

# BELGIAN POSITION PAPER ON HORIZON 2020

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This Belgian position paper is a publication of the Belgian Commission for International Scientific Cooperation (CIS), and the Interministerial Economic Commission (IEC-CEI) where all the national and regional authorities competent in the fields of science, technology and innovation, are represented.

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#### Summary

#### Belgium welcomes...

- A substantial increase in the budget for research and innovation: Belgium regards the requested 80 billion euro as a lower limit. Investment in R&D and innovation becomes even more relevant in times of economic crisis.
- The integrated and broad approach to innovation adopted, taking research and all forms of innovation into account, in particular non-technological innovation and the entire innovation chain, from basic research to market take-up.
- The emphasis on key enabling technologies.
- The focus on excellence as the main driver: for all programmes and instruments geared towards research, the evaluation procedure should be based on scientific quality as a key criterion.
- The facilitation of SME participation: Belgium welcomes the fact that the European Commission has set itself the target of spending 15% of the budget for SMEs. It is now important that the achievement of this target be carefully monitored. Belgium further welcomes the bottom-up SME instrument.
- The emphasis on societal challenges: in line with the Europe 2020 strategy, this puts societal challenges at the heart of the European research and innovation strategy.
- The further development of Financial Instruments to stimulate Industrial Leadership.
- Simplification: the use of simplified procedures in Horizon 2020, with a unique set of rules, simplified cost accounting methods, fewer controls and audits.

#### Belgium is concerned about...

- The general lack of a clear rationale behind the budgetary breakdown.
- The elimination of the full-cost option for non-profit organisations.
- The low budget allocated to Marie Curie Actions.
- The lack of coordination between Horizon 2020 and Joint Programming.
- The lack of clear complementarities between Horizon 2020, the Cohesion Funds and COSME, in particular with regard to innovation and the financial instruments and the potential risk of losing some effective instruments from the CIP.
- The missed opportunity to provide European funds to promote cross-border collaboration between knowledge institutions.
- The missed opportunity to reform (at least in part) the European topping-up funding system.
- The unclear role of EIT and the European Innovation Partnerships in Horizon 2020.
- The gender dimension, which should be fully integrated into all aspects of Horizon 2020.
- The comitology rules, governance and the role of programme committees compared to the previous programmes. Belgium favours a stronger role for these programme committees.

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#### **Preliminary remark**

A detailed Belgian position on the various thematic issues will be elaborated in a follow-up document.

#### 1. Horizontal issues

Europe finds itself at a crossroads. The present economic crisis, the pressures on planetary resources and the strong emergence of external competitors make it imperative to voluntarily get out of our "business as usual". Therefore, Horizon 2020 has to initiate a breakthrough in the way Europe undertakes its development, using research and innovation for tackling its societal challenges and to stimulate growth and job creation.

## 1.1. Horizon 2020 in the light of the Belgian position paper on future EU programs on research and innovation

The impact of research and innovation policies is greatest if the EU acts together, thereby achieving a critical mass in order to be internationally competitive.

Horizon 2020 meets a number of concerns expressed by Belgium in its position paper published in May 20111. In this respect, Belgium is particularly satisfied with a number of important features taken up in the commission proposal, including:

- Research excellence (for the research part of Horizon 2020) and international competition remain the main evaluation criteria.
- EU programmes cover the whole innovation chain in a technological field, especially in hightech areas.
- Financing mechanisms as well as an integrated portfolio of support measures are being proposed that cover the entire innovation chain.
- The balance between top-level programme strategies and "bottom-up" generation of fresh ideas is highly appreciated.
- "Simplification" was one of the main themes of the Belgian presidency: a major step forward is now within reach.
- Harmonised participation rules are a significant advance.
- The strong features of FP7, especially the ERC, are being maintained and even reinforced.
- · The successful Cooperation Programme of FP7 found several successors.
- Belgium is pleased to note that Horizon 2020 aims at ensuring the effective promotion of gender equality and the gender dimension in research and innovation content.

#### **Belgium welcomes:**

the significant budget increase to 80 billion euro (in constant prices). The increase
compared to the respective FP7/CIP/EIT budgets confirms the vision of research and
innovation as key drivers for European competitiveness and increased welfare for its
citizens. Even in the current tough financial and economic climate which Europe is
facing, it is crucial that this proposed budget of 80 billion euro for research and
innovation be maintained in its entirety, as it represents a critical minimum threshold

<sup>1 &</sup>quot;Belgian Position Paper on Future EU Programmes for Research and Innovation", May 2011.

