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Committee on Industry, Research and Energy

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*****I**

DRAFT REPORT

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))

Committee on Industry, Research and Energy

Rapporteur: Teresa Riera Madurell

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

In amendments by Parliament, amendments to draft acts are highlighted in ***bold italics***. Highlighting in *normal italics* is an indication for the relevant departments showing parts of the draft act which may require correction when the final text is prepared – for instance, obvious errors or omissions in a language version. Suggested corrections of this kind are subject to the agreement of the departments concerned.

The heading for any amendment to an existing act that the draft act seeks to amend includes a third line identifying the existing act and a fourth line identifying the provision in that act that Parliament wishes to amend. Passages in an existing act that Parliament wishes to amend, but that the draft act has left unchanged, are highlighted in **bold**. Any deletions that Parliament wishes to make in such passages are indicated thus: [...].

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DRAFT EUROPEAN PARLIAMENT LEGISLATIVE RESOLUTION

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))

(Ordinary legislative procedure: first reading)

The European Parliament,

- having regard to the Commission proposal to Parliament and the Council (COM(2011)0809),
 - having regard to Article 294(2) and Articles 173(3) and 182(1) of the Treaty on the Functioning of the European Union, pursuant to which the Commission submitted the proposal to Parliament (C7-0466/2011),
 - having regard to Article 294(3) of the Treaty on the Functioning of the European Union,
 - having regard to the opinion of the Committee of the Regions of XX¹
 - having regard to the opinion of the European Economic Social Committee of XX²,
 - having regard to Rules 55 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 Foreign Affairs, the Committee on Development, the Committee on Budgets, the Committee on the Environment, Public Health and Food Safety, the Committee on Transport and Tourism, the Committee on Regional Development, the Committee on Agriculture and Rural Development, the Committee on Fisheries, the Committee on Culture and Education, the Committee on Legal Affairs and the Committee on Women's Rights and Gender Equality (A7-0000/2012),
1. Adopts its position at first reading hereinafter set out;
 2. Calls on the Commission to refer the matter to Parliament again if it intends to amend its proposal substantially or replace it with another text;
 3. Instructs its President to forward its position to the Council, the Commission and the national parliaments.

Amendment 1

Proposal for a regulation

Recital 5

¹ Not yet published in the Official Journal.

² Not yet published in the Official Journal.

Text proposed by the Commission

(5) The European Parliament has called for a radical simplification of Union research and innovation funding in its Resolution of 11 November 2010 , has highlighted the importance of the Innovation Union to transform Europe for post-crisis world, in its resolution of 12 May 2011 , has drawn attention to important lessons to be learned following the interim evaluation of the Seventh Framework Programme in its resolution of 8 June 2011 and has supported the concept of a common strategic framework for research and innovation funding in its resolution of 27 September 2011 .

Amendment

(5) The European Parliament has called for a radical simplification of Union research and innovation funding in its Resolution of 11 November 2010 , has highlighted the importance of the Innovation Union to transform Europe for post-crisis world, in its resolution of 12 May 2011 , has drawn attention to important lessons to be learned following the interim evaluation of the Seventh Framework Programme in its resolution of 8 June 2011 and has supported the concept of a common strategic framework for research and innovation funding, ***while calling for a doubling of the budget compared to the Seventh Framework Programme*** in its resolution of 27 September 2011 .

Or. en

Justification

The EU budget should mirror the ambitious EU2020 programme by making a shift towards funding future-oriented investments. It is this kind of investment which makes sense in the current financial and budgetary crisis. The proposed budget of 80 billion euro for Horizon 2020 represents only a modest increase (around 6% in real terms) compared to the funding level of FP7 in 2013. This is not sufficient and falls short of the recommendation by the EP to allocate 100 billion euro to this programme.

Amendment 2
Proposal for a regulation
Recital 11

Text proposed by the Commission

(11) Horizon 2020 - the Framework Programme for Research and Innovation in the European Union (hereinafter 'Horizon 2020'), focuses on three priorities, namely generating excellent science in order to strengthen the Union's world-class excellence in science, fostering industrial leadership to support business, including small and medium-sized enterprises (SME)

Amendment

(11) Horizon 2020 - the Framework Programme for Research and Innovation in the European Union (hereinafter 'Horizon 2020'), focuses on three priorities, namely generating excellent science in order to strengthen the Union's world-class excellence in science, fostering industrial leadership to support business, including small and medium-sized enterprises (SME)

and innovation and tackling societal challenges, in order to respond directly to the challenges identified in the Europe 2020 strategy by supporting activities covering the entire spectrum from research to market. Horizon 2020 **should support all stages in the innovation chain, especially activities closer to the market including innovative financial instruments, as well as non-technological and social innovation, and aims to satisfy the research needs of a broad spectrum of Union policies by placing** emphasis on the widest possible use and dissemination of knowledge generated by the supported activities up to its commercial exploitation. The priorities of Horizon 2020 should also be supported through a programme under the Euratom Treaty on nuclear research and training.

and innovation and tackling societal challenges, in order to respond directly to the challenges identified in the Europe 2020 strategy by supporting activities covering the entire spectrum from research to market. **While the Union added value lies mainly in funding pre-competitive, transnational, collaborative research, which should attain in Horizon 2020 at least the levels of the Seventh Framework programme, it is necessary to place** as well emphasis on the widest possible use and dissemination of knowledge generated by the supported activities up to its commercial exploitation. **Thus, Horizon 2020 should support all stages in the innovation chain, including innovative financial instruments, as well as non-technological and social innovation.** The priorities of Horizon 2020 should also be supported through a programme under the Euratom Treaty on nuclear research and training.

Or. en

Justification

It is important to provide a seamless support for R&D and innovation activities in order to ensure effective knowledge and technology transfer, but the right balance should be kept. The heart of Horizon 2020 should remain transnational, collaborative pre-competitive R&D projects, while more should be done to ensure that the results of these projects have a real impact and are being used towards new products and services to help solve societal challenges and exploit economic opportunities.

Amendment 3 **Proposal for a regulation** **Recital 13**

Text proposed by the Commission

(13) In the context of the knowledge triangle of research, education and innovation, the Knowledge and Innovation Communities under the European Institute of Innovation and Technology should strongly contribute to addressing the

Amendment

(13) In the context of the knowledge triangle of research, education and innovation, the Knowledge and Innovation Communities under the European Institute of Innovation and Technology should strongly contribute to addressing the

objectives of Horizon 2020, including the societal challenges, notably by integrating research, education and innovation. ***In order to ensure complementarities across Horizon 2020 and the adequate absorption of funds, the financial contribution to the European Institute of Innovation and Technology should be made in two allocations, with the second subject to a review.***

objectives of Horizon 2020, including the societal challenges, notably by integrating research, education and innovation.

Or. en

Justification

The next generation of KICs shall be launched in 2014 and the budget will be phased-in according to their yearly performances. The sectoral landscape in each sector being different, it would seem a healthier approach to base the budgetary decision on each KICs' own merit rather than deciding on new KICs based on the performance of other KICs.

Amendment 4 Proposal for a regulation Recital 17 a (new)

Text proposed by the Commission

Amendment

(17a) In order for the European Parliament to be able to exercise its function of political control and to ensure transparency and accountability, as stipulated in the Treaty, the Commission should duly and regularly inform the European Parliament of all relevant aspects of the implementation of the programme, including the preparation and drawing-up of the Work Programmes, the execution and possible need for adjustment of the budgetary breakdown, and the development of the performance indicators in terms of objectives pursued and expected results.

Or. en

Amendment 5
Proposal for a regulation
Recital 19

Text proposed by the Commission

(19) The implementation of Horizon 2020 may give rise to supplementary programmes involving the participation of certain Member States only, the participation of the Union in programmes undertaken by several Member States, or the setting up of joint undertakings or other arrangements within the meaning of Articles 184, 185 and 187 TFEU.

Amendment

(19) The implementation of Horizon 2020 may give rise - ***under specific conditions*** - to supplementary programmes involving the participation of certain Member States only, the participation of the Union in programmes undertaken by several Member States, or the setting up of joint undertakings or other arrangements within the meaning of Articles 184, 185 and 187 TFEU. ***These supplementary programmes or arrangements should have a clear Union added value, be based on genuine partnerships, complement other activities under Horizon 2020, and be as inclusive as possible in terms of participation by Member States or European Union industry.***

Or. en

Justification

The FP7 trend towards outsourcing parts of the budget by creating partnerships has been accentuated in the current proposal. Whereas this option has the potential of achieving a higher leverage effect and responds to the logic of a better articulation of the European research landscape, an overreliance on this kind of structures (PPP and P2P) might not be too realistic right now and might just be undertaken by a few actors, giving way to further polarization of our science and technology base.

Amendment 6
Proposal for a regulation
Recital 21

Text proposed by the Commission

(21) The implementation of Horizon 2020 should respond to the evolving opportunities and needs from science and technology, industry, policies and society. As such, the agendas should be set in close liaison with stakeholders from all sectors

Amendment

(21) The implementation of Horizon 2020 should respond to the evolving opportunities and needs from science and technology, industry, policies and society. As such, the agendas should be set in close liaison with stakeholders from all sectors

concerned, and sufficient flexibility should be allowed for new developments. External advice should be sought on a continuous basis during Horizon 2020, also making use of relevant structures such as European Technology Platforms, Joint Programming Initiatives and the European Innovation Partnerships.

concerned, and sufficient flexibility should be allowed for new developments, ***also at the level of ongoing projects***. External advice should be sought on a continuous basis during Horizon 2020, also making use of relevant structures such as European Technology Platforms, Joint Programming Initiatives and the European Innovation Partnerships.

Or. en

Amendment 7
Proposal for a regulation
Recital 21 a (new)

Text proposed by the Commission

Amendment

(21a) To ensure the appropriate balance between consensus-based and more disruptive R&D&I, at least 15% of the budget of the "Societal challenges" priority and of the specific objective "leadership in enabling and industrial technologies" within the "Industrial Leadership" priority should follow a bottom-up, research-driven logic. Furthermore, the right balance should be stricken within the "Societal challenges" and the "Industrial leadership" priorities between smaller and bigger projects, taking into account the specific sector structure, type of activity, technology and research landscape.

Or. en

Amendment 8
Proposal for a regulation
Recital 21 b (new)

Text proposed by the Commission

Amendment

(21b) In order to be able to compete globally, to effectively address the grand

societal challenges, and to attain the goals of the Union 2020 Strategy, the Union should make full use of its human resources. Horizon 2020 should be a catalyser and a powerful stimulus for completing the European Research Area by supporting across the line activities that attract, retain, train and develop research and innovation talent. To reach this aim and to enhance the knowledge transfer and the quantity and quality of researchers human capital building activities, including those focused specifically at young people and women, should be a standard element in all research and innovation activities funded by the Union.

Or. en

Justification

Other parts of the world are performing better than Europe in terms of attracting and maintaining the best talent. If Europe wants to remain competitive at the global stage it needs to improve its attractiveness. For this reason, research and innovation activities with the financial support of the EU must pay special attention to human resources. In particular Horizon 2020 has to be a stimulus for completing the European research Area and improve the human capital in the European research and innovation system.

Amendment 9 **Proposal for a regulation** **Recital 22**

Text proposed by the Commission

(22) Horizon 2020 should contribute to the attractiveness of the research profession in the Union. **Adequate** attention should be paid to the European Charter for Researchers and Code of Conduct for the Recruitment of Researchers , together with other relevant reference frameworks defined in the context of the European Research Area, **while respecting their voluntary nature.**

Amendment

(22) Horizon 2020 should contribute to the attractiveness of the research profession in the Union. **Full** attention should be paid to the European Charter for Researchers and Code of Conduct for the Recruitment of Researchers, together with other relevant reference frameworks defined in the context of the European Research Area.

Or. en

Amendment 10
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 to openly access, share and use scientific information. To increase the circulation and exploitation of knowledge, free open online 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 experiment with online open access to scientific data produced or collected by publicly funded research aiming at open access to such data becoming the general rule by 2020.

Or. en

Justification

Open access can quickly provide professionals and policy-makers with crucial information. For this reasons, free open online access to scientific research funded by Horizon 2020 must be the general rule. On the other hand, open access to scientific data must be incentivised. Open access would undoubtedly add economic efficiency to EU's funded research by speeding scientific progress and limiting wasteful repetition.

Amendment 11
Proposal for a regulation
Recital 26

Text proposed by the Commission

Amendment

(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

(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.**

security, culture **or** media.

Or. en

Justification

The importance of the synergies that must exist between Horizon 2020 and the Cohesion Policy in the new programming period 2014-2020 deserves a separate recital. However, the synergies of Horizon 2020 with other Union programmes are also necessary as stated in this new wording.

Amendment 12 **Proposal for a regulation** **Recital 26 a (new)**

Text proposed by the Commission

Amendment

(26a) Both Horizon 2020 and the Cohesion Policy seek a comprehensive alignment with the Europe 2020 objectives of smart, sustainable and inclusive growth through their respective Common Strategic Frameworks. This new strategic direction calls for an increased and systematised cooperation of both CSF in order to fully mobilise the research and innovation potential at regional, national and European level.

Or. en

Justification

Although they have different focus, both Horizon 2020 and the Cohesion Policy are extremely important to reach the objectives of Europe 2020. Thus synergies and complementarities between them are really needed. Cohesion policy must prepare regional R&I players to participate in Horizon 2020 projects and, on the other hand, should provide the means to exploit and diffuse swiftly R&I results stemming from Horizon 2020 funded basic research into the market.

Amendment 13
Proposal for a regulation
Recital 26 b (new)

Text proposed by the Commission

Amendment

(26b) To achieve a bigger and better connection between research and innovation, Horizon 2020 should support the transfer of knowledge and technology, paying particular attention to the relationship between research carried out in the public sphere and the productive fabric of the Union, in all of its regions.

Or. es

Amendment 14
Proposal for a regulation
Recital 26 c (new)

Text proposed by the Commission

Amendment

(26c) European local and regional authorities have an important role to play in implementing the European Research Area and in ensuring an efficient coordination of the Union financial instruments, in particular in fostering linkages between Horizon 2020 and the Structural Funds, within the framework of regional innovation strategies based on smart specialisation. Regions also have a key role in the dissemination and implementation of Horizon 2020 results and in offering complementary funding instruments, including public procurement.

Or. en

Justification

As the main actors in programming and implementing the Cohesion Policy, regional authorities will play a relevant role in creating and empowering the necessary synergies between this policy and Horizon 2020. In order to fully exploit the opportunities for synergies,

regional authorities must develop their research and innovation strategies for smart specialisation and facilitate the exploitation of results stemming from Horizon 2020, with particular attention to creating friendly market conditions and business environment.

Amendment 15
Proposal for a regulation
Recital 27 a (new)

Text proposed by the Commission

Amendment

(27a) The economic significance of public procurement in the Union, which the Commission puts at 19.4% of GDP in its working document 'Public procurement indicators 2009', makes the public procurement market a strategic instrument in the economic and social policy of which it forms part. Moreover, the immediate aim of public procurement is to equip administrations with solutions that will enable them to provide better services to citizens, and there is no doubt that innovation is one means of improving and expanding the provision of conventional products, works and services, and that it makes management processes more efficient. Nevertheless, only a very small part of the total amount involved in public contracts in the Union goes to innovative products and services, and this represents a serious lost opportunity.

Or. es

Amendment 16
Proposal for a regulation
Recital 27 b (new)

Text proposed by the Commission

Amendment

(27b) In order to maximize the impact of Horizon 2020 special consideration should be given to multidisciplinary and interdisciplinary approaches as necessary elements for major scientific progress.

Breakthroughs in science take often place at the boundaries or intersections of disciplines. Furthermore, the complexity of the problems and challenges that Europe is facing requires solutions that can only be tackled from several disciplines working together.

Or. en

Justification

Multidisciplinary and interdisciplinary are crucial for advancing in science and innovation. The complexity of the present problems cannot be often tackled by a scientific discipline alone. Consequently common objectives or common cognitive structures among disciplines are regularly needed to find and develop the best solutions. For this reason, Horizon 2020 should not only foresee but also promote multidisciplinary and interdisciplinary.

Amendment 17
Proposal for a regulation
Recital 27 c (new)

Text proposed by the Commission

Amendment

(27c) Universities play a fundamental role within the scientific and technological base of the Union as basic institutions of excellence, both in training and research.

Or. en

Justification

In the EU, over the 60% of research is performed at universities and the vast majority of researchers are trained in university centres.

Amendment 18
Proposal for a regulation
Recital 28

Text proposed by the Commission

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

(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.

partnerships, with *international*, national and regional programmes that support research and innovation.

Or. en

Justification

To be consistent with Article 20.1 which facilitates and encourages close cooperation and joint programming with international, as well as national and regional programmes.

Amendment 19 **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, mutual benefit *and reciprocity, where appropriate*. 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. *Special attention will be paid to the Council Conclusion on the role of the EU in global health¹.*

¹ *Conclusions of the Foreign Affairs Council of 10 May 2010.*

Or. en

Justification

The Council Conclusions on the EU role in Global Health stated that the EU and its Member States should promote effective and fair financing of research that benefits the health of all.

Also highlighted that the EU should ensure that innovations and interventions produce products and services that are accessible and affordable. Hence, Horizon 2020, should tackle not only societal challenges at the EU level, but also global challenges, consistent with the European commitments mentioned above.

Amendment 20
Proposal for a regulation
Recital 31

Text proposed by the Commission

(31) In order to maintain a level playing field for all undertakings active in the internal market, funding provided by Horizon 2020 should be designed in accordance with state aid rules so as to ensure the effectiveness of public spending and prevent market distortions such as crowding-out of private funding, creating ineffective market structures or preserving inefficient firms.

Amendment

(31) In order to maintain a level playing field for all undertakings active in the internal market, funding provided by Horizon 2020 should be designed in accordance with state aid rules, ***including the Community framework for state aid for research and development and innovation¹ and taking into account its current review***, so as to ensure the effectiveness of public spending and prevent market distortions such as crowding-out of private funding, creating ineffective market structures or preserving inefficient firms.

¹ *OJ C 323, 30.12.2006 p. 1*

Or. en

Justification

Shifting the balance too much towards funding short-term, close-to-market innovation could distort competition and come at the detriment of more long-term, fundamental research that is often the source of radical, disruptive innovation. Therefore, not only the letter but also the spirit of the R&D State aid rules should be taken into account.

Amendment 21
Proposal for a regulation
Article 1

Text proposed by the Commission

This Regulation establishes Horizon 2020 - the Framework Programme for Research and Innovation (2014-2020) ('Horizon

Amendment

This Regulation establishes Horizon 2020 - the Framework Programme for Research and Innovation (2014-2020) ('Horizon

2020') and determines the framework governing Union support to research and innovation activities and fostering better exploitation of the industrial potential of policies of innovation, research and technological development.

2020') and determines the framework governing Union support to research and innovation activities ***with the objective of strengthening the European scientific and technological base, ensuring the development of its intellectual capital and fostering benefits for society, including*** better exploitation of the industrial potential of policies of innovation, research and technological development.

Or. en

Amendment 22
Proposal for a regulation
Article 4

Text proposed by the Commission

Horizon 2020 shall play a central role in the delivery of the Europe 2020 strategy for smart, sustainable and inclusive growth by providing a common strategic framework for the Union's research and innovation funding, thus acting as a vehicle for leveraging private investment, creating new job opportunities and ensuring Europe's long-term sustainable growth and competitiveness.

Amendment

Horizon 2020 shall play a central role in the delivery of the Europe 2020 strategy for smart, sustainable and inclusive growth by providing a common strategic framework for the Union's research and innovation funding, thus acting as a vehicle for leveraging ***public and*** private investment, creating new job opportunities, ***promoting economic, social and territorial cohesion and*** ensuring Europe's long-term sustainable growth and competitiveness.

Or. en

Justification

In a context of budgetary restrictions due to the financial and economic crisis that Europe is facing one should not undermine smart investments in areas of high added value such as research and innovation. Public financial efforts in these areas must be maintained or increased and Horizon 2020 must play a leverage effect in this sense. On the other hand, the social, economic and territorial cohesion of the Union must be at the heart of all public investments of the UE.

Amendment 23
Proposal for a regulation
Article 5 – paragraph 1

Text proposed by the Commission

1. Horizon 2020 shall contribute to building ***an economy*** based on knowledge and innovation across the whole Union by leveraging sufficient additional research, development and innovation funding. Thereby, it shall support the implementation of the Europe 2020 strategy and other Union policies, as well as the achievement and functioning of the European Research Area (ERA). The relevant performance indicators are set out in the introduction of Annex I.

Amendment

1. Horizon 2020 shall contribute to building ***a society*** based on knowledge and innovation across the whole Union by leveraging sufficient additional research, development and innovation funding. Thereby, it shall support the implementation of the Europe 2020 strategy and other Union policies, as well as the achievement and functioning of the European Research Area (ERA) ***through specific and exemplary actions fostering structural changes in European research and innovation systems***. The relevant performance indicators are set out in the introduction of Annex I.

Or. en

Amendment 24
Proposal for a regulation
Article 5 – paragraph 3

Text proposed by the Commission

3. The Joint Research Centre shall contribute to the general objective and priorities set out in paragraphs 1 and 2 by providing scientific and technical support to Union policies. The broad lines of the activities are set out in Part IV of Annex I.

Amendment

3. The Joint Research Centre shall contribute to the general objective and priorities set out in paragraphs 1 and 2 by providing scientific and technical support to Union policies. The broad lines of the activities are set out in Part IV of Annex I. ***In addition, the Joint Research Centre will provide support to national and regional authorities in the development of their Smart Specialisation Strategies.***

Or. en

Justification

Joint Research Centre should also assist the regional and local decision making with the latest RDI outcomes. This focusing should be accomplished in close coordination with the new developments of the Smart Specialisation Platform.

