Fiche 8: MFF Regulation and Decision Horizon Europe 2021-2027 - the Framework Programme for Research and Innovation

1. General Information

a) Proposal titles and No. of Commission document

COM(2018) 435 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

COM(2018) 436 Proposal for a DECISION OF THE EUROPEAN PARLIAMENT AND THE COUNCIL on establishing the specific programme for the implementation of Horizon Europe – the Framework Programme for Research and Innovation

COM(2018) 437 Proposal for a COUNCIL REGULATION establishing the Research and Training Programme of the European Atomic Energy Community for the 2021-2025 period complementing Horizon Europe – the Framework Programme for Research and Innovation

Due to the relationship, these documents are dealt with in one BNC-fiche.

b) Date of receipt of the Commission document

7 June 2018

c) EUR-lex PM

https://eur-lex.Europe.eu/legal-content/EN/TXT/?qid=1529327292252&uri=CELEX:52018PC0435
https://eur-lex.Europe.eu/legal-content/EN/TXT/?qid=1529327330168&uri=CELEX:52018PC0436
https://eur-lex.Europe.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018PC0437&from=nl

d) No. Impact Assessment Committee and Opinion Impact Assessment Board

https://eur-lex.Europe.eu/legal-content/EN/TXT/?uri=CELEX:52018SC0291
https://eur-lex.Europe.eu/legal-content/EN/TXT/?qid=1528722342916&uri=CELEX:52018SC0308
https://eur-lex.Europe.eu/legal-content/EN/TXT/?qid=1528722383817&uri=CELEX:52018SC0309

e) Council handling process

The proposal will be dealt with in the Competitiveness Council.

f) Ministry with primary responsibility

Joint responsibility of the Ministry of Economic Affairs and Climate and the Ministry of Education, Culture and Science.

g) Legal basis

The Horizon Europe Regulation is based on those parts of the treaty related to "Industry" and "Research and Technological Development and Space" (Article 173(3), Article 182(1), Article 183 and Article 188, second paragraph, TFEU). The related rules for participation in the Horizon Europe Decision are based on the Articles 173(3) and 182(4) TFEU. The proposal for the nuclear programme in Horizon Europe is based on Article 7 of the Euratom Treaty.

h) Council decision-making procedure

Qualified majority in the Council for Horizon Europe Regulation and Horizon Europe Decision. The Euratom Programme is decided in the Council by a unanimous vote.

i) Role of European Parliament

Horizon Europe Regulation and Horizon Europe Decision: Codecision. Euratom Programmes Regulation: Consultation.

2. Essence of the Proposal

a) Content of the proposal

This proposal is part of the package of proposals issued by the Commission for the purposes of the Multiannual Financial Framework for 2021-2027. Horizon Europe is the ninth European Framework Programme for Research and Innovation. Horizon Europe covers the period 2021-2027 and builds on previous framework programmes in which excellence and impact are the guiding principles. The purpose of Horizon Europe is to strengthen the scientific and technological basis of the Union and to increase the societal and -economic impact of investments in research and innovation. In addition to the priorities of the European Union, including solutions for climate change, Horizon Europe aims to contribute, among other things, to the United Nations Sustainable Development Goals. The Commission proceeds from a budget of EUR 94.1 billion euro in current prices for Horizon Europe.

Horizon Europe is built on three pillars: 1) Open Science; 2) global challenges and industrial competitiveness and 3) open innovation. The pillar structure of Horizon 2020 is maintained. Excellence and impact continue to be the most important selection criteria.

<u>Pillar 1. Open Science</u>

In this pillar, free and blue sky research is supported within a bottom-up approach through the European Research Council (ERC) and the education and career development of researchers is promoted by the Marie Skłodowska-Curie Actions (MSCA). In addition, investments are made in world-class research infrastructure, which involves the entire cycle from design to implementation and access to research facilities. The Commission will not continue the Horizon 2020-instrument *Future Emerging Technologies* (FETs) as such.

Pillar 2. Global challenges and industrial competitiveness

The Horizon 2020 pillars for 'societal challenges' and 'industrial leadership' are joined to achieve more impact through collaboration across different borders. This pillar centres on research aimed at tackling societal challenges and strengthening of technological and industrial capacity. This pillar has a more 'top down' directed approach. The global challenges are captured in five thematic clusters: 1) health; 2) inclusive and secure societies; 3) digital and industry; 4) climate, energy and mobility and 5) food and natural resources. This pillar was designed to enable the flexible deployment of scientific disciplines, technologies, economic sectors and other societal parties. This pillar introduces a mission-oriented approach (missions), which require interdisciplinary and cross sectoral efforts. The Joint Research Centre (JRC) of the European Union has been incorporated in this pillar.