- of investment in Europe's future: investment in R&D and innovation becomes even more relevant in times of economic crisis;
- the Horizon 2020 architecture, with research and innovation as a vital element, as a
  tool for the implementation of the Innovation Union and "an integrated industrial
  policy for a globalised era" Flagships, bringing together three former programmes
  (FP7, EIT, CIP). This will be an enabler for creating and reinforcing synergies among
  research, innovation-related aspects of the former CIP and educational aspects (EIT,
  KICs) and for making open innovation a reality.

#### 1.2. Horizon 2020: challenges ahead

Notwithstanding the generally positive appraisal of Horizon 2020, Belgian stakeholders and public authorities also have some concerns, which they will address in the debates that will be held in the coming two years when finalising Horizon 2020.

These concerns can be summarised as:

- Belgium believes that the current Cooperation programme in FP7 exemplifies an optimal way in which public and private actors can work together in an international context and on an equal basis, across disciplines, institutions and areas of specialisation. Within the Industrial Leadership and Societal Challenges pillars, the healthy balance between the involvement of the different players should be maintained, incentives created and barriers abolished to ensure the formation of ecosystems of collaboration between universities, research centres, policy and public engagement bodies and small and large industrial players in a composition that best suits the proposed research and its intended output and exploitation. Within these top-down challenges and priorities, Horizon 2020 should invest in small- and large-scale, bottom-up, collaborative research programmes.
- The consequences of the legal basis chosen for Horizon 2020 with regard to the new financing instruments and the aspects related to innovation will have to be clarified.
- The budgetary division within the different parts of Horizon 2020 will be monitored carefully: Belgium welcomes the substantial increase for curiosity-driven research in any form, though there are still questions regarding e.g. the rather modest increase of the financing of Marie Curie Actions, the social sciences, etc., where more could probably be done. The same applies for the objective of 15% of the funding priorities 2.1 (Leadership in enabling and industrial technologies) and 3 (Societal Challenges) dedicated to SMEs. This target looks relatively unambitious, considering the levels currently achieved. Moreover, we wonder to what extent this target is binding. An indicative budget allocation for SME in the financial instruments would be welcomed. It is now important that the achievement of this target be carefully monitored.
- The document proposes joint activities between the different parts of the programme, which is
  positive, while however remaining relatively vague about the practical arrangements for the
  joint financing.
- The new cost reimbursement scheme (100 % for direct costs and 20% for indirect costs) is surely a step forward. However, modifications are necessary, as it appears that some actors lose out financially. The full-cost option should be reinstated for non-profit organisations.
- The link with ERA: ERA is rather in the hands of the Member States (and their regions). Belgium argued for coherence between European, national and regional science policies and for a clear division of labour between Horizon 2020 on the one hand, and the national/regional research and innovation policies on the other. Belgium also spoke in favour of earmarking part of the European budget to support academia and research institutes in participation when national funding for participation in cross-border cooperation is lacking.

- Indeed, care should be taken (regarding joint programming) not to endanger the existing research in the same fields in non-participating countries by no longer foreseeing support within the work programmes of Horizon 2020. Such development might pose a threat of shifting from an openly competitive, EU-wide process to a more national one. Unless JPI calls remain open to all EU Member States, the development of JPIs might drastically change both the EU research landscape and the national policies. Joint Programming should never be implemented at the expense of existing European (FP) research funding. Furthermore, since JPI and Horizon 2020 are addressing more or less the same challenges, there is a strong need for coordination between the different programmes. In specific cases, the application of Article 185 of the EU Treaty might be a useful instrument when taking into account the experience and good practices of the running Article 185 programmes.
- Clarifications are also needed regarding the link with other activities that are relevant in the context of science and innovation policies. What kind of bridges will be built between Horizon 2020, the Cohesion Funds and COSME? How Horizon 2020 and COSME will link up is unclear. Participants involved in both activities will raise these issues. Similar observations can be made when it comes to the funding of cross-border research (ERA NETS, JPIs, JTIs, new FET Flagships, and European Innovation Partnerships). The synergies and links with Horizon 2020 are not yet clear with respect to management, thematic synergies, optimisation of the value chain of the projects, etc. And what about the link with COST, where the networking activities are highly appreciated in Belgium?
- The gender dimension: The Commission has been trying since several FP's to convince researchers of the need to take the gender dimension on board in project proposals and the evaluation process. Despite continuous effort, this is still a weak point in many of the projects funded by the Commission.
- This surely merits further consideration and reflexion. The gender dimension should be fully
  integrated into all aspects of Horizon 2020. The logic of this argument goes beyond research
  priorities for responsible research and innovation and implicates the whole governance
  structure of Horizon 2020.
- Social sciences: Belgium welcomes the fact that social sciences and humanities shall be an integral part of the activities of Horizon 2020. Belgium supports the idea that in the "challenges" part SSH researchers should not be relegated to the 'Inclusive, innovative and secure societies' challenge only. In particular, the potential contribution of SSH research to every research & innovation project relating to the concept of sustainability should be emphasised. We think, for example, that SSH needs to be involved not only at the research level (research content, composition of the research networks...) but also at all stages of the programme, in particular during consultation and evaluation of research proposals, by including experts from the SSH area on the evaluation panels and in advisory groups.
- Science in Society: Belgium emphasises the importance of incorporating the input of citizens and civil society into the debate on science and society. It is indeed paramount in the democratic process: public engagement and public participation in science will improve the innovative capacities and entrepreneurship. The current 'Science in Society' programme is less visible in the new framework but should also have its part in the interdisciplinary approach to all priorities.

