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*Committee on Development*

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**2011/0401(COD)**

5.9.2012

# **OPINION**

of the Committee on Development

for the Committee on Industry, Research and Energy

on the proposal for a regulation of the European Parliament and of the Council establishing Horizon 2020 - The Framework Programme for Research and Innovation (2014-2020)  
(COM(2011)0809 – C7-0466/2011 – 2011/0401(COD))

Rapporteur: Bill Newton Dunn

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## SHORT JUSTIFICATION

The Horizon 2020 package establishes one single framework programme governing EU support for research and innovation for the period 2014-2020.

The overall goals are to help implement the Europe 2020 strategy for smart, sustainable and inclusive growth; to improve the link between fundamental research and innovation to market; and to simplify the rules of participation and strengthen SME involvement.

Your rapporteur believes the most significant part for the concerns of the Development Committee is the 'Part III' on societal challenges. This Part addresses areas including health, food security, biodiversity, climate change, and resource and energy efficiency, and includes a specific cross-cutting focus on promoting international cooperation, whilst explicitly recognising the global nature of all the societal challenges. This Part attracts the largest budgetary allocation out of the three identified.

There are many welcome elements in the Commission's proposal, especially the focus on support for the full cycle from fundamental research to innovation and market commercialisation. The emphasis on the international nature of societal challenges is also welcome, but needs to be much further clarified and strengthened.

You rapporteur has chosen to focus the amendments on the following priorities:

- Ensuring Horizon 2020 is open to actors in developing countries in terms of both participation in projects and activities and access to results of the projects, and avoiding the preponderance of a 'fortress Europe' tone in the Regulation.
- Strengthening the potential of the actions foreseen under societal challenge 'Health, demographic change and wellbeing' to contribute to global health imperatives, in particular tackling poverty-related and neglected infectious diseases. Your rapporteur would like to see a fixed proportion of this health budget being dedicated to actions to tackle all poverty-related and neglected diseases.
- Ensuring that the EU's external and development policy priorities and commitments are taken into account particularly in the areas of climate change, biodiversity, and resource and energy efficiency, and specifically recalling the role of space research in contributing to tackling these challenges.

All this is of mutual benefit to the EU and its third country partners and also adheres to the principle of Policy Coherence for Development. Furthermore, collaboration in the field of research is one form of cooperation that could be of great use to those countries - particularly MIC's - that may no longer benefit from EU bilateral aid under the new Development Cooperation Instrument 2014-2020.

## AMENDMENTS

The Committee on Development calls on the Committee on Industry, Research and Energy, as the committee responsible, to incorporate the following amendments in its report:

## Amendment 1

### Proposal for a regulation Recital 15

*Text proposed by the Commission*

(15) Simplification is a central aim of Horizon 2020 which should be fully reflected in its design, rules, financial management and implementation. Horizon 2020 should aim to attract the strong participation of universities, research centres, industry and specifically SMEs and be open to new participants, as it brings together the full range of research and innovation support in one common strategic framework, including a streamlined set of forms of support and uses rules for participation with principles applicable to all actions under the programme. Simpler funding rules should reduce the administrative costs for participation and will contribute to a reduction of financial errors.

*Amendment*

(15) Simplification is a central aim of Horizon 2020 which should be fully reflected in its design, rules, financial management and implementation. Horizon 2020 should aim to attract the strong participation of ***both Union and associated country and third country*** universities, research centres, industry and specifically SMEs and be open to new participants, as it brings together the full range of research and innovation support in one common strategic framework, including a streamlined set of forms of support and uses rules for participation with principles applicable to all actions under the programme. Simpler funding rules should reduce the administrative costs for participation and will contribute to a reduction of financial errors.

## Amendment 2

### Proposal for a regulation Recital 20

*Text proposed by the Commission*

(20) With the aim of deepening the relationship between science and society ***and reinforcing public confidence in science***, Horizon 2020 should ***favour an*** informed engagement of citizens and civil society ***on*** research and innovation ***matters by promoting*** science education, ***by making*** scientific ***knowledge more accessible, by developing*** responsible research and innovation agendas that ***meet*** citizens' and civil society's concerns and expectations and by ***facilitating*** their participation in Horizon 2020 activities.

*Amendment*

(20) With the aim of deepening the relationship between science and society Horizon 2020 should: ***promote*** informed engagement of citizens and civil society ***in the process of*** research and innovation and facilitate their active participation in Horizon 2020 activities; ***promote*** science education; ***guarantee the respect of ethical legislation and promote the emergence of, and adherence to, the highest ethical standards worldwide; increase the accessibility and re-use of the results of publicly funded research, in particular***

scientific *publications and data*; develop responsible research and innovation agendas and a governance framework that *meet* citizens' and civil society's concerns and expectations by *reinforcing* their participation in *the setting of research priorities of* Horizon 2020.

### Amendment 3

#### Proposal for a regulation

#### Recital 23 a (new)

*Text proposed by the Commission*

*Amendment*

*(23a) All research and innovation builds on the capacity of scientists, research institutions, businesses and citizens around the world to openly access, share and use scientific information, respecting at the same time intellectual property rights. This is particularly important for actors in developing countries, where local research capacity must be improved and whose collaboration with Union partners can help to tackle common global challenges and contribute to Union research excellence. To increase the circulation and exploitation of knowledge, free open access to scientific publications, already embraced in the Seventh Framework Programme, should be the general principle for scientific publications which receive public funding from Horizon 2020. Furthermore, Horizon 2020 should promote open access to other scientific data produced or collected by publicly funded research, with the aim that open access to such data becomes the general rule by 2020.*

### Amendment 4

#### Proposal for a regulation

#### Recital 24

*Text proposed by the Commission*

(24) Research and innovation activities supported by Horizon 2020 should respect fundamental ethical principles. The opinions of the European Group on Ethics in Science and New Technologies should be taken into account. Research activities should also take into account Article 13 TFEU and reduce the use of animals in research and testing, with a view ultimately to replacing animal use. All activities should be carried out ensuring a high level of human health protection in accordance with Article 168 TFEU.

