



Federal Ministry
of Education
and Research

Innovation support in FP10

key aspects of a (new) systematic approach

This paper supplements the “German discussion paper in preparation for the 10th EU Framework Programme for Research and Innovation” of the Federal Government, which was published and submitted to the European Commission by the Federal Ministry of Education and Research (BMBF) in May 2024. It is thus part of a series of papers by the BMBF that more closely address individual aspects of Germany’s provisional position on the next EU Framework Programme for Research and Innovation.

The aim of the **Focus Paper on Innovation Support in FP10** is to provide initial impetus for R&I-based innovation support at an early stage of the development of the next EU Framework Programme for Research and Innovation. It constitutes the basis for the further participatory process with German stakeholders to develop the German position regarding FP10.

Background

Innovations are the prerequisite for economic development and societal progress. Special innovation support instruments from the EU Framework Programmes for Research and Innovation that encourage the application of R&I results or higher TRLs are used in addition to equity funding to address the European paradox¹ in order to systematically translate scientific progress into marketable innovations.

In particular low private-sector R&I investments are a major challenge for the EU as regards the structural strengthening of innovation ecosystems. In order to improve leverage for supporting private investment, the EU’s financial resources should be focused on jointly agreed strategic projects and goals with the highest added value for the EU.² The EU’s technological sovereignty and strategic autonomy vis-à-vis its global competitors are the main political objectives in this context. FP10 can and should contribute to enabling the EU to attract global talent and innovators.

Since 2014, when Horizon 2020 was established, its Pillar III “Innovative Europe” has been a special programme section dealing mainly with innovation support. The current EU Framework Programme for Research and Innovation, Horizon Europe (2021–2027), has earmarked roughly 10 % of the available funds – approximately €10 billion – for this purpose. Starting out from innovation funding under Horizon Europe with its focus on the European Innovation Council (EIC), this paper targets the ‘smart’ development of innovation support in FP10 which also takes account of the proposals and recommendations of the available expert reports, particularly the Letta, Draghi and Heitor reports.³ Consideration is given exclusively to proposals referring to the essentials of research and innovation funding. Recommendations which go beyond the area that is expected to be covered by FP10 and which target general innovation policy conditions are not taken into account.⁴

1 Europe fails to sufficiently translate scientific findings into marketable innovations.

2 For example, the Draghi report states that support for digital technologies has resulted in high private investment rates in the US while private investments in the EU are still highest in the mid-tech sector.

3 Annex 1 provides an overview of the major innovation-related proposals of the three above-mentioned expert reports.

4 The view taken by all the expert reports that innovation policy must deal with both funding measures and aspects of overall conditions in order to be efficient and effective is explicitly supported in this context.

This Focus Paper is based on the following considerations:

- FP10 should cover the entire innovation chain and include both open-topic and thematic funding. FP10 should be equipped with a broad toolbox ranging from individual funding and major collaborations in Joint Undertakings to missions and equity capital. As a funding instrument as well as a political instrument, it should contribute to strengthening competitiveness and the European Research Area (ERA) while promoting the creation and European networking of innovation ecosystems⁵.
- Innovation support in FP10 should primarily focus on research-driven, more disruptive innovations, particularly in the deep-tech sector – incremental innovation can and should be addressed with funding from other EU programmes, e.g. InvestEU. With regard to its function as a political instrument, FP10 should also support efforts to strengthen and interlink innovation ecosystems.
- Unlike other parts of the EU Framework Programme for Research and Innovation, innovation support under FP10 involves both a medium-term perspective – i.e. a measurable contribution to competitiveness within 3–5 years (new products and processes on the market) – and a long-term perspective: In the long term, the aim must be to use R&I to fill the innovation pipeline for the markets in 10 or 15 years' time. In this process, innovation funding contributes to derisking private investment and to better directing R&I investments.
- With a view to strengthening the European innovation ecosystem, FP10 should also support general conditions that encourage the participating stakeholders to take risks and develop an entrepreneurial spirit.

The Federal Government's discussion paper concerning FP10 of 23 May 2024 already included key statements on Germany's position regarding innovation support in FP10.