Amendment 25
Proposal for a regulation
Article 5 – paragraph 5

Text proposed by the Commission

5. Within the priorities and broad lines referred to in paragraph 2, account may be taken of new and unforeseen needs that arise during the period of implementation of Horizon 2020. This may include responses to emerging opportunities, crises and threats, to needs relating to the development of new Union policies, **and to the piloting of actions foreseen for support under future programmes.**

Amendment

5. Within the priorities and broad lines referred to in paragraph 2, account may be taken of new and unforeseen needs that arise during the period of implementation of Horizon 2020. This may include responses to emerging opportunities, crises and threats, to needs relating to the development of new Union policies.

Or. en

Justification

The piloting of actions is already foreseen in the budgetary negotiation process of the EU.

Amendment 26
Proposal for a regulation
Article 6 – paragraph 1

Text proposed by the Commission

1. The financial envelope for the implementation of Horizon 2020 shall be EUR **87740** million, of which a maximum of **EUR 86198 million** shall be allocated to activities under Title XIX of the Treaty on the Functioning of the European Union (TFEU).

Amendment

1. The financial envelope for the implementation of Horizon 2020 shall be EUR ~~xxx~~ million, of which a maximum of **98,2%** shall be allocated to activities under Title XIX of the Treaty on the Functioning of the European Union (TFEU).

Or. en

Amendment 27
Proposal for a regulation
Article 6 – paragraph 2 – subparagraph 1 – point a

Text proposed by the Commission

Amendment

(a) Excellent science, **EUR 27818 million**;

(a) Excellent science, **33,2% of the total budget**;

Or. en

Amendment 28

Proposal for a regulation

Article 6 – paragraph 2 – subparagraph 1 – point b

Text proposed by the Commission

Amendment

(b) Industrial leadership, **EUR 20280 million**;

(b) Industrial leadership, **24% of the total budget**;

Or. en

Amendment 29

Proposal for a regulation

Article 6 – paragraph 2 – subparagraph 1 – point c

Text proposed by the Commission

Amendment

(c) Societal challenges, **EUR 35888 million**.

(c) Societal challenges, **37,7% of the total budget**;

Or. en

Amendment 30

Proposal for a regulation

Article 6 – paragraph 2 – subparagraph 2

Text proposed by the Commission

Amendment

The maximum overall amount for the Union financial contribution from Horizon 2020 to the non-nuclear direct actions of the Joint Research Centre shall be **EUR 2212 million**.

The maximum overall amount for the Union financial contribution from Horizon 2020 to the non-nuclear direct actions of the Joint Research Centre shall be **2,1% of the total budget**.

Or. en

Amendment 31
Proposal for a regulation
Article 6 – paragraph 2 – subparagraph 3

Text proposed by the Commission

The *indicative* breakdown for the specific objectives within the priorities and the maximum overall amount of the contribution to the non-nuclear direct actions of the Joint Research Centre are set out in Annex II.

Amendment

The breakdown for the specific objectives within the priorities and the maximum overall amount of the contribution to the non-nuclear direct actions of the Joint Research Centre are set out in Annex II.

Or. en

Justification

The breakdown must be clear and it must not leave room for misconceptions.

Amendment 32
Proposal for a regulation
Article 6 – paragraph 3 – subparagraph 1

Text proposed by the Commission

3. The European Institute of Innovation and Technology shall be financed through a maximum contribution from Horizon 2020 of **EUR 3194 million** as set out in Annex II. ***A first allocation of EUR 1542 million shall be provided to the European Institute of Innovation and Technology for activities under Title XVII of the Treaty on the Functioning of the European Union. A second allocation of up to EUR 1652 million shall be provided, subject to the review set out in Article 26 (1). This additional amount shall be provided on a pro-rata basis, as indicated in Annex II, from the amount for the specific objective ‘Leadership in enabling and industrial technologies’ within the priority on industrial leadership set out in paragraph 2(b) and from the amount for the priority on societal challenges set out***

Amendment

3. The European Institute of Innovation and Technology shall be financed through a maximum contribution from Horizon 2020 of **3,1% of the total budget as** set out in Annex II.

in 2(c).

Or. en

Amendment 33
Proposal for a regulation
Article 6 – paragraph 3 – subparagraph 2

Text proposed by the Commission

Amendment

This funding in two multiannual allocations shall cover: ***deleted***

(a) in the first allocation, the ongoing developments of the current Knowledge and Innovation Communities (hereinafter KICs) and seed money for the launch of the second wave of three new KICs

(b) in the second allocation, the ongoing developments of the KICs already launched and the seed money for the launch of the third wave of three new KICs

Or. en

Amendment 34
Proposal for a regulation
Article 6 – paragraph 3 – subparagraph 3

Text proposed by the Commission

Amendment

The second allocation shall be made available following the review set out in Article 26(1) taking into account in particular: ***deleted***

(a) the agreed timing of the creation of the third wave of KICs;

(b) the programmed financial needs of the existing ones according to their specific development;

(c) the contribution of the European Institute of Innovation and Technology and its KICs to the Horizon 2020

objectives.

Or. en

Amendment 35
Proposal for a regulation
Article 6 – paragraph 4 – subparagraph 1

Text proposed by the Commission

4. The financial envelope of Horizon 2020 may cover expenses pertaining to preparatory, monitoring, control, audit and evaluation activities which are required for the management of Horizon 2020 and the achievement of its objectives, in particular studies and meetings of experts, as far as they are related to the objectives of Horizon 2020, expenses linked to information technology networks focusing on information processing and exchange, together with all other technical *and administrative* assistance expenses incurred by the Commission for the management of Horizon 2020.

Amendment

4. The financial envelope of Horizon 2020 may cover expenses pertaining to preparatory, monitoring, control, audit and evaluation activities which are required for the management of Horizon 2020 and the achievement of its objectives, in particular studies and meetings of experts, as far as they are related to the objectives of Horizon 2020, expenses linked to information technology networks focusing on information processing and exchange, together with all other technical assistance expenses incurred by the Commission for the management of Horizon 2020.

Or. en

Amendment 36
Proposal for a regulation
Article 6 – paragraph 5

Text proposed by the Commission

5. In order to respond to unforeseen situations or new developments and needs, *and to take into account the provisions of paragraph 3 of this article*, the Commission may, following the *interim evaluation of Horizon 2020 as referred to* in Article 26(1)(a) of this Regulation, within the annual budgetary procedure review the amounts set out for the priorities in paragraph 2 and the indicative breakdown by specific objectives within

Amendment

5. In order to respond to unforeseen situations or new developments and needs, the Commission may, following the *mid-term review set out* in Article 26(1)(a) of this Regulation, within the annual budgetary procedure *propose a* review of the amounts set out for the priorities in paragraph 2 *and the contribution to the EIT set out in paragraph 3* and the indicative breakdown by specific objectives within these priorities set out in

these priorities set out in Annex II and transfer appropriations between the priorities and specific objectives up to 10 % of the total initial allocation of each priority and up to 10 % of the initial indicative breakdown of each specific objective. This does not concern the amount set out for the direct actions of the Joint Research Centre in paragraph 2 *or the contribution to the European Institute of Innovation and Technology set out in paragraph 3.*

Annex II and transfer appropriations between the priorities and specific objectives up to 10 % of the total initial allocation of each priority and *the EIT and* up to 10 % of the initial indicative breakdown of each specific objective. This does not concern the amount set out for the direct actions of the Joint Research Centre in paragraph 2. *In reviewing the amounts, the Commission shall in particular take into account:*

(a) the contribution of the different parts of the programme to the Horizon 2020 objectives;

(b) the development of the key indicators for assessing results and impacts of the different parts of the programmes as specified in Annex II of the Specific Programme;

(c) the foreseen future financial needs of the different parts and instruments of the programme.

Or. en

Amendment 37
Proposal for a regulation
Article 7 – paragraph 1 – point b a (new)

Text proposed by the Commission

Amendment

(ba) countries or territories associated to the Seventh Framework Programme.

Or. en

Amendment 38
Proposal for a regulation
Article 8 – paragraph 2 a (new)

Text proposed by the Commission

Amendment

Effective coordination between the three main pillars of Horizon 2020 shall be ensured.

Or. en

Justification

Coordination among the three pillars of Horizon 2020 is necessary in order to achieve the objectives set in the Programme.

Amendment 39
Proposal for a regulation
Article 11 a (new)

Text proposed by the Commission

Amendment

Article 11a

Strategic Steering and Coordination

Strategic steering and coordination of research and innovation aiming at common objectives and requiring synergies across Horizon 2020 will be pursued.

Or. en

Amendment 40
Proposal for a regulation
Article 12 – paragraph 2

Text proposed by the Commission

Amendment

2. Full account shall also be taken of relevant aspects of the research and innovation agendas established by European Technology Platforms, Joint Programming Initiatives ***and*** European Innovation Partnerships.

2. Full account shall also be taken of relevant aspects of the research and innovation agendas established by European Technology Platforms, Joint Programming Initiatives, European Innovation Partnerships ***and European international research organisations.***

Amendment 41
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

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 **multi-, inter- and trans-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 42
Proposal for a regulation
Article 14

Text proposed by the Commission

Horizon 2020 shall be implemented in a manner ensuring that the priorities and actions supported **are** relevant to changing needs and take account of the evolving nature of science, technology, innovation, **markets** and society, where innovation includes business, organisational and social aspects.

Amendment

Horizon 2020 shall be implemented in a manner ensuring that the priorities and actions supported **remain** relevant to changing needs and take account of the evolving nature of science, technology, innovation, **economies** and society **in a globalised world**, where innovation includes business, organisational and social aspects.

Amendment 43
Proposal for a regulation
Article 15

Text proposed by the Commission

Horizon 2020 shall ensure the effective promotion of gender *equality* and *the gender dimension* in *research* and *innovation content*.

Amendment

Horizon 2020 shall ensure the effective promotion of gender *balance in all programmes, in evaluation committees, in expert and advisory groups and in any decision making body existing or created for its implementation. To this end, targets will be developed, and appropriate actions designed to reach those targets will be implemented.*

Or. en

Justification

Research has documented how gender inequalities, built into society and research institutions, have influenced science, medicine and technology. Gender bias in research limits scientific creativity, excellence, and benefits to society. It can also be expensive. Employing gender analysis to stimulate innovation involves interdisciplinary work throughout the research process. It sparks innovation by offering new perspectives, posing new questions, and opening new areas to research

Amendment 44
Proposal for a regulation
Article 15 – paragraph 1 a (new)

Text proposed by the Commission

Amendment

In research projects where human beings are involved as subjects or end-users Horizon 2020 shall ensure that the gender dimension is properly considered in research and innovation content at all stages of the process, including priority setting, definition of calls for proposals, evaluation and monitoring of programs and projects, negotiations and agreements.

Justification

Europe needs more scientists and more people skilled in science and technology in order to compete in the global arena. At present, there is a clear gender imbalance in science, engineering and technology. Thus, improving the gender balance in the whole system has a clear potential to increase the human capital in the areas of science and technology. Consequently, one of the aims of Horizon 2020 must be improving the gender balance in the European science and technology system. For this reason, gender balance shall be present during all the process.

Amendment 45
Proposal for a regulation
Article 15 a (new)

Text proposed by the Commission

Amendment

Article 15a

Human resources

Fostering human resources for science, technology and innovation across Europe shall be a priority in Horizon 2020.

Horizon 2020 shall contribute to the promotion and attractiveness of researchers' careers across the Union in the context of the European Research Area.

Or. en

Justification

The economic and financial crisis has had a significant negative impact on the unemployment rates of many Member States. Creating new job opportunities in sectors of high added economic value such as research and innovation is absolutely needed. Attracting and fostering human resources on these sectors is required for a successful recovery and to guarantee the long-term competitiveness of the EU in a globalised world.

Amendment 46
Proposal for a regulation
Article 15 b (new)

Text proposed by the Commission

Amendment

Article 15b

Open Access

With a view to enhance exploitation and dissemination of results and thereby boost European innovation, free open access to publications resulting from research funded by Horizon 2020 shall be mandatory. Free open access to scientific data produced or collected within research funded by Horizon 2020 shall be promoted.

Or. en

Justification

Open access can quickly provide professionals and policy-makers with crucial information. For this reason, free open online access to scientific research funded by Horizon 2020 must be the general rule. On the other hand, open access to scientific data must be incentivised. Open access would undoubtedly add economic efficiency to EU's funded research by speeding scientific progress and limiting wasteful repetition.

Amendment 47
Proposal for a regulation
Article 17

Text proposed by the Commission

Amendment

Horizon 2020 shall be implemented in a way which is complementary to other Union funding programmes, ***including the Structural Funds.***

Horizon 2020 shall be implemented in a way which is complementary to other Union funding programmes.

Or. en

Justification

The importance of the synergies that must exist between Horizon 2020 and the Cohesion Policy in the new programming period 2014-2020 deserves a separated mention.

Amendment 48
Proposal for a regulation
Article 17 a (new)

Text proposed by the Commission

Amendment

Article 17a

Synergies with the Structural Funds

Horizon 2020 shall contribute to the closing of the research and innovation divide within the European Union by enabling synergies with the Cohesion policy in support to research and innovation through the implementation of complementary measures in a coordinated way. Where possible, the interoperability of the two instruments will be promoted and cumulative or combined funding will be encouraged.

Or. en

Justification

As stated in the proposed new Recital 26a, although they have different focus, both Horizon 2020 and the Cohesion Policy are extremely important to reach the objectives of Europe 2020. Thus synergies and complementarities between them are really needed. Cohesion policy must prepare regional R&I players to participate in Horizon 2020 projects and, on the other hand, should provide the means to exploit and diffuse swiftly R&I results stemming from Horizon 2020 funded basic research into the market.

Amendment 49
Proposal for a regulation
Article 18 – paragraph 3

Text proposed by the Commission

Amendment

3. The integrated approach set out in paragraphs 1 and 2 ***is expected to*** lead to ***around*** 15% of the total combined budget for the specific objective on ‘Leadership in enabling and industrial technologies’ and the priority ‘Societal challenges’ going to SMEs.

3. The integrated approach set out in paragraphs 1 and 2 ***shall*** lead to ***at least*** 15% of the total combined budget for the specific objective on ‘Leadership in enabling and industrial technologies’ and the priority ‘Societal challenges’ going to SMEs.

Or. en

Justification

The important role that SMEs must play in the reinforcement of the European research and innovation system requires clear objectives and clear financial support. Changing from an indicative figure to a minimum one provides more clarity and predictability.

Amendment 50

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 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;

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 ***taking full consideration of the results of the cost benefit analysis to be conducted under the foreseen impact assessment of this instrument, as well as to the fulfilment of the criteria set out in paragraph 3;*** 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, ***and where other forms of partnerships will not fulfil the objectives or will not generate the necessary leverage;***

Or. en

Amendment 51

Proposal for a regulation

Article 19 – paragraph 3 – introductory part

Text proposed by the Commission

3. Public-private partnerships shall be identified in an open and transparent way based on all of the following criteria:

Amendment

3. Public-private partnerships shall be identified ***and will be implemented*** in an open and transparent way based on all of

the following criteria:

Or. en

Justification

Not only the choice of the PPPs, but also their implementation should adhere to certain criteria, such the alignment with the rest of Horizon 2020 in terms of rules on IPR, access right, transparency and openness and the need to identify beforehand common targets to achieve and to be accountable to them.

Amendment 52
Proposal for a regulation
Article 19 – paragraph 3 – point a

Text proposed by the Commission

(a) the added value of action at Union level;

Amendment

(a) the added value of action at Union level
and the added value of the instrument of a public-private partnership;

Or. en

Justification

Public-private partnerships should only be set up when the PPP as instrument has added value(e.g. in terms of industrial participation, leverage of private funds or enhancement of the competitiveness of an entire value chain) above other possible instruments.

Amendment 53
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 ***through the definition of clear and measurable societal and competitiveness objectives, including job creation and educational/training targets, and accountability on reaching these objectives;***

Justification

In a context of crisis, economic and social objectives must be clearly defined and must be measurable in order to evaluate the advisability of any instrument. Special attention must be paid to job creation as one of the main consequences of the crisis is a clear negative impact on employment rates.

Amendment 54
Proposal for a regulation
Article 19 – paragraph 3 – point c

Text proposed by the Commission

(c) the long-term commitment from all partners based on a shared vision and clearly defined objectives;

Amendment

(c) the long-term commitment, ***including a balanced contribution***, from all partners based on a shared vision and clearly defined objectives;

Or. en

Justification

In a context of budgetary restraints in the public sphere, the leverage of private money and contributions is absolutely necessary. Reaching the objectives of Horizon 2020 and Europe 2020 requires not only public support but also private commitment.

Amendment 55
Proposal for a regulation
Article 19 – paragraph 3 – point e a (new)

*Text proposed by the Commission**Amendment*

(ea) the compliance with the rules of participation of the Horizon 2020 programme, particularly in terms of intellectual property rights, transparency and openness;

Or. en

Amendment 56
Proposal for a regulation
Article 19 – paragraph 3 – point e b (new)

Text proposed by the Commission

Amendment

(eb) the complementarity with other parts of Horizon 2020 and the alignment with the Union research and innovation strategic agenda;

Or. en

Amendment 57
Proposal for a regulation
Article 19 – paragraph 3 – point e c (new)

Text proposed by the Commission

Amendment

(ec) the involvement of all interested partners of the entire value chain, including the end-users, SMEs and research institutes, in the partnership.

Or. en

Amendment 58
Proposal for a regulation
Article 20 – paragraph 1 – subparagraph 2

Text proposed by the Commission

Amendment

Particular attention shall be paid to joint programming initiatives between Member States.

Particular attention shall be paid to joint programming initiatives between Member States, ***and these initiatives may include regions and cities where relevant. The financial contribution of the Union shall be of a limited nature and shall always be conditional to the demonstration of transparency, large participation of Member States, the existence of a Union added value and the additionality of the resources. Top-up funding will be restricted to initiatives permanently open to participation from all member states.***

Justification

Firstly, more flexibility and an increased role for regions in forming JPIs are needed. Secondly, the participation of the Union in JPIs must be always subject to the European added value of the initiatives and based on inclusiveness.

Amendment 59**Proposal for a regulation****Article 20 – paragraph 2 – subparagraph 1 – point b***Text proposed by the Commission*

(b) Union participation in programmes undertaken by several Member States in accordance with Article 185 TFEU.

Amendment

(b) Union participation in programmes undertaken by several Member States in accordance with Article 185 TFEU, **with participation of sub-national authorities where relevant.**

Or. en

Justification

The same logic which applies to Member States should also apply to EU participation in programmes undertaken by Regional authorities. This would be in accordance with the spirit of Article 185 TFEU.

Amendment 60**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:

Or. en

Amendment 61
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, complementing external and development programmes ***and international commitments such as the achievements of the Millennium Development Goals.***

Or. en

Justification

There must be a clear coherence of Horizon 2020 and its supported actions with the general external and development objectives of the EU. In addition, they must be fully consistent with the international commitments acquired by the Union.

Amendment 62
Proposal for a regulation
Article 21 – paragraph 2 – subparagraph 1

Text proposed by the Commission

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.

Amendment

2. Targeted actions with the objective of promoting cooperation with specific third countries or groups of third countries, ***in particular with the strategic partners of the Union,*** 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.

Or. en

Amendment 63
Proposal for a regulation
Article 21 – paragraph 2 – subparagraph 2

Text proposed by the Commission

Reciprocal access to third country programmes should be encouraged. In order to maximise impact, coordination and synergies with initiatives of Member States and associated countries shall be promoted.

Amendment

Reciprocal access to third country programmes should be encouraged **and periodically monitored**. In order to maximise impact, coordination and synergies with initiatives of Member States and associated countries shall be promoted.

Or. en

Justification

A periodical monitoring of third countries' programmes is needed in order to make sure that the access guaranteed by the Union to Horizon 2020 is reciprocal. This monitoring shall identify changes in practices in third countries that may undermine this desired reciprocal access.

Amendment 64
Proposal for a regulation
Article 22 – paragraph 2

Text proposed by the Commission

Activities to disseminate information and carry out communication activities shall be an integral task under all of the actions supported by Horizon 2020.

Amendment

Activities to disseminate information and carry out communication activities shall be an integral task under all of the actions supported by Horizon 2020. ***Including the gender dimension in dissemination and communication activities will be part of effective schemes and will be assessed.***

Or. en

Justification

The gender dimension must be present in all the stages of Horizon 2020, including dissemination and communication activities.

Amendment 65
Proposal for a regulation
Article 22 – paragraph 3 – point c

Text proposed by the Commission

Amendment

(c) actions which bring together results from a range of projects, including those that may be funded from other sources, to provide user-friendly databases and reports that summarise key findings;

(c) actions which bring together results from a range of projects, including those that may be funded from other sources, to provide user-friendly databases and reports that summarise key findings, ***and their communication and dissemination to the scientific community and the general public;***

Or. en

Justification

Findings and implications of project results should be communicated to the scientific community and beyond to encourage a greater level of engagement between the research community, industry and citizens and civil society.

Amendment 66
Proposal for a regulation
Article 23 – paragraph 2

Text proposed by the Commission

Amendment

2. The control system shall ensure an appropriate balance between trust and control, taking into account administrative and other costs of controls at all levels, so that the objectives of Horizon 2020 can be achieved and the most excellent researchers and the most innovative enterprises can be attracted to it.

2. The control system shall ensure an appropriate balance between trust and control, taking into account administrative and other costs of controls at all levels, ***including at the level of beneficiaries,*** so that the objectives of Horizon 2020 can be achieved and the most excellent researchers and the most innovative enterprises can be attracted to it.

