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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

(Text with EEA relevance)

{SEC(2018) 291 final} - {SWD(2018) 307 final} - {SWD(2018) 308 final} -
{SWD(2018) 309 final}

EXPLANATORY MEMORANDUM

1. CONTEXT OF THE PROPOSAL

• Reasons and objectives

The 'Horizon Europe' proposal is fully in line with the Commission's proposal on the next long-term Union budget for 2021 to 2027 as well as the Commission's priorities as set out in its Agenda for Jobs, Growth, Fairness and Democratic Change and global policy priorities (the Sustainable Development Goals). It supports the agenda of the Union post-2020 as agreed in the Rome Declaration of 25 March 2017.

The proposal is framed by the premise that research and innovation (R&I) delivers on citizens' priorities, boosts the Union's productivity and competitiveness, and is crucial for sustaining our socio-economic model and values, and enabling solutions that address challenges in a more systemic way.

The Horizon Europe package consists of proposals for:

1. a Framework Programme for Research and Innovation entitled 'Horizon Europe', including laying down its rules for participation and dissemination (as per Treaty on the Functioning of the European Union – 'TFEU'),
2. a specific programme to implement 'Horizon Europe' ('TFEU'),
3. a Research and Training Programme under the Euratom Treaty complementing Horizon Europe, along with the
4. associated impact assessment and legal financial statements.

A specific programme on defence research is proposed to be established by Regulation …/…/EU of the European Parliament and the Council establishing the European Defence Fund for the period 2021-2027.

The package merges two current legal acts (the Framework Programme and the Rules for Participation and Dissemination) into a single legal act and makes a number of improvements in terms of simplification along the way.

Specifically, Horizon Europe will strengthen the Union's scientific and technological bases in order to help tackle the major global challenges of our time and contribute to achieving the Sustainable Development Goals (SDGs). At the same time, the programme will boost the Union's competitiveness, including that of its industries. Horizon Europe will help deliver on the Union's strategic priorities and support the development and implementation of Union policies. In a swiftly changing world, Europe's success increasingly depends on its ability to transform excellent scientific results into innovation that have a real beneficial impact on our economy and quality of life, and create new markets with more skilled jobs.

To achieve this aim and build on the success of its predecessor, Horizon Europe continues to support the whole R&I cycle in an integrated manner.

The principle of a single set of rules for participation and dissemination is maintained, while this proposal improves further on these rules.

This proposal provides for a date of application as of 1 January 2021 and is presented for a Union of 27 Member States, in line with the notification by the United Kingdom of its intention to withdraw from the European Union and Euratom based on Article 50 of the Treaty on European Union received by the European Council on 29 March 2017.

- **Consistency with existing policy provisions**

The Framework Programme is the Union's flagship programme to support R&I from concept to market uptake. It aims to complement national and regional funding. The framework programme has already provided unique European added value in supporting continent-wide competition and collaboration for the very best science and innovation. This has resulted in scientific breakthroughs, increased competitiveness, and solutions to societal challenges. The new proposed framework programme, Horizon Europe, will aim to have an even greater impact than the current one, Horizon 2020 which is a widely acknowledged asset towards achieving Europe's ambitions. The rapidly evolving nature of research and innovation in a context of global competition makes public support for R&I more essential than ever, in particular at Union level where its added value is undisputed. The proposal is fully in line with the Commission's agenda for R&I, including the headline target of investing 3% of the Union's GDP on research and development, as well as with the Communication "A renewed European agenda for Research and Innovation – Europe's chance to shape its future" (the European Commission's contribution to the informal leaders' meeting on 16-17 May 2018).

- **Consistency with other Union policies**

The proposal is fully consistent with existing Union policies. Horizon Europe was developed taking into account the current Commission's priorities, the Budget for Results policy (which demands that Union spending programmes must – more than ever – deliver value for money), the implementation of the 2030 Agenda on sustainable development, the implementation of the Union Global Strategy and the Commission's proposal on the next long-term Union budget.

In areas like health, digital technologies, industrial transformation, inclusive and democratic societies, natural resources, energy, mobility, environment, food, low-carbon economy, space and security, R&I is critical to the successful delivery on Union priorities: in particular jobs and growth, the Digital Single Market, the Energy Union and climate action. R&I is at the core of productivity and the competitiveness of an advanced economy like the Union's.

R&I investment will be complementary and mutually reinforcing with that of other Union programmes. R&I results will be exploited in synergy with other Union programmes to foster their uptake at national and regional level, thereby maximising the European innovation potential. This will be complemented by effective R&I communication and outreach campaigns targeting the general public. Complementarity and synergy of R&I support and exploitation across the Union's long-term budget will be maximised through a strategic R&I planning process, which will be sufficiently flexible to allow the Commission and Union institutions to swiftly react to urgent needs and new priorities.

The proposal is also fully consistent with the approach taken under the European Semester process of economic policy co-ordination. Those links should be continued and reinforced, building on the relevant contributions already made under Horizon 2020 in support of structural reforms to improve the quality and efficiency of national research and innovation

systems at three levels: firstly, through substantial investment in scientific and technological research and innovation; secondly, by making the business environment more innovation-friendly and less risk-averse; and thirdly, by ensuring that European citizens get supported through what will be a fast and, for some, turbulent transition driven by innovation, digitisation and global megatrends such as artificial intelligence and the circular economy.

The Programme's actions should be used to address market failures or sub-optimal investment situations, in a proportionate manner, without duplicating or crowding out private financing and have a clear European added value. This will ensure consistency between the actions of the programme and EU State aid rules, avoiding undue distortions of competition in the internal market.

2. LEGAL BASIS, SUBSIDIARITY AND PROPORTIONALITY

• Legal basis

'Horizon Europe' is based on the TFEU Titles 'Industry' and 'Research and technological development and space' (Articles 173, 182, 183 and 188).

Due to its strong support to innovation, the Specific Programme implementing Horizon Europe is now based on the TFEU Titles 'Industry' and 'Research and technological development and space'(Articles 173 and 182), as is the specific programme on defence research (*ibid*).

The European Institute for Innovation and Technology (EIT) derives from the 'Industry' title and will continue to be funded by a financial contribution from Horizon Europe.

The proposal for the Euratom research and training programme is based on Article 7 of the Euratom Treaty.

• Subsidiarity (for non-exclusive competence)

The Union has a shared (parallel) competence in this area based on Article 4(3) TFEU. In order to address the challenges Europe is currently facing, the Union needs to invest in R&I in order to reach economies of scale, scope and speed. Union-funded R&I activities produce demonstrable benefits compared to national and regional R&I support: they create critical mass to address global challenges; strengthen the Union's scientific excellence through competitive funding; create cross-border, multidisciplinary networks; reinforce human capital; structure national R&I systems; increase the Union's competitiveness; and create new market opportunities.

• Proportionality

Actions at Union level will enable trans-national collaboration and world-wide competition to ensure the best proposals are selected. This raises levels of excellence and provides visibility for leading R&I, but also supports trans-national mobility and attracts the best talents. A Union-level programme is best placed to take on high-risk and long-term R&I, thereby sharing the risk and generating a breadth of scope and economies of scale that could not otherwise be achieved. Interlinkages with national initiatives will be sought, in particular in the area of innovation.

Similarly, it can leverage additional public and private investments in R&I; contribute to further strengthening the European R&I landscape; and accelerate the commercialisation and

diffusion of innovation. Union-level programmes can also support policy-making and policy objectives.

The proposed actions do not go beyond what is required for Union objectives.

- **Choice of the instrument**

As in the past, the legal act is in a form of a regulation since it creates rights for and obligations on beneficiaries, binding in their entirety and directly applicable in all Union Member States and countries associated to the Framework Programme.

3. RESULTS OF RETROSPECTIVE EVALUATIONS, STAKEHOLDER CONSULTATIONS AND IMPACT ASSESSMENTS

- **Retrospective evaluations/fitness checks of existing legislation**

Union Framework Programmes have generated significant and long-lasting impacts as has been shown by successive evaluations since the Union started investing in R&I in 1984.

This proposal is built on the feedback from stakeholders, findings of the interim evaluations of the current programmes, the ex-post evaluations of previous programmes, and foresight activities.

The Communication on the interim evaluation of Horizon 2020 identified several areas for improvement. In addition to an in-depth analysis, the findings of the interim evaluation of Horizon 2020 were based on extensive stakeholder feedback and the strategic recommendations of the independent High Level Group on maximising the impact of EU R&I Programmes (the 'Lamy' High Level Group). In a nutshell, these conclusions could be summarised as to:

(a) continue simplification;

(b) support breakthrough innovation;

(c) create more impact by being focused around missions and by citizen involvement;

(d) increase synergies with other Union funding programmes and Union policies;

(e) strengthen international cooperation;

(f) reinforce openness; and

(g) rationalise the funding landscape.

- **Stakeholder consultations**

Through open consultations, the Commission sought feedback on the key elements of the design of the post-2020 Union programme for R&I. The results of these consultations fed into the Impact Assessment for the programme and helped shape the drafting of the present legal proposal.

Consultations were run at different times to ensure systematic account of stakeholder views in the design and formulation of the Horizon Europe programme. To take account of different information needs, consultations ranged from stakeholder conferences and events, to expert

groups, online consultations, workshops, meetings and seminars and analyses of position papers.

Fostering R&I in the Union emerged as the most important policy challenge by 97% of respondents to the cluster-based open public consultation on the Union's next long-term budget in the areas of investment, R&I, SMEs and the single market.

Stakeholders' key messages can be summarised as follows:

- The three-pillar structure of Horizon 2020 should be kept, though better links between the pillars are needed;
- Successful individual researchers' schemes (ERC, MSCA) need increased budgets;
- Grants should remain the main funding model, complemented with dedicated financial instruments, when appropriate;
- Support should be provided to activities that help spread or share excellence;
- Smaller-scale collaborative projects are important for widening participation;
- Missions have all the hallmarks of being an impactful way forward;
- Citizens should be made more involved with the Framework Programme;
- The European Innovation Council should be an European accelerator of innovation;
- There is a need to boost international cooperation to tackle global challenges;
- Data and knowledge produced from Union-funded projects should be accessible by all;
- There is a marked need to make the R&I landscape simpler;
- Synergies with other Union programmes are difficult to achieve but are a must;
- The programming process for the calls and missions needs to be enhanced;
- The drive for simplification needs to continue; and
- Being able to measure and communicate impact is key.

- **External expertise**

The Commission has relied extensively on external expertise. This includes in particular the recommendations and findings of the High Level Group chaired by Pascal Lamy, presented in the report '*LAB – FAB – APP: Investing in the European future we want, Report of the independent High Level Group on maximising the impact of EU Research & Innovation Programmes*', adopted in July 2017.

The *European Innovation Council High Level Group of Innovators* was set up in January 2017 and mandated to support the European Commission in developing the European Innovation Council. The report '*Europe is back: Accelerating breakthrough innovation*' with 14 recommendations was adopted in January 2018.

Following the recommendations of the Lamy report on missions, an external expert was appointed to advise the Commission on the mission-oriented approach. In February 2018, Professor Mariana Mazzucato presented a report '*Mission-Oriented Research & Innovation in the European Union - A problem-solving approach to fuel innovation-led growth*'[1] in which she recommended five key criteria for the selection of missions at Union level.

Furthermore, the High-Level Strategy Group on industrial technologies, chaired by Professor Jürgen Rüttgers, proposed a redefinition of key enabling technologies and made

[1] https://ec.europa.eu/info/news/bold-science-meet-big-challenges-independent-report-calls-mission-oriented-eu-research-and-innovation-2018-feb-22_en

recommendations for ways to maximise their contribution to inclusive growth and democracy, prosperity, more equality and better jobs.

An extensive list of reports from high level groups and studies are given in the annex to the impact assessment.

- **Impact assessment**

This proposal is supported by an impact assessment. The opinion of the Regulatory Scrutiny Board was "positive with reservations", recommending to better describe (i) the balance between the Programme pillars, (ii) the rationale and value added of the EIC and R&I Missions, and (iii) the streamlined delivery mechanisms[2].

In a globally competitive, increasingly knowledge-based economy, R&I determine the productivity and competitiveness of an advanced economy like Europe's: about two-thirds of Europe's economic growth over the last decades has been driven by innovation. They drive and support the creation of new and better jobs, and the development of knowledge-intensive activities, which account for more than 33% of total employment in Europe. Europe must maintain and even step up its technological, industrial and innovation capacities in a sustainable way, in strategic areas that underpin our society, economy and international commitments.