#### 2. Excellent science

#### 2.1. General

Belgium believes that it is important to ensure a proper balance between bottom-up and top-down approaches for Horizon 2020 as a whole, and, with regard to more basic research funding, to assure that excellent projects and excellent scientists will be the main beneficiaries of European funding.

The pillar 'Excellent Science' is allocated 31.7 % of the Horizon 2020 budget or 27.818 b€, from which 15.008 b€ goes to the ERC programme and 6.503 b€ to the Marie Curie programme. This means that about one-third of the budget goes to curiosity-driven research. Belgium views this as a substantial and satisfying consideration by the Commission for basic research. Belgium nevertheless stresses the need to continue funding collaborative projects related to curiosity-driven research.

On the whole, Belgium is also pleased that ERC and Marie Curie Actions will continue as separate schemes. The extension of the FET scheme as well as the reinforced support to Research Infrastructures are also supported.

Belgium supports the intention of the COM to pursue a non-bureaucratic approach based on trust towards researchers and using simplified rules.

#### 2.2. Excellence

Belgium strongly supports the Horizon 2020 focus on the excellence criterion concerning the selection process of the research and innovation projects to be funded, regardless of any geographic consideration. A professional peer review system that uses excellence as the main criterion must remain. Peer reviewing has to be coherent, transparent and harmonised, and must take into account the epistemic and scientometric specificities of each scientific discipline.

Nonetheless, Belgium insists that the peer reviewing process of interdisciplinary (basic) research projects should be conducted by a team of truly interdisciplinary peer reviewers.

#### 2.3. ERC

Belgium supports the strengthening of the ERC within Horizon 2020, which contributes to ensuring a proper balance between basic and applied research, even if the overall funding of Horizon 2020 could still be increased in order to allow more excellent researchers to be part of the scheme. Curiosity is the main driving force leading to frontier research. Radically innovating technologies are based on scientific research. ERC also maintains a remarkably low level of management overhead and has already proved capable of improving its own operating mode.

However, in order to have better knowledge about the ratio of funding that is allotted to strictly curiosity-driven research, one should know more precisely the part that the financial grants of the 'Proof of Concept' type will take within the ERC programme. There should be a good balance between ERC grants that are funding curiosity-driven research and this type of ERC grants - though the latter are very valuable in the perspective of the valorisation of basic research. These grants indeed aim at establishing the innovation potential of ideas by funding activities such as technical validation, market research, clarifying IPR position and strategy or investigating commercial and business opportunities.

Belgium supports the aim of ERC to lead to publications of the highest quality and to the commercialisation of innovative ideas. However, the ERC programme itself should not be evaluated on criteria other than scientific excellence. In particular, because the ERC funds curiosity-driven research, it should not aim to demonstrate in an evaluation perspective that funding "has led to the commercialisation and application of innovative technologies and ideas".

#### 2.4. Future and Emerging Technologies

Belgium supports the extension of the much-appreciated Future and Emerging Technologies (FET) scheme, which is limited to ICT and Energy in FP7, to all scientific domains in Horizon 2020. The science-driven approach in the proposed small and large-scale collaborative research projects and programmes will prove to be an optimal way for both research institutes and the private sector to work together on an equal basis. In fact, the bottom-up principle of the FET scheme is very much appreciated.