Or. en

Justification

The administrative costs that beneficiaries may incur in order to comply with control requirements must be acknowledged and taken into account.

Amendment 67
Proposal for a regulation
Article 25 – paragraph 1

Text proposed by the Commission

Amendment

1. The Commission shall annually monitor the implementation of Horizon 2020, its specific programme and the activities of the European Institute of Innovation and Technology. This shall include information on cross-cutting topics such as sustainability and climate change, including information on the amount of climate related expenditure.

1. The Commission shall annually monitor the implementation of Horizon 2020, its specific programme and the activities of the European Institute of Innovation and Technology. This shall include information **and indicators** on cross-cutting topics such as **gender**, sustainability and climate change, including information on the amount of climate related expenditure.

Or. en

Justification

An effective monitoring of the programme requires clear indicators. In addition, the importance of gender balance deserves a specific mention.

Amendment 68
Proposal for a regulation
Article 26 – title

Text proposed by the Commission

Amendment

Evaluation

Mid-term review

Or. en

Amendment 69
Proposal for a regulation
Article 26 – paragraph 1 – introductory part

Text proposed by the Commission

Amendment

1. ***Evaluations*** shall be carried out in a sufficiently timely manner to feed into the decision-making process.

1. ***Reviews and evaluations*** shall be carried out in a sufficiently timely manner to feed into the decision-making process.

Or. en

Amendment 70
Proposal for a regulation
Article 26 – paragraph 1 – point a

Text proposed by the Commission

Amendment

(a) Not later than end 2017, the Commission shall carry out, with the assistance of independent experts, a review of the European Institute of Innovation and Technology. The second allocation of funds to the European Institute of Innovation and Technology as set out in Article 6(3) shall be made available following this review. The review shall assess the progress of the European Institute of Innovation and Technology against all of the following:

deleted

(i) the level of consumption of the first allocation of funds set out in Article 6(3), differentiating between the amount of money used for the development of the first wave of KICs and the effect of the seed money for the second phase, and the ability of the European Institute of Innovation and Technology to attract funds from the partners in the Knowledge and Innovation Communities and from the private sector, as set out in Regulation XX/2012 [revised EIT Regulation];

(ii) the agreed timing for the creation of the third wave of Knowledge and Innovation Communities and the programmed financial needs of existing ones according to their specific development; and

(iii) the contribution of the European Institute of Innovation and Technologies and the Knowledge and Innovation Communities to the priority on societal challenges and the specific objective on ‘leadership in enabling and industrial technologies’ of the programme Horizon 2020.

Or. en

Justification

The next generation of KICs shall be launched in 2014 and the budget will be phased-in according to their yearly performances. The sectoral landscape in each sector being different, it would seem a healthier approach to base the budgetary decision on each KICs' own merit rather than deciding on new KICs based on the performance of other KICs.

Amendment 71

Proposal for a regulation

Article 26 – paragraph 1 – point b

Text proposed by the Commission

(b) Not later than end 2017, and taking into account the ex-post evaluation of the Seventh Framework Programme to be completed by the end of 2015 **and the review of the European Institute of Innovation and Technology**, the Commission shall carry out, with the assistance of independent experts, **an interim evaluation** of Horizon 2020, its specific programme, including the European Research Council, and the activities of the European Institute of Innovation and Technology, **on** the achievements (at the level of results and progress towards impacts) of the objectives of Horizon 2020 and continued relevance of all the measures, the efficiency and use of resources, the **scope for further simplification, and** Union added value. **That evaluation** shall also take into consideration aspects relating to access to funding opportunities for participants in all regions, for SMEs and for promoting gender balance. **That evaluation** shall additionally take into account the contribution of the measures to the Union priorities of smart, sustainable and inclusive growth and results on the long-term impact of the predecessor measures.

Amendment

(b) Not later than end 2017, and taking into account the ex-post evaluation of the Seventh Framework Programme to be completed by the end of 2015, the Commission shall carry out, with the assistance of independent experts, **a mid-term review** of Horizon 2020, its specific programme, including the European Research Council, and the activities of the European Institute of Innovation and Technology. **The review shall assess the progress of the different parts of Horizon 2020 against all of the following:**

(i) the achievements (at the level of results and progress towards impacts, **based on the indicators outlined in Annex II of the Specific Programme**) of the objectives of Horizon 2020 and continued relevance of

all the measures;

(ii) the efficiency and use of resources, ***with particular attention paid to cross-cutting actions and other elements stipulated in Article 13(1); and***

(iii) the Union added value.

The interim review shall also take into consideration ***the scope for further simplification and*** aspects relating to access to funding opportunities for participants in all regions, for SMEs and for promoting gender balance. ***It*** shall additionally take into account the contribution of the measures to the Union priorities of smart, sustainable and inclusive growth and results on the long-term impact of the predecessor measures.

Or. en

Amendment 72

Proposal for a regulation

Annex I – Broad lines of the specific objectives and activities – paragraph 1

Text proposed by the Commission

Horizon 2020 has the general objective to build ***an economy*** based on knowledge and innovation across the whole Union, while contributing to sustainable development. It will support the Europe 2020 strategy and other Union policies as well as the achievement and functioning of the European Research Area.

Amendment

Horizon 2020 has the general objective to build ***a society*** based on knowledge and innovation across the whole Union, while contributing to sustainable development. It will support the Europe 2020 strategy and other Union policies as well as the achievement and functioning of the European Research Area.

Or. en

Amendment 73

Proposal for a regulation

Annex I – Broad lines of the specific objectives and activities – paragraph 2 – indent 2 a (new)

Text proposed by the Commission

Amendment

- the following human resources indicators: change in the fraction of researchers (FTE) in the active population; change in the proportion of women in the total number of researchers; changes in the attraction of researchers from abroad and in the brain drain of researchers.

All performance indicators shall be used in order to highlight change, to make visible progress in internal Union research participation imbalances and to allow for significant international comparison at world level.

Or. en

Justification

Together with the included indicators, the results of Horizon 2020 must be evaluated in terms of improvement of human resources. A successful and sustainable recovery from the economic crisis requires a solid human capital in the research and innovation system. On the other hand, evaluations and reviews must be contrasted with the previous situation in order to clarify the impact of Horizon 2020.

Amendment 74

Proposal for a regulation

Annex I – Broad lines of the specific objectives and activities – paragraph 3 a (new)

Text proposed by the Commission

Amendment

All three priorities shall include an international dimension. International scientific and technological cooperation is a critical issue for the Union and, as a consequence, Horizon 2020 will support it in three main dimensions:

- promoting scientific and technological (S&T) cooperation with the most advanced centres of knowledge in the world, in order to achieve and share the most advanced standards of excellence, and to pursue competition at the highest

levels;

- promoting international S&T cooperation for capacity building, helping institutions in the Union, from the very start, to contribute to and to share the benefits of the fast expansion of R&D capabilities and human resources world-wide;

- promoting S&T cooperation for peace and stability world-wide, recognising the fundamental role that human and societal values of science and research can bring to the consolidation of fragile societies and to the appeasement of international conflicts.

Or. en

Justification

International networks of scientific collaboration have shaped modern science and technology and are becoming increasingly important to address successfully new areas of science and technology. Last decade' explosion of higher education and research are providing unprecedented financial and human resources to the pursuit of new knowledge. The role of the EU in this bigger world of emerging knowledge societies has to be continuously redefined. International S&T cooperation along with EU collaborative research is now key in all strategic plans of successful institutions.

Amendment 75

Proposal for a regulation

Annex I – Broad lines of the specific objectives and activities – paragraph 4

Text proposed by the Commission

The Joint Research Centre shall contribute to the general objective and priorities of Horizon 2020 with the specific objective of providing customer-driven scientific and technical support to Union policies.

Amendment

The Joint Research Centre shall contribute to the general objective and priorities of Horizon 2020 with the specific objective of providing customer-driven scientific and technical support to Union policies. ***The Union added value of the Joint Research Centre shall be assessed against the following indicators:***

- number of occurrences of tangible specific impacts on Union policies resulting from technical and scientific policy support provided by the Joint

Research Centre
- number of peer reviewed publications.

Or. en

Justification

There is a need to evaluate the role of the JRC with some concrete indicators.

Amendment 76
Proposal for a regulation
Annex I – Broad lines of the specific objectives and activities – paragraph 6 a (new)

Text proposed by the Commission

Amendment

In order to help close the research and innovation divide in Europe, complementarity and close synergies will be developed with the Structural Funds both upstream (capacity-building in the Member States to better prepare their participation in Horizon 2020) and downstream (exploit and diffuse research and innovation results stemming from Horizon 2020). Where possible, the interoperability between the two instruments will be promoted. Cumulative or combined funding will be encouraged. Synergies will in particular be sought in the activities set out in the "Widening excellence and widening participation" objective, the regional partner facilities of research infrastructure of European interest, and the activities performed via the EIT and its KICs.

Or. en

Justification

As stated in the proposed new Article 16a, although they have different focus, both Horizon 2020 and the Cohesion Policy are extremely important to reach the objectives of Europe 2020. Thus synergies and complementarities between them are really needed. Cohesion policy must prepare regional R&I players to participate in Horizon 2020 projects and, on the other hand, should provide the means to exploit and diffuse swiftly R&I results stemming from Horizon 2020 funded basic research into the market.

Amendment 77

Proposal for a regulation

Annex I – Broad lines of the specific objectives and activities – paragraph 7 – introductory part

Text proposed by the Commission

This Part aims to reinforce and extend the excellence of the Union's science base and to consolidate the European Research Area in order to make the Union's research and innovation system more competitive on a global scale. It consists of **four** specific objectives:

Amendment

This Part aims to reinforce and extend the excellence of the Union's science base and to consolidate the European Research Area in order to make the Union's research and innovation system more competitive on a global scale. It consists of **six** specific objectives:

Or. en

Amendment 78

Proposal for a regulation

Annex I – Broad lines of the specific objectives and activities – paragraph 7 – point b

Text proposed by the Commission

(b) Future and emerging technologies shall support collaborative research in order to extend Europe's capacity for advanced and paradigm-changing innovation. It shall foster scientific collaboration across disciplines on radically new, high-risk ideas and accelerate development of the most promising emerging areas of science and technology as well as the Union wide structuring of the corresponding scientific communities.

Amendment

(b) Future and emerging **sciences and** technologies shall support collaborative research in order to extend Europe's capacity for advanced and paradigm-changing innovation. It shall foster scientific collaboration across disciplines on radically new, high-risk ideas and accelerate development of the most promising emerging areas of science and technology as well as the Union wide structuring of the corresponding scientific communities.

Or. en

(This amendment applies throughout the text. Adopting it will necessitate corresponding changes throughout.)

Amendment 79

Proposal for a regulation

Annex I – Broad lines of the specific objectives and activities – paragraph 7 – point d a (new)

Text proposed by the Commission

Amendment

(da) Spreading excellence and widening participation shall unlock the potential of Europe's talent pool by giving support to policy learning, networking and training opportunities;

Or. en

Justification

Spreading excellence and widening participation in Horizon 2020 is needed in order to increase competitiveness while aiming at Europe's economic, social and territorial cohesion. Specific support under this new specific objective can increase the excellence potential that exists in Europe.

Amendment 80

Proposal for a regulation

Annex I – Broad lines of the specific objectives and activities – paragraph 7 – point d b (new)

Text proposed by the Commission

Amendment

(db) Responsible research and innovation shall attract new talent to the study of science and technology in European societies, bridge the gender gap in human resources working in research in the Union and develop mechanisms allowing for the broadening and deepening of the social appraisal of scientific and technological options.

Or. en

Justification

This new specific objective shall support the establishment of an enriching dialogue between science and society while improving the human resources in the science and innovation domains through an improved gender balance and through attracting young talents to

scientific and technological careers.

Amendment 81

Proposal for a regulation

Annex I – Broad lines of the specific objectives and activities – paragraph 10 – introductory part

Text proposed by the Commission

This Part aims to speed up development of the technologies and innovations that will underpin tomorrow's businesses and help innovative European SMEs to grow into world-leading companies. It consists of three specific objectives:

Amendment

This Part aims to speed up development of the technologies and innovations that will underpin tomorrow's businesses and help innovative European SMEs to grow into world-leading companies ***as well as harvest the potential of establishing fertile ground for novel SMEs. Special attention shall be paid to promoting knowledge and technology transfer from public research centres to companies as well as from companies among themselves.*** It consists of three specific objectives:

Or. en

Amendment 82

Proposal for a regulation

Annex I – Broad lines of the specific objectives and activities – paragraph 10 – point a

Text proposed by the Commission

(a) Leadership in enabling and industrial technologies shall provide dedicated support for research, development and demonstration on ICT, nanotechnology, advanced materials, biotechnology, advanced manufacturing and processing and space. Emphasis will be placed on interactions and convergence across and between the different technologies.

Amendment

(a) Leadership in enabling and industrial technologies shall provide dedicated support for research, ***standardisation,*** development and demonstration on ICT, nanotechnology, advanced materials, biotechnology, advanced manufacturing and processing and space. Emphasis will be placed on interactions and convergence across and between the different technologies ***and their relations to societal challenges. Proper consideration of user needs shall be taken into account in all these fields***

Or. en

Justification

Industrial Leadership must contribute to European standards that are acknowledged and used world wide. In a complex technology world, standards imply market power and are a multiplicative factor on the way from research to innovation.

Amendment 83

Proposal for a regulation

Annex I – Broad lines of the specific objectives and activities – paragraph 12

Text proposed by the Commission

Horizon 2020 will take an integrated approach to the participation of SMEs, ***which could*** lead to ***around*** 15 % of the total combined budgets for all specific objectives on societal challenges and the specific objective ‘Leadership in enabling and industrial technologies’ being devoted to SMEs.

Amendment

Horizon 2020 will take an integrated approach to the participation of SMEs, ***and establish a clear mechanism to identify and address the knowledge and technology transfer needs of SMEs. Support shall*** lead to ***at least*** 15 % of the total combined budgets for all specific objectives on societal challenges and the specific objective ‘Leadership in enabling and industrial technologies’ being devoted to SMEs.

Or. en

Amendment 84

Proposal for a regulation

Annex I – Broad lines of the specific objectives and activities – paragraph 14 – point a

Text proposed by the Commission

(a) Health, ***demographic change*** and well-being;

Amendment

(a) Health and well-being;

Or. en

(This amendment applies throughout the text. Adopting it will necessitate corresponding changes throughout.)

Amendment 85

Proposal for a regulation

Annex I – Broad lines of the specific objectives and activities – paragraph 14 – point b

Text proposed by the Commission

Amendment

(b) Food security, sustainable agriculture, marine and maritime research, and the bio-economy;

(b) Food security, sustainable agriculture, ***healthy and sustainable*** marine and maritime research and the bio-economy;

Or. en

(This amendment applies throughout the text. Adopting it will necessitate corresponding changes throughout.)

Amendment 86

Proposal for a regulation

Annex I – Broad lines of the specific objectives and activities – paragraph 14 – point f

Text proposed by the Commission

Amendment

(f) ***Inclusive, innovative and secure societies.***

(f) ***Understanding European societies and societal change***

Or. en

(This amendment applies throughout the text. Adopting it will necessitate corresponding changes throughout.)

Amendment 87

Proposal for a regulation

Annex I – Broad lines of the specific objectives and activities – paragraph 14 – point f a (new)

Text proposed by the Commission

Amendment

(fa) Protecting freedom and security in Europe

Or. en

(This amendment applies throughout the text. Adopting it will necessitate corresponding changes throughout.)

Amendment 88

Proposal for a regulation

Annex I – Broad lines of the specific objectives and activities – 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 **fundamental** research to market, **including** 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.

Or. en

Amendment 89

Proposal for a regulation

Annex I – Broad lines of the specific objectives and activities – paragraph 15 a (new)

Text proposed by the Commission

Amendment

In order to take the challenge-based approach, a coordinated strategic planning of research and innovation activities is needed. Coordination can address fragmentation and improve the use of technological and infrastructural resources by the entire research community related to each challenge. Moreover, in the majority of cases, success in innovation requires a long-term commitment to sustain excellent research. Strategic actions and scientific steering can ensure expert input on policy from the outset, advance innovation and competitiveness by understanding the

complexity of the innovation cycle, and encourage participation from more researchers across borders. Strategic research and innovation coordination on each challenge based on scientific steering shall be established by Sectoral Steering Boards of independent high-level experts which will contribute to define research and innovation programmes based on the best leadership and will provide the impetus and instruments needed to promote interaction and synergies at a larger scale.

Or. en

Amendment 90

Proposal for a regulation

Annex I – Broad lines of the specific objectives and activities – paragraph 17

Text proposed by the Commission

Amendment

The specific objective ‘Inclusive, innovative and secure societies’ also includes an activity to close the research and innovation divide with specific measures to unlock excellence in less developed regions of the Union.

deleted

Or. en

Justification

This activities are now under the new proposed specific objective "Spreading excellence and widening participation" under the Priority "Excellent Science".

Amendment 91

Proposal for a regulation

Annex I – Part I – point 1 – point 1.1 – paragraph 5 a (new)

Text proposed by the Commission

Amendment

Furthermore, while 60% of European university graduates are women, only 18% of grade A researchers are women,

as compared to 27% in the US. The low number of women who are able to pursue scientific careers is a dramatic waste, a loss of talent, and a hindrance for the excellence of European research.

Or. en

Justification

Gender equality is a key factor determining the quality of research. As it has been proved, achieving gender balance in a team contributes to the quality of research and results. In addition, gender diversification stimulates innovation and productivity.

Amendment 92

Proposal for a regulation

Annex I – Part I – point 1 – point 1.1 – paragraph 6

Text proposed by the Commission

Furthermore, these factors compound Europe's relative unattractiveness in the global competition for scientific talent. The ability of the US system to offer more resources per researcher and better career prospects explains how it continues to attract the best researchers from across the world, including tens of thousands from the Union.

Amendment

These factors compound Europe's relative unattractiveness in the global competition for scientific talent. The ability of the US system to offer more resources per researcher and better career prospects explains how it continues to attract the best researchers from across the world, including tens of thousands from the Union.

Or. en

Amendment 93

Proposal for a regulation

Annex I – Part I – point 1 – point 1.3 – paragraph 2

Text proposed by the Commission

ERC funding shall be awarded in accordance with the following well-established principles. Scientific excellence shall be the sole criterion on which ERC grants are awarded. The ERC shall operate on a 'bottom-up' basis without predetermined priorities. The ERC grants

Amendment

ERC funding shall be awarded in accordance with the following well-established principles. Scientific excellence shall be the sole criterion on which ERC grants are awarded. The ERC shall operate on a 'bottom-up' basis without predetermined priorities. The ERC grants

shall be open to individual teams of researchers of any age and from any country in the world, working in Europe. **And the** ERC shall aim to foster healthy competition across Europe.

shall be open to individual teams of researchers of any age and from any country in the world, working in Europe. **The** ERC shall aim to foster healthy competition across Europe **and will ensure unconscious gender bias is properly tackled in evaluation procedures.**

Or. en

Justification

Gender balance must be present in the evaluation procedures as there is a great potential to improve women's participation in science.

Amendment 94 **Proposal for a regulation** **Annex I – Part I – point 1 – point 1.3 – paragraph 3**

Text proposed by the Commission

The ERC shall give particular priority to assisting excellent starting researchers to make the transition to independence by providing adequate support at the critical stage when they are setting up or consolidating their own research team or programme.

Amendment

The ERC shall give particular priority to assisting excellent starting researchers to make the transition to independence by providing adequate support at the critical stage when they are setting up or consolidating their own research team or programme. **Return and reintegration of researchers after the end of an ERC funding period may also be supported, particularly in combination with the 'ERA chair' scheme.**

Or. en

Amendment 95 **Proposal for a regulation** **Annex I – Part I – point 1 – 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

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.

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 **an** increase in the number of excellent researchers from outside Europe whom it funds, **including a sharp increase of excellent female researchers**, and specific improvements in institutional practices and national policies to support top researchers.

Or. en

Amendment 96
Proposal for a regulation
Annex I – Part I – point 2 – title

Text proposed by the Commission

Amendment

2. Future and Emerging Technologies
(**FET**)

2. Future and Emerging **Sciences and**
Technologies (**FEST**)

Or. en

(This amendment applies throughout the text. Adopting it will necessitate corresponding changes throughout.)

Amendment 97
Proposal for a regulation
Annex I – Part I – point 2 – point 2.1 – paragraph 1

Text proposed by the Commission

Amendment

The specific objective is to foster **radically** new **technologies by exploring novel** and **high-risk ideas building on scientific foundations**. By providing flexible support to goal-oriented and interdisciplinary

The specific objective is to foster **frontier research with the potential to open new fields for European science** and **technology**. By providing flexible support to goal-oriented and interdisciplinary

collaborative research on various scales and by adopting innovative research practices, the aim is to identify and seize opportunities of long-term benefit for citizens, the economy and society.

collaborative research on various scales and by adopting innovative research practices, the aim is to identify and seize opportunities of long-term benefit for citizens, the economy and society.

Or. en

Amendment 98

Proposal for a regulation

Annex I – Part I – point 2 – point 2.1 – paragraph 1 a (new)

Text proposed by the Commission

Amendment

FEST will promote excellence through collaborative projects focused on frontier research in future and emerging science and technology opportunities. Spanning the full field of collaborative frontier research from basic frontier science to technological frontier developments, and fostering collaboration across borders from the very early stages of research and onwards, FEST will bring Union added value to the frontier of modern research and will help to build collaborative critical mass in excellent research across Europe.