Pillar 3. Open Innovation

The worldwide advance of disruptive innovations based on 'deep tech' (technologies such as block chain, artificial intelligence, robotics and quantum technology) asks for cooperation, economies of scale and financial leverage. It is the Commission's ambition for Europe to become the frontrunner in disruptive and market-creating innovation through the European Innovation Council (EIC). The EIC builds on a pilot under Horizon 2020. Instruments under the EIC are the *Pathfinder for advanced research* to stimulate bottom-up innovation through the lower Technology Readiness Levels (TRLs), in addition to the *Accelerator* to market higher TRLs faster. Furthermore, opportunities are provided to combine various forms of funding, including investment in capital (equity interest). Complementary to this, the European innovation-ecosystems are also stimulated in this third pillar. The instruments used for this purpose include the European Institute of Innovation and Technology (EIT) with its KICs (Knowledge and Innovation Communities).

Other Horizon Europe

In order to strengthen the European Research Area (ERA), various instruments are deployed with the aim to expand excellence in Europe and reform national research and innovation systems. Examples of these instruments are Teaming, Twinning and European Cooperation in Science and Technology (COST).

The Commission wants to create better possibilities for synergy with other European programmes (e.g. Cohesion Policy and Common Agricultural Policy). In addition, the Commission wants to streamline the various types of partnerships created.[1] The proposal states that the principles of open science will be the modus operandi in Horizon Europe. The framework programme will ask for open access to publications and open access to research data (with opt-outs for open data in public-private partnerships), promote the use of FAIR data[2] and open science skills, and support reward systems that promote open science. In addition to the annual programming, the

[1]The partnerships concerned are public-public partnerships and public-private partnerships. The Commission has proposed to divide the partnerships into three categories: co-programmed; co-financed or institutionalized partnerships.

[2] FAIR stands for Findable, Accessible, Interoperable and Reusable.

Commission intends to establish a transparent strategic planning process for the implementation of Horizon Europe.

The Commission aims to simplify the rules and reduce the administrative burden throughout the programme. This applies, for instance, to a simplification of the cost reimbursement system (including lump sums) and the wider acceptance of regular audits of beneficiaries. In this context, there is mainly continuity in the Rules for Participation. Grant percentages thus remain the same. Excellence and impact will continue to be the guiding criteria for awarding grants, as well as quality and efficiency of the implementation of the proposals. With regard to impact, increasing attention is paid to the dissemination and exploitation of the programme results.

Euratom

The Euratom Programme makes nuclear research possible. The programme builds largely on the experience gained from previous Euratom Programmes, in which research into non-energy related applications of ionizing radiation will be expanded and learning points in the area of training and access to research infrastructure will be incorporated.

b) Impact Assessment Commission

The Impact Assessment subscribes the added value of the Framework Programme for Europe. Horizon Europe, in this form, is expected to continue the support to the excellent knowledge base, while focusing more on significant scientific impact. Horizon Europe is also expected to have a positive effect on strengthening the European market and competitiveness. Finally, Horizon Europe is expected to contribute considerably to tackling societal challenges through further integration of research and innovation.

3. The Dutch Position on the Proposal

a) Essence of Dutch policy in this area

As laid down on June 1 2018 in the letter to Parliament on the Government's appreciation of the Commission's MFF proposal, the Dutch negotiating position on the MFF focuses on a modern and financially sustainable MFF. New challenges ask for a review of the composition and priorities of the EU budget to ensure that the MFF stronger reflects new priorities such as research and innovation, security, migration and climate. This demands an ambitiously modernized budget that enables the EU to address common challenges appropriately and in time and that generates optimal European added value effectively and efficiently. Brexit requires a downward adjustment of the MFF; a smaller EU implies a smaller budget. We aim to cut in existing policies in order to fund new priorities, as well as to deal with the consequences of the withdrawal of the United Kingdom. It must be avoided that Brexit leads to disproportionately high costs for other Member States and an increase in transfers. Funding the MFF must be fair, transparent and simple, dividing the costs evenly. Also in the next MFF, the net position of the Netherlands should be in line with that of Member States with comparable wealth levels.

