

## NGO Alliance on Horizon 2020

June 17 2012

**Amendments to the**  
**REGULATION** OF THE EUROPEAN PARLIAMENT AND OF THE  
COUNCIL  
**establishing Horizon 2020** - The Framework Programme for Research and  
Innovation (2014-2020), Brussels, 30.11.2011 COM(2011) 809 final

**Amendment 1**  
**Proposal for a regulation**  
**Title I Establishment**  
**Article 5 (p.13)**

Text of the Commission	Amendment
<p>2. This general objective shall be pursued through three mutually reinforcing priorities dedicated to:</p> <p>(a) excellent science;</p> <p>(b) industrial leadership;</p> <p>(c) societal challenges..</p> <p>The specific objectives corresponding to each of those three priorities are set out in Parts I to III of Annex I, together with the broad lines of the activities.</p>	<p>2. This general objective shall be pursued through three mutually reinforcing priorities dedicated to:</p> <p>(a) excellent <i>and participatory</i> science;</p> <p>(b) industrial leadership <i>for a fair economy</i>;</p> <p>(c) <i>social leadership including civil society for</i> societal challenges..</p> <p>The specific objectives corresponding to each of those three priorities are set out in Parts I to III of Annex I, together with the broad lines of the activities.</p>

Justification

Major parts of the Horizon 2020 proposal aim for industrial rather than social leadership. Science and innovation are key factors and need to be developed with Europe's citizens to tackle its pressing societal challenges. Europe should take leadership for a fair economy.

**Amendment 2**  
**Proposal for a regulation**  
**Title I Establishment**  
**Article 6 (p.14)**

Text of the Commission	Amendment
<p>2. The amount for activities under Title XIX TFEU shall be distributed among the priorities set out in Article 5(2) as follows:</p> <p>(a) Excellent science, EUR 27818 million;  (b) Industrial leadership, EUR 20280 million;  (c) Societal challenges, EUR 35888 million.</p> <p>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 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.</p>	<p>2. The amount for activities under Title XIX TFEU shall be distributed among the priorities set out in Article 5(2) as follows:</p> <p>(a) Excellent science, EUR 27818 million;  (b) Industrial leadership, EUR <del>20280</del> <b>10280</b> million;  (c) Societal challenges, EUR <del>35888</del> <b>45888</b> million.</p> <p>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 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.</p>

#### Justification

Horizon 2020 is a public research and innovation programme funded by public money. The public interest and societal challenges should therefore be its first preoccupations, in strong relation with excellent science. Industrial leadership is, as indicated in the text, clearly industry driven. But business interests and public interest are not the same and often diverge. Therefore, funding for business driven research should be carefully spent. Industry can be partner in projects under Societal challenges. This would allow for a better control of Horizon 2020 budgets in order to meet European aims such as citizens welfare, economic prosperity, environmental protection and sustainable resource use.

#### **Amendment 3**

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

#### **Title II implementation**

#### **Chapter II Programming**

#### **Section I General principles**

#### **Article 13 (p.18)**

Text of the Commission	Amendment
<p>Article 13 Cross-cutting actions</p> <p>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</p>	<p>Article 13 Cross-cutting actions</p> <p>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</p>

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.	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, <b><i>governance of research, and participatory research (co-construction of knowledge)</i></b> , and to enhancing the attractiveness of the research profession and to facilitating cross-border and cross-sector mobility of researchers.
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#### Justification

Responsible research and innovation is an extremely important approach in Horizon 2020. Ensure the evolving aspects of governance of research and a real two-way dialogue between science and society while integrating civil society in research and innovation and thus benefiting from the knowledge produced in wider society (co-construction of knowledge).

#### **Amendment 4**

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

##### **Title II implementation**

##### **Chapter II Programming**

##### **Section I General principles**

##### **Article 14 (p.19)**

Text of the Commission	Amendment
Article 14 Evolving nature of science, technology, innovation, markets and society 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.	Article 14 Evolving nature of science, technology, innovation, markets and society 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, <del>and</del> social, <b><i>and environmental</i></b> aspects.

