JOINT POSITION OF

THE EUROPEAN TECHNOLOGY PLATFORMS

FROM THE ICT SECTOR

ON HORIZON 2020

-

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Contents

Executive Summary

This paper provides the joint position of five European Technology Platforms (ETPs) from the ICT domain. They have teamed up in a cross-ETP (xETP) endeavour to provide common observations and recommendations on Horizon 2020, the European Framework Programme for Research and Innovation for the period 2014 – 2020.

The ETPs of this endeavour provide within their specific area an industry-lead framework for stakeholders to define research priorities and action plans on a number of technological areas. [1]

The set of recommendations in this joint position paper is the result of many discussions in the xETP context. Conclusions reflected here are therefore supported by around 3.500 big enterprises, SMEs, higher education and research organisations. The five ETPs that have joined their efforts for the drafting of this position are:

- EPoSS (Smart Systems Integration), micro- and nano-systems,
- ISI (Integral Satcom Initiative), satellite communications,
- NESSI (Software and Services),
- Net!Works (Converged fixed and Wireless Communication Networks),
- Photonics 21 (Photonics).

A short description of the ETPs can be found in Annex 3 of this paper.

Throughout this position paper, 5 main areas of concern are identified. For each of these, a rationale is given, recommendations are made and potential amendments are proposed to the regulations establishing Horizon 2020 as well as the Regulation laying down the Rules for Participation and Dissemination in Horizon 2020. The five areas identified are the following:

- Budget, stakeholders, co-financing and international collaboration,
- The fragmentation of ICT topics across Horizon 2020,
- Recommendations for the simplified funding model proposed in Horizon 2020,
- The need for flexibility in the rules for participation,
- Recommendations about intellectual property and open access of research results.

This position is made available for the attention of European decision-making and implementing bodies in order to support them in shaping the future of European Research and Innovation and, in doing so, fostering the continent's competitiveness and contribute to its prosperity. Considering the enabling nature of ICT for many research areas and its pervasiveness throughout the proposed regulation establishing Horizon 2020, the xETP call for a dedicated discussion on ICT research, based on the recommendations made in this paper.

Consolidated Recommendations

1. General Recommendations about Horizon 2020

1.1.Overall budget for Horizon 2020

The overall proposed budget allocation for Horizon 2020 of 87,740 million € for a period of 7 years corresponds in average to about 12,534 million € per year. Horizon 2020 basically combines the follow-up programmes of Framework Programme 7 (FP7) and the Competitiveness and Innovation Programme (CIP). This average value per year corresponds roughly to the final budget allocation of FP7 and CIP in its final year.

Therefore, the intended budget allocation for Horizon 2020 would keep the current level of funding budget. A decrease of the overall budget allocation would be a step behind the actual status, which would endanger the 3 % of GDP for R&D in Europe. The current crisis has shown how important it is to be competitive in a global world. International collaboration and exports are saving some of the most “punished” EU economies and this can only be achieved through increasing innovation. This leads to two additional concepts that have to accompany the whole strategy: a greater impact on products and services (i.e. technology transfer to the market) as well as measurement and assessment of such impact to ensure that European funds are invested in the most suitable way. In the view of stakeholders represented here, this calls for an increased investment in Horizon 2020 and therefore, the current situation is considered insufficient.

1.2.Supported stakeholders

Rationale

In the current proposal, only European SMEs are mentioned as focus group for Industrial Leadership. However, industrialised economies are based on an eco-system of cooperation between large, medium and small companies as well as academic institutions. All these stakeholders are dependent on each other. Overall growth depends on the cross-fertilization among them, which means that Horizon 2020 should include all stakeholders.

Recommendation

The specific objective a) of the regulation establishing Horizon 2020 should clearly relate to all stakeholders, whereas specific objectives b) and c) are more focusing on (but may not be limited to) SMEs.

