



**2018/0225(COD)**

19.7.2018

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## **DRAFT REPORT**

on the proposal for a decision of the European Parliament and of the Council on establishing the specific programme implementing Horizon Europe - the Framework Programme for Research and Innovation (COM(2018)0436 – C8-0253/2018 – 2018/0225(COD))

Committee on Industry, Research and Energy

Rapporteur: Christian Ehler

### ***Symbols for procedures***

- \* Consultation procedure
- \*\*\* Consent procedure
- \*\*\*I Ordinary legislative procedure (first reading)
- \*\*\*II Ordinary legislative procedure (second reading)
- \*\*\*III Ordinary legislative procedure (third reading)

(The type of procedure depends on the legal basis proposed by the draft act.)

### ***Amendments to a draft act***

#### **Amendments by Parliament set out in two columns**

Deletions are indicated in ***bold italics*** in the left-hand column. Replacements are indicated in ***bold italics*** in both columns. New text is indicated in ***bold italics*** in the right-hand column.

The first and second lines of the header of each amendment identify the relevant part of the draft act under consideration. If an amendment pertains to an existing act that the draft act is seeking to amend, the amendment heading includes a third line identifying the existing act and a fourth line identifying the provision in that act that Parliament wishes to amend.

#### **Amendments by Parliament in the form of a consolidated text**

New text is highlighted in ***bold italics***. Deletions are indicated using either the ▬ symbol or strikeout. Replacements are indicated by highlighting the new text in ***bold italics*** and by deleting or striking out the text that has been replaced.

By way of exception, purely technical changes made by the drafting departments in preparing the final text are not highlighted.

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## DRAFT EUROPEAN PARLIAMENT LEGISLATIVE RESOLUTION

**on the proposal for a decision of the European Parliament and of the Council on establishing the specific programme implementing Horizon Europe - the Framework Programme for Research and Innovation (COM(2018)0436 – C8-0253/2018 – 2018/0225(COD))**

**(Ordinary legislative procedure: first reading)**

*The European Parliament,*

- having regard to the Commission proposal to Parliament and the Council (COM(2018)0436),
  - having regard to Article 294(2) and Articles 173(3) and 182(4) of the Treaty on the Functioning of the European Union, pursuant to which the Commission submitted the proposal to Parliament (C8-0253/2018),
  - having regard to Article 294(3) of the Treaty on the Functioning of the European Union,
  - having regard to Rule 59 of its Rules of Procedure,
  - having regard to the report of the Committee on Industry, Research and Energy and the opinions of the Committee on Development, the Committee on Budgets, the Committee on Budgetary Control, the Committee on the Environment, Public Health and Food Safety, the Committee on Transport and Tourism, the Committee on Regional Development and the Committee on Agriculture and Rural Development (A8-0000/2018),
1. Adopts its position at first reading hereinafter set out;
  2. Calls on the Commission to refer the matter to Parliament again if it replaces, substantially amends or intends to substantially amend its proposal;
  3. Instructs its President to forward its position to the Council, the Commission and the national parliaments.

### **Amendment 1**

#### **Proposal for a decision**

#### **Recital 6**

*Text proposed by the Commission*

(6) The Specific 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***

*Amendment*

(6) The Specific Programme's actions should be used to ***reinforce, widen and extend the excellence of the Union's scientific and technological base, tackle major global challenges, increase the Union's industrial leadership as well as***

*added value.*

address market failures or sub-optimal investment situations **avoiding** or crowding out private financing.

Or. en

## **Amendment 2**

### **Proposal for a decision Recital 7**

*Text proposed by the Commission*

(7) Reflecting the important contribution that research and innovation should make to address challenges in food, agriculture, rural development and the bioeconomy, and to seize the corresponding research and innovation opportunities in close synergy with Common Agricultural Policy, relevant actions under the Specific Programme will be supported **with EUR 10 billion for the** cluster 'Food and Natural Resources' for the period 2021-2027.

*Amendment*

(7) Reflecting the important contribution that research and innovation should make to address challenges in food, agriculture, rural development and the bioeconomy, and to seize the corresponding research and innovation opportunities in close synergy with Common Agricultural Policy, relevant actions under the Specific Programme will be supported **in a dedicated** cluster 'Food and Natural Resources' for the period 2021-2027.

Or. en

## **Amendment 3**

### **Proposal for a decision Recital 7 a (new)**

*Text proposed by the Commission*

*Amendment*

***(7 a) Cultural and creative industries (CCI) are considered amongst the most innovative companies; they are vital for ensuring linguistic and cultural diversity, pluralism and for offering innovative and high-quality services and they trigger innovative spillovers in other industrial sectors, such as tourism, retail, and digital technologies. Cultural heritage is an integral part of European cohesion and***

*has the potential to build bridges between tradition and innovation. Preserving heritage and developing creative solutions, in particular in the field of digitalisation, shall be a priority of the research programme. Horizon Europe will invest at least EUR 500 million into research activities in the CCI field, including EUR 100 million in the creation of a “Cultural Heritage Cloud”,*

Or. en

#### Amendment 4

##### Proposal for a decision Recital 8

*Text proposed by the Commission*

(8) The completion of the Digital Single Market and the growing opportunities from the convergence of digital and physical technologies requires a stepping up of investments. Horizon Europe will contribute to these efforts with **a substantial increase of** spending in main digital research and innovation activities compared to the Research and Innovation Framework Programme Horizon 2020<sup>6</sup>. This should ensure that Europe remains at the forefront of global research and innovation in the digital field.

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<sup>6</sup> The Communication from the Commission "A new, modern Multiannual Financial Framework for a European Union that deliver efficiently on its priorities post-2020" identifies EUR 13 billion spent in main digital activities under the Research and Innovation Framework Programme Horizon 2020 (<https://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX%3A52018DC0098>).

*Amendment*

(8) The completion of the Digital Single Market and the growing opportunities from the convergence of digital and physical technologies requires a stepping up of investments. Horizon Europe will contribute to these efforts with **at least EUR 16 billion** spending in main digital research and innovation activities compared to the Research and Innovation Framework Programme Horizon 2020<sup>6</sup>. This should ensure that Europe remains at the forefront of global research and innovation in the digital field.

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<sup>6</sup> The Communication from the Commission "A new, modern Multiannual Financial Framework for a European Union that deliver efficiently on its priorities post-2020" identifies EUR 13 billion spent in main digital activities under the Research and Innovation Framework Programme Horizon 2020 (<https://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX%3A52018DC0098>).

## Amendment 5

### Proposal for a decision

#### Recital 9

*Text proposed by the Commission*

(9) **The types** of financing **and the methods of implementation** under this Decision 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.

*Amendment*

(9) **Grants will be the main type** of financing under this Decision. **Other types of financing** 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.

Or. en

## Amendment 6

### Proposal for a decision

#### Article 2 – paragraph 2 – point a

*Text proposed by the Commission*

(a) reinforcing **and spreading excellence**;

*Amendment*

(a) reinforcing, **widening and extending the Union's scientific and technological base**;

Or. en

## Amendment 7

### Proposal for a decision

#### Article 2 – paragraph 2 – point c

*Text proposed by the Commission*

(c) connecting **and** developing research

*Amendment*

(c) connecting, developing **and**



infrastructures across the European research area;

*facilitating wide access to* research infrastructures across the European Research Area;

Or. en

## Amendment 8

### Proposal for a decision

#### Article 2 – paragraph 2 – point f

*Text proposed by the Commission*

*Amendment*

(f) fostering open science and ensuring visibility to the public and open access to results;

(f) fostering open science and ensuring visibility to the public and open access to results *when appropriate*;

Or. en

## Amendment 9

### Proposal for a decision

#### Article 2 – paragraph 2 – point n

*Text proposed by the Commission*

*Amendment*

(n) improving skills *for* innovation;

(n) improving skills *and fostering creativity for research and* innovation.

Or. en

*Justification*

*Creativity is essential for innovation.*

## Amendment 10

### Proposal for a decision

#### Article 3 – paragraph 1 – point 2 – introductory part

*Text proposed by the Commission*

*Amendment*

(2) Pillar II 'Global Challenges and Industrial Competitiveness' with the

(2) Pillar II 'Global Challenges and *European* Industrial Competitiveness' with

following components:

the following components:

Or. en

## Amendment 11

### Proposal for a decision

#### Article 3 – paragraph 1 – point 2 – point b

*Text proposed by the Commission*

(b) cluster 'Inclusive and **Secure** Society', as described in Annex I, Pillar II, section 2;

*Amendment*

(b) cluster 'Inclusive and **Creative** Society', as described in Annex I, Pillar II, section 2;

Or. en

## Amendment 12

### Proposal for a decision

#### Article 3 – paragraph 1 – point 2 – point b a (new)

*Text proposed by the Commission*

*Amendment*

**(b a) cluster 'Secure Society'**

Or. en

## Amendment 13

### Proposal for a decision

#### Article 3 – paragraph 1 – point 3 – introductory part

*Text proposed by the Commission*

*Amendment*

(3) Pillar III '**Open Innovation**' with the following components:

(3) Pillar III '**Innovative Europe**' with the following components:

Or. en

## Amendment 14

### Proposal for a decision

#### Article 3 – paragraph 1 – point 4 – point a

*Text proposed by the Commission*

(a) **sharing** excellence, as described in Annex I, Part 'Strengthening the European Research Area', section 1;

*Amendment*

(a) **spreading** excellence, as described in Annex I, Part 'Strengthening the European Research Area', section 1;

Or. en

## Amendment 15

### Proposal for a decision

#### Article 4 – paragraph 1

*Text proposed by the Commission*

1. In accordance with Article 9(1) of Regulation ... FP/RfP Regulation, the financial envelope for the implementation of the Specific Programme for the period 2021 to 2027 shall be EUR **94 100 000 000** *in current* prices.

*Amendment*

1. In accordance with Article 9(1) of Regulation ... FP/RfP Regulation, the financial envelope for the implementation of the Specific Programme for the period 2021 to 2027 shall be EUR **120 000 000 000** *in constant* prices.

Or. en

## Amendment 16

### Proposal for a decision

#### Article 5 – paragraph 1 – introductory part

*Text proposed by the Commission*

1. For each mission, a mission board may be established. It shall be composed of around 15 high level individuals including relevant end-users' representatives. The mission board shall advise **upon** the following:

*Amendment*

1. For each mission, a mission board may be established **for co-designing and steering implementation**. It shall be composed of around 15 high level individuals including relevant end-users' representatives. The mission board shall **include, inter alia, representatives from academia, research and technology organisations, industry of all sizes, territorial authorities, and relevant end-**

*users' representatives. The members of the mission board shall be appointed by the Commission, following an independent and transparent procedure for their selection, including an open call for expressions of interest. They shall advise on the following:*

Or. en

#### *Justification*

*To increase the impact of missions, the missions board should include the key R&I actors, including territorial authorities for better synergies with regional funds.*

#### **Amendment 17**

##### **Proposal for a decision**

##### **Article 5 – paragraph 1 – point a**

###### *Text proposed by the Commission*

(a) content of work programmes and their revision as needed for achieving the mission objectives, in co-design with stakeholders and the public where relevant;

###### *Amendment*

(a) content of work programmes **of the relevant clusters** and their revision as needed for achieving the mission objectives, in co-design with stakeholders and the public where relevant;

Or. en

#### **Amendment 18**

##### **Proposal for a decision**

##### **Article 5 – paragraph 2 a (new)**

###### *Text proposed by the Commission*

###### *Amendment*

**2 a. Missions shall be implemented through collaborative calls for proposals within the work programmes of the relevant clusters. Calls for proposals shall allow for projects of all technological and societal readiness levels.**

Or. en

## Amendment 19

### Proposal for a decision Article 5 – paragraph 2 b (new)

*Text proposed by the Commission*

*Amendment*

**2 b. Details on the implementation of the missions including scope, indicators, measurable targets and milestones, synergies with other Union funds and links with European Partnerships, shall be defined in the strategic R&I plans as outlined in Annex I of this Decision.**

Or. en

## Amendment 20

### Proposal for a decision Article 6 – paragraph 5

*Text proposed by the Commission*

*Amendment*

5. The activities of the ERC shall support research carried out across all fields by individual and transnational teams in competition at the European level.

5. The activities of the ERC shall support research carried out across all fields by individual and transnational teams in competition at the European level. **To improve the impact of the successful ERC proof of concept, the scheme shall be open to non-ERC grantees complying with all eligibility criteria.**

Or. en

## Amendment 21

### Proposal for a decision Article 6 – paragraph 5 a (new)

*Text proposed by the Commission*

*Amendment*

**5 a. A seal of excellence shall be awarded to a beneficiary of the ERC proof**

*of concept if the proposal is eligible, has passed applicable thresholds and couldnot be funded under the specific call for proposals.*

Or. en

*Justification*

*The Seal of Excellence should be extended to the ERC proof of concept.*

**Amendment 22**

**Proposal for a decision  
Article 7 – paragraph 4**

*Text proposed by the Commission*

4. The Scientific Council shall act exclusively in the interest of achieving the ERC, according to the principles set out in Article 6. It shall act with integrity and probity and carry out its work efficiently and with the greatest possible transparency.

*Amendment*

4. The Scientific Council shall act exclusively in the interest of achieving the ERC, according to the principles set out in Article 6. It shall act with **complete independence**, integrity and probity and carry out its work efficiently and with the greatest possible transparency.

Or. en

*Justification*

*The ERC Scientific Council must keep its independence and be “the guarantor of the quality of the activity from the scientific perspective.”*

**Amendment 23**

**Proposal for a decision  
Article 9 – paragraph 1**

*Text proposed by the Commission*

1. The Commission shall establish a European Innovation Council (EIC) for implementing actions under Pillar III '**Open Innovation**' which relate to the EIC. The EIC shall operate according to the following principles: focus on

*Amendment*

1. The Commission shall establish a European Innovation Council (EIC) for implementing actions under Pillar III '**Innovative Europe**' which relate to the EIC. The EIC shall operate according to the following principles: focus on **new**

breakthrough and disruptive innovation, autonomy, ability to take risk, efficiency, effectiveness, transparency and accountability.

*ideas, which could lead to* breakthrough and disruptive innovation, autonomy, ability to take risk, efficiency, effectiveness, transparency and accountability, ***alignment with the overall strategy for Union competitiveness and subsidiarity.***

Or. en

## Amendment 24

### Proposal for a decision Article 9 – paragraph 1 a (new)

*Text proposed by the Commission*

*Amendment*

***1 a. The EIC will be built into two instruments, the Pathfinder and the Accelerator, as described in Annex I of this Decision. Both instruments shall aim to develop new iterative innovation patterns capable of supporting innovation in a systemic way.***

Or. en

## Amendment 25

### Proposal for a decision Article 9 – paragraph 1 b (new)

*Text proposed by the Commission*

*Amendment*

***1 b. Where appropriate, the EIC objectives and actions shall be linked to other parts of the Programme as well as to other national and Union Funds, in particular the EIT and InvestEU.***

Or. en

## Amendment 26

### Proposal for a decision

#### Article 9 – paragraph 3 – point b

*Text proposed by the Commission*

(b) does not lead to distortions of competition *contrary to the common interest*.

*Amendment*

(b) does not lead to distortions of competition *or crowding-out of private investments*.

Or. en

## Amendment 27

### Proposal for a decision

#### Article 9 – paragraph 4 a (new)

*Text proposed by the Commission*

*Amendment*

**4 a. The Commission shall ensure structural cooperation between the EIT and the EIC at all levels.**

Or. en

### *Justification*

*Given that the EIT through its KICs have also been supporting high-potential innovators including providing access to private investors, venture capital, co-investments and other funding sources, a structural cooperation needs to be established between the EIT and EIC in order to ensure full complementary and avoid unnecessary duplication.*

## Amendment 28

### Proposal for a decision

#### Article 10 – paragraph 1 – point a

*Text proposed by the Commission*

(a) the overall strategy for the EIC component under Pillar III '*Open Innovation*';

*Amendment*

(a) the overall strategy for the EIC component under Pillar III '*Innovative Europe*';

Or. en



## Amendment 29

### Proposal for a decision

#### Article 10 – paragraph 1 – point e a (new)

*Text proposed by the Commission*

*Amendment*

***(e a) the systematic and permanent evaluation process of the EIC actions;***

Or. en

## Amendment 30

### Proposal for a decision

#### Article 10 – paragraph 2 – subparagraph 1 – introductory part

*Text proposed by the Commission*

*Amendment*

The EIC Board may upon request address recommendations to the Commission on:

The EIC Board may upon request, ***and wherever appropriate in coordination with the EIT Governing Board,*** address recommendations to the Commission on:

Or. en

### *Justification*

*Given that the EIT Governing Board has a similar mandate, also mindful of knowledge, the EIT has built over the last 10-years, the EIC Board and the EIT Governing Board should produce joint recommendations whenever appropriate.*

## Amendment 31

### Proposal for a decision

#### Article 10 – paragraph 2 – subparagraph 1 – point b

*Text proposed by the Commission*

*Amendment*

(b) identify in cooperation with relevant Commission services possible regulatory barriers faced by entrepreneurs, in particular those awarded support under

(b) identify in cooperation with relevant Commission services ***and the EIT*** possible regulatory barriers faced by entrepreneurs, in particular those awarded

the EIC component;

support under the EIC component;

Or. en

## Amendment 32

### Proposal for a decision

#### Article 10 – paragraph 2 – subparagraph 2

##### *Text proposed by the Commission*

The EIC Board shall act in the interest of achieving the objectives of the EIC **component**. It shall act with integrity and probity and carry out its work efficiently and with transparency.

##### *Amendment*

The EIC Board shall act in the interest of achieving the objectives of the EIC **taking into account the competitiveness strategy of the Union**. It shall act with integrity and probity and carry out its work efficiently and with transparency, **avoiding distortion of competition in the internal market**.

Or. en

##### *Justification*

*The EIC will act in the competitive area. It must be fully ensured that interventions are not distorting competition or creating unfair conditions.*

## Amendment 33

### Proposal for a decision

#### Article 10 – paragraph 3 – subparagraph 1

##### *Text proposed by the Commission*

The EIC Board shall be composed of 15 to 20 high level individuals drawn from various parts of Europe's innovation ecosystem, including entrepreneurs, **corporate** leaders, investors **and** researchers. It shall contribute to outreach actions, with EIC Board members striving to enhance the prestige of the EIC brand.

##### *Amendment*

The EIC Board shall be composed of 15 to 20 high level individuals drawn from various parts of Europe's innovation ecosystem, including entrepreneurs, **industrial** leaders, **economists**, investors, researchers **and academic experts on innovation policy**. It shall contribute to outreach actions, with EIC Board members striving to enhance the prestige of the EIC brand.

Or. en

## Amendment 34

### Proposal for a decision

#### Article 10 – paragraph 4 – subparagraph 1

##### *Text proposed by the Commission*

The EIC Board shall have a President who shall be appointed by the Commission following a transparent recruitment process. The President shall be a high profile public figure linked to the innovation world.

##### *Amendment*

The EIC Board shall have a President who shall be appointed by the Commission following a transparent recruitment process. The President shall be a high profile public figure linked to the **research and** innovation world.

Or. en

##### *Justification*

*The profile and activities of the EIC Board's President should reflect the broad mission of the EIC and its funding instruments (Pathfinder, Accelerator) for advanced research and innovation actions.*

## Amendment 35

### Proposal for a decision

#### Article 10 – paragraph 4 – subparagraph 3

##### *Text proposed by the Commission*

The President shall chair the EIC Board, prepare its meetings, assign tasks to members, and may establish dedicated sub-groups, in particular to identify emerging technology trends from EIC's portfolio. He or she shall promote the EIC, act as interlocutor with the Commission and represent the EIC in the world of innovation. The Commission may provide for administrative support for the President to undertake his or her duties.

##### *Amendment*

The President shall chair the EIC Board, prepare its meetings, assign tasks to members, and may establish dedicated sub-groups, in particular to identify emerging technology trends from EIC's portfolio. He or she shall promote the EIC, act as interlocutor with the Commission and represent the EIC in the world of **research and** innovation. The Commission may provide for administrative support for the President to undertake his or her duties.

Or. en

## Amendment 36

### Proposal for a decision

#### Article 11 – title

*Text proposed by the Commission*

Work programmes

*Amendment*

***Strategic Planning and*** Work programmes

Or. en

## Amendment 37

### Proposal for a decision

#### Article 11 – paragraph 1 – subparagraph 1

*Text proposed by the Commission*

The Programme shall be implemented by work programmes referred to in Article 110 of Financial Regulation. ***They shall be prepared following a strategic planning process as described in Annex I to this Decision.***

*Amendment*

***The implementation of the Specific Programme shall be based on specific R&I plans formulated every two years, by means of delegated acts in accordance with Article 6 of this Regulation and following a transparent and strategic multiannual planning process of research and innovation activities, in particular for the pillar 'Global Challenges and European Industrial Competitiveness'. The consultations with national authorities, the European Parliament, and stakeholders' representatives about priorities and the suitable types of action and forms of implementation to use shall ensure alignment with other relevant Union programmes and increase consistency with national and regional RDI funding programmes and priorities, thereby strengthening the ERA, as described in Annex I to this Decision.***

***Following the strategic R&I plan,*** the Programme shall be implemented by work programmes referred to in Article 110 of Financial Regulation.

Or. en

## Amendment 38

### Proposal for a decision

#### Article 11 – paragraph 2 – point b

*Text proposed by the Commission*

(b) all clusters under the pillar 'Global Challenges and Industrial Competitiveness', MSCA, research infrastructures, support to innovation ecosystems, **sharing** excellence and reforming and enhancing the European R&I System, in accordance with the examination procedure referred to in Article 12(4);

*Amendment*

(b) all clusters under the pillar 'Global Challenges and Industrial Competitiveness', MSCA, research infrastructures, support to innovation ecosystems, **spreading** excellence and reforming and enhancing the European R&I System, in accordance with the examination procedure referred to in Article 12(4);

Or. en

## Amendment 39

### Proposal for a decision

#### Annex I – paragraph 1

*Text proposed by the Commission*

The implementation of Horizon Europe's programme-level objectives ***in an integrated manner will be ensured by multiannual Strategic Planning. Such planning*** will provide ***the*** focus on impact for the Programme ***overall*** and coherence between its different pillars, as well as synergy with other EU programmes and support to and from other EU policies.

