DRAFT OPINION

of the Committee on the Environment, Public Health and Food Safety

for the Committee on Industry, Research and Energy


Rapporteur for opinion: Cristian-Silviu Buşoi
SHORT JUSTIFICATION

Horizon Europe will be the European Union’s 9th Research and Innovation Framework Programme and it will run between 2021 and 2027. The European Commission foresees financing for Horizon Europe to the tune of 97.6 billion EUR, up from the roughly 80 billion EUR for Horizon 2020. Building on past successes and learning the lessons from previous programmes, Horizon Europe aims to strengthen the scientific and technological bases of the Union, foster its competitiveness and make Europe fit to take a leading role in facing the challenges of the 21st century - from health to global warming, from digitalisation to the circular economy.

The rapporteur concurs that for Horizon Europe to succeed a balanced mix of continuity and innovation is necessary, and that an ‘evolution’ of the current programme will reap more benefits than ‘revolution’.

Continuity will serve to offer predictability and simplicity to the scientific community and firms aiming to engage with Horizon Europe. Continuity will also reinforce the ‘Horizon’ brand, ease dissemination efforts and analyse the performance of the programme over time. Specifically the rapporteur welcomes continuity in the three-pillar structure and of the successful components within them. Furthermore the rapporteur welcomes the continuation of grants as the main funding model for Horizon Europe.

Yet, the new Horizon rightly addresses a number of identified shortcomings. Horizon 2020 has for example succeeded in the bringing about excellent research - as demonstrated by the references in high quality scientific literature of Horizon’s funded publications, but the EU’s ecosystem is still not sufficiently conducive to breakthrough innovation. The rapporteur is of the opinion that a number of novelties in the new Horizon will strengthen the programme. The introduction of the concept of missions has the highest potential for success. A few, simple, well-funded missions with a high societal impact would serve to rally the scientific and business community. The new European Innovation Council also has the potential to accelerate the scaling up of promising ideas, favouring start-up and strengthening the links between academia and the business world. The reduction of bureaucracy, the principle of open science and the strengthened synergies with other EU programmes all have the potential to bring about positive change, accelerate innovation and concretise results.

The success of Horizon Europe is particularly important for the ENVI Committee. This is not just because being at the forefront of innovation and research is the best way to ensure quality jobs and the future competitiveness of the EU’s economy, but also because Horizon Europe is a key instrument to address the many pressing issues which are the focus of ENVI’s work and which stem from the international obligations which the EU helped shaping, such as the Paris Agreement or the Sustainable Development Goals or WHO guidelines.

Specifically, Pillar 2 takes the lion’s share of Horizon Europe funding. Three out of five of its clusters - (a) Health, (d) Climate, Energy and Mobility and (e) Food and natural resources - are of direct relevance to ENVI’s areas of competence and cover the largest part of the funding of Pillar 2.

As the most recent Eurobarometer survey presents, 70% of Europeans want the Union to do more in health sector. The rapporteur stresses that decreasing budgetary ratio on Health is not...
proportional with our current citizens’ expectations, especially on present times of populism and euroskepticism. Therefore, with regard to the budgetary distribution on Health, the rapporteur calls for the budget to be kept at least at the same rate as in H2020 - respectively 9.7% of the total budget, not 8.18% as proposed without redeployments. Furthermore, the rapporteur considers that the budgetary distribution between the two components of Pillar II should respect the same proportionality as in H2020, particularly 70% should focus on addressing Societal Challenges and delivering impact for society as a whole, while 30% should focus on Industrial Competitiveness.

Cancer is one of the main challenges many European citizens face. Almost one in three Europeans will develop cancer in their lifetime. Every year, 1.3 million people in Europe die from cancer, accounting for 26% of all deaths. Despite progress in medical science, the prevalence of cancer continues to increase and there remains significant differences between and within EU Member States as far as quality of care is concerned. Moreover, cancer remains the leading cause of death by disease in children, with 6000 young people dying each year from cancer in Europe. Innovative solutions in the field of paediatric oncology are crucial for Europe’s next generations as, every year, 35 000 new cases of cancer on young people are registered in the EU. As research and innovation are currently fragmented in this area and national actions alone cannot achieve sufficient results by themselves, the rapporteur proposes a first mission in an area with high mortality and long-term morbidity, related to children, namely ‘Eradicating paediatric cancer by 2030’.

AMENDMENTS

The Committee on the Environment, Public Health and Food Safety calls on the Committee on Industry, Research and Energy, as the committee responsible, to take into account the following amendments:

Amendment 1

Proposal for a regulation
Recital 2

Text proposed by the Commission
(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

Amendment
(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 achieving sustainable development, in developing, supporting and implementing Union policies, to support the uptake of innovative solutions in industry and society
Amendment 2
Proposal for a regulation
Recital 5

Text proposed by the Commission

(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.