1.3.Co-financing between EU Commission and Member States

Rationale

Co-financing in the context of the current text means that public funding for the same action will be provided by the EU Commission and Member States. That requires a mutual agreement between them to provide sufficient budget for common actions. The experience of the last years shows that this is not always the best model. While the EC can make long terms commitments and maintain a stable position, the heterogeneity of the financial situation of Member States creates a barrier for some countries to participate in equal

conditions. These co-financing schemes also result in an increased complexity and higher management costs.

Recommendations

From the ETP perspective, co-funding under any means (e.g. Article 185 or 187 of the Treaty, Joint Programming) should only be implemented if there is a clear agreement between Member States and commitment to provide appropriate funding budget from different involved sources avoiding the problems described above.

If by no means this is guaranteed, a single source of funding (the European Commission) should be the basis of any participation instrument. ICT-related ETPs look at the current PPP instrument in good eyes. However, the set-up of new PPPs based on Article 187 of the Treaty should only be done, if the objectives and scale justify that it is the most appropriate instrument

1.4.Global Impact of European ICT Innovation

Rationale

In the 21st Century, not only large multinational companies act globally but increasingly small and medium sized businesses have to address the worldwide market. This is particularly true for the ICT industry, where e.g. SAP, the biggest European software company makes more than 50% of its revenues in Asia, America and the South Pacific [2].

Software research and innovation is a worldwide and interconnected activity. Siemens has around 30 R&D centres outside Europe [3]. SAP just opened a new research facility in Singapore, having centres in US, South Africa or Australia. No European ICT company can afford not to be present in markets like the US or the BRIC countries. Indeed promoting international cooperation in ICT opens access to emerging and expanding markets.

For this reason, it is vital to further foster international research collaboration and allow for "win-win research" projects with partners from non-European countries [4]. This should address areas like standardization in order to ensure interoperability of ICT solutions. Requirements on reciprocity, ownership and access rights have to be taken into account in this context to promote openness at global level. This may require additional actions triggered by the EC.

Recommendations

The Horizon 2020 proposal should be more concrete in the definition of how international collaboration will be promoted on key topics such as standardization for ICT research and in strategic applied areas. The evaluation of e.g. large scale ICT research projects should clearly take into account their potential for international collaboration

Based on reciprocity, collaboration with third country funding programs should be increased in particular with those leading in ICT innovation such as the United States, Japan, Israel or BRIC Countries. Higher levels of funding resources should be foreseen in conjunction with clearly defined and quantifiable targets such as the number of participant from non-EU countries which can be measured and reported.

2. Fragmentation of ICT topics across the three priorities

Rationale

Definition of ICT

It is important that ICT unambiguously and explicitly includes all technologies addressed by the Six European Technology Platforms from the ICT sector: EPoSS (Smart Systems Integration), ISI (Integral Satcom Initiative), NEM (Networked and Electronic Media), Net!Works (Converged fixed and Wireless Communication Networks), NESSI (Software and Services), Photonics 21 (Photonics).

Topical Fragmentation

ICT topics are distributed across the three priorities Excellent Science, Industrial Leadership and Societal Challenges. Cross cutting actions are proposed between the three priorities to support the entire research and innovation cycle close to market introduction.

The Societal Challenges priority is the most complex in this sense. Most areas cannot be allocated to only one single technology sector but include many industrial, business and public sector stakeholders. Many different sectors such as Transport, Energy, etc. will be involved in virtually all areas such as eHealth, Secure Societies, etc. Yet ICT will inevitably play the most vital horizontal role enabling more efficient use of resources, new business and service models.

Different DGs of the European Commission will be involved with their policy areas. Based on that, it has to be assumed that projects under different Societal Challenges will be organised in the responsibility of respective DGs making it necessary to install a mechanism that avoids redundancy, use of obsolete technology, etc. Without a “central” function that is responsible for the horizontal/enabling technologies, particularly ICT, participation of the industry will drop significantly and innovative results coming from “Industrial leadership” priority will not be exploited at their full potential.