The Netherlands stated its position on the structure of the European Framework Programme in relation to Dutch policy in the area of research and innovation in its position paper[3], in response to the interim evaluation of Horizon 2020. The position paper focuses on the Netherlands' view that European investments in research and innovation are important, because of the added value of the Framework Programme for the level of European science, for competitiveness, and for tackling societal challenges. In order to increase the impact further, all parties must be able to participate and the programme must continue to be based on excellence and impact.

b) Assessment of + position regarding this proposal

Horizon Europe in general

In the context of the new MFF, research and innovation constitute one of the above-mentioned new priorities that deserve to be reflected stronger. The Netherlands assesses Commission's Horizon Europe proposal mainly positive. According to the Netherlands, Horizon Europe has added value fas regards encouraging research and innovation. The proposal is largely in line with the Dutch position regarding the framework programmes to date. Horizon Europe builds on Horizon 2020, which is valued positively by the Netherlands and in which Dutch stakeholders (authorities, universities, educational and research institutions, enterprises – including SMEs and start-ups) can participate in a positive manner.

As a result of the open and competitive nature of the Framework Programme, the quality of research and innovation in Europe is raised to a higher level. In order to maintain that quality, the Netherlands is of the opinion that excellence and impact must remain starting points for the Framework Programme, both at the national level and the European level. The Netherlands consequently wishes to maintain a close eye on the excellent knowledge base. It therefore supports the measures taken by the Commission to maintain this excellent knowledge base, in addition to more attention to impact. This concerns scientific, societal as well as economic impact. The Netherlands is also an advocate of further strengthening open science as the modus operandi for Horizon Europe.

The three-pillar structure with excellence and impact as guiding criteria in Horizon 2020 has proved to provide a solid base. The Netherlands therefore welcomes the continuation of the pillar structure in Horizon Europe and is favourably inclined towards the Commission's ambition to bring about collateral benefits among the pillars. This integrated approach fits in well with the Dutch National Research Agenda and the focus on societal challenges and key technologies in the top sector policy. However, the Netherlands considers it important that participants collaborate in the entire knowledge and innovation chain in Horizon Europe while sufficient scope remains for fundamental research. Therefore, sufficient scope must remain for bottom-up initiated research for top researchers from all science disciplines through the ERC. The Netherlands also attaches importance to ensuring sufficient scope for the bottom-up development of technologies that potentially involve long development times.

[3] The Dutch position paper on the interim evaluation of Horizon 2020, appendix to Parliamentary document 21 501-30, no. 391

In principle, the Netherlands is positively inclined towards the introduction of missions to work on in a multidisciplinary and cross-sectoral manner, and the introduction of the EIC to stimulate disruptive and market-creating innovations. There are, however, several points to note, which are described in the relevant programme components below.

In addition, the proposal includes elements that were also submitted by the Netherlands following the interim evaluation of Horizon 2020, such as more synergy between the Framework Programme and the Cohesion policy, as well as further simplifications. However, the Netherlands is concerned about the limited focus on increasing the success rate with regard to participation in the Framework Programme. The Netherlands is of the opinion that all instruments under Horizon Europe should have European added value and this will be a major point of attention in the further implementation.

A solid Framework Programme ensures development of scientific excellence, Europe's competitiveness and tackling societal challenges. The Netherlands believes that this should be reflected in the scope of and balance between the three pillars. A solid Framework Programme in which Dutch stakeholders can participate properly, is also relevant with a view to the Netherlands' ambition to invest 2.5% of the GDP in R&D.

Pillar 1. Open Science

Open Science as a crosscutting principle

The Netherlands welcomes the Commission's starting point to apply open science as a modus operandi for the Framework Programme and to support the use of the European Open Science Cloud. However, the possibilities of using exceptional provisions in open data seem very extensive. The Netherlands is committed to further detail immediate access to open data as a standard and the use of FAIR data in the work programmes and grant agreements.[4] FAIR data is essential to be able to build on previous research and thus enhance the effectiveness of research funding. It is important to set out the requirements for that in more concrete terms. In addition, the conditions should be anchored more firmly in the Framework Programme itself. This also includes providing concrete support to reward systems that promote open science. The Netherlands also wishes to emphasize that the open science principles apply to all components of the Framework Programme, not only to pillar 1. The current title of the first pillar may therefore be confusing.

The Netherlands points out that the budget for the excellent knowledge base has hardly increased, whereas the pressure on this programme is high. To the Netherlands, the current prices proposed in the budget for the first pillar are the absolute minimum. In terms of percentage, the Netherlands would prefer allocating the same share of the total to this pillar as in Horizon 2020 (approximately 31%).

4 Exceptional provisions were defined in the Council Conclusions (May 2016) (parliamentary documents: TK 21501-30 no. 378, TK 31288 nos. 575 and 579

European Research Council (ERC)

The ERC is a very successful instrument to the Netherlands and Europe to attract and support the most excellent scientists within a bottom-up approach, and to ensure a strong knowledge base. The ERC is an outstanding example of the added value of European competition and it is an important addition to the top-down approach of the second pillar for global challenges and industrial competitiveness. The Netherlands supports the Commission in the role of the ERC in promoting frontier, non-thematic bound research, with excellence as the sole guiding criterion. Supporting an excellent knowledge base is important and may therefore not be compromised in any way. To the Netherlands the proposed amount in current prices for the ERC is the absolute minimum that is acceptable to enable the ERC to achieve its goal. The Netherlands will commit itself to starting the programme at least in that form.

