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Subject: Horizon Europe package: Framework Programme for Research and Innovation 2021-2027
-Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing
Horizon Europe – the Framework Programme for Research and Innovation, laying down its rules for
participation and dissemination
a) Recitals
b) Annex IV (synergies)
- Partial general approach

Delegations will find attached the text of the partial general approach on the recitals and Annex IV (synergies) of the proposal for a Regulation of the European Parliament and the Council establishing Horizon Europe - the Framework Programme for Research and Innovation laying down its rules for participation and dissemination, as adopted by the Council (Competitiveness) at its meeting on 29 November 2019.

PROPOSAL FOR A REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL ESTABLISHING HORIZON EUROPE – THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION, LAYING DOWN ITS RULES FOR PARTICIPATION AND DISSEMINATION

RECITALS AND ANNEX IV (SYNERGIES)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,
Having regard to the Treaty on the Functioning of the European Union, and in particular Article 173(3) Article 182(1), Article 183, and the second paragraph of Article 188 thereof,
Having regard to the proposal from the European Commission,
After transmission of the draft legislative act to the national parliaments,
Having regard to the opinion of the European Economic and Social Committee¹,
Having regard to the opinion of the Committee of the Regions²,
Acting in accordance with the ordinary legislative procedure³,

¹ OJ C [...], [...], p. [...].

² OJ C [...], [...], p. [...].

³ Position of the European Parliament of ... [(not yet published in the Official Journal)] and decision of the Council of

Whereas:

- (1) It is the Union's objective to strengthen its scientific and technological bases by achieving a European research area in which researchers, scientific knowledge and technology circulate freely and encouraging it to become more competitive, including in its industry, while promoting all research and innovation activities to deliver on the Union's strategic priorities, which ultimately aim at promoting peace, the Union's values and the well-being of its peoples.
- (2) To deliver scientific, technological, economic, environmental and societal impact in pursuit of this general objective and maximise the Union's added value of its R&I investments, the Union should invest in excellent research and innovation through Horizon Europe - a Framework Programme for Research and Innovation 2021-2027 (the 'Programme') to support the creation, better diffusion and transfer of excellent knowledge and high-quality technologies in the Union, to attract talent at all levels and contribute to full engagement of the union's talent pool, to facilitate collaborative links and to strengthen the impact of research and innovation in developing, supporting and implementing Union policies, to support and strengthen the uptake and deployment of innovative and sustainable solutions in the Union's economy, notably in SMEs, and society, to address global challenges, including climate change and the Sustainable Development Goals, to create jobs and boost economic growth and promote industrial competitiveness and to boost attractiveness of the Union in the field of research and innovation (R&I). The Programme should foster all forms of innovation, including breakthrough innovation, foster market deployment of innovative solutions; and optimise the delivery of such investment for increased impact within a strengthened European Research Area.
- (2a) The Programme should contribute to increasing public and private investment in R&I in Member States, thereby helping to reach an overall investment of at least 3% of the Union's GDP in research and development. The achievement of the target will require Member States and the private sector to complement the Programme with their own and reinforced investment actions in research, development and innovation.⁴

⁴ Part of the common understanding with the EP.

- (3) To help realise Union policy objectives, activities supported under this Programme should, where relevant, take advantage of and inspire innovation-friendly regulation, in line with the innovation principle^{5,6}, to support the faster and more intensive transformation of the Union's substantial knowledge assets into innovation.
- (4) The general principles of Open Science, Open Innovation, Open to the World should be adhered to the implementation of the entire Programme, as widely as possible. These principles should ensure excellence and impact of the Union's investment in research and innovation.
- (5) Open science, including open access to scientific publications and research data, as well as optimal dissemination and exploitation of knowledge has the potential to increase the quality, impact and benefits of science and to accelerate the advancement of knowledge by making it more reliable, more efficient and accurate, better understandable by society and responsive to societal challenges. Provisions should be laid down to ensure that beneficiaries provide open access to peer-reviewed scientific publications. Likewise it should be ensured that beneficiaries provide open access to research data following the principle “as open as possible, as closed as necessary” and allowing exceptions for valid reasons relating to data protection rules and security interests as well as intellectual property rights, European Union global economic competitiveness and other legitimate interests. More emphasis should in particular be given to the responsible management of research data, which should comply with the FAIR principles of ‘Findability’, ‘Accessibility’, ‘Interoperability’ and ‘Reusability’, notably through the mainstreaming of Data Management Plans. Where appropriate, beneficiaries should make use of the possibilities offered by the European Open Science Cloud and adhere to further open science principles and practices.

⁵ Better Regulation, Research and Innovation toolbox, https://ec.europa.eu/info/sites/info/files/file_import/better-regulation-toolbox-21_en_0.pdf

⁶ Commission Communication of 15 May 2018 'A renewed European Agenda for Research and Innovation - Europe's chance to shape its future' (COM(2018)306).

- (6) The conception and design of the Programme should respond to the need for establishing a critical mass of supported activities, throughout the EU and through international cooperation, in line with the UN 2030 Agenda and its Sustainable Development Goals (SDGs). Programme implementation should reinforce the pursuit of these goals and the commitment of the EU and its Member States to implementing the 2030 Agenda and to achieving sustainable development in its three dimensions – economic, social and environmental – in a coherent and integrated manner.
- (7) Activities supported under the Programme should contribute towards the achievement of the Union's objectives and priorities, the monitoring and assessment of progress against those objectives and priorities and for the development of revised or new priorities.
- (7a) The Programme shall ensure transparency and accountability of public funding in research and innovation projects, thereby preserving the public interest.
- (7b) The Programme should support research and innovation activities in the field of social sciences and humanities (SSH). This entails advancing scientific knowledge in this domain, but also making use of insights and progress from SSH to increase the economic and societal impact of the programme. Under the Global Challenges and European Industrial Competitiveness, the social sciences and humanities will be fully integrated across all clusters. Beyond the promotion of SSH in projects, the integration of social sciences and humanities should also be supported through the inclusion, whenever appropriate, in expert committees and evaluation panels of independent experts from fields in the social sciences and humanities, and timely monitoring and reporting of social sciences and humanities in funded research actions. In particular the level of mainstreaming of SSH will be monitored across the Programme.

