



Ministry of Higher Education
and Science – Denmark

Early Danish position on the next EU framework programme for research and innovation

A strong EU framework programme for research and innovation is essential for the EU to maintain and strengthen its global position as a robust, competitive knowledge economy and tackle societal challenges throughout the next decades. Therefore, research and innovation is expected to be one of the **key priorities** in a modernised EU budget.

The framework programme should generate maximum impact, e.g. by setting a common, **strategic agenda** for European research and innovation investments that effectively underpins the EU's overall political objectives, and supports the implementation of the European Research Area.

The success of the EU framework programmes continues to depend on the **principle of excellence** for all research and innovation actions. Excellence is the basis for EU-funded research to be truly world-class and ground-breaking and thus successful in reaching Europe's overall, strategic objectives.

Excellent research and higher education are mutually supportive and mutually dependent. More should be done to strengthen the **coherence between research, innovation and higher education** to ensure the next generation of excellent researchers and innovators, and the effective circulation of knowledge.

Furthermore, it is crucial for the next framework programme to contribute to **boosting innovation in Europe** and to effectively address the European 'innovation challenge'. The circulation of knowledge is key in this regard – and innovation instruments should be lean, simple, user friendly and flexible.

The next framework programme should be **easy** to understand, easy to use and easy to administer. It must be **open** and **inclusive** in order to tackle the research and innovation divide and thereby complement efforts at national level.

With this position paper, Denmark would like to provide early, concrete input to the preparations of the next EU framework programme for research and innovation.

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1. A robust framework programme with high impact

A strong EU framework programme for research and innovation is essential for the EU to develop as a robust knowledge economy, tackle societal challenges, and remain a competitive leader in the world economy. Therefore, research and innovation is expected to be one of the key priorities in a modernised EU budget.

The strategic character of the next framework programme should be strengthened by a clear focus on underpinning the overall political objectives of the EU, including the possible successor to the Europe 2020-strategy, the sectorial policies, and the European Research Area (ERA) – as well as on the implementation of international agreements such as the Paris Agreement and the Sustainable Development Goals. This requires a stronger collaboration and coordination across different Commission DGs and EU executive agencies.

Tackling societal challenges should continue to be a cornerstone of the framework programmes – possibly via a more mission-oriented approach; Tangible missions that underpin the overall political objectives could enhance visibility and create a more strongly engaging narrative of the programme.

In general, green growth, better health and public healthcare, digitalisation and other new technologies, as well as developing inclusive societies with world-class education, should be strong elements in the next framework programme.

The framework programme should remain civilian in nature. Therefore, any future European Defence Research Programme (EDRP) should be separated from the framework programme for research and innovation – in light of the two programmes' different nature, purposes, scope, tasks, and stakeholders.

The expected impact of calls and topics should be clearly specified in work programmes, while embracing cross-disciplinarity, engagement of end-users as well as inclusion of aspects related to social sciences and humanities. At the same time, narrow and too prescriptive calls should be avoided.

2. Strong focus on excellence

In order for the framework programme to deliver on its overall, strategic objectives, excellence should continue to be the governing principle of the framework programme and one of the main criteria for evaluating all proposals. The principle of excellence should not be diluted by geographic concerns.

The excellence pillar and especially the European Research Council (ERC) and the Marie Skłodowska-Curie Actions (MSCA) schemes are of great value because of the 'bottom-up' approach, which gives researchers the freedom to identify new opportunities and pathways and provides the basis for new and unforeseen scientific and technological discoveries. MSCA's promotion of mobility is also key to realising ERA. Therefore, ERC and MSCA should continue to be key components of the next framework programme.

Synergies between ERC, MSCA and The European Cooperation in Science and Technology (COST) should be established by linking researchers participating in COST networks to especially young ERC grantees and MSCA mobility schemes



aimed at junior researchers in order to maintain and utilise scientific talent in Europe.

Fundamental research should, however, not only be enabled in programmes such as ERC, MSCA or Future and Emerging Technologies (FET), but also in strategic programmes such as the Societal Challenges.

Research infrastructures are pivotal for European research and innovation. The next framework programme should continue to fund access to advanced European research infrastructures.

Better synergies should be created between the European Strategy Forum on Research Infrastructures (ESFRI) and research infrastructures part of the next framework programme. This is done through sufficient tools that aid ESFRI projects through the entire process from preparation to implementation of the research infrastructure.

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3. Coherence between research, innovation and higher education

Integrating research and innovation into education is one of the most, if not *the* most powerful means of disseminating new ideas and knowledge that fuel research, innovation, productivity and competitiveness. Fostering robust links between research, innovation, and education is important for the quality of higher education and therefore for graduate employability. Knowledge exchange and transfer activities such as education, training and innovation activities for graduate and doctoral students can significantly raise the impact of publically funded R&D.