Marie Skłodowska-Curie Actions (MSCA)

The Netherlands is a strong supporter of the MSCA instrument, because it has been successful in contributing to Europe's excellent knowledge base by enhancing international and intersectoral mobility of researchers (academics and from the business community) and training scientists in the right combination of knowledge and skills. Small changes are proposed offering an opening for a more top-down approach and criteria other than excellence. The Netherlands commits itself to continuing the success of MSCA by maintaining its current form with a focus on excellence, its full bottom-up character and openness to each type of science and innovation, from fundamental and applied research to research into market-ready innovations.

Research infrastructure

The Netherlands considers European commitment to research facilities important, because these facilities stimulate cross-border collaboration among knowledge institutions and thus prevent fragmentation of knowledge and resources. The Netherlands is an advocate of ensuring good connections between activities under the Framework Programme that have links to research facilities. This would prevent situations where similar facilities could be created in the two other pillars.

Pillar 2. Global challenges and industrial competitiveness

Approximately half the budget for Horizon Europe has been allocated for activities under this pillar. This planned investment acknowledges the relevance and economy of scales of research and innovation in tackling common challenges at European level that the Netherlands government has also defined in its Coalition Agreement. This approach is consistent with the focus on societal challenges and key technologies in the top sector policy as well as the bottom-up approach of the Dutch National Research Agenda which also contributes to tackling the societal challenges.
In principle, the Netherlands agrees to the integrated and flexible approach proposed by the Commission in the more detailed elaboration of the cluster components. The Netherlands considers it important, however, that this is preceded by a transparent consultation process and that Member States are given sufficient scope to provide input to the formulation of priorities. The Netherlands recognizes the challenges and the cluster components defined thereunder. The

Netherlands aims to safeguard alignment with Dutch priorities in the negotiation process on specific details of the cluster components. The Netherlands considers it important that funds are fairly apportioned among the various societal challenges.

The proposal recognizes, in general terms, the importance of multidisciplinary research and innovation, but the Netherlands believes clear starting points are lacking. At the moment, the proposal text contains few safeguards for ensuring actual multidisciplinary research in the second pillar. An example of this is the relevance of social sciences and the humanities, and ethics, for analysing and tackling societal challenges and developing innovative and safe products. For this purpose, attention should also be paid to social context and the possibility of assimilating new knowledge and technology in society and, for instance, cost control in medical applications.

The Netherlands is concerned about the elaboration of the cluster "inclusive and secure societies". This cluster unites themes that differ substantially from each other, from democracy, cultural heritage, and radicalization to crisis control and cyber security. These subjects are important, and focus and impact must be maintained. The Netherlands will assess more closely whether the independent themes in the cluster proposed will obtain adequate visibility and attention in the design proposed.

The Netherlands acknowledges the importance of the key technologies. However, the Netherlands is of the opinion that the proposal lacks an overarching strategy for the development and deployment of key technologies. This pillar should continue to provide scope for bottom-up research into and development of key technologies that will contribute to tackling societal challenges in the long run. In the negotiation process, the Netherlands will also pay attention to the balance between research and innovation (referred to by TRLs) in the clusters. The Netherlands believes it is important that a balance is achieved between the development of high-quality, excellent knowledge and technology on the one hand and the deployment of technology and knowledge for innovations and tackling challenges on the other hand. In light of this, the Netherlands will also pay special attention to alternatives for the current FETs. The Netherlands considers it particularly important to the second pillar that a balance is achieved between applied and fundamental research, in which applied research must be interpreted in the broad sense, both aimed at innovations for the purpose of competitiveness and for social welfare.

The criteria proposed for selecting the missions are relevant. The process to include the public, companies and other stakeholders in this process was mentioned, but not yet fleshed out. The missions must be formulated in such a broad way that they can promote innovative ideas and provide proper scope for bottom-up solutions. The Netherlands will share with the Commission its experience gained while drafting the Dutch National Research Agenda. The Netherlands considers it important to obtain clarity about the manner in which the missions relate to the clusters and how they will be funded.