*Amendment*

(24) Research and innovation activities supported by Horizon 2020 should respect fundamental ethical principles. The opinions of the European Group on Ethics in Science and New Technologies should be taken into account. Research activities should also take into account Article 13 TFEU and reduce the use of animals in research and testing, with a view ultimately to replacing animal use. All activities should be carried out ensuring a high level of human health protection in accordance with Article 168 TFEU. ***Ethical principles, such as the Helsinki Declaration, require that scientific data produced or collected by publicly funded research conducted on humans are made public, irrespective of where they take place in Europe or elsewhere in the world.***

## **Amendment 5**

### **Proposal for a regulation Recital 26**

*Text proposed by the Commission*

(26) To achieve maximum impact, Horizon 2020 should develop close synergies with other Union programmes in areas such as education, space, environment, competitiveness and SMEs, the internal security, culture and media and with the Cohesion Policy funds and Rural Development Policy, which can specifically help to strengthen national and regional research and innovation capabilities in the context of smart specialisation strategies.

*Amendment*

(26) To achieve maximum impact, Horizon 2020 should develop close synergies with other Union programmes in areas such as ***health, sustainable energy***, education, space, environment, competitiveness and SMEs, the internal security, culture and media and with the Cohesion Policy funds and Rural Development Policy, which can specifically help to strengthen national and regional research and innovation capabilities in the context of smart specialisation strategies. ***Developing synergies with Union external action and development programmes will also help ensure maximum impact of Horizon 2020, whilst fulfilling the principle of Policy Coherence for Development enshrined in***

## **Amendment 6**

### **Proposal for a regulation**

#### **Recital 28**

*Text proposed by the Commission*

(28) With the aim to achieve the greatest possible impact of Union funding, Horizon 2020 is to develop closer synergies, which may also take the form of public-public partnerships, with national and regional programmes that support research and innovation.

*Amendment*

(28) With the aim to achieve the greatest possible impact of Union funding, Horizon 2020 is to develop closer synergies, which may also take the form of public-public partnerships, with ***international***, national and regional programmes that support research and innovation.

## **Amendment 7**

### **Proposal for a regulation**

#### **Recital 30**

*Text proposed by the Commission*

(30) Horizon 2020 should promote cooperation with third countries based on common interest and mutual benefit. International cooperation in science, technology and innovation should be targeted to contribute to achieving the Europe 2020 objectives to strengthen competitiveness, contribute to tackling societal challenges and support Union external and development policies, including by developing synergies with external programmes ***and contributing*** to the Union's international commitments ***such as*** the achievement of Millennium Development Goals.

*Amendment*

(30) Horizon 2020 should promote cooperation with third countries based on common interest and mutual benefit. International cooperation in science, technology and innovation should be targeted to contribute to achieving the Europe 2020 objectives to strengthen competitiveness, contribute to tackling societal challenges and support Union external and development policies, including by developing synergies with external programmes. ***Horizon 2020 should contribute*** to the Union's international commitments ***in the field of sustainable development, in particular*** the achievement of Millennium Development Goals ***and their subsequent internationally agreed adaptations***.

## **Amendment 8**

**Proposal for a regulation**  
**Article 13 – paragraph 1**

*Text proposed by the Commission*

1. Linkages and interfaces shall be implemented across and within the priorities of Horizon 2020. Particular attention shall be paid in this respect to the development and application of key enabling and industrial technologies, to bridging from discovery to market application, to cross-disciplinary research and innovation, to social and economic sciences and humanities, to fostering the functioning and achievement of the ERA, to cooperation with third countries, to responsible research and innovation including gender, **and** to enhancing the attractiveness of the research profession and to facilitating cross-border and cross-sector mobility of researchers.

*Amendment*

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**Amendment 9**

**Proposal for a regulation**  
**Article 16 – paragraph 1 – subparagraph 1 a (new)**

*Text proposed by the Commission*

*Amendment*

***Scientific data produced or collected by publicly funded research conducted on humans, for instance in the context of clinical trials, shall be made public and accessible.***

**Amendment 10**

**Proposal for a regulation**  
**Article 18 a (new)**



*Text proposed by the Commission*

*Amendment*

**Article 18a**

***Civil Society Organisations***

***(1) Particular attention shall be paid to ensuring the adequate participation of, and innovation impact on, Civil Society Organisations (including those working in development cooperation) in Horizon 2020. Quantitative and qualitative assessments of Civil Society Organisations' (including those working in development cooperation) participation shall be undertaken as part of the evaluation and monitoring arrangements.***

***(2) Specific attention shall be paid to initiatives aimed at widening awareness and facilitating access to funding under Horizon 2020 of Civil Society Organisations, including those working in development cooperation. Horizon 2020 and other Union funding programmes, including the Structural Funds, shall be used for that purpose.***

***(3) Civil society organisations (including those working in development cooperation) shall be consulted during the implementation, programming, monitoring and evaluation of Horizon 2020.***

**Amendment 11**

**Proposal for a regulation  
Article 19 – paragraph 2 – point a**

*Text proposed by the Commission*

(a) financial contributions from the Union to joint undertakings established on the basis of Article 187 TFEU under the Seventh Framework Programme, subject to the amendment of their basic acts; to new public-private partnerships set up on the

*Amendment*

(a) financial contributions from the Union to joint undertakings established on the basis of Article 187 TFEU under the Seventh Framework Programme, subject to the amendment of their basic acts; to new public-private partnerships set up on the

basis of Article 187 TFEU; and to other funding bodies referred to in Article [55(1)(b)(v) or (vii)] of Regulation (EU) No XX/2012 [New Financial Regulation]. This form of partnerships shall only be implemented where the scope of the objectives pursued and the scale of the resources required justify it;

basis of Article 187 TFEU; *to other existing innovative research and innovation partnerships such as product development partnerships, and* to other funding bodies referred to in Article [55(1)(b)(v) or (vii)] of Regulation (EU) No XX/2012 [New Financial Regulation]. This form of partnerships shall only be implemented where the scope of the objectives pursued and the scale of the resources required justify it;