More must be done to stimulate widespread innovation in Europe, which is at the basis of maintaining Europe's socio-economic model and values. The expected impacts of continuing the Programme were analysed in the impact assessment. Compared to the ongoing Programme, Horizon Europe is expected to generate:

- **new and more knowledge and technologies, promoting scientific excellence and significant scientific impact.** The Programme will continue to facilitate cross-border collaboration between top scientists and innovators, allowing for trans-national and cross-sector coordination between public and private R&I investment. Horizon 2020 has already attracted the world's best research institutions and researchers, supported 340 000 researchers, and developed Europe's skilled human capital. Scientific publications from Horizon 2020 are world class (cited more than twice the world average) and have contributed to major scientific breakthroughs.
- **positive effects on growth, trade and investment** flows, and on quality jobs and international mobility for researchers in the European Research Area. The Programme is expected to increase GDP on average by 0.08% to 0.19% over 25 years, which means that each euro invested can potentially generate a return of up to 11 euro of GDP over the same period. Union investments in R&I are expected to directly generate an estimated gain of up to 100 000 jobs in R&I activities in the 'investment phase' (2021-2027). The economic activity generated by the Programme is expected to foster an indirect gain of up to 200 000 jobs over 2027-2036, of which 40% will be highly skilled.
- **significant social and environmental impact**. This impact will be created by disseminating, exploiting and taking up scientific results and translating them into new products, services and processes, which in turn will help successfully deliver on political objectives, as well as social and eco-innovation.

[2] A detailed analysis of how these recommendations were addressed is annexed to the Impact Assessment.

These impacts mean that **the potential cost of discontinuing the Union R&I Programme (i.e. the cost of non-Europe) is substantial**. Discontinuation could result in a decline of competitiveness and growth (up to EUR 720 billion of GDP loss over 25 years[3]), sharp reductions in the private and national investments that are currently leveraged by Union-level co-investments, and significant losses of social, environmental and economic impacts.

Moreover, the new Programme will further simplify rules, increase legal certainty and reduce administrative burden for beneficiaries and programme administrators.

- **Simplification**

Simplification is key to reaching the objectives of Horizon Europe. To attract the best researchers and the most innovative entrepreneurs, the administrative burden of participating must be kept to a minimum.

The main simplification features set out, for the most part, in the rules for participation and dissemination are (further details further below):

– **Continuity** in the simplification measures applied to Horizon 2020 which were appreciated by participants, such as the three-pillar programme structure, the simple funding model and the Participant Portal;
– **Simplification of the funding landscape**: the approach to partnership, for example, is streamlined, with only three types and a clear set of criteria for their selection and implementation, to ensure that they contribute to the general and specific objectives of Horizon Europe;
– **Further simplification of the current real cost reimbursement system**, in particular as regards personnel costs;
– **Broader acceptance of beneficiaries' usual accounting practice**, in particular for internal invoicing and services which would also cover the equivalent to Horizon 2020 large research infrastructures;
– **Increased use of simplified cost options**, as provided for by the new Financial Regulation, in particular of lump-sum project funding in appropriate areas and taking account of the lessons from the pilot under Horizon 2020;
– **An increased cross-reliance on audits** to reduce the audit burden for beneficiaries taking part in several Union funding programmes;
– **Extending the Participants' Guarantee Fund (renamed Mutual Insurance Mechanism)** to beneficiaries of any directly managed Union programme, and for actions not covered by the fund under Horizon 2020 (Article 185 Initiatives);
– An acceptance of the **seal of excellence**, for which proposals may receive support from the European Regional Development Fund, the Cohesion Fund, the European Social Fund+ or the European Agricultural Fund for Rural Development;
– Maintaining **key elements of the proposal evaluation** and selection process, throughout all parts of Horizon Europe. A broader range of expertise will however be sought, in function of the scope of the calls, including expertise from user groups and civil society organisations[4]. The novelty of the missions-based approach will be to go from assessing excellence and impact only at the level of individual proposals, to also assessing how excellent proposals fit together as a portfolio. While the main

[3] Based on the NEMESIS model, which corresponds to the highest impact of the Programme.
[4] Network Analysis of Civil Society Organisations' participation in the EU Framework Programmes

principles are spelled out in advance in the rules, the work programmes will provide further details on the application of the award criteria depending on the objectives of the calls and instruments (e.g. the aspects to be taken into account in the evaluation procedures).

Beyond the Horizon Europe basic legal acts, steps will be taken to simplify the implementation of the Programme, starting with the model grant agreements and covering all processes, documentation, helpdesks, support services, and IT systems, alleviating further the administrative burden for participants and accelerating the granting process. The Commission will develop such improved implementation tools in parallel with the legislative process, in consultation with stakeholders.

- **Fundamental rights**

This Regulation respects fundamental rights and observes the principles recognised in the Charter of Fundamental Rights of the European Union.

4. BUDGETARY IMPLICATIONS

The budget of all proposals is presented in current prices. The Commission may continue, on the basis of a cost-benefit analysis, to use executive agencies to implement of Horizon Europe.

5. OTHER ELEMENTS

- **Implementation plans and monitoring, evaluation and reporting arrangements**

The Commission may increase the share of the budget delegated to **executive agencies**, subject to the outcome of the mandatory cost-benefit analysis. Given the new elements in the remit of the new Framework Programme (e.g. missions and the European Innovation Council) and the increased budget to be delegated, changes to agencies' mandates will be needed[5].

This approach will help reduce of administrative costs, improve synergies with other programmes and help focus more on performance.

Activities with a particularly substantial policy content are in principle excluded from delegation to executive agencies, but the feedback of R&I data and results from these agencies to the Commission will be stepped up in line with the dissemination and exploitation strategy, in order to strengthen the evidence-base for policy-making.

Evaluations will be carried out in line with paragraphs 22 and 23 of the Interinstitutional Agreement of 13 April 2016[6], where the three institutions confirmed that evaluations of existing legislation and policy should provide the basis for impact assessments of options for further action. The evaluations will assess the programme's effects on the ground based on the programme indicators/targets and a detailed analysis of the degree to which the programme

[5] Further elements can be found in the Annex to the Impact Assessment

[6] Interinstitutional Agreement between the European Parliament, the Council of the European Union and the European Commission on Better Law-Making of 13 April 2016; OJ L 123, 12.5.2016, p. 1–14

can be deemed relevant, effective, efficient, provides enough Union added value and is coherent with other Union policies. They will include lessons learnt to identify any deficiencies/problems or any potential to further improve the actions or their results and to help maximise their exploitation/impact.

In order to be able to better track and communicate the Programme's impact, the Horizon Europe **monitoring and evaluation system** will have three main building blocks:

- Annual monitoring of the programme performance: tracking of performance indicators in the short, medium and longer-term according to key impact pathways towards Programme objectives, based on baselines and targets where possible;
- Continuous collection of programme management and implementation data;
- Two fully-fledged (meta)-evaluations of the programme at mid-term and ex-post (upon completion). These evaluations will build on the coordinated evaluations of each programme part, type of actions and delivery mechanism according to common evaluation criteria and standard methodologies and will inform adaptations to be made to the programme.

Impact pathways, and related key impact pathway indicators, will structure the annual monitoring of the programme performance towards its objectives. These pathways reflect three complementary impact categories, reflecting the non-linear nature of R&I investment:

1. Scientific impact: related to supporting the creation and diffusion of high-quality new knowledge, skills, technologies and solutions to global challenges;
2. Societal impact: related to strengthening the impact of research and innovation in developing, supporting and implementing Union policies, and support the uptake of innovative solutions in industry and society to address global challenges;
3. Economic impact: related to fostering all forms of innovation, including breakthrough innovation, and strengthening market deployment of innovative solutions.

For each of these impact categories, proxy indicators will be used to track on progress distinguishing between the short, medium and longer term.

Management and implementation data[7] for all parts of the Programme and all delivery mechanisms will continue to be collected in close to real-time. This data will be collected in a centrally managed and harmonised way. It will also continue to be publicly available on a dedicated on-line portal in close to real-time allowing extraction per programme parts, types of actions and types of organisations (including specific data for SMEs). This will include inter alia proposals, applications, participations and projects (number, quality, Union contribution etc.); success rates; profiles of evaluators, applicants and participants (partly based on unique identifiers, and including country, gender, turnover, role in project etc.); implementation (including time-to-grant, error rate, satisfaction rate and the rate of risk taking etc.); communication, dissemination and exploitation activities; and contribution to Union climate and environmental objectives. In order to better track investments towards a knowledge-based society, information on the Union funding allocated to the exploitation and deployment of R&I results, notably from the Framework Programmes, may be collected over the course of the programmes.

[7] Further elements can be found in the Annex to the Impact Assessment.

- **Detailed explanation of the specific provisions of the proposal**

Horizon Europe is a new framework programme designed for maximum impact in the context of the evolving nature of research and innovation, with an architecture designed for enhanced coherence and performance. It is proposed to use a three-pillar structure, with each pillar interconnected with the others and complemented by underpinning activities, to strengthen the European Research Area.

The three-pillar structure

The first pillar on Open Science will ensure strong continuity with Horizon 2020 in supporting excellent science within a bottom-up approach in order to reinforce the Union's scientific leadership, high-quality knowledge and skills development, through the European Research Council, Marie Skłodowska-Curie Actions and research infrastructures. The principles and practices of open science will be mainstreamed across the entire Programme.

The second pillar on Global Challenges and Industrial Competitiveness will take forward the societal challenges and industrial technologies in a more 'top down' directed approach addressing Union and global policy and competitiveness challenges and opportunities These are integrated into five clusters ('health'; 'inclusive and secure society'; 'digital and industry'; 'climate, energy and mobility'; and 'food and natural resources'), aligned with Union and global policy priorities (the Sustainable Development Goals) and having cooperation and competitiveness as key drivers. The integration in clusters, each having a number of intervention areas, is designed to incentivise cross-disciplinary, cross-sectoral, cross-policy and international collaboration, thereby achieving higher impact and better seizing the innovation potential that is often greatest at the intersection of disciplines and sectors.

Alongside the regular calls for proposals, **a limited set of highly visible missions will be introduced**. These will be designed in the context of a strategic planning process. Missions, with ambitious but time-bound and achievable goals, should speak to the public and engage it where relevant. They will be co-designed with Member States, the European Parliament, stakeholders and citizens.

The second pillar embodies industry's essential role in achieving all the Programme's objectives. To ensure industrial competitiveness and the capacity to address the global challenges ahead, the Union needs to reinforce and maintain its technological and industrial capacities in key areas that underpin the transformation of our economy and society. Priority will be given to investments in the key enabling technologies of the future.

The second pillar will also provide scientific evidence and technical support to Union policies, including through the activities of the Joint Research Centre. This pillar will help realise Union policy objectives within the spirit of the Innovation Principle as put forward in the European Commission's Communication of 15 May 2018 on Research and Innovation: a renewed European agenda. Particular attention should be given to increasing the share of participation in research and funding of entities from low-to-mid income third countries.

While innovation will be supported throughout the whole programme, the **third pillar on Open Innovation will essentially focus on scaling up breakthrough and market-creating innovation by establishing a European Innovation Council**, support the enhancement of European ecosystems of innovation and continued support to the European Institute of Innovation and Technology (EIT). The European Innovation Council will offer a one-stop-shop to high-potential innovators**.** Activities will be defined mainly bottom-up. This should significantly simplify and streamline current support, and fill any gap between the grant

funding in other parts of Horizon Europe and the financial instruments of InvestEU. Support will also be provided for collaboration with and between national and regional innovation agencies but also any other public or private and general or sectoral actor of the European innovation landscape.

The European Institute of Innovation and Technology will complement the European Innovation Council by promoting sustainable innovation ecosystems and developing entrepreneurial and innovation skills in priority areas through its Knowledge and Innovation Communities. The European Institute of Innovation and Technology will contribute to the entrepreneurial transformation of EU universities, and its activities will maximise synergies and complementarities with actions under the Global Challenges and Industrial Competitiveness Pillar.

Europe's economic and social prosperity, the quality of life and jobs, and of the environment, depend on its ability to create knowledge and to innovate. The bottom-up approaches in the first and third pillars aim primarily at reinforcing excellence, creating knowledge and innovation and encouraging greater investment especially in new, fast-growing areas of cutting-edge science and breakthrough innovation with the potential to scale up. These are essential to address the knowledge and innovation gap and strengthen the Union's scientific and technological bases, thereby supporting Union strategic objectives and policy priorities and contributing to long-term growth and competiveness.

The three pillars will be underpinned by **activities to strengthening the European Research Area**, specifically: sharing excellence to fully exploit the potential in less R&I performing countries so that they attain high Union standards of excellence (e.g., via teaming, twinning, ERA chairs); and reforming and enhancing the European R&I system, covering the next generation Policy Support Facility.

This part will also include activities on: foresight activities; monitoring and evaluating the Framework Programme and disseminating and exploiting results; modernising European universities; supporting enhanced international cooperation; and science, society and citizens.

The three-pillar structure will reinforce the **internal coherence of the different programme parts** towards achieving programme level objectives. The clearly defined and complementary rationales for intervention will enhance their interconnectivity, with open science and open innovation being common threads. It will ensure a systemic, **impact-based approach** that cuts across disciplines and silos for better impact. For example, missions will have a pull effect on activities in the open science and open innovation pillars, while innovations with rapid scale-up potential arising from collaborative research, the European Research Council's proof of concept or the EIT's *Knowledge and Innovation Communities* will be rapidly signposted to the European Innovation Council. Strategic planning will reinforce the programme's internal coherence even more.