*Amendment*

***The implementation of Horizon Europe shall be steered by an inclusive and transparent strategic planning process of the research and innovation activities funded by the Programme.***

***The strategic planning process shall implement the*** Horizon Europe's programme-level objectives ***by defining the funding priorities. It*** will provide focus on impact for the Programme and coherence between its different pillars, as well as synergy with other EU programmes and support to and from other EU policies. ***The strategic planning process and the adoption of the strategic R&I plan by means of a delegated act will increase ownership and understanding for the***

*purpose of the Programme by a wider public and will allow the co-legislators, stakeholders and Member States to be fully informed on the envisaged initiatives. The Strategic Planning will help to develop and implement policy for the relevant areas covered, at Union level as well as complementing policies in the Member States. It will allow the simplification of the funding landscape, avoid duplication and overlaps between funding possibilities and promote faster dissemination and uptake of research and innovation results.*

*In order to respond to those objectives, the Commission will launch an open consultation phase with Member States, the European Parliament, stakeholders, including civil society organisations, about the strategic priorities including missions, under the Global Challenges and European Industrial Competitiveness pillar, and the suitable types of instruments, in particular the European partnerships. All partnerships and missions or any other strategic new initiative shall be identified in this Strategic R&I Plan before being implemented in work programmes.*

*As regards European partnerships, the Strategic R&I Plan will outline and give the rationale for the creation, merge and phasing out of the European partnerships. All well-established partnerships, such as the Joint Technology Initiatives, will be considered for continuation beyond 2020 due to their added-value in bringing and leveraging private investment and contribution to synergies of funds (i.e. Clean Sky has signed partnerships with 17 Member States and regions around Europe). As in Horizon 2020, proposals for Joint Undertakings will be presented as Council Regulations.*

*On-going and new KICs will be identified in the legislative proposal for a Decision of the European Parliament and the*

*Council on the EIT Strategic Innovation Agenda. 'FET Flagships' supported under Horizon 2020 (currently Graphene Flagship, Human Brain Project, Quantum Flagship) will continue to be supported under the Programme. As they present substantial analogies with missions, other 'FET flagships', if any, maybe be supported under this Framework Programme as missions geared towards future and emerging technologies. The missions should strengthen the collaborative aspects of the Programme and reinforce existing European partnerships, which could work as supporting implementation pillars of the missions. The missions will have technological and societal elements and will be defined in close cooperation with all relevant DGs.*

*The strategic planning will identify existing links between Horizon Europe and other Union Programmes, including the Euratom programme, which offer possibilities for synergies between Union funds. Horizon Europe will become a point of reference for research and innovation in all related programmes across the Union budget and non-funding instruments. This will also promote faster dissemination and uptake of research and innovation results and avoid duplication and overlaps between funding possibilities. It will provide the frame for linking the direct research actions of the Joint Research Centre and other actions supported under the Programme, including the use of results for support to policy.*

Or. en

#### **Amendment 40**

#### **Proposal for a decision Annex I – paragraph 2**

*Text proposed by the Commission*

*Amendment*

***The Strategic Planning will promote strong engagement with citizens and civil society organisations at all stages of research and innovation, the co-creation of knowledge, effective promotion of gender equality, including the integration of the gender dimension in research and innovation content, and will ensure and promote the adherence to the highest ethics and integrity standards.*** *deleted*

Or. en

*Justification*

*Redrafted in amendment Annex I – paragraph 1*

#### **Amendment 41**

##### **Proposal for a decision Annex I – paragraph 3**

*Text proposed by the Commission*

*Amendment*

***It will include extensive consultations and exchanges with Member States, the European Parliament as appropriate, and with various stakeholders about priorities, including missions, under the 'Global Challenges and Industrial Competitiveness' pillar, and the suitable types of action to use, in particular European partnerships.*** *deleted*

Or. en

*Justification*

*Redrafted in amendment Annex I – paragraph 1*



## Amendment 42

### Proposal for a decision Annex I – paragraph 4

*Text proposed by the Commission*

*Amendment*

***Based on such extensive consultations, the Strategic Planning will identify common objectives and common areas for activities such as partnership areas (the proposed legal basis sets out only the instruments and criteria that will guide their use) and mission areas.***

***deleted***

Or. en

*Justification*

*Redrafted in amendment Annex I – paragraph 1*

## Amendment 43

### Proposal for a decision Annex I – paragraph 5

*Text proposed by the Commission*

*Amendment*

***The Strategic Planning will help to develop and realise the implementation of policy for the relevant areas covered, at EU level as well as complementing policy and policy approaches in the Member States. EU policy priorities will be taken into consideration during the Strategic Planning process to increase the contribution of research and innovation to the realisation of policy. It will also take into account foresight activities, studies and other scientific evidence and take account of relevant existing initiatives at EU and national level.***

***deleted***

Or. en

*Justification*

*Redrafted in amendment Annex I – paragraph 1*

**Amendment 44**

**Proposal for a decision  
Annex I – paragraph 6**

*Text proposed by the Commission*

*Amendment*

***The Strategic Planning will promote synergies between Horizon Europe and other Union Programmes, including the Euratom programme, thus becoming a point of reference for research and innovation in all related programmes across the EU budget and non-funding instruments. This will also promote faster dissemination and uptake of research and innovation results and avoid duplication and overlaps between funding possibilities. It will provide the frame for linking the direct research actions of the Joint Research Centre and other actions supported under the Programme, including the use of results for support to policy.***

***deleted***

Or. en

*Justification*

*Redrafted in amendment Annex I – paragraph 1*

**Amendment 45**

**Proposal for a decision  
Annex I – paragraph 7**

*Text proposed by the Commission*

*Amendment*

***A Strategic Plan will lay out a multiannual strategy for realising content in the work programme (as set out in Article 11), while retaining sufficient flexibility to respond rapidly to***

***deleted***

*unexpected opportunities and crises. As Horizon Europe is a programme for 7 years, the economic, societal and policy context in which it will operate may change significantly during its life-time. Horizon Europe needs to be able to swiftly adapt to these changes. There will therefore be the possibility to include support for activities beyond the descriptions set out below, where this is duly justified, to address major developments or unforeseen events, policy needs, or crisis situations, for example in response to serious threats to health arising for example from epidemics.*

Or. en

*Justification*

*Redrafted in amendment Annex I – paragraph 1*

**Amendment 46**

**Proposal for a decision  
Annex I – paragraph 8**

*Text proposed by the Commission*

*Amendment*

*In the implementation of Horizon Europe, particular attention will be paid to ensuring a balanced and broad approach to research and innovation, which is not only limited to the development of new products processes and services on the basis of scientific and technological knowledge and breakthroughs, but also incorporates the use of existing technologies in novel applications and continuous improvement and non-technological and social innovation. A systemic, cross-disciplinary, cross-sectoral and cross-policy approach to research innovation will ensure that challenges can be tackled while also giving rise to new competitive businesses and industries, fostering competition, stimulating private*

*deleted*

*investments and preserving the level playing field in the internal market.*

Or. en

*Justification*

*Redrafted in amendment Annex I – paragraph 1*

#### **Amendment 47**

##### **Proposal for a decision Annex I – paragraph 9**

*Text proposed by the Commission*

*Amendment*

*In the 'Global Challenges and Industrial Competitiveness' and the 'Open Innovation' Pillars, research and innovation will be complemented with activities which operate close to the end-users and the market, such as demonstration, piloting or proof-of-concept, excluding however commercialisation activities going beyond the research and innovation phase. This will also include support to demand-side activities that help accelerate the deployment and diffusion of a broad range of innovations. Emphasis will be put on non-prescriptive calls for proposals.*

*deleted*

Or. en

*Justification*

*Redrafted in amendment Annex I – paragraph 1.*

#### **Amendment 48**

##### **Proposal for a decision Annex I – paragraph 10**

*Text proposed by the Commission*

*Amendment*

***Under the 'Global Challenges and Industrial Competitiveness' pillar, building on experience in Horizon 2020, the social sciences and the humanities will be fully integrated across all clusters, including specific and dedicated activities. Likewise, activities involving marine and maritime research and innovation will be implemented in a strategic and integrated manner in line with the EU Integrated Maritime Policy, the Common Fisheries Policy Policies and international commitments.***

***deleted***

Or. en

*Justification*

*Redrafted in amendment Annex I – paragraph 1.*

#### **Amendment 49**

##### **Proposal for a decision Annex I – paragraph 11**

*Text proposed by the Commission*

*Amendment*

***'FET Flagships' supported under Horizon 2020 will continue to be supported under this Programme. As they present substantial analogies with missions, other 'FET flagships', if any, will be supported under this Framework Programme as missions geared towards future and emerging technologies.***

***deleted***

Or. en

*Justification*

*Redrafted in amendment Annex I – paragraph 1.*

## Amendment 50

### Proposal for a decision Annex I – paragraph 12

*Text proposed by the Commission*

*Amendment*

***Science and Technology Cooperation dialogues with the EU's international partners and policy dialogues with the main world regions will make important contributions to the systematic identification of opportunities for cooperation which, when combined with differentiation by country/region, will support priority setting.*** **deleted**

Or. en

*Justification*

*Redrafted in amendment Annex I – paragraph 1.*

## Amendment 51

### Proposal for a decision Annex I – paragraph 13

*Text proposed by the Commission*

*Amendment*

***While the European Institute of Innovation and Technology's (EIT) focus on innovation ecosystems makes it naturally fit within the Open Innovation pillar of Horizon Europe, the planning of the EIT Knowledge and Innovation Communities (KICs) will be aligned through the Strategic Planning process with the Global Challenges and Industrial Competitiveness pillar.*** **deleted**

Or. en

*Justification*

*Redrafted in amendment Annex I – paragraph 1.*

## Amendment 52

### Proposal for a decision Annex I – subheading 3 a (new)

*Text proposed by the Commission*

*Amendment*

#### ***Fast Track to Research and Innovation***

Or. en

## Amendment 53

### Proposal for a decision Annex I – paragraph 13 a (new)

*Text proposed by the Commission*

*Amendment*

***Horizon Europe will provide the possibility for all types of beneficiaries to apply for funding in a faster manner in selected parts of the Programme. This approach will support research and innovation in all clusters, EIC and "spreading excellence" part, covering actions from fundamental research to close to market. Building on the success of the existing Fast Track to Innovation instrument in Horizon 2020, this approach will have a bottom-up-driven logic on the basis of continuously open calls and time to grant not exceeding six months. In the "spreading excellence" part, this approach will also support less developed Member States to access funds in a faster and bottom-up manner. At least 15 % of the budget of the Programme shall be granted following a fast track logic. No more than five legal entities shall participate in any one action.***

Or. en

#### *Justification*

*Europe needs a faster programme if it is to react effectively to today's global challenges.*

## Amendment 54

### Proposal for a decision Annex I – paragraph 23

*Text proposed by the Commission*

*Amendment*

*Exceptionally, when justified by the requirement to appoint the best available experts and/or by the limited size of the pool of qualified experts, independent experts assisting or being members of the evaluation committee may evaluate specific proposals for which they declare a potential interest. In this case, the Commission or funding body shall take all necessary remedial measures to ensure the integrity of the evaluation process. The evaluation process will be managed accordingly, including a stage involving an interaction between diverse experts. The evaluation committee will take into account the particular circumstances when identifying proposals for funding.*

*deleted*

Or. en

*Justification*

*This formulation opens the possibility of choosing any kind of expert who marked a potential interest. It should be clarified that these kinds of experts should have at least a qualification with relevance to the required topic.*

## Amendment 55

### Proposal for a decision Annex I – part I – point 1 – point 1.1 – paragraph 1

*Text proposed by the Commission*

*Amendment*

*Although the EU remains the largest producer of scientific publications in the world, it is essentially a 'mass producer' of knowledge with, relative to its size, comparatively few centres of excellence that stand out at the world level and with*

The EU remains the largest producer of scientific publications in the world. Compared with the US and now China to some degree, the EU *follows* a 'distributed excellence model' in which resources are spread across a larger number of



**large areas of average and poor performance.** Compared with the US and now China to some degree, the EU **still tends to follow** a 'distributed excellence model' in which resources are spread across a larger number of researchers and research institutions Another challenge is that in many EU countries the public sector still does not offer sufficiently attractive conditions for the best researchers. These factors compound Europe's relative unattractiveness in the global competition for scientific talent.

researchers and research institutions Another challenge is that in many EU countries the public sector still does not offer sufficiently attractive conditions for the best researchers. These factors compound Europe's relative unattractiveness in the global competition for scientific talent.

Or. en

## Amendment 56

### Proposal for a decision

#### Annex I – part I – point 1 – point 1.1 – paragraph 7 a (new)

*Text proposed by the Commission*

*Amendment*

**Existing schemes such as the proof of concept will be strengthened to cover activities at the very early stage of turning research outputs into a commercial or socially valuable proposition. Non-ERC grantees will also be able to apply for the scheme if complying with eligibility criteria.**

Or. en

## Amendment 57

### Proposal for a decision

#### Annex I – part I – point 1 – point 1.2 – point 1.2.1 – paragraph 2 – indent 2

*Text proposed by the Commission*

*Amendment*

– Starting researchers with excellent ideas to make the transition to independence while consolidating their own research team or programme;

– Starting researchers with excellent ideas **in any field of research** to make the transition to independence while consolidating their own research team or

programme;

Or. en

## Amendment 58

### Proposal for a decision

#### Annex I – part I – point 1 – point 1.2 – point 1.2.1 – paragraph 2 – indent 3

*Text proposed by the Commission*

– New ways of working in the scientific world with the potential to create breakthrough results and facilitate commercial and social innovation potential of funded research;

*Amendment*

– New ways of working in the scientific world with the potential to create breakthrough results and facilitate commercial and social innovation potential of funded research, ***where appropriate, in synergy with other parts of Horizon Europe and other Union programmes;***

Or. en

## Amendment 59

### Proposal for a decision

#### Annex I – part I – point 1 – point 1.2 – point 1.2.1 – paragraph 2 – indent 4

*Text proposed by the Commission*

– ***Sharing*** experience and best practices with regional and national research funding agencies to promote the support of excellent researchers;

*Amendment*

– ***Spreading*** experience and best practices with ***other Union bodies as well as*** regional and national research funding agencies to promote the support of excellent researchers;

Or. en

## Amendment 60

### Proposal for a decision

#### Annex I – part I – point 2 – point 2.1 – paragraph 2

Europe is a scientific powerhouse with around 1.8 million researchers working in thousands of universities, research centres and world-leading companies. However, it is estimated that the EU will need to train and employ at least one million new researchers by 2027 in order to achieve the targets being set for increased investment in research and innovation. This need is particularly acute in the non-academic sector. The EU must reinforce its efforts to entice more young women and men to a career in research, to attract researchers from third countries, retain its own researchers and reintegrate European researchers working elsewhere back to Europe. In addition, in order to more widely spread excellence, the conditions under which researchers perform must be further improved throughout the European Research Area (ERA). In this respect, stronger links are needed notably with the European Education Area (EEA), the European Regional Development Fund (ERDF), and European Social Fund (ESF+).

Europe is a scientific powerhouse with around 1.8 million researchers working in thousands of universities, research centres and world-leading companies. However, it is estimated that the EU will need to train and employ at least one million new researchers by 2027 in order to achieve the targets being set for increased investment in research and innovation. This need is particularly acute in the non-academic sector. The EU must reinforce its efforts to entice more young women and men to a career in research, to attract researchers from third countries, retain its own researchers and reintegrate European researchers working elsewhere back to Europe.

***To achieve that goal, attention should be paid to schemes facilitating the balance between family and work life, including adding more flexibility for researchers of both sexes to facilitate the reconciliation of work and family life. Guaranteeing full gender equality in all sectors including science, technology and innovation is an essential condition for global economic development.***

In addition, in order to ***ensure synergies and*** more widely spread excellence, ***the Seal of Excellence label will continue to be applied to calls under MSCA and*** the conditions under which researchers perform must be further improved throughout the European Research Area (ERA). In this respect, stronger links are needed notably with the European

Education Area (EEEdA), the European Regional Development Fund (ERDF), and European Social Fund (ESF+).

Or. en

## **Amendment 61**

### **Proposal for a decision**

#### **Annex I – part I – point 2 – point 2.1 – paragraph 4**

##### *Text proposed by the Commission*

The Marie Skłodowska-Curie Actions (MSCA) focus on excellent research that is fully bottom-up, open to any field of research and innovation from basic research up to market take-up and innovation services. This includes research fields covered under the Treaty on the Functioning of the European Union and the Treaty establishing the European Atomic Energy Community (Euratom). If specific needs arise and additional funding sources become available, the MSCA may target certain ***activities in specific challenges (incl. identified missions)***, types of research and innovation institutions, or geographical locations in order to respond to the evolution of Europe's requirements in terms of skills, research training, career development and knowledge sharing.

##### *Amendment*

The Marie Skłodowska-Curie Actions (MSCA) focus on excellent research that is fully bottom-up, open to any field of research and innovation from basic research up to market take-up and innovation services. This includes research fields covered under the Treaty on the Functioning of the European Union and the Treaty establishing the European Atomic Energy Community (Euratom). If specific needs arise and additional funding sources become available, the MSCA may target certain, types of research and innovation institutions, or geographical locations in order to respond to the evolution of Europe's requirements in terms of skills, research training, career development and knowledge sharing.

Or. en

##### *Justification*

*The MSCA should remain a fully bottom-up programme (as stated in the first sentence of the paragraph).*

## **Amendment 62**

### **Proposal for a decision**

#### **Annex I – part I – point 2 – point 2.2 – point 2.2.2 – paragraph 2 – indent 1**

*Text proposed by the Commission*

- Training programmes to equip researchers with a diversity of skills relevant to current and future global challenges.

*Amendment*

- Training programmes, **where appropriate in complementarity with EITs educational activities**, to equip researchers with a diversity of skills relevant to current and future global challenges.

Or. en

*Justification*

*The EIT provides entrepreneurship education to students by involving industries in the curricula. Like the MSCA, the EIT Label model is based on promoting mobility as a central requirement for master's and doctoral programmes. Enhancing complementarity with the MSCA would ensure a higher added value for both initiatives, increase streamlining and also avoid unnecessary duplication.*

**Amendment 63**

**Proposal for a decision**

**Annex I – part I – point 2 – point 2.2 – point 2.2.3 – paragraph 2 – indent 1**

*Text proposed by the Commission*

- Training programmes to foster excellence and spread best practices across institutions and research and innovation systems;

*Amendment*

- Training programmes, **developed in cooperation with other parts of Horizon Europe**, to foster excellence and spread best practices across institutions and research and innovation systems;

Or. en

**Amendment 64**

**Proposal for a decision**

**Annex I – part I – point 3 – point 3.1 – paragraph 1**

*Text proposed by the Commission*

State of the art research infrastructures provide key services to research and innovation communities, playing an essential role in extending the frontiers of knowledge. Supporting research

*Amendment*

State of the art research infrastructures provide key services to research and innovation communities, playing an essential role in extending the frontiers of knowledge. Supporting research

infrastructures at the EU level helps to mitigate what in many cases is the reality of scattered national research infrastructures and pockets of scientific excellence, as well as **tackling the low** circulation of knowledge across silos.

infrastructures **of all sizes** at the EU level helps to mitigate what in many cases is the reality of scattered national **and regional** research infrastructures and pockets of scientific excellence, as well as **increasing the** circulation of knowledge across silos.

Or. en

## Amendment 65

### Proposal for a decision

#### Annex I – part I – point 3 – point 3.1 – paragraph 2

##### *Text proposed by the Commission*

The overall aim is to **endow Europe** with world-class sustainable research infrastructures open and accessible to all researchers in Europe and beyond, which fully exploit their potential for scientific advance and innovation. Key objectives are to reduce the fragmentation of the research and innovation ecosystem, avoiding duplication of effort, and better coordinate the development **and use** of research infrastructures. It is crucial to support open access to research infrastructures for all European researchers as well as, through the European Open Science Cloud (hereafter 'EOSC'), increased access to digital research resources, specifically tackling the currently sub-optimal embracement of open science and open data practises. Equally, the EU needs to tackle the rapid increase of global competition for talent by attracting third country researchers to work with European world-class research infrastructures. Increasing the competitiveness of European industry is also a major objective, supporting key technologies and services relevant for research infrastructures and their users, thus improving the conditions for supply of innovative solutions.

##### *Amendment*

The overall aim is to **improve Europe's endowment** with world-class sustainable research infrastructures open and accessible to all researchers in Europe and beyond, which fully exploit their potential for scientific advance and innovation. Key objectives are to reduce the fragmentation of the research and innovation ecosystem, **ensure continuous modernisation**, avoiding duplication of effort, and better coordinate the development, **use and accessibility** of research infrastructures, **including in less developed Member States**. It is crucial to support open access to research infrastructures for all European researchers as well as, through the European Open Science Cloud (hereafter 'EOSC'), increased access to digital research resources, specifically tackling the currently sub-optimal embracement of open science and open data practises. Equally, the EU needs to tackle the rapid increase of global competition for talent by attracting third country researchers to work with European world-class research infrastructures. Increasing the competitiveness of European industry is also a major objective, supporting key technologies and services relevant for research infrastructures and their users, thus improving the conditions for supply

*and utilisation* of innovative solutions.

Or. en

## **Amendment 66**

### **Proposal for a decision**

#### **Annex I – part I – point 3 – point 3.1 – paragraph 3**

##### *Text proposed by the Commission*

Past framework programmes have made a significant contribution towards the more efficient and effective use of national infrastructures as well as developed with the European Strategy Forum on Research Infrastructures (ESFRI) a coherent and strategy-led approach to policy making on pan-European research infrastructures. This strategic approach has generated clear advantages, including reducing duplication of effort with more efficient overall use of resources, as well as standardising processes and procedures.

##### *Amendment*

Past framework programmes have made a significant contribution towards the more efficient and effective use of national infrastructures ***and towards the removal of barriers for use by all areas of European research through trans-national access***, as well as developed with the European Strategy Forum on Research Infrastructures (ESFRI) a coherent and strategy-led approach to policy making on pan-European research infrastructures. This strategic approach has generated clear advantages, including reducing duplication of effort with more efficient overall use of resources, as well as standardising ***and harmonising*** processes and procedures.

Or. en

##### *Justification*

*This amendment tries to emphasize the transnational access programme which has been recognized, by various evaluations of the Framework Programmes as a major success story of research funding of several consecutive framework programs. There are already many national processes and procedures that are well standardized, but they are not harmonized among different research infrastructure facilities in different Member States.*

## **Amendment 67**

### **Proposal for a decision**

#### **Annex I – part I – point 3 – point 3.1 – paragraph 4**

##### *Text proposed by the Commission*

EU supported activity will provide added

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##### *Amendment*

EU supported activity will provide added

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value through: consolidating and optimised existing research infrastructures alongside efforts to develop new infrastructures; establishing the European Open Science Cloud (EOSC) as an effective scalable and sustainable environment for data-driven research; the interconnection of national and regional research and education networks, enhancing and securing high-capacity network infrastructure for massive amounts of data and access to digital resources across borders and domain boundaries; overcoming barriers preventing the best research teams from accessing the best research infrastructures services in the EU; fostering the innovation potential of research infrastructures, focused on technology development and co-innovation as well as increased use of research infrastructures by industry.

value through: consolidating and optimised existing research infrastructures alongside efforts to develop new infrastructures; establishing the European Open Science Cloud (EOSC) *and the European Cultural Heritage Cloud- a Museum Collaboration Space-* as an effective scalable and sustainable environment for data-driven research; the interconnection of national and regional research and education networks, enhancing and securing high-capacity network infrastructure for massive amounts of data and access to digital resources across borders and domain boundaries; *creating research and project platforms to* overcoming barriers preventing the best research teams from accessing the best research infrastructures services in the EU; fostering the innovation potential of research infrastructures, focused on technology development and co-innovation as well as increased use of research infrastructures by industry.

Or. en

## Amendment 68

### Proposal for a decision

#### Annex I – part I – point 3 – point 3.1 – paragraph 5

##### *Text proposed by the Commission*

And the international dimension of EU research infrastructures must be reinforced, fostering stronger cooperation with international counterparts and international participation in European research infrastructures for mutual benefit.

##### *Amendment*

And the international dimension of EU research infrastructures must be reinforced, fostering stronger cooperation *and connectivity* with international counterparts and international participation in European research infrastructures for mutual benefit.

Or. en



## Amendment 69

### Proposal for a decision

#### Annex I – part I – point 3 – point 3.2 – point 3.2.1 – paragraph 1

##### *Text proposed by the Commission*

The establishment, operation and long-term sustainability of research infrastructures identified by ESFRI is essential for the EU to ensure a leading position in frontier research, the creation and use of knowledge and the competitiveness of its industries.

##### *Amendment*

The establishment, operation and long-term sustainability of research infrastructures, ***including the ones*** identified by ESFRI, is essential for the EU to ensure a leading position in frontier research, the creation and use of knowledge and the competitiveness of its industries.

Or. en

##### *Justification*

*Not only those research infrastructures identified by ESFRI are crucial for maintaining a leading position of Europe in frontier research.*

## Amendment 70

### Proposal for a decision

#### Annex I – part I – point 3 – point 3.2 – point 3.2.1 – paragraph 2

##### *Text proposed by the Commission*

The European Open Science Cloud (EOSC) should become an effective and comprehensive delivery channel for research infrastructures services and should ***provide*** Europe's research communities ***with*** the next generation of data services for harvesting, storing, processing (e.g. analytics, simulation, visualisation services) and sharing big science data. The EOSC should also provide researchers in Europe with ***access to*** the majority of data generated and collected by research infrastructures as well ***as*** to HPC and exascale resources deployed under the European Data Infrastructure (EDI)<sup>13</sup>.