FET Open, FET Proactive and FET Flagships offer the right combination for addressing the general objective defined by Horizon 2020.

#### 2.5. Marie Curie Actions

The proposal for Horizon 2020 contains a limited budget increase for Marie Curie Actions (MCA) in Horizon 2020. The proposed investments in MCA in fact drop from almost 1b€ in 2013 to 0.7b€ in 2014, and reach the 2013 levels once again only in 2019. Given the strong track record of the MCA, Belgium believes that its budget increase should be more in line with the budgetary increase of the ERC.

Both the strong focus on career development and fair treatment of researchers and the link between research and innovation make MCA a very valuable programme that has a structuring impact on the research community with a view to consolidating it for the future. However, given the already very low success rates of Marie Curie in the past, Belgium fears that the proposed budget will decrease even more the possibility to fund researchers, and that the impact of the career-strengthening MCA will therefore become significantly lower.

#### 2.6. Research Infrastructure

Belgium supports the aim of COM to further develop and more widely use RIs at the EU level and beyond, and acknowledges that the budget dedicated to infrastructure activities should be significantly increased. Belgium is convinced that a European approach to the construction, use and management of RIs will contribute to improving Europe's research and innovation potential. These activities in support of the RIs have an impact on most of the other activities included in Horizon 2020.

Belgium believes that the "Infrastructure" area must be maintained as well as such successful instruments as the integrating activities and e-Infrastructures activities for existing research infrastructures, design studies for new RIs and construction of new infrastructures or major upgrades of existing ones.

Belgium is in favour of a better linkage of research infrastructures with industry, enterprises and regional innovation ecosystems. This should be taken into account in the future Calls for proposals as well as the design of projects.

Articulation with Cohesion instruments should be further clarified.

As far as the European Strategic Forum for Research Infrastructures (ESFRI) is concerned, its specific structure must be further reinforced and its role strengthened, in particular as regards the implementation and further updating of the ESFRI Roadmap and the stimulation of a harmonised approach to the evaluation and exploitation of all RIs with European relevance.

#### 3. Industrial leadership

In the industrial leadership pillar, the three objectives - (1) more innovative SMEs to create growth and jobs (2) strategic investments in key enabling technologies (e.g. advanced manufacturing, microelectronics) to underpin innovation across existing and emerging sectors (3) attracting more private investment in research and innovation - reflect well the key priority elements that are necessary for Europe to build up its knowledge-based competitiveness in the global market and respond to the key priorities for smart, sustainable and inclusive growth of the Europe 2020 strategy. The enhanced link between research and innovation and the focus on Key Enabling Technologies being the major component of the Industrial Leadership priority naturally put greater emphasis on research valorisation issues. The proposal of Key enabling and industrial technologies (ICT, nanotechnologies, materials, biotechnology, manufacturing, space) may require some further exploration in the PPPs launched under the recovery plan, in order to ensure that all relevant disciplines are covered and supported by stakeholders.

Belgium welcomes the broad, seamless approach to innovation in Horizon 2020 through inclusion of service innovation, design and creativity. Belgium also particularly welcomes the development of initiatives such as pre-commercial procurement, demonstration and pilot activities, first commercial application, etc.

Belgium would like to highlight some key success factors for the programme:

- The innovation-related elements brought in from the CIP into the overall Horizon 2020 already
  offers a good starting basis to further and more quickly foster technologies towards innovative
  products and services in the market and to strengthen links between excellent research and
  innovation. Belgium has some concerns about the risk that some successful CIP innovation
  activities will be discontinued.
- Programmes under this heading should have a strong focus on leveraging private sector investment in research and innovation, and should be further elaborated in a way to foster the realisation of this objective.
- In order to implement the Flagship Initiatives of the Europe 2020 Strategy, sufficient interdependency should be provided among the objectives of Horizon 2020, as well with the objectives of other new programmes presented as successors of the previous programmes. Questions arise as to how the programme will best address some cross-cutting themes. ICT, where significant investments will be made, is an example of a sector that appears as a cross-cutting action in both the Industrial Leadership and Societal Challenges priorities. The Social Sciences and Humanities are also present in each of the objectives. Horizon 2020 might not result in the desired outcome if these cross-cutting themes are not approached properly.
- Integrating both research and innovation in a single programme, the Commission should keep in mind harmonisation across different funding schemes in view of simplification for the applicants.