#### **Amendment 5**

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

##### **Title II implementation**

##### **Chapter II Programming**

##### **Section II Specific fields of action**

##### **Article 18 (p.20)**

Text of the Commission	Amendment
<p>Article 18 Small and medium-sized enterprises</p> <p>1. Particular attention shall be paid to ensuring the adequate participation of, and innovation impact on, small and medium-sized enterprises (SME) in Horizon 2020. Quantitative and qualitative assessments of SME participation shall be undertaken as part of the evaluation and monitoring arrangements.</p> <p>2. Specific actions shall be undertaken within the specific objective "Leadership in enabling and industrial technologies" set out in Point 1 of Part II of Annex I and each of the specific objectives under the priority "Societal challenges" set out in Points 1 to 6 of Part III of Annex I. These specific actions shall take the form of a dedicated SME instrument that is targeted at all types of SMEs with an innovation potential and shall be implemented in a consistent manner and tailored to the needs of SMEs as set out under the specific objective "Innovation in SMEs" in Point 3.3.(a) of Part II of Annex I.</p> <p>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.</p>	<p>Article 18 Small and medium-sized enterprises <b><i>and civil society organisations</i></b></p> <p><b><i>a) Small and medium-sized enterprises</i></b></p> <p>1. Particular attention shall be paid to ensuring the adequate participation of, and innovation impact on, small and medium-sized enterprises (SME) in Horizon 2020. Quantitative and qualitative assessments of SME participation shall be undertaken as part of the evaluation and monitoring arrangements.</p> <p>2. Specific actions shall be undertaken within the specific objective "Leadership in enabling and industrial technologies" set out in Point 1 of Part II of Annex I and each of the specific objectives under the priority "Societal challenges" set out in Points 1 to 6 of Part III of Annex I. These specific actions shall take the form of a dedicated SME instrument that is targeted at all types of SMEs with an innovation potential and shall be implemented in a consistent manner and tailored to the needs of SMEs as set out under the specific objective "Innovation in SMEs" in Point 3.3.(a) of Part II of Annex I.</p> <p>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.</p> <p><b><i>b) Civil society organisations</i></b></p> <p><b><i>1. Particular attention shall be paid to ensuring the adequate participation of CSOs in Horizon 2020. Quantitative and qualitative assessments of CSO participation shall be undertaken as part of the evaluation and monitoring arrangements.</i></b></p> <p><b><i>2. Specific actions shall be undertaken within point 2 (FET) and 3 (MCA) under the priority "Excellent science" and within each of the specific objectives under the priority "Societal challenges" set out in Points 1 to 6 of Part III of Annex I. These specific actions shall take the form of a</i></b></p>

	<p><i>dedicated CSO instrument that shall be implemented in a consistent manner.</i></p> <p><i>3. The integrated approach set out in paragraphs 1 and 2 is expected to lead to around 10% of the total combined budget for the priority "Excellent science" and the priority "Societal challenges" going to CSOs.</i></p>
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#### Justification

CSOs are highly innovative structures since they try to find solutions to complex real-world problems and to needs expressed by citizens.

#### **Amendment 6**

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

#### **Chapter II Programming**

#### **Section II Specific fields of action**

#### **Article 22, after (e) (p.23)**

Text of the Commission	Amendment
<p>Information, communication and dissemination</p> <p>The European Commission shall implement information and communication actions concerning Horizon 2020, including communication measures concerning supported projects and results. Budget allocated to communication under Horizon 2020 shall also contribute to covering the corporate communication of the Union's political priorities as far as they are related to the general objective of this Regulation. Activities to disseminate information and carry out communication activities shall be an integral task under all of the actions supported by Horizon 2020.</p> <p>In addition, the following specific actions shall be supported:</p> <p>(a) initiatives aimed at widening awareness and facilitating access to funding under Horizon 2020, in particular for those regions or types of participant that are underrepresented;</p> <p>(b) targeted assistance to projects and consortia to provide them with access to the necessary skills to optimise the communication and dissemination of results;</p>	<p>Information, communication and dissemination</p> <p>The European Commission shall implement information and communication actions concerning Horizon 2020, including communication measures concerning supported projects and results. Budget allocated to communication under Horizon 2020 shall also contribute to covering the corporate communication of the Union's political priorities as far as they are related to the general objective of this Regulation. Activities to disseminate information and carry out communication activities shall be an integral task under all of the actions supported by Horizon 2020.</p> <p>In addition, the following specific actions shall be supported:</p> <p>(a) initiatives aimed at widening awareness and facilitating access to funding under Horizon 2020, in particular for those regions or types of participant that are underrepresented;</p> <p>(b) targeted assistance to projects and consortia to provide them with access to the necessary skills to optimise the communication and dissemination of results;</p>

<p>(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;</p> <p>(d) dissemination to policy makers, including standardisation bodies, to promote the use of policy relevant results by the appropriate bodies at international, Union, national and regional level;</p> <p>(e) initiatives to foster dialogue and debate on scientific, technological and innovation related issues with the public, and to take advantage of social media and other innovative technologies and methodologies;</p>	<p>(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;</p> <p>(d) dissemination to policy makers, including standardisation bodies, to promote the use of policy relevant results by the appropriate bodies at international, Union, national and regional level;</p> <p>(e) initiatives to foster dialogue and debate on scientific, technological and innovation related issues with the public, and to take advantage of social media and other innovative technologies and methodologies;</p> <p><b><i>(f) Initiatives to (better) include civil society and its organizations in the research and innovation process, e.g. in shaping research agendas or co-creating knowledge.</i></b></p>
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#### Justification

This is in line with recommendation 20 on page 8 of the same document: With the aim of deepening the relationship between science and society and reinforcing public confidence in science, Horizon 2020 should favour an informed engagement of citizens and civil society on research and innovation matters by promoting science education, by making scientific knowledge more accessible, by developing responsible research and innovation agendas that meet citizens' and civil society's concerns and expectations and by facilitating their participation in Horizon 2020 activities.