- (8) The Programme should maintain a balanced approach between research and innovation, as well as between bottom-up (investigator or innovator driven) and top-down (determined by strategically defined priorities) funding, according to the nature of the research and innovation communities that are engaged, the types and purpose of the activities carried out and the impacts that are sought. The mix of these factors should determine the choice of approach for the respective parts of the Programme, all of which contribute to all of the Programme's general and specific objectives.
- (8a) The Programme should support all stages of research and innovation especially within collaborative projects, also in missions and partnerships as appropriate. Fundamental research is an essential asset and an important condition for increasing the Union's ability to attract the best scientists in order to become a global hub of excellence. The balance between basic and applied research should be ensured. Coupled with innovation, this will support the Union's economic competitiveness, growth and jobs.
- (8b) Evidence shows that embracing diversity — in all senses — is key to doing good science, as science benefits from diversity. Diversity and inclusiveness contribute to excellence in collaborative research and innovation: collaboration across disciplines, sectors and throughout the European Research Area makes for better research and higher quality project proposals, can lead to higher rates of societal take-up, and can foster the benefits of innovation, thus advancing Europe.⁷
- (8c) A Fast Track to Research and Innovation procedure may be applied to allow a faster, bottom-up access to funds for small collaborative consortia covering actions from fundamental research to market application.
- (8d) In order to maximise the impact of Horizon Europe, particular consideration should be given to multidisciplinary, interdisciplinary and transdisciplinary approaches.
- (8e) In view of achieving the objectives of this Programme and whilst respecting the principle of excellence, the Programme should aim to strengthen, among others, collaborative links in Europe, thereby contributing to reducing the R&I divide.⁸

⁷ Agreed in PGA.

⁸ Part of the common understanding with the EP.

- (8f) Excellence Initiatives should aim to strengthen research and innovation excellence in the eligible countries, including for instance supporting training to improve R&I managerial skills, prizes, strengthening innovation ecosystems as well as the creation of R&I networks, including on the basis of research infrastructures financed by the EU. Applicants need to clearly show that projects are linked with national and/or regional R&I strategies to be able to apply for funding under the "Widening participation and sharing excellence" strand of the "Widening participation and strengthening the European Research Area" part of Horizon Europe.⁹
- (9) Research activities carried out under the pillar 'Excellent Science' should be determined according to the needs and opportunities of science and promote scientific excellence. The research agenda should be set in close liaison with the scientific community and include emphasis on attracting new R&I talents, early stage researchers, while strengthening the ERA, avoiding brain drain and promoting brain circulation.
- [(9a) The Programme should support the Union and its Member States to take into account the reality of very intense international competition for attracting best brains and skills.]
- (10) The pillar 'Global Challenges and European Industrial Competitiveness' should be established through clusters of research and innovation activities, in order to maximise integration across the respective thematic areas while securing high and sustainable levels of excellence and impact in relation to the resources that are expended. It will encourage cross-disciplinary, cross-sectoral, cross-policy and cross-border collaboration in pursuit of the Sustainable Development Goals by following the principles of the Agenda 2030, the Paris Agreement and the competitiveness of the Union's industries therein. The organisation of high-ambition, wide-scale initiatives in the form of research and innovation missions will enable the programme to achieve a transformative and systemic impact for society in support of the Sustainable Development Goals, also through international cooperation and science diplomacy.

⁹ Part of the common understanding with the EP.

- (11) Full and timely engagement of industry in the Programme, of all types from the individual entrepreneur and small and medium-sized enterprises to large scale enterprises, should constitute one of the main channels through which the Programme's objectives are to be realised, specifically towards the creation of sustainable jobs and growth. Such engagement by industry should see its participation in the actions supported at levels at least commensurate with those under the previous framework programme Horizon 2020 established by Regulation (EU) No 1291/2013 of the European Parliament and the Council¹⁰ ('Horizon 2020').
- (11a) The Programme's actions should provide important contributions to unlock the potential of Europe's strategic sectors, including Key Enabling Technologies reflecting the EU Industrial Policy Strategy objectives¹¹.
- (11b) Multi-stakeholders consultations, including civil society and industry, should contribute to the perspectives and priorities established through the strategic planning process. This should result in periodic Strategic R&I Plans adopted by means of implementing acts for preparing the content of work programmes.
- (11c) The work programme should take into account the outcome of specific previous projects and the state of science, technology and innovation at national, Union and international level and of relevant policy, market and societal developments, for a particular action to be funded.¹²

¹⁰ Regulation (EU) No 1291/2013 of the European Parliament and of the Council of 11 December 2013 establishing Horizon 2020 - the Framework Programme for Research and Innovation (2014-2020) and repealing Decision No 1982/2006/EC, (OJ L 347, 20.12.2013, p.104).

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¹² Part of the common understanding with the EP.

- (12) It is important to support the Union's industry to stay or become world leader in innovation, digitisation and climate neutrality, notably through investments in key enabling technologies that will underpin tomorrow's business. The Programme's actions should address market failures or sub-optimal investment situations, to boost investments in a proportionate and transparent manner, without duplicating or crowding out private financing and have a clear European added value and public return on investments. This will ensure consistency between the actions of the programme and EU State aid rules, avoiding undue distortions of competition in the internal market.
- (13) The Programme should support research and innovation in an integrated manner, respecting all relevant provisions of the World Trade Organisation. The concept of research, including experimental development should be used in accordance with the Frascati Manual developed by the OECD, whereas the concept of innovation should be used in accordance with the Oslo Manual developed by the OECD and Eurostat, following a broad approach that covers social innovation. The OECD definitions regarding Technological Readiness Level (TRL) should continue, as in the previous Framework Programme Horizon 2020, to be taken into account in the classification of technological research, product development and demonstration activities, and in the definition of types of action available in calls for proposals. Grants should not be awarded for actions where activities go above TRL 8. The work programme for a given call under the pillar 'Global Challenges and European Industrial Competitiveness' could allow grants for large-scale product validation and market replication.
- (13a) Without prejudice to the overall MFF negotiations, Horizon Europe will contribute to space objectives at a level of spending that is at least commensurate proportionally with that under the previous framework programme Horizon 2020 established by Regulation (EU) No 1291/2013 of the European Parliament and the Council.¹³

¹³ Agreed in PGA.