##### *Amendment*

The European Open Science Cloud (EOSC) should become an effective and comprehensive delivery channel for research infrastructures services and should ***allow*** Europe's research communities ***to develop*** the next generation of data services for harvesting, storing, processing (e.g. analytics, simulation, visualisation services) and sharing big science data. The EOSC should also provide researchers in Europe with ***services encouraging the storage and processing of*** the majority of ***quality-checked*** data generated and collected by ***researchers inside and outside of*** research infrastructures ***and should*** as well ***give access*** to HPC and exascale resources deployed under the European Data Infrastructure (EDI)<sup>13</sup>. ***The EOSC, by default has to be resilient***

***against digital threats, by providing adequate horizontal trust and identity, and cybersecurity services.***

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<sup>13</sup> The European Data Infrastructure will underpin the European Open Science cloud by providing world-class High Performance Computing capability, high speed connectivity and leading-edge data and software services.

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<sup>13</sup> The European Data Infrastructure will underpin the European Open Science cloud by providing world-class High Performance Computing capability, high speed connectivity and leading-edge data and software services.

Or. en

## **Amendment 71**

### **Proposal for a decision**

#### **Annex I – part I – point 3 – point 3.2 – point 3.2.1 – paragraph 4 – indent 1**

##### *Text proposed by the Commission*

– The life-cycle of pan European research infrastructures through the design of new research infrastructures; their preparatory and implementation phase, their early-phase operation in complementarity with other funding sources, as well as the consolidation and optimisation of the research infrastructure ecosystem **by** monitoring the ESFRI landmarks and facilitating service agreements, evolutions, mergers or decommissioning of pan-European research infrastructures;

##### *Amendment*

– The life-cycle of pan European research infrastructures through the design of new research infrastructures; their preparatory and implementation phase, their early-phase operation in complementarity with other funding sources, as well as the consolidation and optimisation of the research infrastructure ecosystem monitoring the ESFRI landmarks and facilitating service agreements, evolutions, mergers or decommissioning of pan-European research infrastructures **and the competition of infrastructure establishment concepts on a level playing field**;

Or. en

## **Amendment 72**

### **Proposal for a decision**

#### **Annex I – part I – point 3 – point 3.2 – point 3.2.1 – paragraph 4 – indent 2**

*Text proposed by the Commission*

– The European Open Science Cloud, including: scalability and sustainability of the access channel; effective federation of European, national, regional and institutional resources; its technical and policy evolution to cope with new research needs and requirements (e.g. usage of sensitive data sets, privacy by design); data inter-operability and compliance with the FAIR principles; and a wide user base;

*Amendment*

– The European Open Science Cloud, including: scalability and sustainability of the access channel; effective federation of European, national, regional and institutional resources; its technical and policy evolution to cope with new research needs and requirements (e.g. usage of sensitive data sets, privacy by design) ***in line with the researchers' communities***; data inter-operability and compliance with the FAIR principles; and a wide user base;

Or. en

**Amendment 73**

**Proposal for a decision**

**Annex I – part I – point 3 – point 3.2 – point 3.2.2 – paragraph 1**

*Text proposed by the Commission*

The research landscape will be significantly enhanced through ensuring openness to key international, national and regional research infrastructures for all EU researchers and integrating their services when necessary so as to harmonise access conditions, improve and enlarge service provision and encourage common development strategy of high tech components and advanced services through innovation actions.

*Amendment*

The research landscape will be significantly enhanced through ensuring openness to key international, national and regional research infrastructures for all EU researchers and integrating their services when necessary so as to harmonise access conditions, improve and enlarge service provision and encourage common development strategy of high tech components and advanced services through innovation actions ***that answer the needs of the researchers' communities and thus encourage their active participation.***

Or. en

**Amendment 74**

**Proposal for a decision**

**Annex I – part I – point 3 – point 3.2 – point 3.2.2 – paragraph 2 – indent 2**

*Text proposed by the Commission*

– Networks of pan EU, national and regional research infrastructures **addressing global challenges** for the provision of access to researchers as well as for the harmonisation and improvement of the infrastructures' services;

*Amendment*

– Networks of pan EU, national and regional research infrastructures, **including small and medium-sized ones**, for the provision of access to researchers as well as for the harmonisation and improvement of the infrastructures' services;

Or. en

*Justification*

*Small and medium sized research infrastructures remain important for R&I ecosystems. In addition, since research infrastructures can be used for a wide range of scientific and technological domains, a reference to global challenges is not needed.*

**Amendment 75**

**Proposal for a decision  
Annex I – part II – title**

*Text proposed by the Commission*

II

*Amendment*

II **GLOBAL CHALLENGES AND  
EUROPEAN INDUSTRIAL  
COMPETITIVENESS**

Or. en

**Amendment 76**

**Proposal for a decision  
Annex I – part II – paragraph 4**

*Text proposed by the Commission*

The EU will benefit as user and producer of technologies and industries showcasing how modern industrialised, sustainable inclusive, open and democratic society and economy can function and develop. The growing economic-environmental-social examples of the sustainable industrial economy of the future will be fostered and

*Amendment*

The EU will benefit as user and producer of **knowledge**, technologies and industries showcasing how modern industrialised, sustainable inclusive, open and democratic society and economy can function and develop. The growing economic-environmental-social examples of the sustainable industrial economy of the

boosted, be they for: health and well-being for all; or resilient inclusive and secure societies; or available clean energy and mobility; or a digitised economy and society; or a transdisciplinary and creative industry; or space marine or land-based solutions; or food and nutrition solutions; sustainable use of natural resources climate protection and adaptation, all generating wealth in Europe and offering higher quality jobs. Industrial transformation will be crucial.

future will be fostered and boosted, be they for: health and well-being for all; or resilient inclusive and secure societies; or available clean energy and mobility; or a digitised economy and society; or a transdisciplinary and creative industry; or space marine or land-based solutions; or food and nutrition solutions; sustainable use of natural resources climate protection and adaptation, all generating wealth in Europe and offering higher quality jobs. Industrial transformation will be crucial.

Or. en

## **Amendment 77**

### **Proposal for a decision Annex I – part II – paragraph 5**

#### *Text proposed by the Commission*

Research and innovation under this pillar of Horizon Europe is grouped into integrated clusters of activities. Rather than addressing sectors, the investments aim at systemic changes for our society and economy along a sustainability vector. These will only be achieved if all actors, both private and public, engage in co-designing and co-creating research and innovation; bringing together end-users, scientists, technologists, producers, innovators, businesses, educators, citizens and civil society organisations. Therefore, none of the thematic clusters is intended for only one set of actors.

#### *Amendment*

Research and innovation under this pillar of Horizon Europe is grouped into integrated clusters of activities. Rather than addressing sectors, the investments aim at systemic changes for our society and economy along a sustainability vector. These will only be achieved if all actors, both private and public, engage in co-designing and co-creating research and innovation; bringing together end-users, **researchers**, scientists, technologists, producers, innovators, businesses, educators, citizens and civil society organisations. Therefore, none of the thematic clusters is intended for only one set of actors.

Or. en

## **Amendment 78**

### **Proposal for a decision Annex I – part II – paragraph 6**

*Text proposed by the Commission*

Clusters will develop and apply digital, key enabling and emerging technologies as part of a common strategy to promote the EU's industrial leadership. Where appropriate this will use EU space-enabled data and services.

*Amendment*

Clusters will **support knowledge creation in all its stages of development, including early-stage research activities**. Clusters **will also** develop and apply digital, key enabling and emerging technologies as part of a common strategy to promote the EU's industrial leadership. Where appropriate this will use EU space-enabled data and services.

Or. en

**Amendment 79**

**Proposal for a decision  
Annex I – part II – paragraph 7**

*Text proposed by the Commission*

There will be support to bring technology from lab to market and to develop applications including pilot lines and demonstrators, measures to stimulate market uptake and to boost private sector commitment. Synergies with other programmes will be maximised.

*Amendment*

There will be support to bring technology from lab to market and to develop applications including pilot lines and demonstrators, measures to stimulate market uptake and to boost private sector commitment. Synergies with other **parts of Horizon Europe, especially the EIT, as well as other** programmes will be maximised.

Or. en

*Justification*

*The Mission of the EIT is to provide solutions to the most pressing global challenges facing society. The EIT is already today delivering on Sustainable Development Goals and should, therefore, be closely interlinked across all clusters. There is also a high potential for synergies between the activities of the KICs and most of the clusters which should be explored further and maximised wherever possible.*

**Amendment 80**

**Proposal for a decision  
Annex I – part II – point 1 – point 1.1 – paragraph 3**

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*Text proposed by the Commission*

Health research and innovation research and innovation have played a significant part in this achievement but also in improving productivity and quality in the health and care industry. However, the EU continues to face novel, newly emerging or persisting challenges that are threatening its citizens and public health, the sustainability of its health care and social protection systems, as well as the competitiveness of its health and care industry. Major health challenges in the EU include: the lack of effective health promotion and disease prevention; the rise of non-communicable diseases; the spread of antimicrobial drug resistance and the emergence of infectious epidemics; increased environmental pollution; the persistence of health inequalities among and within countries affecting disproportionately people that are disadvantaged or in vulnerable stages of life; the detection, understanding, control, prevention and mitigation of health risks in a rapidly changing social, urban and natural environment; the increasing costs for European health care systems and the progressive introduction of personalised medicine approaches and digitalisation in health and care; and the increasing pressure on the European health and care industry to remain competitive in and by developing health innovation vis-a-vis new and emerging global players.

*Amendment*

Health research and innovation research and innovation have played a significant part in this achievement but also in improving productivity and quality in the health and care industry. However, the EU continues to face novel, newly emerging or persisting challenges that are threatening its citizens and public health, the sustainability of its health care and social protection systems, as well as the competitiveness of its health and care industry. Major health challenges in the EU include: the lack of effective health promotion and disease prevention; the rise of non-communicable diseases; the spread of antimicrobial drug resistance and the emergence of infectious epidemics; increased environmental pollution; the persistence of health inequalities among and within countries affecting disproportionately people that are disadvantaged or in vulnerable stages of life; the detection, understanding, control, prevention and mitigation of health risks in a rapidly changing social, urban and natural environment; the increasing costs for European health care systems and the progressive introduction of personalised medicine approaches ***including the relevant research*** and digitalisation in health and care; and the increasing pressure on the European health and care industry to remain competitive in and by developing health innovation vis-a-vis new and emerging global players.

Or. en

*Justification*

*Personalised medicine is not ready for implementation without further research. Translational research is key for the success of health-related research, it brings research results from the lab to the patient and back to the lab for further improvement. Without a strong focus on basic biomedical research the seedbed for future improvements for patients loses its input.*

## Amendment 81

### Proposal for a decision

#### Annex I – part II – point 1 – point 1.1 – paragraph 4

##### *Text proposed by the Commission*

These health challenges are complex, interlinked and global in nature and require multidisciplinary, cross-sectorial and transnational collaborations. Research and innovation activities will build close linkages between discovery, clinical, epidemiological, environmental and socio-economic research as well as with regulatory sciences. They will harness the combined skills of academia and industry and foster their collaboration with health services, patients, policy-makers and citizens in order to leverage on public funding and ensure the uptake of results in clinical practice as well as in health care systems. They will foster strategic collaboration at EU and international level in order to pool the expertise, capacities and resources needed to create economies of scale, scope and speed as well as to share the expected benefits and financial risks involved.

##### *Amendment*

These health challenges are complex, interlinked and global in nature and require multidisciplinary, cross-sectorial and transnational collaborations ***on a transnational level***. Research and innovation activities ***including the necessary basic biomedical research*** will build close linkages between discovery, clinical, epidemiological, environmental and socio-economic research as well as with regulatory sciences. They will harness the combined skills of academia and industry and foster their collaboration with health services, patients, policy-makers and citizens in order to leverage on public funding and ensure the uptake of results in clinical practice as well as in health care systems. They will foster strategic collaboration at EU and international level in order to pool the expertise, capacities and resources needed to create economies of scale, scope and speed as well as to share the expected benefits and financial risks involved.

Or. en

## Amendment 82

### Proposal for a decision

#### Annex I – part II – point 1 – point 1.2 – point 1.2.1 – paragraph 2 – indent 2 a (new)

##### *Text proposed by the Commission*

##### *Amendment*

- ***Children's diseases associated with high mortality and long-term morbidity;***

Or. en



## Amendment 83

### Proposal for a decision

#### Annex I – part II – point 1 – point 1.2 – point 1.2.3 – paragraph 1

*Text proposed by the Commission*

Non-communicable diseases (NCDs), including rare diseases, pose a major health and societal challenge and call for more effective approaches in prevention, treatment and cure, including personalised medicine approaches.

*Amendment*

Non-communicable diseases (NCDs), including rare diseases, pose a major health and societal challenge and call for more effective approaches in prevention, **diagnosis**, treatment and cure, including personalised medicine approaches.

Or. en

*Justification*

*The diagnosis is an essential part of this process and should not be forgotten (see first “broad line”).*

## Amendment 84

### Proposal for a decision

#### Annex I – part II – point 1 – point 1.2 – point 1.2.3 – paragraph 2 – indent 5 a (new)

*Text proposed by the Commission*

*Amendment*

- **Areas of high unmet clinical need such as rare cancers including paediatric cancers;**

Or. en

## Amendment 85

### Proposal for a decision

#### Annex I – part II – point 1 – point 1.2 – point 1.2.4 – paragraph 2 – indent 3

*Text proposed by the Commission*

*Amendment*

– Vaccines, diagnostics, treatments and cures **for** infectious diseases, including

– Vaccines, diagnostics, treatments and cures **including pharmaceuticals** infectious diseases, including co-

co-morbidities and co-infections;

morbidities and co-infections;

Or. en

*Justification*

*Infectious diseases need innovative pharmaceuticals. This does not only require research on their ingredients, but also on innovative carriers systems.*

**Amendment 86**

**Proposal for a decision**

**Annex I – part II – point 1 – point 1.2 – point 1.2.5 – paragraph 1**

*Text proposed by the Commission*

Health technologies and tools are vital for public health and contributed to a large extent to the important improvements achieved in the quality of life, health and care of people, in the EU. It is thus a key strategic challenge to design, develop, deliver and implement suitable, trustable, safe, and cost-effective tools and technologies for health and care, taking due account of the needs of people with disabilities and the aging society. These include **artificial intelligence and other digital** technologies, offering significant improvements over existing ones, as well as stimulating a competitive and sustainable health-related industry that creates high-value jobs. The European health-related industry is one of the critical economic sectors in the EU, accounting for 3% of GDP and 1.5 million employees.

*Amendment*

Health technologies and tools are vital for public health and contributed to a large extent to the important improvements achieved in the quality of life, health and care of people, in the EU. It is thus a key strategic challenge to design, develop, deliver and implement suitable, trustable, safe, and cost-effective tools and technologies for health and care, taking due account of the needs of people with disabilities and the aging society. These include **key enabling** technologies, offering significant improvements over existing ones, as well as stimulating a competitive and sustainable health-related industry that creates high-value jobs. The European health-related industry is one of the critical economic sectors in the EU, accounting for 3% of GDP and 1.5 million employees.

Or. en

*Justification*

*Mentioning only AI and other digital technologies is too restrictive. In particular photonics, a key enabling technology, provides the promise of safety and cost-effectiveness in health care solutions.*

## Amendment 87

### Proposal for a decision

#### Annex I – part II – point 2 – introductory part

*Text proposed by the Commission*

2. CLUSTER 'INCLUSIVE AND  
**SECURE** SOCIETY'

*Amendment*

2. CLUSTER 'INCLUSIVE AND  
**CREATIVE** SOCIETY'

Or. en

## Amendment 88

### Proposal for a decision

#### Annex I – part II – point 2 – point 2.1 – paragraph 1

*Text proposed by the Commission*

The EU stands for a unique way of combining economic growth with social policies, with high levels of social inclusion, shared values embracing democracy, human rights, gender equality and the richness of diversity. This model is constantly evolving and needs to deal with the challenges from amongst other things, globalisation and technological change.  
***Europe also has to respond to the challenges arising from persistent security threats. Terrorist attacks and radicalisation, as well as cyber-attacks and hybrid threats, raise major security concerns and put particular strain on societies.***

*Amendment*

The EU stands for a unique way of combining economic growth with social policies, with high levels of social inclusion, shared values embracing democracy, human rights, gender equality and the richness of diversity. This model is constantly evolving and needs to deal with the challenges from amongst other things, globalisation and technological change.

Or. en

## Amendment 89

### Proposal for a decision

#### Annex I – part II – point 2 – point 2.1 – paragraph 2 a (new)

***In this context Cultural and Creative Industries (CCIs) play a key role in the preservation and promotion of European cultural and linguistic diversity, strengthen the sense of belonging to the European and regional identities, contribute to the transmission of knowledge and values, and safeguard the tangible and intangible European heritage for present and future generations. At the same time, they strengthen social cohesion, and contribute significantly to the Union economy in terms of employment, investment, growth, and innovation and contribute significantly to the Union's competitiveness on a global scale.***

Or. en

## **Amendment 90**

### **Proposal for a decision**

#### **Annex I – part II – point 2 – point 2.1 – paragraph 3**

***European citizens, state institutions and the economy need to be protected from the continued threats of organised crime, including firearms trafficking, drug trafficking and trafficking in human beings. Strengthening protection and security through better border management is also key. Cybercrime is on the increase and related risks are diversifying as the economy and society digitalise. Europe needs to continue its efforts to improve cybersecurity, digital privacy, personal data protection and combat the spread of false and harmful information in order to safeguard democratic and economic stability. Lastly, further efforts are required to limit the***

***deleted***

*effects on lives and livelihoods of extreme weather events which are intensifying due to climate change, such as floods, storms or droughts leading to forest fires, land degradation and other natural disasters, e.g. earthquakes. Disasters, whether natural or man-made, can put at risk important societal functions, such as health, energy supply and government.*

Or. en

*Justification*

*Amendment 89 - 91 text shifted new to "Secure Society" Cluster*

**Amendment 91**

**Proposal for a decision**

**Annex I – part II – point 2 – point 2.1 – paragraph 4**

*Text proposed by the Commission*

*Amendment*

*The magnitude, complexity and trans-national character of the challenges call multi-layered EU action. Addressing such critical social, political, cultural and economic issues, as well as security challenges, only at national level would carry the danger of inefficient use of resources, fragmented approaches and dissimilar standards of knowledge and capacity.*

*deleted*

Or. en

**Amendment 92**

**Proposal for a decision**

**Annex I – part II – point 2 – point 2.1 – paragraph 5**

*Text proposed by the Commission*

*Amendment*

*Security research is part of the wider comprehensive EU response to security threats. It contributes to the capability*

*deleted*

*development process by enabling the future availability of technologies and applications to fill capability gaps identified by policy-makers and practitioners. Already, funding to research through the EU's framework programme has represented around 50% of total public funding for security research in the EU. Full use will be made of available instruments, including the European space programme (Galileo and EGNOS, Copernicus, Space Situational Awareness and Governmental Satellite Communications). Synergies are sought with the activities supported by EU-funded defence research and duplication of funding is avoided. Cross-border collaboration contributes to developing a European single security market and improving industrial performance, underpinning the EU's autonomy.*

Or. en

#### **Amendment 93**

##### **Proposal for a decision**

##### **Annex I – part II – point 2 – point 2.2 – point 2.2.2 – introductory part**

*Text proposed by the Commission*

*Amendment*

2.2.2. Cultural Heritage

**2.2.2. Cultural and Creative Industries including Cultural Heritage**

Or. en

#### **Amendment 94**

##### **Proposal for a decision**

##### **Annex I – part II – point 2 – point 2.2 – point 2.2.2 – paragraph 1**

*Text proposed by the Commission*

*Amendment*

Cultural heritage is the fabric of our lives, meaningful to communities, groups and

***It becomes strategically important to support innovation and research activities***

societies, giving a sense of belonging. It is the bridge between the past and the future of our societies. It is a driving force of local economies and a powerful source of inspiration for creative and cultural industries. Accessing, conserving, safeguarding and restoring, interpreting and harnessing the full potential of our cultural heritage are crucial challenges now and for future generations. Cultural heritage is the major input and inspiration for the arts, traditional craftsmanship, the cultural, entrepreneurial and creative sectors that are drivers of sustainable economic growth, new job creation and external trade.

*in the field of European Cultural and Creative Industries (CCIs), as they are capable of preserving the linguistic and cultural diversity, pluralism, and the offer of innovative and high-quality services, especially in the context of a convergent and globalised market. Cultural and Creative Industries build a bridge between arts, culture, business and technology. Furthermore, especially in the field of digitalisation, CCIs play a key role in reindustrialising Europe, are a driver for growth and are in a strategic position to trigger innovative spill overs in other industrial sectors, such as tourism, retail, and digital technologies and engineering. Cultural heritage is an integral part of the CCIs. Cultural heritage* the fabric of our lives, meaningful to communities, groups and societies, giving a sense of belonging. It is the bridge between the past and the future of our societies. It is a driving force of local economies and a powerful source of inspiration for creative and cultural industries. Accessing, conserving, safeguarding and restoring, interpreting and harnessing the full potential of our cultural heritage are crucial challenges now and for future generations. Cultural heritage is the major input and inspiration for the arts, traditional craftsmanship, the cultural, entrepreneurial and creative sectors that are drivers of sustainable economic growth, new job creation and external trade. *Furthermore, heritage tourism and museums can offer new cultural and economic perspectives, above all to post-industrial regions, and keep traditional European know-how alive.*

Or. en

## **Amendment 95**

### **Proposal for a decision**

#### **Annex I – part II – point 2 – point 2.2 – point 2.2.2 – paragraph 2 – indent 5**

*Text proposed by the Commission*

– Conservation, safeguarding, enhancement and restoration of cultural heritage **and** languages with the use of cutting edge technologies including digital;

*Amendment*

– Conservation, safeguarding, enhancement and restoration of cultural heritage, languages **and traditional skills and crafts** with the use of cutting edge technologies including digital;

Or. en

**Amendment 96**

**Proposal for a decision**

**Annex I – part II – point 2 – point 2.2 – point 2.2.2 – paragraph 2 – indent 6 a (new)**

*Text proposed by the Commission*

*Amendment*

**- Establish a “Cultural Heritage Cloud”:**

***A museum collaboration space will be created in order to grant accessibility of cultural heritage through new technologies as well as to encourage and to facilitate transmission of know-how and skills such as restoring art works etc. Furthermore the cloud will be closely linked to the Europeana platform.***

***The Cultural Heritage Cloud will:***

***-be a research and project based collaboration space between museums, cultural professionals and the public-  
Make research and knowledge accessible to the public;***

***- provide the opportunity to set up individual workgroups and project structures;***

***- provide and integrate links to existing platforms such as Europeana;***

***- be a European cultural counterpart to commercially driven cloud services.***

Or. en



## *Justification*

*The exchange and long-term storage of information and know-how is of particular importance in this context. Currently, there is a lack of a suitable digital platform in this area, which offers solutions to the very practical problems of cross-collection collaboration, especially on a European scale. The establishment of a digital European Museum Collaboration Space can help solve these challenges.*

### **Amendment 97**

#### **Proposal for a decision**

#### **Annex I – part II – point 2 – point 2.2 – point 2.2.2 – paragraph 2 a (new)**

*Text proposed by the Commission*

*Amendment*

#### ***Cross-cutting activities:***

***In Horizon Europe creativity and design will be a cross-cutting issue that will be integrated in projects throughout the programme in order to support new technologies, business models and competences as well as translating creative and interdisciplinary solutions into economic and social value.***

Or. en

### **Amendment 98**

#### **Proposal for a decision**

#### **Annex I – part II – point 2 – point 2.2 – point 2.2.4**

*Text proposed by the Commission*

*Amendment*

#### ***2.2.4. Disaster-Resilient Societies***

***deleted***

***Disasters arise from multiple sources, whether natural or man-made, including those from terrorist attacks, climate-related and other extreme events (including from sea level rises), from forest fires, heat waves, floods, earthquakes, tsunamis and volcanic events, from water crises, from space weather events, from industrial and transport disasters, from CBRN events, as well as those from resulting cascading***

*risks. The aim is to prevent and reduce the loss of life, harm to health and the environment, economic and material damage from disasters, ensure food security as well as to improve the understanding and reduction of disaster risks and post-disaster lesson learning.*