Overall ICT Budget

The budget allocation for ICT topics is only given in the Industrial Leadership priority while it is also stated that ICT will be supported in other priorities as well. With respect to the increased importance of ICT for all sectors and in particular for Societal Challenges, the budget for ICT topics should be adapted accordingly and clearly visible from the budget allocation in the priorities Excellent Science and Societal Challenges.

Recommendations

Clear definitions of ICT should be inserted into the Annex to the Regulation establishing Horizon 2020.

Work Programmes in the “Societal Challenges” priority should be defined in collaboration with European ICT Technology Platforms and other KET stakeholders. This will ensure that technologies and efforts needed to be integrated in projects in this priority are clearly identified.

From the ICT perspective, the coordination and handling of ICT related proposals and projects should remain under the responsibility of DG INFSO.

If ICT-related projects under Societal Challenges were to be organised under the responsibility of various DGs, cross-DG management would bring ICT research and innovation in applied areas together and avoid that applied areas do not adequately build on latest ICT developments. In particular, project applicants should get the same environment independent of the responsible DG(s) with respect to:

- administrative tools
- procedures for project application, evaluation and contract negotiation
- project implementation and coordination

The ETPs advocate that the evaluation of project proposals submitted under the "Societal Challenges" priority should involve industry and business experts from cross-cutting areas such as ICT.

Finally, the dedicated budget for ICT in the Industrial Leadership priority is 8,975 million € according to the Commission proposal. The xETP consider that due to its enabling effect, the share of the overall Horizon 2020 budget dedicated to ICT should be kept at least at the same level as for FP7. This means that ICT budget in the priorities Excellent Science, Industrial Leadership and Societal Challenges together should reach more than 16.000 million €.

3. Recommendations on the simplified funding model proposed for Horizon 2020

Rationale

Definition of cost terms

In the Rules for Participation, different terms are used for direct and indirect cost, which are not defined or where the definition should be given in Regulation (EU) No XX/2012 [the Financial Regulation], which is not yet available.

Annex 2 to this paper references the occurrences of these terms marked in yellow. The missing details on Regulation (EU) No XX/2012 [the Financial Regulation] are marked in green.

Funding rates

The ETPs welcome the unified and simplified approach towards the funding of actions and the reimbursement which largely simplifies the procedures. However, this "one-size-fits-all" approach has draw-backs that may not have been anticipated and should be analysed further. In practice, different funding models have not been a major issue for the implementation of research projects. Some stakeholders even argue for keeping the same rates than in FP7. The fixed funding rate of the total eligible costs and a flat rate model for indirect costs applicable to all beneficiaries and to all activities for the entire action will have different impact on different kinds of beneficiaries.

Furthermore it needs to be possible to integrate innovation into a research project. The current proposal requires separate projects supported with different funding schemes (100% of direct costs / 20 % indirect cost flat rate for research projects versus 70% of direct costs / 20 % indirect cost flat rate for innovation projects). This will lead to a disintegration of the research and innovation activities.

The 100% and 70% reimbursement rates for respectively R&D and demonstration projects are proposed as ceiling rates. The criteria defining which rate actually applies should be clarified. May R&D average reimbursement cover only 80% of the expenses, the re-imbursement would by far be insufficient especially for projects the outcomes of which are likely to come to the market in more than 2 years' time.

Concerning indirect costs, at first glance, a flat rate seems to simplify the implementation of research projects. It however may be an issue for those organisations which have significantly higher overhead rates due to their area of activity (high-tech companies with e.g. clean-room facilities, complex equipment-based technologies etc.), which should be covered by overhead cost. Therefore, such organisations may be prevented in the future to participate in projects.

Furthermore, the way to compute the indirect costs varies a lot from one country to another: in some countries, indirect costs account for the social security contributions, which lead to costs above 100% of direct costs. The 20% flat rate currently proposed is quite penalising for those countries.

Lastly, the rule applying to management costs is yet unknown. If direct costs associated to management activities cannot be reimbursed at 100%, it will become more and more difficult to find projects coordinators.