## Amendment 12

### Proposal for a regulation Article 19 – paragraph 3 – point b

*Text proposed by the Commission*

(b) the scale of impact on industrial competitiveness, sustainable growth and socio-economic issues;

*Amendment*

(b) the scale of impact on industrial competitiveness, sustainable growth and socio-economic issues *and the societal challenges, which are global in nature*;

## Amendment 13

### Proposal for a regulation Article 19 – paragraph 3 a (new)

*Text proposed by the Commission*

*Amendment*

***3a. The rules for participation and dissemination regarding public-private partnerships created or funded under Horizon 2020 shall fully comply with the rules laid down in Regulation (EU) No XX/XX [the Financial Regulation], as well as the rules laid down in Regulation (EU) No. XX/XX [Rules for participation and dissemination in Horizon 2020] and any derogation provided therein.***

## Amendment 14

### Proposal for a regulation

#### Article 21 – paragraph 1 – introductory part

*Text proposed by the Commission*

1. Entities established in third countries and international organisations shall be eligible to participate in indirect actions of Horizon 2020 under the conditions set out in Regulation (EU) XX/XX [Rules for Participation]. International cooperation with third countries and international organisations shall be promoted **across** and **within** Horizon 2020 to achieve, in particular, the following objectives:

*Amendment*

1. Entities established in third countries and international organisations shall be eligible to participate in indirect actions of Horizon 2020 under the conditions set out in Regulation (EU) XX/XX [Rules for Participation]. International cooperation with third countries and international organisations shall be promoted and **integrated in** Horizon 2020 to achieve, in particular, the following objectives:

## Amendment 15

### Proposal for a regulation

#### Article 21 – paragraph 1 – point c

*Text proposed by the Commission*

(c) supporting the Union's external and development policy objectives, complementing external and development programmes.

*Amendment*

(c) supporting the Union's external and development policy objectives **as set out in the European Consensus on Development and Agenda for Change**, complementing external and development programmes, **and contributing to the fulfilment of international commitments in the field of sustainable development, in particular the achievement of the Millennium Development Goals and their subsequently internationally agreed adaptations.**

## Amendment 16

### Proposal for a regulation

#### Article 21 – paragraph 2 – subparagraph 1

*Text proposed by the Commission*

2. Targeted actions with the objective of

*Amendment*

2. Targeted actions with the objective of

promoting cooperation with specific third countries or groups of third countries shall be implemented on the basis of common interest and mutual benefit, taking into account their scientific and technological capabilities and market opportunities, and the expected impact.

promoting cooperation with specific third countries or groups of third countries shall be implemented on the basis of common interest and mutual benefit, taking into account their scientific and technological capabilities and market opportunities, ***their developmental needs***, and the expected impact. ***They include actions dedicated to the reinforcement of research capacities in developing countries and cooperation actions centred on their specific needs in domains such as health, including research on neglected diseases and epidemics, agriculture, fisheries and environment.***

## **Amendment 17**

### **Proposal for a regulation**

#### **Article 21 – paragraph 2 – subparagraph 3**

*Text proposed by the Commission*

Cooperation priorities shall take into account developments in Union policy and opportunities for cooperation with third countries, as well as possible deficiencies in third country intellectual property systems.

*Amendment*

Cooperation priorities shall take into account developments in Union policy ***including external and development policies*** and opportunities for cooperation with third countries, as well as possible deficiencies in third country intellectual property systems.

## **Amendment 18**

### **Proposal for a regulation**

#### **Article 21 – paragraph 2 – subparagraph 3 a (new)**

*Text proposed by the Commission*

*Amendment*

***Coordination policies will, in addition, work in line with migration, asylum and developmental policies, in order to avoid a "brain drain" from developing countries.***

## **Amendment 19**

**Proposal for a regulation**  
**Article 22 – paragraph 1**

*Text proposed by the Commission*

The European Commission shall implement information and communication actions concerning Horizon 2020, including communication measures concerning supported projects and results. Budget allocated to communication under Horizon 2020 shall also contribute to covering the corporate communication of the Union's political priorities as far as they are related to the general objective of this Regulation.

*Amendment*

The European Commission shall implement information and communication actions concerning Horizon 2020, including communication measures concerning supported projects and results. ***In order to increase the circulation and exploitation of knowledge and maximize the efficiency of research efforts, free open online access to scientific publications, already embraced in the Seventh Framework Programme, shall be the general principle for scientific publications of research receiving public funding from Horizon 2020. Free open access to scientific data produced or collected through research funded by Horizon 2020 shall be promoted and tested.*** Budget allocated to communication under Horizon 2020 shall also contribute to covering the corporate communication of the Union's political priorities as far as they are related to the general objective of this Regulation.

**Amendment 20**

**Proposal for a regulation**  
**Article 22 – paragraph 3 – point a**

*Text proposed by the Commission*

(a) initiatives aimed at widening awareness and facilitating access to funding under Horizon 2020, in particular for those regions or types of participant that are underrepresented;

*Amendment*

(a) initiatives aimed at widening awareness and facilitating access to funding under Horizon 2020, in particular for those regions or types of participant that are underrepresented, ***such as researchers from developing countries and other third countries;***

**Amendment 21**

**Proposal for a regulation**  
**Annex I – paragraph 15**

*Text proposed by the Commission*

All the activities shall take a challenge-based approach, focusing on policy priorities without predetermining the precise choice of technologies or solutions that should be developed. The emphasis shall be on bringing together a critical mass of resources and knowledge across different fields, technologies and scientific disciplines in order to address the challenges. The activities shall cover the full cycle from research to market, with a new focus on innovation-related activities, such as piloting, demonstration, test-beds, support for public procurement, design, end-user driven innovation, social innovation and market take-up of innovations.