***Broad Lines***

- ***Technologies and capabilities for first responders for emergency operations in crisis and disaster situations;***
- ***The capacities of society to better manage and reduce disaster risk, including through nature-based solutions, by enhancing prevention, preparedness and response to existing and new risks***
- ***Interoperability of equipment and procedures to facilitate cross-border operational cooperation and an integrated EU market.***

Or. en

*Justification*

*Amendment 97 - 117 text shifted new to "Secure Society" Cluster.*

**Amendment 99**

**Proposal for a decision**

**Annex I – part II – point 2 – point 2.2 – point 2.2.4 – paragraph 1**

*Text proposed by the Commission*

*Amendment*

***Disasters arise from multiple sources, whether natural or man-made, including those from terrorist attacks, climate-related and other extreme events (including from sea level rises), from forest fires, heat waves, floods, earthquakes, tsunamis and volcanic events, from water crises, from space weather events, from industrial and transport disasters, from CBRN events, as well as those from resulting cascading risks. The aim is to prevent and reduce the***

***deleted***

*loss of life, harm to health and the environment, economic and material damage from disasters, ensure food security as well as to improve the understanding and reduction of disaster risks and post-disaster lesson learning.*

Or. en

## **Amendment 100**

### **Proposal for a decision**

#### **Annex I – part II – point 2 – point 2.2 – point 2.2.4 – paragraph 2**

*Text proposed by the Commission*

*Amendment*

#### **Broad Lines**

*deleted*

- Technologies and capabilities for first responders for emergency operations in crisis and disaster situations;*
- The capacities of society to better manage and reduce disaster risk, including through nature-based solutions, by enhancing prevention, preparedness and response to existing and new risks*
- Interoperability of equipment and procedures to facilitate cross-border operational cooperation and an integrated EU market.*

Or. en

## **Amendment 101**

### **Proposal for a decision**

#### **Annex I – part II – point 2 – point 2.2 – point 2.2.4 – paragraph 2 – indent 1**

*Text proposed by the Commission*

*Amendment*

- Technologies and capabilities for first responders for emergency operations in crisis and disaster situations;*

*deleted*

Or. en

## Amendment 102

### Proposal for a decision

Annex I – part II – point 2 – point 2.2 – point 2.2.4 – paragraph 2 – indent 2

*Text proposed by the Commission*

*Amendment*

- *The capacities of society to better manage and reduce disaster risk, including through nature-based solutions, by enhancing prevention, preparedness and response to existing and new risks* **deleted**

Or. en

## Amendment 103

### Proposal for a decision

Annex I – part II – point 2 – point 2.2 – point 2.2.4 – paragraph 2 – indent 3

*Text proposed by the Commission*

*Amendment*

- *Interoperability of equipment and procedures to facilitate cross-border operational cooperation and an integrated EU market.* **deleted**

Or. en

## Amendment 104

### Proposal for a decision

Annex I – part II – point 2 – point 2.2 – point 2.2.5

*Text proposed by the Commission*

*Amendment*

- 2.2.5. Protection and Security** **deleted**

*There is a need to protect citizens from and to respond to security threats from criminal including terrorist activities and hybrid threats; to protect people, public spaces and critical infrastructure, from both physical (including CBRN-E) attacks*

*and cyber-attacks; to fight terrorism and radicalisation, including understanding and tackling terrorist ideas and beliefs; to prevent and fight serious crime, including cybercrime, and organised crime; to support victims; to trace criminal financial flows; to support the use of data for law enforcement and to ensure the protection of personal data in law enforcement activities; to support air, land and sea EU border management, for flows of people and goods. It is essential to maintain flexibility rapidly to address new security challenges that may arise.*

#### **Broad Lines**

- *Innovative approaches and technologies for security practitioners (such as police forces, border and coast guards, customs offices), public health practitioners, operators of infrastructure and those managing open spaces;*
- *Human and social dimensions of criminality and violent radicalisation, in relation to those engaged or potentially engaged in such behaviour as well as to those affected or potentially affected;*
- *The mind-set of citizens, public authorities and industry to prevent the creation of new security risks and to reduce existing risks, including those from new technologies such as Artificial Intelligence;*
- *Combatting disinformation and fake news with implications for security;*
- *Interoperability of equipment and procedures to facilitate cross-border and inter-agency operational cooperation and develop an integrated EU market.*
- *Ensuring the protection of personal data in law enforcement activities, in particular in view of rapid technological developments.*

Or. en

## Amendment 105

### Proposal for a decision

Annex I – part II – point 2 – point 2.2 – point 2.2.5 – paragraph 1

*Text proposed by the Commission*

*Amendment*

*There is a need to protect citizens from and to respond to security threats from criminal including terrorist activities and hybrid threats; to protect people, public spaces and critical infrastructure, from both physical (including CBRN-E) attacks and cyber-attacks; to fight terrorism and radicalisation, including understanding and tackling terrorist ideas and beliefs; to prevent and fight serious crime, including cybercrime, and organised crime; to support victims; to trace criminal financial flows; to support the use of data for law enforcement and to ensure the protection of personal data in law enforcement activities; to support air, land and sea EU border management, for flows of people and goods. It is essential to maintain flexibility rapidly to address new security challenges that may arise.*

*deleted*

Or. en

## Amendment 106

### Proposal for a decision

Annex I – part II – point 2 – point 2.2 – point 2.2.5 – paragraph 2

*Text proposed by the Commission*

*Amendment*

*Broad Lines*

*deleted*

*– Innovative approaches and technologies for security practitioners (such as police forces, border and coast guards, customs offices), public health practitioners, operators of infrastructure and those managing open spaces;*

- *Human and social dimensions of criminality and violent radicalisation, in relation to those engaged or potentially engaged in such behaviour as well as to those affected or potentially affected;*
- *The mind-set of citizens, public authorities and industry to prevent the creation of new security risks and to reduce existing risks, including those from new technologies such as Artificial Intelligence;*
- *Combatting disinformation and fake news with implications for security;*
- *Interoperability of equipment and procedures to facilitate cross-border and inter-agency operational cooperation and develop an integrated EU market.*
- *Ensuring the protection of personal data in law enforcement activities, in particular in view of rapid technological developments.*

Or. en

#### **Amendment 107**

##### **Proposal for a decision**

**Annex I – part II – point 2 – point 2.2 – point 2.2.5 – paragraph 2 – indent 1**

*Text proposed by the Commission*

*Amendment*

- *Innovative approaches and technologies for security practitioners (such as police forces, border and coast guards, customs offices), public health practitioners, operators of infrastructure and those managing open spaces;* *deleted*

Or. en

## **Amendment 108**

### **Proposal for a decision**

**Annex I – part II – point 2 – point 2.2 – point 2.2.5 – paragraph 2 – indent 2**

*Text proposed by the Commission*

*Amendment*

- *Human and social dimensions of criminality and violent radicalisation, in relation to those engaged or potentially engaged in such behaviour as well as to those affected or potentially affected;* *deleted*

Or. en

## **Amendment 109**

### **Proposal for a decision**

**Annex I – part II – point 2 – point 2.2 – point 2.2.5 – paragraph 2 – indent 3**

*Text proposed by the Commission*

*Amendment*

- *The mind-set of citizens, public authorities and industry to prevent the creation of new security risks and to reduce existing risks, including those from new technologies such as Artificial Intelligence;* *deleted*

Or. en

## **Amendment 110**

### **Proposal for a decision**

**Annex I – part II – point 2 – point 2.2 – point 2.2.5 – paragraph 2 – indent 4**

*Text proposed by the Commission*

*Amendment*

- *Combatting disinformation and fake news with implications for security;* *deleted*

Or. en



## Amendment 111

### Proposal for a decision

Annex I – part II – point 2 – point 2.2 – point 2.2.5 – paragraph 2 – indent 5

*Text proposed by the Commission*

*Amendment*

- *Interoperability of equipment and procedures to facilitate cross-border and inter-agency operational cooperation and develop an integrated EU market.* *deleted*

Or. en

## Amendment 112

### Proposal for a decision

Annex I – part II – point 2 – point 2.2 – point 2.2.5 – paragraph 2 – indent 6

*Text proposed by the Commission*

*Amendment*

- *Ensuring the protection of personal data in law enforcement activities, in particular in view of rapid technological developments.* *deleted*

Or. en

## Amendment 113

### Proposal for a decision

Annex I – part II – point 2 – point 2.2 – point 2.2.6

*Text proposed by the Commission*

*Amendment*

- 2.2.6. Cybersecurity** *deleted*

*Malicious cyber activities not only threaten our economies but also the very functioning of our democracies, our freedoms and our values. Cyber threats are often criminal, motivated by profit, but they can also be political and strategic. Our future security and prosperity depend on improving our ability to protect the EU against cyber*

*threats. The digital transformation requires improving cybersecurity substantially, to ensure the protection of the huge number of IoT devices expected to be connected to the internet, including those controlling power grids, cars and transport networks, hospitals, finances, public institutions, factories, homes. Europe must build resilience to cyber-attacks and create effective cyber deterrence.*

**Broad Lines**

- *Technologies across the digital value chain (from secure components to cryptography and self-healing software and networks);*
- *Technologies to address current cybersecurity threats, anticipating future needs, and sustaining a competitive industry;*
- *A European cybersecurity competence network and competence centre.*

Or. en

**Amendment 114**

**Proposal for a decision**

**Annex I – part II – point 2 – point 2.2 – point 2.2.6 – paragraph 1**

*Text proposed by the Commission*

*Amendment*

*Malicious cyber activities not only threaten our economies but also the very functioning of our democracies, our freedoms and our values. Cyber threats are often criminal, motivated by profit, but they can also be political and strategic. Our future security and prosperity depend on improving our ability to protect the EU against cyber*

*deleted*

*threats. The digital transformation requires improving cybersecurity substantially, to ensure the protection of the huge number of IoT devices expected to be connected to the internet, including those controlling power grids, cars and transport networks, hospitals, finances, public institutions, factories, homes. Europe must build resilience to cyber-attacks and create effective cyber deterrence.*

Or. en

#### **Amendment 115**

##### **Proposal for a decision**

##### **Annex I – part II – point 2 – point 2.2 – point 2.2.6 – paragraph 2**

*Text proposed by the Commission*

*Amendment*

##### **Broad Lines**

*deleted*

- *Technologies across the digital value chain (from secure components to cryptography and self-healing software and networks);*
- *Technologies to address current cybersecurity threats, anticipating future needs, and sustaining a competitive industry;*
- *A European cybersecurity competence network and competence centre.*

Or. en

#### **Amendment 116**

##### **Proposal for a decision**

##### **Annex I – part II – point 2 – point 2.2 – point 2.2.6 – paragraph 2 – indent 1**

*Text proposed by the Commission*

*Amendment*

- *Technologies across the digital* *deleted*

*value chain (from secure components to cryptography and self-healing software and networks);*

Or. en

#### **Amendment 117**

##### **Proposal for a decision**

**Annex I – part II – point 2 – point 2.2 – point 2.2.6 – paragraph 2 – indent 2**

*Text proposed by the Commission*

*Amendment*

– *Technologies to address current cybersecurity threats, anticipating future needs, and sustaining a competitive industry;* **deleted**

Or. en

#### **Amendment 118**

##### **Proposal for a decision**

**Annex I – part II – point 2 – point 2.2 – point 2.2.6 – paragraph 2 – indent 3**

*Text proposed by the Commission*

*Amendment*

– *A European cybersecurity competence network and competence centre.* **deleted**

Or. en

#### **Amendment 119**

##### **Proposal for a decision**

**Annex I – part II – point 2 a (new)**

*Text proposed by the Commission*

*Amendment*

**2 a. CLUSTER 'SECURE SOCIETY'**  
**2.1 Rationale**

*The Union stands for a unique way of combining democratic values, societal well-being, economic growth, and international responsibilities. It is important to protect its acquisitions, citizens, public institutions, economy and political stability from the threats of manifold kind, perpetrators and origins.*

*Security research is part of the wider Union efforts to meet this challenge. It contributes to the capability development process by enabling future availability of technologies, solutions and applications to fill gaps identified by policy-makers, experts, and end-users, especially public authorities. Such research and innovation responds to the commitment of the Rome Agenda to work towards "a safe and secure Europe", contributing to a Security Union.*

*Terrorism, radicalisation, politically motivated violence, cyber-attacks and hybrid threats, organised-, business-/taxes avoidance-, and environmental-crime, threats to ICT- and other critical and supply infrastructures, raise major concerns and put particular strain on societies. Europe needs to continue its efforts to improve cybersecurity, digital privacy, personal data protection and combat the spread of false and harmful information in order to safeguard democratic and economic stability.*

*In order to anticipate, prevent and manage risks and threats, it is not only necessary to commit to research but furthermore to develop and apply innovative technologies, solutions, foresight tools and knowledge, stimulate cooperation between providers and public users, find solutions, prevent and combat the abuse of privacy and breaches of human rights in Internet and elsewhere, while ensuring European citizens' individual rights and freedom.*

*To avoid multiple spending research of public security authorities shall be*

*enforced in efforts of multi- and international exchange and cooperation. Public security authorities shall be encouraged to participate in Union research and innovation efforts to further their capabilities to cooperate and communicate at all appropriate levels, to exchange data, to benefit from common standards in technologies, procedures, equipment, and up-to-date results in crime related sciences, training, and supporting advantages of expert knowledge.*

## *2.2 Areas of Intervention*

### *2.2.1 Organised Crime; Terrorism, Extremism, Radicalisation and Politically Motivated Violence*

*Organised Crime, terrorism, extremism, radicalisation and politically motivated violence cause high risks to each citizen as well as to Europe's society, economy and democratic stability. Their perpetrators range from locally acting inexpert individuals to highly professional organisations operating internationally. Research in humanities and technologies are required to detect, prevent and counter their activities.*

#### *Broad Lines*

- Human and social dimensions of criminality and violent radicalisation, in relation to those engaged or potentially engaged in such behaviour as well as to those affected or potentially affected;*
- Innovative approaches and technologies for security end-users, especially public security authorities;*
- Technologies and standards of operation for protecting infrastructure, open and public spaces as well as areas and buildings for the gathering of people;*
- Prediction, detection, prevention, and protection against attempts and the carrying out of serious and organised crimes, politically motivated*

*radicalisation, violence, and terrorism;*

### ***2.2.2 Border Protection Management***

*To enhance safety and security in the Union up-to-date capabilities for border protection and management are required. This includes area reconnaissance and surveillance (air, ground, sea), stable cooperation and data-exchange with foreign authorities, including interoperability capabilities with local, regional, national and international command-, control- and communication-centres as well as implementing solutions for border-protection, incident responding, risk-detection and crime-prevention. Also to be included is research on predictive policing and algorithm-based early warning applications, automated surveillance technologies using various kinds of sensors. The evaluation of their impact on and the potential to enhance security efforts, shall include and evaluation of the potential of these solutions, technologies and equipment to contribute to the integrity of those approaching external borders especially by land and sea.*

*Research should support the improvement of the integrated European border management, including through increased cooperation with candidate, potential candidate and EU Neighbourhood Policy countries. It will further assist EU efforts of coping with migration.*

#### ***Broad Lines***

- Identifying forged and otherwise manipulated documents;*
- Detecting illegal transportation/trafficking of persons and goods;*
- Furthering response capabilities to border incidents;*
- Modernisation of border areal reconnaissance and surveillance equipment;*

### **2.2.3 ICT- and Cyber-Security, Privacy, Data Protection**

*Malicious and hostile cyber activities threaten our societies and their citizens, the stable and secure functioning of public authorities and institutions, economies and also the very functioning of Europe's democratic institutions, our freedoms and values. Incidents involving public institutions have occurred already and are likely to increase in the course of further integration of digital and cyber applications in administrative and economic procedures as well as in private and individual use.*

*Cybercrime is on the increase, related risks are diversifying as the economy and society digitalise further on. Europe needs to continue its efforts to improve cyber- and overall ICT-security, digital privacy, personal data protection and combat the spread of false and harmful information in order to safeguard democratic and economic stability.*

*Future security and prosperity depend on improving abilities to protect the EU against such threats, to prevent, detect and counter malicious cyber activities, often requiring close and rapid cross-border cooperation. Especially the digital transformation requires improving cybersecurity substantially, to ensure the protection of the huge number of IoT devices expected to be connected to the internet. Europe must keep up all efforts to enforce resilience to ICT- attacks and promote effective deterrence.*

*Collection and evaluation of personal as well as mass data (Big Data) keeps increasing insecurity related activities. Therefore, it keeps being important to ensure high standards of data protection, privacy and freedom.*

#### **Broad Lines**

*- Expanding detection, prevention, defence and countering technologies;*



- *Strengthening abilities to decipher and decrypt for public authorities;*
- *Technologies to detect and monitor illicit electronic way of payment and financial flows;*
- *Increase all necessary abilities of appropriate authorities, especially EUROPOL/EC3 and ENISA;*
- *Ensuring the protection of personal data in law enforcement activities, particularly in view of rapid technological developments;*

#### ***2.2.4 Protecting Critical Infrastructures, Supply Chains and Transport/Transfer Facilities and Disaster-Resilience***

*New technologies, processes, methods and dedicated capabilities will help to protect critical infrastructures, systems and services which are essential for the proper functioning of society and economy, including communications, transport, finance, health, food, water, energy, logistic and supply chain, and environment.*

*Disasters arise from multiple sources, whether natural, man-made or resulting from cascading risks. Efforts are required to limit the effects on lives and livelihoods, harm to health and the environment, economic and material damage, to ensure food and medicine supply, security and basic means of communication.*

#### ***Broad Lines***

- *Capacities of society to better manage and reduce disaster risk, including through nature-based solutions, by enhancing prevention, preparedness and response to existing and new risks and improving the resilience of these various infrastructures;*
- *Enhancing moving capabilities for search and rescue equipment, vehicles, supply and forces;*

*- Technologies, equipment and procedures to prevent the outbreak of or to contain epidemics;*

*2.2.5 Piracy and Counterfeit of Products  
Countering piracy and counterfeit of products remain of serious concern for the European economy, cultural and creative industries (CCIs) and citizens alike. These illicit activities cause serious losses of taxes, revenues and personal income as well as putting employment in Europe at risk.*

*Furthermore, they contribute to environmental damages and inadequate labour conditions globally.*

*Deficient products imply risks for causing damage to persons and property. Such impacts need to be addressed and solutions be found to tackle piracy and counterfeit of products as well as to enforce appropriate public authorities to prevent, detect, investigate and counter these crimes and related illegal activities in cooperation.*

*To include are efforts to promote the protection of intellectual property.*

*Broad Lines*

*- Promoting techniques of identifying products;*

*- Enhancing protection of original parts and goods;*

*- Technologies to control transported products (real-time) and data-exchange between producers, transporter, custom-authorities and recipients*

*2.2.6 Promoting Coordination, Cooperation and Synergies*

*To ensure the ability to deploy, manage, control and command inter-authority procedures up-to-date technology and standards are required. The aim ought to be to equip public authorities and other forces to be deployed with exchangeable equipment, to integrate EU-wide standard*

*procedures of operation, responding, reporting and data-exchange.*

*Obligated to responsible spending on security related HEU-funded research and innovation should promote coordination and synergetic effects of appropriate activities, contributing to efficient spending of funds and to avoiding duplications. This shall also be sought regarding activities supported by EU-funded defence research, including exchange and consultation mechanisms with defence research associated authorities, especially the EDA, recognising that there are areas of dual-use technology.*

*Standards ensure common development, production and implementation as well as capabilities for exchange, interoperability and compatibility of services, procedures, technologies and equipment.*

#### *Broad Lines*

*- Technologies and equipment with basic operation requirements to be applicable by all MS forces and authorities of the same line (police, rescue, disaster management, communication etc.) equally;*

*-Interoperability of equipment and procedures to facilitate cross-border and inter-agency operational ability;*

*-Identification of standardisation gaps among MS and with non-EU partners;*

*An adequate budget should be allocated to agencies to further promote their ability to participate in as well as from EU research & innovation and in order to manage relevant projects, to exchange demands, results and ambitions as well as to cooperate and coordinate efforts with other agencies and certain non-EU authorities like CTG and IKPO. As for security related research and innovation these are especially CEPOL, EASA, ECDC, EMCDDA, EMSA, ENISA, EU-LISA, EUIPO,EUROPOL, FRONTEX*

## **Amendment 120**

### **Proposal for a decision**

#### **Annex I – part II – point 3 – point 3.1 – paragraph 3**

##### *Text proposed by the Commission*

Digitisation is a major driver. As it continues at a rapid pace across all sectors, investment in priority areas ranging from artificial intelligence to next generation internet, high performance computing, photonics and nano-electronics, becomes essential for the strength of our economy and the sustainability of our society. Investing, producing and using ICT provides a major boost to EU economic growth, amounting to an increase of 30% between 2001 and 2011 alone.

##### *Amendment*

Digitisation is a major driver. As it continues at a rapid pace across all sectors, investment in priority areas ranging from artificial intelligence to next generation internet, high performance computing, photonics, ***quantum technologies*** and nano-electronics, becomes essential for the strength of our economy and the sustainability of our society. Investing, producing and using ICT provides a major boost to EU economic growth, amounting to an increase of 30% between 2001 and 2011 alone.

## **Amendment 121**

### **Proposal for a decision**

#### **Annex I – part II – point 3 – point 3.1 – paragraph 7**

##### *Text proposed by the Commission*

The EU has the unique chance of being a global leader and increase its share of world markets, by showcasing how digital transformation, leadership in key enabling and space technologies, the transition to a low-carbon, circular economy and competitiveness can reinforce each other through scientific and technological excellence.

##### *Amendment*

The EU has the unique chance of being a global leader and increase its share of world markets, by showcasing how digital transformation, leadership in key enabling and space technologies, the transition to a low-carbon, circular economy and competitiveness ***and a societal understanding of these technologies and evolutions*** can reinforce each other through scientific and technological excellence.

**Amendment 122****Proposal for a decision****Annex I – part II – point 3 – point 3.1 – paragraph 8***Text proposed by the Commission*

To make the digitised, circular, low-carbon and low-emission economy a reality, action is needed at EU level because of the complexity of value chains, the systemic and multi-disciplinary nature of the technologies and their high development costs, and the cross-sectoral nature of the problems to be addressed. The EU must ensure that all industrial players, and society at large, can benefit from advanced and clean technologies and digitisation. Developing technologies alone will not suffice. Industrially-oriented infrastructures, including pilot lines, will help set up EU businesses and in particular SMEs deploy these technologies and improve their innovation performance.

*Amendment*

To make the digitised, circular, low-carbon and low-emission economy a reality, action is needed at EU level because of the complexity of value chains, the systemic and multi-disciplinary nature of the technologies and their high development costs, and the cross-sectoral nature of the problems to be addressed. The EU must ensure that all industrial players, and society at large, can benefit from advanced and clean technologies and digitisation. Developing technologies alone will not suffice. Industrially-oriented infrastructures, including pilot lines, will help set up EU businesses and in particular SMEs deploy these technologies and improve their innovation performance. ***In this context, cultural and creative industries play a major role: CCIs are a driving force for innovation and development of ICT in Europe. They operate in a constantly evolving environment dominated by the development and use of digital information and communications technology on a global scale. Digital technology has brought about opportunities for the creation of different types of artistic work or practices for which that digital technology is also an essential part of the creative process.***

## Amendment 123

### Proposal for a decision

#### Annex I – part II – point 3 – point 3.1 – paragraph 10

##### *Text proposed by the Commission*

Bringing together activities on digital, key enabling and space technologies, as well as a sustainable supply of raw materials, will allow for a more systemic approach, and a faster and more profound digital and industrial transformation. **It** will ensure that research and innovation in these areas feed into, and contribute to the implementation of, the EU's policies for industry, digitisation, environment, energy and climate, circular economy, raw and advanced materials and space.

##### *Amendment*

***Strengthening the interaction between different sectors, industries and systems through creative spill overs and*** bringing together activities on digital, key enabling and space technologies, as well as a sustainable supply of raw materials, will allow for a more systemic approach, and a faster and more profound digital and industrial transformation. ***Here, synergies between engineering and the arts can help creating digital technologies with a human touch of value to society.*** ***This*** will ensure that research and innovation in these areas feed into, and contribute to the implementation of, the EU's policies for industry, digitisation, environment, energy and climate, circular economy, raw and advanced materials and space.