Acceptance of national accounting principles

According to the Rules for Participation, a broad acceptance of usual accounting practices should be applied. However, Articles 25 to 27 and 29 are weakening these principles similarly to the original approach in Framework Programme 7.

The articles above indicate that average unit cost should be calculated based on productive hours according to Article 25, which were spent by persons directly involved in the action. This means that the calculation of average unit cost would in reality be based on actual costs of persons directly involved in the action. This approach does not comply with usual accounting principles based on average unit cost. It would require a parallel accounting system at beneficiaries and would increase administrative complexity significantly compared to the achieved compromise solution currently being used in FP7.

Recommendations

For the sake of clarity and for common understanding by beneficiaries, the main components of "direct costs" should be explained, such as salaries and social security contributions, purchase of material, coordination, subcontracting, travels and accommodation, etc.

An opt-out from the 20% flat-rate for indirect costs should be proposed for those participants which would suffer considerable draw-backs due to the characteristics of their industry as well as national specificities.

In order to avoid disintegration of research and innovation, a specific instrument making it possible to have innovation activities funded under R&D programmes and vice-versa should be put in place. A facilitation of the proposal phase for results directly emanating from funded research projects would also be a useful mean.

Finally, existing accounting systems in beneficiaries' organisations should be accepted as described in the *Decision on measures for simplifying the implementation of the Seventh RTD and EURATOM Framework Programmes (FP7)* adopted by the European Commission on 24 January 2011. This would avoid double accounting and the extraction of data, which

are not available from usual accounting systems. Additional requirements would increase the administrative burden for beneficiaries.

4. Need for flexibility in the rules for participation

Rationale

As it has been stated already in the previous section, the simplification of the implementation of research projects through simplified funding rules is in general appreciated.

Further increase the agility of European research projects

Europe needs to speed up its research innovation programme and make it more flexible to be able to react on technology developments and evolving market needs. Software research for example is based on short and focused cycles in which prototyping, testing, validation and pilot activities constitute a large part of the process.

While there is an obligation for political programme setting and priority definition for long term objectives, there is also clear need for bottom up project definition with fast application-to-contract cycles and in-project flexibility. Indeed, like other fast moving technologies do, ICT research also requires the flexibility in project size, duration and topics in order to either push to shorter ramp-up of research activities or in order to have longer projects to be able to better follow market trends and state-of-the-art evolution.

Foster European ICT SMEs and start-up creation

Many elements in Horizon 2020 address the participation and support of SMEs. Yet the target of 15% of budget of the “Industrial Leadership” and the “Societal Challenges” priorities to go to SMEs is by far not ambitious considering the fact that today’s level of participation is comparable.

High-tech research intensive SMEs are an essential bridge between novel ideas from science on the one hand, and marketable ideas on the other [5]. As such, SMEs are instrumental in providing smart, easy-to-use, affordable technology [6].

However, they typically plan on shorter time horizons and only few manage long-term RDI programs in similar ways as large research organisation do. Improvements should therefore be implemented by making the integration of SMEs in research projects more flexible – in particular by reducing the need to participate in the full lifecycle of a project.

Finally, while the proposed Regulation establishing Horizon 2020 mentions a “dedicated SME instrument”, the proposed rules for participation only re-iterate FP7 rules concerning personnel costs of owners of SMEs. Moreover, the politically motivated increased funding rate for SMEs in FP7, for Horizon 2020 is sacrificed to simplification.

Drive Innovation Integration

The aim of the Horizon 2020 programme to integrate innovation is encouraging but requires true integration regarding instruments, processes, funding and innovation focussed (i.e. market-oriented) organisations such as SMEs. Today, project consortia have to wait for a relevant call to be published and then have to go through a full new proposal cycle. In Horizon 2020, continued work on successful projects and taking project results, feeding them into innovation or pilot projects needs to be “immediately” possible without waiting for a next and hopefully adequate call for proposals.

