer links to other funding programmes** must be facilitated or established. To create synergies, both public and private funding programmes should be involved. The funds allocated under Horizon Europe should be used exclusively for research and innovation activities only.

## New European Bauhaus

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- We welcome the autonomous and visible implementation of the New European Bauhaus Facility (NEB) with its two clearly separate components: the **research and innovation component**, and the implementation component. The systematic integration of culture, architecture, urban planning and design with technological solutions and their participative implementation constitute a new approach which must be evaluated for future funding instruments.
- To ensure this approach is successful, **funding of the implementation component must be provided solely from other EU programmes** outside Horizon Europe and from national programmes.

## Pillar III: Accelerating transfer, driving innovation

We are committed to enabling powerful, transparent, future-focused and strategically oriented innovation funding at EU level. The instruments contained in Pillar III should serve to support the ‘innovation journeys’ within and beyond Horizon Europe.

### European Innovation Council (EIC)

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- To ensure a sustainable innovation pipeline for the longer term, all EIC instruments must be given adequate consideration. Suitable measures must be taken to avoid oversubscription that leads to **success rates** of under ten percent of applicants in the EIC Pathfinder.
- We welcome the EIC’s **open-topic calls for proposals**. These are essential in securing a world-leading portfolio of disruptive innovations. A healthy balance must be found with the equally valuable thematic calls from the ECF policy windows.
- Opening the EIC Transition activities for research results from national and regional funding programmes by introducing the **plug-in** scheme is an important step in leveraging existing synergies with national innovation ecosystems. Greater incentives must be created for both Member States and applicants to ensure that the plug-in scheme is more widely used than it has been in past research framework programmes.
- We welcome the development of an **ARPA-like** instrument under the auspices of the EIC. Any expansion beyond the pilot phase should be based on the results of a detailed evaluation.
- We recommend designing the provisions of the **EIC Fund** in such a way that, primarily research and innovation-driven, disruptive and high-risk start-ups that would otherwise have no chance of entering the market receive support in early development phases. Relevant standards must continue to be met.
- Coherence and synergies must be ensured between the **ECF** and, in particular, the **ECF InvestEU instrument**, the **EIC** and national funding instruments. Unnecessary duplication of structures between the **EIC Fund** and the **ECF InvestEU instrument** must be avoided.
- We support the opening of the EIC for high-tech start-ups from the **dual-use sector**.
- Pure **defence research** should primarily be funded via the main programme for defence research under the ECF. Use of the EIC instruments can be permitted in well-founded exceptional cases. When using the EIC instruments, due to the heightened security requirements regarding assessment and participation, it must also be guaranteed that implementation occurs in a closed environment. Other parts of the programme should not be restricted in their openness.
- We welcome the funding of more mature **start-ups and scale-ups** via appropriate instruments under the ECF.
- We demand that **returns from successful exits** be reinvested in the Fund’s capital to ensure long-term sustainability of the EIC Fund.

### Innovation ecosystems

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- With a view to its function as a policy instrument, the programme should support the strengthening and **interconnection of innovation ecosystems**.
- We welcome the continuation and further development of **support for innovation ecosystems** and the planned **integration of the knowledge triangle**.
- These should build on the experience and activities of the European Innovation and Technology Institute (**EIT**) and successful knowledge and innovation communities (**KICs**).

- The **independence of the EIT has not proved successful**. It has made it difficult to embed content and operations within Horizon Europe and to establish efficient and effective points of intersection with other innovation and cooperation instruments. In particular, the independent selection of topics in establishing KICs is inconsistent with a coherent programme-wide selection of thematic priorities.
- **Successful activities must be further developed** so that rather than being limited to KICs, they are able to achieve the greatest impact for all suitable programme areas and stakeholders. Particular attention should be paid to interfaces **with the European Innovation Council (EIC) and the European Partnerships**.
- Attractive innovation ecosystems will thus be funded via complementary programmes and networks such as **Eureka**. These should **continue to receive support**. They make a vital contribution to global collaboration and can provide valuable and targeted support, especially in the form of thematic calls. Coordination of thematic calls with lower TRL R&I funding in partnerships offers a promising approach to providing support at mid-TRL level.
- **Funding for innovative SMEs** should continue to be provided, especially in these times of change. The programmes offered under the **Partnership on Innovative SMEs** make a key contribution to promoting competitiveness. This work should be continued and expanded in the direction of SME funding along the entire innovation journey.