*Amendment*

All the activities shall take a challenge-based approach, focusing on policy priorities without predetermining the precise choice of technologies or solutions that should be developed. The emphasis shall be on bringing together a critical mass of resources and knowledge across different fields, technologies and scientific disciplines in order to address the challenges. The activities shall cover the full cycle from research to market, with a new focus on innovation-related activities, such as piloting, demonstration, test-beds, support for public procurement, design, end-user driven innovation ***There shall be increased emphasis on the use of innovative research funding tools such as innovation prizes to finance these activities.***

**Amendment 22**

**Proposal for a regulation**  
**Annex I – paragraph 15 a (new)**

*Text proposed by the Commission*

*Amendment*

***Given the global nature of the challenges and their close relation to Union external policies and international commitments, strategic cooperation with third countries shall be an integral part of each challenge. In addition, cross-cutting support for international cooperation shall be provided under the specific objective ‘Inclusive, innovative and secure societies’.***

*(The last paragraph of Annex I–paragraph 16 of the Commission text has been modified and becomes new paragraph 15(a))*

## Amendment 23

### Proposal for a regulation Annex I – paragraph 16

#### *Text proposed by the Commission*

Social sciences and humanities shall be an integral part of the activities to address all the challenges. In addition, the underpinning development of these disciplines shall be supported under the specific objective ‘Inclusive, innovative and secure societies’. Support will also focus on providing a strong evidence base for policy making at international, Union, national and regional levels. ***Given the global nature of many of the challenges, strategic cooperation with third countries shall be an integral part of each challenge. In addition, cross-cutting support for international cooperation shall be provided under the specific objective ‘Inclusive, innovative and secure societies’.***

#### *Amendment*

Social sciences and humanities, ***including issues of access to education and to social and cultural rights***, shall be an integral part of the activities to address all the challenges. In addition, the underpinning development of these disciplines shall be supported under the specific objective ‘Inclusive, innovative and secure societies’. Support will also focus on providing a strong evidence base for policy making at international, Union, national and regional levels.

## Amendment 24

### Proposal for a regulation Annex I – part I – point 1.3 – paragraph 5

#### *Text proposed by the Commission*

By 2020, the ERC therefore shall aim to demonstrate: that the best researchers are participating in the ERC’s competitions, that ERC funding has led directly to scientific publications of the highest quality and to the commercialisation and application of innovative technologies and ideas and that the ERC has contributed significantly to making Europe a more attractive environment for the world’s best scientists. In particular, the ERC shall target a measurable improvement in the Union’s share of the world’s top 1% most highly cited publications. In addition it

#### *Amendment*

By 2020, the ERC therefore shall aim to demonstrate: that the best researchers are participating in the ERC’s competitions, that ERC funding has led directly to scientific publications of the highest quality and to the commercialisation and application of innovative technologies and ideas and that the ERC has contributed significantly to making Europe a more attractive environment for the world’s best scientists. In particular, the ERC shall target a measurable improvement in the Union’s share of the world’s top 1% most highly cited publications. In addition it

shall aim at a substantial increase in the number of excellent researchers from outside Europe whom it funds and specific improvements in institutional practices and national policies to support top researchers.

shall aim at an increase in the number of excellent researchers from outside Europe whom it funds, ***with the provision of support for young researchers from developing countries***, and ***at*** specific improvements in institutional practices and national policies to support top researchers.

## Amendment 25

### Proposal for a regulation

#### Annex I – Part I – point 3.3 point b – paragraph 2

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

Key activities shall be to encourage experienced researchers to broaden or deepen their skills by means of mobility by opening attractive career opportunities in universities, research institutions, businesses, SMEs and other socio-economic groups all over Europe and beyond. Opportunities to restart a research career after a break shall also be supported.

##### *Amendment*

Key activities shall be to encourage experienced researchers to broaden or deepen their skills by means of mobility by opening attractive career opportunities in universities, research institutions, businesses, SMEs and other socio-economic groups all over Europe and beyond, ***offering researchers the opportunity to be trained and to enhance their knowledge in a third-country high-level research organisation***. Opportunities to restart a research career after a break shall also be supported.

## Amendment 26

### Proposal for a regulation

#### Annex I – Part I – point 3.3 point c – paragraph 2

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

Key activities shall be to support short-term exchanges of research and innovation staff among a partnership of universities, research institutions, businesses, SMEs and other socio-economic groups, both within Europe and worldwide. This will include fostering cooperation with third countries.

##### *Amendment*

Key activities shall be to support short-term exchanges of research and innovation staff among a partnership of universities, research institutions, businesses, SMEs and other socio-economic groups, both within Europe and worldwide. This will include fostering cooperation with third countries, ***and, in particular, strengthening scientific partnerships between the Union and***



*middle-income and developing countries.*

## **Amendment 27**

### **Proposal for a regulation**

#### **Annex I – Part I – point 4.3 point c – paragraph 1**

*Text proposed by the Commission*

The aim shall be to support partnerships between relevant policymakers and funding bodies, mapping and monitoring tools for decision-making and also international cooperation activities.

*Amendment*

The aim shall be to support partnerships between relevant policymakers and funding bodies, mapping and monitoring tools for decision-making and also international cooperation activities.  
***European research infrastructures shall be supported in their international relations activities and consulted in the process of shaping the European strategy for international cooperation in research.***

## **Amendment 28**

### **Proposal for a regulation**

#### **Annex I – part I – point 4.3 – point c – paragraph 2 a (new)**

*Text proposed by the Commission*

*Amendment*

***Research Infrastructure partnerships with developing countries, for example as part of the joint Africa-EU Strategy, shall also be addressed.***

## **Amendment 29**

### **Proposal for a regulation**

#### **Annex I – Part II – point 1 – paragraph 5**

*Text proposed by the Commission*

These activities will contribute to the objectives of the Europe 2020 Flagship initiatives on Innovation Union, Resource Efficient Europe, An industrial policy for the globalisation era, and A Digital Agenda for Europe ***as well as*** Union ***space*** policy

*Amendment*

These activities will contribute to the objectives of the Europe 2020 Flagship initiatives on Innovation Union, Resource Efficient Europe, An industrial policy for the globalisation era, and A Digital Agenda for Europe. ***They will also contribute to***

objectives.