Recommendations

The Horizon 2020 rules for participation should enable participants to adapt and re-shape the content of research projects at runtime in order to change the focus according to market needs and technology developments. The simplification of direct follow-on activities for projects such as piloting, demonstration and take–up by providing instruments that can be applied at any stage of a running project and that are not constrained by specific calls and timelines.

The rules for participation should create the necessary flexibility to allow for the integration of SMEs at project runtime and for limited time-frames (e.g. 1 year) in research projects. The Framework Programme should also create a new category of smaller (micro) projects for SMEs that can be created independently or as spin-outs from larger research projects. In addition, evaluation procedures that accommodate the specific character of SMEs should be considered. Particularly, diminishing the role of academic evaluators especially in impact related programs and replacing it with business orientated evaluators (SMEs, Large industry, venture capitalists) would go in this direction.

Finally, a better coupling of instruments should be found in order to support different stages in the innovation lifecycle. For instance, add-on pilots or spin-offs from research projects should be supported through flexible instruments such as open calls. R&D support should – whenever possible – complement regulatory measures and measures improving the framework conditions of innovation in a certain technology segment or sector. In this regard the EIPs could assume a major role. PPP principles should be envisaged for a real integrated approach between the various phases of key parts of the program.

5. Recommendations for Intellectual Property, Exploitation and Open Access of research results

Rationale

Open Access

The ETPs have identified a mismatch between different articles of the Rules of Participation related to Intellectual Property. On the one hand, Article 2 defines the term “results” very widely and article 40 states that open access shall apply to most of these results. On the other hand, Articles 39 and 41 to 46 [3] describe ownership of results, IP protection obligations and access rights. Hence, Open Access cannot be extended to all results. The current document seems not to be consistent in its requirements with respect to the definition of results, requirements on Open Access and the ownership of results and access rights.

Furthermore, project partners in RTD projects remain owners of developed foreground, which are secured by the rules for participation. Therefore, Open Access to research results cannot be enforced to all results according to the wide definition mentioned above. A balance needs to be found between open access of results or IP protection and joint or individual exploitation by project partners via licensing.

Finally, if all results from projects should be made public, it would provide all information to anyone in the world, even from other regions, which have not spent effort and budget on Horizon 2020 and where mirror projects could be launched to exploit results from Horizon

2020 projects. Such openness would be counterproductive for employment in Europe and European economy.

Use of Project Results

The default regime for ownership of results should be a regime that supports exploitation and does not drive parties away from genuine collaboration [7]. The currently proposed default rules introducing limitations and obligations of compensating project partners in case of jointly achieved project results to third parties is likely to bring the opposite effect.

Furthermore, clauses that impose limitations on transfer of results to companies' legal entities established outside the Union might have adverse effects on the capacity of project participants to efficiently exploit project results.

Recommendations

The ETPs support the fact that results from research programmes are being published in particular for implementing research. However, in order to make research projects attractive for ICT industry players and not diminish industry participation below the current appr. 25% [8], it should be the responsibility of each consortium, which information should be published and which not or later. While public results (publications, public project deliverables) should be available to researchers for implementing research without barriers, it depends on the research subject, which dissemination level of information makes sense with respect to securing IPRs, on-going standardisation activities and the interests of European tax payers to support positive benefits for European economy.

Ownership of jointly achieved results should lie within the organizations that have contributed to these results while the model grant agreement and the consortium agreement should regulate access rights of project partners to such results.

The rules for participation should support exploitation of results through affiliates and within groups or networks (ecosystems) of companies by allowing for worldwide transfer or licensing of results.

Bibliography

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[5] European Commission, “New funding opportunity for high-tech research intensive SMEs in ICT research,” 2010.

[6] Pan European ICT & eBusiness Network for SMEs, “The Great Potential: ICT SMEs in the Brussels spotlight,” 2011.

[7] DIGITALEUROPE, “DIGITALEUROPE Position on draft Rules of Participation for Horizon2020,” 2012.

[8] European Commission, “Fourth FP7 Monitoring Report,” 2011.