- (14) The Commission's Communication on the interim evaluation of Horizon 2020 (COM(2018) 2 final), the European Parliament's report on the assessment of the implementation of Horizon 2020 in view of its interim evaluation and the Framework Programme 9 proposal (2016/2147(INI)) and the Council Conclusions on "From Interim Evaluation of Horizon 2020 towards the ninth Framework Programme" have provided a set of recommendations for this Programme, including its Rules for participation and dissemination, building on the lessons learnt from the previous Programme as well as input from EU institutions and stakeholders. Those recommendations include to propose measures to promote brain circulation and facilitate openness of R&I networks to invest more ambitiously in order to reach critical mass and maximise impact; to support breakthrough innovation; to prioritise Union research and innovation (R&I) investments in areas of high added value, notably through mission-orientation, full, well-informed and timely citizen involvement and wide communication; to rationalise the Union funding landscape in order to fully use the R&I potential of the Union, including by streamlining the range of partnership initiatives and co-funding schemes; the development of more and concrete synergies between different Union funding instruments, notably by overcoming non-complementary intervention logics and complexity of the various funding and also with the aim of helping to mobilise under-exploited R&I potential across the Union; to strengthen international cooperation and reinforce openness to third countries' participation; and to continue simplification based on implementation experiences from Horizon 2020.
- (15) The Programme should seek synergies with other Union programmes, from their design and strategic planning, to project selection, management, communication, dissemination and exploitation of results, to monitoring, auditing and governance. Regarding funding for R&I activities, synergies should allow for harmonization of cost eligibility rules as much as possible. With a view to avoiding overlaps and duplication and increasing the leverage of Union funding, transfers from other Union programmes to Horizon Europe activities can take place. In such cases such funds will follow Horizon Europe rules.

- (16) In order to achieve the greatest possible impact of Union funding and the most effective contribution to the Union's policy objectives, the Union should, where appropriate, enter into European Partnerships with private and/or public sector partners. Such partners include industry, universities, research organisations, bodies with a public service mission at local, regional, national or international level, or civil society organisations including foundations and NGOs that support and/or carry out research and innovation, provided that desired impacts can be achieved more effectively in partnership than by the Union alone.
- (17) The Programme should strengthen cooperation between European Partnerships and private and/or public sector partners at the international level including by joining up research and innovation programmes and cross-border investment in research and innovation bringing mutual benefits to people and businesses while ensuring that the Union can uphold its interests in strategic areas.¹⁴
- (17a) 'FET Flagships' have proven to be an effective and efficient instrument, delivering benefits for society in a joint, coordinated effort by the Union and its Member States. Activities carried out within the FET Flagships on Graphene, the Human Brain Project and Quantum Technology, which are supported under Horizon 2020, will continue being supported under Horizon Europe through calls for proposals included in the work programme. Preparatory actions supported under the FET Flagships part of Horizon 2020 will feed the Strategic Planning process under Horizon Europe and inform the work on missions, co-funded/co-programmed partnerships and regular calls for proposals.¹⁵
- (18) The Joint Research Centre (JRC) should continue to provide Union policies with independent customer-driven scientific evidence and technical support throughout the whole policy cycle. The direct actions of the JRC should be implemented in a flexible, efficient and transparent manner, taking into account the needs of Union policies and the relevant needs of the users of the JRC, and ensuring the protection of the financial interests of the Union. The JRC should continue to generate additional resources.

¹⁴ See e.g. the Commission's proposal for a regulation establishing a framework for screening Foreign Direct Investment into the EU (COM (2017)487).

¹⁵ Part of the common understanding with the EP.

- (19) The pillar 'Innovative Europe' should establish a series of measures for integrated support to the needs of entrepreneurs and entrepreneurship aiming at realising and accelerating breakthrough innovation for rapid market growth. It should provide a "one-stop shop" to attract and support all types of innovators and innovative companies, such as SMEs, including start-ups and in exceptional cases small mid-caps, with potential for scaling up at international and at Union level and offer fast, flexible grants and co-investments, including with private investors. These objectives should be pursued through the creation of a European Innovation Council (EIC). This Pillar should also support the European Institute of Innovation and Technology (EIT) and European innovation ecosystems at large, notably through co-funding partnerships with national and regional innovation support actors.
- (19a) Within the meaning of this Regulation and in particular for the activities carried out under the EIC, a start-up is an SME in the early stage in its life cycle (including university spin-offs), which aims at innovative solutions and a scalable business model, and which is autonomous within the meaning of Article 3 of the Annex of Commission Recommendation 2003/361/EC¹⁶; and a 'mid-cap' means a company that is not a micro, small- and medium-sized enterprise as defined in Commission Recommendation 2003/361/EC and that has a number of employees between 250 and 3000 where the staff headcount is calculated in accordance with Articles 3, 4, 5, and 6 of Title I of the Annex of that Recommendation; a small mid-cap is a mid-cap that has a number of employees up to 499.
- (20) The policy objectives of this Programme will be also addressed through financial instruments and budgetary guarantee of the InvestEU Fund, notably the Research, Innovation and Digitalisation as well as the SMEs policy windows.

¹⁶ Part of the common understanding with the EP.

- (21) The EIC, together with other parts of the Horizon Europe, should stimulate all forms of innovation ranging from incremental to breakthrough and disruptive innovation targeting especially market-creating innovation. The EIC through its instruments – Pathfinder and Accelerator – should aim to identify, develop and deploy high risk innovations of all kinds including incremental with a main focus on breakthrough, disruptive and deep-tech innovations that have the potential to become market-creating innovations. Through coherent and streamlined support, the EIC should fill the current vacuum in public support and private investment for breakthrough innovation. The instruments of the EIC call for dedicated legal and management features in order to reflect its objectives, in particular market deployment activities.¹⁷
- (22) The EIC Accelerator will bridge the “valley of death” between research, pre-mass commercialisation and the scaling-up of companies. The Accelerator will provide support to high-potential operations presenting such technological/scientific, financial, management and/or market risks that they are not yet considered as bankable and therefore cannot leverage significant investments from the market, hence complementing the InvestEU programme established by Regulation ...¹⁸ which will support innovative but bankable projects and entities.
- (22a) In close synergy with InvestEU, the EIC Accelerator, in its blended finance and equity financial support forms, should finance SMEs, including start-ups, and, in exceptional cases, projects run by small mid-caps, which are either not yet able to generate revenues, or not yet profitable, or not yet able to attract sufficient investments to implement fully their projects' business plan. Such eligible entities will be considered as non-bankable, while a part of their investment needs could have been or could be provided by one or several investors such as a private or public bank, a family office, a venture capital fund, a business angel, etc. In this way, overcoming a market failure, the EIC Accelerator will finance promising but not yet bankable entities carrying out breakthrough market creating innovation projects. Once they will become bankable, those projects may, in a later stage of their development, be financed under InvestEU.¹⁹

¹⁷ Part of the common understanding with the EP.

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¹⁹ Part of the common understanding with the EP.