Or. en

## Amendment 124

### Proposal for a decision

#### Annex I – part II – point 3 – point 3.2 – point 3.2.1 – paragraph 1

##### *Text proposed by the Commission*

Manufacturing is a key driver of employment and prosperity in the EU, producing over three quarters of the EU's global exports and providing over a 100 million direct and indirect jobs. The key challenge for EU manufacturing is to remain competitive at a global level with smarter and more customised products of high added value, produced at much lower energy costs. Creative and cultural inputs will be vital to help generate added value.

##### *Amendment*

Manufacturing is a key driver of employment and prosperity in the EU, producing over three quarters of the EU's global exports and providing over a 100 million direct and indirect jobs. The key challenge for EU manufacturing is to remain competitive at a global level with smarter and more customised products of high added value, produced at much lower energy costs ***and a reduced carbon footprint in 21st century Europe, with the transition manufacturing processes and***

*traditional value chains*. Creative and cultural inputs will **therefore** be vital to help generate added value.

Or. en

## **Amendment 125**

### **Proposal for a decision**

#### **Annex I – part II – point 3 – point 3.2 – point 3.2.2 – paragraph 1**

##### *Text proposed by the Commission*

Maintaining and autonomously developing strong design and production capacities in essential digital technologies such as micro- and nano-electronics, photonics, software and systems, and their integration as well as advanced materials for these applications will be essential for a competitive EU.

##### *Amendment*

Maintaining and autonomously developing strong design and production capacities **(including manufacturing equipment)** in essential digital technologies such as micro- and nano-electronics, photonics, software and systems, and their integration as well as advanced materials for these applications will be essential for a competitive EU.

Or. en

##### *Justification*

*Europe has a strong position in the manufacturing of high tech components for digital production. We need to invest in manufacturing equipment to maintain that position and not lose part of the value chain to other continents.*

## **Amendment 126**

### **Proposal for a decision**

#### **Annex I – part II – point 3 – point 3.2 – point 3.2.2 – paragraph 2 – indent 9 a (new)**

##### *Text proposed by the Commission*

##### *Amendment*

- ***ICT for Cultural and Creative Industries: develop new tools to create access, exploit and preserve digital content.***

Or. en

## Amendment 127

### Proposal for a decision

#### Annex I – part II – point 3 – point 3.2 – point 3.2.3 – paragraph 2 – indent 4

##### *Text proposed by the Commission*

– An EU innovation *ecosystem* of technology infrastructures<sup>16</sup>, identified and prioritised in agreement with Member States, which provide services to accelerate technological transformation and uptake by EU industry, notably by SMEs; this will cover all key technologies necessary to enable innovations in the field of materials;

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<sup>16</sup> These are public or private facilities that provide resources and services primarily for the European industry to test and validate key enabling technologies and products. Such infrastructures may be single sited, virtual or distributed, and must be registered in a Member State or a third country associated to the Programme.

##### *Amendment*

– An EU innovation *network* of technology infrastructures<sup>16</sup>, identified and prioritised in agreement with Member States, which provide services to accelerate technological transformation and uptake by EU industry, notably by SMEs; this will cover all key technologies necessary to enable innovations in the field of materials;

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<sup>16</sup> These are public or private facilities that provide resources and services primarily for the European industry to test and validate key enabling technologies and products. Such infrastructures may be single sited, virtual or distributed, and must be registered in a Member State or a third country associated to the Programme.

Or. en

## Amendment 128

### Proposal for a decision

#### Annex I – part II – point 3 – point 3.2 – point 3.2.5 – paragraph 1

##### *Text proposed by the Commission*

The Internet has become a key enabler of the digital transformation of all sectors of our economy and society. The EU needs to take the lead in driving the next generation Internet towards a human-centric ecosystem in line with our social and ethical values. Investing in technologies and software for the Next Generation Internet will improve EU industrial competitiveness in the global economy. Optimising EU wide take up will require

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##### *Amendment*

The Internet has become a key enabler of the digital transformation of all sectors of our economy, *the culture and creative industries in particular*, and society. The EU needs to take the lead in driving the next generation Internet towards a human-centric ecosystem in line with our social and ethical values. Investing in technologies and software for the Next Generation Internet will improve EU industrial competitiveness in the global

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large-scale cooperation across stakeholders.

economy. Optimising EU wide take up will require large-scale cooperation across stakeholders.

Or. en

## **Amendment 129**

### **Proposal for a decision**

#### **Annex I – part II – point 3 – point 3.2 – point 3.2.6 a (new)**

*Text proposed by the Commission*

*Amendment*

#### **3.2.6 a. Quantum Technologies**

*Quantum technologies exploit the enormous advancements in our ability to detect and manipulate single quanta (atoms, photons, electrons). This could revolutionise the whole information value chain from software to hardware and from communications to data mining and AI. Europe is home to world leading researchers in this field and there is currently a global race to transfer scientific advances into market-ready applications. That key enabling technology will have a profound cross-sectorial impact, providing European citizens and industry for example with fundamentally more performing computation, leading to, inter alia, more reliable healthcare, improved chemicals and materials, optimised and thus more sustainable use of resources, more efficient engineering, more secure telecommunications, and many other revolutionary applications.*

#### **Broad Lines**

- Quantum computing and simulation, including hardware development of different architectures and physical platforms, and algorithm and software development;*
- Quantum networks for secure transmission of data and for sharing*

*quantum resources, both ground- and space-based;*

*– Quantum sensors, imaging systems and metrology standards, exploiting coherent quantum systems and entanglement;*

*– Test beds and user facilities for the above-mentioned technologies.*

Or. en

## Amendment 130

### Proposal for a decision

Annex I – part II – point 3 – point 3.2 – point 3.2.7 – paragraph 4 – indent 1

*Text proposed by the Commission*

– Industrial symbiosis with resource flows between plants across sectors and urban communities; processes and materials, to transport, transform, re-use and store resources, combining the valorisation of by-products, waste *and CO<sub>2</sub>*;

*Amendment*

– Industrial symbiosis with resource flows between plants across sectors and urban communities; processes and materials, to transport, transform, re-use and store resources, combining the valorisation of by-products, waste, *CO<sub>2</sub> and hydrogen, when it is environmentally safe and offers substantial climate benefits*;

Or. en

## Amendment 131

### Proposal for a decision

Annex I – part II – point 3 – point 3.2 – point 3.2.7 – paragraph 4 – indent 3

*Text proposed by the Commission*

– Products for enhanced life-cycle performance, durability, upgradeability and ease of repair, dismantling and recycling;

*Amendment*

– *Systematic design of* products for enhanced life-cycle performance, durability, upgradeability and ease of repair, dismantling and recycling;

Or. en

*Justification*

*A systemic approach to take circularity into account at the start of the design of products should be the norm.*

**Amendment 132**

**Proposal for a decision**

**Annex I – part II – point 3 – point 3.2 – point 3.2.7 – paragraph 4 – indent 6 a (new)**

*Text proposed by the Commission*

*Amendment*

- ***New creative business models, approaches and services for reuse, extension of lifetime, refurbishment of products.***

Or. en

*Justification*

*The development of new business models focused on take-back of resources and products as well as extension of the lifetime is essential for a circular economy. Europe is leading the way in the public transition to a circular economy, but we need to ensure we also lead in the creation of business out of this revolution.*

**Amendment 133**

**Proposal for a decision**

**Annex I – part II – point 3 – point 3.2 – point 3.2.8 – paragraph 2**

*Text proposed by the Commission*

*Amendment*

Breakthrough technologies to achieve significant reductions in greenhouse gases and pollutants, ***often*** combined with ***the*** technologies for circular industry above, will lead to strong industrial value chains, revolutionise manufacturing capacities and ***improve the global competitiveness of industry; and*** at the same time make key contributions to our targets for climate action and environmental quality.

***Large-scale*** breakthrough technologies to achieve significant reductions in greenhouse gases and pollutants, ***which may be*** combined with technologies for circular industry above, will lead to strong industrial value chains, revolutionise manufacturing capacities and at the same time make key contributions to our targets for climate action and environmental quality, ***while a strong focus has to be placed on the global competitiveness of industry.***

Or. en

## Amendment 134

### Proposal for a decision

Annex I – part II – point 3 – point 3.2 – point 3.2.8 – paragraph 3 – indent 2 a (new)

*Text proposed by the Commission*

*Amendment*

- **Carbon direct avoidance through the use of decarbonised chemical feedstock;**

Or. en

## Amendment 135

### Proposal for a decision

Annex I – part II – point 3 – point 3.2 – point 3.2.8 – paragraph 3 – indent 3

*Text proposed by the Commission*

*Amendment*

- Electrification and use of **unconventional** energy sources within industrial plants, **and energy and resource exchanges between industrial plants (for instance via industrial symbiosis);**

- Electrification, **hydrogenation** and use of **clean** energy sources **such as renewable energy and hydrogen** within industrial plants, **in order to replace fossil energy carriers.**

Or. en

## Amendment 136

### Proposal for a decision

Annex I – part II – point 3 – point 3.2 – point 3.2.8 – paragraph 3 – indent 4

*Text proposed by the Commission*

*Amendment*

- Industrial products that require low or zero carbon emissions production processes through **the life cycle.**

- Industrial products that require low or zero carbon emissions production processes. **Activities under this area of intervention may be implemented through Union partnerships with industry.**

Or. en

## Amendment 137

### Proposal for a decision

#### Annex I – part II – point 3 – point 3.2 – point 3.2.9 – paragraph 2

##### *Text proposed by the Commission*

The EU will support synergies between space and key enabling technologies (big data, advanced manufacturing, robotics and artificial intelligence); foster a thriving and entrepreneurial and competitive space sector; and help secure non-dependence in accessing and using space in a safe and secure manner. Activities will be roadmap-based, taking account of the ESA harmonisation process and relevant Member States initiatives, and will be implemented with ESA, as appropriate.

##### *Amendment*

The EU will support synergies between space and key enabling technologies (big data, advanced manufacturing, **quantum technologies**, robotics and artificial intelligence); foster a thriving and entrepreneurial and competitive space sector; and help secure non-dependence in accessing and using space in a safe and secure manner. Activities will be roadmap-based, taking account of the ESA harmonisation process and relevant Member States initiatives, and will be implemented with ESA, as appropriate.

Or. en

## Amendment 138

### Proposal for a decision

#### Annex I – part II – point 3 – point 3.2 – point 3.2.9 – paragraph 3 – indent 4

##### *Text proposed by the Commission*

– Secure Satellite Communications for EU governmental actors: solutions for the widest possible range of governmental users and associated user equipment in architectural, technological and system solutions for space infrastructure, supporting the EU's autonomy;

##### *Amendment*

– Secure, **quantum-safe** Satellite Communications for EU governmental actors: solutions for the widest possible range of governmental users and associated user equipment in architectural, technological and system solutions for space infrastructure, supporting the EU's autonomy;

Or. en

## Amendment 139

### Proposal for a decision

#### Annex I – part II – point 4 – point 4.1 – paragraph 2

##### *Text proposed by the Commission*

To meet the objectives of the Paris Agreement the EU will need to transition to low-carbon, resource-efficient and resilient economies and societies. This will be based on profound changes in technology and services, to the ways in which businesses and consumers behave, as well as involving new forms of governance. Limiting the increase of global average temperature to well below 2°C, and pursuing efforts to limit the temperature increase to 1.5°C, requires rapid progress in decarbonising the energy system and substantially reducing greenhouse-gas (GHG) emissions from the transport sector<sup>17</sup>. It will also need new impetus to accelerate the pace of developing next-generation breakthroughs as well as demonstrating and deploying innovative technologies and solutions, using also the opportunities provided by digital and space technologies. This will be pursued through an integrated approach encompassing decarbonisation, resource efficiency, reduction of air pollution, access to raw materials and circular economy.

##### *Amendment*

To meet the objectives of the Paris Agreement the EU will need to transition to low-carbon, resource-efficient and resilient economies and societies. This will be based on profound changes in technology and services, to the ways in which businesses and consumers behave, as well as involving new forms of governance. Limiting the increase of global average temperature to well below 2°C, and pursuing efforts to limit the temperature increase to 1.5°C, requires rapid progress in decarbonising the energy system and substantially reducing greenhouse-gas (GHG) emissions from the transport sector<sup>17</sup>.

***Union energy systems are undergoing significant changes, with the aim to achieve sustainable, affordable and reliable supply of electricity, heat, fuels and other energy products. The energy system transformation is taking place through the interactions of technology, infrastructure, market, policy and regulatory frameworks. There is a need for a systematic approach and systematic innovation in the whole energy sector.***

It will also need new impetus to accelerate the pace of developing next-generation breakthroughs as well as demonstrating

and deploying innovative technologies and solutions, using also the opportunities provided by digital and space technologies. This will be pursued through an integrated approach encompassing decarbonisation, resource efficiency, reduction of air pollution, access to raw materials and circular economy.

***To achieve this, the Union will also foster participatory approaches to research and innovation, including the multi-actor approach and develop knowledge and innovation systems at local, regional, national and European levels. Insights from social sciences and humanities, social innovation with citizens' engagement and trust in innovation will be crucial to encourage new governance, production and consumption patterns.***

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<sup>17</sup> Substantial decarbonisation of other sectors is addressed in other areas of the Horizon Europe Global Challenges and Industrial Competitiveness pillar.

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<sup>17</sup> Substantial decarbonisation of other sectors is addressed in other areas of the Horizon Europe Global Challenges and Industrial Competitiveness pillar.

Or. en

## Amendment 140

### Proposal for a decision

#### Annex I – part II – point 4 – point 4.1 – paragraph 3

##### *Text proposed by the Commission*

Progress in these sectors - but also across the spectrum of EU industry including agriculture, buildings, industrial processes and product use, and waste management - will require continued efforts to better understand the mechanisms of climate change and the associated impacts across the economy and society, exploiting synergies with national activities, other EU types of actions and international cooperation.

##### *Amendment*

Progress in these sectors - but also across the spectrum of EU industry including agriculture, buildings, industrial processes and product use, and waste management - will require continued efforts to better understand the mechanisms of climate change and the associated impacts across the economy and society, exploiting synergies with national activities, other EU types of actions and international cooperation. ***Particular attention will be put to ensuring sector coupling, i.e. of the***

*electricity, heat, industry, gas and transport sector, in all intervention areas, so crucial for a successful energy transition success.*

Or. en

## Amendment 141

### Proposal for a decision

#### Annex I – part II – point 4 – point 4.1 – paragraph 9

##### *Text proposed by the Commission*

Finding new ways to accelerate the deployment of clean technologies and solutions for the decarbonisation of the European economy requires also increased demand for innovation. This can be stimulated through the empowerment of citizens as well as socio-economic and public sector innovation and will lead to approaches broader than technology-driven innovation. Socio-economic research covering inter alia user needs and patterns, foresight activities, environmental, economic, social and behavioural aspects, business cases and models and pre-normative research for standard setting, will also facilitate actions fostering regulatory, financing and social innovation, skills, as well as engagement and empowerment of market players and consumers.

##### *Amendment*

Finding new ways to accelerate the deployment of clean technologies and solutions for the decarbonisation of the European economy requires also increased demand for innovation. This can be stimulated through the empowerment of citizens as well as socio-economic and public sector innovation *as well as creative spill overs* and will lead to approaches broader than technology-driven innovation. Socio-economic research covering inter alia user needs and patterns, foresight activities, environmental, economic, social and behavioural aspects, business cases and models and pre-normative research for standard setting, will also facilitate actions fostering regulatory, financing and social innovation, skills, as well as engagement and empowerment of market players and consumers.

Or. en

## Amendment 142

### Proposal for a decision

#### Annex I – part II – point 4 – point 4.2 – point 4.2.1 – paragraph 2 – indent 4 a (new)

##### *Text proposed by the Commission*

##### *Amendment*

- *Identifying key processes in the*



*polar regions for a better development of management options that minimise the negative impacts on ecosystems and improve insight into global climate.*

Or. en

## Amendment 143

### Proposal for a decision

#### Annex I – part II – point 4 – point 4.2 – point 4.2.2 – introductory part

*Text proposed by the Commission*

*Amendment*

#### 4.2.2. *Energy Supply*

#### 4.2.2. *Decarbonisation pathways*

Or. en

## Amendment 144

### Proposal for a decision

#### Annex I – part II – point 4 – point 4.2 – point 4.2.2 – paragraph 1

*Text proposed by the Commission*

*Amendment*

The EU aims to be world leader in affordable, secure and sustainable energy technologies improving its competitiveness in global value chains and its position in growth markets. Diverse climatic, geographical, environmental and socio-economic conditions in the EU as well as the need to ensure energy security and access to raw materials, dictate a broad portfolio of energy solutions, including of non-technical nature. As regards renewable energy technologies, costs need to decrease further, performance must improve, integration into the energy system must be improved and breakthrough technologies need to be developed. As regards fossil fuels, decarbonising their usage will be essential to meet the climate objectives.

The EU aims to be world leader in affordable, secure and sustainable energy technologies improving its competitiveness in global value chains and its position in growth markets. Diverse climatic, geographical, environmental and socio-economic conditions in the EU as well as the need to ensure energy security and access to raw materials, dictate a broad portfolio of energy solutions, including of non-technical nature. As regards renewable energy technologies, costs need to decrease further, performance must improve, integration into the energy system must be improved and breakthrough technologies need to be developed ***and implemented***. As regards fossil fuels, ***avoiding and*** decarbonising their usage will be essential to meet the climate objectives.

## Amendment 145

### Proposal for a decision

#### Annex I – part II – point 4 – point 4.2 – point 4.2.2 – paragraph 2 – indent 1

##### *Text proposed by the Commission*

– Renewable energy technologies and solutions for power generation, heating and cooling, sustainable transport fuels and intermediate carriers, at various scales and development stages, adapted to geographic conditions and markets, both within the EU and worldwide;

##### *Amendment*

– Renewable energy technologies and solutions for power generation, **hydrogen production, industrial process**, heating and cooling, sustainable transport fuels and intermediate carriers, at various scales and development stages, adapted to geographic conditions and markets, both within the EU and worldwide;

Or. en

##### *Justification*

*The massive integration of intermittent renewable energy sources leads to the urgent necessity of balancing power grids with long-term, large-scale energy storage. In both respects, the production of hydrogen via electrolysis, allowing for Power-to-Gas technology, is an important solution.*

## Amendment 146

### Proposal for a decision

#### Annex I – part II – point 4 – point 4.2 – point 4.2.2 – paragraph 2 – indent 2

##### *Text proposed by the Commission*

– Disruptive renewable energy technologies for new applications and breakthrough solutions;

##### *Amendment*

– Disruptive renewable energy technologies for new **or highly enhanced** applications and breakthrough solutions;

Or. en

## Amendment 147

### Proposal for a decision

#### Annex I – part II – point 4 – point 4.2 – point 4.2.3 – paragraph 1

*Text proposed by the Commission*

The expected growth of variable electricity production and shift towards more electric heating, cooling and transport dictates the need for new approaches to manage energy grids. Next to decarbonisation, the goal is to ensure energy affordability, security and stability of supply, achieved through investments in innovative network infrastructure technologies and innovative system management. Energy storage in different forms will play a key role in providing services to the grid, also improving and reinforcing network capacities. Exploiting synergies between different networks (e.g. electricity grids, heating and cooling networks, gas networks, transport recharging and refuelling infrastructure, hydrogen, and telecom networks) and actors (e.g. industrial sites, data centres, self-producers) will be crucial for enabling the smart, integrated operation of the relevant infrastructures.

*Amendment*

The expected growth of variable electricity production and shift towards more electric **and hydrogen** heating, cooling and transport dictates the need for new approaches to manage energy grids. Next to decarbonisation, the goal is to ensure energy affordability, security and stability of supply, achieved through investments in innovative network infrastructure technologies and innovative system management. Energy storage in different forms will play a key role in providing services to the grid, also improving and reinforcing network capacities. Exploiting synergies between different networks (e.g. electricity grids, heating and cooling networks, gas networks, transport recharging and refuelling infrastructure, hydrogen, and telecom networks) and actors (e.g. industrial sites, data centres, self-producers) will be crucial for enabling the smart, integrated operation of the relevant infrastructures. ***It is important to highlight that fuel cell hydrogen technologies have a huge potential to create high skilled jobs and growth in the Union. This process will be accelerated by relevant public-private partnerships to be establish in Horizon Europe.***

Or. en

*Justification*

*The ability of hydrogen to access and integrate each sector of the energy system opens up the opportunity for deploying and utilising renewables to a much greater extent. Whereas electricity derived from renewables provides the power sector with a profound decarbonisation pathway, the heat and mobility sectors as well as industry do not yet have decarbonisation pathways of equivalent significance. The versatility of hydrogen enables these sectors to be integrated and to contribute to Europe's energy transition.*

## Amendment 148

### Proposal for a decision

Annex I – part II – point 4 – point 4.2 – point 4.2.3 – paragraph 2 – indent 1

*Text proposed by the Commission*

– Technologies and tools for electricity networks to integrate renewables and new loads such as electro-mobility and heat pumps;

*Amendment*

– Technologies and tools for electricity networks to integrate renewables and new loads such as electro-mobility, ***electrolysers, fuel cells*** and heat pumps;

Or. en

## Amendment 149

### Proposal for a decision

Annex I – part II – point 4 – point 4.2 – point 4.2.3 – paragraph 2 – indent 4 a (new)

*Text proposed by the Commission*

*Amendment*

- ***Systemic impact analysis of new energy technologies, like hydrogen as energy storage.***

Or. en

### *Justification*

*Particularly hydrogen is expected to play an important role in our more sustainable energy storage solutions, however this requires an enormous amount of energy to be produced which will severely impact the energy needs in our system. We should work on understanding this impact to ensure we do not cancel out one step towards sustainability with another.*

## Amendment 150

### Proposal for a decision

Annex I – part II – point 4 – point 4.2 – point 4.2.3 – paragraph 2 – indent 4 b (new)

*Text proposed by the Commission*

*Amendment*

- ***Clean solutions that can deliver on system reliability, complementing and going beyond renewables and electrification-based storage;***

### Amendment 151

#### Proposal for a decision

#### Annex I – part II – point 4 – point 4.2 – point 4.2.4 – introductory part

*Text proposed by the Commission*

*Amendment*

4.2.4. Buildings **and Industrial Facilities** in Energy Transition

4.2.4. Buildings in Energy Transition

Or. en

### Amendment 152

#### Proposal for a decision

#### Annex I – part II – point 4 – point 4.2 – point 4.2.4 – paragraph 1

*Text proposed by the Commission*

*Amendment*

Buildings **and industry** installations play an increasingly active role in their interaction with the energy system. Therefore, they are crucial elements in the transition to renewable energy.

Buildings installations play an increasingly active role in their interaction with the energy system. Therefore, they are crucial elements in the transition to renewable energy.