Cross-cutting elements

Horizon Europe will significantly **strengthen international cooperation** which is crucial to ensure access to talent, knowledge, know-how, facilities and markets worldwide, to effectively tackle global challenges and to implement global commitments. The Framework Programme will intensify cooperation and extend association agreements to include countries with excellent science, technology and innovation capacities. The Programme will continue to fund entities from low-to-mid income countries, and to fund entities from industrialised and emerging economies only if they possess essential competence or facilities.

The principle of open science will become the modus operandi of the new Programme. It will go beyond the open access policy of Horizon 2020 and require open access to publications and data (with robust opt-outs for the latter), and to research data management plans. The Programme will foster the widespread use of FAIR (findable, accessible, interoperable, and re-usable) data; and activities that enhance researchers' skills in open science and support reward systems that promote open science. Research integrity and citizen science will play a central role, as will the development of a new generation of research assessment indicators.

Horizon Europe will take a **new and more impact-focussed** approach **to partnerships**. The current plethora of European Partnerships will be rationalised, so that they can continue in simplified forms that are open to all (such as academia, industry, Member States, and philanthropic foundations), while ensuring that they can effectively contribute to the general and specific objectives of Horizon Europe. They will be designed on the basis of Union added value, transparency, openness, impact, leverage effect, the long-term financial commitment of all the involved parties, flexibility, coherence and complementarity with Union, national and regional initiatives. This approach aims at a consolidated and rationalised number of partnerships that avoid overlaps and duplication and that are better aligned with Union policy priorities.

There will be three levels of partnerships:

(a) co-programmed, based on memoranda of understanding or contractual arrangements with partners;

(b) co-funded, based on a single, flexible programme co-fund action;

(c) institutionalised partnerships (based on Articles 185 or 187 TFEU, and the EIT Regulation for the *Knowledge and Innovation Communities*).

The areas for partnerships, including the possible continuation of existing ones, will be identified during the strategic planning process (the proposed legal basis sets out only the instruments and criteria that will guide their use). Proposals for future EIT Knowledge and Innovation Communities (KICs) will be indicated in the EIT Strategic Innovation Agenda (SIA), and will take into account the outcomes of the strategic planning process. Themes will be identified and selected in a way that maximises complementarities and synergies with actions under the 'Global Challenges and Industrial Competitiveness' Pillar.

The Commission proposal for the 2021-2027 Multiannual Financial Framework set a more ambitious goal for climate **mainstreaming** across all EU programmes, with an overall target of 25% of EU expenditure contributing to climate objectives. The contribution of this programme to the achievement of this overall target will be tracked through an EU climate marker system at an appropriate level of disaggregation, including the use of more precise methodologies where these are available. The Commission will continue to present the information annually in terms of commitment appropriations in the context of the annual draft budget.

To support the full utilisation of the potential of the programme to contribute to climate objectives, the Commission will seek to identify relevant actions throughout the programme preparation, implementation, review and evaluation processes.

Synergies

Synergies between different Union programmes will be highly encouraged and enhanced through the strategic planning process, which will act as a reference framework for R&I support across the Union's budget. Effective and operational synergies will thus be ensured with other Union programmes, notably to develop a more effective science-policy interface and address policy needs, as well as promote faster dissemination and uptake of research and innovation results and to enable the pursuit of common objectives and common areas for activities (such as partnership areas or mission areas).

These programmes would include, among others, the common agricultural policy (CAP); the European Regional Development Fund (ERDF); the European Social Fund (ESF+); the European Space Programme; the Single Market Programme; the Programme for Environment & Climate Action (LIFE); the Connecting Europe Facility (CEF); the Digital Europe Programme (DEP); the Erasmus Programme; the InvestEU Fund; and the external action instruments (Neighbourhood, Development and International Cooperation Instrument (NDICI) and Instrument for Pre-accession Assistance (IPA III)). Particular attention will be paid to links with the European Semester and the Reform Delivery Tool, including via the Policy Support Facility.

In full complementarity with Horizon Europe, these programmes may provide support for research and innovation activities, including demonstration of solutions tailored to specific national/regional contexts/needs, as well as bilateral and interregional initiatives. In particular, the European Regional Development Fund will support the building of research and innovation eco-systems in the Member States in terms of infrastructures, human resources, modernisation of the public and private sectors, and (inter)regional cooperation networks, such as clusters structures.

Programmes such as the Connecting Europe Facility (CEF), the Digital Europe Programme (DEP), the European Regional Development Fund, European Social Fund, the European Agricultural Fund for Rural Development, or LIFE will make use of public procurement as a key instrument to deploy physical infrastructures and innovative technologies and solutions that can originate from Framework Programme activities and beyond.

The rules for participation and dissemination

The following main new features have been introduced in the **rules for participation and dissemination**:

- **The principle of a single set of rules will continue, but with further improvements.** In line with the corporate approach towards a single-rule book and the preparation of the MFF, the new Union Financial Regulation[8] will be used as a common reference under which the rules applicable to all Union funding programmes will be aligned.
- **Horizon 2020 funding rates will be maintained.** The funding rate will be a maximum that can be reduced when justified for implementing specific actions. This will ensure the programme remains attractive.

[8] European Commission (2017), Financial Regulation applicable to the general budget of the Union and its rules of application, available at: http://ec.europa.eu/budget/library/biblio/documents/regulations/financial_regulation_2017_en.pdf

- **The cost reimbursement scheme will be further simplified,** in particular in what concerns the actual costs scheme for personnel costs: the distinction between basic and additional remuneration will be removed and the Horizon 2020 cap on the additional remuneration abolished.
- **Broader acceptance of the usual cost accounting practice**: the unit cost for internally invoiced goods and services will make it possible to cover actual indirect costs calculated in accordance with the usual cost accounting practices.
- **A wider cross-reliance on audits and assessments – including with other Union programmes – is envisaged**. This should reduce the administrative burden on beneficiaries of Union funds by further aligning the rules. The rules explicitly provide for cross-reliance by considering also other elements of assurance resulting in a need for fewer financial audits on beneficiaries that have positive results on their systems audits. Moreover, cross-reliance can be part of the conditions for lifting the obligation for the beneficiary to submit a certificate on the financial statement.
- The **Participant Guarantee Fund (renamed Mutual Insurance Mechanism) will be extended** to all forms of institutionalised partnerships, including Article 185 initiatives not covered under Horizon 2020, and to beneficiaries from other directly managed Union programmes.
- **Dissemination and exploitation**: most provisions of the Horizon 2020 rules for participation and dissemination are maintained, with further improvements where appropriate. This includes reinforcing the focus on exploitation, in particular within the Union and the role of the plan for the dissemination and exploitation during and after the end of the project. Moreover, the Commission will provide dedicated support to dissemination, exploitation and knowledge diffusion and put more emphasis on promoting the exploitation of R&I results.
- **Communication by the beneficiaries of Union funds**: in line with the recommendations of the Lamy report, the Rules underline the role of beneficiaries in providing coherent, effective and proportionate targeted information to multiple audiences, including the media and the public. Building on experience in Horizon 2020, guidance to beneficiaries will show how they can become principal communicators of all aspects of their project activities.
- **Fostering open science** will ensure better exploitation of R&I results within the Union. This will assist market uptake, boost impact, maximise synergies with other Union initiatives and increase the innovation potential of results generated by Union funding.

The following actions are in particular envisaged:

- Supporting R&I stakeholders in fully endorsing the principle of the open access and working with them to make the European Open Science Cloud a reality;
- Strengthening the European data space[9] that allows for unrestricted and constant knowledge and data circulation and creating the necessary incentives for programme beneficiaries and innovators to share their results and data for reuse.

[9] EC Communication "Towards a common European data space", COM(2018)232 final

- Putting in place incentives for the exploitation of Programme results by helping beneficiaries to find the most appropriate instruments and channels for market uptake of their innovation;
- Putting in place a strategy for increasing the availability of R&I results and accelerating their uptake, including for policy, thereby boosting the overall impact of the programme and the European innovation potential;
- Providing holistic support throughout the dissemination and exploitation lifecycle to ensure a constant stream of innovation coming from the programme.

For Horizon Europe, the **award criteria** will be excellence; impact; and quality and efficiency of the implementation. These are the same criteria as for previous Framework Programmes.

The proposed Regulation specifies excellence as the sole criterion for the European Research Council (ERC), in line with the objective of advancing the frontiers of knowledge. This provision does not represent a deviation from the agreed need to boost impact in the Programme. In fact, impact can refer to scientific, technological, socio-economic or other types of impact. In the case of the ERC, the emphasis is on scientific impact, which is the foundation for many other types of impact, including socio-economic impact. The ERC will continue to set a clear and inspirational ambition for European science by creating pan-European competition for ideas and talent.

The European Institute for Innovation and Technology

The **European Institute for Innovation and Technology**, primarily through its *Knowledge and Innovation Communities* (KICs) will aim at strengthening innovation ecosystems that tackle global challenges, by fostering the integration of business, research, higher education and entrepreneurship. While the EIT's focus on innovation ecosystems make it naturally fit within the Open Innovation pillar of Horizon Europe, the cross-pillar nature of the EIT can bring an additional targeted approach towards the global challenges highlighted in the programme. Proposals for future EIT KICs in compliance with the EIT Regulation will be indicated in the EIT Strategic Innovation Agenda (SIA) and will take into account the outcome of the strategic planning process and the priorities of the Global Challenges and Industrial Competitiveness pillar.

The Joint Research Centre (JRC)

While the **Joint Research Centre** will contribute broadly to other parts of Horizon Europe, the JRC will play a strong supporting role in the Global Challenges and Industrial Competitiveness pillar. In this context, it will continue to provide scientific advice and support to Union policy throughout the policy cycle.

2018/0224 (COD)

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

(Text with EEA relevance)

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 Committee[10],

Having regard to the opinion of the Committee of the Regions[11],

Acting in accordance with the ordinary legislative procedure[12],

Whereas:

(1) It is the Union's objective to strengthen its scientific and technological bases and encourage its competitiveness, 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, economic and societal impact in pursuit of this general objective, the Union should invest in research and innovation through Horizon Europe - a Framework Programme for Research and Innovation 2021-2027 (the 'Programme') to support the creation and diffusion of high-quality knowledge and technologies, to strengthen the impact of research and innovation in developing, supporting and implementing Union policies, to support the uptake of innovative solutions in industry and society to address global challenges and promote industrial competitiveness; to foster all forms of innovation, including breakthrough innovation, and strengthen market deployment of innovative solutions; and optimise the delivery of such investment for increased impact within a strengthened European Research Area.

(3) The promotion of research and innovation activities deemed necessary to help realise Union policy objectives should take into account the innovation principle as put forward in the Commission Communication of 15 May 2018 'A renewed European

[10] OJ C […], […], p. […].
[11] OJ C […], […], p. […].
[12] Position of the European Parliament of … [(not yet published in the Official Journal)] and decision of the Council of ….

Agenda for Research and Innovation - Europe's chance to shape its future' (COM(2018)306).

(4) Open Science, Open Innovation, Open to the World constitute general principles, which should ensure excellence and impact of the Union's investment in research and innovation. They should be adhered in the implementation of the Programme, in particular for the strategic planning in respect of the pillar 'Global Challenges and Industrial Competitiveness'.

(5) Open science, including open access to scientific publications and research data, 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, research data and other research outputs in an open and non-discriminatory manner, free of charge and as early as possible in the dissemination process, and to enable their widest possible use and re-use. 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.

(6) The conception and design of the Programme should respond to the need for establishing a critical mass of supported activities, throughout the EU Union and through international cooperation, in line with the UN Sustainable Development Goals (SDGs). Programme implementation should reinforce the pursuit of this aim.

(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.

(8) The Programme should maintain a balanced approach 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.

(9) Research activities carried out under the pillar 'Open Science' should be determined according to the needs and opportunities of science. The research agenda should be set in close liaison with the scientific community. Research should be funded on the basis of excellence.

(10) The pillar 'Global Challenges and Industrial Competitiveness' should be established through clusters of research and innovation activities, in order to maximise integration across the respective work areas while securing high and sustainable levels of 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 UN SDGs and the competitiveness of the Union's industries therein.

(11) Full engagement of industry in the Programme, at all levels 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. Industry should contribute to the perspectives and priorities established through the strategic planning process which should support the development of work programmes. 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 Council[13] ('Horizon 2020').

(12) It is important to support industry to stay or become world leader in innovation, digitisation and decarbonisation, notably through investments in key enabling technologies that will underpin tomorrow's business. The Programme's actions should be used to address market failures or sub-optimal investment situations, in a proportionate manner, without duplicating or crowding out private financing and have a clear European added value. 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 the definition of types of action available in calls for proposals. In principle 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 Industrial Competitiveness' could allow grants for large-scale product validation and market replication.