- (22b) While blended finance should be the main use of the EIC Accelerator budget, for the purpose of article 43, the grant-only support of the EIC Accelerator to SMEs, including start-ups, should correspond to that under the SME instrument budget of the previous Framework Programme Horizon 2020 established by Regulation (EU) n° 1291/2013 of the European Parliament and the Council.²⁰
- (23) The EIT, primarily through its Knowledge and Innovation Communities (KICs), should aim at strengthening innovation ecosystems that tackle global challenges, by fostering the integration of innovation, research, higher education and entrepreneurship. In line with its founding act, the EIT Regulation and its Strategic Research and Innovation Agenda, the EIT should foster innovation in its activities and should significantly step up its support to the integration of higher education within the innovation ecosystem, in particular by: stimulating entrepreneurial education, fostering strong non-disciplinary collaborations between industry and academia; and identifying prospective skills for future innovators to address global challenges, which includes advanced digital and innovation skills. Support schemes provided by the EIT should benefit to EIC beneficiaries, while start-ups emerging from EIT KICs should have access to EIC actions. While the EIT's focus on innovation ecosystems should make it naturally fit within the pillar 'Innovative Europe', it should also support the other pillars, as appropriate.
- (24) Ensuring and preserving a level playing field for companies that compete in a given market should be a key requirement for breakthrough innovation to flourish thereby enabling in particular small and medium-size innovators to reap the benefits of their investment and to capture a share of the market.

²⁰ Part of the common understanding with the EP.

[(25) The Programme should promote and integrate cooperation with third countries and international organisations and initiatives based on mutual benefits, EU interests, international commitments and, where appropriate, reciprocity. International cooperation should aim to strengthen the Union's research and innovation excellence, attractiveness and economic and industrial competitiveness, to tackle global challenges, including the United Nations Sustainable Development Goals (SDGs) by following the principles of the Agenda 2030 and the Paris agreement under the United Nations Framework Convention on Climate Change, and to support the Union's external policies. An approach of general opening for international participation and targeted international cooperation actions should be followed, including through appropriate eligibility for funding of entities established in low to middle income countries. At the same time, association of third countries, in particular for collaborative parts to the Programme, should be promoted, in line with association agreements and focusing on the added value for the Union.]

(25a) A special committee may be designated by the Council in consultation with which the negotiations, including with regard to the design and content of the association agreements, are conducted, in accordance with Article 218(4) TFEU.

(26) With the aim of deepening the relationship between science and society and maximising benefits of their interactions, the Programme should engage and involve citizens and civil society organisations in co-designing and co-creating responsible research and innovation (RRI) agendas and contents that meet citizens' and civil society's concerns, needs and expectations, promoting science education, making scientific knowledge publicly accessible, and facilitating participation by citizens and civil society organisations in its activities. It should do so across the Programme and through dedicated activities in the part 'Widening participation and strengthening the European Research Area'. The engagement of citizens and civil society in research and innovation should be coupled with public outreach activities to generate and sustain public support for the Programme. The programme should also seek to remove barriers and boost synergies between science, technology, culture and the arts to obtain a new quality of sustainable innovation. The measures taken to improve the involvement of citizens and civil society in the supported projects should be monitored.

- (27) Where appropriate, the Programme should take into account the specific characteristics of the outermost regions acknowledged by article 349 TFEU and in line with the Commission's Communication 'A stronger and renewed strategic partnership with the EU's outermost regions' as welcomed by the Council.²¹
- (28) The activities developed under the Programme should aim at eliminating gender inequalities, enhancing work-life balance and promoting equality between women and men in research and innovation, in compliance with Articles 2 and 3 of the Treaty on European Union and Article 8 of the TFEU. The gender dimension should be integrated in research and innovation content and followed through at all stages of the research cycle. In addition, the activities under the Programme should aim to eliminate inequalities and promote equality and diversity in all aspects of research and innovation with regard to age, disability, race and ethnicity, religion or belief, and sexual orientation.
- (28a) Administrative simplification, in particular the reduction of the administrative burden for beneficiaries should be continuously sought throughout the Programme. The Commission should further simplify its tools and guidance in such a way that they impose a minimal burden on beneficiaries. In particular, the Commission should consider issuing an abridged version of the guidance.²²
- (29) This Regulation establishes the objectives and fixes the priorities of Union activities in defence research and development, indicates the broad lines of such activities, and fixes the amount of the Union's financial participation in relation to defence research and development funding. In light of the specificities of the defence industry sector, the detailed provisions for Union funding to defence research projects should be fixed in the Regulation ... establishing the European Defence Fund²³ which defines the rules of participation for defence research. Synergies should benefit civil and defence research, although activities carried out under this Regulation except those covered by the European Defence Fund should have an exclusive focus on civil applications. Unnecessary duplication will be excluded.

²¹ Commission's Communication 'A stronger and renewed strategic partnership with the EU's outermost regions' (COM (2017) 623 final).

²² Part of the common understanding with the EP.

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- (30) This Regulation lays down a financial envelope for the Programme. The amount indicated in this Regulation is to constitute the prime reference amount, within the meaning of [*reference to be updated as appropriate according to the new inter-institutional agreement: point 17 of the Interinstitutional Agreement of 2 December 2013 between the European Parliament, the Council and the Commission on budgetary discipline, on cooperation in budgetary matters and on sound financial management*²⁴], for the European Parliament and the Council during the annual budgetary procedure.
- (31) Regulation (EU, Euratom) No [the new FR] (the ‘Financial Regulation’), adopted on the basis of Article 322 of the TFEU applies to this Programme, unless otherwise specified due to the specific nature of research and innovation activities requiring different rules for example as regards further simplification or shorter deadlines. It lays down rules on the implementation of the Union budget, including the rules on grants, prizes, procurement, indirect implementation, financial assistance, financial instruments and budgetary guarantees and provide for checks on the responsibility of financial actors. [Rules adopted on the basis of Article 322 TFEU also concern the protection of the Union's budget in case of generalised deficiencies as regards the rule of law in the Member States, as the respect for the rule of law is an essential precondition for sound financial management and effective EU funding.]
- (31a) Without prejudice to the overall MFF negotiations, the overall budget for the "Widening participation and sharing excellence" strand of the "Widening participation and strengthening the European Research Area" part of Horizon Europe should be at least 3,3% of the overall Horizon Europe budget. This budget should mainly benefit legal entities in the widening countries.²⁵

²⁴ Reference to be updated: OJ C 373, 20.12.2013, p. 1. The agreement is available at: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.C_.2013.373.01.0001.01.ENG&toc=OJ:C:2013:373:TOC

²⁵ Part of the common understanding with the EP.

[(32) In accordance with Regulations (EU, Euratom) No 2018/1046²⁶ (the "Financial Regulation") and (EU, Euratom) No 883/2013 of the European Parliament and of the Council²⁷ and Council Regulations (Euratom, EC) No 2988/95²⁸, (Euratom, EC) No 2185/96²⁹ and (EU) 2017/1939³⁰, the financial interests of the Union are to be protected through proportionate measures, including the prevention, detection, correction and investigation of irregularities, including fraud, the recovery of funds lost, wrongly paid or incorrectly used, and, where appropriate, the imposition of administrative penalties.