## Pillar IV: Embedding ERA development as a key objective

The right framework is needed in order to ensure that R&I makes the maximum contribution to enhancing European competitiveness. We welcome the proposal to add a fourth pillar to the European Research Area (ERA). Under that pillar, measures will be consolidated to cover implementation of the EU Pact for Research and Innovation, funding for jointly used research and technology infrastructures, and support for the integration of less powerful research and innovation systems. It thus has the potential not only to improve the coherence of the European Research Area and the effectiveness of joint investments, but also to strengthen the EU as a leading R&I location and thereby contribute to European excellence and competitiveness on the international stage.

### Reforming and strengthening the ERA: Aligning research policy collaboration with common policy objectives

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- The new Pillar IV **highlights the strategic importance of the ERA**. It takes account of the objective of the EU Treaties under which, as an area of free movement of knowledge, technologies and researchers, the ERA is a priority funding objective of the EU Framework Programme for Research and Innovation.
- We welcome the continued linkage of this part of the programme with the EU Pact for Research and Innovation, and the ERA Policy Agenda instruments it contains. This provides the opportunity for efficiency gains, enhanced **coherence** and greater focus on current policy priorities which are jointly decided by the Commission and the Member States.

### Research and technology infrastructure

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- The integration of **research infrastructure (RI) and technology infrastructure (TI)** under the fourth pillar highlights their role as the backbone of the European Research Area. We support the objective of thinking about RI and TI strategically as one, linking them more closely and aligning them in terms of their requirements.
- TI needs a **clear governance framework with close industry connections**, one that builds on existing structures, develops them further as needed and involves the Member States in an efficient and effective way with the aim of securing European added value.
- FP10 measures should focus on **simplifying access to large equipment for all relevant stakeholders** – especially TI access for SMEs, start-ups and scale-ups – as well as creating networks and promoting coordination between infrastructures.
- **Construction and operation of the infrastructure landscape** remain, by way of contrast, the responsibility of the Member States and are not to be funded under FP10, also in order to maintain long-term financial latitude.
- **We reject the proposal of funding up to 20 percent of the construction costs for world-class facilities from FP10**. This also applies to investing the cited EU investments for possible ‘moonshots’ (see above) in a potential Future Circular Collider (FCC) at CERN. This should also be considered for reasons of financial clarity and transparent governance.
- We support the creation and expansion of **data spaces**, for example by cleverly linking regional, national and European R&I policies and data spaces to achieve the best possible synergies.

- Appropriate measures must be taken under FP10 to enable the further **expansion of the data infrastructure** needed to strengthen data sovereignty.

## European Cooperation in Science and Technology (COST)

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- European Cooperation in Science and Technology (COST) is an essential component and a key instrument for use in strengthening the European Research Area and is not limited to serving widening objectives. With its focus on connecting researchers, COST makes a significant contribution to the basic idea of the ERA.
- We thus believe it is important that COST be positioned as a stand-alone programme component within the ERA pillar.

## Widening participation and spreading excellence

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- We support the **retention of the widening programme area in a new format** as long as it remains **self-contained and separate from the rest of the programme**. This enables the respective measures to be designed in a targeted and precise way without affecting the funding criteria in other programme components.
- ‘Widening country’ must not be an indefinite status. We thus support the **introduction of transition regions** as an important step on the way to establishing a smaller recipient group. This allows resources to be focused on supporting the regions with the greatest need for reform.
- We see **linking access to funding with national investments** in R&I as an important step towards fairness and autonomy. The three percent target for investment in R&I should continue to serve as a guide.
- We firmly reject **geographic criteria** in other areas of the Framework Programme as it would damage the programme’s reputation and be detrimental to the selection of the best project ideas.

## ANNEX

**From the current research policy perspective, the following topics and content should be addressed in European collaborative research projects under Pillar II of Horizon Europe 2028–2034 (FP10). The Federal Government’s position concerning the European Competitiveness Fund (ECF) is outlined below solely in relation to its links with areas of relevance for FP10 and is otherwise unaffected.**

The Federal Government welcomes the fact that the ECF and the area of ‘competitiveness’ under FP10 Pillar II focus on strategically important areas for European competitiveness. In conjunction with the ‘society’ area under Pillar II, the ECF’s four policy windows – (1) Clean Transition and Industrial Decarbonisation, (2) Health, Biotech, Agriculture and Bioeconomy, (3) Digital Leadership, and (4) Resilience and Security, Defence Industry and Space – provide a good basis for the substantive implementation of thematic collaborative research in FP10.