1. In order to become faster at translating research results into products and services or changed practices, FP10 needs to continue to improve the interfaces for exploiting R&I. FP10 needs a new **strategic transfer approach** which aims to strengthen the European innovation ecosystem as a whole. This approach must already apply in research projects (e.g. through the use of transdisciplinary methods) and, in addition to the exploitation activities of the funded projects, it must include programme-wide structural initiatives as well as close links with regional and national transfer policies.
2. FP10 must support technological innovations as well as non-technological and social innovations while also addressing the social implications of these developments.
3. To this end, the potential of **instruments to translate research** into application is to be further explored, taking account of aspects related to human capital. Being open to and connected with various European and national programmes can significantly increase their impact with regard to the market realisation of innovations.

Equity capital from the European Innovation Council (EIC) should be further developed as a second pillar for financing high-risk projects and opened up to other innovation-focused areas of the Framework Programme. Efforts should be made to strengthen the links within the European innovation ecosystem and to utilise synergies, for example with the Eureka network.

⁵ **Innovation ecosystem** means a geographically limited cluster where various players build networks with the aim of jointly pushing innovation. There is a positive correlation between innovation clusters and **Open Innovation**. Integration within a network also extends reach, which has a favourable impact on the development of industrial technology and one's own level of knowledge. The innovative capacity of the different players is greatly increased through network-building and the exchange of knowledge.

Specific demands concerning innovation support

The ideas published in the Federal Government's discussion paper with regard to innovation support in FP10 are further specified in the following. Propositions and demands are presented for further discussion in the three areas 'Strategic transfer approach', 'Instruments to translate research into application' and 'Equity capital from the EIC'.

1. Strategic transfer approach

A new **strategic transfer approach** will serve to improve links between all R&I-based innovation measures at programme level in order to enable the optimum translation of research results into marketable products/ processes or other forms of knowledge valorisation. A major objective is to minimise the risks and costs of innovation processes for companies and society while enabling the broad use of knowledge for all forms of innovation. This requires optimum thematic, geographical and impact-related coordination between innovation measures from all areas of the Framework Programme. Thematically focused European innovation ecosystems and strategic partnerships can make a substantial contribution in this respect.

Propositions and demands:

- A strategic transfer approach is based on a holistic understanding of knowledge valorisation and thus not only covers technological innovations in terms of new products, processes and standards but also includes political and social innovations. A strategic approach also drives the rapid diffusion of innovation on a broad scale.
- FP10 must increasingly use strategic portfolios and bring together initiatives in major crossprogramme subject areas to ensure that pressing challenges are addressed comprehensively with well-coordinated funding approaches (see Focus Paper on Strategic Portfolio Management). **Innovation support must be closely integrated into this thematic priority management.** The strategic transfer approach needs a **thematic focus** which is applied as part of strategic portfolio management across the programme and which is based on societal and economic benefit and

pursues a clear public intervention logic that cannot be achieved with market mechanisms. Such focusing must occur side by side with open-topic calls, for example in the EIC, and target the deep-tech sector in particular. Consideration must be given to the mutually reinforcing impact of the funded projects.

- The place-based character of innovation support must be considered in the area of transfer in particular: National and European innovation measures that are flexible and linked more closely, such as currently the EIC Plug-In or Fast-Track, are of substantial benefit in strategic transfer.⁶ Their lean administration provides a clear added value for applicants and the implementing programmes.
- Strategic transfer requires special skills and competences as well as players with the necessary market knowledge and potential for exploitation. Existing supportive measures in the EIE sector should be reviewed and used in a more targeted way so that start-ups in particular can benefit from and use external innovations and knowledge in their innovation processes and for commercial purposes, thus providing for additional absorptive capacities.
- More **awareness raising on the opportunities for exploitation starting at a low technology readiness level**, as is current practice in EIC Pathfinder, would provide a sound basis for transfer. In this way, the economic potential of research results can be fully identified at an early stage.
- Other conceptual approaches to funding disruptive innovations, for example based on the ARPA model, can help strengthen the strategic transfer approach.
- In principle, we support the idea from the Heitor report of an "experimental unit" within the Commission to test new programmes and instruments in the short term. The decision-making processes for selecting the priorities for this must be transparent and the lessons learned must be put to good use for other FP10 programmes. One aim should be to minimise the administrative burden of innovation funding.

⁶ More specifically, the Seal of Excellence (SoE) approach could, for example, be somewhat more binding – meaning not only reserving national funds for SoE but also, as a 'reverse SoE', proposals from the member states becoming eligible for EU funding – e.g. in the EIC-Plug-In – without further review.