Synergies between the ERA priority “An open labour market for researchers” and the European Higher Education Area mobility tools should be realised.

Employability of researchers, mobility and knowledge exchange between academia and business should continue to be stimulated by MSCA.

It should be explored to what extent education and training activities targeting graduate or Ph.d. students - like developing modules to be integrated into curricula - could be funded as eligible costs in framework programme projects (whereas the education activity itself should not be funded).

As regards the successor of the Erasmus+ programme, it should be explored how the programme’s mobility activities within higher education (graduates, Ph.d. and staff mobility) as well as its curriculum development and teaching activities (knowledge alliance and the strategic partnerships) could be linked to research projects and/or the societal challenges or missions of the next framework programme.

The concept of the Knowledge and Innovation Communities (KICs) is of great value, especially in terms of fuelling the next generation of innovative minds and entrepreneurs. However, the concept needs to be reviewed, not least in light of the report from the European Court of Auditors. The administrative procedures related to KICs need to be simplified in order to provide a less resource demanding and more open access in the proposal phase. Furthermore, the administrative burdens in connection with running KICs should be reduced and the focus on results should



be enhanced. COST networks could possibly be connected to KICs to help realise the full European innovation potential, and KICs should be linked to the strategic programming in general. Finally, both KICs and the framework programme should have a stronger focus on all sides of the knowledge triangle, including on education.

4. Boosting innovation

The next framework programme should contribute to boosting innovation in Europe and to effectively addressing the European ‘innovation challenge’. The establishment of a European Innovation Council (EIC) could be a tool in this context. Lessons learnt from the EIC Preparatory Action should be taken into consideration. First and foremost, improving and promoting the circulation of knowledge, which is important to maximising the impact of research and innovation investments, should be a key aim.

SME targeted instruments should be based on the bottom-up principle, and the European value-added should be clear. With a view to increasing the impact of research and innovation investments, an optimal division of labour between national and EU innovation instruments should be found, synergies sought, and overlaps avoided.

EU innovation instruments should primarily be collaborative and foster knowledge circulation. However, single-beneficiaries should be supported if there is a clear EU added value, e.g. break-through innovation focusing on creating new European markets and involving European end-users, or dissemination activities at European level.

The framework programme should primarily be based on grants. When developing the framework programme, the whole European innovation landscape should be taken duly into consideration. It should be a priority to bridge the remaining ‘valley of death’, and create a favourable ecosystem for SME innovation and growth where access to both direct and indirect risk finance is provided.

Innovation instruments should be focused, lean, simple, user friendly and flexible. Overlaps between the different instruments should be avoided. It should be taken into account that SMEs are generally reluctant to engage in large projects that require a longer-term commitment. This could be addressed by shifting the balance towards projects in the 3-8 million Euros band rather than the very large 10 million Euros plus projects.

The scope and modalities of the innovation instruments should take into account the concept of ‘open innovation’ that calls for a close engagement with end-users at all relevant project stages.

5. A new model for public-public partnerships

Alignment between national and European strategies, instruments and programmes is vital in terms of maximising impact of EU and national investments. Public-public partnerships (P2Ps)¹ are key in terms of alignment, and should be prioritised in the next framework programme. P2Ps should be focused in terms of scope, and the total amount of P2Ps should be kept limited.

¹ Joint Programming Initiatives, ERA-NET Cofund, European Joint Programme Cofund, Article 185 Initiatives.



The next framework programme should introduce a new, cross-cutting model for P2Ps that is less resource-constraining and easy to administer, but flexible and adaptable in light of the level of ambition of partners and the scale and scope of the thematic area /societal challenge addressed. Action types in the area of P2Ps should be defined already in the legislation package.

The joint programming process should be clearly linked with the strategic programming process, in particular societal challenges – and synergies with other instruments and initiatives should be explored. European added value and impact targets should be identified and translated into activities with measurable and operational targets (key performance indicators) that are tangible and visible.

P2Ps should have a long-term perspective, but should have sunset clauses, and evaluations should be conducted with a view to discontinuing initiatives that are no longer fit for purpose. The objective of self-sustainability should be pursued.

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Procedures should be established for assessing impact across P2Ps, and dissemination of results stemming from P2P actions should be improved at both national and European level.

There should be one administrative, less complex and streamlined model. Common procedures for all P2Ps should be introduced to simplify implementation, e.g. common funding rules and reporting procedures, abiding by the general framework programme rules. And it should be explored whether administrative functions such as handling calls could be carried out by a central unit.