Although excellence should remain the key driver in Horizon 2020, different forms will be needed for implementation, depending on the type of activity ranging from purely academic excellent science through excellent research and development to innovation, and so the weight of different evaluation criteria should be clear according to the type of activity. In Industrial Leadership activities more weight should be given to impact than in activities within the framework of the Excellence pillar.

#### 3.1. Regional connectivity: Horizon 2020 and Cohesion

As innovation is regionally embedded, Horizon 2020 objectives obviously imply a regional aspect and a role for its actors. In order to achieve synergies, the regional smart specialisation strategies (which remain to be further defined) of the cohesion policy should be aligned as much as possible with Horizon 2020. Although the purpose is to make of Europe an attractive location for excellent research and innovative companies, there are some concerns regarding regional capacity building (FP7 Regions of knowledge), now under cohesion policy.

Complementarities with the cohesion policy should be ensured: dynamic interaction could be pursued through some interface mechanisms streamlining regional smart specialisation strategies from cohesion policy with the Key Enabling Technologies in Horizon 2020. The articulation with Cohesion Policy is unclear for the moment.

Belgium supports the concept of partnerships, which are all of key importance for the future industrial competitiveness.

#### 3.2. Access to risk finance

As successors for the successful RSFF (of FP7) and GIF (equity financing in CIP), Belgium acknowledges the continuation and strengthening of risk capital and debt financing as key elements for access to finance. Importance should be attached to modalities adapted to the SME needs. Regional coverage should remain an important point of attention to ensure mobilisation of SMEs. Belgium stresses the importance of bringing forward priorities for Venture Capital. Attention to simplification efforts is a main concern for SME beneficiaries.

The terms for combination with the Competitiveness and SMEs programme, and in general with other financial instruments to be developed, should be clarified. It would be useful to obtain more detailed budget breakdowns for these two components and the various windows, particularly for SMEs:

- Borrowing facility "EU service loans and guarantees for Research and Innovation": the rules for the operation should be further clarified, particularly the developments in relation to the current system. It should in particular be explicitly clarified how the Commission intends to address the problems currently encountered by the device, including support for PPP and SMEs, and ensure increased involvement of regional actors. The "priority" axis is new to the device. A budget of one billion € will be dedicated to the implementation of the SET Plan. It would be helpful if the Commission could indicate whether other priorities have been identified and which budgets would be allocated. Next to RSFF, it should be more explicit in the text that, besides individual projects, a portfolio approach through regional or national mechanisms could complement the measures set within the COSME programme.
- Mechanism of equity, "equity instruments of the EU for R & I" (GIF extension): It is
  positive that goals such as eco-innovation can be taken into account. The proposed target
  themes for the growth component should be further clarified. It would be useful for the
  Commission to provide more information on the modalities of implementation, including on
  how to link with the mechanism provided in the COSME programme. The comprehensibility of
  the device for the beneficiaries does not seem assured.
- The implementation of financial instruments will be delegated to the Group EIB / EIF and/or other financial institutions. The Commission should clarify whether additional financing from the EIB is planned (see RSFF). These mechanisms can be topped up via the Structural Funds. The practicalities of this option are not clear at this stage, although a priori it is an interesting novelty.
- In addition to financial tools, **support measures** are planned. Prima facie, these are interesting and important elements, in particular to facilitate access of the SMEs to these tools, but more details should be given on the nature of the activities to be supported.

#### 3.3. Innovation in SMEs

SMEs are the engine of our economy and play a pivotal role in developing novel products and services. The acknowledged continuum between R&D efforts and the promotion of innovation underlines the need for Horizon 2020 to feature an instrument dedicated to SMEs and focused on facilitating the transfer, application and market uptake of R&D findings by strong demand-side tools. Access to those programmes should also be open to non-R&D intensive SMEs.

Businesses require better support during the follow-up stage of R&D projects.

The instruments have to provide a continuum of support in the innovation chain. Beyond demonstration, take-up activities should benefit from a more integrated approach including the funding of those activities with other forms of support than grants such as access to risk finance and support during market uptake.

Belgium therefore welcomes the proposed bottom-up SME instrument, which will provide support in three phases of the whole innovation cycle. Stronger focus should be placed on themes like clustering, standardisation, public procurement and intellectual property.