(14) The Commission's Communication on the interim evaluation of Horizon 2020 (COM(2018) 2 final) has 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 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, citizen involvement and wide communication; to rationalise the Union funding landscape, 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 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.

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(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. 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 they 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 Programme should enter into European Partnerships with private and/or public sector partners. Such partners include industry, research organisations, bodies with a public service mission at local, regional, national or international level, and civil society organisations such as foundations 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 EU can uphold its interests in strategic areas.[14]

(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 relevant needs of the users of the JRC and the needs of Union policies, and ensuring the protection of the financial interests of the Union. The JRC should continue to generate additional resources.

(19) The pillar 'Open Innovation' 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 attract innovative companies 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.

(20) The policy objectives of this Programme will be also addressed through financial instruments and budgetary guarantee under the policy windows of the InvestEU Fund. Financial support should be used to address market failures or sub-optimal investment situations, in a proportionate manner and actions should not duplicate or crowd out private financing or distort competition in the Internal market. Actions should have a clear European added value.

(21) The EIC through its instruments – Pathfinder and Accelerator – should aim at identifying, developing and deploying breakthrough market creating innovations and supporting their rapid scale-up to EU and international levels. Through coherent and streamlined support to breakthrough innovation the EIC should fill the current vacuum

[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).

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.

(22) Through EIC blended finance, the Accelerator should bridge the "valley of death" between research, pre-mass commercialisation and the scaling-up of companies. In particular, the Accelerator should provide support to operations presenting such technological or market risks that they are not considered as bankable and cannot leverage significant investments from the market, hence complementing the InvestEU programme established by Regulation …[15]..

(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 business, research, higher education and entrepreneurship. The EIT should foster innovation in its activities and should support 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 'Open Innovation', the planning of its KICs should be aligned through the strategic planning process with the pillar 'Global Challenges and Industrial Competitiveness'.

(24) Ensuring and preserving a level playing field for companies that compete in a given market should be a key requirement for breakthrough or disruptive 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.

(25) The Programme should promote and integrate cooperation with third countries and international organisations and initiatives based on common interest, mutual benefit and global commitments to implement the UN SDGs. International cooperation should aim to strengthen the Union's research and innovation excellence, attractiveness and economic and industrial competitiveness, to tackle global challenges, as embodied in the UN SDGs, 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 to the Programme should be promoted.

(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 agendas and contents, 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 '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

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between science, technology, culture and the arts to obtain a new quality of sustainable innovation.

(27) Pursuant to Article 349 of the TFEU, the Union's outermost regions are entitled to specific measures (taking into account their structural, social and economic situation) regarding access to horizontal Union programmes. The Programme should therefore take into account the specific characteristics of those regions in line with the Commission's Communication on 'A stronger and renewed strategic partnership with the EU's outermost regions' (COM (2017) 623 final) as endorsed by the Council on 12 April 2018.

(28) The activities developed under the Programme should aim at eliminating gender inequalities 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 adequately integrated in research and innovation content and followed through at all stages of the research cycle.

(29) 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 Fund[16] which defines the rules of participation for defence research. Research and innovation activities carried out under the European Defence Fund should have an exclusive focus on defence applications.

(30) This Regulation lays down a financial envelope for the Programme. The amount indicated for the specific programme referred to in Article 1(3)(a) 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[17]], for the European Parliament and the Council during the annual budgetary procedure.

(31) Regulation (EU, Euratom) No [the new FR] (the 'Financial Regulation') applies to this Programme, unless otherwise specified. 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.

(32) In accordance with the Financial Regulation, Regulation (EU, Euratom) No 883/2013 of the European Parliament and of the Council[18], Council Regulation (Euratom, EC) No 2988/95[19],Council Regulation (Euratom, EC) No 2185/96[20] and Council

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17 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*

18 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 L248, 18.9.2013, p. 1.

19 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).

20 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 L292,15.11.96 , p.2).

Regulation (EU) 2017/1939[21], 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 sanctions. In particular, in accordance with Regulation (EU, Euratom) No 883/2013 and Regulation (Euratom, EC) No 2185/96 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 (EPPO) may investigate and prosecute fraud and other criminal offences affecting the financial interests of the Union as provided for in Directive (EU) 2017/1371 of the European Parliament and of the Council[22]. In accordance with the Financial Regulation, any person or entity receiving Union funds is to fully cooperate in the protection of the Union's financial interests, to grant the necessary rights and access to the Commission, OLAF, the EPPO and the European Court of Auditors (ECA) and to ensure that any third parties involved in the implementation of Union funds grant equivalent rights.

(33) Pursuant to [reference to be updated as appropriate according to a new decision on OCTs: Article 94 of Council Decision 2013/755/EU[23]], 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 monitoring requirements, while avoiding overregulation and administrative burdens, in particular on Member States. 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;

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21 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 L283, 31.10.2017, p.1).

22 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).

23 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).

and strengthen Europe's role as a global actor. Breakthrough solutions in Horizon Europe will be supported by data and services made available by the Space Programme.

(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.

(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. Flexibility to adopt specific rules should be ensured when 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 2013[24], 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.

(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) 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.

(42) Horizontal financial rules adopted by the European Parliament and the Council on the basis of Article 322 of the Treaty on the Functioning of the European Union apply to this Regulation. These rules are laid down in the Financial Regulation and determine in particular the procedure for establishing and implementing the budget through grants, procurement, prizes, indirect implementation, 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.

[24] OJ C 205, 19.7.2013, p. 9.

(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.

(46) The funding rates in this Regulation are referred to as maximums in order to comply with the co-financing principle.

(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.

(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.

(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, in particular in the Union. Beneficiaries should update their plans regarding the exploitation and dissemination of their results during and after the end of the action.

(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. Where relevant, the necessity to ensure the overall coherence of the portfolio of projects should be taken into account.

(52) A wider cross-reliance on audits and assessments – including with other Union programmes – should be envisaged, 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 of 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, 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.

HAVE ADOPTED THIS REGULATION:

TITLE I

GENERAL PROVISIONS

Article 1

Subject matter

1. This Regulation establishes Horizon Europe - the Framework Programme for Research and Innovation ('the Programme') and the rules for participation and dissemination in indirect actions under the Programme.

2. It lays down the objectives of the Programme, the budget for the period 2021 – 2027, the forms of Union funding and the rules for providing such funding.

3. The Programme shall be implemented through:

   (a) the specific programme established by Decision …/…/EU[25], which includes a financial contribution to the EIT;

   (b) the specific programme on defence research established by Regulation …/…/EU.

4. The terms 'Horizon Europe', 'the Programme' and 'specific programme' used in this Regulation address matters relevant only to the specific programme described in paragraph 3(a), unless otherwise explicitly stated.

Article 2

Definitions

For the purposes of this Regulation, the following definitions apply:

(1) 'research infrastructures' mean facilities that provide resources and services for the research communities to conduct research and foster innovation in their fields. This definition includes the associated human resources, and it covers major equipment or sets of instruments; knowledge-related facilities such as collections, archives or scientific data infrastructures; computing systems, communication networks, and any other infrastructure, of a unique nature and open to external users, essential to achieve excellence in research and innovation. Where relevant, they may be used

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beyond research, for example for education or public services and they may be 'single sited', 'virtual' or 'distributed';

(2) 'smart specialisation strategy' has the same meaning as smart specialisation strategy as defined in Regulation (EU) No 1303/2013 of the European Parliament and of the Council[26] and fulfilling the enabling conditions set out in Regulation (EU) XX [Common Provisions Regulation];

(3) 'European Partnership' means an initiative where the Union, together with private and/or public partners (such as industry, research organisations, bodies with a public service mission at local, regional, national or international level or civil society organisations including foundations), commit to jointly support the development and implementation of a programme of research and innovation activities, including those related to market, regulatory or policy uptake;

(4) 'open access' means the practice of providing online access to research outputs resulting from actions funded under the Programme, in particular scientific publications and research data, free of charge to the end-user;

(5) 'mission' means a portfolio of actions intended to achieve a measurable goal within a set timeframe, and impact for science and technology and/or society and citizens that could not be achieved through individual actions;

(6) 'pre-commercial procurement' means the procurement of research and development services involving risk-benefit sharing under market conditions, and competitive development in phases, where there is a clear separation of the research and development services procured from the deployment of commercial volumes of end-products;

(7) 'public procurement of innovative solutions' means procurement where contracting authorities act as a launch customer for innovative goods or services which are not yet available on a large-scale commercial basis, and may include conformity testing.

(8) "access rights" means rights to use results or background;

(9) "background" means any data, know-how or information whatever its form or nature, tangible or intangible, including any rights such as intellectual property rights, that is: (i) held by beneficiaries prior to their accession to the action; (ii) identified by the beneficiaries in writing in any manner as needed for implementing the action or for exploiting its results;

(10) "dissemination" means the public disclosure of the results by appropriate means (other than resulting from protecting or exploiting the results), including by scientific publications in any medium;

(11) "exploitation" means the use of results in further research and innovation activities other than those covered by the action concerned, or in developing, creating, manufacturing and marketing a product or process, or in creating and providing a service, or in standardisation activities;

[26] Regulation (EU) No 1303/2013 of the European Parliament and of the Council of 17 December 2013 laying down common provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund and laying down general provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund and the European Maritime and Fisheries Fund and repealing Council Regulation (EC) No 1083/2006.

(12) "fair and reasonable conditions" means appropriate conditions, including possible financial terms or royalty-free conditions, taking into account the specific circumstances of the request for access, for example the actual or potential value of the results or background to which access is requested and/or the scope, duration or other characteristics of the exploitation envisaged;

(13) "funding body" means a body or organisation, other than the Commission, as referred to in point (c) of Article 62(1) of the Financial Regulation, to which the Commission has entrusted budget implementation tasks under the Programme;

(14) "international European research organisation" means an international organisation, the majority of whose members are Member States or associated countries, and whose principal objective is to promote scientific and technological cooperation in Europe;

(15) 'legal entity' means any natural or legal person created and recognised as such under national law, Union law or international law, which has legal personality and which may, acting in its own name, exercise rights and be subject to obligations, or an entity without a legal personality in accordance with Article 197(2)(c) of the Financial Regulation;

(16) "non-profit legal entity" means a legal entity which by its legal form is non-profit-making or which has a legal or statutory obligation not to distribute profits to its shareholders or individual members;

(17) "mid-cap" means a company that is not a micro-, small- and medium-sized enterprise ('SME') as defined in Commission Recommendation 2003/361/EC[27], and that has a number of employees of up to 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;

(18) "results" means any tangible or intangible effect of the action, such as data, know-how or information, whatever its form or nature, whether or not it can be protected, as well as any rights attached to it, including intellectual property rights;

(19) "seal of excellence" means a certified label which shows that a proposal submitted to a call for proposals exceeded all of the thresholds set out in the work programme, but could not be funded due to lack of budget available to that call in the work programme;

(20) "work programme" means the document adopted by the Commission for the implementation of the specific programme[28] in accordance with its Article 12 or the equivalent document in content and structure adopted by a funding body.

(21) "reimbursable advance" means the part of a Horizon Europe or EIC blended finance corresponding to a loan under Title X of the Financial Regulation, but that is directly awarded by the Union on a non-profit basis to cover the costs of activities corresponding to an innovation action, and to be reimbursed by the beneficiary to the Union under the conditions provided for in the contract;

(22) "contract" means the agreement concluded between the Commission or a funding body with a legal entity implementing an innovation and market deployment action and supported by a Horizon Europe or EIC blended finance.

27

28 OJ ….

(23) “classified information” means EU classified information ad defined in Article 3 of Commission Decision (EU, Euratom) 2015/444 as well as classified information of Member States, classified information of third countries with which the Union has a security agreement and classified information of international organisation with which the Union has a security agreement;

(24) 'Blending operation' means actions supported by the EU budget, including within blending facilities pursuant to Article 2(6) of the Financial Regulation, combining non-repayable forms of support and/or financial instruments from the EU budget with repayable forms of support from development or other public finance institutions, as well as from commercial finance institutions and investors.

(25) “Horizon Europe or EIC blended finance” means a single financial support to an innovation and market deployment action, consisting in a specific combination of a grant or a reimbursable advance with an investment in equity;

Article 3

Programme objectives

1. The Programme’s general objective is to deliver scientific, economic and societal impact from the Union’s investments in research and innovation so as to strengthen the scientific and technological bases of the Union and foster its competitiveness, including in its industry, deliver on the Union strategic priorities, and contribute to tackling global challenges, including the Sustainable Development Goals.

2. The Programme has the following specific objectives:

   (a) to support the creation and diffusion of high-quality new knowledge, skills, technologies and solutions to global challenges;

   (b) to strengthen the impact of research and innovation in developing, supporting and implementing Union policies, and support the uptake of innovative solutions in industry and society to address global challenges;

   (c) to foster all forms of innovation, including breakthrough innovation, and strengthen market deployment of innovative solutions;

   (d) to optimise the Programme's delivery for increased impact within a strengthened European Research Area.