Or. en

Amendment 99

Proposal for a regulation

Annex I – Part I – point 2 – point 2.2 – paragraph 1

Text proposed by the Commission

Amendment

Radical breakthroughs with a transformative impact increasingly rely on intense collaboration across disciplines in science and technology (for instance, information and communication, biology, chemistry, earth system sciences, material sciences, neuro- and cognitive sciences, social sciences or economics) and with the arts and humanities. This requires not only

Radical breakthroughs with a transformative impact increasingly rely on intense collaboration across disciplines in science and technology (for instance, information and communication, biology, chemistry, **mathematics**, earth system sciences, material sciences, neuro- and cognitive sciences, social sciences or economics) and with the arts and

excellence in science and technology but also new attitudes and novel interactions between a broad range of players in research.

humanities. This requires not only excellence in science and technology but also new attitudes and novel interactions between a broad range of players in research.

Or. en

Amendment 100
Proposal for a regulation
Annex I – Part I – point 2 – point 2.2 – paragraph 2

Text proposed by the Commission

While some ideas can be developed on a small scale, others may be so challenging that they require a large federated effort over a substantial period of time. ***Major economies worldwide have recognised this, and there is growing global competition to identify and pursue emerging technological opportunities at the frontier of science which can generate a considerable impact on innovation and benefits for society.*** To be effective, these types of activity need to be built up quickly to a large scale, by federating across programmes at European, national and regional levels around common goals to build critical mass, foster synergies and obtain optimum leveraging effects.

Amendment

While some ideas can be developed on a small scale, others may be so challenging that they require a large federated effort over a substantial period of time. To be effective, these types of activity need to be built up quickly to a large scale, by federating across programmes at European, national and regional levels around common goals to build critical mass, foster synergies and obtain optimum leveraging effects.

Or. en

Amendment 101
Proposal for a regulation
Annex I – Part I – point 2 – point 2.3 – paragraph 3

Text proposed by the Commission

The right mix of openness and varying degrees of structuring of topics, communities and funding shall be defined for each activity in order to address optimally the objectives pursued.

Amendment

deleted

Amendment 102
Proposal for a regulation
Annex I – Part I – point 2 – point 2.3 – paragraph 3 a (new)

Text proposed by the Commission

Amendment

At least 60% of FEST resources will be devoted to bottom-up collaborative frontier research in all fields, whereas no more than 25% will be concentrated in pursuing a few challenging FEST flagships.

A FEST Steering Board, composed of scientists and engineers of the highest repute and appropriate expertise, ensuring a diversity of research areas and acting in their personal capacity, shall provide input and advice to the Commission on the overall scientific strategy for the FEST activities, the establishment of the work programme and the criteria for the calls for proposals, as well as the definition of specific topics for FEST Proactive and FEST Flagships.

Evaluation of all FEST projects will follow exclusively strict criteria of scientific and technological excellence.

Or. en

Justification

Although FEST Flagships are important for Europe they must not concentrate excessive funding. A considerable amount must be dedicated to bottom-up collaborative frontier research because of its grand potential to contribute to the achievement of the objectives related to FEST. The FEST Steering Board with the mentioned features will undoubtedly improve the overall results expected from FEST and will surely increase the overall support for this specific objective. Excellence must be the unique criteria to in the evaluation of FEST following the example of the ERC.

Amendment 103
Proposal for a regulation
Annex I – Part I – point 3 – title

Text proposed by the Commission

Amendment

3. Marie **Curie** Actions

3. Marie **Skłodowska-Curie** Actions

Or. en

(This amendment applies throughout the text. Adopting it will necessitate corresponding changes throughout.)

Amendment 104

Proposal for a regulation

Annex I – Part I – point 3 – point 3.1 – paragraph 1

Text proposed by the Commission

Amendment

The specific objective is to ensure optimum development and dynamic use of Europe's intellectual capital in order to **generate** new skills and innovation and, thus, to realise its full potential across all sectors and regions.

The specific objective is to ensure optimum development and dynamic use of Europe's intellectual capital in order to **develop** new skills and **generate new knowledge and** innovation and, thus, to realise its full potential across all sectors and regions.

Or. en

Amendment 105

Proposal for a regulation

Annex I – Part I – point 3 – point 3.1 – paragraph 5 a (new)

Text proposed by the Commission

Amendment

Mobility programs will ensure effective equal opportunities between men and women and include specific measures to remove obstacles to the mobility of female researchers.

Or. en

Amendment 106

Proposal for a regulation

Annex I – Part I – point 3 – point 3.2 – paragraph 3

Text proposed by the Commission

Further development of the Marie Curie actions will make a significant contribution to development of the European Research Area. With their Europe-wide competitive funding structure, Marie Curie actions will encourage new, creative and innovative types of training such as industrial doctorates, involving education, research and innovation players who will have to compete globally for a reputation of excellence. By providing Union funding for the best research and training programmes following the Principles for Innovative Doctoral Training in Europe, they will also promote wider dissemination and take-up, moving towards more structured doctoral training.

Amendment

Further development of the Marie Curie actions will make a significant contribution to development of the European Research Area. With their Europe-wide competitive funding structure, Marie Curie actions will encourage new, creative and innovative types of training such as ***joint or multiple doctoral degrees***, industrial doctorates, involving education, research and innovation players who will have to compete globally for a reputation of excellence. By providing Union funding for the best research and training programmes following the Principles for Innovative Doctoral Training in Europe, they will also promote wider dissemination and take-up, moving towards more structured doctoral training.

Or. en

Amendment 107

Proposal for a regulation

Annex I – Part I – point 3 – point 3.2 – paragraph 4

Text proposed by the Commission

Marie Curie grants will also be extended to the temporary mobility of experienced researchers ***and*** engineers from public institutions to the private sector or vice versa, thereby encouraging and supporting universities, research centres and businesses to cooperate with one another on a European and international scale. With the aid of their well-established, transparent and fair evaluation system, Marie Curie actions will identify excellent talents in research and innovation in an international competition which gives prestige and therefore motivation for researchers to advance their career in Europe.

Amendment

Marie Curie grants will also be extended to the temporary mobility of ***early stage and*** experienced researchers, ***as well as*** engineers from public institutions to the private sector or vice versa, thereby encouraging and supporting universities, research centres and businesses to cooperate with one another on a European and international scale. With the aid of their well-established, transparent and fair evaluation system, Marie Curie actions will identify excellent talents in research and innovation in an international competition which gives prestige and therefore motivation for researchers to advance their career in Europe.

Justification

It would be positive to extend the activity to early stage researchers for, for instance, short term placements to participate in specialised training activities

Amendment 108**Proposal for a regulation****Annex I – Part I – point 3 – point 3.3 – point a – paragraph 2***Text proposed by the Commission*

Key activities shall be to provide excellent and innovative training to early-stage researchers at post-graduate level via interdisciplinary projects or doctoral programmes involving universities, research institutions, businesses, SMEs and other socio-economic groups from different countries. This will improve career prospects for young post-graduate researchers in both the public and private sectors.

Amendment

Key activities shall be to provide excellent and innovative training to early-stage researchers at post-graduate level via interdisciplinary projects or doctoral programmes ***allowing researchers to develop their research curriculum and*** involving universities, research institutions, businesses, SMEs and other socio-economic groups from different countries. This will ***develop and*** improve career prospects for young post-graduate researchers in both the public and private sectors.

Justification

There is a need to find a right balance between the research goal and a good mentoring scheme

Amendment 109**Proposal for a regulation****Annex I – Part I – point 3 – 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-

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. Opportunities to restart a research career after a break shall also be supported.

economic groups all over Europe and beyond, ***offering researchers the opportunity to be trained and to acquire new knowledge in a third-country high-level research organisation, and subsequently return.*** Opportunities to restart a research career after a break shall also be supported.

Or. en

Justification

Offering researchers the opportunity to return after a training in a third country shall improve Europe's human capital in research and innovation.

Amendment 110

Proposal for a regulation

Annex I – Part I – point 3 – point 3.3 – point d – paragraph 2

Text proposed by the Commission

Key activities shall be, with the aid of a co-funding mechanism, to encourage regional, national and international organisations to create new programmes and to open existing ones to international and intersectoral training, mobility and career development. This will increase the quality of research training in Europe at all career stages, including at doctoral level, will foster free circulation of researchers and scientific knowledge in Europe, will promote attractive research careers by offering open recruitment and attractive working conditions and will support research and innovation cooperation between universities, research institutions and enterprises and cooperation with third countries and international organisations.

Amendment

Key activities shall be, with the aid of a co-funding mechanism, to encourage regional, national and international organisations to create new programmes and to open existing ones to international and intersectoral training, mobility and career development. This will increase the quality of research training in Europe at all career stages, including at doctoral level, will foster free circulation of researchers and scientific knowledge in Europe, will promote attractive research careers by offering open recruitment and attractive working conditions and will support research and innovation cooperation between universities, research institutions and enterprises and cooperation with third countries and international organisations. ***Special attention should be given to gender equality and structural change.***

Or. en

Amendment 111

Proposal for a regulation

Annex I – Part I – point 3 – point 3.3 – point e – paragraph 1

Text proposed by the Commission

The goals are to monitor progress, *identify* gaps in the Marie Curie Actions and to increase their impact. In this context, indicators shall be developed and data related to researchers' mobility, skills and careers analysed, seeking synergies and close coordination with the policy support actions on researchers, their employers and funders carried out under the specific objective '*Inclusive, innovative and secure societies*'. The activity shall further aim at raising awareness of the importance and attractiveness of a research career and at disseminating research and innovation results emanating from work supported by Marie Curie actions.

Amendment

The goals are to monitor progress, *identifying* gaps *and barriers* in the Marie Curie Actions and to increase their impact. In this context, indicators shall be developed and data related to researchers' mobility, skills and careers *as well as gender equality* analysed, seeking synergies and close coordination with the policy support actions on researchers, their employers and funders carried out under the specific objective '*Responsible research and innovation*'. The activity shall further aim at raising awareness of the importance and attractiveness of a research career and at disseminating research and innovation results emanating from work supported by Marie Curie actions. *It shall also include specific measures targeted to remove barriers to women's mobility.*

Or. en

Amendment 112

Proposal for a regulation

Annex I – Part I – point 4 – point 4.2 – paragraph 1

Text proposed by the Commission

State-of-the-art research infrastructures are becoming increasingly complex and costly, often requiring integration of different equipment, services and data sources and extensive transnational collaboration. No single country has enough resources to support all the research infrastructures it needs. The European approach to research infrastructures has made remarkable progress in recent years with implementing the ESFRI roadmap for infrastructures, integrating and opening national research facilities and developing e-infrastructures

Amendment

State-of-the-art research infrastructures are becoming increasingly complex and costly, often requiring integration of different equipment, services and data sources and extensive transnational collaboration. No single country has enough resources to support all the research infrastructures it needs, *hence the merit of established European research infrastructures, which have constituted an excellent example of pooling resources and demonstrating the added value of joint approach during the past forty years.* The European approach to

underpinning *a* digital European Research Area. The networks of research infrastructures across Europe strengthen its human capital base by providing world-class training for a new generation of researchers and engineers and promoting interdisciplinary collaboration.

research infrastructures has made remarkable progress in recent years with implementing the ESFRI roadmap for infrastructures, integrating and opening national research facilities and developing e-infrastructures underpinning *an open and performant* digital European Research Area. The networks of research infrastructures across Europe strengthen its human capital base by providing world-class training for a new generation of researchers and engineers and promoting interdisciplinary collaboration.

Or. en

Justification

It is important to emphasise the existing experience of collaboration in this field which has allowed for European-wide RIs that are well established and have world-class reputation.

Amendment 113

Proposal for a regulation

Annex I – Part I – point 4 – point 4.2 – paragraph 2

Text proposed by the Commission

Further development and wider use of research infrastructures at Union level will make a significant contribution to development of the European Research Area. While the role of Member States remains central in developing and financing research infrastructures, the Union plays an important part in supporting infrastructure at Union level, fostering the emergence of new facilities, opening up broad access to national and European infrastructures, and making sure that regional, national, European and international policies are consistent and effective. It is not only necessary to avoid duplication of effort and to coordinate and rationalise use of the facilities, but also to pool resources so that the Union can also acquire and operate research infrastructures at world level.

Amendment

Further development and wider use of research infrastructures at Union level will make a significant contribution to development of the European Research Area. While the role of Member States remains central in developing and financing research infrastructures, the Union plays an important part in supporting infrastructure at Union level, *such as coordinating activities of distributed European research infrastructures*, fostering the emergence of new facilities, opening up broad access to national and European infrastructures, and making sure that regional, national, European and international policies are consistent and effective. It is not only necessary to avoid duplication of effort and to coordinate and rationalise use of the facilities, but also to pool resources so that

the Union can also acquire and operate research infrastructures at world level.

Or. en

Amendment 114

Proposal for a regulation

Annex I – Part I – point 4 – point 4.2 – paragraph 2 a (new)

Text proposed by the Commission

Amendment

ICT has been transforming science by enabling remote collaboration, massive data processing, in silico experimentation and access to distant resources. Research has become increasingly transnational and interdisciplinary, requiring the use of ICT infrastructures that are supranational as science itself. It is therefore appropriate for 35% of the budget under this specific objective to go towards research and innovation in e-infrastructures.

Or. en

Justification

The important role of ICT in the development of modern science and innovation requires to establish a minimum support to this kind of infrastructures.

Amendment 115

Proposal for a regulation

Annex I – Part I – point 4 – point 4.3 – point a – paragraph 1

Text proposed by the Commission

Amendment

The aims shall be to ensure the implementation and operation of the ESFRI and other world-class research infrastructures, including the development of regional partner facilities; integration of and access to national research infrastructures; and the development, deployment and operation of e-

The aims shall be to ensure the implementation and operation of the ESFRI and other world-class research infrastructures, including the development of regional partner facilities *of European interest, as well as the transnational access to world-class European research infrastructures*; integration of and

infrastructures.

transnational access to national research infrastructures; and the development, deployment and operation of e-infrastructures ***to ensure a world-leading capability in networking, computing and scientific data.***

Or. en

Justification

Many Research Infrastructures are distributed throughout several Member States, whilst the core costs of implementing these infrastructures will be funded through national commitments, EU funding for the trans-national elements will be essential to realize their European added value.

Amendment 116

Proposal for a regulation

Annex I – Part I – point 4 – point 4.3 – point b – paragraph 1

Text proposed by the Commission

The aims shall be to encourage research infrastructures to act as early adopters of technology, to promote R&D partnerships with industry, to facilitate industrial use of research infrastructures and to stimulate the creation of innovation clusters. This activity shall also support training and/or exchanges of staff managing and operating research infrastructures.

Amendment

The aims shall be to encourage research infrastructures to act as early adopters ***or developers*** of technology, to promote R&D partnerships with industry, to facilitate industrial use of research infrastructures and to stimulate the creation of innovation clusters. This activity shall also support ***education and*** training and/or exchanges of staff ***using***, managing and operating research infrastructures, ***including a secondment scheme for senior staff and project managers.***

Or. en

Justification

At present staff mobility within European RIs is very low and based on individual, ad hoc solutions. Staff mobility will be significantly improved through a dedicated scheme for senior staff and project managers

Amendment 117

Proposal for a regulation

Annex I – Part I – point 4 – 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.

Or. en

Justification

European Research Infrastructures have an extensive expertise in international collaborations in their respective areas therefore they should be used as sources of thematic prioritisation when setting the EU international cooperation strategy in research.

Amendment 118

Proposal for a regulation

Annex I – Part I – point 4 a (new)

Text proposed by the Commission

Amendment

4a. SPREADING EXCELLENCE AND WIDENING PARTICIPATION

4a.1 Specific objective

The specific objective is to fully exploit the potential of Europe's talent pool and to ensure that the benefits of an innovation-led economy are both maximised and fairly distributed across all countries, regions and citizens of the Union.

When referring to the objectives of the Union's research and technological development policy the TFEU clearly states that "the Union shall, throughout the Union, encourage undertakings, including small and medium-sized

undertakings, research centres and universities in their research and technological development activities of high quality".

And indeed, ensuring that research and innovation-related activities are spread widely across all Member States has long been an important Union policy goal. However, despite a recent tendency for the innovation performances of individual Member States to converge, sharp differences among EU27 countries still remain, as it has been stated in the Innovation Union Scoreboard 2011. Furthermore, by putting national budgets under constrain, the current financial crisis is threatening to widen the gap between 'innovation leaders' and 'modest innovators'.

4a.2 Rationale and Union added value

In order to progress towards a sustainable, inclusive and smart society, Europe needs to make the best use of the intelligence that is available in the Union and to unlock untapped research and innovation potential. This is a real European challenge, decisive for our international competitiveness, and it cannot be solved by the Member States alone.

By nurturing and connecting pools of excellence across all sectors and regions and by spreading excellence throughout its territory, the activities proposed will contribute to strengthening the ERA.

4a.3 Broad lines of the activities

To assure efficiency of the research and innovation funding, Horizon 2020 needs to be open to a wide range of participants, including new entrants, and make sure that excellence prevails wherever it exists. Talent therefore needs to be nurtured and supported to grow into excellence, enabling researchers and innovators across Europe to benefit from Horizon 2020's instruments, networks and

funding.

Activities will aim at unlocking potential excellence by giving support to policy learning and to networking and twinning schemes enhancing the connections between researchers and innovators in all Member States, including the attraction of outstanding academics to institutions with a clear potential for research excellence, by bringing together owners and users of intellectual property rights (IPR) and by fostering training opportunities. Such activities include:

(a) linking emerging centres of excellence in less innovation performing Member States and regions to international leading counterparts elsewhere in Europe;

(b) launching a competition for the foundation of internationally competitive research centres in cohesion regions; the candidates for the competition should be teams each comprising an innovative but still less developed region and an internationally recognised centre of excellence elsewhere in Europe;

(c) establishing "ERA Chairs" to attract outstanding academics to institutions with a clear potential for research excellence, in order to help these institutions to fully unlock their potential and thereby create a level playing field for research and innovation in the ERA;

(d) conferring a "seal of excellence" on positively evaluated ERC, Marie Skłodowska-Curie or collaborative project proposals that have not been able to achieve funding because of budgetary limitations;

(e) conferring a "seal of excellence" to completed projects in order to facilitate funding of the follow up (e.g. pilot scale, demonstration projects or valorisation of research results) by national or regional sources;

(f) attributing ERC "Return Grants" to researchers currently working outside of Europe and who wish to work in Europe or to researchers already working in Europe who wish to move to a less developed region;

(g) devoting at least 5% of the amount for activities under the priorities dedicated to Industrial Leaderships and Societal Challenges to financially support complementary agreements signed among organisations beneficiaries of the collaborative research projects with other entities and organisations established mainly in countries others than those directly involved in the projects with the specific objective to facilitate training opportunities (namely doctoral and post-doctoral positions);

(h) strengthening successful networks aiming at establishing high quality institutional networking in research and innovation. Particular attention will be paid to COST in order to promote activities to identify and connect "pockets of excellence" (high-quality scientific communities and early career investigators) throughout Europe;

(i) developing specific training mechanisms on how to participate in Horizon 2020, taking full advantage of existing networks such as the National Contact Points;

(j) making available doctoral and post-doctoral fellowships, as well as advanced training fellowships for engineers for accessing all international research infrastructures in Europe, including those managed by international scientific organisations;

(k) supporting the development and monitoring of smart specialisation strategies. A policy support facility will be developed and policy learning at regional level will be facilitated through international evaluation by peers and best

practice sharing;

(l) setting up an online marketplace where intellectual property can be advertised in order to bring together the owners and users of IPR.

Or. en

Amendment 119
Proposal for a regulation
Annex I – Part I – point 4 b (new)

Text proposed by the Commission

Amendment

4b. RESPONSIBLE RESEARCH AND INNOVATION

4b.1 Specific objective

The specific objective is to build an effective dialogue between science and society, to recruit new talent for science and to pair scientific excellence with social awareness and responsibility.

Rapid advances in contemporary scientific research and innovation have led to a rise of important ethical, legal and social issues that require a reinforced relationship and engagement between science and society.

Finding the right answers to the challenges Europe is facing requires the involvement of as many diverse actors as possible in the research and innovation process. Traditionally, interaction between science and society has been limited to a one-way, top-down, transfer of knowledge from experts to citizens. Advancing towards an open, effective and democratic knowledge-based society requires a change to a more bidirectional dialogue beyond traditional science education or the current conception of citizens as mere consumers of research findings. This dialogic relationship will undoubtedly allow science and innovation

to proceed more responsibly.

The Union needs to recruit talent to boost its competitive edge in a global economy. To meet the 1 million net additional researchers needed in Europe by 2020 to reach the objective of a R&D intensity target of 3% of GDP the Union needs its best young people to pursue a career in science and it needs a diverse and gender-balanced workforce.

Yet it has been increasingly difficult to attract a higher proportion of young people to science and technology and there is a growing concern in Europe that many talented young persons do not opt for a career in these domains. In addition, it is also necessary to ensure that people who have embarked on a scientific or technological career can retain their enthusiasm and motivation and have opportunities for personal development, without having to abandon their disciplines.

There is also a clear gender imbalance in science. If Europe wants to make sure it funds an effective and efficient research and innovation programme, special attention needs to be paid to the under-representation of women in science and the lack of consideration to gender differences within research.

4b.2 Rationale and Union added value

Widening the social and political support to science and to technology in all Member States is increasingly a crucial issue that the current economic crisis has greatly exacerbated: in democratic societies, priority to public investment in science requires a vast social and political constituency sharing the values of science, educated in its processes and able to recognise its contributions to knowledge, to society and to economic progress.

A fruitful and rich dialogue between science and society will surely contribute

to a more responsible science and to the development of policies more relevant to citizens. The diverse "natural laboratory" that Europe constitutes and the different visions that emerge across the continent provide the added value that enhances the relevance of the dialogue among different actors.