Union policy objectives *and international commitments in the fields of space, health, environment, energy and food security*.

### Amendment 30

#### Proposal for a regulation Annex I – Part II – point 1 – paragraph 12

*Text proposed by the Commission*

Space is a rapidly growing sector which delivers information vital to many areas of modern society, meeting its fundamental demands, addresses universal scientific questions, and serves to secure the Union's position as a major player on the international stage. Space research underpins all activities undertaken in space, but is currently fragmented in national programmes run by a subset of Union member states. Union level coordination and investment in space research are required (cf. Article 189 TFEU) to maintain the competitive edge, to safeguard Union space infrastructure such as Galileo and to sustain a future role for the Union in space. In addition, innovative downstream services and applications using space derived information represent an important source of growth and job creation.

*Amendment*

Space is a rapidly growing sector which delivers information vital to many areas of modern society, meeting its fundamental demands, addresses universal scientific questions *and global challenges such as climate change*, and serves to secure the Union's position as a major player on the international stage. Space research underpins all activities undertaken in space, but is currently fragmented in national programmes run by a subset of Union member states. Union level coordination and investment in space research are required (cf. Article 189 TFEU) to maintain the competitive edge, to safeguard Union space infrastructure such as Galileo and to sustain a future role for the Union in space. In addition, innovative downstream services and applications using space derived information represent an important source of growth and job creation, *whilst also contributing to the fulfilment of Union external objectives and international commitments in the fields of humanitarian crisis response and environment, for example*.

### Amendment 31

#### Proposal for a regulation Annex I – part II – point 1.6.2 – paragraph 1

*Text proposed by the Commission*

Space is an important, but frequently invisible enabler of diverse services and products crucial to modern day society, such as navigation, communication, weather forecasts, and geographic information. Policy formulation and implementation at European, national and regional levels increasingly depend on space-derived information. The global space sector is rapidly growing and expanding into new regions (e.g. China, South America). European industry is at present a considerable exporter of first class satellites for commercial and scientific purposes. Increasing global competition is challenging Europe's position in this area. Thus Europe has an interest in ensuring that its industry continues to thrive in this fiercely competitive market In addition, data from European science satellites have resulted in some of the most significant scientific breakthroughs in the last decades in Earth sciences and astronomy. With this unique capacity, the European space sector has a critical role to play in addressing the challenges identified by Europe 2020.

*Amendment*

Space is an important, but frequently invisible enabler of diverse services and products crucial to modern day society, such as navigation, communication, weather forecasts, and geographic information. Policy formulation and implementation at European, national and regional levels increasingly depend on space-derived information. The global space sector is rapidly growing and expanding into new regions (e.g. **Africa**, China, South America). European industry is at present a considerable exporter of first class satellites for commercial and scientific purposes. Increasing global competition is challenging Europe's position in this area. Thus Europe has an interest in ensuring that its industry continues to thrive in this fiercely competitive market In addition, data from European science satellites have resulted in some of the most significant scientific breakthroughs in the last decades in Earth sciences and astronomy. With this unique capacity, the European space sector has a critical role to play in addressing the challenges identified by Europe 2020.

**Amendment 32**

**Proposal for a regulation**

**Annex I – part II – point 3.3 – point a – paragraph 1**

*Text proposed by the Commission*

SMEs shall be supported across Horizon 2020. For this purpose a dedicated SME instrument shall provide staged and seamless support covering the whole innovation cycle. The SME instrument shall be targeted at all types of innovative SMEs showing a strong ambition to develop, grow and internationalise. It shall be provided for all types of innovation,

*Amendment*

SMEs shall be supported across Horizon 2020. For this purpose a dedicated SME instrument shall provide staged and seamless support covering the whole innovation cycle. The SME instrument shall be targeted at all types of innovative SMEs showing a strong ambition to develop, grow and internationalise **and which, when it comes to the opening-up of**

including service, non-technological and social innovations. The aim is to develop and capitalise on the innovation potential of SMEs by filling the gap in funding for early stage high risk research and innovation, stimulating innovations and increasing private-sector commercialisation of research results.

*external markets, implement policies focused on corporate social responsibility, particularly if they are operating in developing countries.* It shall be provided for all types of innovation, including service, non-technological and social innovations. The aim is to develop and capitalise on the innovation potential of SMEs by filling the gap in funding for early stage high risk research and innovation, stimulating innovations and increasing private-sector commercialisation of research results.

### Amendment 33

#### Proposal for a regulation Annex I – part III – point 1.1 – paragraph 4

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

Chronic conditions such as cardiovascular disease (CVD), cancer, diabetes, neurological and mental health disorders, overweight and obesity and various functional limitations are major causes of disability, ill-health and premature death, and present considerable social and economic costs.

##### *Amendment*

Chronic conditions such as cardiovascular disease (CVD), cancer, diabetes, neurological and mental health disorders, overweight and obesity and various functional limitations are major causes of disability, ill-health and premature death, and present considerable social and economic costs. *Innovative models for funding and disseminating the results of research work, such as innovation awards, are of essential importance in addressing these societal challenges and enabling researchers in Europe and the rest of the world to play an active and effective part in doing so.*

### Amendment 34

#### Proposal for a regulation Annex I – part III – point 1.1 – paragraph 6

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

Infectious diseases (e.g. HIV/AIDS, tuberculosis and *malaria*), *are a global*

##### *Amendment*

Infectious diseases (e.g. HIV/AIDS, tuberculosis, *malaria* and *neglected*

**concern**, accounting for 41% of the 1.5 billion disability adjusted life years worldwide, with 8% of these in Europe. Emerging epidemics and the threat of increasing anti-microbial resistance must also be prepared for.