Or. en

### Amendment 153

#### Proposal for a decision

#### Annex I – part II – point 4 – point 4.2 – point 4.2.4 – paragraph 3

*Text proposed by the Commission*

*Amendment*

**Industries, and especially those that are energy-intensive, could further improve energy efficiency, and favour the integration of renewable energy sources.**

**deleted**

Or. en

*Justification*

*Moved to new intervention area.*

**Amendment 154**

**Proposal for a decision**

**Annex I – part II – point 4 – point 4.2 – point 4.2.4 – paragraph 4 – indent 5**

*Text proposed by the Commission*

– **Buildings** life-cycle design, construction, operation and dismantling, taking into account circularity and environmental performance, for energy and resource efficiency, climate resilience, and recycling;

*Amendment*

– **New modalities, including smart tools and appliance, for** life-cycle design, construction, operation and dismantling **of buildings**, taking into account circularity and environmental performance, for energy and resource efficiency, climate resilience, and recycling;

Or. en

*Justification*

*In order to effectively implement circular and environmental friendly design, construction, operation and dismantling, we need tools to follow a building throughout its lifetime.*

**Amendment 155**

**Proposal for a decision**

**Annex I – part II – point 4 – point 4.2 – point 4.2.4 a (new)**

*Text proposed by the Commission*

*Amendment*

**4.2.4 a. Industrial Facilities in the Energy Transition**

**Industries, and especially those that are energy-intensive, could further improve energy efficiency, and favour the integration of renewable energy sources. Industrial facilities' role in the energy system is changing, due to the need to reduce emissions, based on direct or indirect electrification, also a source of materials for production processes (e.g. Hydrogen). Industrial complexes where many different processes take place near**

*to each other can optimise the exchange of flows of energy and other resources (raw materials) between them.*

***Broad lines***

***- Conversion technologies for the sustainable utilization of carbon sources to increase resource efficiency and reduce emissions, including hybrid energy systems for the industry and energy sector with a decarbonisation potential***

***-Tools and infrastructure for process control of production plants to optimise energy flows and materials (e.g. Hydrogen, other products) in interaction with other production plants and the energy system;***

***- Flexibility and efficiency of electricity and heat in industrial plants and the energy system;***

***- Improved or new processes, design and materials to efficiently use or produce heat, cold, energy storage;***

Or. en

*Justification*

*Content of new intervention area: "Industrial Facilities in Energy Transition"*

**Amendment 156**

**Proposal for a decision**

**Annex I – part II – point 4 – point 4.2 – point 4.2.5 – paragraph 2 – indent 3**

*Text proposed by the Commission*

– Quality of life for the citizens, safe mobility, urban social innovation, cities' circular and regenerative capacity, reduced environmental footprint and pollution;

*Amendment*

– Quality of life for the citizens, ***including prevention of energy poverty***, safe mobility, urban social innovation, cities' circular and regenerative capacity, reduced environmental footprint and pollution;

Or. en

## *Justification*

*Energy poverty is a major challenge for a fair and social Europe. With the major transitions in our energy systems and society, we need to understand the impact of new and changing energy costs on the lives of our citizens.*

### **Amendment 157**

#### **Proposal for a decision**

#### **Annex I – part II – point 4 – point 4.2 – point 4.2.7 – paragraph 2 – indent 1**

##### *Text proposed by the Commission*

– Electrification of all transport modes (e.g. batteries, fuel cells, hybridisation, etc.) including new technologies for vehicle/vessel/aircraft powertrains, fast charging/refuelling, energy harvesting and user-friendly and accessible interfaces with the charging infrastructure, ensuring interoperability and seamless services provision; development and deployment of competitive, safe, high-performing and sustainable batteries for low and zero-emission vehicles;

##### *Amendment*

– Electrification of all transport modes (e.g. batteries, fuel cells, hybridisation, etc.) including new technologies for vehicle/vessel/aircraft powertrains, fast charging/refuelling, energy harvesting and user-friendly and accessible interfaces with the **fuelling and** charging infrastructure, ensuring interoperability and seamless services provision; development and deployment of competitive, safe, high-performing and sustainable batteries for low and zero-emission vehicles;

Or. en

### **Amendment 158**

#### **Proposal for a decision**

#### **Annex I – part II – point 4 – point 4.2 – point 4.2.7 – paragraph 2 – indent 2**

##### *Text proposed by the Commission*

– Sustainable new fuels and new smart vehicles/vessels/aircraft for existing and future mobility patterns and supporting infrastructure; technologies and user-based solutions for interoperability and seamless services provision;

##### *Amendment*

– Sustainable new fuels, **like green hydrogen** and new smart vehicles/vessels/aircraft for existing and future mobility patterns and supporting infrastructure; technologies and user-based solutions for interoperability and seamless services provision;

Or. en



*Justification*

*This is going to play such a central role in our new arsenal of fuels that it should be mentioned explicitly to ensure it is a substantial part of the efforts.*

**Amendment 159**

**Proposal for a decision**

**Annex I – part II – point 4 – point 4.2 – point 4.2.8 – paragraph 2 – indent 1**

*Text proposed by the Commission*

– Digital network-and traffic management: advanced decision support systems; next generation traffic management (including multi-modal network and traffic management); contributing to seamless, multimodal and interconnected mobility for passengers and freight; use and limitations of big data; use of innovative satellite positioning/navigation (EGNOS/Galileo);

*Amendment*

– Digital network-and traffic management: advanced decision support systems; next generation traffic management (including multi-modal network and traffic management); contributing to seamless, multimodal and interconnected mobility for passengers and freight; use and limitations of big data; use of innovative satellite positioning/navigation (EGNOS/Galileo) ***understanding new behaviour related to changing mobility;***

Or. en

*Justification*

*The management of our mobility systems only works when we can predict how they will be used. Therefore it is essential that we have sufficient understanding of the changes in behavior triggered by changing mobility systems.*

**Amendment 160**

**Proposal for a decision**

**Annex I – part II – point 4 – point 4.2 – point 4.2.8 – paragraph 2 – indent 4 a (new)**

*Text proposed by the Commission*

*Amendment*

- ***New or improved services and business models through which the user interacts with the different smart modalities.***

Or. en

### *Justification*

*The focus of this Area of Intervention is almost exclusively on the technological side of the transition, but in the end it is about the citizens using the technology and our economies making money of them by creating new markets.*

#### **Amendment 161**

##### **Proposal for a decision**

##### **Annex I – part II – point 4 – point 4.2 – point 4.2.9 – paragraph 1**

###### *Text proposed by the Commission*

Massive, concentrated and decentralised storage solutions (comprising chemical, electrochemical, electrical, mechanical and thermal) for the energy system will increase efficiency, flexibility, technology independence and accessibility as well as the security of supply. Low-emission, decarbonised transport will require a growing share of electrical and/or other alternatively fuelled vehicles, with better-performing and cheaper, recyclable and reusable batteries, as well as local provision of ***synthetic/renewable*** fuels such as hydrogen and innovative solutions for on-site storage.

###### *Amendment*

Massive, concentrated and decentralised storage solutions (comprising chemical, electrochemical, electrical, mechanical and thermal) for the energy system will increase efficiency, flexibility, technology independence and accessibility as well as the security of supply. Low-emission, decarbonised transport will require a growing share of electrical, ***hydrogen*** and/or other alternatively fuelled vehicles, with better-performing and cheaper, recyclable and reusable batteries, as well as local provision of ***low carbon*** fuels such as hydrogen and innovative solutions for on-site storage. ***The suite of solutions needs to address the full time-scale of intermittency, from milliseconds to months.***

Or. en

### *Justification*

*Fuel cell vehicles are electric vehicles using hydrogen as fuel to produce electricity on board. Furthermore, hydrogen is not limited to fuel cell technologies but as a feedstock for energy-intensive industries. Fuel cells are also an efficient energy converter technology that can use hydrogen and/or natural gas as fuel. Hydrogen and fuel cells are complementary technologies but not exclusively linked to each other.*

#### **Amendment 162**

##### **Proposal for a decision**

##### **Annex I – part II – point 4 – point 4.2 – point 4.2.9 – paragraph 2 – indent 1**

*Text proposed by the Commission*

- Technologies including liquid and gaseous **renewable** fuels and their associated value chains, for daily to seasonal energy storage needs;

*Amendment*

- Technologies including liquid and gaseous **low carbon**, fuels and their associated value chains, for daily to seasonal energy storage needs;

Or. en

### **Amendment 163**

#### **Proposal for a decision**

#### **Annex I – part II – point 4 – point 4.2 – point 4.2.9 – paragraph 2 – indent 3**

*Text proposed by the Commission*

- Low zero-carbon hydrogen **including** fuel cells, and the EU value chain from design to end use across various applications.

*Amendment*

- Low **or** zero-carbon hydrogen, **electrolyzes**, fuel cells, and the EU value chain from design to end use across various applications. **Hydrogen plays a crucial role for the decarbonisation of industries such as steel and chemicals;**

Or. en

### **Amendment 164**

#### **Proposal for a decision**

#### **Annex I – part II – point 5 – point 5.1 – paragraph 1**

*Text proposed by the Commission*

Human activities are exerting increasing pressure on soils, seas and oceans, water, air, biodiversity and other natural resources. Nourishing the planet's growing population is directly dependent on the health of natural systems and resources. However, combined with climate change, humanity's growing demand for natural resources creates environmental pressures that go far beyond sustainable levels, affecting ecosystems and their capacity to provide services for human well-being.

*Amendment*

Human activities are exerting increasing pressure on soils, seas and oceans, water, air, biodiversity and other natural resources. Nourishing the planet's growing population is directly dependent on the health of natural systems and resources. However, combined with climate change, humanity's growing demand for natural resources creates environmental pressures that go far beyond sustainable levels, affecting ecosystems and their capacity to provide services for human well-being.

The concepts of the circular economy, the bioeconomy and the blue economy provide an opportunity to balance environmental, social and economic goals and to set human activities on a path to sustainability.

The concepts of the circular economy, **agroecology**, the bioeconomy and the blue economy provide an opportunity to balance environmental, social and economic goals and to set human activities on a path to sustainability.

Or. en

## Amendment 165

### Proposal for a decision

#### Annex I – part II – point 5 – point 5.1 – paragraph 2

##### *Text proposed by the Commission*

Meeting the goals of sustainable development, guaranteeing the production and consumption of safe and healthy food, promoting sustainable practices in agriculture, aquaculture, fisheries and forestry, ensuring access to clean water, soil and air for all, cleaning up the seas and oceans, preserving and restoring the planet's vital natural systems and environment requires that we harness the potential of research and innovation. But the pathways for the transition to sustainability and ways to **overconme** resilient barriers are hardly understood. Making the transition to sustainable consumption and production and restoring planetary health requires investing in technologies, new business models, and social and environmental innovation. This creates new opportunities for a sustainable, resilient, innovative and responsible European economy, boosting resource efficiency, productivity and competitiveness, and generating jobs and growth.

##### *Amendment*

Meeting the goals of sustainable development, guaranteeing the production and consumption of safe and healthy food, promoting sustainable practices in agriculture, aquaculture, fisheries and forestry, ensuring access to clean water, soil and air for all, cleaning up the seas and oceans, preserving and restoring the planet's vital natural systems and environment requires that we harness the potential of research and innovation. But the pathways for the transition to sustainability and ways to **overcome** resilient barriers are hardly understood. Making the transition to sustainable consumption and production and restoring planetary health requires investing in technologies, new business models, and social and environmental innovation. This creates new opportunities for a sustainable, resilient, innovative and responsible European economy, boosting resource efficiency, productivity and competitiveness, and generating jobs and growth.

Or. en

## Amendment 166

### Proposal for a decision

#### Annex I – part II – point 5 – point 5.1 – paragraph 3

##### *Text proposed by the Commission*

Activities will build a knowledge base and deliver solutions to: sustainably manage and use natural resources from land and sea - and enhance the role of terrestrial and aquatic systems as carbon sinks; ensure food and nutrition security, providing safe, healthy and nutritious diets; accelerate the transition from a fossil-based linear economy to a resource efficient, resilient, low emission, low-carbon circular economy, and supporting the development of a sustainable bio-based economy and the blue economy; and develop resilient and vibrant rural, coastal and urban areas.

##### *Amendment*

Activities will build a knowledge base and deliver solutions to: sustainably manage and use natural resources from land and sea - and enhance the role of terrestrial and aquatic systems as carbon sinks; ensure food and nutrition security, providing safe, healthy and nutritious diets; accelerate the transition ***of Union food and farming towards ecological intensification and agro-ecological approaches to benefit both conventional and organic agriculture; accelerate the transition*** from a fossil-based linear economy to a resource efficient, resilient, low emission, low-carbon circular economy, and supporting the development of a sustainable bio-based economy and the blue economy; and develop resilient and vibrant rural, coastal and urban areas.

Or. en

## Amendment 167

### Proposal for a decision

#### Annex I – part II – point 5 – point 5.1 – paragraph 7

##### *Text proposed by the Commission*

Research and innovation activities under this Cluster contribute in particular to the implementation of the goals of: the Environmental Action Programme, the Common Agricultural Policy, the Common Fisheries policy, the Food Law legislation, the Maritime policy, the Circular Economy Action Plan, the EU Bioeconomy Strategy, and the 2030 climate and energy framework as well as EU legal provisions to reduce air pollution.

##### *Amendment*

Research and innovation activities under this Cluster contribute in particular to the implementation of the goals of: the Environmental Action Programme, the Common Agricultural Policy, the Common Fisheries policy, the Food Law legislation, the Maritime policy, the Circular Economy Action Plan, the EU Bioeconomy Strategy, and the 2030 climate and energy framework as well as EU legal provisions to reduce air pollution. ***Actions will be***

*strongly linked to existing Union partnerships, in particular PRIMA.*

Or. en

## **Amendment 168**

### **Proposal for a decision**

**Annex I – part II – point 5 – point 5.2 – point 5.2.1 – paragraph 2 – indent 2**

*Text proposed by the Commission*

– Extension of the Copernicus product and service portfolio;

*Amendment*

– Extension of the Copernicus product and service portfolio ***in particular services on the attribution of air pollution;***

Or. en

### *Justification*

*Due to the electrification and digitalisation of different sectors of our economy, the sources of air pollution will shift dramatically in the coming decade. Without good services that provide constant updates, policy makers will try to tackle the problem based on old knowledge.*

## **Amendment 169**

### **Proposal for a decision**

**Annex I – part II – point 5 – point 5.2 – point 5.2.3 – paragraph 2 – indent 2 a (new)**

*Text proposed by the Commission*

*Amendment*

- ***Transition towards integrated and diversified food and farming systems and agronomic practices, including the use of precision technologies, agroecological and ecological intensification approaches to benefit both conventional and organic agriculture;***

Or. en

## Amendment 170

### Proposal for a decision

#### Annex I – part II – point 5 – point 5.2 – point 5.2.3 – paragraph 2 – indent 4

##### *Text proposed by the Commission*

– Plant pests and diseases and animal health and welfare; alternatives to the use of contentious pesticides, antibiotics and other substances;

##### *Amendment*

– Plant pests and diseases and animal health and welfare; alternatives to the use of contentious pesticides, antibiotics and other substances ***development of organic farming strategies to plant and animal health care;***

Or. en

## Amendment 171

### Proposal for a decision

#### Annex I – part II – point 5 – point 5.2 – point 5.2.6 – paragraph 1

##### *Text proposed by the Commission*

Bio-based innovation lays the foundations for the transition away from a fossil-based economy by encompassing the sustainable sourcing, industrial processing and conversion of biomass from land and sea into bio-based materials and products. It also capitalises on the potential of living resources, life sciences and industrial biotechnology for new discoveries, products and processes. Bio-based innovation, including technologies, can bring new economic activities and employment to regions and cities, contribute to revitalising rural and coastal economies and strengthen the circularity of the bioeconomy.

##### *Amendment*

Bio-based innovation lays the foundations for the transition away from a fossil-based economy by encompassing the sustainable sourcing, industrial processing and conversion of biomass from land and sea into bio-based materials and products. It also capitalises on the potential of living resources, life sciences and industrial biotechnology for new discoveries, products and processes. Bio-based innovation, including technologies, can bring new economic activities and employment to regions and cities, contribute to revitalising rural and coastal economies and strengthen the circularity of the bioeconomy. ***Bio-based innovation systems require collaboration across the sectors and the value chain.***

Or. en

## Amendment 172

### Proposal for a decision

#### Annex I – part II – point 5 – point 5.2 – point 5.2.6 – paragraph 2 – indent 3

##### *Text proposed by the Commission*

- Bio-based value chains, materials, including bio-inspired materials, products and processes with novel qualities, functionalities and improved sustainability (including reducing greenhouse gases emissions), fostering the development of advanced biorefineries using a wider range of biomass;

##### *Amendment*

- Bio-based value chains, materials, including bio-inspired materials, products and processes with novel qualities, functionalities and improved sustainability (including reducing greenhouse gases emissions), fostering the development of advanced biorefineries using a wider range of biomass ***including bio-waste as well as industrial waste and side-streams***;

Or. en

##### *Justification*

*Biomass may be perceived as only referring to material from plants and animals. Advanced biorefineries will be able to go beyond, in particular as regards the use of bio-waste as well as industrial waste and side-streams.*

## Amendment 173

### Proposal for a decision

#### Annex I – part II – point 5 – point 5.2 – point 5.2.6 – paragraph 2 – indent 5

##### *Text proposed by the Commission*

- Circularity of the bio-based economy through technological, systemic, social and business model innovation to ***radically*** increase the value generated per unit of biological resources, keeping the value of such resources in the economy for longer and supporting the principle of the cascading use of sustainable biomass through research and innovation;

##### *Amendment*

- Circularity of the bio-based economy through technological, systemic, social and business model innovation to increase the value generated per unit of biological resources, keeping the value of such resources in the economy for longer and supporting the principle of the cascading use of sustainable biomass through research and innovation;

Or. en

##### *Justification*

*The word “radically” is not defined.*



## Amendment 174

### Proposal for a decision

Annex I – part II – point 5 – point 5.2 – point 5.2.6 – paragraph 2 – indent 7 a (new)

*Text proposed by the Commission*

*Amendment*

- ***Increased understanding of the drivers and barriers for an up-take of bio-based products through research on CE-marking, labelling, application of standards, certification schemes, public procurement and regulatory activities, including from a global competition perspective.***

Or. en

### *Justification*

*It will be important for the bio-based sector to have a scientific basis for drivers and barriers to unlock the full potential of this emerging sector, in particular with regards to EU regulation and legislation*

## Amendment 175

### Proposal for a decision

Annex I – part II – point 6 – point 6.2 – point 6.2.2 – paragraph 2 – point 4 – indent 7

*Text proposed by the Commission*

*Amendment*

- Analysis of the EU's energy security of supply, including energy infrastructure, and energy markets;

- Analysis of the EU's energy security of supply, including energy infrastructure, and energy markets ***and taking into account the urgency of rapid decarbonisation of the energy systems;***

Or. en

## Amendment 176

### Proposal for a decision

Annex I – part II – point 6 – point 6.2 – point 6.2.2 – paragraph 2 – point 4 – indent 13

*Text proposed by the Commission*

- Analyses of **alternative** fuels and related infrastructure needs.

*Amendment*

- Analyses of **low carbon** fuels and related infrastructure needs.

Or. en

**Amendment 177**

**Proposal for a decision**

**Annex I – part II – point 6 – point 6.2 – point 6.2.2 – paragraph 2 – point 4 – indent 13 a (new)**

*Text proposed by the Commission*

*Amendment*

- ***Analyses of how the Union could undergo a rapid large-scale cost-efficient decarbonisation, using also the existing infrastructure.***

Or. en

**Amendment 178**

**Proposal for a decision**

**Annex I – part II – point 6 – point 6.2 – point 6.2.2 – paragraph 2 – point 5 – indent 6**

*Text proposed by the Commission*

*Amendment*

- Validated methods, laboratory proficiency tests and new analytical tools for implementing food safety policies;

- Validated methods, laboratory proficiency tests and new analytical tools for implementing food safety ***and traceability*** policies; ***detection methods for new plant breeding techniques;***

Or. en

**Amendment 179**

**Proposal for a decision**

**Annex I – part II – point 6 – point 6.2 – point 6.2.2 – paragraph 2 – point 5 – indent 6 a (new)**

*Text proposed by the Commission*

*Amendment*

- ***Methods for assessment of naturally occurring substances as plant health care products;***

Or. en

## **Amendment 180**

### **Proposal for a decision Annex I – part III – title**

*Text proposed by the Commission*

*Amendment*

III

III ***Innovative Europe***

Or. en

## **Amendment 181**

### **Proposal for a decision Annex I – part III – paragraph 7 – indent 1 a (new)**

*Text proposed by the Commission*

*Amendment*

- ***Increase the collaboration between all types of innovators, in particular between start-ups, SMEs and larger companies, creating new ecosystems.***

Or. en

*Justification*

*The "collaborative" aspect of innovation needs to be strengthened.*

## **Amendment 182**

### **Proposal for a decision Annex I – part III – paragraph 9**

*Text proposed by the Commission*

Horizon Europe's **Open Innovation** pillar, in cooperation with other EU policies and in particular the InvestEU Programme, is designed to deliver such tangible results. It builds on lessons learned and on experience gained under the previous framework programmes, in particular from activities targeting future technologies and innovation (such as Future Emerging Technologies (FET) and Fast Track to Innovation (FTI)), SMEs (such as the SME Instrument), but also private and corporate finance (such as FP7 RSFF, Horizon 2020 InnovFin), all part of the 'EIC pilot' activities launched for the period 2018-2020.

*Amendment*

Horizon Europe's **Innovative Europe** pillar, in cooperation with other EU policies and in particular the InvestEU Programme, is designed to deliver such tangible results. It builds on lessons learned and on experience gained under the previous framework programmes, in particular from activities targeting future technologies and innovation (such as Future Emerging Technologies (FET) and Fast Track to Innovation (FTI)), SMEs (such as the SME Instrument), but also private and corporate finance (such as FP7 RSFF, Horizon 2020 InnovFin), all part of the 'EIC pilot' activities launched for the period 2018-2020.

Or. en

**Amendment 183**

**Proposal for a decision**

**Annex I – part III – paragraph 10 – introductory part**

*Text proposed by the Commission*

Based on these experiences, this Pillar provides for the launch of the European Innovation Council (EIC), which will promote breakthrough innovation with rapid scale-up potential at global level and with dedicated types of actions and activities:

*Amendment*

Based on these experiences, this Pillar provides for the launch of the European Innovation Council (EIC), which will promote breakthrough **research and** innovation with rapid scale-up potential at global level and with dedicated types of actions and activities:

Or. en

**Amendment 184**

**Proposal for a decision**

**Annex I – part III – paragraph 10 – indent 1**

*Text proposed by the Commission*

– Supporting the development of future and emerging breakthrough innovations;

*Amendment*

– Supporting the development of future and emerging breakthrough innovations, ***including through targeted collaborative research***;

Or. en

**Amendment 185**

**Proposal for a decision**

**Annex I – part III – paragraph 10 – indent 2 a (new)**

*Text proposed by the Commission*

*Amendment*

- ***Promoting the spreading and uptake of innovation in industrial and other economic value chains***;

Or. en

**Amendment 186**

**Proposal for a decision**

**Annex I – part III – paragraph 10 – indent 2 b (new)**

*Text proposed by the Commission*

*Amendment*

- ***Creating synergies with the activities in other parts of the Programme.***

Or. en

**Amendment 187**

**Proposal for a decision**

**Annex I – part III – paragraph 11 – indent 2**

*Text proposed by the Commission*

*Amendment*

– Support to the European Institute of Innovation and Technology (EIT) and

– ***Enhanced*** support to the European Institute of Innovation and Technology

Knowledge and Innovation Communities (KICs).

(EIT) and Knowledge and Innovation Communities (KICs) - *the now well-established one-stop shop for innovation in Europe.*

Or. en

*Justification*

*This drafting suggestion reflects the proposed amendments being made to this text.*

**Amendment 188**

**Proposal for a decision  
Annex I – part III – paragraph 11 a (new)**

*Text proposed by the Commission*

*Amendment*

*The EIT is Europe’s largest integrated innovation ecosystem, with over 1,000 excellent partners from business, research and education and beyond. The EIT’s innovation model works and remains particularly relevant in removing barriers to innovation at Member State and regional level.*

Or. en

*Justification*

*Description of the EIT’s role is missing*

**Amendment 189**

**Proposal for a decision  
Annex I – part III – point 1 – point 1.1 – paragraph 2**

*Text proposed by the Commission*

*Amendment*

The EIC will be implemented primarily through two complementary types of action, namely the Pathfinder for advanced research, for the early stages of technology development, and the Accelerator for innovation and market deployment actions,

The EIC will be implemented primarily through two complementary types of action, namely the **EIC** Pathfinder for advanced research, for the early stages of technology development, and the **EIC** Accelerator for innovation and market

including the pre-mass commercialisation stages and company growth. With the idea to **offer** a single one-stop shop and a single process of support, the Accelerator will also award blended finance, combining grants with equity investments. It will in addition also channel access to loans provided under the InvestEU programme.

deployment actions, including the pre-mass commercialisation stages and company growth. With the idea to **complement the EIT in offering** a single one-stop shop and a single process of support, the Accelerator will also award blended finance, combining grants with equity investments. It will in addition also channel access to loans provided under the InvestEU programme.