FETs are included in Horizon 2020. FET Flagships are large multi-year projects, such as *Quantum Flagship*, in which the Netherlands is also involved. The Netherlands is positive about the FET components in Horizon 2020, because FET boosts collaboration throughout the entire knowledge and innovation chain. The Commission states that no new FET Flagships will be funded under Horizon Europe, but that these may be suitable for future missions or possible partnerships. The Netherlands considers it important that the Commission provides clarity on the manner in which the FET Flagships are integrated into, or replaced by, missions and/or partnerships in Horizon Europe and the manner in which real possibilities remain for investing in the development of new technologies without a clear business case or mission.

Joint Research Centre (JRC)

Priorities of the JRC are specific areas of research in the three pillars. In addition, the JRC supports Member States and regions with knowledge that can be used for evidence based policy. The Netherlands wonders whether the position of the JRC under the second pillar makes sense or whether alternatives exist. The Netherlands considers maximum collaboration between the JRC and the knowledge institutions in the Member States to be important to provide maximum support to the policy objectives of the Union.

Pillar 3. Open Innovation

The purpose of the EIC is to bring about a critical mass of investments by a bottom-up approach and to increase the speed and impact of innovation. The Netherlands agrees with this approach, but it is conscious of the fact that the EIC must have European added value and must be complementary to the instruments under Horizon Europe that stimulate incremental innovation and excellent research. Alignment must also be sought with other relevant EU programmes, such as the Digital Europe Programme and InvestEU.

The proposals to increase access to risk capital for stakeholders and to realise leverage to private capital are sound and fit in with the Dutch line of policy. The importance of the right conditions, such as innovation-friendly laws and regulations and preventing private capital from withdrawing, continues to be essential.

The EIC must be able to operate smoothly, quickly and flexibly and function as a 'one-stop shop' for innovative companies and other parties. Another important factor is financial leverage. In this time of rapid technological developments, the success of the EIC will largely depend on these factors. The Netherlands will therefore closely watch the further development and set-up of the EIC for these factors. The same applies to participation of SMEs in EIC Horizon Europe. Their participation under Horizon 2020 has increased compared to previous framework programmes. This also applies to Dutch SMEs, which is partly the result of specific SME-oriented instruments. For now, the Netherlands assumes that SMEs will also have good access to the programme under Horizon Europe. In a recent EIC pilot under the current Framework Programme, Dutch SMEs scored well. That is a positive sign. Finally, the Netherlands is a supporter of active promotion and support of the use of innovation-oriented purchasing instruments.

The *Pathfinder* focuses on technologies with market potential instead of bottom-up development of technologies that potentially involve long developing times, which is what the FET Open instrument under Horizon 2020 was intended for. The Netherlands believes that the development of future key technologies may not be jeopardized.

Innovation ecosystems (or clusters and/or campuses) play an important role in making optimum use of innovation potential. These ecosystems facilitate public-private collaboration and establish connections between governments, knowledge institutions and companies. The Netherlands has notable examples of this. Knowledge institutions, governments and companies are the key players in innovation ecosystems and this also applies to various overarching networks, such as Startup Europe (which includes the Dutch Startup Delta). The proposal for supporting activities to strengthen existing innovation ecosystems is welcomed by the Netherlands.

The evaluation[5] of the European Institute of Innovation and Technology (EIT) showed that the KICs promote collaboration in the research-education-entrepreneurship triangle. The EIT has added value for the European innovation landscape. The Netherlands therefore endorses embedding the EIT further in the Framework Programme by positioning it under the third pillar. The added value of the EIT/KICs can also be found in connecting ecosystems/clusters across borders and encouraging entrepreneurship in education programmes. It is also relevant that KICs offer possibilities for the participation of Member States that are less research and innovation intensive and a connection with the second pillar is established through the KICs due to the focus on societal challenges. The Netherlands would like to be informed of how the EIC and the EIT will relate to one another.

Strengthening of the European Research Area (ERA)

The attention that is paid to strengthening the ERA in a separate part in Horizon Europe can count on support from the Netherlands. This will support Member States that are currently less research and innovation intensive. The Netherlands is of the opinion that in particular the Cohesion Policy must be used for building up national capacity. In this way, the main criteria of Horizon Europe, excellence and impact, are not compromised for closing the innovation gap in Europe under the three pillars. The budget for sharing excellence in the Framework Programme proposal is increased. The European Cooperation in Science and Technology (COST) is currently also included in its entirety. The Netherlands can agree to this. The bottom-up networks of COST have proved under Horizon 2020 that they contributed substantially to bringing together consortiums and to the dissemination of knowledge and expertise within Europe. The purposes of the reform measures include modernizing universities, encouraging open science and involving society in agenda setting and the results of research (*science, society, citizens*). An example of involving society in the Netherlands is the establishment of the Dutch National Research Agenda. This is seen in Europe as a *best practice*.