However the European instrument should not replace but be complementary to the national and/or regional instruments, since the needs of many SMEs are best served through support provided at regional level (low threshold), possibly in a coordinated approach such as ERA-Nets. Furthermore, Europe must rely on national or regional intermediaries to reach SMEs, notably national and regional contact points and the E.E.N. network. For measures directly targeting SMEs, appropriate communication must be ensured.

Since EUREKA, both individual bottom-up projects and the Cluster programmes also represent an attractive and flexible aid instrument for the business sector. Therefore the continued support of the Eurostars Joint Programme that is built on the complementary relationship between the European R&D instruments and those of the Member States' instruments is welcomed. Belgium welcomes the initiatives of the Commission relating to SMEs so that Horizon 2020 will not be tailored only to large companies having access to EU resources to build up R&D capacity. Access to research and dissemination of the latest scientific and technological developments through cooperative sectorial research centres can be an excellent vector for research and innovation in their field of activity.

Too many overlaps and duplications among Horizon 2020, COSME and the Cohesion programme might result in increased complexity due to coordination efforts to combine funding of several programmes. There must be a maximum of administrative harmonisation in order to optimise complementarities between the COSME and the SME specific actions, so that the complexity is not increased too much for SMEs. As the European Commission is clearly intending to rely more on the services of the Enterprise Europe Network in the future – also with respect to guiding innovation for SMEs towards European funding opportunities – the desired relationship between E.E.N. and the NCP network will need to be further clarified as innovation remains the driver for EU competitiveness.

#### 4. Societal challenges

Belgium welcomes the overall approach of the 3rd pillar as being in line with the orientations of the Europe 2020 strategy, and more specifically the Flagships "Innovation Union", "An Industrial Policy for the Globalisation Era" and "Digital Agenda for Europe". It places the societal challenges at the heart of the European research and innovation strategy, keeping, as was the case in FP7, Sustainable Development as the overarching aim. We also welcome the European Commission's intention not to prescribe too detailed research topics, but to use a more bottom-up approach, and at the same time to be more flexible and open to different types of interdisciplinary projects.

The Horizon 2020 document proposes that the activities shall cover the spectrum from research to market, integrating innovation activities, cross-disciplinary approaches, and socioeconomic and humanities research. Belgium shares this view and acknowledges that research should lay the foundations of technological developments that are beneficial in the public's daily lives. Belgium is strongly in favour of a broad concept of innovation that includes not only technological innovation but also non-technological, social, institutional, organisational and behavioural innovation. Innovation could also refer to new developmental pathways towards sustainable societies, taking account of systemic constraints including societal transformation capabilities. Leaving a broader place for nontechnological innovation will encourage cross-disciplinary approaches and involvement of the socioeconomic sciences and humanities. A combination of innovative ways of thinking may put our society on a more ecological, socially and economically sustainable path. Belgium welcomes also the numerous links placed with the second pillar ("Industrial Leadership"), the emphasis in the text on the role of industry and the services sector in the response to the issues underlying the societal challenges and to the issue of the competitiveness of the European economy. The organisation of the programme into challenges is quite relevant and it is detailed in such a way that considerable playing room is left for programme development and improvement.

However, Belgium has some concerns about:

- A more balanced approach between economic, environmental and societal relevance in the
  near and long terms is needed when selecting research activities. In particular, the way
  environmental aspects are covered needs some fine-tuning. This also applies for the aspects
  of biodiversity, which is highlighted as an important topic under the heading 'sustainable
  growth' of the Europe 2020 strategy and which also appears in numerous other documents
  (cf. the Roadmap for a resource efficient Europe and associated Council conclusions of 19
  December 2011).
- Although solutions to meet societal challenges and the competitiveness of our industries are
  often interlinked, in some cases responses to challenges are not exclusively to be found within
  the economic sphere.
- It is clear that challenges should no longer be addressed in an isolated way, but that several challenges are often closely intertwined. Therefore, it could be useful to define more precisely how Horizon 2020 intends to deal with such transversal challenges.

A detailed discussion of the different chapters of the Societal Challenges will be elaborated in a follow-up document.

#### 4.1. Link with Joint Programming

Joint programming is a process in the hands of the Member States and regions. Joint Programming initiatives should be established to strengthen the resources already allocated by the participating countries to the JPI topics. Care should be taken, however, not to endanger the existing research in the same fields in non-participating countries by no longer foreseeing support within the work programmes of Horizon 2020. Such development might pose a threat of shifting from an openly competitive, EU-wide process to a more national one. Unless JPI calls remain open to all EU Member States, the development of JPIs might drastically change both the EU research landscape and the national policies.