²⁶ Regulation (EU, Euratom) 2018/1046 of the European Parliament and of the Council of 18 July 2018 on the financial rules applicable to the general budget of the Union, amending Regulations (EU) No 1296/2013, (EU) No 1301/2013, (EU) No 1303/2013, (EU) No 1304/2013, (EU) No 1309/2013, (EU) No 1316/2013, (EU) No 223/2014, (EU) No 283/2014, and Decision No 541/2014/EU and repealing Regulation (EU, Euratom) No 966/2012 (OJ L 193, 30.7.2018, p. 1).

²⁷ Regulation (EU, Euratom) No 883/2013 of the European Parliament and of the Council of 11 September 2013 concerning investigations conducted by the European Anti-Fraud Office (OLAF) and repealing Regulation (EC) No 1073/1999 of the European Parliament and of the Council and Council Regulation (Euratom) No 1074/1999, (OJ L 248, 18.9.2013, p. 1)

²⁸ Council Regulation (EC, Euratom) No 2988/95 of 18 December 1995 on the protection of the European Communities financial interests (OJ L 312, 23.12.95, p.1).

²⁹ Council Regulation (Euratom, EC) No 2185/96 of 11 November 1996 concerning on-the-spot checks and inspections carried out by the Commission in order to protect the European Communities' financial interests against fraud and other irregularities (OJ L 292, 15.11.1996, p. 2).

³⁰ Council Regulation (EU) 2017/1939 of 12 October 2017 implementing enhanced cooperation on the establishment of the European Public Prosecutor's Office ("the EPPO") (OJ L 283, 31.10.2017, p. 1).

In particular, in accordance with Regulations (Euratom, EC) No 2185/96 and (EU, Euratom) No 883/2013, the European Anti-Fraud Office (OLAF) may carry out administrative investigations, including on-the-spot checks and inspections, with a view to establishing whether there has been fraud, corruption or any other illegal activity affecting the financial interests of the Union. In accordance with Regulation (EU) 2017/1939, the European Public Prosecutor's Office ("the EPPO") may investigate and prosecute offences against the financial interests of the Union, as provided for in Directive (EU) 2017/1371 of the European Parliament and of the Council³¹. In accordance with the Financial Regulation, any person or entity receiving Union funds is to fully cooperate in the protection of the financial interests of the Union, grant the necessary rights and access to the Commission, OLAF, the EPPO in respect of those Member States participating in enhanced cooperation pursuant to Regulation (EU) 2017/1939, and the European Court of Auditors (ECA), and ensure that any third parties involved in the implementation of Union funds grant equivalent rights.]

[(32a) Third countries which are members of the European Economic Area (EEA) may participate in Union programmes in the framework of the cooperation established under the Agreement on the European Economic Area³², which provides for the implementation of the programmes by a decision under that Agreement. Third countries may also participate on the basis of other legal instruments. A specific provision should be introduced in this Regulation to grant the necessary rights for and access to the authorizing officer responsible, OLAF, and the ECA to comprehensively exert their respective competences.]

³¹ Directive (EU) 2017/1371 of the European Parliament and of the Council of 5 July 2017 on the fight against fraud to the Union's financial interests by means of criminal law (OJ L 198, 28.7.2017, p. 29).

³² OJ L 1, 3.1.1994, p. 3.

- (33) Pursuant to [reference to be updated as appropriate according to a new decision on OCTs: Article 94 of Council Decision 2013/755/EU³³], persons and entities established in overseas countries and territories (OCTs) are eligible for funding subject to the rules and objectives of the Programme and possible arrangements applicable to the Member State to which the relevant overseas country or territory is linked.
- (34) Pursuant to paragraph 22 and 23 of the Inter-institutional agreement for Better Law-Making of 13 April 2016, there is a need to evaluate this Programme on the basis of information collected through specific reporting and monitoring requirements, while avoiding overregulation and administrative burdens, in particular on the Member States and the beneficiaries of the Programme. These requirements, where appropriate, can include measurable indicators, as a basis for evaluating the effects of the Programme on the ground.
- (35) In order to be able to supplement or amend the impact pathway indicators, where considered necessary, the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be delegated to the Commission. It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level, and that those consultations be conducted in accordance with the principles laid down in the Interinstitutional Agreement on Better Law-Making of 13 April 2016. In particular, to ensure equal participation in the preparation of delegated acts, the European Parliament and the Council receive all documents at the same time as Member States' experts, and their experts systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts.
- (36) Coherence and synergies between Horizon Europe and the EU's Space Programme will foster a globally competitive and innovative European space sector; reinforce Europe's autonomy in accessing and using space in a secure and safe environment; and strengthen Europe's role as a global actor. Excellent research, breakthrough solutions and downstream users in Horizon Europe will be supported by data and services made available by the Space Programme.

³³ Council Decision 2013/755/EU of 25 November 2013 on the association of the overseas countries and territories with the European Union (Overseas Association Decision) (OJ L 344, 19.12.2013, p. 1).

- (36a) Coherence and synergies between Horizon Europe and Erasmus will foster the uptake of research results through training activities, diffuse innovation spirit to the education system and ensure that education and training activities rely on the most updated research and innovation activities. In that regard, following the pilot actions launched under Erasmus+ 2014-20 on European Universities, Horizon Europe will, where appropriate, complement in a synergetic way the support provided by the ERASMUS programme to the European Universities.
- (37) The rules for participation and dissemination should adequately reflect the needs of the Programme taking into account the concerns raised and the recommendations made by various stakeholders and experts during the interim evaluation of Horizon 2020.
- (38) Common rules across the Programme should ensure a coherent framework which facilitates participation in programmes financially supported by the budget of the Programme, including participation in programmes managed by funding bodies such as the EIT, joint undertakings or any other structures under Article 187 TFEU, and participation in programmes undertaken by Member States pursuant to Article 185 TFEU. Adopting specific rules should be possible but exceptions must be limited to when strictly necessary and duly justified.
- (39) Actions which fall within the scope of the Programme should respect fundamental rights and observe the principles acknowledged in particular by the Charter of Fundamental Rights of the European Union. Such actions should be in conformity with any legal obligation including international law and with any relevant Commission decisions such as the Commission notice of 28 June 2013³⁴, as well as with ethical principles, which include avoiding any breach of research integrity. Article 13 TFEU should also be taken into account in research activities, and the use of animals in research and testing should be reduced, with a view ultimately to replacing their use.³⁵

³⁴ OJ C 205, 19.7.2013, p. 9.