Amendment

(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 and research data 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.
Amendment 3

Proposal for a regulation
Recital 10

Text proposed by the Commission

(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.

Amendment

(10) The pillar 'Global Challenges and Industrial Competitiveness' should focus on addressing societal needs, and 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. To ensure a multi-stakeholder approach and the consideration of societal needs, relevant stakeholders together with civil society should be actively involved in the research agenda setting through the strategic planning process and the development of work programmes.

Amendment 4

Proposal for a regulation
Recital 10 a (new)

Text proposed by the Commission

(10a) Funding for research under the 'Global Challenges and Industrial Competitiveness’ pillar should reflect the scale, salience and trend in the challenge which is being addressed. As an example, given the transboundary nature of
diseases and the current demographic trends, funding for health is increased compared to the previous programme, both in relative and absolute terms.

Amendment 5

Proposal for a regulation
Recital 26

Text proposed by the Commission

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

Amendment

(26) With the aim of deepening the relationship between science and society and maximising benefits of their interactions, the Programme should actively and systematically 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 between science, technology, culture and the arts to obtain a new quality of sustainable innovation.
Amendment 6
Proposal for a regulation
Recital 35

Text proposed by the Commission

(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.

Amendment

(35) In order to be able to supplement or amend the impact pathway indicators and to take into account the specific operating needs of certain European Partnerships, 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.

Or. en

Amendment 7
Proposal for a regulation
Article 2 – paragraph 1 – point 4

Text proposed by the Commission

(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;

Amendment

(4) 'open access' means the practice of providing online access to scientific publications and research data resulting from actions funded under the Programme, free of charge to the end-user;
Amendment 8

Proposal for a regulation
Article 2 – paragraph 1 – point 18

Text proposed by the Commission

(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;

Amendment

(18) “results” means any tangible or intangible deliverable 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;

Amendment 9

Proposal for a regulation
Article 3 – paragraph 2 – point b

Text proposed by the Commission

(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;

Amendment

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

Amendment 10

Proposal for a regulation
Article 7 – paragraph 3 a (new)

Text proposed by the Commission

3a. The Commission is empowered to adopt delegated acts in accordance with
Article 50 supplementing this Regulation to determine the nature, scope and funding for each mission.

Amendment 11
Proposal for a regulation
Article 7 – paragraph 3 b (new)

_text proposed by the Commission_ Amendment

3b. Missions shall be limited in number and well-funded. For the programming period 2021-2027 the Union shall not initiate more than 7 missions.

Amendment 12
Proposal for a regulation
Article 8 – paragraph 2 a (new)

_text proposed by the Commission_ Amendment

2a. The Commission is empowered to adopt delegated acts in accordance with Article 50 supplementing this Regulation concerning derogation from the rules in paragraph 3 of this Article where they concern actions supported through European Partnerships.

Amendment 13
Proposal for a regulation
Article 9 – paragraph 1
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.

Or. en

Amendment 14

Proposal for a regulation
Article 9 – paragraph 2 – point b – point 1

Text proposed by the Commission

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

Amendment

(1) EUR 9 127 700 000 for cluster 'Health';

Or. en

Amendment 15

Proposal for a regulation
Article 10 – paragraph 1

Text proposed by the Commission

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.

Amendment

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'.

Or. en
Amendment 16

Proposal for a regulation
Article 10 – paragraph 3

Text proposed by the Commission

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

Amendment

3. Open science practices and responsible management of research data shall be promoted.

Or. en

Amendment 17

Proposal for a regulation
Article 34 – paragraph 1 – subparagraph 3

Text proposed by the Commission

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.

Amendment

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Or. en

Amendment 18

Proposal for a regulation
Article 37 – paragraph 3 – subparagraph 2
Access shall be granted under fair and reasonable conditions to be agreed upon.

Access shall be granted to such legal entity under the same fair and reasonable conditions for the relevant type of access rights as applying to the beneficiary referred to in point (b) of paragraph 2.

Justification

Access rights conditions should be the same for affiliated entities as for the beneficiary parent entity: differential access rights would create obstacles to an optimal dissemination and exploitation of results and therefore limit the impact of innovations developed within Horizon Europe projects.

Amendment 19

Proposal for a regulation
Article 37 – paragraph 4

Text proposed by the Commission

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.

Amendment

4. The beneficiaries shall agree on an appropriate time limit for requesting access for exploitation purposes after the end of the action.

Justification

Time limits for requesting access rights may vary depending on the type of project and the outcomes of the project. The beneficiaries are the best placed to determine the appropriate time limits in connection with a specific project and intended results. Proposing a particular time limit even if a different time limit may be agreed is likely to set this time limit as a default and complicate negotiations if other beneficiaries cannot agree.

Amendment 20

Proposal for a regulation
Article 50 – paragraph 2
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.