**diseases**), accounting for 41% of the 1.5 billion disability adjusted life years worldwide, with 8% of these in Europe. Emerging **and re-emerging** epidemics and the threat of increasing anti-microbial resistance must also be prepared for. ***The specific field of zoonoses requires attention here, in concert with other supported activities that focus on animal health.***

## Amendment 35

### Proposal for a regulation

#### Annex I – part III – point 1.1 – paragraph 7

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

Meanwhile, drug and vaccine development processes are becoming more expensive and less effective. Persistent health inequalities must be addressed, and access to effective and competent health systems must be ensured for all Europeans.

##### *Amendment*

Meanwhile, drug and vaccine development processes are becoming more expensive and less effective. Persistent health inequalities must be addressed, and access to effective and competent health systems must be ensured ***globally, in order to assure the best possible health*** for all Europeans.

## Amendment 36

### Proposal for a regulation

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

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

Disease and disability are not stopped by national borders. An appropriate European level research and innovation response can and should make a crucial contribution to addressing these challenges, deliver better health and wellbeing for all, and position Europe as a leader in the rapidly expanding global markets for health and wellbeing innovations.

##### *Amendment*

Disease and disability are not stopped by national borders. An appropriate European-level research and innovation response ***in partnership with third countries*** can and should make a crucial contribution to addressing these ***global*** challenges, ***thus helping to a achieve the Millennium Development Goals and to*** deliver better health and well-being for all and ***to*** position Europe as a leader in the rapidly expanding global markets for

health and well-being innovations.

## Amendment 37

### Proposal for a regulation

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

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

The response depends on excellence in research to improve our fundamental understanding of health, disease, disability, development and ageing (including of life expectancy), and on the seamless and widespread translation of the resulting and existing knowledge into innovative, scalable **and** effective products, strategies, interventions and services. Furthermore, the pertinence of these challenges across Europe and in many cases, globally, demands a response characterised by long term and coordinated support for co-operation between excellent, multidisciplinary and multi-sector teams.

##### *Amendment*

The response depends on excellence in research to improve our fundamental understanding of health, disease, disability, development and ageing (including of life expectancy), and on the seamless and widespread translation of the resulting and existing knowledge into innovative, scalable, effective **and accessible** products, strategies, interventions and services. Furthermore, the pertinence of these challenges across Europe and in many cases, globally, demands a response characterised by long term and coordinated support for co-operation between excellent, multidisciplinary and multi-sector teams ***globally, including research and development capacity in endemic areas.***

## Amendment 38

### Proposal for a regulation

#### Annex I – part III – point 1.2 – paragraph 3

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

Similarly, the complexity of the challenge and the interdependency of its components demand a European level response. Many approaches, tools and technologies have applicability across many of the research and innovation areas of this challenge and are best supported at Union level. These include the development of long term cohorts and the conduct of clinical trials, the clinical use of ‘-omics’ or the development of ICT and their applications in healthcare practice, notably e-health.

##### *Amendment*

Similarly, the complexity of the challenge and the interdependency of its components demand a European level response. Many approaches, tools and technologies have applicability across many of the research and innovation areas of this challenge and are best supported at Union level. These include ***international collaboration between researchers in order to acquire the necessary critical mass and expertise,*** the development of long term cohorts and the conduct of clinical trials, the clinical

The requirements of specific populations are also best addressed in an integrated manner, for example in the development of stratified and/or personalised medicine, in the treatment of rare diseases, and in providing assisted and independent living solutions.

use of '-omics' or the development of ICT and their applications in healthcare practice, notably e-health. The requirements of specific populations are also best addressed in an integrated manner, for example in the development of stratified and/or personalised medicine, in the **diagnosis, prevention and treatment of poverty-related, neglected and rare and non-communicable** diseases, and in providing assisted and independent living solutions.

## Amendment 39

### Proposal for a regulation

#### Annex I – Part III – point 1.2 – paragraph 3 a (new)

*Text proposed by the Commission*

*Amendment*

***Poverty related and neglected diseases are a global concern and research gaps must be addressed through creating patients' needs driven innovation. The increased prevalence of such emerging and re-emerging infectious diseases in the European region - often as a result of climate change and global movement of people - and the growing problem of anti-microbial resistance further underline the need for a comprehensive internationally coordinated approach and increased public support for R&D for these diseases that kill millions of people every year around the world.***

## Amendment 40

### Proposal for a regulation

#### Annex I – part III – point 1.2 – paragraph 4

*Text proposed by the Commission*

*Amendment*

To maximise the impact of Union level actions, support will be provided to the full spectrum of research and innovation

To maximise the impact of Union level actions **and create long-term benefits to its objectives**, support will be provided to the

activities. From basic research through translation of knowledge to large trials and demonstration actions, mobilising private investment; to public and pre-commercial procurement for new products, services, scalable solutions, which are when necessary, interoperable and supported by defined standards and/or common guidelines. This co-ordinated, European effort will contribute to the ongoing development of the ERA. It will also **interface**, as and when appropriate, with activities developed in the context of the Health for Growth Programme **and** the European Innovation Partnership on Active and **Health** Ageing.

full spectrum of research and innovation activities. From basic research through translation of knowledge to large trials and demonstration actions, mobilising private investment; to public and pre-commercial procurement for new products, services, scalable solutions, which are when necessary, interoperable and supported by defined standards and/or common guidelines. This co-ordinated, European effort will contribute to the ongoing development of the ERA. It will also **complement and create synergies**, as and when appropriate, with activities developed in the context of the Health for Growth Programme and the European Innovation Partnership on Active and **Healthy** Ageing, **the Council Conclusions on the role of the EU in Global Health and Union external programmes and international commitments in the field of global health.**

## Amendment 41

### Proposal for a regulation

#### Annex I – Part III – point 1.3 – paragraph 5

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

Specific activities shall include: understanding the determinants of health (including environmental and **climate** related factors), improving health promotion and disease prevention; understanding disease and improving diagnosis; developing effective screening programmes and improving the assessment of disease susceptibility; improving surveillance and preparedness; developing better preventive vaccines; using in-silico medicine for improving disease management and prediction; treating disease; transferring knowledge to clinical practice and scalable innovation actions; better use of health data; active ageing, independent and assisted living; individual empowerment for self-management of

##### *Amendment*

Specific activities shall include: understanding the determinants of health (including environmental, **climate** and **poverty** related factors), improving health promotion and disease prevention; understanding disease and improving diagnosis; developing effective screening programmes and improving the assessment of disease susceptibility; improving surveillance and preparedness; developing **new and** better preventive vaccines, **therapies and treatments**; using in-silico medicine for improving disease management and prediction; **developing adapted treatments and** treating disease; transferring knowledge to clinical practice and scalable innovation actions **including psychosocial aspects; improving**



health; promotion of integrated care; improving scientific tools and methods to support policy making and regulatory needs; and optimising the efficiency and effectiveness of healthcare systems and reducing inequalities by evidence based decision making and dissemination of best practice, and innovative technologies and approaches.