³⁵ ref. COM statement on the EU funding of human embryonic stem cell research for Horizon Europe (footnote to be deleted in the final version).

- (40) In line with the objectives of international cooperation as set out in Articles 180 and 186 TFEU, the participation of legal entities established in third countries and of international organisations should be promoted. The implementation of the Programme should be in conformity with the measures adopted in accordance with Articles 75 and 215 TFEU and should be in compliance with international law. [For actions related to Union strategic assets, interests, autonomy or security, the participation to specific actions of the Programme may be limited to entities established in Member States only, or to entities established in specified associated or other third countries in addition to Member States.]
- (41) Acknowledging climate change as one of the biggest global and societal challenges and reflecting the importance of tackling climate change in line with the Union's commitments to implement the Paris Agreement and the United Nations Sustainable Development Goals, this Programme will contribute to mainstream climate actions and to the achievement of an overall target of [25 %] of the EU budget expenditures supporting climate objectives. Climate mainstreaming shall be adequately integrated in research and innovation content and applied at all stages of the research cycle.³⁶
- (41a) In the context of the impact pathway related to climate, the Commission will report on outputs, innovations and aggregated estimated effects of projects that are climate-relevant, including by Programme part and by implementation mode. In its analysis the Commission should take account of the long-term economic, societal and environmental costs and benefits to European citizen resulting from Programme activities including the uptake of innovative climate mitigation and adaptation solutions, estimated impacts on jobs and company creation, economic growth and competitiveness, clean energy, health to well-being (including air, soil and water quality). The results of this impact analysis should be made public, assessed in the context of Europe's climate and energy goals and feedback into the subsequent strategic planning process and future work programmes.³⁷
- (41b) In line with Sustainable Development Goals, research and innovation activities should contribute to the preservation and restoration of biodiversity.

³⁶ Part of the common understanding with the EP.

³⁷ Part of the common understanding with the EP.

- (43) Use of sensitive background information or access by unauthorized individuals to sensitive results may have an adverse impact on the interests of the Union or of one or more of the Member States. Thus handling of confidential data and classified information should be governed by all relevant Union law, including the Institutions' internal rules, such as Commission Decision (EU, Euratom) 2015/444, which lays down the provisions on security rules for protecting EU classified information.
- (44) It is necessary to establish the minimum conditions for participation, both as a general rule where the consortium should include at least one legal entity from a Member State, and with regard to the specificities of particular type of actions under the Programme.
- (45) It is appropriate to establish the terms and conditions for providing Union funding to participants in actions under the Programme. Grants should be implemented taking into account all forms of contribution set out in the Financial Regulation, including lump sums, flat rates or unit costs, with the view to further simplification. The grant agreement should establish the rights and obligations of the beneficiaries, including the role and tasks of the coordinator where applicable. Close cooperation with Member States experts should be ensured in the drawing up and in any substantial modification of the model grant agreements.
- (46) The funding rates in this Regulation are referred to as maximums in order to comply with the co-financing principle. Lower funding rates can be set during the Programme implementation only in duly justified cases.
- (47) In accordance with the Financial Regulation, the Programme should provide the basis for a wider acceptance of the usual cost accounting practices of the beneficiaries as regards personnel costs and unit costs for internally invoiced goods and services (including for large research infrastructures as understood under Horizon 2020). The use of unit costs for internally invoiced goods and services calculated in accordance with the usual accounting practices of the beneficiaries combining actual direct costs and indirect costs should be an option which could be chosen by all beneficiaries. In this respect, beneficiaries should be able to include actual indirect costs calculated on the basis of allocation keys in such unit costs for internally invoiced goods and services.³⁸

³⁸ Part of the common understanding with the EP.

- (48) The current system of reimbursement of actual personnel costs should be further simplified building on the project-based remuneration approach developed under Horizon 2020 and further aligned to the Financial Regulation, aiming to reduce the remuneration gap between EU researchers involved in the Programme.³⁹
- (49) The participant Guarantee Fund set up under Horizon 2020 and managed by the Commission has proved to be an important safeguard mechanism which mitigates the risks associated with the amounts due and not reimbursed by defaulting participants. Therefore, the Beneficiary Guarantee Fund, renamed Mutual Insurance Mechanism ("the Mechanism") should be continued and enlarged to other funding bodies in particular to initiatives pursuant to Article 185 of the TFEU. The Mechanism should be opened to beneficiaries of any other directly managed Union programme.
- (50) Rules governing the exploitation and dissemination of results should be laid down to ensure that beneficiaries protect, exploit, disseminate and provide access to those results as appropriate. More emphasis should be given to exploiting the results, and the Commission should identify and help maximise opportunities for beneficiaries to exploit results, in particular in the Union. Exploitation should be in consideration of the principles of this programme, including promoting innovation in the Union and strengthening the European Research Area.⁴⁰

³⁹ Part of the common understanding with the EP.

⁴⁰ Part of the common understanding with the EP.

- (51) The key elements of the proposal evaluation and selection system of the predecessor programme Horizon 2020 with its particular focus on excellence should be maintained. Proposals should continue to be selected based on the evaluation made by independent experts. The Commission should continue to involve independent observers in the evaluation process where applicable. For EIC pathfinder activities, missions and in other duly justified cases as set out in the work programme, the necessity to ensure the overall coherence of the portfolio of projects may be taken into account, provided that project proposals have passed the applicable thresholds. The objectives and procedures for doing so should be published in advance. In accordance with Article 200 paragraph 7 of the Financial Regulation, applicants should receive feedback on the evaluation of their proposal in particular, where applicable, the reasons for rejection.
- (52) Systematic cross-reliance on audits and assessments with other Union programmes should be implemented in accordance with Articles 126 and 127 of the Financial Regulation for all parts of the programme, where possible, in order to reduce administrative burden for beneficiaries of Union funds. Cross-reliance should be explicitly provided for by considering also other elements of assurance such as systems and processes audits.
- (53) Specific challenges in the area of research and innovation should be addressed by prizes, including through common or joint prizes where appropriate, organised by the Commission or funding body with other Union bodies, associated countries, third countries, international organisations or non-profit legal entities.
- (54) The types of financing and the methods of implementation under this Regulation shall be chosen on the basis of their ability to achieve the specific objectives of the actions and to deliver results, taking into account, in particular, the costs of controls, the administrative burden, and the expected risk of non-compliance. For grants, this shall include consideration of the use of lump sums, flat rates and scales of unit costs.