Article 4

Programme structure

1. The Programme is structured in the following parts contributing to the general and specific objectives set out in in Article 3:

   (1) Pillar I 'Open Science', pursuing the specific objective set out in Article 3(2)(a) and also supporting specific objectives set out in Article 3(2)(b) and (c), with the following components:

      (a) the European Research Council (ERC);

      (b) Marie Skłodowska-Curie Actions (MSCA);

      (c) research infrastructures.

(2) Pillar II 'Global Challenges and Industrial Competitiveness', pursuing the specific objective set out in Article 3(2)(b) and also supporting the specific objectives set out in Article 3(2)(a) and (c), with the following components:

(a) cluster 'Health';

(b) cluster 'Inclusive and Secure Society';

(c) cluster 'Digital and Industry';

(d) cluster 'Climate, Energy and Mobility';

(e) cluster 'Food and Natural Resources';

(f) non-nuclear direct actions of the Joint Research Centre (JRC).

(3) Pillar III 'Open Innovation', pursuing the specific objective set out in Article 3(2)(c) and also supporting the specific objectives set out in Article 3(2)(a) and (b), with the following components:

(a) the European Innovation Council (EIC);

(b) European innovation ecosystems;

(c) the European Institute of Innovation and Technology (EIT).

(4) Part 'Strengthening the European Research Area', pursuing the specific objective set out in Article 3(2)(d) and also supporting the specific objectives set out in Article 3(2)(a), (b) and (c), with the following components:

(a) sharing excellence;

(b) reforming and enhancing the European R&I System.

2. The broad lines of activities are set out in Annex I.

Article 5

Defence research

1. Activities to be carried out under the specific programme referred to in Article 1(3)(b) and which are laid down in Regulation …. establishing the European Defence Fund, shall be research with an exclusive focus on defence applications, with the objective to foster the competitiveness, efficiency and innovation of defence industry.

2. This Regulation does not apply to the specific programme referred to in Article 1(3)(b), with the exception of this Article, Article 1(1) and (3) and Article 9(1).

Article 6

Implementation and forms of EU funding

1. The Programme shall be implemented in direct management in accordance with the Financial Regulation or in indirect management with funding bodies referred to in Article 62(1)(c) of the Financial Regulation.

2. The Programme may provide funding to indirect actions in any of the forms laid down in the Financial Regulation, in particular grants (including operating grants), prizes and procurements It may also provide financing in the form of financial instruments within blending operations.

3. The rules for participation and dissemination laid down in this Regulation shall apply to indirect actions.

4. The main types of action to be used under the Programme are set out and defined in Annex II. All forms of funding shall be used in a flexible manner across all objectives of the Programme with their use being determined on the basis of the needs and the characteristics of the particular objectives.

5. The Programme shall also support direct actions undertaken by the JRC. Where these actions contribute to initiatives established under Article 185 or Article 187 TFEU, this contribution shall not be considered as part of the financial contribution allocated to those initiatives.

6. The implementation of the specific programme[29] shall be based on a transparent and strategic multiannual planning of research and innovation activities, in particular for the pillar 'Global Challenges and Industrial Competitiveness', following consultations with stakeholders about priorities and the suitable types of action and forms of implementation to use. This shall ensure alignment with other relevant Union programmes.

7. Horizon Europe activities shall be primarily delivered through calls for proposals, some of which organised as parts of missions and European Partnerships.

8. Research and innovation activities carried out under Horizon Europe shall have a focus on civil applications.

9. The Programme shall ensure the effective promotion of gender equality and the gender dimension in research and innovation content. Particular attention shall be paid to ensuring gender balance, subject to the situation in the field of research and innovation concerned, in evaluation panels and in bodies such as expert groups.

Article 7

Missions

1. Missions shall be programmed within the pillar 'Global Challenges and Industrial Competitiveness', but may also benefit from actions carried out within other parts of the Programme.

2. The missions shall be implemented in accordance with Article 5 of the Specific Programme. Evaluation shall be carried out in accordance with Article 26.

3. Missions shall:

   (a) have a clear EU-added value and contribute to reaching Union priorities;

   (b) be bold and inspirational, and hence have wide societal or economic relevance;

   (c) indicate a clear direction and be targeted, measurable and time-bound;

   (d) be centered on ambitious but realistic research and innovation activities;

   (e) spark activity across disciplines, sectors and actors;

   (f) be open to multiple, bottom-up solutions.

[29] …

Article 8

European Partnerships

1. Parts of Horizon Europe may be implemented through European Partnerships. The involvement of the Union in European Partnerships may take any of the following forms:

   (a) participation in partnerships set up on the basis of memoranda of understanding and/or contractual arrangements between the Commission and the partners referred to in Article 2(3), specifying the objectives of the partnership, related commitments for financial and/or in-kind contributions of the partners, key performance and impact indicators, and outputs to be delivered. They include the identification of complementary research and innovation activities that are implemented by the partners and by the Programme (Co-programmed European Partnerships);

   (b) participation in and financial contribution to a programme of research and innovation activities, based on the commitment of the partners for financial and in-kind contributions and integration of their relevant activities using a Programme co-fund action (Co-funded European Partnerships);

   (c) participation in and financial contribution to research and innovation programmes undertaken by several Member States in accordance with Article 185 TFEU, or by bodies established pursuant to Article 187 TFEU, such as Joint Undertakings, or by the EIT Knowledge and Innovation Communities in compliance with the [EIT Regulation] (Institutionalised European Partnerships), to be implemented only where other forms of European Partnerships would not achieve the objectives or would not generate the necessary expected impacts, and if justified by a long-term perspective and high degree of integration including central management of all financial contributions.

2. European Partnerships shall:

   (a) Be established in cases where they will more effectively achieve objectives of Horizon Europe than the Union alone;

   (b) Adhere to the principles of Union added value, transparency, openness, impact, leverage effect, long-term financial commitment of all the involved parties, flexibility, coherence and complementarity with Union, local, regional national and international initiatives;

   (c) Be time limited and include conditions for phasing-out the Programme funding.

   Provisions and criteria for their selection, implementation, monitoring, evaluation and phasing-out are set out in Annex III.

Article 9

Budget

1. The financial envelope for the implementation of the Framework Programme for the period 2021 – 2027 shall be EUR 94 100 000 000 in current prices for the specific programme referred to in Article 1(3)(a) and, in addition, the amount for the specific

programme referred to in Article 1(3)(b), as laid down in Regulation…. establishing the European Defence Fund.

2. The indicative distribution of the amount referred to in paragraph 1, first half sentence, shall be:

(a) EUR 25 800 000 000 for Pillar I 'Open Science' for the period 2021-2027, of which

(1) EUR 16 600 000 000 for the European Research Council;

(2) EUR 6 800 000 000 for Marie Skłodowska-Curie Actions;

(3) EUR 2 400 000 000 for research infrastructures;

(b) EUR 52 700 000 000 for Pillar II 'Global Challenges and Industrial Competitiveness' for the period 2021-2027, of which

(1) EUR 7 700 000 000 for cluster 'Health';

(2) EUR 2 800 000 000 for cluster 'Inclusive and Secure Society';

(3) EUR 15 000 000 000 for cluster 'Digital and Industry';

(4) EUR 15 000 000 000 for cluster 'Climate, Energy and Mobility';

(5) EUR 10 000 000 000 for cluster 'Food and Natural Resources';

(6) EUR 2 200 000 000 for the non-nuclear direct actions of the Joint Research Centre (JRC);

(c) EUR 13 500 000 000 for Pillar III 'Open Innovation' for the period 2021-2027, of which

(1) EUR 10 500 000 000 for the European Innovation Council, including up to EUR 500 000 000 for European Innovation Ecosystems;

(2) EUR 3 000 000 000 for the European Institute of Innovation and Technology (EIT);

(d) EUR 2 100 000 000 for Part 'Strengthening the European Research Area' for the period 2021-2027, of which

(1) EUR 1 700 000 000 for 'sharing excellence';

(2) EUR 400 000 000 for 'reforming and enhancing the European R&I System'.

3. In order to respond to unforeseen situations or to new developments and needs, the Commission may, within the annual budgetary procedure, deviate from the amounts referred to in paragraph 2 up to a maximum of 10%. No such deviation shall be allowed in respect of the amounts referred to in points (b) (6) of paragraph 2 of this Article and the total amount set out for Part 'Strengthening the European Research Area' of paragraph 2 of this Article.

4. The amount referred to in paragraph 1, first half sentence, may also cover expenses for preparation, monitoring, control, audit, evaluation and other activities and expenditures necessary for managing and implementing the Programme, including all administrative expenditure, as well as evaluating the achievement of its objectives. It may moreover cover expenses relating to the studies, meetings of experts, information and communication actions, in so far as they are related to the objectives of the Programme, as well as expenses linked to information technology

networks focusing on information processing and exchange, including corporate information technology tools and other technical and administrative assistance needed in connection with the management of the Programme.

5. If necessary, appropriations may be entered in the budget beyond 2027 to cover the expenses provided for in paragraph 4, to enable the management of actions not completed by 31 December 2027.

6. Budgetary commitments for actions extending over more than one financial year may be broken down over several years into annual instalments.

7. Without prejudice to the Financial Regulation, expenditure for actions resulting from projects included in the first work programme may be eligible as from 1 January 2021.

8. Resources allocated to Member States under shared management and transferrable in accordance with Article 21 of Regulation (EU) XX […Common Provisions Regulation] may, at their request, be transferred to the Programme. The Commission shall implement those resources directly in accordance with point (a) of Article 62(1) of the Financial Regulation or indirectly in accordance with point (c) of that Article. Where possible, those resources shall be used for the benefit of the Member State concerned.

9. Horizon Europe is designed to be implemented in synergy with other Union funding programmes. A non-exhaustive list of synergies with other Union funding programmes is included in Annex IV.

Article 10

Open access and open data

1. Open access to scientific publications resulting from research funded under the Programme shall be ensured in accordance with Article 35(3). Open access to research data shall be ensured in line with the principle 'as open as possible, as closed as necessary'. Open access to other research outputs shall be encouraged.

2. Responsible management of research data shall be ensured in line with the principles ‘Findability’, ‘Accessibility’, ‘Interoperability’ and ‘Reusability’ (FAIR).

3. Open science practices beyond open access to research outputs and responsible management of research data shall be promoted.

Article 11

Complementary and combined funding

Actions awarded a Seal of Excellence certification, or which comply with the following cumulative, comparative, conditions:

(a) they have been assessed in a call for proposals under the Programme;

(b) they comply with the minimum quality requirements of that call for proposals;

(c) they may not be financed under that call for proposals due to budgetary constraints,

may receive support from the European Regional Development Fund, the Cohesion Fund, the European Social Fund+ or the European Agricultural Fund for Rural Development, in

accordance with paragraph 5 of Article [67] of Regulation (EU) XX [Common Provisions Regulation] and Article [8] or Regulation (EU) XX [Financing, management and monitoring of the Common Agricultural Policy], provided that such actions are consistent with the objectives of the programme concerned. The rules of the Fund providing support shall apply.

Article 12

Third countries associated to the Programme

1. The Programme shall be open to association of the following third countries:

   (a) European Free Trade Association (EFTA) members which are members of the European Economic Area (EEA), in accordance with the conditions laid down in the EEA agreement;

   (b) acceding countries, candidate countries and potential candidates, in accordance with the general principles and general terms and conditions for the participation of those countries in Union programmes established in the respective framework agreements and Association Council decisions, or similar agreements, and in accordance with the specific conditions laid down in agreements between the Union and those countries;

   (c) countries covered by the European Neighbourhood Policy, in accordance with the general principles and general terms and conditions for the participation of those countries in Union programmes established in the respective framework agreements and Association Council decisions, or similar agreements, and in accordance with the specific conditions laid down in agreements between the Union and those countries;

   (d) third countries and territories that fulfil all of the following criteria:

      i. a good capacity in science, technology and innovation;

      ii. commitment to a rules-based open market economy, including fair and equitable dealing with intellectual property rights, backed by democratic institutions;

      iii. active promotion of policies to improve the economic and social well-being of citizens.

   Association to the Programme of each of the third countries under point(d) shall be in accordance with the conditions laid down in a specific agreement covering the participation of the third country to any Union programme, provided that the agreement:

   – ensures a fair balance as regards the contributions and benefits of the third country participating in the Union programmes;

   – lays down the conditions of participation in the programmes, including the calculation of financial contributions to individual programmes and their administrative costs. These contributions shall constitute assigned revenues in accordance with Article 21(5) of the Financial Regulation;

   – does not confer to the third country a decisional power on the programme;

   – guarantees the rights of the Union to ensure sound financial management and to protect its financial interests.

2. The scope of association of each third country to the Programme shall take into account the objective of driving economic growth in the Union through innovation. Accordingly, with the exception of EEA members, acceding countries, candidate countries and potential candidates, parts of the Programme may be excluded from an association agreement for a specific country.

3. The association agreement shall, where appropriate, provide for the participation of legal entities established in the Union in equivalent programmes of associated countries in accordance with the conditions laid down therein.