Moreover, promoting a scientific culture in Europe will strengthen democratic and humanistic values and will help increasing the interest for scientific and technological careers. The good health of a European science and technology system depends on its capacity to attract new talent.

4b.3 Broad lines of the activities

Measures should aim at attracting new talent to the study of science and technology in European societies and bridging the gender gap in human resources working in research in the Union. Increasing our capacity to incorporate science and technological knowledge and methods in decision-making processes, developing mechanisms allowing for the broadening and deepening of the social appraisal of options, contributing to preventing populist and anti-science movements to remain unchallenged, and making sure ethical and social values are taken on board in the whole innovation process will also be supported.

The focus of activities shall be to:

(a) make scientific and technological careers attractive to young students, and fostering sustainable interaction between schools and research institutions;

(b) ensure gender equality in its two dimensions: ensuring equality in research careers and including gender considerations in the research development;

(c) promote the integration of society in science and innovation issues; monitor

the perception of science by the citizens and support the participation of citizens in the research and innovation policy;

(d) make science-literate citizens through formal and informal science education, and the diffusion of science-based activities, namely in science centres, as a paramount need for the development of the future society as workforce and as base for coexistence in democracy;

(e) enhance the open access to scientific results and data in order to augment scientific excellence and economic competitiveness;

(f) develop the governance for the development of responsible research and innovation by all stakeholders (researchers, public authorities, industry), which is sensitive to society needs and demands, and monitor its evolution;

(g) improve knowledge on science communication in order to improve the quality and effectiveness of interactions between scientists, general media and the public.

Or. en

Amendment 120
Proposal for a regulation
Annex I – Part II – point 1 – paragraph 9

Text proposed by the Commission

A major component of ‘Leadership in Enabling and Industrial Technologies’ are Key Enabling Technologies (KETs), defined as micro- and nanoelectronics, photonics, nanotechnology, biotechnology, advanced materials and advanced manufacturing systems . These multi-disciplinary, knowledge and capital-intensive technologies cut across many diverse sectors providing the basis for significant competitive advantage for

Amendment

A major component of ‘Leadership in Enabling and Industrial Technologies’ are Key Enabling Technologies (KETs), defined as micro- and nanoelectronics, photonics, nanotechnology, biotechnology, advanced materials and advanced manufacturing systems . These multi-disciplinary, knowledge and capital-intensive technologies cut across many diverse sectors providing the basis for significant competitive advantage for

European industry. An integrated approach, promoting the combination, convergence and cross-fertilisation effect of KETs in different innovation cycles and value chains can deliver promising research results and open the way to new industrial technologies, products, services **and** novel applications (e.g. in space, transport, environment, health etc.). The numerous interactions of KETs and enabling technologies will therefore be exploited in a flexible manner, as an important source of innovation. This will complement support for research and innovation in KETs that may be provided by national or regional authorities under the Cohesion Policy Funds within the framework of smart specialisation strategies.

European industry **and for creating new jobs**. An integrated approach, promoting the combination, convergence and cross-fertilisation effect of KETs in different innovation cycles and value chains can deliver promising research results and open the way to new industrial technologies, products, services **as well as** novel applications **and sustainable approaches** (e.g. in space, transport, environment, health etc.). The numerous interactions of KETs and enabling technologies will therefore be exploited in a flexible manner, as an important source of innovation. This will complement support for research and innovation in KETs that may be provided by national or regional authorities under the Cohesion Policy Funds within the framework of smart specialisation strategies.

Or. en

Justification

Creating new jobs together with increasing Europe's competitiveness is absolutely imperative in the present context.

Amendment 121

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

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 serves to secure the Union's position as a major player on the international stage. Space research underpins all activities undertaken in space. 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

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.

sustain a future role for the Union in space. ***This shall be achieved in close cooperation with the European Space Agency.*** In addition, innovative downstream services and applications using space derived information represent an important source of growth and job creation ***and their development represents an important opportunity for the Union.***

Or. en

Amendment 122

Proposal for a regulation

Annex I – Part II – point 1 – point 1.1 – point 1.1.3 – paragraph 1 – point d

Text proposed by the Commission

(d) Content technologies and information management: ICT for digital content and creativity;

Amendment

(d) Content technologies and information management: ICT for digital content, ***cultural industries including cultural heritage and tourism, and*** creativity;

Or. en

Amendment 123

Proposal for a regulation

Annex I – Part II – point 1 – point 1.1 – point 1.1.3 – paragraph 1 – point f a (new)

Text proposed by the Commission

Amendment

(fa) Quantum technologies: next generation of ICT devices through the combination of quantum physics and information science.

Or. en

Justification

Quantum technologies are key to develop the next ICT devices through the combination of quantum physics and information science. It supports entirely new modes of computation with qualitatively new and powerful algorithms based on quantum principles. The current level of control attained over quantum dynamics added to the possibility of engineering quantum

behaviour in physical systems allows for new and unprecedented means for computing and communicating, thus creating a new conceptual platform constituting the basis of a family of potentially disruptive technologies.

Amendment 124

Proposal for a regulation

Annex I – Part II – point 1 – point 1.1 – point 1.1.3 – paragraph 2

Text proposed by the Commission

These **six** major activity lines are expected to cover the full range of needs. These would include industrial leadership in generic ICT-based solutions, products and services needed to tackle major societal challenges as well as application-driven ICT research and innovation agendas which will be supported together with the relevant societal challenge.

Amendment

These **seven** major activity lines are expected to cover the full range of needs. These would include industrial leadership in generic ICT-based solutions, products and services needed to tackle major societal challenges as well as application-driven ICT research and innovation agendas which will be supported together with the relevant societal challenge.

Or. en

Amendment 125

Proposal for a regulation

Annex I – Part II – point 1 – point 1.1 – point 1.1.3 – paragraph 3

Text proposed by the Commission

These **six** activity lines shall also include ICT specific research infrastructures such as living labs for large-scale experimentation, and infrastructures for underlying key enabling technologies and their integration in advanced products and innovative smart systems, including equipment, tools, support services, clean rooms and access to foundries for prototyping.

Amendment

These **seven** activity lines shall also include ICT specific research infrastructures such as living labs for large-scale experimentation, and infrastructures for underlying key enabling technologies and their integration in advanced products and innovative smart systems, including equipment, tools, support services, clean rooms and access to foundries for prototyping.

Or. en

Amendment 126

Proposal for a regulation

Annex I – Part II – point 1 – point 1.2 – point 1.2.2 – paragraph 1

Text proposed by the Commission

Nanotechnologies are a spectrum of evolving technologies with proven potential, having revolutionary impact in for example materials, ICT, life sciences and healthcare and consumer goods once the research is translated into **breakthrough** products and production processes.

Amendment

Nanotechnologies are a spectrum of evolving technologies with proven potential, having revolutionary impact in for example materials, ICT, life sciences and healthcare and consumer goods once the research is translated into **competitive** products and production processes.

Or. en

Amendment 127

Proposal for a regulation

Annex I – Part II – point 1 – point 1.2 – point 1.2.3 – point a a (new)

Text proposed by the Commission

Amendment

(aa) Efficient synthesis and manufacturing of nanomaterials, components and systems.

Focusing on new operations, smart integration of new and existing processes, as well as up-scaling to achieve mass production of products and flexible plants that ensures the efficient transfer of knowledge into industrial innovation.

Or. en

Amendment 128

Proposal for a regulation

Annex I – Part II – point 1 – point 1.2 – point 1.2.3 – point b a (new)

Text proposed by the Commission

Amendment

(ba) Developing a new tool for designing, simulation, characterization and manipulations of nanomaterials, components and systems.

Aiming at studying, imaging and controlling the new nanomaterials and

systems at the nanoscale.

Or. en

Amendment 129

Proposal for a regulation

Annex I – Part II – point 1 – point 1.2 – point 1.2.3 – point d

Text proposed by the Commission

Amendment

(d) Efficient synthesis and manufacturing of nanomaterials, components and systems

deleted

Focusing on new operations, smart integration of new and existing processes, as well as up-scaling to achieve mass production of products and multi-purpose plants that ensures the efficient transfer of knowledge into industrial innovation.

Or. en

Amendment 130

Proposal for a regulation

Annex I – Part II – point 1 – point 1.3 – point 1.3.2 – paragraph 5

Text proposed by the Commission

Amendment

Novel green innovation alliances and industrial symbiosis shall be fostered allowing industries to diversify, expand their business models, re-using their waste as a basis for new productions, ***e.g. CO₂ as carbon base for fine chemicals and alternative fuels.***

Novel green innovation alliances and industrial symbiosis shall be fostered allowing industries to diversify, expand their business models, re-using their waste as a basis for new productions.

Or. en

Justification

Too specific as an example and can bias the future research focus.

Amendment 131

Proposal for a regulation

Annex I – Part II – point 1 – point 1.3 – point 1.3.3 – point c – paragraph 1

Text proposed by the Commission

Amendment

Research and development for new and innovative techniques and systems.

Research and development for new and innovative **production** techniques **for materials, components** and systems.

Or. en

Amendment 132

Proposal for a regulation

Annex I – Part II – point 1 – point 1.3 – point 1.3.3 – point d – paragraph 1

Text proposed by the Commission

Amendment

Developing new products and applications, **and consumer behaviour** that reduce energy demand, and facilitate low-carbon production.

Developing new **materials, components,** products and applications that reduce energy demand and facilitate low-carbon production.

Or. en

Amendment 133

Proposal for a regulation

Annex I – Part II – point 1 – point 1.3 – point 1.3.3 – point e – paragraph 1

Text proposed by the Commission

Amendment

Applying design and the development of converging technologies to create new business opportunities, **including the preservation of materials with historical or cultural value.**

Applying design and the development of converging technologies to create new business opportunities **based on novel** materials.

Or. en

Amendment 134

Proposal for a regulation

Annex I – Part II – point 1 – point 1.3 – point 1.3.3 – point g

Text proposed by the Commission

Amendment

(g) Optimisation of the use of materials
Research and development to investigate alternatives to the use of materials and innovative business model approaches.

deleted

Or. en

Justification

Already included in the other sections.

Amendment 135

Proposal for a regulation

Annex I – Part II – point 1 – point 1.4 – point 1.4.3 – point a – paragraph 1

Text proposed by the Commission

Amendment

Development of emerging technology areas such as synthetic biology, bioinformatics and systems biology, which hold great promise for completely novel applications.

Development of emerging technology areas such as synthetic biology, bioinformatics and systems biology, which hold great promise for completely novel **products, applications and technologies.**

Or. en

Amendment 136

Proposal for a regulation

Annex I – Part II – point 1 – point 1.4 – point 1.4.3 – point b – paragraph 1

Text proposed by the Commission

Amendment

Developing industrial biotechnology for competitive industrial products and processes (e.g. **chemical**, health, mining, energy, pulp and paper, textile, starch, food processing) and its environmental dimension.

Developing industrial biotechnology for competitive industrial, **materials**, products and **sustainable** processes (e.g. **chemicals**, health, mining, energy, pulp and paper, textile, starch, food processing) and its environmental **and health related** dimension.

Or. en

Amendment 137

Proposal for a regulation

Annex I – Part II – point 1 – point 1.4 – point 1.4.3 – point c – paragraph 1

Text proposed by the Commission

Development of platform technologies (e.g. genomics, meta-genomics, proteomics, molecular tools) to enhance leadership and competitive advantage in a wide number of *economic* sectors.

Amendment

Development of platform technologies (e.g. genomics, meta-genomics, proteomics, molecular tools **and cell-based platforms**) to enhance leadership and competitive advantage in a wide number of sectors **having economic impact. This approach can further advance the potential of novel SMEs and reduce time-to-market significantly.**

Or. en

Amendment 138

Proposal for a regulation

Annex I – Part II – point 1 – point 1.6 – point 1.6.2 – paragraph 2

Text proposed by the Commission

Research, technology development and innovation underpin capacities in space which are vital to European society. While the United States of America spends around 25 % of their space budget on R&D, the Union spends less than 10 %. Moreover, space research in the Union is **fragmented** in the national programmes of **a few** Member States. To maintain the technological and competitive edge Union level action is needed to coordinate space research, to promote the participation of researchers from all Member States, and to lower the barriers for collaborative space research projects across national borders. This needs to be done in coordination with the European Space Agency, which has successfully managed industrial satellite development and deep space missions on an intergovernmental basis with a subset of the Member States since 1975. In addition, the information provided by European satellites will offer an increasing potential

Amendment

Research, technology development and innovation underpin capacities in space which are vital to European society. While the United States of America spends around 25 % of their space budget on R&D, the Union spends less than 10 %. Moreover, space research in the Union is **addressed** in the national programmes of **the** Member States. To maintain the technological and competitive edge Union level action is needed to coordinate space research, to promote the participation of researchers from all Member States, and to lower the barriers for collaborative space research projects across national borders. This needs to be done in coordination with the European Space Agency, which has successfully managed industrial satellite development and deep space missions on an intergovernmental basis with a subset of the Member States since 1975. In addition, the information provided by European satellites will offer an increasing potential

for further development of innovative satellite-based downstream services. This is a typical activity sector for SMEs and should be supported by research and innovation measures in order to reap the full benefits of this opportunity, and especially of the considerable investments made on the two Union flagships Galileo and GMES.

for further development of innovative satellite-based downstream services. This is a typical activity sector for SMEs and should be supported by research and innovation measures in order to reap the full benefits of this opportunity, and especially of the considerable investments made on the two Union flagships Galileo and GMES.

Or. en

Amendment 139

Proposal for a regulation

Annex I – Part II – point 1 – point 1.6 – point 1.6.3 – point a – paragraph 1

Text proposed by the Commission

This entails safeguarding and developing a competitive and entrepreneurial space industry in combination with a world-class space research community to maintain European leadership and non-dependence in space technology, to foster innovation in the space sector, and to enable space-based terrestrial innovation, for example by using remote sensing and navigation data.

Amendment

This entails safeguarding and developing a competitive, *clean* and entrepreneurial space industry in combination with a world-class space research community to maintain European leadership and non-dependence in space technology, to foster innovation in the space sector, and to enable space-based terrestrial innovation, for example by using remote sensing and navigation data.

Or. en

Justification

Draws the attention to environmental improvements needed within the space sector.

Amendment 140

Proposal for a regulation

Annex I – Part II – point 1 – point 1.6 – point 1.6.3 – point c – paragraph 1

Text proposed by the Commission

A considerably increased exploitation of data from European satellites can be achieved if a concerted effort is made to coordinate and organise the processing,

Amendment

A considerably increased exploitation of data from European satellites can be achieved if a concerted effort is made to coordinate and organise the processing,

validation and standardisation of space data. Innovations in data handling and dissemination can also ensure a higher return on investment of space infrastructure, and contribute to tackling societal challenges, in particular if coordinated in a global effort such as through Global Earth Observation System of Systems, the European satellite navigation programme Galileo or IPCC for climate change issues.

validation and standardisation of space data. Innovations in data handling and dissemination can also ensure a higher return on investment of space infrastructure, and contribute to tackling societal challenges, in particular if coordinated in a global effort such as through *the* Global Earth Observation System of Systems *and Europe's contribution to GMES*, the European satellite navigation programme Galileo or IPCC for climate change issues.

Or. en

Justification

To be more explicit concerning the link between Horizon 2020 and the EU's flagship space-related programmes, in particular GMES, as well as the link between GMES and the Global Earth Observation System of Systems.

Amendment 141

Proposal for a regulation

Annex I – Part II – point 2 – point 2.2 – paragraph 2

Text proposed by the Commission

Furthermore, banks typically lack the ability to value knowledge assets, such as intellectual property, and therefore are often unwilling to invest in knowledge-based companies. The consequence is that many established innovative companies both large and small cannot obtain loans for higher-risk R&I activities.

Amendment

Furthermore, banks typically lack the ability to value knowledge assets, such as intellectual property, and therefore are often unwilling to invest in knowledge-based companies. The consequence is that many established innovative companies both large and small cannot obtain loans for higher-risk R&I activities. *The European Investment Bank, managing the Debt facility on behalf of the Commission, will have the mandate to lend to projects carrying a high technological risk and not merely to offer below-market-rate loans to projects with a low technological risk. In the energy field, the Debt facility will cater for projects carrying on average a higher technological risk than those financed with the Risk Sharing Finance Facility of the Seventh Framework Programme .*

Finance in the form of unsecured loans will be available.

Or. en

Justification

The RSFF has tended to fund demonstrations of comparatively low-risk energy technology. The new instrument should fund projects with a higher risk-profile. SMEs with small balance sheets might need unsecured loans to realise their early-stage growth ambitions.

Amendment 142

Proposal for a regulation

Annex I – Part II – point 2 – point 2.2 – paragraph 3 a (new)

Text proposed by the Commission

Amendment

This problem also particularly affects the processes for transferring knowledge and technology between the sphere of public research, carried out in universities and research centres, and business, where validation is required, in the form of the corresponding proof of concept, to demonstrate the innovatory potential that the knowledge and technology to be transferred will bring to the market.

Or. es

Amendment 143

Proposal for a regulation

Annex I – Part II – point 2 – point 2.3 – point a – paragraph 1

Text proposed by the Commission

Amendment

The goal is to improve access to debt financing loans, guarantees, counter-guarantees and other forms of debt and risk finance for public and private entities and public-private partnerships engaged in research and innovation activities requiring risky investments in order to come to fruition. The focus shall be on supporting research and innovation with a high

The goal is to improve access to debt financing loans, guarantees, counter-guarantees and other forms of debt and risk finance for public and private entities and public-private partnerships engaged in research and innovation activities requiring risky investments in order to come to fruition. The focus shall be on supporting research and innovation with a high ***risk***,

potential for excellence.

but also a high potential for excellence.

Or. en

Justification

Important to support in particular high risk/high gain innovation, that often leads to more radical, disruptive innovation, but that traditional financial intermediaries are hesitant to finance.

Amendment 144

Proposal for a regulation

Annex I – Part II – point 2 – point 2.3 – point a – paragraph 1 a (new)

Text proposed by the Commission

Amendment

Given that one of the objectives of Horizon 2020 is to contribute to narrowing the gap between R&D and innovation, helping to bring new or improved products and services to the market, and taking into account the critical role that the proof-of-concept stage plays in the knowledge transfer process, mechanisms will be introduced enabling financing for the proof-of-concept stages that are necessary in order to validate the importance, relevance and future innovatory impact of the research results or invention involved in the transfer.

Or. es

Amendment 145

Proposal for a regulation

Annex I – Part II – point 2 – point 2.3 – point b – paragraph 5 a (new)

Text proposed by the Commission

Amendment

The proof-of-concept window shall support knowledge and technology transfer processes at the stages prior to the industry uptake phase, with the aim of verifying and, where appropriate,

increasing the innovatory market impact of the transfer, thereby reducing the uncertainty and risks inherent in transferring research results and inventions stemming from the sphere of public research to the productive sector.

Or. es

Amendment 146
Proposal for a regulation
Annex I – Part II – point 3 – point 3.1 – paragraph 4

Text proposed by the Commission

The proposed actions aim to complement national and regional business innovation policies and programmes, to foster cooperation between SMEs and other innovation-relevant actors, to bridge the gap between research/development and successful market uptake, to provide a more business innovation friendly environment, including demand-side measures, and support taking into account the changing nature of innovation processes, new technologies, markets and business models.

Amendment

The proposed actions aim to complement national and regional business innovation policies and programmes, to foster cooperation between SMEs and other innovation-relevant actors, to bridge the gap between research/development and successful market uptake, to provide a more business innovation friendly environment, including demand-side measures *and other measures geared to boosting the transfer of research carried out in the public sphere to the productive fabric*, and support taking into account the changing nature of innovation processes, new technologies, markets and business models.

Or. es

Amendment 147
Proposal for a regulation
Annex I – Part II – point 3 – point 3.2 – paragraph 3

Text proposed by the Commission

Participation in Union research and innovation strengthens the R&D and technology capability of SMEs, increases their capacity to generate, absorb and use new knowledge, enhances the economic

Amendment

Participation in Union research and innovation strengthens the R&D and technology capability of SMEs, increases their capacity to generate, absorb and use new knowledge, enhances the economic

exploitation of new solutions, boosts innovation in products, services and business models, promotes business activities in larger markets and internationalises the knowledge networks of SMEs. SMEs that have a good innovation management in place, thereby often relying on external expertise and skills, outperform others.

exploitation of new solutions, boosts innovation in products, services and business models, promotes business activities in larger markets and internationalises the knowledge networks of SMEs. SMEs that have a good innovation management in place, thereby often relying on external expertise and skills, outperform others. ***SMEs also have a key role to play as recipients and destinies of technology and knowledge transfer processes, contributing to the market transfer of innovations stemming from the research carried out in universities and public research bodies.***

Or. es

Amendment 148

Proposal for a regulation

Annex I – Part II – point 3 – 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, 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

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, including service, non-technological and social innovations, ***given each activity has a clear Union added-value.*** 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. ***The instrument will provide a quality label for successful SMEs in view of their participation in public procurement.***

Or. en

Amendment 149

Proposal for a regulation

Annex I – Part II – point 3 – point 3.3 – point a – paragraph 2

Text proposed by the Commission

Amendment

All of the specific objectives on societal challenges and on leadership in enabling and industrial technologies will apply the dedicated SME instrument and will allocate an amount for this.

deleted

Or. en

Amendment 150

Proposal for a regulation

Annex I – Part II – point 3 – point 3.3 – point d a (new)

Text proposed by the Commission

Amendment

(da) Supporting the transfer of knowledge and technology between public research and the market.