- Synergies and interfaces with
 - other European programmes (e.g. InvestEU, EU4Health)
 - European partnerships (Joint Undertakings)
 - international programmes (e.g. Eureka)
 - must be created and used in a more distinct way.

2. Instruments to translate research into application

Effectively linking different stages of research and innovation activities and translating research results and knowledge into technological and social innovations with an impact on society is a key objective for FP10 (to overcome the European paradox – excellent R&I but insufficient commercialisation of successful innovations). There often turn out to be gaps at the interfaces between research, development and innovation activities and it is difficult for players to overcome them on their own. Special operational **translation instruments** which systematically target this aspect should therefore be the key element of a strategic transfer approach of FP10. Translation instruments include not only the traditional transfer instruments and structures but also measures for the provision of venture or equity capital including scaling-up (see 3 below) as well as Open Science practices for easier access to knowledge.

Propositions and demands:

- Translation instruments serve the short-term identification and exploitation of specific application potential of R&I results. In future, better and above all quicker use of the potential of demand-side instruments such as pre-commercial procurement should be possible owing to major simplification.
- In accordance with the strategic transfer concept, translation instruments should also focus closely on the creation or strengthening of innovation ecosystems, in particular through the interlinkage of regional, national and European measures. The attractiveness of existing instruments such as the **EIC Plug-In or Fast-Track mechanisms** should be increased by means of an improved cost-benefit ratio for funding recipients and for programme administrators and member states.

- More effective translation instruments should also ensure closer links between innovation measures and the other parts of the Framework Programme. The **EIT** and its funding instruments should be redesigned and, more specifically, better integrated into the strategic transfer approach.
- Efficient and effective translation instruments require synergy with other public and private measures to enable new ideas to be taken up and used and to improve scalability.
- The planning and implementation of translation instruments need their own **intervention logic, governance and success-based management**. Whether and which EU structures would be suitable for this purpose can only be finally decided in the overall context. What is important is to recognise the special requirements, which clearly differ from those for direct research funding.

3. Equity capital from the European Innovation Council (EIC)

The investment component of the EIC Accelerator of Horizon Europe is provided by the EIC Fund in the form of equity and quasi-equity capital. Administration of the EIC Fund has been entrusted to an Alternative Investment Funds Manager (AIFM) and ownership has been transferred to the European Investment Bank (EIB).

Propositions and demands:

- FP10 should also have an investment component based on the EIC Accelerator of Horizon Europe even though it is not yet possible to assess its effectiveness due to numerous structural changes and the challenges of implementation in Horizon Europe.
- The intervention logic and positioning of the investment component (currently: EIC Fund in FP10) must be more clearly described, also with a view to ensuring that government action in the respective development phase is necessary and sufficiently justified so as to avoid market distortion and the crowding-out of private investments.

- The blended-finance approach combining grants and equity capital should be continued.
- An improved focus especially on R&I-driven, high-risk and disruptive innovation in start-ups is required to achieve an adequate success rate in funding. The current rate is more likely to act as a disincentive.
- The private-capital requirement should be reduced or even removed entirely, depending on the potential societal/economic benefit and risk level of the planned innovation.
- Complex and expensive due diligence processes should be organised and financed centrally via the EIC, provided there is a clear added value for the start-ups and potential private investors are not discouraged. The aim must be to do more to remove the barrier to a scaleup of R&I-driven, high-risk start-ups in Europe, particularly in the deep-tech sector.
- The investment component should be increasingly used as part of the strategic transfer approach while also identifying and using the potential of other parts of FP10 – e.g. ERC Proof of Concept, Innovation Measures of Pillar II, Partnerships, etc.
- The investment component should be more strongly linked with existing regional and national Public Venture Capital (PVC) structures, not least in order to contribute to the creation of a genuine EU innovation ecosystem and EU capital markets union.
- The investment component must be an integral part of an overall approach of various EU programmes whose aim is to strengthen future-oriented investment in the EU, not least in order to tap funding sources beyond the financial and legal possibilities of FP10, e.g. through the STEP Regulation, IPCEIs, InvestEU, the European Investment Bank (EIB), the European Investment Fund (EIF) or the Trusted Investor Network. At the same time, an investment component in FP10 must be clearly distinguishable from other investment programmes and it must fit in with the overall approach of FP10 in a clear and transparent manner in accordance with the requirements of Article 182 TFEU.
- Exit-generated financial returns guarantee the sustainability of the EIC Fund.