Or. en

#### *Justification*

*The EIT is already a well-established one-stop shop for innovation in Europe. To deliver on expected innovation impact for citizen, all Horizon Europe instruments must interlock and not block. Current duplications between the EIT and EIC need to be settled.*

### **Amendment 190**

#### **Proposal for a decision**

#### **Annex I – part III – point 1 – point 1.1 – paragraph 3 – indent 1**

##### *Text proposed by the Commission*

– Focus on breakthrough and disruptive innovations, including social, that have the potential to create new markets, as opposed to those which make incremental improvements in existing products, services or business models;

##### *Amendment*

– Focus on **research on radically new future technologies, and** breakthrough and disruptive innovations, including social, that have the potential to create new markets **or enable new solutions**, as opposed to those which make incremental improvements in existing products, services or business models;

Or. en

#### *Justification*

*The European Innovation Council must encourage the development of research on radically new future technologies which will create innovation. also indirect innovations with high potential should be included in the scope, not just those with visible market potential.*

## Amendment 191

### Proposal for a decision

#### Annex I – part III – point 1 – point 1.1 – paragraph 3 – indent 2

##### *Text proposed by the Commission*

- Be mainly bottom-up, open to innovations from all fields of science, technology and applications in any sector, while also enabling targeted support for emerging breakthrough or disruptive technologies of potential strategic significance;

##### *Amendment*

- Be mainly bottom-up, open to **targeted scientific research and** innovations from all fields of science, technology and applications in any sector, **from all types of organisations**, while also enabling targeted support for emerging breakthrough or disruptive technologies of potential strategic significance;

Or. en

## Amendment 192

### Proposal for a decision

#### Annex I – part III – point 1 – point 1.1 – paragraph 3 – indent 3

##### *Text proposed by the Commission*

- Innovations that cut across different scientific, technological (e.g. combining physical and digital) fields and sectors will be encouraged;

##### *Amendment*

- **Research and** innovation that cut across different scientific, technological (e.g. combining physical and digital) fields and sectors will be encouraged;

Or. en

## Amendment 193

### Proposal for a decision

#### Annex I – part III – point 1 – point 1.1 – paragraph 3 – indent 4

##### *Text proposed by the Commission*

- They will be centred on innovators, simplifying procedures and administrative requirements, making use of interviews to help assess applications, and ensuring fast decision making;

##### *Amendment*

- They will be centred on **research and** innovators, simplifying procedures and administrative requirements, making use of interviews to help assess applications, and ensuring fast decision making;



*Justification*

*Researchers must be included in the text. The Pathfinder instrument will build on the FET scheme and be open to research organisations and collaborative projects aiming to develop cutting-edge research and radically new technologies with promising marketing opportunities.*

**Amendment 194****Proposal for a decision****Annex I – part III – point 1 – point 1.1 – paragraph 5***Text proposed by the Commission*

Particular attention will be paid to ensuring proper and efficient complementarity with individual or networked Member States initiatives, including in the form of European Partnership.

*Amendment*

***In addition***, particular attention will be paid to ensuring proper and efficient complementarity with individual or networked Member States initiatives, including in the form of European Partnership.

Or. en

**Amendment 195****Proposal for a decision****Annex I – part III – point 1 – point 1.1 – point 1.1.1 – introductory part***Text proposed by the Commission*

1.1.1. The Pathfinder for Advanced Research

*Amendment*

1.1.1. The ***EIC*** Pathfinder for Advanced Research

Or. en

**Amendment 196****Proposal for a decision****Annex I – part III – point 1 – point 1.1 – point 1.1.1 – paragraph 2**

*Text proposed by the Commission*

The Pathfinder overall objective will be to nurture potential market creating innovation out of breakthrough technological ideas, and bring them to demonstration stage or development of business cases or strategies for further take-up by the Accelerator or any other market deployment solution. To that end, the Pathfinder will initially support the earliest stages of scientific and technological research and development, including proof of concept and prototypes for technology validation.

*Amendment*

The Pathfinder overall objective will be to **support research on radically new future technologies**, nurture potential market creating innovation out of breakthrough **scientific and** technological ideas, and bring them to demonstration stage or development of business cases or strategies for further take-up by the Accelerator or any other market deployment solution. To that end, the Pathfinder will initially support the earliest stages of scientific and technological research and development, including **cutting-edge research** proof of concept and prototypes for technology validation.

Or. en

**Amendment 197**

**Proposal for a decision**

**Annex I – part III – point 1 – point 1.1 – point 1.1.1 – paragraph 4**

*Text proposed by the Commission*

These portfolios of selected projects<sup>25</sup> will be further developed and enhanced, each along a vision developed with their innovators, but also shared with the research and innovation community at large. The Pathfinder's Transition activities will be implemented to help innovators develop the pathway to commercial development, such as demonstration activities and feasibility studies to assess potential business cases, and support the creation of spin offs and startups. These Pathfinder's Transition activities may also consist of complementary grants to top-up or enlarge the scope of previous and on-going actions, to bring in new partners, to enable collaboration within the portfolio and to develop its multidisciplinary community.

*Amendment*

These portfolios of selected projects<sup>25</sup> will be further developed and enhanced, each along a vision developed with their innovators, but also shared with the research and innovation community at large. The Pathfinder's Transition activities will be implemented to help **high-risk** innovators develop the pathway to commercial development, such as demonstration activities and feasibility studies to assess potential business cases, and support the creation of spin offs and startups. These Pathfinder's Transition activities may also consist of complementary grants to top-up or enlarge the scope of previous and on-going actions, to bring in new partners, to enable collaboration within the portfolio and to develop its multidisciplinary community.

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<sup>25</sup> These may also include projects selected under Horizon 2020 programmes such as FET. These may also include other EU supported relevant activities and funded Seal of Excellence stemming from Pathfinder calls.

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<sup>25</sup> These may also include projects selected under Horizon 2020 programmes such as FET. These may also include other EU supported relevant activities and funded Seal of Excellence stemming from Pathfinder calls.

Or. en

## Amendment 198

### Proposal for a decision

#### Annex I – part III – point 1 – point 1.1 – point 1.1.1 – paragraph 5

##### *Text proposed by the Commission*

The Pathfinder will be open to all types of innovators, from individuals to universities, research organisations and companies, in particular startups and SMEs, and from single beneficiaries to multi-disciplinary consortia. In the case of single beneficiary projects, larger companies will not be permitted. The Pathfinder will be implemented in close coordination with other parts of Horizon Europe, in particular with the European Research Council (ERC), the Marie Skłodowska-Curie Actions (MSCA), and the **Knowledge and Innovation Communities (KICs) of the** European Institute of Innovation and Technology (EIT) activities. It will also be implemented in close coordination with Member States programmes and activities.

##### *Amendment*

The Pathfinder will be open to all types of **high-potential** innovators, from individuals to universities, research **and technology** organisations and companies, in particular startups and SMEs, and from single beneficiaries to multi-disciplinary consortia. In the case of single beneficiary projects, larger companies will not be permitted. **In order to ensure synergies and avoid duplications**, the Pathfinder will be implemented in close coordination with other parts of Horizon Europe, in particular with the European Research Council (ERC), the Marie Skłodowska-Curie Actions (MSCA), and the European Institute of Innovation and Technology (EIT) activities. **Special attention should be given to scaling up start-ups generated by Horizon Europe.** It will also be implemented in close coordination with Member States programmes and activities.

Or. en

## Amendment 199

### Proposal for a decision

#### Annex I – part III – point 1 – point 1.1 – point 1.1.2 – introductory part

*Text proposed by the Commission*

*Amendment*

1.1.2. The Accelerator

1.1.2. The **EIC** Accelerator

Or. en

## **Amendment 200**

### **Proposal for a decision**

#### **Annex I – part III – point 1 – point 1.1 – point 1.1.2 – paragraph 2**

*Text proposed by the Commission*

*Amendment*

Consequently the Accelerator will provide financial support to not yet 'bankable' or investors-attractive innovators and companies that have the ambition to develop and deploy in EU and international markets their breakthrough innovations and to scale up rapidly. For that purpose it will build on the experience from the Phases 2 and 3 of Horizon 2020 SME Instrument and from Horizon 2020 InnovFin, in particular through the addition of non-grant components and the ability to support larger and longer investments.

Consequently the Accelerator will, **in full complement with the EIT's support for start-ups and scale-ups**, provide financial support to not yet 'bankable' or investors-attractive innovators and companies that have the ambition to develop and deploy in EU and international markets their breakthrough innovations and to scale up rapidly. For that purpose it will build on the experience from the Phases 2 and 3 of Horizon 2020 SME Instrument and from Horizon 2020 InnovFin, in particular through the addition of non-grant components and the ability to support larger and longer investments.

Or. en

## **Amendment 201**

### **Proposal for a decision**

#### **Annex I – part III – point 1 – point 1.1 – point 1.1.2 – paragraph 7**

*Text proposed by the Commission*

*Amendment*

The Accelerator will mainly operate through a continuously open and bottom-up call, targeting individual entrepreneurs (mainly start-ups and SMEs), with a particular attention paid to young and to women innovators. This open and bottom-

The Accelerator will mainly operate through a continuously open and bottom-up call, targeting individual entrepreneurs (mainly start-ups and SMEs), with a particular attention paid to young and to women innovators. This open and bottom-

up call will be complemented by targeted support for on emerging breakthrough or disruptive technologies of potential strategic significance. Proposals may also be submitted by investors, including public innovation agencies, but the support will be awarded to the company.

up call will be complemented by targeted support for on emerging breakthrough or disruptive technologies of potential strategic significance. Proposals may also be submitted by investors, including public innovation agencies, but the support will be awarded to the company. ***Full complementarity with the activities of the EIT Accelerator programmes will be ensured.***

Or. en

## Amendment 202

### Proposal for a decision

#### Annex I – part III – point 1 – point 1.1 – point 1.1.2 – paragraph 8

##### *Text proposed by the Commission*

The Accelerator will allow for fast-track take-up of innovations stemming from Pathfinder-supported projects from the Pathfinder, from similar Member States 'advanced research programmes' ***and*** from other pillars of the EU Framework Programmes<sup>28</sup>, in order to support them to reach the market. This identification of projects supported in other pillars of Horizon Europe and also previous Framework Programmes will be based on pertinent methodologies, such as the Innovation Radar.

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<sup>28</sup> Such as ERC Proof of Concept, from projects supported under the 'Global Challenges and Industrial Competitiveness' Pillar, ***startups emerging from the KICs of the European Institute of Innovation and Technology, ...*** Including from Horizon 2020 activities, particularly project selected under Horizon 2020 SME Phase 2 and related Seal of Excellence financed by Member States, (existing and future) European Partnerships.

##### *Amendment*

The Accelerator will allow for fast-track take-up of innovations stemming from Pathfinder-supported projects from the Pathfinder, from similar Member States 'advanced research programmes' from ***the EIT and*** other pillars of the EU Framework Programmes<sup>28</sup>, in order to support them to reach the market. This identification of projects supported in other pillars of Horizon Europe and also previous Framework Programmes will be based on pertinent methodologies, such as the Innovation Radar.

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<sup>28</sup> Such as ERC Proof of Concept, from projects supported under the 'Global Challenges and Industrial Competitiveness' Pillar, Including from Horizon 2020 activities, particularly project selected under Horizon 2020 SME Phase 2 and related Seal of Excellence financed by Member States, (existing and future) European Partnerships.

**Amendment 203****Proposal for a decision****Annex I – part III – point 1 – point 1.1 – point 1.1.3 – paragraph 1 – indent 1***Text proposed by the Commission*

– EIC business acceleration services in support of Pathfinder and Accelerator activities and actions. The aim will be to connect the EIC Community of funded innovators, including funded Seal of Excellence, to investors, partners and public buyers. It will provide a range of coaching and mentoring services to EIC actions. It will provide innovators with access to international networks of potential partners, including industrial ones, to complement a value chain or develop market opportunities, and find investors and other sources of private or corporate finance. Activities will include live events (e.g. brokerage events, pitching sessions) but also, the development of matching platforms or use of existing ones, in close relation with financial intermediaries supported by the InvestEU and with the EIB Group. These activities will also encourage peer exchanges as a source of learning in innovation ecosystem, making particular good use of Members of the High Level Advisory board of the EIC and EIC Fellows;

*Amendment*

– EIC business acceleration services in support of Pathfinder and Accelerator activities and actions. The aim will be to connect the EIC Community of funded innovators, including funded Seal of Excellence, to investors, partners and public buyers. It will provide a range of coaching and mentoring services to EIC actions. It will provide innovators with access to international networks of potential partners, including industrial ones, to complement a value chain or develop market opportunities, and find investors and other sources of private or corporate finance. Activities will include live events (e.g. brokerage events, pitching sessions) but also, the development of matching platforms or use of existing ones, in close relation with financial intermediaries supported by the InvestEU and with the EIB Group. These activities will also encourage peer exchanges as a source of learning in innovation ecosystem, making particular good use of Members of the High Level Advisory board of the EIC and EIC Fellows; ***Those additional EIC activities focused on breakthrough/high-risk innovations will complement the similar portfolio of the EIT activities targeting entrepreneurs, innovators and start-ups.***

Or. en

*Justification*

*To deliver on expected innovation impact for the citizen, instruments must interlock and*

*potential synergies maximised in spirit of best value for European taxpayer money.*

## **Amendment 204**

### **Proposal for a decision**

#### **Annex I – part III – point 1 – point 1.1 – point 1.1.3 – paragraph 1 – indent 3**

##### *Text proposed by the Commission*

– EIC Challenges, i.e. inducement prizes, to help develop ***novel solutions to global challenges***, bring in new actors and develop new communities. EIC recognition prizes will include iCapital, the Social Innovation Inducement Prize, and the Women Innovators' Prize.<sup>29</sup> The design ***of its prizes will be linked to EIC to*** other parts of the ***Framework*** programme, including missions and ***other funding bodies***. Opportunities for cooperation with organisations (such as enterprises, universities, research organisations, business accelerators, charities and foundations) will be explored.

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<sup>29</sup> The EIC prizes will take over the management of prizes launched under Horizon 2020 and provide for the design and implementation of new inducement prizes and recognition awards.

##### *Amendment*

– EIC Challenges, i.e. inducement prizes, to help develop ***new breakthrough innovations***, bring in new actors and develop new communities. EIC recognition prizes will include iCapital, the Social Innovation Inducement Prize, and the Women Innovators' Prize.<sup>29</sup> The design ***and implementation of these prizes will linked with*** other parts of the programme, including missions and ***the EIT to ensure complementarity and avoid duplications***. Opportunities for cooperation with organisations (such as enterprises, universities, research organisations, business accelerators, charities and foundations) will be explored.

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<sup>29</sup> The EIC prizes will take over the management of prizes ***awarded by the Commission*** launched under Horizon 2020 and provide for the design and implementation of new inducement prizes and recognition awards.

Or. en

##### *Justification*

*The EIT Awards is a well-established and prestigious annual practise with similar scope and categories as is being proposed for the EIC Challenges. In this context, the two organisations should ensure that there are no unnecessary overlaps and duplications.*

## **Amendment 205**

### **Proposal for a decision**

#### **Annex I – part III – point 1 – point 1.2 – point 1.2.1 – paragraph 1**

The High Level Advisory Board of the EIC (EIC Board) will assist the Commission in implementing the EIC. ***As well as advising*** on the EIC work programmes, ***the EIC Board will take an active role in advising the*** management and ***following*** up actions. It will have a communication function, with members playing an ambassadorial role helping to stimulate innovation in the EU. Communication channels will include attendance at key innovation events, social media, constitution of an EIC community of innovators, engaging with key media with a focus on innovation, common events with incubators and acceleration hubs.

The High Level Advisory Board of the EIC (EIC Board) will assist the Commission in implementing the EIC. ***It will be composed of academic experts on innovation policy, research and technology organisations, entrepreneurs, venture capitalists, among others.***

***For the implementation of the EIC, the Commission will, with the support of the EIC Board, provide:***

- clear differentiation between the addressed targeted groups and their distinct needs;***
- details on how it will implement the mixed support (grant, equity, loan and guarantee);***
- solid mechanism for systematic and real-time evaluation of the Programme to ensure quick policy learning process and develop iterative innovation patterns, including the selection and implementation of indicators;***
- structural cooperation between EIC and the EIT to ensure complementarity. The EIC will focus on large-scale/high-risk support to promising innovator, complementing the EIT's support for start-ups and scale-ups;***
- definition of the role and responsibilities of the programme managers;***
- definition of the tools to attract risk capital investors in case of highly risky projects;***
- definition of the innovation objectives in***



*terms of product, process, marketing and services;*

*The Board will also advise on the EIC work programmes, management and follow up actions. It will have a communication function, with members playing an ambassadorial role helping to stimulate innovation in the EU. Communication channels will include attendance at key innovation events, social media, constitution of an EIC community of innovators, engaging with key media with a focus on innovation, common events with incubators and acceleration hubs. **The EIT's Governing Board and EIC Board will cooperate closely to exploit synergies and increase added value to innovators and entrepreneurs in the Union.***

Or. en

## Amendment 206

### Proposal for a decision

#### Annex I – part III – point 1 – point 1.2 – point 1.2.1 – paragraph 2

##### *Text proposed by the Commission*

The EIC Board will provide recommendations to the Commission regarding innovation trends or initiatives needed to enhance and foster the EU innovation ecosystem, including potential regulatory barriers. The Board's advice should also identify emerging areas of innovation to be taken into account in the activities under the Global Challenges and Industrial Competitiveness pillar and missions. In this way, the Board is expected to contribute to the overall coherence of the Horizon Europe programme.

##### *Amendment*

The EIC Board, ***in consultation with the EIT Governing Board***, will provide recommendations to the Commission regarding innovation trends or initiatives needed to enhance and foster the EU innovation ecosystem, including potential regulatory barriers. The Board's advice should also identify emerging areas of innovation to be taken into account in the activities under the Global Challenges and Industrial Competitiveness pillar and missions. In this way, the Board is expected to contribute to the overall coherence of the Horizon Europe programme.

Or. en

## Amendment 207

### Proposal for a decision

#### Annex I – part III – point 2 – point 2.1 – paragraph 2

##### *Text proposed by the Commission*

The EU must also aim to develop ecosystems that support social innovation and public sector innovation, in addition to innovation in private enterprises. Indeed, the government sector must innovate and renew itself in order to be able to support the changes in regulation and governance required to support the large-scale deployment of new technologies and a growing public demand for the more efficient and effective delivery of services. Social innovations are crucial to enhance the welfare of our societies.

##### *Amendment*

The EU must also aim to develop ecosystems that support social innovation and public sector innovation, in addition to innovation in private enterprises. Indeed, the government sector must innovate and renew itself in order to be able to support the changes in regulation and governance required to support the large-scale deployment of new technologies and a growing public demand for the more efficient and effective delivery of services. Social innovations are crucial to enhance the welfare of our societies.

***As the Union's largest innovation network, the EIT will play an important role in the implementation of this priority. The EIT connects national and regional innovation ecosystems via its Innovation Communities (KICs). They make the case for desired interregional cooperation by linking innovation ecosystems on a pan-European scale.***

Or. en

##### *Justification*

*As Europe's largest innovation network, the EIT is best placed to support this priority.*

## Amendment 208

### Proposal for a decision

#### Annex I – part III – point 2 – point 2.2 – paragraph 1 – introductory part

##### *Text proposed by the Commission*

As a first step the Commission will organise an ***EIC*** Forum of Member States

##### *Amendment*

As a first step the Commission will organise an ***Innovation*** Forum of Member

and Associated countries' public authorities and bodies in charge of national innovation policies and programmes, with the aim of promoting coordination and dialogue on the development of the EU's innovation ecosystem. Within this **EIC** Forum, the Commission will:

States and Associated countries' public authorities and bodies in charge of national innovation policies and programmes, with the aim of promoting coordination and dialogue on the development of the EU's innovation ecosystem. Within this **Innovation** Forum, **the involved stakeholders and Union bodies, including the EIT, the EIC Board and** the Commission will:

Or. en

## Amendment 209

### Proposal for a decision

#### Annex I – part III – point 2 – point 2.2 – paragraph 1 – indent 3

##### *Text proposed by the Commission*

– Enhance coordination between national innovation programmes and the EIC, so as to stimulate operational synergies and avoid overlap, by sharing data on programmes and their implementation, resources and expertise, analysis and monitoring of technological and innovation trends, and by interconnecting respective innovators' communities;

##### *Amendment*

– Enhance coordination between national innovation programmes and **the EIT as well as** the EIC, so as to stimulate operational synergies and avoid overlap, by sharing data on programmes and their implementation, resources and expertise, analysis and monitoring of technological and innovation trends, and by interconnecting respective innovators' communities;

Or. en

## Amendment 210

### Proposal for a decision

#### Annex I – part III – point 2 – point 2.2 – paragraph 2

##### *Text proposed by the Commission*

Activities will be implemented to ensure effective complementarity between EIC's types of action and their specific focus on **breakthrough** innovation, with activities implemented by Member States and

##### *Amendment*

Activities will be implemented to ensure effective complementarity between **EIT and** EIC's types of action and their specific focus on innovation, with activities implemented by Member States and

Associated Countries, but also by private initiatives, in order to support all types of innovation, reach out to all innovators across the EU, and provide them with enhanced and adequate support.

Associated Countries, but also by private initiatives, in order to support all types of innovation, reach out to all innovators across the EU, and provide them with enhanced and adequate support.

Or. en

## Amendment 211

### Proposal for a decision

#### Annex I – part III – point 2 – point 2.2 – paragraph 3 – introductory part

*Text proposed by the Commission*

*Amendment*

To that end, the *EU* will:

To that end, the *involved EU bodies* will:

Or. en

## Amendment 212

### Proposal for a decision

#### Annex I – part III – point 2 – point 2.2 – paragraph 3 – indent 1

*Text proposed by the Commission*

*Amendment*

– Promote and co-fund joint innovation programmes managed by authorities in charge of public national, regional or local innovation policies and programmes, to which private entities supporting innovation and innovators *may* be associated. Such demand-driven joint programmes may target, among others, early stage and feasibility study support, *academia-enterprise* cooperation, *support to high-tech SMEs' collaborative* research, *technology and knowledge transfer*, internationalisation of SMEs, market analysis and development, digitalisation of low-tech SMEs, financial instruments for close to market innovations activities or market deployment, social innovation. They may also include joint public procurement initiatives, enabling

– Promote and co-fund joint innovation programmes managed by authorities in charge of public national, regional or local innovation policies and programmes, to which private entities supporting innovation and innovators *should* be associated. Such *supply and* demand-driven joint programmes may target, among others, early stage and feasibility study support, cooperation *between academia*, research *organisations and enterprises*, internationalisation of SMEs, market analysis and development, digitalisation of low-tech SMEs, financial instruments for close to market innovations activities or market deployment, social innovation. They may also include joint public procurement initiatives, enabling innovations to be commercialised in the

innovations to be commercialised in the public sector, in particular in support of the development of new policy. This could be particularly effective to stimulate innovation in public service areas and to provide market opportunities to European innovators.

public sector, in particular in support of the development of new policy. ***When managed at the local level, those programmes should allow transnational partnerships and should be coherent with the smart specialisation strategies of the involved regions.*** This could be particularly effective to stimulate innovation in public service areas and to provide market opportunities to European innovators.

Or. en

### *Justification*

*The “European innovation ecosystems” scheme aims to support local, regional and national innovation ecosystems. In order to ensure consistency, critical mass and complementarity, place-based local innovation ecosystems should be encouraged to cooperate at the European level within the framework of their respective Smart specialisation strategies, opening the way to synergies with ERDF.*

## **Amendment 213**

### **Proposal for a decision**

#### **Annex I – part III – point 3 – point 3.1 – paragraph 4**

##### *Text proposed by the Commission*

The nature and scale of the innovation challenges require liaising and mobilising players and resources at European scale, by fostering cross-border collaboration. There is a need to break down silos between disciplines and along value chains and nurture the establishment of a favorable environment for an effective exchange of knowledge and expertise, and for the development and attraction of entrepreneurial talents.