Supporting the transfer processes between the sphere of public research and innovatory SMEs, as an effective mechanism for the market transfer of research results and inventions generated by universities and research centres.

Or. es

Amendment 151

Proposal for a regulation

Annex I – Part III – point 1 – point 1.1 – paragraph 3

Text proposed by the Commission

Amendment

The cost of Union health and social care systems is rising with care and prevention measures in all ages increasingly expensive, the number of Europeans aged over 65 expected to nearly double from 85

The cost of Union health and social care systems is rising with care and prevention measures in all ages increasingly expensive, the number of Europeans aged over 65 expected to nearly double from 85

million in 2008 to 151 million by 2060, and those over 80 to rise from 22 to 61 million in the same period. Reducing or containing these costs such that they do not become unsustainable depends in part on ensuring the lifelong health and wellbeing of all and therefore on the effective prevention, treatment and management of disease and disability.

million in 2008 to 151 million by 2060, and those over 80 to rise from 22 to 61 million in the same period. Reducing or containing these costs such that they do not become unsustainable depends in part on ensuring the lifelong health and wellbeing of all and therefore on the effective prevention, treatment and management of disease and disability. ***Incremental development, based solely on present knowledge, will not meet these needs; radical novel ideas and knowledge must be sought and implemented. Close collaboration between academia, industry, healthcare providers and regulatory agencies will be needed to meet the challenges.***

Or. en

Amendment 152

Proposal for a regulation

Annex I – Part III – point 1 – 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, ***respiratory diseases***, 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.

Or. en

Amendment 153

Proposal for a regulation

Annex I – Part III – point 1 – point 1.1 – paragraph 5

Text proposed by the Commission

In the Union, CVD annually accounts for more than 2 million deaths and costs the

Amendment

In the Union, CVD annually accounts for more than 2 million deaths and costs the

economy more than EUR 192 billion while cancer accounts for a quarter of all deaths and is the number one cause of death in people aged 45-64. Over 27 million people in the Union suffer from diabetes and the total cost of brain disorders (including, but not limited to those affecting mental health) has been estimated at EUR 800 billion. Environmental, life-style and socio-economic factors are relevant in several of these conditions with up to one third of the global disease burden estimated to be related to these.

economy more than EUR 192 billion while cancer accounts for a quarter of all deaths and is the number one cause of death in people aged 45-64. Over 27 million people in the Union suffer from diabetes and the total cost of brain disorders (including, but not limited to those affecting mental health) has been estimated at EUR 800 billion. Environmental, life-style and socio-economic factors are relevant in several of these conditions with up to one third of the global disease burden estimated to be related to these. ***It is estimated that depression alone affects 165 million people in the Union, at a cost of EUR 118 000 million (61% of which represent indirect costs in the form of sick leave and losses of productivity).***

Or. es

Amendment 154

Proposal for a regulation

Annex I – Part III – point 1 – point 1.1 – paragraph 6 a (new)

Text proposed by the Commission

Amendment

Rare diseases are disorders with low prevalence but high mortality, reflected in a high rate of premature death that in total affects millions of European children. Nevertheless, their low frequency means that there is little research and development into treatments for such diseases in the field of orphan medicinal products.

Or. es

Amendment 155

Proposal for a regulation

Annex I – Part III – point 1 – 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 (***e.g. the need for therapeutics in rare, neglected and auto-immune diseases is enormous***), ***and*** access to effective and competent health systems must be ensured for all Europeans.

Or. en

Justification

Millions of people still die every year from poverty-related diseases, but also from diarrheal and neglected tropical diseases. These are named "poverty-related" or "neglected" because they persist in the poorest and most marginalized settings. That is also the case of rare diseases, fewer than 300 are of interest to the biopharmaceutical industry, due to limited prevalence and/or commercial potential. As a result, R&D for suitable preventive, diagnosis and treatment tools are lacking.

Amendment 156

Proposal for a regulation

Annex I – Part III – point 1 – 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 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 ***globally, including research and development capacity in endemic areas.***

Justification

Scientific advances in the biomedical field have presented unprecedented opportunities to develop effective and affordable tools to tackle global health problems. There is still a need for new pharmaceutical tools to diagnose, prevent, and treat poverty-related and neglected diseases. The discovery of a vaccine for HIV/AIDS, malaria, new prevention tools, more effective diagnostics for tuberculosis, and better treatments for leishmaniasis or sleeping sickness would greatly improve health.

Amendment 157

Proposal for a regulation

Annex I – Part III – point 1 – 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. 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.

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 ***understanding the molecular basis of disease, the identification of innovative therapeutic strategies and novel model systems, the multidisciplinary application of knowledge in physics, chemistry and systems biology to health control***, 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. 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 ***poverty-related, neglected and rare*** diseases, and in providing assisted and independent living solutions.

Or. en

Justification

Though people in developing countries bear 90% of the global disease burden, only 10% of worldwide expenditure on health is used to address these diseases. From 1975 to 2000 of 1,393 medicines developed during that time, only 16 were for diseases that predominately affect populations in developing countries. Therefore it is essential to address research gaps and develop better and adapted treatments for these diseases.

Amendment 158

Proposal for a regulation

Annex I – Part III – point 1 – point 1.2 – paragraph 4

Text proposed by the Commission

To maximise the impact of Union level actions, support will be provided to the 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 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.

Amendment

To maximise the impact of Union level actions, support will be provided to the full spectrum of research and innovation activities. From basic research through translation of ***fundamental*** knowledge ***on disease to new therapeutics, 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. ***In order to foster strategic coordination of health research and innovation across Horizon 2020 and promote transnational medical research, the corresponding Sectoral Steering Board for Health will be established. This coordination can be extended to other programmes and instruments related to this challenge. This*** co-ordinated, European effort will ***increase the scientific and human capabilities in health research and*** 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.

Or. en

Justification

In order to take the challenge-based approach, a coordinated strategic planning of research and innovation activities is needed. Coordination can address fragmentation and improve the use of technological and infrastructural resources by the entire research community related to this challenge.

Amendment 159

Proposal for a regulation

Annex I – Part III – point 1 – point 1.3 – paragraph 2

Text proposed by the Commission

Successful efforts to prevent, manage, treat and cure disease, disability and reduced functionality are underpinned by the fundamental understanding of their determinants and causes, processes and impacts, as well as factors underlying good health and wellbeing. Effective sharing of data and the linkage of these data with large scale cohort studies is also essential, as is the translation of research findings into the clinic, in particular through the conduct of clinical trials.

Amendment

Successful efforts to prevent, manage, treat and cure disease, disability and reduced functionality are underpinned by the fundamental understanding of their determinants and causes, processes and impacts, as well as factors underlying good health and wellbeing. Effective sharing of data, ***standardised data processing*** and the linkage of these data with large scale cohort studies is also essential, as is the translation of research findings into the clinic, in particular through the conduct of clinical trials.

Or. en

Justification

Standardisation is needed in order to allow an efficient sharing and use of data.

Amendment 160

Proposal for a regulation

Annex I – Part III – point 1 – point 1.3 – paragraph 2 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 resurgence of old infectious diseases including tuberculosis in the European region, the increased prevalence of vaccine-preventable diseases in developed

countries and the growing problem of anti-microbial resistance further underlines the need for a comprehensive approach and increased public support for R&D for those diseases that kill millions of people every year.

Or. en

Justification

This has been called for in European Parliament resolution on Major and Neglected Diseases in Developing Countries (2005/2047(INI)). Also, in Western Europe, multidrug-resistant tuberculosis (MDR-TB) and extensively drug-resistant tuberculosis (XDR-TB) “are spreading at an alarming rate,” according to WHO.

Amendment 161

Proposal for a regulation

Annex I – Part III – point 1 – 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 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

Amendment

Specific activities shall include: understanding the determinants of health (including *genetic, pathogen,* environmental, *climate* and *poverty* related factors), improving health promotion and disease prevention; understanding *the basis of* 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 *and drugs*; 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 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

practice, and innovative technologies and approaches.

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. ***All of these activities shall properly account for gender and sex analysis. The activities shall take full advantage of the opportunities presented for a true interdisciplinary approach, combining knowledge from all six challenges and the other pillars to ensure sustainable solutions within the domain. Active involvement of health care providers must be encouraged in order to secure rapid take-up and implementation of results.***

Or. en

Justification

Besides environmental factors, social status and gender are important determinants of health. E.g. poor people are often in poorer health due to a variety of reasons (e.g. access to health, exposure to unhealthy living conditions, malnutrition etc).

Amendment 162 **Proposal for a regulation** **Annex I – Part III – point 2 – title**

Text proposed by the Commission

2. Food security, sustainable agriculture, marine and maritime research and the bio-economy

Amendment

2. Food security, sustainable agriculture, ***healthy and sustainable*** marine and maritime research and the bio-economy

Or. en

Amendment 163 **Proposal for a regulation** **Annex I – Part III – point 2 – point 2.1 – paragraph 1**

Text proposed by the Commission

The specific objective is to secure sufficient supplies of safe and high quality food and other bio-based products, by developing productive and resource-efficient primary production systems, fostering related ecosystem services, along side competitive and low carbon supply chains. This will accelerate the transition to a sustainable European bio-economy.

Amendment

The specific objective is to secure sufficient supplies of safe and high quality **healthy** food and other bio-based products, by developing productive and resource-efficient primary production **and food processing** systems, fostering related ecosystem services, along side competitive and low carbon supply chains. This will accelerate the transition to a sustainable European bio-economy.

Or. en

Justification

Given the present diet habits, healthy foods are increasingly important to improve health standards and reduce risks in Europe. On the other hand, food processing is also present in the food production process and consequently should be taken into account.

Amendment 164

Proposal for a regulation

Annex I – Part III – point 2 – point 2.2 – paragraph 2

Text proposed by the Commission

A fully functional European bio-economy – encompassing the sustainable production of renewable resources from land and aquatic environments and their conversion into food, bio-based products and bioenergy as well as the related public goods - will generate high European added value. Managed in a sustainable manner, it can reduce the environmental footprint of primary production and the supply chain as a whole. It can increase their competitiveness and provide jobs and business opportunities for rural and coastal development. The food security, sustainable agriculture, and overall bio-economy – related challenges are of a European and global nature. Actions at Union level are essential to bring together clusters to achieve the necessary breadth

Amendment

A fully functional European bio-economy – encompassing the sustainable production of renewable resources from land, **marine** and aquatic environments and their conversion into food, bio-based products and bioenergy as well as the related public goods - will generate high European added value. Managed in a sustainable manner, it can reduce the environmental footprint of primary production and the supply chain as a whole. It can increase their competitiveness and provide jobs and business opportunities for rural and coastal development. The food security, sustainable agriculture, and overall bio-economy – related challenges are of a European and global nature. Actions at Union level are essential to bring together clusters to achieve the necessary breadth

and critical mass to complement efforts made by a single or groups of Member States. A multi-actor approach will ensure the necessary cross-fertilising interactions between researcher, businesses, farmers/producers, advisors and end-users. The Union level is also necessary to ensure coherence in addressing this challenge across sectors and with strong links to relevant Union policies. Coordination of research and innovation at Union level will stimulate and help to accelerate the required changes across the Union.

and critical mass to complement efforts made by a single or groups of Member States. A multi-actor approach will ensure the necessary cross-fertilising interactions between researcher, businesses, farmers/producers, advisors and end-users. The Union level is also necessary to ensure coherence in addressing this challenge across sectors and with strong links to relevant Union policies. Coordination of research and innovation at Union level will stimulate and help to accelerate the required changes across the Union.

Or. en

Amendment 165

Proposal for a regulation

Annex I – Part III – point 2 – 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,

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, 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

provide leverage effects, increase societal relevance and help to further develop sustainable land, seas and oceans management and bio-economy markets.

improve their European 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.

Or. en

Amendment 166
Proposal for a regulation
Annex I – Part III – point 2 – point 2.3 – point a – title

Text proposed by the Commission

Amendment

(a) Sustainable agriculture and forestry

(a) Sustainable agriculture, ***including livestock farming*** and forestry

Or. en

Amendment 167
Proposal for a regulation
Annex I – Part III – point 2 – point 2.3 – point c – title

Text proposed by the Commission

Amendment

(c) Unlocking the potential of ***aquatic living resources***

(c) Unlocking the potential of ***fisheries, aquaculture and marine biotechnologies***

Or. en

Amendment 168
Proposal for a regulation
Annex I – Part III – point 2 – point 2.3 – point d a (new)

Text proposed by the Commission

Amendment

(da) Cross-cutting marine and maritime research

The exploitation of living and non-living marine resources as well as the use of different sources of marine energy and the wide range of different uses that is

made of the seas raise cross-cutting scientific and technological challenges. Seas and oceans also play a crucial role in climate regulation, but they are heavily impacted by inland, coastal and maritime human activities and also by climate change. The overall aim is to develop cross-cutting marine and maritime scientific and technological knowledge with a view to unlock the blue growth potential across the range of marine and maritime industries, while protecting the marine environment and adapting to climate change. This strategic coordinated approach for marine and maritime research across all challenges and pillars of Horizon 2020 will also support the implementation of relevant Union policies to help deliver key blue growth objectives.

Or. en

Justification

A strategic coordinated approach for marine and maritime research across all challenges and pillars of "Horizon 2020" is needed to secure long-term commitment planning and coordination with member states and stakeholders, urgently needed to help deliver key blue growth objectives of the EU Integrated Maritime Policy and to achieve the objectives of the EU Strategy for Marine and Maritime Research.

Amendment 169

Proposal for a regulation

Annex I – Part III – point 3 – point 3.1 – paragraph 2

Text proposed by the Commission

The Union intends to reduce greenhouse gas emissions by 20 % below 1990 levels by 2020, with a further reduction to 80-95 % by 2050. In addition, renewables should cover 20 % of final energy consumption in 2020 coupled with a 20 % energy efficiency target. Achieving these objectives will require an overhaul of the energy system combining low carbon profile, energy security and affordability, while at the same time reinforcing Europe's

Amendment

The Union intends to reduce greenhouse gas emissions by 20 % below 1990 levels by 2020, with a further reduction to 80-95 % by 2050. In addition, renewables should cover 20 % of final energy consumption in 2020 coupled with a 20 % energy efficiency target. ***By 2050 green house gas emission reductions of 80-95% should be achieved. All decarbonisation scenarios in the Energy Roadmap 2050 show that renewable energy technologies will by the***

economic competitiveness. Europe is currently far from this overall goal. 80 % of the European energy system still relies on fossil fuels, and the sector produces 80 % of all the Union's greenhouse gas emissions. Every year 2.5 % of the Union's Gross Domestic Product (GDP) is spent on energy imports and this is likely to increase. This trend would lead to total dependence on oil and gas imports by 2050. Faced with volatile energy prices on the world market, coupled with concerns over security of supply, European industries and consumers are spending an increasing share of their income on energy.

middle of this century account for the biggest share of energy supply technologies. It is therefore appropriate for two thirds of the budget under this Challenge to go towards research and innovation in renewable energy.

Achieving these objectives will require an overhaul of the energy system combining low carbon profile, energy security and affordability, while at the same time reinforcing Europe's economic competitiveness. Europe is currently far from this overall goal. 80 % of the European energy system still relies on fossil fuels, and the sector produces 80 % of all the Union's greenhouse gas emissions. Every year 2.5 % of the Union's Gross Domestic Product (GDP) is spent on energy imports and this is likely to increase. This trend would lead to total dependence on oil and gas imports by 2050. Faced with volatile energy prices on the world market, coupled with concerns over security of supply, European industries and consumers are spending an increasing share of their income on energy.

Or. en

Amendment 170

Proposal for a regulation

Annex I – Part III – point 3 – point 3.2 – paragraph 4

Text proposed by the Commission

The resources required to implement the SET Plan in full have been estimated at EUR 8 billion per year over the next 10 years. This is well beyond the capacity of individual Member States or research and industrial stakeholders alone. Investments in research and innovation at Union level are needed, combined with mobilisation of efforts across Europe in the form of joint implementation and risk and capacity sharing. Union funding of energy research and innovation shall therefore complement

Amendment

The resources required to implement the SET Plan in full have been estimated at EUR 8 billion per year over the next 10 years. This is well beyond the capacity of individual Member States or research and industrial stakeholders alone. Investments in research and innovation at Union level are needed, combined with mobilisation of efforts across Europe in the form of joint implementation and risk and capacity sharing. Union funding of energy research and innovation shall therefore complement

Member States' activities by focusing on activities with clear Union added value, in particular those with high potential to leverage national resources. Action at Union level shall also support high-risk, high-cost, long-term programmes beyond the reach of individual Member States, pool efforts to reduce investment risks in large-scale activities such as industrial demonstration and develop Europe-wide, interoperable energy solutions.

Member States' activities by focusing on activities with clear Union added value, in particular those with high potential to leverage national resources **and should focus on supporting projects between partners of different countries that want to work collaboratively**. Action at Union level shall also support high-risk, high-cost, long-term programmes beyond the reach of individual Member States, pool efforts to reduce investment risks in large-scale activities such as industrial demonstration and develop Europe-wide, interoperable energy solutions.

Or. en

Justification

Member States' schemes for funding research nationally are poorly equipped at funding international projects (e.g. the schedules of the calls don't align, evaluation criteria are different, the scope of programmes or programme rules are different). A mechanism to fund research or innovation that involves collaboration across borders is highly desirable. Administering such a programme is a task, almost by definition, to be managed at EU-level.

Amendment 171

Proposal for a regulation

Annex I – Part III – point 4 – point 4.1 – paragraph 1

Text proposed by the Commission

The specific objective is to achieve a European transport system that is resource-efficient, environmentally-friendly, safe and seamless for the benefit of citizens, the economy and society.

Amendment

The specific objective is to achieve a European transport system that is resource-efficient, environmentally-friendly, safe, and seamless for the benefit of citizens, the economy and society. ***That transport system shall encompass the "healthy ageing" philosophy, thus benefiting all, regardless of age, sex and disability but taking into consideration the universal design dimensions.***

Or. en

Justification

Research has shown that, among other things, jobs, family structures and culture influence the way citizens move around a city. Therefore, the various factors determining travel patterns, such as gender, age, culture and economic position, are key to achieving such a European transport system.

Amendment 172

Proposal for a regulation

Annex I – Part III – point 4 – point 4.3 – point b – paragraph 2

Text proposed by the Commission

The focus of activities shall be to reduce congestion, improve accessibility and match user needs by promoting integrated door-to-door transport and logistics; to enhance inter-modality and the deployment of smart planning and management solutions; and to drastically reduce the occurrence of accidents and the impact of security threats.

Amendment

The focus of activities shall be to reduce congestion, improve accessibility and match user needs by promoting integrated door-to-door transport and logistics; to ***accelerate intermodal solutions for passengers (intermodal ticketing)***; to enhance inter-modality and the deployment of smart planning and management solutions; and to drastically reduce the occurrence of accidents ***(i.e. by improving communication between infrastructure, road managers and vehicle through intelligent systems as well as better understanding of behaviour of traffic participants in order to improve technological on-vehicle solutions and primary and secondary road safety prevention)*** and the impact of security threats ***(i.e. development of reliable systems for threat detection in aviation as well as development of record devices for maritime security)***.

Or. en

Justification

Intermodality is crucial to improve European transport systems. Consequently, easy and innovative solutions have to be granted to users in order to increase its viability and development.

Amendment 173

Proposal for a regulation

Annex I – Part III – point 4 – point 4.3 – point c a (new)

Text proposed by the Commission

Amendment

(ca) Smart logistics

The aim is to reconcile growing new consumer patterns with an efficient resource supply chain and optimal last mile freight distribution.

The focus of activities shall be to better understand the impact of new and future consumer patterns and urban freight logistics, traffic and congestion; develop new IT and management tools for logistics, by improving real time information systems to manage, track and trace freight flows, integration and communication on vehicle and with infrastructure; to develop unconventional systems for goods distribution; to develop competitive intermodal solutions for the supply chain and logistics platforms that improve freight flows.

Or. en

Justification

Smart logistics will be crucial in the development of European transport systems and as such must be mentioned as a line of activities under this challenge.

Amendment 174

Proposal for a regulation

Annex I – Part III – point 5 – point 5.1 – paragraph 4

Text proposed by the Commission

Amendment

The growing impacts from climate change and environmental problems, such as ocean acidification, ice melting in the Arctic, land degradation and use, water shortages, chemical pollution and biodiversity loss, indicate that the planet is approaching its sustainability boundaries. For example,

The growing impacts from climate change and environmental problems, such as ocean acidification, ***changes in ocean circulation, increase of seawaters temperature***, ice melting in the Arctic, land degradation and use, water shortages, chemical pollution and biodiversity loss,

without improvements in efficiency, water demand is projected to overshoot supply by 40 % in 20 years time. Forests are disappearing at an alarmingly high rate of 5 million hectares per year. Interactions between resources can cause systemic risks – with the depletion of one resource generating an irreversible tipping point for other resources and ecosystems. Based on current trends, the equivalent of more than two planet Earths will be needed by 2050 to support the growing global population.

indicate that the planet is approaching its sustainability boundaries. For example, without improvements in efficiency, water demand is projected to overshoot supply by 40 % in 20 years time. Forests are disappearing at an alarmingly high rate of 5 million hectares per year. Interactions between resources can cause systemic risks – with the depletion of one resource generating an irreversible tipping point for other resources and ecosystems. Based on current trends, the equivalent of more than two planet Earths will be needed by 2050 to support the growing global population.

Or. en

Justification

Changes in ocean circulation and the increase of seawater temperature can have an important and undesirable environmental impact.