## **ANNEX 1**

### **Amendment 7**

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

#### **Broad lines of the specific objectives and activities**

#### **ANNEX 1 - Part I Excellent science (p.28)**

Text of the Commission	Amendment
<p>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:</p>	<p>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:</p>

<p>(a) The European Research Council (ERC) shall provide attractive and flexible funding to enable talented and creative individual researchers and their teams to pursue the most promising avenues at the frontier of science, on the basis of Union-wide competition.</p> <p>(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.</p> <p>(c) Marie Curie actions shall provide excellent and innovative research training as well as attractive career and knowledge-exchange opportunities through cross-border and cross-sector mobility of researchers to best prepare them to face current and future societal challenges.</p> <p>(d) Research infrastructure shall develop European research infrastructure for 2020 and beyond, foster their innovation potential and human capital, and complement this with the related Union policy and international cooperation.</p>	<p>(a) The European Research Council (ERC) shall provide attractive and flexible funding to enable talented and creative individual researchers and their teams to pursue the most promising avenues at the frontier of science, on the basis of Union-wide competition.</p> <p>(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.</p> <p>(c) Marie Curie actions shall provide excellent and innovative research training as well as attractive career and knowledge-exchange opportunities through cross-border and cross-sector mobility of researchers to best prepare them to face current and future societal challenges.</p> <p>(d) Research infrastructure shall develop European research infrastructure for 2020 and beyond, foster their innovation potential and human capital, and complement this with the related Union policy and international cooperation.</p> <p><b><i>(e) Responsible Research and Innovation shall take into account visions of multiple stakeholders, including those from civil society, and RRI programs will be open for participation of these stakeholders.</i></b></p>
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## Amendment 8

### Proposal for a regulation

#### Broad lines of the specific objectives and activities

#### ANNEX 1 - Part III Priority Societal Challenges (p.30)

Text of the Commission	Amendment
<p>Paragraph 1: This Part responds directly to the policy priorities and societal challenges identified in</p>	<p>Paragraph 1: This Part responds directly to the policy priorities and societal challenges identified in</p>

<p>the Europe 2020 strategy and aiming to stimulate the critical mass of research and innovation efforts needed to achieve Union's policy goals. Funding shall be focused on the following specific objectives:</p> <p>(a) Health, demographic change and well-being;</p> <p>(b) Food security, sustainable agriculture, marine and maritime research, and the bio-economy;</p> <p>(c) Secure, clean and efficient energy; (d) Smart, green and integrated transport;</p> <p>(e) Climate action, resource efficiency and raw materials; (f) Inclusive, innovative and secure societies.</p>	<p>the Europe 2020 strategy and aiming to stimulate the critical mass of research and innovation efforts needed to achieve Union's policy goals. Funding shall be focused on the following specific objectives:</p> <p>(a) Health, demographic change and well-being;</p> <p>(b) Food security, sustainable agriculture, marine and maritime research, and the bio-economy;</p> <p>(c) Secure, clean and efficient energy; (d) Smart, green and integrated transport;</p> <p>(e) Climate action, resource efficiency <b>and sustainable use</b> of raw materials; (f) Inclusive <b>and</b> innovative <del>and secure</del> societies.</p>
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#### Justification

Resource efficiency does not always lead to resource saving (“Rebound effect”) and chain actors and civil society at large are asking for a fair economy.  
Secure societies should be separated from inclusive and innovative societies.

#### **Amendment 9**

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

##### **Broad lines of the specific objectives and activities**

##### **ANNEX 1 - Part III Priority Societal Challenges (p.30)**

Text of the Commission	Amendment
<p>Paragraph 3:</p> <p>Social sciences and humanities shall be an integral part of the activities to address all the challenges. In addition, the underpinning development of these disciplines shall be supported under the specific objective ‘Inclusive, innovative and secure societies’. Support will also focus on providing a strong evidence base for policy making at international, Union, national and regional levels. Given the global nature of many of the challenges, strategic cooperation with third countries shall be an integral part of each challenge. In addition, cross-cutting support for international cooperation shall be provided under the specific objective ‘Inclusive, innovative and secure societies’.</p>	<p>Paragraph 3:</p> <p>Social sciences and humanities <b><i>as well as the integration of civil society</i></b> shall be an integral part of the activities to address all the challenges. <b><i>Furthermore, 35 per cent of the funding allocated under the heading inclusive, innovative and secure societies shall be earmarked for social sciences and humanities research.</i></b> In addition, the underpinning development of these disciplines shall be supported under the specific objective ‘Inclusive, innovative and secure societies’. Support will also focus on providing a strong evidence base for policy-making at international, Union, national and regional levels. Given the global nature of many of the challenges, strategic cooperation with third countries shall be an integral part</p>



	of each challenge. In addition, cross-cutting support for international cooperation shall be provided under the specific objective ‘Inclusive, innovative and secure societies’.
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#### Justification