***regulatory procedures and support of access related activities; better collection and use of health data; standardised data analysis techniques; healthy and active ageing, independent and assisted living; individual empowerment for self-management of health; promotion of integrated care; improving scientific tools and methods to support policy making and regulatory needs; and optimising the efficiency and effectiveness of healthcare systems and reducing health disparities and inequalities by evidence based decision making and dissemination of best practice, and innovative technologies and approaches, in particular in relation to funding research and disseminating research results in order to share knowledge that will facilitate and speed up innovation in these areas. All of these activities shall properly account for gender and sex analysis.***

#### **Amendment 42**

##### **Proposal for a regulation**

##### **Annex I – Part III – point 1.3 – paragraph 5 a (new)**

*Text proposed by the Commission*

*Amendment*

***In order to meet the challenges for the future of European healthcare and to secure the above-mentioned objectives, appropriate Union funding should be allocated for research and innovation activities in this area.***

#### **Amendment 43**

##### **Proposal for a regulation**

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

*Text proposed by the Commission*

*Amendment*

Over the coming decades, Europe will be challenged by increased competition for

Over the coming decades, Europe will be challenged by increased competition for

limited and finite natural resources, by the effects of climate change, in particular on primary production systems (agriculture, forestry, fisheries and aquaculture) and by the need to provide a sustainable, safe and secure food supply for the European and an increasing global population. A 70% increase of the world food supply is estimated to be required to feed the 9 billion global population by 2050. Agriculture accounts for about 10% of Union greenhouse gases emissions, and while declining in Europe, global emissions from agriculture are projected to increase up to 20% by 2030. Furthermore, Europe will need to ensure sufficient supplies of raw materials, energy and industrial products, under conditions of decreasing fossil carbon resources (oil and liquid gas production expected to decrease by about 60% by 2050), while maintaining its competitiveness. Bio-waste (estimated at up to 138 million tonnes per year in the Union, of which up to 40% is land-filled) represents a huge problem and cost, despite its high potential added value. For example, an estimated 30% of all food produced in developed countries is discarded. Major changes are needed to reduce this amount by 50% in the Union by 2030. In addition, national borders are irrelevant in the spread of animal and plant pests and diseases, including zoonotic diseases, and food borne pathogens. While effective national prevention measures are needed, action at Union level is essential for ultimate control and the effective running of the single market. The challenge is complex, affects a broad range of interconnected sectors and requires a plurality of approaches.

limited and finite natural resources, by the effects of climate change, in particular on primary production systems (agriculture, forestry, fisheries and aquaculture) and by the need to provide a sustainable, safe and secure food supply for the European and an increasing global population. A 70% increase of the world food supply is estimated to be required to feed the 9 billion global population by 2050. Agriculture accounts for about 10% of Union greenhouse gases emissions, and while declining in Europe, global emissions from agriculture are projected to increase up to 20% by 2030. Furthermore, Europe will need to ensure *sustainable and* sufficient supplies of raw materials, energy and industrial products, under conditions of decreasing fossil carbon resources (oil and liquid gas production expected to decrease by about 60% by 2050), while maintaining its competitiveness. Bio-waste (estimated at up to 138 million tonnes per year in the Union, of which up to 40% is land-filled) represents a huge problem and cost, despite its high potential added value. For example, an estimated 30% of all food produced in developed countries is discarded. Major changes are needed to reduce this amount by 50% in the Union by 2030. In addition, national borders are irrelevant in the spread of animal and plant pests and diseases, including zoonotic diseases, and food borne pathogens. While effective national prevention measures are needed, action at Union level is essential for ultimate control and the effective running of the single market. The challenge is complex, affects a broad range of interconnected sectors and requires a plurality of approaches.

## Amendment 44

### Proposal for a regulation

#### Annex I – Part III – point 2.2 – paragraph 3

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

Research and innovation will interface with a wide spectrum of Union policies and related targets, including the Common Agriculture Policy (in particular the Rural Development Policy) and the European Innovation Partnership ‘Agricultural Productivity and Sustainability’, the Common Fisheries Policy, the Integrated Maritime Policy, the European Climate Change Programme, the Water Framework Directive, the Marine Strategy Framework Directive, the Forestry Action Plan, the Soil Thematic Strategy, the Union's 2020 Biodiversity Strategy, the Strategic Energy Technology Plan, the Union's innovation and industrial policies, external and development aid policies, plant health strategies, animal health and welfare strategies and regulatory frameworks to protect the environment, health and safety, to promote resource efficiency and climate action, and to reduce waste. A better integration of research *and* innovation into related Union policies will significantly improve their *European* added value, provide leverage effects, increase societal relevance and help to further develop sustainable land, seas and oceans management and bio-economy markets.

##### *Amendment*

Research and innovation will interface with a wide spectrum of Union policies and related targets, including the Common Agriculture Policy (in particular the Rural Development Policy) and the European Innovation Partnership ‘Agricultural Productivity and Sustainability’, the Common Fisheries Policy, the Integrated Maritime Policy, the European Climate Change Programme, the Water Framework Directive, the Marine Strategy Framework Directive, the Forestry Action Plan, the Soil Thematic Strategy, the Union's 2020 Biodiversity Strategy, the Strategic Energy Technology Plan, the Union's innovation and industrial policies, external and development aid policies, *internationally agreed commitments on global food security, biodiversity and sustainable development*, plant health strategies, animal health and welfare strategies and regulatory frameworks to protect the environment, health and safety, to promote resource efficiency and climate action, and to reduce waste. A better integration of *the full cycle from fundamental* research to innovation into related Union policies will significantly improve their added value, provide leverage effects, increase societal relevance, *provide healthy food products* and help to further develop sustainable land, seas and oceans management and bio-economy markets.