We also welcome the proposed flexibility. We believe it unwise to restrict the ECF, in advance and exclusively, to strategic key technologies and activities that we can identify today, because new challenges and technologies could well emerge in the period up to 2034. By the same token, an adequate degree of planning security must be ensured for areas already selected.

Bearing this in mind, the actual topics and priorities could be selected throughout the duration of the implementation cycle. For ‘competitiveness’ under FP10 Pillar II, this occurs as part of joint programming in the ECF work programmes for the respective policy windows.

The following sets out our current research policy vision on topics and content for the proposed policy windows for ‘competitiveness’ and ‘society’ under Pillar II. The Federal Government recognises that a detailed listing of all relevant topics and content in the ECF would be too granular for the regulation text itself and thus supports the European Commission’s view that relevant topics and content are also eligible for funding even when they are only implicitly included in the ECF text. The Federal Government also supports the European Commission’s centre of gravity approach, assigning each funding area to a primary policy window, but not excluding funding

from other policy windows when there are overlaps. As a result, horizontal research fields that span various subject areas should also be given appropriate consideration. Consolidating the various ECF policy windows and linkage with FP10 offers significant opportunities for the creation of synergies.

### Clean transition and industrial decarbonisation

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- These topics are of **high societal relevance** and a key to a future-proof, competitive Europe. Research and Innovation (R&I) on ‘clean transition and industrial decarbonisation’ should strengthen the technological sovereignty of Europe. New, innovative technologies form the basis for a climate neutral and resource efficient post-fossil economy. They represent a tremendous opportunity for a future-focused, competitive European economy.
- For the Federal Government, it is essential that in the areas of clean transformation and particularly energy, funds are spent in a targeted, efficient and effective way on key activities that are vital to the competitiveness, clean transformation and decarbonisation of the EU. Clear prioritisation is needed.
- In the field of **energy research**, core priorities lie in achieving a resilient and efficient energy system, a climate neutral heating and cooling supply, an efficient energy transition, building a sustainable hydrogen sector and practical readiness of the associated technologies.
- Support is to be provided for innovation leaps in solar, wind and heat storage technologies, clean-tech technologies and future fields such as fusion research, geothermal energy and carbon capture and storage.

- At European level, it is thus important to continue to cover innovation and technological development via the European Energy and Technology Plan (**SET Plan**), by coordinating joint research agendas on climate neutral energy technologies between Member States, drawing up technology road maps and standardising research priorities.
- Critical and strategic raw materials and **other materials, including advanced materials**, are to be promoted because they serve as drivers of other key technologies. They play a central role in both resource efficiency and the circular economy, have cross-sectoral relevance in areas such as **hydrogen, battery and other storage technologies**, and **carbon capture and storage technologies**.
- Innovative, digital, flexible and energy-efficient technologies are to be developed for the **establishment of new EU-wide value creation networks** to strengthen European production capacities. In ensuring Europe's ability to develop, validate and make these technologies economically viable, highly accurate measurement processes and a high-performance, efficient quality infrastructure are fundamental.
- For the **decarbonisation of the transport sector** and the establishment of a high-performance transport system so essential to the economy, advance mobility technologies for all modes of transportation are to be developed, with a particular focus on alternative means of propulsion and sustainable fuels. Innovations for smart, resilient and autonomous mobility are to be promoted systematically Europe-wide.
- There is a need for systemic approaches that link social change, innovation, competitiveness and the transition to a long-term, sustainable model for prosperity. This makes **collaboration with the 'society' programme component** important, including the relevant partnerships and missions. In terms of content and programme design, the link should be established by way of interdisciplinary and transdisciplinary research on the conditions needed in shaping transformation, with particular focus placed on values, participation and the potential for a just transition. This includes R&I on sustainable use of natural resources, the blue economy, implementation of the **European Water Resilience Strategy** and the **European Ocean Pact** to conserve terrestrial and marine biodiversity, climate change mitigation and adaptation (also taking in social aspects), and support for international and European climate, marine, agriculture, energy, biodiversity and environment policy. Also included are the development, validation and standardisation of suitable testing, measurement and evaluation methods to ensure, with legal certainty, the characterisation, safe and sustainable production, use and disposal of advanced materials.
- Major challenges in green and digital transformation – such as climate and ocean modelling, ocean observation, energy systems, mobility, cyber security, clean industry and biodiversity conservation – must be addressed in close **association with digital leadership**. Digitalisation and automation of production and material research and development foster the design, manufacture and processing of sustainable, recyclable products and the creation of digital product passports, and are therefore closely associated with this policy window.
- In addition, a **link must be ensured with the 'health, biotech, agriculture and bioeconomy' policy window**, which also includes these branches of industry in transformation because they make key contributions to the objectives of the first policy windows.
- A link with the **'resilience and security, defence industry and space' policy window** is also needed. While material research is crucial for the substitution of critical raw materials and the development of innovative materials, and also strengthens both the strategic autonomy and innovative power of the EU, a competitive and sustainable European battery value chain is of great importance in terms of mobility, energy supply, industry and security.