Amendment on civil society: The potential of civil society (and civil society organisations, CSOs) to contribute to solutions through more participative and trans-disciplinary research is still underestimated. New innovative ways of knowledge management and transfer need to be developed which facilitate mutual learning in collaborative networks and contribute to a better research impact. It is precisely by addressing environmental, social and economic challenges together and not sector-wise that Europe will be able to generate long-term prosperity. This is, for instance, particularly valid for the agricultural sector as the actors are very diverse (farmers, processors, dealers, caterers...) and dispersed in a large territory, using different tools and often not enough cooperating.

Amendment on SSH: If the amounts allocated in FP7 for socio-economic sciences and humanities and for security respectively is combined (as we assume it has been in Horizon 2020) then 31 per cent of the resulting total falls to socio- economic sciences and humanities. Given that these aspects of secure and inclusive societies are becoming greater in importance rather than smaller at a time when social cohesion across EU Member States is under increasing and immense pressure, a percentage increase in the share for this aspect of research is justifiable especially as the total for this combined area has seen a significant increase compared to other elements of the proposal.

## PART I EXCELLENT SCIENCE

### Amendment 10

#### Proposal for a regulation

#### Part I Excellent science

#### 3. Marie Curie Actions

#### 3.3. Broad lines of the activities (p.38)

Text of the Commission	Amendment
<p>(a) Fostering new skills by means of excellent initial training of researchers The goal is to train a new generation of creative and innovative researchers, able to convert knowledge and ideas into products and services for economic and social benefit in the Union. Key activities shall be to provide excellent and innovative training to early-stage researchers at post-graduate level via interdisciplinary projects or doctoral</p>	<p>(a) Fostering new skills by means of excellent initial training of researchers The goal is to train a new generation of creative and innovative researchers, able to convert knowledge and ideas into products and services for economic and social benefit in the Union. Key activities shall be to provide excellent and innovative training to early-stage researchers at post-graduate level via interdisciplinary projects or doctoral</p>

<p>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.</p> <p>(b) Nurturing excellence by means of cross-border and cross-sector mobility The goal is to enhance the creative and innovative potential of experienced researchers at all career levels by creating opportunities for cross-border and cross-sector mobility. 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.</p> <p>(c) Stimulating innovation by means of cross-fertilisation of knowledge The goal is to reinforce international cross-border and cross-sector collaboration in research and innovation by means of exchanges of research and innovation personnel in order to be able to face global challenges better. Key activities shall be to support short-term exchanges of research and innovation staff among a partnership of universities, research institutions, businesses, SMEs and other socio-economic groups, both within Europe and worldwide. This will include fostering cooperation with third countries.</p>	<p>programmes involving universities, research institutions, businesses, SMEs, <b>CSOs</b> 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.</p> <p>(b) Nurturing excellence by means of cross-border and cross-sector mobility The goal is to enhance the creative and innovative potential of experienced researchers at all career levels by creating opportunities for cross-border and cross-sector mobility. 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, <b>CSOs</b> and other socio-economic groups all over Europe and beyond. Opportunities to restart a research career after a break shall also be supported.</p> <p>(c) Stimulating innovation by means of cross-fertilisation of knowledge The goal is to reinforce international cross-border and cross-sector collaboration in research and innovation by means of exchanges of research and innovation personnel in order to be able to face global challenges better. Key activities shall be to support short-term exchanges of research and innovation staff among a partnership of universities, research institutions, businesses, SMEs, <b>CSOs</b> and other socio-economic groups, both within Europe and worldwide. This will include fostering cooperation with third countries.</p>
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#### Justification

Include systematically civil society organisations in the list of potential partners since researchers might also be willing to work with structures from civil society.