##### *Amendment*

The nature and scale of the innovation challenges require liaising and mobilising players and resources at European scale, by fostering cross-border collaboration. There is a need to break down silos between disciplines and along value chains and nurture the establishment of a favorable environment for an effective exchange of knowledge and expertise, and for the development and attraction of entrepreneurial talents.

***The EIT will address these challenges in line with its strategic objectives for the period 2021-2027, to be laid down in the legal proposal for the Strategic Innovation Agenda of the EIT.***

Or. en

### *Justification*

*It is necessary to clarify that the objectives of the EIT for the period 2021-2027 will be laid down by its Strategic Innovation Agenda, adopted by the European Parliament and the Council, upon proposal by the Commission. Already four new initiatives have been put forward by the EIT for post 2020 period which should be implemented in the areas of security, cultural and creative industries, migration and water.*

#### **Amendment 214**

##### **Proposal for a decision**

##### **Annex I – part III – point 3 – point 3.2 – point 3.2.1 – paragraph 1**

###### *Text proposed by the Commission*

The EIT will play a reinforced role in strengthening sustainable innovation ecosystems across Europe. In particular, the EIT will continue to operate primarily through its Knowledge and Innovation Communities (KICs), the large-scale European partnerships that address specific societal challenges. It will continue to strengthen innovation ecosystems around them, by fostering the integration of research, innovation and education. Furthermore, EIT will contribute to bridge existing gaps in innovation performance across Europe by expanding its Regional Innovation Scheme (EIT RIS). The EIT will work with innovation ecosystems that exhibit high innovation potential based on strategy, thematic alignment and impact, in close synergy with Smart Specialisation Strategies and Platforms.

###### *Amendment*

The EIT will play a reinforced role in strengthening sustainable innovation ecosystems across Europe ***providing solutions to the most pressing global challenges our societies are facing***. In particular, the EIT will continue to operate primarily through its Knowledge and Innovation Communities (KICs), the large-scale European partnerships that address specific societal challenges. It will continue to strengthen innovation ecosystems around them, by fostering the integration of research, innovation and education. Furthermore, EIT will contribute to bridge existing gaps in innovation performance across Europe by expanding its Regional Innovation Scheme (EIT RIS). The EIT will work with innovation ecosystems that exhibit high innovation potential based on strategy, thematic alignment and impact, in close synergy with Smart Specialisation Strategies and Platforms.

Or. en

### *Justification*

*As text explains, the EIT is key to implementing innovation ecosystems across Europe tackling the biggest changes facing society.*

## Amendment 215

### Proposal for a decision

Annex I – part III – point 3 – point 3.2 – point 3.2.1 – paragraph 2 – indent 1

*Text proposed by the Commission*

*Amendment*

– Reinforcing the effectiveness of the existing KICs and setting up new ones ***in a limited number of thematic areas***;

– Reinforcing the effectiveness of the existing KICs and setting up new ones ***to tackle global challenges***;

Or. en

### *Justification*

*The EIT is focused on tackling the biggest changes facing society. The specific objectives of the EIT for the period 2021-2027, as well as the establishment of new KICs, will be defined by means of the Strategic Innovation Agenda of the EIT adopted by the European Parliament and the Council following a proposal by the Commission taking into account the corresponding impact assessment.*

## Amendment 216

### Proposal for a decision

Annex I – part III – point 3 – point 3.2 – point 3.2.2 – paragraph 2 – indent 4 a (new)

*Text proposed by the Commission*

*Amendment*

- ***EIT awards, i.e. the EIT's well-established recognition prizes, to help develop novel solutions to global challenges.***

Or. en

### *Justification*

*The EIT Awards are a well-established and highly recognised tool which should be maintained and strengthened while avoiding unnecessary duplications with the proposed EIC Challenges.*

## Amendment 217

### Proposal for a decision

Annex I – part III – point 3 – point 3.2 – point 3.2.3 – introductory part

*Text proposed by the Commission*

*Amendment*

3.2.3. New solutions to **the market**

3.2.3. New solutions to **address-global challenges**.

Or. en

*Justification*

*EIT is not about just any solutions but focussed on solutions that tackle societal challenges*

### **Amendment 218**

#### **Proposal for a decision**

**Annex I – part III – point 3 – point 3.2 – point 3.2.3 – paragraph 2 – indent 1**

*Text proposed by the Commission*

*Amendment*

– Support to the development of new products **and** services where Knowledge Triangle actors will collaborate to **make** solutions **market-ready**;

– Support to **turn research into** the development of new products, services **and markets** where Knowledge Triangle actors will collaborate to **bring** solutions **to global challenges**;

Or. en

### **Amendment 219**

#### **Proposal for a decision**

**Annex I – part III – point 3 – point 3.2 – point 3.2.3 – paragraph 2 – indent 2 a (new)**

*Text proposed by the Commission*

*Amendment*

- **Fully integrate the entire innovation value chain: from student to entrepreneur, from idea to product, from lab to customer. This includes support for start-ups and scaling-up businesses.**

Or. en



## Amendment 220

### Proposal for a decision

Annex I – part III – point 3 – point 3.2 – point 3.2.4 – paragraph 2 – indent 2

*Text proposed by the Commission*

*Amendment*

– Planning and implementation of EIT activities in order to maximise synergies and complementarities with the actions under the Global Challenges and Industrial Competitiveness Pillar;

– Planning and implementation of EIT activities in order to maximise synergies and complementarities with the actions under the ***Open Science and*** Global Challenges and ***European*** Industrial Competitiveness Pillar;

Or. en

*Justification*

*The EIT brings research to the market.*

## Amendment 221

### Proposal for a decision

Annex I – part III – point 3 – point 3.2 – point 3.2.4 – paragraph 2 – indent 3 a (new)

*Text proposed by the Commission*

*Amendment*

- ***Share and disseminate innovative practices and learnings and contribute to innovation policy in Europe, where appropriate in conjunction and close cooperation with other parts of Horizon Europe.***

Or. en

## Amendment 222

### Proposal for a decision

Annex I – part 4 – point 1 – introductory part

*Text proposed by the Commission*

*Amendment*

1. ***SHARING*** EXCELLENCE<sup>33</sup>

1. ***SPREADING*** EXCELLENCE<sup>33</sup>

<sup>33</sup> A criterion based on research and innovation excellence will be used to define those Member States and Associated Countries where legal entities need to be established in order to be eligible to submit proposals as coordinators under '**sharing** excellence'. This criterion will address the dimensions of the overall economic performance (GDP), research performance and innovation performance in a combined manner normalised to the size of the related countries. The countries identified with this criterion are called 'eligible countries' in the context of '**sharing** excellence'. On the basis of Article 349 TFEU, legal entities from Outermost Regions will be also fully eligible as coordinators under '**sharing** excellence'.

<sup>33</sup> A criterion based on research and innovation excellence will be used to define those Member States and Associated Countries where legal entities need to be established in order to be eligible to submit proposals as coordinators under '**spreading** excellence'. This criterion will address the dimensions of the overall economic performance (GDP), research performance and innovation performance in a combined manner normalised to the size of the related countries. The countries identified with this criterion are called 'eligible countries' in the context of '**spreading** excellence'. On the basis of Article 349 TFEU, legal entities from Outermost Regions will be also fully eligible as coordinators under '**spreading** excellence'.

Or. en

## Amendment 223

### Proposal for a decision

#### Annex I – part 4 – point 1 – paragraph 1

##### *Text proposed by the Commission*

Reducing disparities in research and innovation performance by sharing knowledge and expertise across the EU will help countries and regions that are lagging behind in terms of research and innovation performance, including the EU outermost regions, to attain a competitive position in the global value chains. Activities may also be established to foster brain circulation right across ERA and better exploitation of existing (and possibly jointly managed EU programmes) research infrastructures in the targeted countries through mobility of researchers and innovators.

##### *Amendment*

Reducing disparities in research and innovation performance by sharing knowledge and expertise across the EU will help countries and regions that are lagging behind in terms of research and innovation performance, including the EU outermost regions, to attain a competitive position in the global value chains. Activities may also be established to foster brain circulation right across ERA and better exploitation of existing (and possibly jointly managed EU programmes) research infrastructures in the targeted countries through mobility **and virtual collaboration** of researchers and innovators.

Or. en

## Amendment 224

### Proposal for a decision

#### Annex I – part 4 – point 1 – paragraph 3 – indent 1

##### *Text proposed by the Commission*

- Teaming, to create new centres of excellence or upgrade existing ones in eligible countries, building on partnerships between leading scientific institutions and partner institutions;

##### *Amendment*

- Teaming, to create new centres of excellence or upgrade existing ones in eligible countries, building on partnerships ***in all stages of research*** between leading scientific institutions and partner institutions; ***Applicants need to clearly show that projects are linked with national and/or regional strategies to be able to apply for funding under this broad line.***

Or. en

##### *Justification*

*Links between actions under Horizon Europe, national and regional priorities and funds need to be strengthened.*

## Amendment 225

### Proposal for a decision

#### Annex I – part 4 – point 1 – paragraph 3 – indent 2

##### *Text proposed by the Commission*

- Twinning, to significantly strengthen a university or research organisation from an eligible country in a defined field, by linking it with internationally-leading research institutions from other Member States or Associated Countries.

##### *Amendment*

- Twinning, to significantly strengthen a university or research organisation from an eligible country in a defined field, ***in all stages of research***, by linking it with internationally-leading research institutions from other Member States or Associated Countries. ***Applicants need to clearly show that projects are linked with national and/or regional strategies to be able to apply for funding under this broad line.***

Or. en

### *Justification*

*Links between actions under Horizon Europe, national and regional priorities and funds need to be strengthened.*

#### **Amendment 226**

##### **Proposal for a decision**

##### **Annex I – part 4 – point 1 – paragraph 3 – indent 4 a (new)**

*Text proposed by the Commission*

*Amendment*

- ***“Excellence initiatives”, to support new ideas aiming to strengthen research and innovation systems in the eligible countries. Actions should complement the other broad lines under this priority, avoiding overlaps, and should be in line with regional and national strategies. Evaluation will be done in cooperation with internationally-leading research institutions from other Member States or Associated Countries. Applicants need to clearly show that projects are linked with national and/or regional strategies to be able to apply for funding under this broad line.***

Or. en

### *Justification*

*There is a gap today in widening instruments outside teaming, twinning, ERA chairs and COST. A more open, fully bottom up scheme should be created to open doors for less developed MS to develop an excellent initiative open to all types of stakeholders to strengthen national and regional R&I systems. Calls will be collaborative or mono-beneficiary (for public institutions only). Links between actions under Horizon Europe, national and regional priorities and funds need to be strengthened.*

#### **Amendment 227**

##### **Proposal for a decision**

##### **Annex I – part 4 – point 1 – paragraph 3 – indent 4 b (new)**

*Text proposed by the Commission*

*Amendment*

- ***Widening fellowships, to enable researchers of any nationality to acquire and transfer new knowledge and to work on research and innovation in widening countries. This scheme will be linked with relevant complementary actions in other parts of the Programme, in particular under Marie Skłodowska-Curie.***

Or. en

*Justification*

*Mobility towards ‘widening countries’ needs to be increased and supported. Widening fellowships could also incentivize researchers who have left a ‘widening country’ to return and share the experience and expertise they have gained abroad. This is why the initiative already piloted in MSCA should be continued and scaled up in Horizon Europe.*

## **Amendment 228**

### **Proposal for a decision**

#### **Annex I – part 4 – point 1 – paragraph 5**

*Text proposed by the Commission*

*Amendment*

***This intervention area*** will support the Horizon Europe specific objectives: Spread and connect excellence across the EU; Reinforce the creation of high quality knowledge; Increase cross-sectorial, cross-disciplinary cross-border cooperation.

***The ‘Spreading Excellence’ priority*** will support the Horizon Europe specific objectives: Spread and connect excellence across the EU; Reinforce the creation of high quality knowledge; Increase cross-sectorial, cross-disciplinary cross-border cooperation. ***All actions should encourage synergies with other national and EU funds, particularly with ERDF, Cohesion Policy and ESF+, in line with regional research and innovation smart specialisation strategies and operational programmes.***

Or. en

*Justification*

*The "Spreading Excellence" heading should be in line with national and regional strategies*

when possible.

### **Amendment 229**

#### **Proposal for a decision Annex II – paragraph 1 – point 5**

*Text proposed by the Commission*

5. Inclusive and **Secure** Society

*Amendment*

5. Inclusive and **Creative** Society

Or. en

### **Amendment 230**

#### **Proposal for a decision Annex II – paragraph 1 – point 5 a (new)**

*Text proposed by the Commission*

**5 a. Secure Society**

*Amendment*

Or. en

## EXPLANATORY STATEMENT

Europe's economy is dependent on its ability to produce high value-added and top-end skills, services and products. At the same time, the merits of the era of Enlightenment, the basis of our European democracies and the European Union are under siege. The strengthening of the idea of free, open and independent research must be a prerogative of European politics. Moreover, our society is facing unique challenges stemming from a longer life expectancy, an ever-increasing need to accommodate mass urban populations and a global strain on resources. In this context, investment in research and innovation is key to finding innovative and bespoke solutions to our challenges and to ensure a high standard of living for all Europeans in the years to come.

Independent R&I is a main driver behind the creation of good quality jobs and sustainable economic growth. It enables our research institutions and our industries to develop new ideas, promote novel solutions and, in the process, diffuse knowledge, train highly skilled workers, attract capital and investment and create new markets. If the Union wants to remain on the cutting edge of technology and to regain its leadership in areas where it has lagged behind, we have to be ready to commit the necessary amount of resources.

Horizon Europe has the possibility of being a landmark Framework Programme. The Rapporteur welcomes the European Commission's approach of "evolution not revolution". Horizon 2020, the preceding framework programme, has been successful in many ways and the instruments and structures that have led to this success should be strengthened. However, it is also very important to be brutally honest in recognising the shortfalls in the implementation of Horizon 2020 and to be bold in proposing new, ambitious and creative solutions that better suit the needs of European researchers, creators and innovators.

For this reason, throughout the implementation of Horizon 2020 and for the preparation of this report, the Rapporteur has kept in close contact with the Programme's beneficiaries. Their feedback and insights garnered form the foundation of the proposals that are being put forward in this report.

The time to prepare this draft has been very limited. The Commission published its proposal on 7 June 2018 and this draft report is being presented hardly a month later. This entailed a huge effort that underlines the commitment of the European Parliament and the personal commitment of the Rapporteur, to ensure legislative certainty and continuity and to deliver a programme within the shortest time possible. In a sector that is ever-changing and evolving speed is of the essence. The Rapporteur hopes that the Council and the Member States will also take up this challenge.

### **The budget: putting the money where the mouth is**

Europe has been investing less in R&I when compared to other countries such as the U.S and Japan. China is catching up at three times the EU's innovation performance growth rate. While this shortfall is not only due to public funds, there is no doubt that Union money can and should do a lot more to leverage the necessary private investments. Therefore, if Europe is to thrive as a centre of innovation and reap the benefits, it has to dedicate the necessary financial resources to Horizon Europe.

For the next long-term EU budget 2021-2027, the Commission is proposing roughly EUR 83.5 billion for research and innovation (in constant prices). This is less than what the Member States have committed to and falls way short of what R&I requires. If the intention was ever to achieve the 3% target of investment in R&D as part of GDP, set by Member States and their Heads of States themselves over a decade ago, we are in the right track to fail. Horizon 2020 serves as a proof that the budgetary resources are not enough. The programme suffered from significant over-subscription as European industries, SMEs and research institutes matured and improved, the number of competing excellent proposals has increased exponentially. Unfortunately, under-funding has led to the refusal of many excellent proposals, with the result that they have either been delayed or killed-off. The Commission itself estimates that over EUR 160 billion would have been necessary to fund all the excellent proposals under Horizon 2020.

Therefore, the Rapporteur is proposing that the budget for Horizon Europe be increased to EUR 120 billion in constant prices. It is important to stress that this amount is still less than what would be optimal for the programme to operate and it simply puts into numbers the commitments of the Council to reach the 3% target. This budget should allow Horizon Europe to deliver more in terms of excellence, collaborative research, incremental and breakthrough innovation, supporting the achievement of energy, digitalisation, security, and climate ambitions to European citizens. The Rapporteur calls on the Council to live up to its own commitments during inter-institutional negotiations.

### **Ensuring an efficient Strategic Planning process**

The Rapporteur finds the Commission proposal rather vague when it comes to the content and objectives of the Strategic Planning process. While he understands the need for a certain amount of flexibility in the implementation of the programme, he is not in favour of a ‘carte-blanche’ where priorities are decided in the Strategic Planning and work programmes with no Parliament scrutiny. This is further true when essential elements of the implementation of the programme, such as missions and strategic partnerships, are being defined in the process. Defining such elements is the prerogative of the co-legislators and should remain so. The Rapporteur also firmly believes the Strategic Planning should involve more structured consultation between the co-legislators and the Commission. It is for these reasons that the Rapporteur is proposing that the Strategic Planning is presented as a Delegated Act, thus allowing Parliament and Council to give their consent before implementation.

Moreover, Horizon 2020 has been criticised for insufficient transparency in the collaboration between the European Commission and Member States, notably regarding the comitology procedures and preparation of work programmes. The Rapporteur hopes that this proposal will help to remedy this situation, providing more assurance to stakeholders, consulted during the process together with both the European Parliament and Council.

It is also not entirely clear from the Commission’s proposal what the Strategic Planning would encompass. The Rapporteur believes that this should include the clear legal definition and lists of missions and partnerships as well as clarity on the existing mechanisms to support links with other EU Funds, such as the Structural Funds and Creative Europe.

### **Strengthening collaboration via strategic partnerships**



The same vagueness applies to the role of Partnerships under Horizon Europe. Joint Technology Initiatives have been an intrinsic part of the success of Horizon 2020. They have been particularly useful in areas where there is a shortfall in R&I in the Union and provided a necessary platform for collaboration between public and private sectors leveraging investments and creating added-value. The Rapporteur therefore feels that it is important that Horizon Europe ensures continuity of those JTIs that have been particularly successful.

The same applies to the European Institute for Innovation and Technology's Knowledge and Innovation Communities (KICs). The mission of the EIT KICs is to provide solutions to the most pressing global challenges facing society. The EIT KICs are already delivering on global challenges and should be continued and strengthened. In addition, as Europe's largest innovation network, the EIT is best placed to play an important role in the "European Innovation Ecosystems" priority in the programme. The Rapporteur will, therefore, increase the budget of the EIT to allow for the continuity of its activities covering education, research and innovation, as well as for the launch of the new KICs currently in preparation, including migration and cultural and creative industries.

### **New mechanisms for research and innovation: Fast-Track to Research and Innovation logic and the European Innovation Council**

The proposed budget increase would also release more funds to a new modality of the programme, the Fast-Track to Research and Innovation. This will support further bottom-up, collaborative projects with a strong point: maximum 6-month time to grant. The modality should be implemented in 15% of all research and innovation actions under clusters, EIC and "Spreading Excellence" part, providing applicants with faster access to funds, especially needed in less developed Member States, to test their ideas from fundamental research to close to market applications.

Europe lacks support to market creating disruptive innovation. To address this gap, the European Commission has proposed a new instrument, the European Innovation Council. The Rapporteur agrees with the objective of the instrument but finds that the proposal does not fully answer essential implementation questions. Some aspects which should be clarified for effective implementation of the EIC include the instruments' innovation objectives in terms of product, process, marketing and services; the differentiation between the addressed targeted groups and their distinct needs; and the role of the programme managers and the functioning of the proposed mixed support (grant, equity, loan and guarantee). It is also important that a solid mechanism for systematic and real-time evaluation is put in place to ensure quick policy and process learning from its instruments, including with the use of clearly identified indicators. To complement of economic and sectorial approaches, the EIC Board should include academic experts with thorough knowledge of innovation policy and patterns. The Rapporteur also strengthened the links between EIC and other parts of the programme and EU funds, in particular the EIT and InvestEU.

### **Boosting creativity and preserving cultural heritage: the innovative potential of Cultural and Creative Industries**

Cultural and creative industries (CCIs) are those based on cultural values, individual creativity, skills and talent with the potential to create wealth and jobs. They include

architecture, archives and libraries, artistic crafts, audio-visual (including film, television, video games and multimedia), cultural heritage, design, fashion, festivals, music, performing arts, books and publishing, radio and visual arts. Creativity is a key factor in the digital revolution, not only for the value it brings but due to its irreplaceable contribution to a changing society where artificial intelligence is transforming the needed skills. CCIs are a driver for growth and have an impact on innovation in many industries, e.g. the wider use of design in manufacturing industries (automotive, aeronautics, medical, consumer products) add value to products, services, technologies, processes and market structures. The European Parliament has already recognized the potential for CCIs in its report “on a need for a coherent EU policy of cultural and creative industries”. Innovative and research-oriented European CCIs are also able to preserve linguistic and cultural diversity and pluralism. In Horizon Europe, the innovative potential of CCIs should be fully exploited by establishing creativity and design as a cross-cutting issue that will be integrated in projects throughout the programme in order to foster new technologies, business models and competences as well as translate creative and interdisciplinary solutions into economic and social value. Cultural Heritage is an integral part of the CCIs and its exploitation and preservation should be strengthened. In order to facilitate research collaboration, exchange of know-how and traditional skills and content, the Rapporteur has also proposed that a “Cultural Heritage Cloud” should be created.

### **Supporting climate goals and EU competitiveness via decarbonisation**

Effective implementation of the Paris agreement and the renewed European Trade System (ETS) demand a more integrated and differentiated approach, key for keeping European competitiveness.

The energy system transformation must take place through interactions of technology, the infrastructure, and market, policy and regulatory frameworks. Reduction of CO<sub>2</sub> emissions by coupling, of the electricity, heat, industry, gas and transport sector should be a prerogative of the Cluster “Climate, Energy and Mobility”. The mandatory contribution to CO<sub>2</sub> reduction of the energy intensive manufacturing sector of the EU has a big potential but is also one of the big challenges in the light of fierce global competition. The Rapporteur therefore proposes to strengthen decarbonisation implementation in industries by creating a new intervention area “industrial facilities in the energy transition”.

### **Increasing Participation of less developed Member States while reducing the research and innovation gap in Europe**

Research and innovation performance is correlated with the efficiency of the national research and innovation systems. The Rapporteur believes that the current instruments in Horizon 2020 do not support these Member States to strengthen national system nor it fully addresses their very low participation in the programme, which is below 5%. In this report, the Rapporteur has opened a new door for less developed Member States to apply for funding to develop an excellent R&I initiative complementing the already exiting schemes under the “Spreading Excellence” priority, such as teaming and twinning. It is important to highlight that actions under the “Spreading Excellence” priority should clearly be linked to national and regional excellence strategies to achieve synergies between Horizon Europe and Structural Funds. This is now easier with the proposal to allow managing authorities to transfer up to 5% of their allocations from one fund to another, which will leverage investments to the benefit of research and innovation in less developed territories.

## Conclusion

The Rapporteur believes that while the quality of legislation should not be compromised, it is also important to understand that in today's reality, especially in the R&I world, the landscape is shifting rapidly (at times dramatically) and investments can be quickly lost. Therefore, a fast delivery of legislation and steady implementation is essential to ensure both continuity and security.

This draft report has been based on a few essential principles:

**Speed:** The success of Horizon Europe will depend on the programmes ability to react quickly to researchers and industry needs via faster time-to-grant and more bottom-up schemes.

**Simplicity:** It is essential that Horizon Europe be implemented in a simple, understandable and easy-for-uptake manner, especially for universities, research organisations, start-ups and SMEs.

**Spectrum:** Horizon Europe should support R&I across all TRLs and should accompany projects all the way from emergence, through the setting-up, all the way to financing where necessary. It should also support both disruptive and incremental innovation.

**Size:** The new Framework Programme should be more ambitious than its predecessor and the size of its budget should be commensurate with the political ambitious and objectives it has been tasked with.

The Rapporteur looks forward to the next steps in delivering a comprehensive and effective Framework Programme and counts on the same good will from all parties involved.