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.

Amendment 23
Proposal for a regulation
Annex I – point 2 – paragraph 1

**Text proposed by the Commission**

Through the following activities, this pillar will, in line with Article 4, 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. It will also contribute to the other Programme’s specific objectives as described in Article 3.

**Amendment**

Through the following activities, this pillar will, in line with Article 4, strengthen the impact of research and innovation in achieving sustainable development, in developing, supporting and implementing Union policies, and support the uptake of innovative solutions in industry and society to address global challenges. It will also contribute to the other Programme’s specific objectives as described in Article 3. A minimum of 70% of this pillar’s budget will focus on addressing societal challenges and delivering impact for society as a whole. This focus will be ensured through targeted programming of work programmes and will be reported on in annual reports.

Amendment 24
Proposal for a regulation
Annex I – point 2 – paragraph 4 – point a – introductory part
(a) Cluster 'Health': Improving and protecting the health of citizens at all ages, by developing innovative solutions to prevent, diagnose, monitor, treat and cure diseases; mitigating health risks, protecting populations and promoting good health; making public health systems more cost-effective, equitable and sustainable; and supporting and enabling patients' participation and self-management.

Amendment
Proposal for a regulation
Annex I – point 2 – paragraph 4 – point a – paragraph 1

Text proposed by the Commission

Areas of intervention: Health throughout the life course; Environmental and social health determinants; Non-communicable and rare diseases; Infectious diseases; Tools, technologies and digital solutions for health and care; Health care systems

Amendment

Areas of intervention: Health throughout the life course; Environmental and social health determinants; Non-communicable and rare diseases; Infectious diseases; Health care systems

Or. en

Amendment 26
Proposal for a regulation
Annex I – point 2 – paragraph 4 – point c – introductory part

Text proposed by the Commission

(c) Cluster 'Digital and Industry': Reinforcing capacities and securing Europe's sovereignty in key enabling

Amendment

(c) Cluster 'Digital and Industry': Reinforcing capacities and securing Europe's sovereignty in key enabling
technologies for digitisation and production, and in space technology, to build a competitive, digital, low-carbon and circular industry; ensure a sustainable supply of raw materials; and provide the basis for advances and innovation in all global societal challenges.

Solutions to a sustainable, competitive, efficient and innovative care and health system.

Amendment 27
Proposal for a regulation
Annex I – point 2 – paragraph 4 – point c – paragraph 1

Text proposed by the Commission

Areas of intervention: Manufacturing technologies; Digital technologies; Advanced materials; Artificial intelligence and robotics; Next generation internet; High performance computing and Big Data; Circular industries; Low carbon and clean industry; Space

Amendment

Areas of intervention: Manufacturing technologies; Digital technologies; Advanced materials; Artificial intelligence and robotics; Tools, technologies and digital solutions for health and care; Next generation internet; High performance computing and Big Data; Circular industries; Low carbon and clean industry; Space

Amendment 28
Proposal for a regulation
Annex III – paragraph 1 – point 1 – point e – paragraph 1

Text proposed by the Commission

In the case of institutionalised European Partnerships, the financial and/or in-kind, contributions from partners other than the Union, will at least be equal to 50% and may reach up to 75% of the aggregated European Partnership budgetary commitments. For each institutionalised

Amendment

In the case of institutionalised European Partnerships, the financial and/or in-kind, contributions from partners other than the Union, will at least be equal to 50% and may reach up to 75% of the aggregated European Partnership budgetary commitments.
**European Partnership, a share of the contributions from partners other than the Union will be in the form of financial contributions.**

Or. en

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**Amendment 29**

Proposal for a regulation
Annex III – paragraph 1 – point 2 – point d

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<th>Text proposed by the Commission</th>
<th>Amendment</th>
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<td>(d) <em>Legally binding</em> commitments, in particular for financial contributions, from each partner throughout the lifetime of the initiative;</td>
<td>(d) <em>Long-term balanced</em> commitments, in particular for <em>in-kind and/or</em> financial contributions, from each partner throughout the lifetime of the initiative;</td>
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Or. en

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**Amendment 30**

Proposal for a regulation
Annex V – paragraph 4

<table>
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<tr>
<td>The Programme is expected to have societal impact by addressing <em>EU</em> policy priorities through R&amp;I, delivering benefits and impact through R&amp;I missions and strengthening the uptake of innovation in society. Progress towards this impact will be monitored through proxy indicators set along the following four key impact pathways.</td>
<td>The Programme is expected to have societal impact <em>by contributing to people’s wellbeing and achieving sustainable development</em>, by addressing <em>Union</em> policy priorities through R&amp;I, delivering benefits and impact through R&amp;I missions and strengthening the uptake of innovation in society. Progress towards this impact will be monitored through proxy indicators set along the following four key impact pathways.</td>
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