Amendment 175

Proposal for a regulation

Annex I – Part III – point 5 – point 5.2 – paragraph 4

Text proposed by the Commission

Addressing the availability of raw materials calls for co-ordinated research and innovation efforts across many disciplines and sectors to help provide safe, economically feasible, environmentally sound and socially acceptable solutions along the entire value chain (exploration, extraction, processing, re-use, recycling and substitution). Innovation in these fields will provide opportunities for growth and jobs, as well as innovative options involving science, technology, the economy, policy and governance. For this reason, *a* European Innovation **Partnership** on Raw Materials *is* being prepared.

Amendment

Addressing the availability of raw materials calls for co-ordinated research and innovation efforts across many disciplines and sectors to help provide safe, economically feasible, environmentally sound and socially acceptable solutions along the entire value chain (exploration, extraction, processing, re-use, recycling and substitution). ***Water challenges include water use in rural, urban and industrial environments and the protection of aquatic ecosystems.*** Innovation in these fields will provide opportunities for growth and jobs, as well as innovative options involving science, technology, the economy, policy and governance. For this reason, European Innovation **Partnerships** on ***Water Efficiency and Raw Materials*** *are* being

prepared.

Or. en

Amendment 176

Proposal for a regulation

Annex I – Part III – point 5 – point 5.3 – point b – paragraph 1

Text proposed by the Commission

The aim is to provide knowledge for the management of natural resources that achieves a sustainable balance between limited resources and the needs of society and the economy. Activities shall focus on: furthering our understanding of the functioning of ecosystems, their interactions with social systems and their role in sustaining the economy and human well-being; and providing knowledge and tools for effective decision making and public engagement.

Amendment

The aim is to provide knowledge **and tools** for the management **and protection** of natural resources that achieves a sustainable balance between limited resources and the needs of society and the economy. Activities shall focus on: furthering our understanding of the functioning of ecosystems, their interactions with social systems and their role in sustaining the economy and human well-being; and providing knowledge and tools for effective decision making and public engagement.

Or. en

Amendment 177

Proposal for a regulation

Annex I – Part III – point 6 – title

Text proposed by the Commission

6. INCLUSIVE, INNOVATIVE AND SECURE SOCIETIES

Amendment

6. UNDERSTANDING EUROPEAN SOCIETIES AND SOCIETAL CHANGE

Or. en

Justification

Stress is put in understanding European societies in order to advance towards more inclusive and innovative societies. With this new approach, the role of Human and Social sciences has been stressed. On the other hand, the former part of "Secure Societies" has been included in a new Challenge: "Protecting Freedom and Security in Europe".

Amendment 178
Proposal for a regulation
Annex I – Part III – point 6 – point 6.1 – paragraph 1

Text proposed by the Commission

The specific objective is to foster ***inclusive, innovative and secure European societies in a context of unprecedented transformations and growing global interdependencies.***

Amendment

The specific objective is to foster ***a greater understanding of Europe in order to build more inclusive and innovative societies.***

Or. en

Amendment 179
Proposal for a regulation
Annex I – Part III – point 6 – point 6.1 – paragraph 2

Text proposed by the Commission

Europe is confronted with major socio-economic challenges which significantly affect its future - such as growing economic and cultural interdependencies, ageing, social exclusion and poverty, inequalities and migration flows, closing the digital divide, fostering a culture of innovation and creativity in society and enterprises, as well ensuring ***security and freedom***, trust in democratic institutions and between citizens within and across borders. These challenges are enormous and they call for ***a*** common European ***approach***.

Amendment

Europe is confronted with major socio-economic challenges which significantly affect its future, such as growing economic and cultural interdependencies, ageing ***and demographic change***, social exclusion and poverty, inequalities and migration flows, closing the digital divide, fostering a culture of innovation and creativity in society and enterprises, as well ***as*** ensuring trust in democratic institutions and between citizens within and across borders. ***Moreover the role of public social policies in Europe is increasingly perceived as a critical element for the sustainability of the European social model itself.***

These challenges are enormous and they call for ***an increasingly complex mix of diverse as well as*** common European ***approaches, based upon shared scientific knowledge that only the social sciences and humanities can provide.***

Or. en

Amendment 180
Proposal for a regulation
Annex I – Part III – point 6 – point 6.1 – paragraph 3

Text proposed by the Commission

First, significant inequalities persist in the Union both across countries and within them. In 2010 the Human Development Index, an aggregate measure of progress in health, education and income, scores the Union's Member States between 0,743 and 0,895, thus reflecting considerable divergences between countries. Significant gender inequalities also persist: for instance, the gender pay gap in the Union remains at 17.8 % in favour of men. One in every six Union citizens today (around 80 million people) is at risk of poverty. Over the past two decades the poverty of young adults and families with children has risen. The youth unemployment rate is above 20 %. 150 million Europeans (some 25 %) have never used the internet and may never get sufficient digital literacy. Political apathy and polarisation in elections has also risen, reflecting citizen's faltering trust in current political systems. These figures suggest that some social groups and communities are persistently left out of social and economic development and/or democratic politics.

Amendment

Significant inequalities persist in the Union both across countries and within them. In 2010 the Human Development Index, an aggregate measure of progress in health, education and income, scores the Union's Member States between 0,743 and 0,895, thus reflecting considerable divergences between countries. Significant gender inequalities also persist: for instance, the gender pay gap in the Union remains at 17.8 % in favour of men. One in every six Union citizens today (around 80 million people) is at risk of poverty. Over the past two decades the poverty of young adults and families with children has risen. The youth unemployment rate is above 20 %. 150 million Europeans (some 25 %) have never used the internet and may never get sufficient digital literacy. Political apathy and polarisation in elections has also risen, reflecting citizen's faltering trust in current political systems. These figures suggest that some social groups and communities are persistently left out of social and economic development and/or democratic politics.

Or. en

Amendment 181
Proposal for a regulation
Annex I – Part III – point 6 – point 6.1 – paragraph 4

Text proposed by the Commission

Second, Europe's productivity and economic growth rates have been relatively decreasing for four decades. Furthermore, its share of the global knowledge production and its innovation performance lead compared to key emerging economies

Amendment

Europe's productivity and economic growth rates have been relatively decreasing for four decades. Furthermore, its share of the global knowledge production and its innovation performance lead compared to key emerging economies

such as Brazil and China are declining fast. Although Europe has a strong research base, it needs to make this base a powerful asset for innovative goods and services. Whereas it is well-known that Europe needs to invest more in science and innovation, it will also have to coordinate these investments much more smartly than in the past: more than 95 % of national R&D budgets is spent without *any* coordination across the Union, a formidable potential *waste* of *resources* at a time of shrinking funding possibilities. ***Furthermore, the innovation capacities of the Member States, despite some recent convergence, remain very different, with large gaps between ‘innovation leaders’ and ‘modest innovators’³⁸.***

such as Brazil and China are declining fast. Although Europe has a strong research base, it needs to make this base a powerful asset for innovative goods and services. Whereas it is well-known that Europe needs to invest more in science and innovation, it will also have to coordinate these investments much more smartly than in the past: more than 95 % of national R&D budgets is spent without *specific* coordination across the Union, a formidable potential of *opportunity* at a time of shrinking funding possibilities.

Or. en

Justification

This imbalance will be tackled in the new Specific Objective "Spreading excellence and increasing participation" under the Priority "Excellent Science".

Amendment 182

Proposal for a regulation

Annex I – Part III – point 6 – point 6.1 – paragraph 5

Text proposed by the Commission

Amendment

Third, many forms of insecurity, whether crime, violence, terrorism, cyber attacks, privacy abuses and other forms of social and economic disorders increasingly affect citizens. According to estimates, there is likely to be up to 75 million direct victims of crime every year in Europe³⁹. The direct cost of crime, terrorism, illegal activities, violence and disasters in Europe has been estimated at at least EUR 650 billion (about 5 % of the Union's GDP) in 2010. A vivid example of the consequences of terrorism is the attack against the Twin Towers in Manhattan on 11 September 2001.

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Thousands of lives were lost and it is estimated that this event caused losses in US productivity amounting to US\$ 35 billion, US\$ 47 billion in total output and a rise in unemployment by almost 1 % in the following quarter. Citizens, firms and institutions are increasingly involved in digital interactions and transactions in social, financial and commercial areas of life but the development of Internet has also led to cyber crime worth billion of Euros each year and breaches of privacy affecting individual or associations across the continent. The development of insecurity in everyday life and because of unexpected situations is likely to affect the citizens' trust not only in institutions but also in each other.

Or. en

Justification

Security related issues are dealt in the new Challenge "Protecting Freedom and Security in Europe".

Amendment 183

Proposal for a regulation

Annex I – Part III – point 6 – point 6.1 – paragraph 6

Text proposed by the Commission

Amendment

These challenges must be tackled together and in innovative ways because they interact in complex and often unexpected ways. Innovation may lead to weakening inclusiveness, as can be seen, for instance, in the phenomena of digital divide or labour market segmentation. Social innovation, social trust and security are sometimes difficult to reconcile in policies, for instance in socially depressed areas in large cities in Europe. Besides, the conjunction of innovation and citizens' evolving demands also lead policymakers and economic and social actors to find new answers that

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ignore established boundaries between sectors, activities, goods or services. Phenomena such as the growth of Internet, of the financial systems, of the ageing economy and of the ecological society abundantly show how it is necessary to think and respond to these issues across their dimensions of inclusiveness, innovation and security at the same time.

Or. en

Amendment 184
Proposal for a regulation
Annex I – Part III – point 6 – 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 and **innovative** societies compared to other world regions. **Even more than in other research fields related to major societal challenges, both objective-driven research (in response to previously defined specific research questions) as well as bottom-up research (freely initiated by the researchers themselves) are needed to address effectively those challenges. Finally, a more strategic approach to cooperation with third countries is required.**

Or. en

Amendment 185
Proposal for a regulation
Annex I – Part III – point 6 – point 6.2 – paragraph 1

Text proposed by the Commission

These challenges ignore national borders and thus call for more complex comparative analyses *of mobility (of people, goods, services and capital but also of competences and knowledge) and forms of institutional cooperation, intercultural interactions and international cooperation. If they are not better understood and anticipated, forces of globalisation also push European countries to compete with each other rather than cooperate, thus accentuating differences in Europe rather than commonalities and a right balance between cooperation and competition. Addressing such critical socio-economic challenges only at national level carries the danger of inefficient use of resources, externalisation of problems to other European and non-European countries and the accentuation of social, economic and political tensions that may directly affect the aims of the European Treaty regarding its values, in particular Title I of the Treaty on European Union.*

Amendment

These challenges ignore national borders and thus call for more complex comparative analyses *across all European societies. Their links with national and European public policies in the context of globalisation, not only allow for setting up mutually recognised research agendas but also to provide a shared and denser European knowledge based upon which national and European evidence-based policies can be better understood and evaluated.*

Or. en

Amendment 186
Proposal for a regulation
Annex I – Part III – point 6 – point 6.2 – paragraph 2

Text proposed by the Commission

In order to build inclusive, innovative and secure societies, Europe requires a response which implies to develop new knowledge, technologies and capabilities as well as the identification of policy

Amendment

deleted

options. Such endeavour will help Europe tackle its challenges not only internally but also as a global player on the international scene. This, in turn, will also help Member States benefit from experiences elsewhere and allow them to better define their own specific actions corresponding to their respective contexts.

Or. en

Amendment 187
Proposal for a regulation
Annex I – Part III – point 6 – point 6.2 – paragraph 3

Text proposed by the Commission

Amendment

Fostering new modes of cooperation between countries within the Union and worldwide, as well as across relevant research and innovation communities, will therefore be a central task under this challenge. Engaging citizens and industry, supporting social and technological innovation processes, encouraging smart and participatory public administration, as well as promoting evidence based policymaking will be systematically pursued in order to enhance the relevance of all these activities for policymakers, social and economic actors and citizens. In this regard, research and innovation will be a precondition for the competitiveness of European industries and services, in particular in the areas of security, digital development and privacy protection.

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Or. en

Amendment 188
Proposal for a regulation
Annex I – Part III – point 6 – point 6.2 – paragraph 4

Text proposed by the Commission

Union funding under this challenge will thus support the development, implementation and adaptation of key Union policies, notably Europe 2020 priorities for smart, sustainable and inclusive growth, ***the Common Foreign and Security Policy and the Union's Internal Security Strategy, including policies on disaster prevention and response. Coordination*** with the Joint Research Centre direct actions will be pursued.

Amendment

Union funding under this challenge will thus support the development, implementation and adaptation of key Union policies, notably Europe 2020 priorities for smart, sustainable and inclusive growth. ***It will interface with Joint Programming Initiatives and coordination*** with the Joint Research Centre direct actions will be pursued.

Or. en

Amendment 189

Proposal for a regulation

Annex I – Part III – point 6.3 – point 6.3.1 – paragraph 1

Text proposed by the Commission

The aim is to ***enhance solidarity as well as*** social, economic and political inclusion and ***positive inter-cultural dynamics*** in ***Europe*** and ***with international partners, through cutting-edge science and interdisciplinarity, technological advances and organisational innovations.*** Humanities research can play an important role here. Research shall support policymakers in designing policies that combat poverty and prevent the development of various forms of divisions, discriminations and inequalities in European societies, such as gender inequalities or digital or innovation divides, and with other world regions. It shall in particular feed into the implementation and the adaptation of the Europe 2020 strategy ***and the broad external action of the Union. Specific measures shall be taken to unlock excellence in less developed regions, thereby widening participation in Horizon***

Amendment

The aim is to ***gain a greater understanding of societal changes in Europe, their impact on*** social, economic and political inclusion and ***the main consequences for the well-being and quality of life of individuals, families and societies. The main challenges to be tackled will address the European models for social cohesion and well-being and the need for a considerable knowledge base in the areas of inequalities and social exclusion, demographic change and the ageing society, life course and family transitions, working and living conditions, migration and mobility, education and lifelong learning, multilingualism, social policies and governance dynamics, while also taking into account the economic and social European diversity.***

2020.

Social sciences and humanities research can play an important role here. Research shall support policymakers in designing policies that combat poverty and prevent the development of various forms of divisions, discriminations and inequalities in European societies, such as gender inequalities or digital or innovation divides, and with other world regions. It shall in particular feed into the implementation and the adaptation of the Europe 2020 strategy.

Or. en

Amendment 190

Proposal for a regulation

Annex I – Part III – point 6.3 – point 6.3.1 – paragraph 2 – introductory part

Text proposed by the Commission

Amendment

The focus of activities shall be to:

The focus of activities shall be to ***understand the above mentioned challenges, to compare them across Europe and to contribute to developing:***

Or. en

Amendment 191

Proposal for a regulation

Annex I – Part III – point 6.3 – point 6.3.1 – paragraph 2 – point a

Text proposed by the Commission

Amendment

(a) promote smart, sustainable and inclusive growth;

(a) ***mechanisms to*** promote smart, sustainable and inclusive growth ***taking into account the economic and social European diversity and its dynamics of change;***

Or. en

Amendment 192

Proposal for a regulation

Annex I – Part III – point 6.3 – point 6.3.1 – paragraph 2 – point b

Text proposed by the Commission

Amendment

(b) build resilient and inclusive societies in Europe;

(b) ***practices and policies to*** build resilient and inclusive societies in Europe, ***by strengthening the knowledge base in the areas such as inequalities, demographic and family change , mobility, education and social policies as well as citizenship;***

Or. en

Amendment 193

Proposal for a regulation

Annex I – Part III – point 6.3 – point 6.3.1 – paragraph 2 – point b a (new)

Text proposed by the Commission

Amendment

(ba) efforts to address European models for social cohesion and well-being as international benchmarks;

Or. en

Amendment 194

Proposal for a regulation

Annex I – Part III – point 6.3 – point 6.3.1 – paragraph 2 – point c

Text proposed by the Commission

Amendment

(c) strengthen Europe's role as a global actor;

(c) ***measures to*** strengthen Europe's role as a global actor;

Or. en

Amendment 195

Proposal for a regulation

Annex I – Part III – point 6.3 – point 6.3.1 – paragraph 2 – point d

Text proposed by the Commission

Amendment

(d) close the research and innovation divide in Europe.

deleted

Or. en

Amendment 196

Proposal for a regulation

Annex I – Part III – point 6.3 – point 6.3.2 – paragraph 1

Text proposed by the Commission

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 in the context of globalisation.

Particular support will be provided for the development of the ERA and the development of framework conditions for innovation.

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.

Support will be provided for ***research related to*** the development of the ERA and the development of framework conditions for innovation, ***including a better understanding of societal constraints and opportunities and their role in the innovation process.***

Or. en

Amendment 197

Proposal for a regulation

Annex I – Part III – point 6.3 – point 6.3.2 – paragraph 2 – point a

Text proposed by the Commission

Amendment

(a) strengthen the evidence base and support for the Innovation Union and ERA;

(a) strengthen the evidence base and support for the Innovation Union and ERA ***in a context of adverse economic and social circumstances;***

Or. en

Amendment 198

Proposal for a regulation

Annex I – Part III – point 6.3 – point 6.3.2 – paragraph 2 – point b

Text proposed by the Commission

Amendment

(b) explore new forms of innovation, including social innovation and creativity;

(b) explore ***and understand*** new forms of innovation, including social innovation and creativity;

Or. en

Amendment 199

Proposal for a regulation

Annex I – Part III – point 6.3 – point 6.3.2 – paragraph 2 – point b a (new)

Text proposed by the Commission

Amendment

(ba) research and compare processes which provide a favourable background to creativity and innovation;

Or. en

Amendment 200

Proposal for a regulation

Annex I – Part III – point 6.3 – point 6.3.2 – paragraph 2 – point c

Text proposed by the Commission

Amendment

(c) ensure societal engagement in research and innovation;

deleted

Or. en

Amendment 201

Proposal for a regulation

Annex I – Part III – point 6.3 – point 6.3.2 – paragraph 2 – point d

Text proposed by the Commission

Amendment

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

(d) ***understand how*** coherent and effective cooperation ***in research and advanced***

training with third countries fosters innovation.

Or. en

Amendment 202
Proposal for a regulation
Annex I – Part III – point 6.3 – point 6.3.3

Text proposed by the Commission

Amendment

6.3.3. Secure societies

deleted

The aim is to support Union policies for internal and external security and to ensure cyber security, trust and privacy in the Digital Single Market, whilst at the same time improving the competitiveness of the Union's security, ICT and service industries. This will be done by developing innovative technologies and solutions that address security gaps and lead to the prevention of security threats. These mission-oriented actions will integrate the demands of different end-users (citizens, businesses, and administrations, including national and international authorities, civil protections, law enforcement, border guards, etc.) in order to take into account the evolution of security threats and privacy protection and the necessary societal aspects.

The focus of activities shall be to:

- (a) fight crime and terrorism;*
- (b) strengthen security through border management;*
- (c) provide cyber security;*
- (d) increase Europe's resilience to crises and disasters;*
- (e) ensure privacy and freedom in the Internet and enhance the societal dimension of security.*

Or. en

Justification

Security related issues are dealt in the new Challenge "Protecting Freedom and Security in Europe".

Amendment 203
Proposal for a regulation
Annex I – Part III – point 6 a (new)

Text proposed by the Commission

Amendment

6a. PROTECTING FREEDOM AND SECURITY IN EUROPE

6a.1. Specific objective

The specific objective is to protect freedom and foster security in Europe in a context of global interdependencies and sophistication of threats.

Europe has never been so peacefully consolidated and the levels of security enjoyed by European citizens are considerably high compared to other parts of the world. However, Europe's vulnerability continues to exist in a context of ever-increasing globalisation in which societies are facing security threats that are growing in scale and sophistication.

The threat of large-scale military aggressions has been subsided and security concerns are focused on new multifaceted, interrelated and transnational threats. Consequently the concept of security has been broadened from a military definition to include other aspects such as human rights, environmental degradation, political stability and democracy, social issues, cultural and religious identity or immigration. In this context the internal and external aspects of security are inextricably linked. The current threats to security and freedom are numerous, complex and fluid and include terrorism, organised crime, cyber attacks, piracy, regional instability or natural and man-

made disasters among others. These threats have important economic and social impact and demand a corresponding variety of preventive and counter actions.

The direct cost of crime, terrorism, illegal activities, violence and disasters in Europe has been estimated at least EUR 650 billion (about 5 % of the Union's GDP) in 2010. Terrorism has shown its fatal consequences in several parts of Europe costing thousands of lives, and important economic losses. Citizens, firms and institutions are increasingly involved in digital interactions and transactions in social, financial and commercial areas of life but the development of the Internet has also led to cyber crime worth billions of Euros each year and breaches of privacy affecting individuals or associations across the continent. The development of insecurity in everyday life and because of unexpected situations is likely to affect the citizens' trust not only in institutions but also in each other.

Seeking and implementing security solutions implies to pursue a socially acceptable balance between security and other values such as freedom, democracy, equality or the rule of law. This balance must be at the base of any activity to provide security to European citizens.

6a.2. Rationale and Union added value

No single Member State is able to respond to threats on its own because most security challenges are cross-border and cross-sectoral and consequently require complex and broad comparative analyses and reinforced forms of institutional and international cooperation

In order to protect freedom and security, the Union requires effective responses using a comprehensive and innovative suite of internal and external security instruments. Research and innovation can play a clear supporting role as a force enabler although it cannot alone

guarantee security. Research and innovation activities should aim at preventing, deterring, preparing and protecting against security threats. Furthermore, security presents fundamental challenges that cannot be yielded to independent and sector-specific treatment but rather need more ambitious, coordinated and holistic approaches.

Cooperation among Member States but also with third countries and international organisations is a central part of this challenge.

Union funding under this challenge will thus support the development, implementation and adaptation of key Union policies aimed at preventing, deterring, preparing and protecting against security threats, the Common Foreign and Security Policy and the Union's Internal Security Strategy, including policies on disaster prevention and response.