## Health, biotech, agriculture and bioeconomy

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- This policy window encompasses a **highly relevant thematic field**. For the Federal Government, it is essential that in the areas of health, biotech, agriculture and bioeconomy, funding is spent on genuine key technologies in a targeted, efficient and effective way. Clear prioritisation is needed.
- In addition to the core priority of competitiveness, **ethical, social and legal aspects** should also be considered.
- For the Federal Government, it is important that ECF interventions in the areas of agriculture, fisheries and aquaculture, forestry, rural regions and coastal areas complement activities under Heading 1 of the future Multiannual Financial Framework, and particularly the Common Agricultural Policy. The role of the ECF and the competitiveness component of FP10 should clearly focus on innovation and technology development and upscaling.
- In terms of content, greater consideration should be given to research and innovation aspects in the thematic field of health. In addition to the highly relevant topics of prevention and health promotion, the topics of diagnostics and treatment (and especially clinical studies) should also be stated as being of equal importance.
- We support the greater use of data and digital approaches in the healthcare system and for R&I, which is why their benefits for R&I and their innovation potential should be equally addressed. For the increasing use of AI systems, especially in medical diagnostics, there is a need to develop reliable methods for evaluating both data quality and AI algorithms.
- The **level of detail** in the proposed ECF Regulation is very **varied**. We believe that it is not helpful to highlight individual disease areas when other large areas (such as personalised medicine, rare diseases and epidemiology) go unmentioned at the same time.
- The role of **biotechnologies as key technologies** is viewed positively, including in relation to start-ups, as are the promotion of development, production capacity, production and industrial use of health and bioeconomy technologies, and the strengthening of international collaboration and networking.
- We see opportunities in disruptive approaches in **industrial biotechnology**, including at the interfaces with artificial intelligence and engineering science, as well as in technologies and innovative practices for **sustainable land use** that overcome conflicts of interest between agriculture and the food industry versus climate change mitigation and biodiversity conservation while also securing environmental benefits.

There is a need for all-encompassing systematic approaches that consider social change, innovation, competitiveness and the transition to a long-term, sustainable model for prosperity that takes in the three dimensions of sustainability – environmental, economic and social. **Collaboration with the ‘social’ programme component** is therefore important.

## Digital leadership

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- We welcome the prominence given to digital technologies in a dedicated policy window. The **development of new technologies and strengthening of key technologies** must be placed at the forefront, including microchips and microelectronics, artificial intelligence, robotics, quantum technologies, cyber security, 6G and Next Generation Internet, photonics and high-performance computing (HPC).
- For the Federal Government, it is also essential that in the digital sector funds are spent in a targeted, efficient and effective way on genuine key technologies that are vital to the EU's competitiveness, global agency and digital sovereignty. Clear prioritisation is needed.
- In the future, Europe's competitiveness and technological sovereignty will largely rely on the **mastery and commercial exploitability** of these digital key technologies. Important aspects in all of this are a **coherent intellectual property (IP) and standardisation strategy** to secure key European positions in the global value chain as well as the **recruitment of skilled workers**.
- The **establishment of European production capacities and new EU-wide value creation networks** is essential for rapid scaling of research results and the provision of market-ready systems. **Strengthening supply chain resilience and digitalisation of quality infrastructure** are of central importance.
- As prerequisites for internationally connected societies, **security and resilience** call for close European collaboration in cyber security research, including quantum cryptography and disinformation countermeasures, as well as trustworthy future communications technologies like 6G and their standardisation in line with European values.