4. The conditions determining the level of financial contribution shall ensure an automatic correction of any significant imbalance compared to the amount that entities established in the associated country receive through participation in the Programme, taking into account the costs in the management, execution and operation of the Programme.

TITLE II

RULES FOR PARTICIPATION AND DISSEMINATION

CHAPTER I

General provisions

Article 13

Funding bodies and direct actions of JRC

1. Funding bodies may depart from the rules set out in this Title only if this is provided for in the basic act setting up the funding body or entrusting budget implementation tasks to it or, for funding bodies under Article 62(1)(c)(ii), (iii) or (v) of the Financial Regulation, if it is provided for in the contribution agreement and their specific operating needs or the nature of the action so require.

2. The rules set out in this Title shall not apply to direct actions undertaken by the JRC.

Article 14

Eligible actions

1. Without prejudice to paragraphs 2 and 3 of this Article, only actions implementing the objectives referred to in Article 3 shall be eligible for funding.

   The following fields of research shall not be financed:

   (a) activities aiming at human cloning for reproductive purposes;

   (b) activities intended to modify the genetic heritage of human beings which could make such changes heritable[30];

   (c) activities intended to create human embryos solely for the purpose of research or for the purpose of stem cell procurement, including by means of somatic cell nuclear transfer.

[30] Research relating to cancer treatment of the gonads can be financed.

2. Research on human stem cells, both adult and embryonic, may be financed, depending both on the contents of the scientific proposal and the legal framework of the Member States involved. No funding shall be granted for research activities that are prohibited in all the Member States. No activity shall be funded in a Member State where such activity is forbidden.

3. The fields of research set out in paragraph 1 may be reviewed within the context of the interim evaluation referred to in Article 47(2) in the light of scientific advances.

Article 15

Ethics

1. Actions carried out under the Programme shall comply with ethical principles and relevant national, Union and international legislation, including the Charter of Fundamental Rights of the European Union and the European Convention on Human Rights and its Supplementary Protocols.

   Particular attention shall be paid to the principle of proportionality, the right to privacy, the right to the protection of personal data, the right to the physical and mental integrity of a person, the right to non-discrimination and the need to ensure high levels of human health protection.

2. Entities participating in the action shall provide:

   (a) an ethics self-assessment identifying and detailing all the foreseeable ethics issues related to the objective, implementation and likely impact of the activities to be funded, including a confirmation of compliance with paragraph 1, and a description of how it will be ensured;

   (b) a confirmation that the activities will comply with the European Code of Conduct for Research Integrity published by All European Academies and that no activities excluded from funding will be conducted;

   (c) for activities carried out outside the Union, a confirmation that the same activities would have been allowed in a Member State; and

   (d) for activities making use of human embryonic stem cells, as appropriate, details of licensing and control measures that shall be taken by the competent authorities of the Member States concerned as well as details of the ethics approvals that shall be obtained before the activities concerned start.

3. Proposals shall be systematically screened to identify those actions raising complex or serious ethics issues and submit them to an ethics assessment. The ethics assessment shall be carried out by the Commission unless it is delegated to the funding body. For actions involving the use of human embryonic stem cells or human embryos, an ethics assessment shall be mandatory. Ethics screenings and assessments shall be carried out with the support of ethics experts. The Commission and the funding bodies shall ensure the transparency of the ethics procedures as much as possible.

4. Entities participating in the action shall obtain all approvals or other mandatory documents from the relevant national, local ethics committees or other bodies such as data protection authorities before the start of the relevant activities. Those documents shall be kept on file and provided to the Commission or funding body upon request.

5. If appropriate, ethics checks shall be carried out by the Commission or funding body. For serious or complex ethics issues, the checks shall be carried out by the Commission unless it is delegated to the funding body.

   Ethics checks shall be carried out with the support of ethics experts.

6. Actions which are not ethically acceptable may be rejected or terminated at any time.

Article 16

Security

1. Actions carried out under the Programme shall comply with the applicable security rules and in particular rules on protection of classified information against unauthorised disclosure, including compliance with any relevant national and Union law. In case of research carried out outside the Union using and/or generating classified information, it is necessary that, in addition to the compliance with those requirements, a security agreement shall have to be concluded between the Union and the third country in which the research is conducted.

2. Where appropriate, proposals shall include a security self-assessment identifying any security issues and detailing how these issues will be addressed in order to meet the relevant national and Union law.

3. Where appropriate, the Commission or funding body shall carry out a security scrutiny for proposals raising security issues.

4. Where appropriate, the actions shall comply with Decision (EU, Euratom) 2015/444, and its implementing rules.

5. Entities participating in the action shall ensure the protection against unauthorised disclosure of classified information used and/or generated by the action. They shall provide proof of personal and/or facility security clearance from the relevant national security authorities, prior to the start of the activities concerned.

6. If external experts have to deal with classified information, the appropriate security clearance shall be required before those experts are appointed.

7. Where appropriate, the Commission or funding body may carry out security checks.

8. Actions which do not comply with security rules may be rejected or terminated at any time.

CHAPTER II

Grants

Article 17

Grants

Grants under the Programme shall be awarded and managed in accordance with Title VIII of the Financial Regulation, unless otherwise specified in this Chapter.

Article 18

Entities eligible for participation

1. Any legal entity, regardless of its place of establishment, or international organisation may participate in actions under the Programme, provided that the conditions laid down in this Regulation have been met together with any conditions laid down in the work programme or call.

2. Entities shall be part of a consortium that shall include at least three independent legal entities each established in a different Member State or associated country and with at least one of them established in a Member State, unless:

   (a) the work programme provides otherwise, if justified;

   (b) the action is one referred to in paragraphs 3 or 4.

3. European Research Council (ERC) frontier research actions, European Innovation Council (EIC) actions, training and mobility actions or programme co-fund actions may be implemented by one or more legal entities, one of which must be established in a Member State or associated country.

4. Coordination and support actions may be implemented by one or more legal entities, which may be established in a Member State, associated country or in another third country.

5. For actions related to Union strategic assets, interests, autonomy or security, the work programme may provide that the participation can be limited to those legal entities established in Member States only, or to those legal entities established in specified associated or other third countries in addition to Member States.

6. The work programme may provide for eligibility criteria in addition to those set out in paragraphs 2, 3, 4, and 5 according to specific policy requirements or to the nature and objectives of the action, including the number of legal entities, the type of legal entity and the place of establishment.

7. For actions benefiting from amounts under Article 9(8), the participation shall be limited to a single legal entity established in the jurisdiction of the delegating Managing Authority, except if otherwise agreed with the Managing Authority and provided for in the work programme.

8. Where indicated in the work programme, the Joint Research Centre may participate in actions.

9. The Joint Research Centre, international European research organisations and legal entities created under Union law shall be deemed to be established in a Member State other than the ones in which other legal entities participating in the action are established.

10. For European Research Council (ERC) frontier research actions and training and mobility actions, international organisations with headquarters in a Member State or associated country shall be deemed to be established in this Member State or associated country.

Article 19

Entities eligible for funding

1. Entities are eligible for funding if they are established in a Member State or associated country.

   For actions benefiting from amounts under Article 9(8), only entities established in the jurisdiction of the delegating Managing Authority shall be eligible for funding out of these amounts.

2. Entities established in a non-associated third country should in principle bear the cost of their participation. However, for low to middle income countries and exceptionally for other non-associated third countries they could be eligible for funding in an action if:

   (a) the third country is identified in the work programme adopted by the Commission ; or

   (b) the Commission or funding body consider that its participation is essential for implementing the action;

3. Affiliated entities are eligible for funding in an action if they are established in a Member State, Associated country, or in a third country identified in the work programme adopted by the Commission.

Article 20

Calls for proposals

1. For all actions, except for EIC Pathfinder transition activities, the content of the calls for proposals shall be included in the work programme.

2. For EIC Pathfinder transition activities:

   (a) the launch and the content of the calls for proposals shall be determined with regard to objectives and budget established by the work programme in relation with the concerned portfolio of actions;

   (b) grants for a fixed amount not exceeding EUR 50,000 may be awarded without a call for proposals to carry out urgent coordination and support actions for reinforcing the portfolio’s community of beneficiaries or assessing possible spin-offs or potential market creating-innovation.

3. If necessary to achieve their objectives, calls may be restricted to develop additional activities or to add additional partners to existing actions.

4. A call for proposals is not required for coordination and support actions or programme co-fund actions which:

   (a) are to be carried out by the Joint Research Centre or legal entities identified in the work programme and

   (b) do not fall within the scope of a call for proposals.

5. The work programme shall specify calls for which "Seals of Excellence" will be awarded. With prior authorisation from the applicant, information concerning the application and the evaluation may be shared with interested financing authorities, subject to the conclusion of confidentiality agreements.

Article 21

Joint calls

The Commission or funding body may issue a joint call for proposals with:

(a) third countries, including their scientific and technological organisations or agencies;

(b) international organisations;

(c) non-profit legal entities.

In the case of a joint call, joint procedures shall be established for selection and evaluation of proposals. The procedures shall involve a balanced group of experts appointed by each party.

Article 22

Pre-commercial procurement and procurement of innovative solutions

1. Actions may involve or have as their primary aim pre-commercial procurement or public procurement of innovative solutions that shall be carried out by beneficiaries which are contracting authorities or contracting entities as defined in Directives 2014/24/EU[31], 2014/25/EU[32] and 2009/81/EC[33].

2. The procurement procedures:

(a) shall comply with the principles of transparency, non- discrimination, equal treatment, sound financial management, proportionality and competition rules;

(b) for pre-commercial procurement, may provide for specific conditions such as the place of performance of the procured activities being limited to the territory of the Member States and of associated countries;

(c) may authorise the award of multiple contracts within the same procedure (multiple sourcing); and

(d) shall provide for the award of the contracts to the tender(s) offering best value for money while ensuring absence of conflict of interest.

3. The contractor generating results in pre-commercial procurement shall own at least the attached intellectual property rights. The contracting authorities shall enjoy at least royalty-free access rights to the results for their own use and the right to grant, or require the participating contractors to grant, non-exclusive licences to third parties to exploit the results for the contracting authority under fair and reasonable conditions without any right to sub-license. If a contractor fails to commercially exploit the results within a given period after the pre-commercial procurement as identified in the contract, the contracting authorities can require it to transfer any ownership of the results to the contracting authorities.

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31 Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC. (OJ L 94, 28.03.2014, p. 65).

32 Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC (OJ L 94, 28.03.2014, p. 243).

33 Directive 2009/81/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of procedures for the award of certain works contracts, supply contracts and service contracts by contracting authorities or entities in the fields of defence and security, and amending Directives 2004/17/EC and 2004/18/EC (OJ L 216, 20.08.2009, p.76).

Article 23

Cumulative funding

An action that has received a contribution from another Union programme may also receive a contribution under the Programme, provided that the contributions do not cover the same costs. The rules of each contributing Union programme shall apply to its respective contribution to the action. The cumulative funding shall not exceed the total eligible costs of the action and the support from different Union programmes may be calculated on a pro-rata basis in accordance with the documents setting out the conditions for support.

Article 24

Selection criteria

1. By derogation from Article 198 of the Financial Regulation, the financial capacity shall be verified only for the coordinator and only if the requested funding from the Union for the action is equal to or greater than EUR 500 000.
2. However, if there are grounds to doubt the financial capacity or if there is a higher risk due to the participation in several ongoing actions funded by Union research and innovation programmes, the Commission or funding body shall verify also the financial capacity of other applicants or of coordinators below the threshold referred to in paragraph 1.
3. If the financial capacity is structurally guaranteed by another legal entity, the financial capacity of the latter shall be verified.
4. In case of weak financial capacity, the Commission or funding body may make participation of the applicant conditional on provision of a declaration on joint and several liability by an affiliated entity.
5. The contribution to the Mutual Insurance Mechanism set out in Article 33 shall be considered a sufficient guarantee under Article 152 of the Financial Regulation. No additional guarantee or security may be accepted from beneficiaries or imposed upon them.

Article 25

Award criteria

1. A proposal shall be evaluated on the basis of the following award criteria:
   (a) excellence;
   (b) impact;
   (c) quality and efficiency of the implementation.
2. Only the criterion referred to in point (a) of paragraph 1 shall apply to proposals for ERC frontier research actions.
3. The work programme shall lay down further details of the application of the award criteria laid down in paragraph 1, and may specify weightings and thresholds.

Article 26

Evaluation

1. Proposals shall be evaluated by the evaluation committee which may be :

   – fully or partially composed of external independent experts,

   – composed of representatives of Union Institutions or bodies as referred to in Article 150 of the Financial Regulation.

   The evaluation committee may be assisted by independent experts**.**

2. Where necessary, the evaluation committee shall rank the proposals having passed the applicable thresholds, according to:

   – the evaluation scores,

   – their contribution to the achievement of specific policy objectives, including the constitution of a consistent portfolio of projects.