Annex 1: Proposed Amendments

1. Proposed amendments to Regulation establishing Horizon 2020 - The Framework Programme for Research and Innovation (2014-2020) – core text.

	Original article	Proposed amendment
Section 1	*Preamble, p.10* *(29) A greater impact should also be achieved by combining Horizon 2020 and private sector funds within public-private partnerships in key areas where research and innovation could contribute to Europe's wider competitiveness goals and help tackle societal challenges. The public-private partnerships in the form of Joint Technology Initiatives launched under Decision No 1982/2006/EC of the European Parliament and of the Council of 18 December 2006 concerning the Seventh Framework programme of the European Community for research, technological development and demonstration activities (2007-13) may be continued using more fit-for-purpose structures.*	*Preamble, p.10* *(29) A greater impact should also be achieved by combining Horizon 2020 and private sector funds within public-private partnerships in key areas where research and innovation could contribute to Europe's wider competitiveness goals and help tackle societal challenges. The public-private partnerships in the form of Joint Technology Initiatives launched under Decision No 1982/2006/EC of the European Parliament and of the Council of 18 December 2006 concerning the Seventh Framework programme of the European Community for research, technological development and demonstration activities (2007-13) may be continued using more fit-for-purpose structures.* ***A single source of funding by the EU Commission is the preferred solution except if there is a clear agreement between the EU Commission and Member States to provide sufficient funding budget for joint funding of a specific initiative.***

Section 2	*Article 13.* *Cross-cutting actions* 1. Linkages and interfaces shall be implemented across and within the priorities of Horizon 2020. Particular attention shall be paid in this respect to the development and application of key enabling and industrial technologies, to bridging from discovery to market application, to cross-disciplinary research and innovation, to social and economic sciences and humanities, to fostering the functioning and achievement of the ERA, to cooperation with third countries, to responsible research and innovation including gender, and to enhancing the attractiveness of the research profession and to facilitating cross-border and cross-sector mobility of researchers.	*Article 13.* *Cross-cutting actions* 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 **and to ensuring that state-of-the-art solutions are used to meet Societal Challenges,** to bridging from discovery to market application, to cross-disciplinary research and innovation, to social and economic sciences and humanities, to fostering the functioning and achievement of the ERA, to cooperation with third countries, to responsible research and innovation including gender, and to enhancing the attractiveness of the research profession and to facilitating cross-border and cross-sector mobility of researchers.
Section 4	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 and social aspects. **This flexibility shall also be taken into account during the implementation of individual actions.**

Section 1	Article 19 Public-private partnerships 1) Horizon 2020 may be implemented through public-private partnerships where all the partners concerned commit to support the development and implementation of research and innovation activities of strategic importance to the Union's competitiveness and industrial leadership or to address specific societal challenges. 2) Involvement of the Union in those partnerships may take one of the following forms: a) financial contributions from the Union to joint undertakings established on the basis of Article 187 TFEU under the Seventh Framework Programme, subject to the amendment of their basic acts; to new public-private partnerships set up on the basis of Article 187 TFEU; and to other funding bodies referred to in Article [55(1)(b)(v) or (vii)] of Regulation (EU) No XX/2012 [New Financial Regulation]. This form of partnerships shall only be implemented where the scope of the objectives pursued and the scale of the resources required justify it; b) […] 3) Public-private partnerships shall be identified in an open and transparent way based on all of the following criteria: a) the added value of action at Union level; b) the scale of impact on industrial competitiveness, sustainable growth and socio-economic issues; c) the long-term commitment from all partners based on a shared vision and clearly defined objectives; d) the scale of the resources involved and the ability to leverage additional investments in research and innovation; e) a clear definition of roles for each of the partners and agreed key performance indicators over the period chosen.	Article 19 Public-private partnerships 1) 1) Horizon 2020 may be implemented through public-private partnerships where all the partners concerned commit to support the development and implementation of research and innovation activities of strategic importance to the Union's competitiveness and industrial leadership or to address specific societal challenges. **Public Private Partnerships shall ensure that a real integrated approach is taken between the various phases of key parts of the program.** 2) Involvement of the Union in those partnerships may take one of the following forms: **a)** financial contributions from the Union to joint undertakings established on the basis of Article 187 TFEU under the Seventh Framework Programme, subject to the amendment of their basic acts; to new public-private partnerships set up on the basis of Article 187 TFEU; and to other funding bodies referred to in Article [55(1)(b)(v) or (vii)] of Regulation (EU) No XX/2012 [New Financial Regulation]. This form of partnerships shall only be implemented where the scope of the objectives pursued and the scale of the resources required justify it; **A single source of funding by the EU Commission is the preferred solution except if there is a clear agreement between the EU Commission and Member States to provide sufficient funding budget for joint funding of a specific initiative.** b) […] 3) Public-private partnerships shall be identified in an open and transparent way based on all of the following criteria: a) the added value of action at Union level; b) the scale of impact on industrial competitiveness, sustainable growth and socio-economic issues; ~~**c) the long-term commitment from all partners based on a shared vision and clearly defined objectives;;**~~ **c) a commitment from all partners outlining the objectives to be reached within a defined horizon of time** d) the scale of the resources involved and the ability to leverage additional investments in research and innovation; e) a clear definition of roles for each of the partners and agreed key performance indicators over the period chosen.