## PART II INDUSTRIAL LEADERSHIP

### Amendment 11

#### Proposal for a regulation

#### Part II – Industrial Leadership

#### 1. Leadership In Enabling And Industrial Technologies – A Common Approach, 2nd paragraph (p. 43)

Text of the Commission	Amendment
<p>1. Leadership In Enabling And Industrial Technologies – A Common Approach, Paragraph 2:</p> <p>For all the enabling and industrial technologies, including the KETs, a major aim will be to foster interactions between the technologies, and with the applications under the societal challenges. This shall be fully taken into account in developing and implementing the agendas and priorities. It requires that stakeholders representing the different perspectives are fully involved in priority setting and implementation. In certain cases, it will also require actions that are jointly funded by the enabling and industrial technologies, and by the relevant societal challenges. This will include joint funding for public-private partnerships that aim to develop technologies and apply them to address societal challenges.</p>	<p>1. Leadership In Enabling And Industrial Technologies – A Common Approach, Paragraph 2:</p> <p>For all the enabling and industrial technologies, including the KETs, a major aim will be to foster interactions between the technologies, and with the applications under the societal challenges. This shall be fully taken into account in developing and implementing the agendas and priorities. It requires that stakeholders representing the different perspectives are fully involved in priority setting and implementation. In certain cases, it will also require actions that are jointly funded by the enabling and industrial technologies, and by the relevant societal challenges. This will include joint funding for public-private partnerships <b><i>and for partnerships with civil society organisations</i></b> that aim to develop technologies <b><i>and methods</i></b>, and apply them to address societal challenges.</p>

#### Justification

Society is only able to give a valuable feedback if it is included in a really transparent opinion building process right from the beginning.

### Amendment 12

#### Proposal for a regulation

#### Part II – Industrial Leadership

#### 1. Leadership In Enabling And Industrial Technologies

#### 1.2. Nanotechnologies

#### 1.2.3 Broad lines of the activities (p. 47)

Text of the Commission	Amendment
1.2.3. Broad lines of the activities	1.2.3. Broad lines of the activities

<p>(a) Developing next generation nanomaterials, nanodevices and nanosystems Aiming at fundamentally new products enabling sustainable solutions in a wide range of sectors.</p> <p>(b) Ensuring the safe development and application of nanotechnologies Advancing scientific knowledge of the potential impact of nanotechnologies and nanosystems on health or on the environment, and providing tools for risk assessment and management along the entire life cycle.</p> <p>(c) Developing the societal dimension of nanotechnology - Focusing on governance of nanotechnology for societal benefit.</p> <p>(d) 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 multi-purpose plants that ensures the efficient transfer of knowledge into industrial innovation.</p> <p>(e) Developing capacity-enhancing techniques, measuring methods and equipment Focusing on the underpinning technologies supporting the development and market introduction of complex nanomaterials and nanosystems.</p>	<p>(a) Developing next generation nanomaterials, nanodevices and nanosystems Aiming at fundamentally new products enabling sustainable solutions in a wide range of sectors.</p> <p>(b) Ensuring the safe development and application of nanotechnologies Advancing scientific knowledge of the potential impact of nanotechnologies and nanosystems on health or on the environment, and providing tools for risk assessment and management along the entire life cycle.</p> <p>(c) Developing the societal dimension of nanotechnology - Focusing on governance of nanotechnology for societal benefit, <b><i>taking into account the precautionary principle. Assessing the social acceptability of specific different applications of nanotechnology in addition.</i></b></p> <p>(d) 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 multi-purpose plants that ensures the efficient transfer of knowledge into industrial innovation.</p> <p>(e) Developing capacity-enhancing techniques, measuring methods and equipment Focusing on the underpinning technologies supporting the development and market introduction of complex nanomaterials and nanosystems.</p>
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#### Justification

Concerns of civil society with regard to the use of nanotechnology (e.g. for food) must be taken into account, as the long-term impact on human health is not sufficiently known.

### **Amendment 13**

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

#### **Part II – Industrial Leadership**

#### **1. Leadership In Enabling And Industrial Technologies.**

#### **1.4. Biotechnology**

#### **1.4.3. Broad lines of the activities (p. 50)**

Text of the Commission	Amendment
<p>1.4.3. Broad lines of the activities</p> <p>(a) Boosting cutting-edge biotechnologies as a future innovation driver</p> <p>Development of emerging technology areas such as synthetic biology, bioinformatics and systems biology, which hold great promise for completely novel applications.</p> <p>(b) Biotechnology-based industrial processes</p> <p>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.</p> <p>(c) Innovative and competitive platform technologies</p> <p>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.</p>	<p>1.4.3. Broad lines of the activities</p> <p>(a) Boosting cutting-edge biotechnologies as a future innovation driver</p> <p>Development of emerging technology areas such as synthetic biology, bioinformatics and systems biology, which hold great promise for completely novel applications.</p> <p>(b) Biotechnology-based industrial processes</p> <p>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.</p> <p>(c) Innovative and competitive platform technologies</p> <p>Development of platform technologies (e.g. genomics, meta-genomics, proteomics, molecular tools) to enhance leadership and competitive advantage, <b><i>and be it through cooperative models</i></b> in a wide number of economic sectors.</p> <p><b><i>(d) Societal and ethical concerns</i></b></p> <p><b><i>The objective is to take account of societal and ethical concerns with regard to certain types of technologies by developing assessment criteria and procedures for broad consultation of stakeholders for policy processes.</i></b></p>

#### Justification

Concerns of civil society must be taken into account, as the long-term impact on human health and agro-ecosystems is not sufficiently known.