ANNEX IV

SYNERGIES WITH OTHER PROGRAMMES

In order to maximise the impact of research and innovation on society, environment and economy at large and to contribute to the achievement of the Union's objectives, Union funding programmes must be coherent and work in synergy.

Synergies are based on complementarity between programme design and objectives and on compatibility of financing rules and processes at implementation level.

Funding from Horizon Europe shall only be used to finance research and innovation activities. The Strategic Planning process shall ensure the alignment of priorities for the different Union funding programmes and ensure coherent funding options at different stages of the research and innovation cycle. Amongst others, missions and partnerships shall benefit from synergies with other Union funding programmes and policies.

The deployment of research results and innovative solutions developed in the Framework Programme shall be facilitated with the support of other Union funding programmes, in particular through dissemination and exploitation strategies, transfer of knowledge, complementary and cumulative funding sources, and accompanying policy measures.

Funding for research and innovation activities shall profit from harmonised rules that are designed to ensure EU added value, to avoid overlaps with different Union programmes and to seek maximum efficiency and administrative simplification.

The paragraphs below set out in more detail how these synergies shall apply between the Framework Programme and the different Union programmes.

1. Synergies with the European Agricultural Guarantee Fund (EAGF) and the European Agricultural Fund for Rural Development (EAFRD) (Common Agricultural Policy-CAP) shall ensure that:
 - (a) the research and innovation needs of the agricultural sector and rural areas within the EU are identified for example within the European Innovation Partnership "agricultural productivity and sustainability"⁴¹ and taken into consideration in both the Framework Programme's strategic planning process and the work programmes;
 - (b) the CAP makes the best use of research and innovation results and promotes the use, implementation and deployment of innovative solutions, including those stemming from projects funded by the Framework Programmes for research and innovation and from the European Innovation Partnership "agricultural productivity and sustainability";
 - (c) the EAFRD supports the uptake and dissemination of knowledge and solutions stemming from the Framework Programme's results leading to a more dynamic farming sector and new openings for the development of rural areas.
2. Synergies with the European Maritime and Fisheries Fund (EMFF) shall ensure that:
 - (a) the Framework Programme and the EMFF are closely interlinked as EU research and innovation needs in the field of integrated maritime policy will be translated through the Framework Programme's strategic planning process;

⁴¹ Communication from the Commission to the European Parliament and the Council on the European Innovation Partnership 'Agricultural Productivity and Sustainability' (COM(2012) 79 final).

- (b) the EMFF supports the rolling out of novel technologies and innovative products, processes and services, in particular those resulting from the Framework Programme in the fields of marine and maritime policy; the EMFF also promotes ground data collection, processing and monitoring and disseminates relevant actions supported under the Framework Programme, which in turn contributes to the implementation of the Common Fisheries Policy, the EU Maritime Policy and International Ocean Governance.
3. Synergies with the European Regional Development Fund (ERDF) shall ensure that:
- (a) arrangements for complementary and cumulative funding from ERDF and the Framework Programme support activities that provide a bridge particularly between smart specialisation strategies and excellence in research and innovation, including joint trans-regional/trans-national programmes and pan European Research Infrastructures, with the aim of strengthening the European Research Area and of contributing to the Sustainable Development Goals;
 - (b) the ERDF focuses amongst others on the development and strengthening of regional and local research and innovation ecosystems and industrial transformation, including both support to building research and innovation capacities and to the take-up of results and the rolling out of novel technologies and innovative and climate-friendly solutions from the Framework Programmes for research and innovation through the ERDF.
4. Synergies with the European Social Fund Plus (ESF+) shall ensure that:
- (a) the ESF+ can mainstream and scale up innovative curricula supported by the Framework Programme, through national or regional programmes, in order to equip people with the skills and competences needed for evolving demands of the labour market;

- (b) arrangements for complementary funding from ESF+ can be used to support activities promoting human capital development in research and innovation with the aim of strengthening the European Research Area;
- (c) the ESF+ mainstreams innovative technologies and new business models and solutions, in particular those resulting from the Framework Programmes, so to contribute to innovative, efficient and sustainable health systems and facilitate access to better and safer healthcare for European citizens.

5. Synergies with the Connecting Europe Facility (CEF) shall ensure that:

- (a) the research and innovation needs in the areas of transport, energy and in the digital sector within the EU are identified and established during the Framework Programme's strategic planning process;
- (b) the CEF supports the large-scale roll-out and deployment of innovative new technologies and solutions in the fields of transport, energy and digital physical infrastructures, in particular those resulting from the Framework Programmes for research and innovation;
- (c) the exchange of information and data between the Framework Programme and CEF projects will be facilitated, for example by highlighting technologies from the Framework Programme with a high market readiness that could be further deployed through the CEF.

6. Synergies with the Digital Europe Programme (DEP) shall ensure that:
- (a) whereas several thematic areas addressed by the Framework Programme and DEP converge, the type of actions to be supported, their expected outputs and their intervention logic are different and complementary;
 - (b) the research and innovation needs related to digital aspects are identified and established during the Framework Programme's strategic planning process; this includes research and innovation for high performance computing, artificial intelligence, cybersecurity, combining digital with other enabling technologies and non-technological innovations; support for the scale-up of companies introducing breakthrough innovations (many of which will combine digital and physical technologies); and support to digital research infrastructures;
 - (c) DEP focuses on large-scale digital capacity and infrastructure building in High Performance Computing, Artificial Intelligence, Cybersecurity and advanced digital skills aiming at wide uptake and deployment across Europe of critical existing or tested innovative digital solutions within an EU framework in areas of public interest (such as health, public administration, justice and education) or market failure (such as the digitisation of businesses, notably small and medium enterprises); DEP is mainly implemented through coordinated and strategic investments with Member States, notably through joint public procurement, in digital capacities to be shared across Europe and in EU-wide actions that support interoperability and standardisation as part of developing the Digital Single Market;
 - (d) DEP capacities and infrastructures are made available to the research and innovation community, including for activities supported through the Framework Programme including testing, experimentation and demonstration across all sectors and disciplines;

- (e) novel digital technologies developed through the Framework Programme, are to be progressively taken up and deployed by DEP;
- (f) the Framework Programme's initiatives for the development of skills and competencies curricula, including those delivered at the co-location centres of the European Institute of Innovation and Technology's KIC-Digital, are complemented by Digital Europe-supported capacity-building in advanced digital skills;
- (g) strong coordination mechanisms for strategic programming and operating procedures for both programmes exist, and their governance structures involve the respective Commission services, Member States representatives as well as others concerned by the different parts of the respective programmes.