6. A focused and coherent programme architecture

The three-pillar architecture has proven successful and should be maintained. Coherence between the pillars should be enhanced with a focus on covering the whole knowledge chain. Instruments should be evaluated regularly with a view to discontinuing or adjusting instruments in light of new needs. Therefore, work programmes should be flexible, and have a maximum duration of 3 years.

The next framework programme should be focused, streamlined and coherent in terms of programmes and instruments. Content wise, no programmes or instruments should be ‘free-floating’ outside of the three pillars. Instruments such as KICs, P2Ps, etc. should underpin the overall societal challenges or missions of the framework programme.

Social Sciences and Humanities (SSH) play a vital role in tackling societal challenges as well as in developing and transforming new technologies into practical solutions for the benefit of citizens, thereby forming the basis for high impact. Integration of SSH aspects in the project design is an integral part of the excellence of a project. A substantial effort must be made to integrate SSH across programmes, while maintaining SSH as a priority in its own right.

The framework programme should continue to support key enabling technologies, as they are vital to Europe’s competitiveness and ability to tackle societal challenges.



7. Flexibility and simplification

The next framework programme should take simplification to the next level. The successful Participant Portal should be further developed to become a true one-stop-shop for all the activities funded by the framework programme, including P2Ps and cascading grants. The portal should function as a one-stop-shop comprising all steps from application to final project reporting.

Evaluation criteria should be the same across the framework programme and no new general sub-criteria should be created. More criteria impinge on the freedom to devise the best possible solutions and consortia, and hence to maximise the impact of the projects.

The possibility of introducing a lump-sum-based funding model should be explored based on the implementation of the activities in the Description of the Action, not on the scientific results. While ensuring sound financial management, the system should be designed to maximise the academic and operational freedom of the researchers/beneficiaries, so that the approach does not favour ‘safe’ rather than ‘creative’ research and innovation activities.

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The technical control/review system should not become heavier than the financial control system it is replacing. This new management approach will require a flexible and fast contract management system to take account of necessary changes to the Grant Agreement.

For projects for which the lump sum model is not deemed feasible, certain technical aspects should be further improved compared to Horizon 2020. E.g. as a general rule, the next framework programme should allow the application of the beneficiaries’ usual accounting practices to the greatest extent possible. Procedures ensuring legal certainty are essential – and the reuse of data and automatic reporting can be other ways of achieving further simplification.

8. Promoting openness

The next framework programme should take further steps to promote the Open Science agenda. That includes the ongoing promotion of Open Access to publications as well as development according to the FAIR principles (Findable, Accessible, Interoperable and Re-usable) with respect to research data. Pilot initiatives to promote Open Science, including new reward systems, alternative metrics, and citizen science should be envisaged.

The framework programme should contribute to the realization of The European Open Science Cloud, which will offer European researchers and science and technology professionals a safe and viable solution with regard to storing, sharing and re-using research data across disciplines and borders.

The Joint Research Centre’s (JRC) newly established Knowledge Centres should be accessible for all Member States in order to fully exploit European research results, and it should be explored whether JRC could have a greater role in disseminating results of framework programmed funded projects, complementing JRC’s own research activities.



9. A more inclusive approach

In order for Europe to fully tap into the potential of the ERA, the next framework programme should be an open and inclusive programme, allowing for new approaches and participants.

In general, the translation of (European and national) investments into concrete research and innovation results with a high impact depends on well-functioning, effective national research systems. Therefore, Member States should have a constant focus on implementing necessary, national reforms.

To help tackle structural barriers of the research and innovation divide, the European Structural and Investment Funds (ESIF) should continue to stimulate research and innovation capacity, as determined by the competent working bodies. Further attention should be paid to exploiting synergies between ESIF and the framework programme. Possibilities for further streamlining the rules of various EU programmes under direct and shared implementation should be explored with a user perspective in mind.

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COST should to a greater extent contribute to addressing the notion of ‘closed clubs’ by establishing networks with the specific objective of preparing consortia for proposals to specific calls under the framework programme.

10. Enhanced international cooperation

International cooperation boosts the impact of investments in research and innovation, e.g. by enabling companies to participate and commit themselves in new value chains and tap into growing markets outside the EU. Steps need to be taken to reverse the decrease in international participation in projects under the framework programme.

In accordance with the overall strategic objectives and potential missions of the next framework programme, specific strategic areas should be identified in which European and international partners have a particular common interest, e.g. the implementation of international political agreements such as the UN Sustainable Development Goals and research in issues related to the EU Arctic Policy.

For these specific areas, joint calls should be launched, and common evaluation processes should be carried out in accordance with the standard procedures of the framework programme. Third countries should participate in the identification of evaluators.

Where relevant, reciprocity between the framework programme and third country programmes should be sought.

The possibilities for countries outside of Europe and its neighbourhood to become associated countries to the next framework programme should be explored.