## Amendment 45

### Proposal for a regulation

#### Annex I – part III – point 2.3 – point a – paragraph 1

*Text proposed by the Commission*

The aim is to **supply** sufficient food, feed, biomass and other raw-materials, while safeguarding natural resources and enhancing ecosystems services, including coping with and mitigating climate change. The activities shall focus on more sustainable and productive agriculture and forestry systems which are both resource-efficient (including low-carbon) and resilient, while at the same time developing of services, concepts and policies for thriving rural livelihoods.

*Amendment*

The aim is to **ensure a sufficient global supply of** food, feed, biomass and other raw-materials, while safeguarding natural resources **both inside and outside the European Union** and enhancing ecosystems services, including coping with and mitigating climate change **and land grabbing in developing countries**. The activities shall focus on more sustainable and productive agriculture and forestry systems **globally** which are both resource-efficient (including low-carbon) and resilient, while at the same time developing of services, concepts and policies for thriving rural livelihoods. **Attention shall be paid to the health and management of livestock, including vaccines and treatments for diseases, including tropical diseases.**

**Amendment 46**

**Proposal for a regulation**

**Annex I – Part III – point 3.2 – paragraph 6**

*Text proposed by the Commission*

On the international scene, the action taken at Union level provides a 'critical mass' to attract interest from other technology leaders and foster international partnerships to achieve the Union's objectives. It will make it easier for international partners to interact with the Union to build common action where there is mutual benefit and interest.

*Amendment*

On the international scene, the action taken at Union level provides a 'critical mass' to attract interest from other technology leaders and foster international partnerships to achieve the Union's objectives. It will make it easier for international partners to interact with the Union to build common action where there is mutual benefit and interest. **In this regard special consideration will be paid to Union initiatives and international commitments on universal energy access and climate change adaptation and mitigation.**

## Amendment 47

### Proposal for a regulation

#### Annex I – Part III – point 6.1 – paragraph 7

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

The in-built complexity of these challenges and the evolutions of demands thus make it essential to develop innovative research and new smart technologies, processes and methods, social innovation mechanisms, coordinated actions and policies that will anticipate or influence major evolutions for Europe. It calls for understanding the underlying trends and impacts at play in these challenges and rediscovering or reinventing successful forms of solidarity, coordination and creativity that make Europe a distinctive model of inclusive, innovative and secure societies compared to other world regions. It requires a more strategic approach to cooperation with third countries. Finally, as security policies should interact with different social policies, enhancing the societal dimension of security research will be an important aspect of this challenge.

##### *Amendment*

The in-built complexity of these challenges and the evolutions of demands thus make it essential to develop innovative research and new smart technologies, processes and methods, social innovation mechanisms, coordinated actions and policies that will anticipate or influence major evolutions for Europe. It calls for understanding the underlying trends and impacts at play in these challenges and rediscovering or reinventing successful forms of solidarity, coordination and creativity that make Europe a distinctive model of inclusive, innovative and secure societies compared to other world regions. It requires a more strategic ***and open*** approach to cooperation with third countries, ***with targeted actions taken to promote and support international cooperation***. Finally, as security policies should interact with different social policies, enhancing the societal dimension of security research will be an important aspect of this challenge.

## Amendment 48

### Proposal for a regulation

#### Annex I – Part III – point 6.3.2 – paragraph 1

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

The aim is to foster the development of innovative societies and policies in Europe through the engagement of citizens, enterprises and users in research and innovation and the promotion of coordinated research and innovation policies ***in the context of globalisation***. Particular support will be provided for the development of the ERA and the

##### *Amendment*

The aim is to foster the development of innovative societies and policies in Europe through the engagement of citizens, enterprises and users in research and innovation and the promotion of coordinated research and innovation policies ***that engage third countries***. Particular support will be provided for the development of the ERA and the

development of framework conditions for innovation.

development of framework conditions for innovation.

## **Amendment 49**

### **Proposal for a regulation**

#### **Annex I – Part III – point 6.3.2 – paragraph 2 - point d**

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

(d) promote coherent and effective cooperation with third countries.

##### *Amendment*

(d) promote coherent and effective cooperation with third countries ***including in terms of access to research results and information.***

## PROCEDURE

<b>Title</b>	Establishment of Horizon 2020 - The Framework Programme for Research and Innovation (2014-2020)
<b>References</b>	COM(2011)0809 – C7-0466/2011 – 2011/0401(COD)
<b>Committee responsible</b> Date announced in plenary	ITRE 13.12.2011
<b>Opinion by</b> Date announced in plenary	DEVE 10.5.2012
<b>Rapporteur</b> Date appointed	Bill Newton Dunn 27.3.2012
<b>Discussed in committee</b>	10.7.2012
<b>Date adopted</b>	3.9.2012
<b>Result of final vote</b>	+: 23 -: 0 0: 1
<b>Members present for the final vote</b>	Thijs Berman, Ricardo Cortés Lastra, Nirj Deva, Leonidas Donskis, Catherine Grèze, Eva Joly, Filip Kaczmarek, Miguel Angel Martínez Martínez, Gay Mitchell, Norbert Neuser, Bill Newton Dunn, Birgit Schnieber-Jastram, Michèle Striffler, Alf Svensson, Keith Taylor, Patrice Tirolien, Anna Záborská, Iva Zanicchi
<b>Substitute(s) present for the final vote</b>	Santiago Fisas Ayxela, Enrique Guerrero Salom, Fiona Hall, Gesine Meissner, Horst Schnellhardt
<b>Substitute(s) under Rule 187(2) present for the final vote</b>	Phil Prendergast