6a.3. Broad lines of activities

The aim is to support Union policies for internal and external security and to ensure cyber security, trust and privacy in the Digital Single Market, whilst at the same time improving the competitiveness of the Union's security, ICT and service industries. The activities will include a focus on the research and development of the next generation of innovative solutions, by working on novel concepts and designs, and interoperable standards. This will be done by developing innovative technologies and solutions that address security gaps and lead to the prevention of security threats. These mission-oriented activities will integrate the demands of different end-users (citizens, businesses, and administrations, including national and international authorities, civil protections, law enforcement, border guards, etc.) in order to take into account the evolution of security threats and privacy protection and the necessary

societal aspects.

The focus of activities shall be to:

(a) increase security of citizens protection and fight against crime and terrorism;

(b) protect and improve resilience of critical infrastructures;

(c) strengthen security through border management;

(d) provide and improve cyber security;

(e) increase Europe's resilience to crises and disasters;

(f) ensure privacy and freedom and enhance the societal dimension of security including its socio-economic, political and cultural aspects;

(g) Support the Union's internal and external security policies and the role of international scientific cooperation as an instrument for peace.

Or. en

Justification

The particular nature of the security dimension justifies the split of the former "Inclusive, Innovative and Secure Societies" Challenge and the creation of the new Challenge "Protecting Freedom and Security in Europe". The wording and content has been adapted in order to tackle in an effective and coherent way the major challenges that Europe is facing in this domain.

Amendment 204

Proposal for a regulation

Annex I – Part IV – point 2 – paragraph 1

Text proposed by the Commission

The Union has defined an ambitious policy agenda to 2020 which addresses a set of complex and interlinked challenges, such as sustainable management of resources and competitiveness. In order to successfully tackle these challenges, robust scientific evidence is needed which cuts across different scientific disciplines and

Amendment

The Union has defined an ambitious policy agenda to 2020 which addresses a set of complex and interlinked challenges, such as sustainable management of resources and competitiveness. In order to successfully tackle these challenges, robust scientific evidence is needed which cuts across different scientific disciplines and

allows the sound assessment of policy options. The JRC, further strengthening its role as the science service for Union policy making will provide the required scientific and technical support throughout all stages of the policy-making cycle, from conception to implementation and assessment. To this aim it will focus its research clearly on Union policy priorities while enhancing cross-cutting competences. The JRC's independence of special interests, whether private or national, combined with its scientific-technical reference role enable it to facilitate the necessary consensus building between stakeholders and policy makers. Member States and *Union citizens'* benefit from the *research* of the JRC, most visibly in areas such as health and consumer protection, environment, safety and security, and management of crises and disasters.

allows the sound assessment of policy options. The JRC, further strengthening its role as the science service for Union policy making will provide the required scientific and technical support throughout all stages of the policy-making cycle, from conception to implementation and assessment. To this aim it will focus its research clearly on Union policy priorities while enhancing cross-cutting competences. The JRC's independence of special interests, whether private or national, combined with its scientific-technical reference role enable it to facilitate the necessary consensus building between stakeholders and policy makers. Member States and *regions will* benefit from the *support* of the JRC *to their Smart Specialisation Strategies and from its research*, most visibly in areas such as health and consumer protection, environment, safety and security, and management of crises and disasters. *Union citizens' will also be beneficiaries of that research.*

Or. en

Justification

As already stated in Article 5 of the present Regulation, national and regional authorities should benefit from the support of the JRC to the development of their Smart Specialisation Strategies.

Amendment 205

Proposal for a regulation

Annex I – Part V – point 1 – paragraph 1

Text proposed by the Commission

The specific objective is to integrate the knowledge triangle of research, innovation and education and thus to reinforce the Union's innovation capacity and address societal challenges.

Amendment

The specific objective is to integrate the knowledge triangle of research, innovation and education and thus to reinforce *and widen* the Union's innovation capacity and address societal challenges.

Or. en

Amendment 206
Proposal for a regulation
Annex I – Part V – point 1 – paragraph 2

Text proposed by the Commission

Europe is facing a number of structural weaknesses when it comes to innovation capacity and the ability to deliver new services, products and processes. Among the main issues at hand are Europe's relatively poor record in talent attraction and retention; the underutilisation of existing research strengths in terms of creating economic or social value; low levels of entrepreneurial activity; a scale of resources in poles of excellence which is insufficient to compete globally; and an excessive number of barriers to collaboration within the knowledge triangle of higher education, research and business on a European level.

Amendment

Europe is facing a number of structural weaknesses when it comes to innovation capacity and the ability to deliver new services, products and processes. Among the main issues at hand are Europe's relatively poor record in talent attraction and retention; the underutilisation of existing research strengths in terms of creating economic or social value; ***the lack of research results brought to the market; and mindset; low leverage of private investment in R&D,*** a scale of resources, ***including human resources,*** in poles of excellence which is insufficient to compete globally; and an excessive number of barriers to collaboration within the knowledge triangle of higher education, research and business on a European level.

Or. en

Amendment 207
Proposal for a regulation
Annex I – Part V – point 2 – paragraph 2

Text proposed by the Commission

The EIT will address these issues by promoting structural changes in the European innovation landscape. It will do so by fostering the integration of higher education, research and innovation of the highest standards, thereby creating new environments conducive to innovation, and by promoting and supporting a new generation of entrepreneurial people. In doing so, the EIT will contribute fully to the objectives of Europe 2020 and notably

Amendment

The EIT will address these issues by promoting structural changes in the European innovation landscape. It will do so by fostering the integration of higher education, research and innovation of the highest standards, thereby creating new environments conducive to innovation, and by promoting and supporting a new generation of entrepreneurial people ***and by stimulating the creation of innovative start-ups.*** In doing so, the EIT will

the Innovation Union and Youth on the Move flagship initiatives.

contribute fully to the objectives of Europe 2020 and notably the Innovation Union and Youth on the Move flagship initiatives. ***In particular, the EIT activities through the KICs will contribute to implement the specific objectives of the "societal challenges" and "leadership in enabling and industrial technologies" established under the Horizon 2020 Specific Programme.***

Or. en

Justification

It is important to link the activity of the KICs with other relevant objectives set in other parts of Horizon 2020.

Amendment 208 **Proposal for a regulation** **Annex I – Part V – point 2 – paragraph 3**

Text proposed by the Commission

The specific feature of the EIT is to integrate education and entrepreneurship with research and innovation as links in a single innovation chain across the Union and beyond.

Amendment

The specific feature of the EIT is to integrate education and entrepreneurship with research and innovation as links in a single innovation chain across the Union and beyond, ***leading to an increase of innovative services, products and processes brought to the market.***

Or. en

Amendment 209 **Proposal for a regulation** **Annex I – Part V – point 2 – paragraph 4**

Text proposed by the Commission

The EIT, via its KICs, operates in line with business logic. Strong leadership is a pre-requisite: each KIC is driven by a CEO. KIC partners are represented by single legal entities to allow more streamlined

Amendment

The EIT, via its KICs, operates in line with business logic. Strong leadership is a pre-requisite: each KIC is driven by a CEO. KIC partners are represented by single legal entities to allow more streamlined

decision-making. KICs must produce annual business plans, including an ambitious portfolio of activities from education to business creation, with clear targets and deliverables, looking for both market and societal impact. The current rules concerning participation, evaluation and monitoring of KICs allow fast-track, business-like decisions.

decision-making. KICs must produce annual business plans, including an ambitious portfolio of activities from education to business creation, with clear targets and deliverables, looking for both market and societal impact. The current rules concerning participation, evaluation and monitoring of KICs allow fast-track, business-like decisions. ***The KICs, however, being also funded by public sources, need to remain accountable and to function in an open and transparent way, in particular towards other actors in their area of activity.***

Or. en

Justification

The public participation of the KICs requires transparency and openness in order to avoid unfounded discrimination and to widen participation.

Amendment 210 **Proposal for a regulation** **Annex I – point 2 – paragraph 5**

Text proposed by the Commission

The EIT KICs are highly integrated ventures, bringing together partners from industry, higher education, research and technology institutes, renowned for their excellence. KICs allow world-class partners to unite in new, cross-border configurations, optimise existing resources and open up access to new business opportunities via new value chains, addressing higher-risk, larger-scale challenges.

Amendment

The EIT KICs are highly integrated ventures, bringing together partners from industry, higher education, research and technology institutes, renowned for their excellence. KICs allow world-class partners to unite in new, cross-border configurations, optimise existing resources and open up access to new business opportunities via new value chains, addressing higher-risk, larger-scale challenges. ***It is essential that KICs provide the opportunity for SMEs to fully participate in all their activities: widening participation to new entrants bringing new ideas and in particular increasing participation of SMEs should be part of the KICs strategy for growth.***

Or. en

Justification

KICs must be open to SMEs participation as they constitute the biggest part of the European industrial base.

Amendment 211

Proposal for a regulation

Annex I – Part V – point 2 – paragraph 6

Text proposed by the Commission

Talent is a key ingredient of innovation. The EIT nurtures people and interactions between them, by putting students, researchers and entrepreneurs at the centre of its innovation model. The EIT will provide an entrepreneurial and creative culture and cross-disciplinary education to talented people, via EIT-labelled Masters and PhD degrees, intended to emerge as an internationally recognised brand of excellence. In doing so, the EIT strongly promotes mobility within the knowledge triangle.

Amendment

Talent is a key ingredient of innovation. The EIT nurtures people and interactions between them, by putting students, researchers and entrepreneurs at the centre of its innovation model. The EIT will provide an entrepreneurial and creative culture and cross-disciplinary education to talented people, via EIT-labelled Masters and PhD degrees, intended to emerge as an internationally recognised brand of excellence. In doing so, the EIT ***ensures optimum development and dynamic use of Europe's intellectual capital and*** strongly promotes mobility within the knowledge triangle.

Or. en

Amendment 212

Proposal for a regulation

Annex I – Part V – point 3 – point a – paragraph 1

Text proposed by the Commission

The EIT shall aim to unleash the innovative potential of people and capitalise on their ideas, irrespective of their place in the innovation chain. Thereby, the EIT will also help to address the 'European paradox' that excellent existing research is far from being harnessed to the full. In doing so, the EIT shall help to bring ideas to the market. Chiefly via its KICs and its focus on fostering entrepreneurial mindsets, it will

Amendment

The EIT shall aim to unleash the innovative potential of people and capitalise on their ideas, irrespective of their place in the innovation chain. Thereby, the EIT will also help to address the 'European paradox' that excellent existing research is far from being harnessed to the full. In doing so, the EIT shall help to ***transfer knowledge and technology in order to*** bring ideas to the market. Chiefly via its KICs and its focus

create new business opportunities in the form of both start-ups and spin-offs but also within existing industry.

on fostering entrepreneurial mindsets, it will create new business opportunities in the form of both start-ups and spin-offs but also within existing industry. ***Focus will not only be on technological innovations but also on social and non-technological innovation and the promotion of social entrepreneurship.***

Or. en

Justification

Social innovation and social entrepreneurship must be promoted as they are also a requirement to improve Europe's performance in science and innovation.

Amendment 213 Proposal for a regulation Annex I – Part V – point 3 – point b – paragraph 1

Text proposed by the Commission

The EIT's strategy and activities shall be driven by a focus on societal challenges that are of utmost relevance to the future, such as climate change or sustainable energy. By addressing key societal challenges in a comprehensive way, the EIT will promote inter- and multi-disciplinary approaches and help focus the research efforts of the partners in the KICs.

Amendment

The EIT's strategy and activities shall be driven by a focus on societal challenges that are of utmost relevance to the future, such as climate change or sustainable energy. By addressing key societal challenges in a comprehensive way, the EIT will promote inter- and multi-disciplinary approaches and help focus the research efforts of the partners in the KICs. ***In particular the EIT will develop the potential for non-technological, organisational and systems innovation as well as social entrepreneurship as a necessary complement to its technological and industrial focus;***

Or. en

Justification

Social innovation and social entrepreneurship must be promoted as they are also a requirement to improve Europe's performance in science and innovation.

Amendment 214
Proposal for a regulation
Annex I – Part V – point 3 – point d – paragraph 1

Text proposed by the Commission

The EIT shall aim to pioneer new approaches in innovation and to develop a common innovation and knowledge-transfer culture, among other things by sharing the diverse experience of its KICs via various dissemination mechanisms, such as a stakeholder platform and a fellowship scheme.

Amendment

The EIT shall aim to pioneer new approaches in innovation and to develop a common innovation and knowledge-transfer culture, ***paying special attention to SMEs. This could happen,*** among other things, by sharing the diverse experience of its KICs via various dissemination mechanisms, such as a stakeholder platform, ***patent pools*** and a fellowship scheme.

Or. en

Amendment 215
Proposal for a regulation
Annex I – Part V – point 3 – point f – paragraph 1

Text proposed by the Commission

The EIT will make a strong contribution to the objectives set in Horizon 2020, in particular by addressing societal challenges in a way complementing other initiatives in these areas. It will test out new and simplified approaches to funding and governance and thereby play a pioneering role within the European innovation landscape. Its approach to funding will be firmly based on a strong leverage effect, mobilising both public and private funds. Moreover, it will employ entirely new vehicles for targeted support to individual activities through the EIT Foundation.

Amendment

The EIT will make a strong contribution to the objectives set in Horizon 2020, in particular by addressing societal challenges in a way complementing other initiatives in these areas. It will test out new and simplified approaches to funding and governance and thereby play a pioneering role within the European innovation landscape. ***A large part of the annual contribution will be attributed to KICs in a competitive way, based on the evaluation of their yearly annual plans, objectives, obtained results and further potential.*** Its approach to funding will be firmly based on a strong leverage effect, mobilising both public and private funds. Moreover, it will employ entirely new vehicles for targeted support to individual activities through the EIT Foundation.

Or. en

Justification

The annual contribution to the different KICs must be subject to the progress and results achieved.

Amendment 216 Proposal for a regulation Annex II – introductory part

Text proposed by the Commission

The *indicative* breakdown for Horizon 2020 is as follows (in EUR million):

Amendment

The breakdown for Horizon 2020 is as follows (in EUR million):

Or. en

Amendment 217 Proposal for a regulation Annex II – first asterisk

Text proposed by the Commission

*Including **EUR 8975 million** for Information and Communication Technologies (ICT) of which **EUR 1795 million** for photonics and micro-and nanoelectronics, **EUR 4293 million** for nanotechnologies, advanced materials and advanced manufacturing and processing, **EUR 575 million** for biotechnology and **EUR 1737 million** for space. As a result, **EUR 6663 million** will be available to support Key Enabling Technologies.

Amendment

*Including **57,6%** for Information and Communication Technologies (ICT) of which **20%** for photonics and micro-and nanoelectronics, **27,6%** for nanotechnologies, advanced materials and advanced manufacturing and processing, **3,7%** for biotechnology and **11,1%** for space. As a result, **42,8%** million will be available to support Key Enabling Technologies.

Or. en

Amendment 218 Proposal for a regulation Annex II – 2nd asterisk

Text proposed by the Commission

** Around **EUR 1131 million** of this amount may go towards the

Amendment

** Around **28,3%** of this amount may go towards the implementation of Strategic

implementation of Strategic Energy Technology Plan (SET Plan) projects. Around one third of this may go to SMEs.

Energy Technology Plan (SET Plan) projects. Around one third of this may go to SMEs.

Or. en

Amendment 219
Proposal for a regulation
Annex II – 3rd asterisk

Text proposed by the Commission

Amendment

***** The total amount will be made available through allocations as foreseen in Article 6(3). The second allocation of EUR 1652 million shall be made available pro-rata from the budgets of the Societal challenges and Leadership in enabling and industrial technologies, on an indicative basis and subject to the review set out in Article 26(1)**

deleted

Or. en

Amendment 220

Proposal for a regulation
Annex II – Breakdown of the budget – table

Text proposed by the Commission

I Excellent science, of which:	27818
1. The European Research Council	15008
2. Future and Emerging Technologies	3505
3. Marie Curie actions on skills, training and career development	6503
4. European research infrastructures (including eInfrastructures)	2802
II Industrial leadership, of which:	20280
1. Leadership in enabling and industrial technologies*	15580 of which 500 for EIT

2. Access to risk finance**	4000
3. Innovation in SMEs	700
III Societal challenges, of which	35888
1. Health, <i>demographic change</i> and wellbeing;	9077 of which 292 for EIT
2. Food security, sustainable agriculture, marine and maritime research and the bio- economy;	4694 of which 150 for EIT
3. Secure, clean and efficient energy	6537 of which 210 for EIT
4. Smart, green and integrated transport	7690 of which 247 for EIT
5. Climate action, resource efficiency and raw materials	3573 of which 115 for EIT
6. Inclusive, innovative and secure societies	4317 of which 138 for EIT
European Institute of Innovation and Technology (EIT)	1542 + 1652***
Non-nuclear direct actions of the Joint Research Centre	2212
TOTAL	87740

Amendment

I Excellent science, of which:	33,2%
1. The European Research Council	15,7%
2. Future and Emerging <i>Science and</i> Technologies	3,5%
3. Marie Curie actions on skills, training and career development	9,1%
4. European research infrastructures (including eInfrastructures)	3,6%
5. Widening Excellence	0,9%
6. Science and Society	0,4%
II Industrial leadership, of which:	24,0%
1. Leadership in enabling and industrial technologies*	17,2%
2. Access to risk finance**	4,0%
3. Innovation in SMEs	2,8%

III Societal challenges, of which:	37,7%
1. Health and wellbeing	10,2%
2. Food security, sustainable agriculture, marine and maritime research and the bio-economy	4,9%
3. Secure, clean and efficient energy	7,1%
4. Smart, green and integrated transport	8,0%
5. Climate action, resource efficiency and raw materials	3,6%
6. <i>Understanding European societies and societal changes</i>	2,0%
7. <i>Protecting freedom and security in Europe</i>	1,9%
European Institute of Innovation and Technology (EIT)	3,1%
Non-nuclear direct actions of the Joint Research Centre	2,1%
TOTAL	100%

Or. en

Amendment 221

**Proposal for a regulation
Annex II a (new)**

Text proposed by the Commission

Amendment

Annex IIa

HORIZON 2020

"Instruments" Toolbox

The comprehensive nature of Horizon 2020, its multiple objectives, features and the range of activities covered dictate that a variety of implementation means ("instruments") should be available and could be used in a flexible manner.

The aim of this table is to provide an overview of the instruments toolbox proposed in Horizon 2020 which give rise to financial support from the Union.

The toolbox builds on the experience gained throughout the successive research framework programmes, with some improvements and a general effort

*for the simplification of the instruments.
Only a very limited number of new ones
have been introduced in Horizon 2020,
which responds to a clear demand from
participants and after pilot testing in the
Seventh Framework Programme.*

<i>Primary objectives</i>	<i>Description</i>	<i>Predominant form of funding¹/implementation</i>
<i>Support to individuals</i>		
<i>ERC (European Research Council)</i>	<u>Individual researchers performing frontier research</u>	Grants
<i>Marie Skłodowska-Curie Actions</i>	<u>Research training and career and knowledge-exchange through cross-border and cross-sector mobility</u>	Grants
<i>Support to collaborative research and innovation</i>		
<i>Collaborative projects</i>	<u>Universities, research performing organisations and enterprises (including SMEs), in joint collaboration with common objectives and shared capacities, to achieve specific research and innovation outcomes.</u> <u>[FEST (Future and Emerging Sciences and Technologies)- spans across scientific and engineering disciplines, creating the basis for radically new technologies]</u>	Grants, Prizes, Procurement
<i>Specific Support to SMEs</i>		
<i>SME measure (SBIR type)</i>	<u>Fill the gap in funding for early stage high risk research and innovation, through staged support covering the whole innovation cycle, targeted at all types of innovative SMEs</u>	Grants Financial instruments (debt and equity)
<i>Support to high tech SMEs</i>	<u>Market-oriented innovation of R&D performing SMEs, targeting research intensive sectors.</u>	[Article 185 - TFEU]
<i>Support to infrastructure</i>	<u>Fostering world-class research infrastructures, accessible to all researchers in Europe and beyond and their full exploitation</u>	Grants, Procurement
<i>Support to leverage finance</i>	<u>Overcome deficits in the availability of debt and equity finance for R&D and innovation-driven companies and projects at all stages of development</u>	Financial instruments (debt and equity)
<i>Support to partnership</i>		
<i>Public- private partnership (contractual PPPs)</i>	<u>Contractual agreement between partners, which specifies the objectives of the partnership, respective commitments of the partners, key performance indicators, and outputs to be delivered</u>	Grants
<i>Public- private partnership (JTIs)</i>	<u>Joint undertakings between public and private partners, where there is justifiable scope and scale of the objectives pursued, due commitment from the private sector and the resources required</u>	[Article 187 - TFEU] ²
<i>Public - public</i>	<u>Preparation and establishment of structures towards public public partnerships</u>	Grants

<i>partnership (ERA Net, potential support to JPIs)</i>		
<i>Public - public partnership (art. 185)</i>	<i><u>Joint support to the development and implementation of a research and innovation programme or activities by public sector bodies or bodies with a public service mission at regional, national or international level</u></i>	<i>[Article 185 - TFEU]ⁱⁱ</i>
<i>Knowledge and Innovation Communities (KICs)</i>	<i><u>Highly integrated partnerships, bringing together universities, research centres, small and large companies and other innovation actors on a long-term basis around specific societal challenges</u></i>	<i>[Article 173 (3) - TFEU]ⁱⁱ</i>

Or. en

¹ There are four basic forms of funding in Horizon 2020: grants, prizes, procurement and financial instruments (debt and equity)

² The established entity can also use the available forms of funding