7. Synergies with the Single Market Programme shall ensure that:

- (a) the Single Market Programme addresses the market failures which affect SMEs, and will promote entrepreneurship and the creation and growth of companies.
Complementarity exists between the Single Market Programme and the actions of the future European Innovation Council (EIC) for innovative companies, as well as in the area of support services for SMEs, in particular where the market does not provide viable financing;
- (b) the Enterprise Europe Network may serve, in addition to other existing SME support structures (e.g. National Contact Points, Innovation Agencies), to deliver support services under the European Innovation Council.

8. Synergies with the LIFE - Programme for Environment and Climate Action (LIFE) shall ensure that:

The research and innovation needs to tackle environmental, climate and energy challenges within the EU are identified and established during the Framework Programme's strategic planning process. LIFE will continue to act as a catalyst for implementing EU environment, climate and relevant energy policy and legislation, including by taking up and applying research and innovation results from the Framework Programme and help deploying them at national and (inter-)regional scale where it can help address environmental, climate or transition issues. In particular LIFE will continue to incentivise synergies with the Framework Programme through the award of a bonus during the evaluation for proposals which feature the uptake of results from the Framework Programme. LIFE standard action projects will support the development, testing or demonstration of suitable technologies or methodologies for implementation of EU environment and climate policy, which can subsequently be deployed at large scale, funded by other sources, including by the Framework Programme. The Framework Programme's European Innovation Council can provide support to scale up and commercialise new breakthrough ideas that may result from the implementation of LIFE projects.

9. Synergies with the Erasmus Programme shall ensure that:

- (a) combined resources from the Framework Programme, including from the European Institute of Innovation and Technology, and the Erasmus Programme are used to support activities dedicated to strengthening and modernising European higher education institutions. The Framework Programme will complement the Erasmus programme's support for the European Universities initiative, in its research dimension, where appropriate. This is part of developing new joint and integrated long-term and sustainable strategies on education, research and innovation based on trans-disciplinary and cross-sectoral approaches to make the knowledge triangle a reality;

- (b) the Framework Programme and the Erasmus Programme foster the integration of education and research through facilitating higher education institutions to formulate and set up common education, research and innovation strategies and networks, to inform teaching with the latest findings and practices of research to offer active research experience to all students and higher education staff and in particular researchers, and to support other activities that integrate higher education, research and innovation.

10. Synergies with the European Space Programme shall ensure that:

- (a) the research and innovation needs of the space upstream and downstream sector within the EU, as well as to the benefit of the European Space Programme, are identified and established as part of the Framework Programme's strategic planning process; space research actions implemented through Horizon Europe will be implemented with regard to procurement and eligibility of entities in line with the provisions of the Space Programme, where appropriate;
- (b) space data and services made available as a public good by the European Space Programme are used to develop breakthrough solutions through research and innovation, including in the Framework Programme, in particular for sustainable food and natural resources, climate monitoring, atmosphere, land, coastal and marine environment, smart cities, connected and automated mobility, security and disaster management;
- (c) the Copernicus Data and Information Access Services contribute to the European Open Science Cloud and thus facilitate access to Copernicus data for researchers, scientists and innovators; research infrastructures, in particular in situ observing networks will constitute essential elements of the in situ observation infrastructure enabling the Copernicus services, and in turn, they benefit from information produced by Copernicus services.

11. Synergies with the Neighbourhood, Development and International Cooperation Instrument (NDICI) and the Instrument for Pre-accession Assistance ('IPA III') shall ensure that:
 - (a) the research and innovation needs in the areas of NDICI and IPA III are identified and established during the Framework Programme's strategic planning process, in line with the Sustainable Development Goals;
 - (b) the Framework Programme's research and innovation activities, with the participation of Third Countries and targeted international cooperation actions, seek alignment and coherence with parallel market uptake and capacity-building actions strands under the NDICI and IPA III, based on joint definition of needs and areas of intervention.

12. Synergies with the Internal Security Fund and the instrument for border management as part of the Integrated Border Management Fund shall ensure that:
 - (a) the research and innovation needs in the areas of security and integrated border management are identified and established during the Framework Programme's strategic research and innovation planning process;
 - (b) the Internal Security Fund and the Integrated Border Management Fund may support the deployment of innovative new technologies and solutions, in particular those resulting from the Framework Programmes for research and innovation in the field of security research.

13. Synergies with the InvestEU Fund shall ensure that:
- (a) the Framework Programme provides Horizon Europe and EIC blended finance for innovators, characterised by a high level of risk and for which the market does not provide sufficient and viable financing. At the same time, the Framework Programme will support the effective delivery and management of the private part of blended finance through funds and intermediaries supported by InvestEU and others;
 - (b) financial instruments for research and innovation and SMEs are grouped together under the InvestEU Fund, in particular through a dedicated R&I thematic window, and through products deployed under the SME window, thereby helping to deliver the objectives of both Programmes;
 - (c) the Framework Programme provides appropriate support to help the reorientation of projects not suitable for EIC funding towards InvestEU, when relevant.
14. Synergies with the Innovation Fund under the Emission Trading Scheme (the 'Innovation Fund') shall ensure that:
- (a) the Innovation Fund will specifically target innovation in low-carbon technologies and processes, including environmentally safe carbon capture and utilisation that contributes substantially to mitigate climate change, as well as products substituting carbon intensive ones, and to help stimulate the construction and operation of projects that aim at the environmentally safe capture and geological storage of CO₂ as well as innovative renewable energy and energy storage technologies;
 - (b) the Framework Programme will fund the development and demonstration of technologies that can deliver on EU decarbonisation, energy and industrial transformation objectives, especially through its Pillar 2 activities;

- (c) the Innovation Fund may, subject to fulfilment of its selection and award criteria, support the demonstration phase of eligible projects that may have received the support from the Framework Programmes for research and innovation.

[15. Synergies with the Euratom Research and Training Programme shall ensure that:

- (a) the Framework Programme and the Euratom Research and Training Programme develop comprehensive actions supporting education and training (including Marie Skłodowska-Curie Actions) with the aim of maintaining and developing relevant skills in Europe;
- (b) the Framework Programme and the Euratom Research and Training Programme develop joint research actions focussing on cross-cutting aspects of the safe and secure use of non-power applications of ionising radiation in sectors such as medicine, industry, agriculture, space, climate change, security and emergency preparedness and contribution of nuclear science.]⁴²

16. Synergies with the European Defence Fund shall benefit civil and defence research, although activities carried out under the Framework Programme except those covered by the European Defence Fund shall have an exclusive focus on civil applications. Unnecessary duplication will be excluded.

⁴² Subject to the outcome of negotiations on the respective legal act.