[5] https://ec.europa.eu/education/sites/education/files/2017-eit-interim-evaluation_en.pdf

Simplification/management/rules for participation

The Netherlands will study the rules for participation more closely in consultation with stakeholders with a view to, among other things, the desired cutting down on red tape. Focus areas include the provisions on open science. The wording of these provisions is not sufficiently binding. The conditions must be anchored more firmly in the Framework Programme itself. The Netherlands considers it important that no misunderstandings can exist regarding the conditions on opt-out. The 2016 Council Conclusions on Open Science specified the following exceptions: intellectual property rights, personal data protection, security concerns and economic competitiveness and other legitimate interests.

The Netherlands considers it important that the Commission includes in the Regulation or the Decision information on how Member States will be involved in drafting and monitoring work programmes as well as in detailing the design of the EIC and the missions. With regard to the design and the selection of missions, the Netherlands deems it important that stakeholders – such as scientists, civil society organisations, companies (including SMEs and start-ups) and other relevant parties - are involved in a pragmatic manner.

Just like Horizon 2020, implementation of Horizon Europe will take place through work programmes and calls and through the deployment of instruments such as research and innovation actions and partnerships. The Netherlands supports this, but would like to have sufficient say in the sub-programmes. With regard to comitology[6], the Netherlands finds that the proposed programme committees at the level of the clusters of the second pillar are too broad. As a result, programme committees' are at risk of losing focus on their specific topics. In the end, this may negatively affect the degree of expertise desired by the Netherlands and close involvement of the Member States in programme committees.

Another focal point is a funding system that corresponds as much as possible with the systems and rates of the participants.

Synergy

The Netherlands believes that other EU programmes should also focus more on research and innovation, because Europe is uniquely able to add value in the area of Research and Innovation, which is also particularly important with a view to the future. Synergy between Horizon Europe and other EU programmes is therefore of great importance to avoid overlap, gaps or incompatibility, and, as a result, inefficient spending of EU funds. The Commission's proposal specifies reference points for synergy, which are also operationalized further through the strategic planning process. The Netherlands believes that the current proposal contains insufficient guidelines to realize synergy at programme and project level between EU programmes. The Netherlands thinks consideration should be given to linking the themes and objectives from the second pillar and innovation priorities in the European Structure and Investment Funds (ESIF) and, where relevant,

[6] Comitology refers to the implementation of European programmes/legislation and the number of committees given to the Member States to give advice to the Commission or to monitor the implementation.

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also the European Social Funds (ESF+). The instrument of RIS3[7], with its increased focus on cross-border collaboration, is available to help achieve this. In more developed regions, the ESIF is an instrument for investments in regional innovation ecosystems by which knowledge developed through the Framework Programme is commercialized.
The link between Horizon Europe and ESIF is also important for ESIF's role in building capacity in countries that are currently still less research and innovation intensive. Several proposals have already been submitted to simplify this capacity building process: cumulative funding options are extended; projects with a Seal of Excellence not honoured in Horizon Europe due to insufficient budget can be funded more easily from the European Fund for Regional Development (EFRD). Conversely, Member States are given the opportunity to use a maximum of 5% of the EFRD budget for Horizon Europe projects. In principle, the Netherlands supports these proposals and it will closely monitor follow-up and execution. The Netherlands will monitor the complementarity with Digital Europe, Erasmus (specifically because of the European University Network) and European Social Fund+ and ensure proper alignment with the possibilities for innovation as outlined in the Common Agricultural Policy. There are also possibilities for synergy as regards dual-use research in relation to the proposed European Defence Fund (EDF).

The Netherlands supports the objective for climate mainstreaming in the Commission's proposal for the new MFF. This means climate must be included to some degree in all EU programmes because 25% of all EU expenditures must contribute to climate objectives. In Horizon Europe the aim is to spend 35% of the total budget on climate objectives.

<u>European partnerships</u>
A varied landscape of European partnerships has arisen in the field of research and innovation. These are both public-public and public-private partnerships. The Commission has proposed to streamline this landscape to achieve greater impact. The Netherlands acknowledges the importance of structuring this landscape in a more effective, efficient and transparent manner, also with a view to newcomers. However, the Netherlands believes that the streamlining process must be designed carefully because of the added value of knowledge gained and networks built and the way public-private programmes leverage investments. The Netherlands has encouraged public-private collaboration under top sector policy and the Dutch National Research Agenda, which also aligns with the societal challenges under the current Horizon 2020 Framework Programme.
As stated above, FET Flagships will not return as an instrument in Horizon Europe. They may be included under partnerships, but there must be scope to do so. According to the Netherlands, other points for attention in the streamlining process are: preventing "free-riding" behaviour when there are more open partnerships, maintaining sovereignty over national budgets and cutting down on red tape. Finally, the Netherlands is invested in programmes that support innovative SMEs. An example of this is the Eurostars programme in its current design.