Section 2	Article 25 Monitoring 1. The Commission shall annually monitor the implementation of Horizon 2020, its specific programme and the activities of the European Institute of Innovation and Technology. This shall include information on cross-cutting topics such as sustainability and climate change, including information on the amount of climate related expenditure. 2. […]	Article 25 Monitoring **1.** The Commission shall annually monitor the implementation of Horizon 2020, its specific programme and the activities of the European Institute of Innovation and Technology. This shall include information on cross-cutting topics such as sustainability and climate change, including information on the amount of climate related expenditure **as well as an assessment of the application of state-of-the-art solutions provided by Key Enabling and Information and Communication Technologies to meet Societal Challenges.** 2. […]

2. Proposed amendments to Regulation establishing Horizon 2020 - The Framework Programme for Research and Innovation (2014-2020) – Annex

	Original article	Proposed amendment
Section 2	Broad lines of the specific objectives and activities, p. 28, paragraph 3 This general objective shall be pursued through three distinct, yet mutually reinforcing, priorities, each containing a set of specific objectives. They will be implemented in a seamless manner in order to foster interactions between the different specific objectives, avoid any duplication of effort and reinforce their combined impact.	Broad lines of the specific objectives and activities, p. 28, paragraph 3 This general objective shall be pursued through three distinct, yet mutually reinforcing, priorities, each containing a set of specific objectives. They will be implemented in a seamless manner in order to foster interactions between the different specific objectives, avoid any duplication of effort and reinforce their combined impact. **A specific coordination mechanism shall be put in place in order to ensure that the most innovative research results of each priority are the ones channelled into the other priorities.**