Towards this end, the European Commission should also propose measures for allowing participation of smaller countries and regions not always having the budgets or programmes to participate as a full partner in JPI's. The European Commission should act as a neutral arbitrator to ensure a level playing field. More specifically, the European Commission should ensure that all regions and Member States have a fair say in setting the priorities and the way in which initiatives are to be governed and that the evaluation process is based on scientific quality criteria.

It is important that the joint research programming process result in a balanced ERA, in which as many countries and regions as possible take part and that allows high-quality actors to participate, irrespective of where they are located within (or possibly even outside) Europe.

Joint Programming should never be implemented at the expense of existing European (FP) research funding. On the contrary, the goal of Joint Programming should be to make the existing Member State's research more effective through better collaboration and coordination. This is a lesson learned from the JPND pilot programme, where a decrease in funding of ND research was observed in FP7.

Furthermore, since JPI and Horizon 2020 are addressing more or less the same challenges, there is a strong need for coordination between the different programmes.

#### 5. Governance issues

#### 5.1. Simplification

The whole architecture of the programme is designed to allow the beneficiaries to identify which funding opportunities best correspond to their needs.

The simplification is foreseen in the process of the preparation, implementation and evaluation of the projects by introducing one single set of participation rules, funding rates (single reimbursement scheme for all participants), reducing the time to grant by 100 days, and this without reducing the quality of the selection process.

Belgium welcomes all efforts to simplify the approach of design and realisation of the projects, but asks the EC to present the concrete measures of implementation.

A few comments that Belgium would like to make:

- The new simplified rules needs to be respected during the entire life cycle of Horizon 2020, and the exceptions to the general rules should remain rare.
- Belgium recalls that the huge diversity of EU funding schemes under FP7 and beyond, with
  differing financial rules and rules for intellectual property rights, created an impenetrable maze
  for researchers and administrators alike, both in industry and academia. Belgium therefore
  favours a maximum of uniformity and harmonisation of the IP regulation across these different
  sections of the programme under Horizon 2020. At the same time, the rules for implementing
  initiatives such as JTIs, EIP, EUROSTARS, EUREKA etc. should also be simplified and
  aligned. Initiatives with minor added value should be evaluated and abandoned if necessary.
- The rules governing the future SME instrument should be especially simple and with clear links between the 3 phases in terms of timing, rules for participation, evaluation & selection criteria, financial rules, etc.
- Due to the increasing number of European initiatives and the associated increased complexity, the role of the National Contact Points should be reinforced. The Horizon 2020 proposal envisages a reinforced link with E.E.N. Belgium supports this intention. However, this increased cooperation should not result in overlapping roles and activities (e.g. regarding SME-oriented activities) but must improve specialisation of the complementary networks.
- More could be done to facilitate access to Horizon 2020 for new players, notably microenterprises.

#### 5.2. Role of programme committees

The Commission should clarify in a non-paper the comitology rules, the way it sees governance, and the role of programme committees compared to the previous programmes. Belgium is in favour of a stronger role of these programme committees.

The SME dimension should also be dealt with in a specific way.

#### 5.3. New financial Instruments

Horizon 2020 introduces the new financial instruments that will be available under Horizon 2020, such as:

- Procurement of innovative solutions.
- Risk finance instruments (loans, equity facilities).
- Prizes and awards.

Belgium welcomes this new approach of financing the innovative beneficiaries but asks the European Commission to develop further their exact structure, scalability, and their reach out.

#### 5.4. Financial rules

The European Commission proposes the following financial rules for all beneficiaries:

- One financial scheme will be applied to all beneficiaries.
- One reimbursement rate for all activities (100% of direct costs and 20 % of indirect costs).
- granting 70% of the total eligible costs for actions primarily consisting of activities such as
  prototyping, testing, demonstrating, experimental development, piloting, market replication; as
  well as for programme co-fund actions.

While the use of a flat rate is clearly a drastic simplification, Belgium fears that the 20% reimbursement of indirect costs will not cover the actual costs of companies and knowledge institutions with expensive infrastructure.

Considering the scenario of a single funding percentage for a given project, projects with mixed activities – e.g. both applied research and prototyping – will become less attractive for research organisations and universities if the lower reimbursement rate applies to the entire project instead of its individual activities. For reasons of sustainability, it is imperative that non-profit organisations be reimbursed at 100%, regardless of the type of activity.