   The evaluation committee may also propose any substantial adjustments to the proposals in as far as needed for the consistency of the portfolio.

Article 27

Evaluation review procedure

1. An applicant may request an evaluation review if it considers that the applicable evaluation procedure has not been correctly applied to its proposal.

2. An evaluation review applies only to the procedural aspects of the evaluation, not to the evaluation of the merits of the proposal.

3. An evaluation review shall not delay the selection process for proposals that are not the subject of review.

Article 28

Time to grant

1. By derogation from the first subparagraph of Article 194(2) of the Financial Regulation, the following periods shall apply:

   (a) for informing all applicants of the outcome of the evaluation of their application, a maximum period of five months from the final date for submission of complete proposals;

   (b) for signing grant agreements with applicants, a maximum period of eight months from the final date for submission of complete proposals.

2. The work programme for the EIC may establish shorter periods.

3. In addition to the exceptions laid down in the second subparagraph of Article 194(2) of the Financial Regulation, the periods referred to in paragraph 1 may be exceeded for actions of the ERC, for missions and when actions are submitted to an ethics or security assessment.

Article 29

Implementation of the grant

1. If a beneficiary fails to comply with its obligations regarding the technical implementation of the action, the other beneficiaries shall comply with those obligations without any additional Union funding, unless they are expressly relieved of that obligation. The financial responsibility of each beneficiary shall be limited to its own debt subject to the provisions relating to the Mutual Insurance Mechanism.

2. The grant agreement may establish milestones and related pre-financing installments. If milestones are not met, the action may be suspended, amended or terminated.

3. The action may also be terminated where expected results have lost their relevance for the Union due to scientific, technological or economic reasons, including in the case of EIC and missions, their relevance as part of a portfolio of actions.

Article 30

Funding rates

1. A single funding rate per action shall apply for all activities it funds. The maximum rate shall be fixed in the work programme.

2. The Programme may reimburse up to 100 % of total eligible costs of an action, except for:

   (a) innovation actions: up to 70 % of the total eligible costs, except for non-profit legal entities where the Programme may reimburse up to 100 % of the total eligible costs;

   (b) programme co-fund actions: at least 30 % of the total eligible costs, and in identified and duly justified cases up to 70 %.

3. The funding rates determined in this Article shall also apply for actions where flat rate, unit or lump sum financing is fixed for the whole or part of the action.

Article 31

Indirect costs

1. Indirect eligible costs shall be determined by applying a flat rate of 25 % of the total direct eligible costs, excluding direct eligible costs for subcontracting, financial support to third parties and any unit costs or lump sums which include indirect costs.

   Where appropriate, indirect costs included in unit costs or lump sums shall be calculated using the flat rate set out in paragraph 1, except for unit costs for internally invoiced goods and services which shall be calculated on the basis of actual costs, in accordance with the beneficiaries' usual costs accounting practices.

2. However, if provided for in the work programme, indirect costs may be declared in the form of a lump sum or unit costs.

Article 32

Eligible costs

1. In addition to the criteria set out in Article 197 of the Financial Regulation, for beneficiaries with project-based remuneration, costs of personnel are eligible up to

the remuneration that the person is paid for work in similar projects funded by national schemes.

Project-based remuneration means remuneration that is linked to the participation of a person in projects, is part of the beneficiary's usual remuneration practices and is paid in a consistent manner.

2. By derogation from Article 190(1) of the Financial Regulation, costs of resources made available by third parties by means of in-kind contributions shall be eligible, up to the direct eligible costs of the third party.

3. By derogation from Article 192 of the Financial Regulation, income generated by the exploitation of the results shall not be considered as receipts of the action.

4. By derogation from Article 203(4) of the Financial Regulation, a certificate on the financial statements shall be mandatory at payment of the balance, if the amount claimed as actual costs and unit costs calculated in accordance with usual cost accounting practices is equal to or greater than EUR 325 000.

Article 33

Mutual Insurance Mechanism

1. A Mutual Insurance Mechanism (the 'Mechanism') is hereby established which shall replace and succeed the fund set up in accordance with Article 38 of Regulation (EC) No 1290/2013. The Mechanism shall cover the risk associated with non-recovery of sums due by the beneficiaries:

   (a) to the Commission under Decision No 1982/2006/EC,

   (b) to the Commission and Union bodies under "Horizon 2020",

   (c) to the Commission and funding bodies under the Programme.

   The coverage of the risk regarding funding bodies referred to in point (c) of the first subparagraph may be implemented through an indirect coverage system set out in the applicable agreement and taking into account the nature of the funding body.

2. The Mechanism shall be managed by the Union, represented by the Commission acting as executive agent. The Commission shall set up specific rules for the operation of the Fund.

3. Beneficiaries shall make a contribution of 5 % of the Union funding for the action. On the basis of periodic evaluations, this contribution may be raised by the Commission up to 8% or may be reduced under 5%. The beneficiaries' contribution to the Mechanism may be offset from the initial pre-financing and be paid to the Fund on behalf of the beneficiaries.

4. The contribution of the beneficiaries shall be returned at the payment of the balance.

5. Any financial return generated by the Mechanism shall be added to the Mechanism. If the return is insufficient, the Mechanism shall not intervene and the Commission or funding body shall recover directly from beneficiaries or third parties any amount owed.

6. The amounts recovered shall constitute revenue assigned to the Mechanism within the meaning of Article 21(4) of the Financial Regulation. Once all grants whose risk is covered directly or indirectly by the Mechanism are completed, any sums

outstanding shall be recovered by the Commission and entered into the budget of the Union, subject to decisions of the legislative authority.

7. The Mechanism may be opened to beneficiaries of any other directly managed Union programme. The Commission shall adopt modalities for participation of beneficiaries of other programmes.

Article 34

Ownership and protection

1. Beneficiaries shall own the results they generate. They shall ensure that any rights of their employees or any other parties in relation to the results can be exercised in a manner compatible with the beneficiaries' obligations in accordance with the terms and conditions laid down in the grant agreement.

   Two or more beneficiaries shall own results jointly if:

   (a) they have jointly generated them; and

   (b) it is not possible to:

      (i) establish the respective contribution of each beneficiary,

      or

      (ii) separate them when applying for, obtaining or maintaining their protection.

   The joint owners shall agree in writing on the allocation and terms of exercise of their joint ownership. Unless otherwise agreed, each joint owner may grant non-exclusive licences to third parties to exploit the jointly-owned results (without any right to sub-license), if the other joint owners are given advance notice and fair and reasonable compensation. The joint owners may agree in writing to apply another regime than joint ownership.

2. Beneficiaries having received Union funding shall adequately protect their results if protection is possible and justified, taking into account all relevant considerations, including the prospects for commercial exploitation. When deciding on protection, beneficiaries shall also consider the legitimate interests of the other beneficiaries in the action.

Article 35

Exploitation and dissemination

1. Beneficiaries having received Union funding shall use their best efforts to exploit their results, in particular in the Union. Exploitation may be done directly by the beneficiaries or indirectly in particular through the transfer and licensing of results in accordance with Article 36.

   The work programme may provide for additional exploitation obligations.

   If despite a beneficiary's best efforts to exploit its results directly or indirectly no exploitation takes place within a given period as identified in the grant agreement, the beneficiary shall use an appropriate online platform as identified in the grant agreement to find interested parties to exploit those results. If justified on the basis of a request of the beneficiary, this obligation may be waived.

2. Subject to any restrictions due to the protection of intellectual property, security rules or legitimate interests, beneficiaries shall disseminate their results as soon as possible.

The work programme may provide for additional dissemination obligations.

3. Beneficiaries shall ensure that open access to scientific publications applies under the terms and conditions laid down in the grant agreement. In particular, the beneficiaries shall ensure that they or the authors retain sufficient intellectual property rights to comply with their open access requirements.

Open access to research data shall be the general rule under the terms and conditions laid down in the grant agreement, but exceptions shall apply if justified, taking into consideration the legitimate interests of the beneficiaries and any other constraints, such as data protection rules, security rules or intellectual property rights.

The work programme may provide for additional obligations to adhere to open science practices.

4. Beneficiaries shall manage all research data in accordance with the terms and conditions laid down in the grant agreement and shall establish a Data Management Plan.

The work programme may provide for additional obligations to use the European Open Science Cloud for storing and giving access to research data.

5. Beneficiaries that intend to disseminate their results shall give advance notice to the other beneficiaries in the action. Any other beneficiary may object if it can show that the intended dissemination would significantly harm its legitimate interests in relation to its results or background. In such cases, the dissemination may not take place unless appropriate steps are taken to safeguard these legitimate interests.

6. Unless the work programme provides otherwise, proposals shall include a plan for the exploitation and dissemination of the results. If the expected exploitation entails developing, creating, manufacturing and marketing a product or process, or in creating and providing a service, the plan shall include a strategy for such exploitation. If the plan provides for exploitation primarily in non-associated third countries, the legal entities shall explain how that exploitation is still in the Union interest.

The beneficiaries shall further develop the plan during and after the end of the action.

7. For the purposes of monitoring and dissemination by the Commission or funding body, the beneficiaries shall provide any requested information regarding the exploitation and dissemination of their results. Subject to the legitimate interests of the beneficiaries, such information shall be made publicly available.

Article 36

Transfer and licensing

1. Beneficiaries may transfer ownership of their results. They shall ensure that their obligations also apply to the new owner and that the latter has the obligation to pass them on in any subsequent transfer.

2. Unless agreed otherwise in writing for specifically-identified third parties or unless impossible under applicable law, beneficiaries that intend to transfer ownership of results shall give advance notice to any other beneficiary that still has access rights to

the results. The notification must include sufficient information on the new owner to enable a beneficiary to assess the effects on its access rights.

Unless agreed otherwise in writing for specifically-identified third parties, a beneficiary may object to the transfer if it can show that the transfer would adversely affect its access rights. In this case, the transfer may not take place until agreement has been reached between the beneficiaries concerned.

3. Beneficiaries may grant licences to their results or otherwise give the right to exploit them, if this does not affect compliance with their obligations.

4. Where this is justified, the grant agreement shall lay down the right to object to transfers of ownership of results, or to grants of an exclusive licence regarding results, if:

(a) the beneficiaries generating the results have received Union funding;

(b) the transfer or licence is to a legal entity established in a non-associated third country; and

(c) the transfer or licence is not in line with Union interests.

If the right to object applies, the beneficiary shall give advance notice. The right to object may be waived in writing regarding transfers or grants to specifically identified legal entities if measures safeguarding Union interests are in place.

Article 37

Access rights

1. The following access rights principles shall apply:

(a) a request to exercise access rights or any waiving of access rights shall be made in writing;

(b) unless otherwise agreed with the grantor, access rights do not include the right to sub-license;

(c) the beneficiaries shall inform each other before their accession to the grant agreement of any restrictions to granting access to their background;

(d) if a beneficiary is no longer involved in an action, it shall not affect its obligations to grant access;

(e) if a beneficiary defaults on its obligations, the beneficiaries may agree that it no longer has access rights.

2. Beneficiaries shall grant access to:

(a) their results on a royalty-free basis to any other beneficiary in the action that needs it to implement its own tasks;

(b) their background to any other beneficiary in the action that needs it to implement its own tasks, subject to any restrictions referred to in paragraph 1(c); that access shall be granted on a royalty-free basis, unless otherwise agreed by the beneficiaries before their accession to the grant agreement;

(c) their results and, subject to any restrictions referred to in paragraph 1(c), to their background to any other beneficiary in the action that needs it to exploit

its own results; that access shall be granted under fair and reasonable conditions to be agreed upon.

3. Unless otherwise agreed by the beneficiaries, they shall also grant access to their results and, subject to any restrictions referred to in paragraph 1(c), to their background to a legal entity that:

   (a) is established in a Member State or associated country;

   (b) is under the direct or indirect control of another beneficiary, or is under the same direct or indirect control as that beneficiary, or is directly or indirectly controlling that beneficiary; and

   (c) needs the access to exploit the results of that beneficiary.

   Access shall be granted under fair and reasonable conditions to be agreed upon.

4. A request for access for exploitation purposes may be made up to one year after the end of the action, unless the beneficiaries agree on a different time-limit.

5. Beneficiaries having received Union funding shall grant access to their results on a royalty-free basis to the Union institutions, bodies, offices or agencies for developing, implementing and monitoring Union policies or programmes. Access shall be limited to non-commercial and non-competitive use.

   In actions under the cluster 'Inclusive and secure Society', area of intervention 'Protection and Security', beneficiaries having received Union funding shall also grant access to their results on a royalty-free basis to Member States' national authorities, for developing, implementing and monitoring their policies or programmes in that area. Access shall be limited to non-commercial and non-competitive use and shall be granted upon bilateral agreement defining specific conditions aimed at ensuring that those rights will be used only for the intended purpose and that appropriate confidentiality obligations will be in place. The requesting Member State, Union institution, body, office or agency shall notify all Member States of such requests.