[7] Regional Research and Innovation Strategies for Smart Specialisation.

Euratom

The Netherlands agrees with the focus proposed by the Commission for the Euratom Programme, which is mostly based on lessons learned from previous Euratom Programmes. The Netherlands considers nuclear research conducted in Euratom context vital in gaining a better understanding of the ageing of nuclear power stations and how ageing affects reactor security. Expertise gained in this context could also lead to the improvement of accident strategies. In addition, research on radiation protection is extremely important because various sectors use nuclear technology. The Netherlands supports the activities designed within the Euratom Programme for further research on nuclear fusion as a source of energy.

c) First estimation of forces at play

The structure of Horizon Europe and the proposed budget are supported by nearly all Member States. Like the Netherlands, various other countries have clearly indicated that their approval hinges on the outcome of the MFF and Brexit.

To most Member States, it is still not clear how the new pillars will relate to each other in terms of content and budget, and how they will be elaborated. Most Member States have demanded more clarity about the new elements (EIC and missions). The strategic programming process and the way in which synergy with the other EU programmes will be created are both still unclear.

The Member States strongly disagree on topics such as 'sharing excellence' and partnerships. The less research and innovation-intensive EU Member States advocate awarding funds on the basis of geographical criteria and more public-public partnerships. Other points that the Netherlands considers important, such as excellent research and innovation, increased impact of the programmes and technological and industrial capacity, are shared by like-minded countries. This also applies to maintaining a proper balance between a bottom-up and top-down approach to research and innovation.

4. **Assessment of competence, subsidiarity and proportionality**

a) *Competence*

The Horizon Europe Regulation is based on those parts of the treaty related to "Industry" and "Research, Technological Development and Space" (Article 173(3), Article 182(3), Article 183 and Article 188, second paragraph TFEU). The related rules for participation are based on Articles 173(3) and 182(4) TFEU. The proposal for the nuclear programme under Horizon Europe is based on Article 7 of the Euratom Treaty. The Netherlands endorses these legal bases.

b) Subsidiarity

The Netherlands' assessment of the subsidiarity of Horizon Europe is positive. European investments in research and innovation have clearly provided added value, particularly when compared to programmes that only receive national or regional investments; European investments have created a critical mass for solving global challenges; strengthened the excellent

knowledge base by means of competitive selection; encouraged multidisciplinary collaboration and created new economic opportunities.

c) Proportionality

The Netherlands has expressed a positive view of the proportionality of Horizon Europe. In addition to national initiatives, the European Framework Programme is well positioned to provide high-risk and long-term investments in research and innovation. The Commission's policy is aimed at achieving Treaty objectives in the field of Research, Technological Development and Space and Industry. The government considers this proposal suitable to achieve the objective.

5. Financial implications, consequences for regulatory burden and paperwork

a) Consequences for EU budget

Compared to the current period (2014-2020), the Commission has proposed a nominal increase of 30%. This takes into account the UK's withdrawal from the EU, by deducting UK EU expenditures for the current MFF from the scope of the programme.

As laid down in the letter to Dutch Parliament on the Government's appreciation of the Commission's MFF proposal of 1 June 2018, financing of Horizon Europe program forms an integral part of the negotiations on the 2021-2027 Multiannual Financial Framework (MFF). The Netherlands considers it important that talks on Horizon Europe do not pre-empt the integrated decision-making process regarding the MFF. The Dutch position on Horizon Europe will have to be in line with the general position of the Netherlands in the MFF negotiations as explained above, i.e. an ambitiously modernized and financially sustainable MFF. This requires sharp choices as well as cuts. In order to be able to deal with the consequences of the withdrawal of the United Kingdom and to be able to fund new priorities, substantial cuts must be made. The Dutch Government strives for ambitious savings in traditional policy areas, such as Common Agricultural Policy (CAP) and the Cohesion Policy, thus preventing an additional Dutch contribution as a result of Brexit and providing scope for funding new policy priorities. It is obvious that within this context, on the contents of the proposal there remains room to anticipate actively on the course of the negotiations.

The Commission has budgeted €94.1 billion in current prices for Horizon Europe for the period from 2021 up to and including 2027 to realize the intended policy objectives. In respect of the Euratom Programme, the Commission has budgeted € 1,675 billion in current prices for the period 2021-2025.