## PART III SOCIETAL CHALLENGES

### Amendment 14

#### Proposal for a regulation

#### Part III Societal Challenges

#### Chapter 1 Health, Demographic Change and Wellbeing

#### 1.2 Rationale and Union added value (p.60-61)

Text of the Commission	Amendment
<p>1.2 Rationale and Union added value paragraph 2 :</p> <p>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.</p>	<p>1.2 Rationale and Union added value paragraph 2 :</p> <p>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, <del>and</del> effective <b>and accessible</b> 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.</p>

#### Justification

If research is to provide a maximum of societal benefit, it should bring about not only innovative and effective solutions, but its results should also be accessible to the large public.

#### **Amendment 15**

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

#### **Part III – Societal Challenges**

#### **2. Food Security, Sustainable Agriculture, Marine And Maritime Research And The Bio-Economy**

#### **2.3 Broad lines of the activities (p. 64)**

Text of the Commission	Amendment
<p>2.3 Broad lines of the activities</p> <p>(a) Sustainable agriculture and forestry</p> <p>The aim is to supply sufficient food, feed, biomass and other raw-materials, while safeguarding natural resources and enhancing ecosystems services, including coping with and mitigating climate change. The activities shall focus on more sustainable and productive agriculture and forestry systems which are both resource-efficient (including low-carbon) and resilient, while at the same time developing of services, concepts and policies for thriving rural livelihoods.</p>	<p>2.3 Broad lines of the activities</p> <p>(a) Sustainable agriculture and forestry</p> <p>The aim is to supply sufficient food, feed, biomass and other raw-materials, while safeguarding natural resources <b><i>including biodiversity, in a European and world-wide perspective and</i></b> enhancing ecosystems services, including with and mitigating climate change. The activities shall focus on more sustainable, resilient and productive agriculture and forestry systems which are <del>both</del> resource-efficient (including low-carbon, <b><i>low external input and organic farming</i></b>), protect natural resources, <b><i>are diverse and can adapt to a changing</i></b></p>

	<i>environment</i> and <i>are</i> resilient, while at the same time developing of services, concepts and policies for <i>divers food systems and</i> thriving rural livelihoods.
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#### Justification

Instead of only looking for technical solutions to increase efficiency, the proposals should focus on resource saving production systems (such as low external input and organic farming), which are more economical in the use of scarce natural resources. These systems will create more synergies between food production and preservation of natural capital than industrial agro-systems.

#### Amendment 16

##### Proposal for a regulation

##### Part III – Societal Challenges

##### 2. Food Security, Sustainable Agriculture, Marine And Maritime Research And The Bio-Economy

##### 2.3 Broad lines of the activities (p. 64)

Text of the Commission	Amendment
<p>(b) Sustainable and competitive agri-food sector for a safe and healthy diet</p> <p>The aim is to meet the requirements of citizens for safe, healthy and affordable food, and to make food and feed processing and distribution more sustainable and the food sector more competitive. The activities shall focus on healthy and safe foods for all, informed consumer choices, and competitive food processing methods that use less resources and produce less by- products, waste and green-house gases.</p>	<p>(b) Sustainable and competitive agri-food sector for a safe and healthy diet</p> <p>The aim is to meet the requirements of citizens for safe, healthy and affordable food, and to make food and feed processing and distribution <i>as well as food consumption</i> more sustainable and the food sector more competitive. The activities shall focus on <i>a broad diversity of</i> healthy, <i>authentic, high quality</i> and safe foods for all, informed consumer choices, and competitive food processing methods that use less resources <i>and additives</i> and produce less by- products, waste and green-house gases.</p>

#### Justification

High diversity in food production preserves and enhances the diversity of food on the plates and improves the health and well-being of citizens. Reconnecting consumers and producers in a whole chain approach of authentic and natural food will benefit public health and lead to more sustainable consumption behaviour.

## Amendment 17

### Proposal for a regulation

#### Part III – Societal Challenges

#### 2. Food Security, Sustainable Agriculture, Marine And Maritime Research And The Bio-Economy

##### 2.3 Broad lines of the activities (p. 64)

Text of the Commission	Amendment
<p>(c) Unlocking the potential of aquatic living resources</p> <p>The aim is to sustainably exploit aquatic living resources to maximize social and economic benefits/returns from Europe's oceans and seas. The activities shall focus on an optimal contribution to secure food supplies by developing sustainable and environmentally friendly fisheries and competitive European aquaculture in the context of the global economy and on boosting marine innovation through biotechnology to fuel smart "blue" growth.</p>	<p>(c) Unlocking the potential of aquatic living resources</p> <p>The aim is to sustainably exploit aquatic living resources to maximize social and economic benefits/returns from Europe's oceans and seas. The activities shall focus on an optimal contribution to secure food supplies by developing sustainable and environmentally friendly fisheries and competitive European aquaculture in the context of the global economy and on boosting marine innovation through biotechnology to fuel smart "blue" growth.</p> <p><b><i>Civil society concerns against the use of certain types of biotechnology in open marine ecosystems have to be taken into account.</i></b></p>

#### Justification

Concerns of civil society must be taken into account as the long-term impacts on human health are not known and especially because the marine environment is difficult to control and survey.