6. The work programme may provide for additional access rights.

Article 38

Specific provisions on exploitation and dissemination

Specific rules on ownership, exploitation and dissemination, transfer and licensing as well as access rights may apply for ERC actions, training and mobility actions, pre-commercial procurement actions, public procurement of innovative solutions actions, programme co-fund actions and coordination and support actions.

These specific rules shall not change the obligations on open access.

CHAPTER III

Prizes

Article 39

Prizes

1. Prizes under the Programme shall be awarded and managed in accordance with Title IX of the Financial Regulation, unless otherwise specified in this Chapter.
2. Any legal entity, regardless of its place of establishment, may participate in a contest, unless otherwise provided in the work programme or rules of contests.
3. The Commission or funding body may organise prizes with:
   (a) other Union bodies;
   (b) third countries, including their scientific and technological organisations or agencies;
   (c) international organisations; or
   (d) non-profit legal entities.
4. The work programme or rules of contest may include obligations regarding communication, exploitation and dissemination.

CHAPTER IV

Procurement

Article 40

Procurement

1. Procurement under the Programme shall be awarded and managed in accordance with Title VII of the Financial Regulation, unless otherwise specified in this Chapter.
2. Procurement may also take the form of pre-commercial procurement or procurement of innovative solutions carried out by the Commission or the funding body on its own behalf or jointly with contracting authorities from Member States and associated countries. In this case, the rules set out in Article 22 shall apply.

CHAPTER V

Blending operations and blended finance

Article 41

Blending operations

Blending operations decided under this Programme shall be implemented in accordance with the InvestEU Programme and Title X of the Financial Regulation.

Article 42

Horizon Europe and EIC Blended finance

1. The grant and reimbursable advance components of Horizon Europe or EIC blended finance shall be subject to Articles 30 to 33.

2. EIC blended finance shall be implemented in accordance with Article 43. The support under the EIC blended finance may be granted until the action can be financed as a blending operation or as a financing and investment operation fully covered by the EU guarantee under InvestEU. By derogation from Article 209 of the Financial Regulation, the conditions laid down in paragraph (2) and, in particular, paragraph (a) and (d), do not apply at the time of the award of EIC blended finance

3. Horizon Europe blended finance may be awarded to a programme co-fund where a joint programme of Member States and associated countries provides for the deployment of financial instruments in support of selected actions. The evaluation and selection of such actions shall be made in accordance with Articles 19, 20, 23, 24, 25 and 26. The implementation modalities of the Horizon Europe blended finance shall comply with Article 29, by analogy Article 43(9) and with additional conditions defined by the work programme.

4. Repayments including reimbursed advances and revenues of Horizon Europe and EIC blended finance shall be considered as internal assigned revenues in accordance with Articles 21(3)(f) and 21(4) of Financial Regulation.

5. Horizon Europe and EIC blended finance shall be provided in a manner that does not distort competition.

Article 43

EIC's Accelerator

1. The beneficiary of the EIC Accelerator shall be a legal entity qualifying as a start-up, an SME or as a mid-cap, established in a Member State or associated country. The proposal may be submitted by the beneficiary, or by one or more natural persons or legal entities intending to establish or support that beneficiary.

2. A single award decision shall cover and provide funding for all forms of Union contribution provided under EIC blended finance.

3. Proposals shall be evaluated on their individual merit by independent experts and selected in the context of an annual open call with cut-off dates, based on Articles 24 to 26, subject to paragraph 4.

4. Award criteria shall be:

   – excellence;

   – impact;

   – the level risk of the action and the need for Union support.

5. With the agreement of applicants concerned, the Commission or funding bodies implementing Horizon Europe may directly submit for evaluation under the last evaluation criterion a proposal for an innovation and market deployment action which already fulfils the first two criteria, subject to the following cumulative conditions:

– the proposal shall stem from any other action funded by Horizon 2020 or this Programme, or from a national programme similar to the EIC's Pathfinder and acknowledged as such by the Commission;

– be based on a previous project review assessing the excellence and the impact of the proposal and subject to conditions and processes further detailed in the work programme.

6. A Seal of Excellence may be awarded subject to the following cumulative conditions:

– the beneficiary is a start-up or an SME,

– the proposal was eligible and has passed applicable thresholds for the first two award criteria referred to in paragraph 4,

- for those activities that would be eligible under an innovation action.

7. For a proposal having passed the evaluation, independent experts shall propose a corresponding EIC blended finance, based on the risk incurred and the resources and time necessary to bring and deploy the innovation to the market.

The Commission may reject a proposal retained by independent experts for justified reasons, including compliance with the objectives of Union policies.

8. The grant or the reimbursable advance component of the blended finance shall not exceed 70% of the costs of the selected innovation action.

9. Implementation modalities of the equity and repayable support components of the EIC blended finance shall be detailed in Decision [Specific programme].

10. The contract for the selected action shall establish specific milestones and the corresponding pre-financing and payments by instalments of the EIC blended finance.

Activities corresponding to an innovation action may be launched and first pre-financing of the grant or the reimbursable advance paid, prior to the implementation of other components of the awarded EIC blended finance. The implementation of those components shall be subject to the achievement of specific milestones established in the contract.

11. In accordance with the contract, the action shall be suspended, amended or terminated if milestones are not met. It may also be terminated where the expected market deployment cannot be met.

The Commission may decide to increase the EIC blended finance subject to a project review by external independent experts.

Chapter VI

Experts

Article 44

Appointment of external experts

1. By derogation from Article 237(3) of the Financial Regulation, external experts may be selected without a call for expressions of interest, if justified and the selection is carried out in a transparent manner.

2. In accordance with Article 237(2) and 237(3) of the Financial Regulation, external experts shall be remunerated based on standard conditions. If justified, an appropriate level of remuneration beyond the standard conditions based on relevant market standards, especially for specific high level experts, may be granted.

3. In addition to paragraphs 2 and 3 of Article 38 of the Financial Regulation, the names of external experts evaluating grant applications, who are appointed in a personal capacity shall be published, together with their area of expertise, at least once a year on the internet site of the Commission or the funding body. Such information shall be collected, processed and published in accordance with the EU data protection rules.

TITLE III

PROGRAMME MONITORING, COMMUNICATION, EVALUATION AND CONTROL

Article 45

Monitoring and reporting

1. Indicators to report on progress of the Programme towards the achievement of the objectives established in Article 3 are set in Annex V along impact pathways.

2. The Commission is empowered to adopt delegated acts in accordance with Article 50 concerning amendments to Annex V to supplement or amend the impact pathway indicators, where considered necessary, and set baselines and targets.

3. The performance reporting system shall ensure that data for monitoring programme implementation and results are collected efficiently, effectively and in a timely manner. To that end, proportionate reporting requirements shall be imposed on recipients of Union funds and (where relevant) Member States.

Article 46

Information, communication, publicity and dissemination and exploitation

1. The recipients of Union funding shall acknowledge the origin and ensure the visibility of the Union funding (in particular when promoting the actions and their results) by providing coherent, effective and proportionate targeted information to multiple audiences, including the media and the public.

2. The Commission shall implement information and communication actions relating to the Programme, and its actions and results. Financial resources allocated to the

Programme shall also contribute to the corporate communication of the political priorities of the Union, as far as they are related to the objectives referred to in Article 3.

3. The Commission shall also establish a dissemination and exploitation strategy for increasing the availability and diffusion of the Programme's research and innovation results and knowledge to accelerate exploitation towards market uptake and boost the impact of the Programme. Financial resources allocated to the Programme shall also contribute to the corporate communication of the political priorities of the Union as well as information, communication, publicity, dissemination and exploitation activities as far as they are related to the objectives referred to in Article 3.

Article 47

Programme evaluation

1. Programme evaluations shall be carried out in a timely manner to feed into the decision-making process on the programme, its successor and other initiatives relevant to research and innovation.

2. The interim evaluation of the Programme shall be carried out once there is sufficient information available about the implementation of the Programme, but no later than four years after the start of the programme implementation. It shall include an assessment of the long-term impact of previous Framework Programmes and shall form the basis to adjust programme implementation, as appropriate.

3. At the end of the implementation of the Programme, but no later than four years after the end of the period specified in Article 1, a final evaluation of the Programme shall be completed by the Commission. It shall include an assessment of the long-term impact of previous Framework Programmes.

4. The Commission shall communicate the conclusions of the evaluations accompanied by its observations, to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions.

Article 48

Audits

1. The control system for the Programme shall ensure an appropriate balance between trust and control, taking into account administrative and other costs of controls at all levels, especially for beneficiaries.

2. The audit strategy for the Programme shall be based on the financial audit of a representative sample of expenditure across the Programme as a whole. The representative sample shall be complemented by a selection based on an assessment of the risks related to expenditure. Actions that receive joint funding from different Union programmes shall be audited only once, covering all involved programmes and their respective applicable rules.

3. In addition, the Commission or funding body may rely on combined systems reviews at beneficiary level. These combined reviews shall be optional for certain types of beneficiaries and shall consist in a systems and process audit, complemented by an audit of transactions, carried out by a competent independent auditor qualified to

carry out statutory audits of accounting documents in accordance with Directive 2006/43/EC[34]. They may be used by the Commission or funding body to determine overall assurance on the sound financial management of expenditure and for reconsideration of the level of ex-post audits and certificates on financial statements.

4. In accordance with Article 127 of the Financial Regulation, the Commission or funding body may rely on audits on the use of Union contributions carried out by other persons or entities, including by other than those mandated by the Union Institutions or bodies.

5. Audits may be carried out up to two years after the payment of the balance.

Article 49

Protection of financial interests of the Union

1. The Commission or its representatives, and the Court of Auditors, shall have the power of audit or, in the case of international organisations, the power of verification in accordance with agreements reached with them, on the basis of documents and on-the-spot, over all grant beneficiaries, contractors and subcontractors who have received Union funds under this Regulation.

2. The European Anti-Fraud Office (OLAF) may carry out administrative investigations, including on-the-spot checks and inspections, in accordance with the provisions and procedures laid down in Regulation (EU, Euratom) No 883/2013 of the European Parliament and of the Council and Council Regulation (Euratom, EC) No 2185/96, with a view to establishing whether there has been fraud, corruption or any other illegal activity affecting the financial interests of the Union in connection with Union funding or budgetary guarantees under this Regulation.

3. Competent authorities of third countries and international organisations may also be required to cooperate with the European Public Prosecutor's Office (EPPO), in accordance with Mutual Legal Assistance Agreements, when it carries out investigations into criminal offences falling within its competence in accordance with Regulation (EU) 2017/1939.

4. Without prejudice to paragraphs 1 and 2, cooperation agreements with third countries and with international organisations, contracts, grant agreements and other legal commitments, as well as agreements establishing a budgetary guarantee, resulting from the implementation of this Regulation shall contain provisions expressly empowering the Commission, the Court of Auditors and OLAF to conduct such audits, on-the-spot checks and inspections, according to their respective competences. This shall include provisions to ensure that any third parties involved in the implementation of Union funds or of a financing operation supported, in whole or in part, by a budgetary guarantee grant equivalent rights.

[34] Directive 2006/43/EC of the European Parliament and of the Council of 17 May 2006 on statutory audits of annual accounts and consolidated accounts, amending Council Directive 78/660/EEC and 83/349/EEC and repealing Council Directive 84/253/EEC (OJ L 157, 9.6.2006, p. 87)

Article 50

Exercise of the delegation

1. The power to adopt delegated acts is conferred on the Commission subject to the conditions laid down in this Article.

2. The power to adopt delegated acts referred to in Article 45(2) shall be conferred on the Commission until 31 December 2028.

3. The delegation of power referred to in Article 45(2) may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of power specified in that decision. It shall take effect the day following the publication of the decision in the *Official Journal* of the European Union or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.

4. Before adopting a delegated act, the Commission shall consult experts designated by each Member State in accordance with the principles laid down in the Interinstitutional Agreement on Better Law-Making of 13 April 2016.

5. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.

6. A delegated act adopted pursuant to Article 45(2) shall enter into force if no objection has been expressed either by the European Parliament or by the Council within a period of two months of notification of that act to the European Parliament and the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or of the Council.

TITLE IV

TRANSITIONAL AND FINAL PROVISIONS

Article 51

Repeal

Regulation (EU) No 1291/2013 and Regulation (EU) No 1290/2013 are repealed with effect from 1 January 2021.

Article 52

Transitional provisions

1. This Regulation shall not affect the continuation or modification of the actions concerned, under Regulation (EU) No 1291/2013 and Regulation (EU) No 1290/2013, which shall continue to apply to those actions until their closure. Work plans and actions provided for in work plans adopted under Regulation (EU) No1290/2013 and under the corresponding funding bodies' basic acts shall also continue to be governed by Regulation (EU) No1290/2013 and those basic acts until their completion.

2. The financial envelope for the Programme may also cover technical and administrative assistance expenses necessary to ensure the transition between the

Programme and the measures adopted under its predecessor Regulation (EU) No 1291/2013.

Article 53

Entry into force

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

For the European Parliament	*For the Council*
The President	*The President*