- Cyber security should be enshrined not only as a cross-cutting topic, but also as an important focus area in its own right. Activities should build on existing structures, and the topic should continue to be managed by the European Cybersecurity Competence Centre (ECCC).
- The digital key technologies are characterised by their **synergistic relationships**, both among themselves and with research in the other policy windows. The aim of the activities under 'digital leadership' must be to produce a **strategically driven and coordinated portfolio of measures**.

## Resilience and security, defence industry and space

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- It is to be welcomed that the **topics so important to European sovereignty and the operational effectiveness of our state structures** are given high priority in a dedicated policy window.
- The **four areas of the window complement each other well** in that they are all central to the topic of European sovereignty. And with security and defence, two areas are brought together whose interaction in terms of overall defence is indispensable and which are both strongly reliant on space infrastructure. The potential synergies between these areas are a positive aspect of the proposed ECF structure.
- The **'digital leadership' policy window** contains a **close link with cyber security**. Security and defence are inconceivable without it.

## Security

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- Security-focused research and innovation projects provide an important building block on which to respond to new threat situations, secure technological sovereignty and strengthen resilience in societies across Europe.
- **Civil security research has been realigned in FP10 in view of the current geopolitical challenges.** Consideration of hybrid threats, critical infrastructures and civil preparedness in dealing with threats from any source are important enhancements.
- Security also takes in **research on and development of concepts for civil protection** by strengthening resilience and self-defence skills, especially for crisis situations.
- Security research should continue to make its essential contribution to **disaster management (notably prevention and risk minimisation) and disaster preparedness.** This supplements the efforts of civil security research to enable people to go about their daily lives safely, free from crime and terrorism.
- The **link with the ECF** creates important conditions for the strategic promotion of security-related research. It provides an opportunity to link R&I with the expansion of industrial capacities. Good links with other programmes are also important as they aid public procurement for security authorities via the Home Fund (ISF, BMVI, AMIF) and the UCPM.
- Through integration into the policy window, the participation of **users (e.g. security authorities)** in civil security research gains in importance. Because users are both **innovation drivers and market shapers**, they should be involved in programme design.

## Critical raw materials/resilience

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- **New approaches in production and extraction research and suitable material innovations** can help make the use of critical raw materials more efficient, create circular value chains and reduce demand for critical raw materials by supplying alternative materials. **Recycling and circular economy approaches** are key in all of this; value chains must be designed for returns at an early stage and approaches tested in suitable environments. A link must be secured between research on critical raw materials and the objectives of the Critical Raw Materials Act.
- Innovative, organic-based, recyclable plastics and **substitution solutions for critical raw materials** are needed to reduce dependence on fossil fuels and individual supplier countries.

## Space research

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Space research and satellite missions supply essential data that is needed for Earth observation, climate research and disaster management and is indispensable to scientific knowledge acquisition and policy decisions and measures.

## Global societal challenges

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- The topics named in the dedicated programme enable research in central areas such as ‘democracy and management’ and ‘social transformation’ and open new research fields to aid anticipation of future topics of relevance for societies in Europe.
- In addition to the topics already mentioned in the Commission proposal, **culture-related research** must continue to be considered and be enshrined as a legally binding provision in the FP10 legal texts. Intangible aspects such as cultural identity, diversity and management of cultural heritage are key in developing societal guidance and solutions to global challenges and should thus be named as research topics.
- In addition, the thematic breadth of the ‘society’ topic should be clearly stated in the FP10 legal texts. The current **very general title of ‘global societal challenges’** should be made more specific to provide transparency regarding the funding scope. To achieve effective participation by the Member States and links to national research funding, it is important that highly diverse topics of the ‘society’ component be addressed in separate programme committee configurations.
- **Other, so far inadequately addressed topics** include the reduction of systemic social inequalities, promotion of responsible consumption and changing consumer behaviour. Research on the impacts of technological developments on the population, global governance, sustainable development, conflict prevention and securing peace, the achievement of environmental justice with the help of the justice system and the arrangement of global partnerships to achieve the Sustainable Development Goals (SDGs) are also not adequately considered. The close link between ‘society’ and the policy windows must be secured.
- Should further research topics be added when defining the thematic scope of the ‘social’ funding component, a link must be ensured in all cases to culture and society-related research.



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