## Amendment 18

### Proposal for a regulation

#### Part III – Societal Challenges

#### 2. Food Security, Sustainable Agriculture, Marine And Maritime Research And The Bio-Economy

##### 2.3 Broad lines of the activities (p. 64)

Text of the Commission	Amendment
<p>(d) Sustainable and competitive bio-based industries</p> <p>The aim is the promotion of low carbon, resource efficient, sustainable and competitive European bio-based industries. The activities shall focus on fostering the bio-economy (...) and opening new markets</p>	<p>(d) Sustainable and competitive bio-based industries</p> <p>The aim is the promotion of low carbon, resource efficient <b><i>and conserving</i></b>, sustainable and competitive European bio-based industries. The activities shall focus on fostering the bio-economy (...) and opening</p>



through supporting standardisation, regulatory and demonstration/field trial activities and others, while taking into account the implication of the bio-economy on land use and land use changes.	new markets through supporting standardisation <b><i>but also differentiation</i></b> , regulatory and demonstration/field trial activities and others, while taking into account the implication of the bio-economy on land use and land use changes <b><i>as well as the civil society views and concerns</i></b> .
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#### Justification

Market development cannot only be achieved by standardisation. An average of 7,000 plant species used to be cultivated, today only 120 of them are still important for agriculture, and just 30 species deliver 95 percent of all foods on the planet. High diversity in food production preserves and enhances the diversity of food on the plates and improves the health and well-being of citizens.

### **Amendment 19**

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

#### **Part III – Societal Challenges**

#### **5. Climate Action, Resource Efficiency And Raw Materials**

#### **5.3. Broad lines of the activities (p. 73)**

Text of the Commission	Amendment
<p>5.3. Broad lines of the activities</p> <p>(d) Enabling the transition towards a green economy through eco-innovation</p> <p>The aim is to foster all forms of eco-innovation that enable the transition to a green economy. Activities shall focus on: strengthening eco-innovative technologies, processes, services and products and boosting their market uptake and replication, with special attention for SMEs; supporting innovative policies and societal changes; measuring and assessing progress towards a green economy; and fostering resource efficiency through digital systems.</p>	<p>5.3. Broad lines of the activities</p> <p>(d) Enabling the transition towards a green <b><i>and fair</i></b> economy through eco-innovation</p> <p>The aim is to foster all forms of eco-innovation that enable the transition to a green <b><i>and fair</i></b> economy. Activities shall focus on: strengthening eco-innovative technologies, processes, services and products and boosting their market uptake and replication, with special attention for SMEs;</p> <p>Supporting innovative policies and societal changes; measuring and assessing progress towards a green economy; and fostering resource efficiency through digital systems.</p>

#### Justification

Not everyone is able to participate in the same way and extent to the market. Everybody has the right to the same chances and possibilities.

**Amendment 20**  
**Proposal for a regulation**  
**Part III – Societal Challenges**  
**6. Inclusive, innovative and secure societies**

Text of the Commission	Amendment
6. Inclusive, innovative and secure societies	6. Inclusive <i><b>and</b></i> innovative <del><b>and secure</b></del> societies

**Amendment 21**  
**Proposal for a regulation**  
**Part III – Societal Challenges**  
**6. Inclusive, innovative and secure societies**  
**6.3. Broad lines of activities**  
**6.3.2. Innovative societies (p.77)**

Text of the Commission	Amendment
<p>6.3.2. Innovative societies</p> <p>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.</p> <p>The focus of activities shall be to:</p> <p>(a) strengthen the evidence base and support for the Innovation Union and ERA;</p> <p>(b) explore new forms of innovation, including social innovation and creativity;</p> <p>(c) ensure societal engagement in research and innovation;</p> <p>(d) promote coherent and effective cooperation with third countries.</p>	<p>6.3.2. Innovative societies</p> <p>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.</p> <p>The focus of activities shall be to:</p> <p>(a) strengthen the evidence base and support for the Innovation Union and ERA;</p> <p>(b) explore new forms of innovation, including social innovation and creativity;</p> <p>(c) <del>ensure societal engagement in research and innovation</del> <i><b>science with and for society;</b></i></p> <p>(d) promote coherent and effective cooperation with third countries.</p>

**Amendment 22**  
**Proposal for a regulation**  
**Part III – Societal Challenges**  
**6. Inclusive, innovative and secure societies**