Belgium regrets that, for indirect costs, the option of cost declaration through full costing will not be possible any longer, despite the fact that the EC always encouraged the use of this cost model in the former framework programmes. Secondly, we would like to draw the Commission's attention to the new financial instruments for SMEs that will be created in Horizon 2020 (Innovation in SME). The content and modalities of implementing of this programme should be further detailed. The access at each phase of the programme should not depend on the participation in a previous phase.

There is a concern about the financial support for the SME projects having benefiting from the first 2 phases of the programme and going to phase 3. The content of phase 3 of the measures is not explicit enough.

#### 5.5. Intellectual Property

Belgium welcomes the fact that coherent rules on intellectual property rights are introduced in Horizon 2020. A proper management of intellectual property rights is indeed an important tool for innovation. Intellectual property rights not only concern patents, but also designs, breeder rights, integrated circuits, copyright, protection of software, databases and trademarks. These different rules of every intellectual property right, are partially harmonised within the EU, but are also subject to international treaties. Belgium is therefore of the opinion that the proposed provisions on intellectual property rights in Horizon 2020 should be viewed with regard to all possible intellectual property rights and existing IP rules on EU or international level.

Belgium has some concerns about the rules governing the dissemination of results, in order to preserve possible application of intellectual property rights at later stages. Furthermore, the possibility of secrecy should be maintained.

Finally, with regard to intellectual property, Belgium would welcome a clarification concerning the owners of the intellectual property rights, the licenses, the transfer of intellectual property rights in the pre-commercial procurement and the consortium agreement, the meaning of "the right to use" in the access rights and the introduction of rules concerning counterfeit and the persons or authorities that can act against a possible counterfeit (which are normally foreseen by contracts between the parties).

Belgium is worried about the introduction of any 'Europe first' valorisation requirement, as this is problematic for international enterprises with branches outside Europe. While the 'Europe first' requirement is currently not a guiding principle, Horizon 2020 does allow for the introduction of stricter valorisation requirements at the work programme level.

#### 5.6. Optimising management

The EC and its executive agencies should make sure that they speak with one voice, thus preventing divergent interpretations of the rules by the officials.

Scientific and financial officials should work together more closely while assessing periodical reports for instance. This could be achieved by a single periodical report form encompassing both technical and financial aspects.

Because of the transversal dimensions of Erasmus for All and Horizon 2020 (specifically the MCA for PhD Candidates, the EIT and the Knowledge alliances), the coordination between DG EAC and DG R&I should be fine-tuned.

#### 5.7. Co-funding and cross-border collaboration

Europe is failing to seize opportunities to fully exploit its potential and mobilise it in support of European cooperation. This is because companies and knowledge institutions face considerable challenges to participate in existing public/private (and in some public/public) R&D initiatives. Of particular concern in this respect is the reduced participation prospect for knowledge institutions in certain Member States, due to the type of co-funding required from regions and Member States and the limitations resulting there from.

More details are needed about EIP, their role and place in the programme. Furthermore, participation in those partnerships should be extensive, notably for SMEs and regional actors (clusters, competitiveness poles).

The PPPs are based on co-funding programmes, generally with contributions by the national/regional authorities, industry and the European Commission. The national/regional funding is still nearly always earmarked for organisations within the geographical boundaries of the region/Member State. Consequently, smaller regions and Member States with limited budgets are hamstrung in the extent to which they can participate. This is particularly true when there is a mismatch between the field of expertise of a knowledge institution and the business community located in its region/country. In this instance, the knowledge institution has to resort to 'cross-border' cooperation, for which there is no European funding.

#### 5.8. Monitoring and indicators

We welcome the establishment of efficient and effective ex-ante monitoring and performance indicators (integrating impact), which incentivise the achievement of the main objectives brought forward in the Europe 2020 strategy (including job creation and the general contribution to the socioeconomic environment). Indicators should of course be based on experiences in the previous programmes (including gender issues) and provide evidence for flexible monitoring between the related (sub-)programmes.

Performance indicators defined for each pillar should also take into account the specificity of each pillar of Horizon 2020. For the second (and in some way the third pillar), economic valorisation must remain at the heart of the concerns. This should be reflected in the indicators chosen.

#### 5.9. State Aid

Belgium needs clarifications about the implications of the State Aid rules on the activities foreseen under the programmes, in particular with regard to innovation and financial instruments.