Apportionment of the funds (Commission's proposal in billion euros).		
Open science	**€ 25.8**	**(27.42%)**
• European Research Council (ERC)	16.6	(17.64%)
• Marie Skłodowska-Curie Actions	6.8	(7.23%)
• Research Infrastructures	2.4	(2.55%)
Global challenges and industrial competitiveness	**€ 52.7**	**(56%)**
• Health	7.7	(8.18%)
• Inclusive and secure society	2.8	(2.98%)
• Digital and Industry	15.0	(15.94%)
• Climate, Energy and Mobility	15.0	(15.94%)
• Food and natural resources	10.0	(10.63%)
• Joint Research Centre (non-nuclear actions)	2.2	(2.34%)
Open innovation	**€ 13.5**	**(14.35%)**
• European Innovation Council (EIC)	10.0	(10.63%)
• European innovation ecosystems	0.5	(0.53%)
• European Institute of Innovation and Technology (EIT)	3.0	(3.19%)
Strengthening European Research Area	**€ 2.1**	**(2.23%)**
• Reforming and enhancing the European R&I system	0.4	(0.43%)
• Sharing excellence	1.7	(1.81%)
Total	**€ 94.1**	**100%**

b) Financial consequences for central government and/or local authorities (incl. for personnel)

Horizon Europe does not have any direct financial consequences for the central government and/or local authorities. If programmes are designed within the framework of Horizon Europe which require co-funding from the central government and/or local authorities, for instance in initiatives (partnerships) within the framework of Article 185 or of Article 187, TFEU, the Council will decide on this separately and a separate assessment will be made in the Netherlands on the new Commission proposal. Budgetary consequences, if any, will be integrated into the budgets of the departments responsible for the relevant budget, in accordance with the rules of budgetary discipline.

c) Financial consequences for business community and citizens (incl. for personnel)

Universities, knowledge institutions, the business community as well as authorities may qualify for the means made available for the purpose of achieving the objectives.

d) Consequences for regulatory burden/paperwork for central government, local authorities, the business community and citizens

Participants that make use of Horizon Europe funds must comply with regulations imposed by the Commission on providing the funds. Paperwork is a point for attention in this context. The Commission has included several measures in its proposal to reduce this paperwork, as outlined above.

e) Consequences for competitiveness

Horizon Europe is expected to contribute to increasing Europe's competitiveness. Compared to Horizon 2020, Horizon Europe has an even stronger focus on increasing the programme's impact on science, the economy and society.

6. Legal implications

a) Consequences for national and local legislation and/or sanctioning policy (incl. application of the lex silencio positivo)

N/A

b) Delegated and/or implementing acts (incl. Dutch assessment thereof)

Horizon Europe Regulation: A delegated act is expected from the Commission regarding amendments to Annex V to supplement or amend the impact pathways indicators, where considered necessary, and to set baselines and targets (Article 45(2)). According to the Netherlands, the choice for delegated acts is obvious from a legal point of view as the Commission's power to supplement and amend the basic instrument (of which the annexes are also considered to be a part) can only be granted by delegation.

Horizon Europe Decision: The Commission has been granted the authority to adopt separate work programmes by means of implementing acts, for the implementation of actions under the various components (Article 11(2)). The Government agrees with the choice of implementing acts, because the implementing acts to be determined are aimed at implementing the Regulation pursuant to uniform conditions. This mainly relates to the examination procedure, with the exception of the work programme of the ERC to which the consultation procedure applies, but from which procedure may be derogated by the Commission. These procedures are in line with the current framework programme and are experienced and assessed as positive by the Netherlands.

Euratom Programme Regulation: The Government agrees with the choice of implementing acts (Article 11(1) (with examination procedure), Article 12(2) (with consultation procedure), because the implementing acts to be determined are aimed at implementing the Regulation pursuant to uniform conditions.

c) Proposed implementation periods (in the case of Regulations), or proposed effective date (in the case of Regulations and Decisions) with comments about feasibility.

The aim is for Horizon Europe to enter into effect in 2021. This is feasible if the comprehensive negotiations on the MFF are concluded in time.

d) Desirability of a review/horizon clause

The monitor and evaluation system of Horizon Europe consists of three elements: ongoing collection of implementation data, annual report on programme results (aimed at scientific, social and economic impact) and integrated interim evaluation and final evaluation within four years of the end of the programme. The Netherlands agrees with this.

7. Implementation and/or enforcement implications

a) Feasibility

N/A

b) Enforceability

N/A

8. Implications for developing countries

Horizon Europe will promote collaboration with third countries on the basis of common interest and mutual benefits. Horizon Europe will focus on sustainable development by, among other things, contributing to the objectives of the United Nations Sustainable Development Goals (SDGs).