### 6.3. Broad lines of activities

#### 6.3.3. Secure societies (p.77)

Text of the Commission	Amendment
<p>6.3.3. Secure societies</p> <p>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.</p> <p>The focus of activities shall be to:</p> <ul style="list-style-type: none"> <li>(a) fight crime and terrorism;</li> <li>(b) strengthen security through border management;</li> <li>(c) provide cyber security;</li> <li>(d) increase Europe's resilience to crises and disasters;</li> <li>(e) ensure privacy and freedom in the Internet and enhance the societal dimension of security.</li> </ul>	<p>6.3.3. Secure societies</p> <p>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.</p> <p>The focus of activities shall be to:</p> <ul style="list-style-type: none"> <li>a. fight crime and terrorism;</li> <li><b>b. <i>identify the reasons why people become radicalized into violence and effective social policy measures to counter these reasons;</i></b></li> <li>c. strengthen security through border management;</li> <li>d. provide cyber security;</li> <li>e. increase Europe's resilience to crises and disasters;</li> <li><b>f. <i>research, through engagement with citizens and elected representatives, the degree of risk society is willing to take in return for fewer intrusive counterterrorism measures;</i></b></li> <li>g. ensure privacy and freedom in the Internet and enhance the societal dimension of security;</li> <li><b>h. <i>research the contribution that restorative justice processes can make in the 'prevent' and 'respond' strands of the counterterrorism strategy.'</i></b></li> </ul>

#### Justification

The proposal as it stands focuses research under the ‘secure societies’ aspect on the technological response to threat and response to threat. As we have tried to show, and as is evident in the comments made by the EU’s own Counter-Terrorism Coordinator, there is a clear need to ensure that the social policy dimensions are also given some space in the research relating to security. The amendments proposed establish this as part of the programme.

## ANNEX 2 BREAKDOWN OF THE BUDGET

### Amendment 23

#### Proposal for a regulation

#### Annex 2 Breakdown of the budget (p.85)

Text of the Commission	Amendment
<p>I      Excellent science, of which: 27818</p> <p>1.      The European Research Council 15008</p> <p>2.      Future and Emerging Technologies 3505</p> <p>3.      Marie Curie actions on skills, training and career development 6503</p> <p>4.      European research infrastructures (including eInfrastructures) 2802</p> <p>II      Industrial leadership, of which: 20280</p> <p>1.      Leadership in enabling and industrial technologies* 15580 of which 500 for EIT</p> <p>2.      Access to risk finance** 4000</p> <p>3.      Innovation in SMEs 700</p> <p>III      Societal challenges, of which 35888</p> <p>1.      Health, demographic change and wellbeing; 9077 of which 292 for EIT</p> <p>2.      Food security, sustainable agriculture, marine and maritime research and the bio- economy; 4694 of which 150 for EIT</p> <p>3.      Secure, clean and efficient energy 6537 of which 210 for EIT</p>	<p>I      Excellent science, of which: 27818</p> <p>1.      The European Research Council 15008</p> <p>2.      Future and Emerging Technologies 3505</p> <p>3.      Marie Curie actions on skills, training and career development 6503</p> <p>4.      European research infrastructures (including eInfrastructures) 2802</p> <p>II      Industrial leadership, of which: <del>20280</del> <b>10280</b></p> <p>1.      Leadership in enabling and industrial technologies* <del>15580</del> <b>6280</b> of which <del>500</del> <b>250</b> for EIT</p> <p>2.      Access to risk finance** <del>4000</del> <b>3000</b></p> <p>3.      Innovation in SMEs <del>700</del> <b>1000</b></p> <p>III      Societal challenges, of which <del>35888</del> <b>45888</b></p> <p>1.      Health, demographic change and wellbeing; <del>9077</del> <b>10327</b> of which 292 for EIT</p> <p>2.      Food security, sustainable agriculture, marine and maritime research and the bio- economy; <del>4694</del> <b>5944</b> of which 150 for EIT</p> <p>3.      Secure, clean and efficient energy <del>6537</del> <b>7787</b> of which 210 for EIT</p>

4. Smart, green and integrated transport 7690 of which 247 for EIT	4. Smart, green and integrated transport <del>7690</del> <b>8940</b> of which 247 for EIT
5. Climate action, resource efficiency and raw materials 3573 of which 115 for EIT	5. Climate action, resource efficiency and raw materials <del>3573</del> <b>4823</b> of which 115 for EIT
6. Inclusive, innovative and secure societies 4317 of which 138 for EIT	6. Inclusive <b>and</b> innovative <del>and secure</del> societies <del>4317</del> <b>8067</b> of which 138 for EIT

#### Justification

Horizon 2020 is a public research and innovation programme funded by public money. The public interest and societal challenges should therefore be its first preoccupations, in strong relation with excellent science. Industrial leadership is, as indicated in the text, clearly industry driven. But business interests and public interest are not the same and often diverge. Therefore, funding for business driven research should be carefully spent. Industry can be partner in projects under Societal challenges. This would allow for a better control of Horizon 2020 budgets in order to meet European aims such as citizens welfare, economic prosperity, environmental protection and sustainable resource use.