Sections 2 & 4	PART II. PRIORITY 'INDUSTRIAL LEADERSHIP', p. 29, […] c. Innovation in SMEs shall stimulate all forms of innovation in SMEs, targeting those with the potential to grow and internationalise across the single market and beyond. The activities shall follow a business-driven agenda. The budgets for the specific objectives 'Access to risk finance' and 'Innovation in SMEs' will follow a demand-driven, bottom-up logic, without predetermined priorities. These shall be complemented by the use of financial instruments and a dedicated SME instrument following a policy driven logic within the Part on 'Societal challenges' and the specific objective 'Leadership in enabling and industrial technologies'. Horizon 2020 will take an integrated approach to the participation of SMEs, which could lead to around 15 % of the total combined budgets for all specific objectives on societal challenges and the specific objective 'Leadership in enabling and industrial technologies' being devoted to SMEs. The specific objective 'Leadership in enabling and industrial technologies' shall follow a technology-driven approach to develop enabling technologies that can be used in multiple areas, industries and services. Applications of these technologies to meet societal challenges shall be supported together with the Societal challenges.	PART II. PRIORITY 'INDUSTRIAL LEADERSHIP', p. 29, […] c. Innovation in SMEs shall stimulate all forms of innovation in SMEs, targeting those with the potential to grow and internationalise across the single market and beyond. The activities shall follow a business-driven agenda. The budgets for the specific objectives 'Access to risk finance' and 'Innovation in SMEs' will follow a demand-driven, bottom-up logic, without predetermined priorities. These shall be complemented by the use of financial instruments**, flexible rules for participation** and a dedicated SME instrument following a policy driven logic within the Part on 'Societal challenges' and the specific objective 'Leadership in enabling and industrial technologies'. Horizon 2020 will take an integrated approach to the participation of SMEs, which could lead to around 15 % of the total combined budgets for all specific objectives on societal challenges and the specific objective 'Leadership in enabling and industrial technologies' being devoted to SMEs. The specific objective 'Leadership in enabling and industrial technologies' shall follow a technology-driven approach to develop enabling technologies that can be used in multiple areas, industries and services. Applications of these technologies to meet societal challenges shall be supported together with the Societal challenges. **However, the Commission as well as other funding bodies shall ensure that the necessary visibility is maintained for industrial players to identify those areas of the Societal Challenges where their expertise can be best put in practice.**

Sections 2 & 4	PART II INDUSTRIAL LEADERSHIP 1. LEADERSHIP IN ENABLING AND INDUSTRIAL TECHNOLOGIES p.42, The successful mastering and deployment of enabling technologies by European industry is a key factor in strengthening Europe's productivity and innovation capacity and ensuring Europe has an advanced, sustainable and competitive economy, global leadership in hi-tech application sectors and the ability to develop effective solutions for societal challenges. The pervasive nature of such activities can spur further progress through complementary inventions and applications, ensuring a higher return on investment in these technologies than in any other field. […] The integration of enabling technologies in solutions for the societal challenges shall be supported together with the relevant challenges. Applications of enabling technologies that do not fall under the societal challenges, but are important for reinforcing the competitiveness of European industry, shall be supported under 'Leadership in Enabling and Industrial Technologies'. *A common approach* The approach shall include both agenda-driven activities and more open areas to promote innovative projects and breakthrough solutions. Emphasis shall be on R&D, large-scale pilots and demonstration activities, test beds and living labs, prototyping and product validation in pilot lines. Activities shall be designed to boost industrial competitiveness by stimulating industry, and in particular SMEs, to make more research and innovation investment.	PART II INDUSTRIAL LEADERSHIP 1. LEADERSHIP IN ENABLING AND INDUSTRIAL TECHNOLOGIES p.42, The successful mastering and deployment of enabling technologies by European industry is a key factor in strengthening Europe's productivity and innovation capacity and ensuring Europe has an advanced, sustainable and competitive economy, global leadership in hi-tech application sectors and the ability to develop effective solutions for societal challenges. The pervasive nature of such activities can spur further progress through complementary inventions and applications, ensuring a higher return on investment in these technologies than in any other field. **The development of add-on pilots or spin-offs from research projects shall be supported through flexible instruments such as open calls.** […] The integration of enabling technologies in solutions for the societal challenges shall be supported together with the relevant challenges. Applications of enabling technologies that do not fall under the societal challenges, but are important for reinforcing the competitiveness of European industry, shall be supported under 'Leadership in Enabling and Industrial Technologies'. **However, a coordination mechanism shall be put in place in order to ensure that Key Enabling and Information and Communication Technologies are applied in the most efficient way in the Societal Challenges priority.** *A common approach* The approach shall include both agenda-driven activities and more open areas to promote innovative projects and breakthrough solutions. Emphasis shall be on R&D, large-scale pilots and demonstration activities, test beds and living labs, prototyping and product validation in pilot lines. Activities shall be designed to boost industrial competitiveness by stimulating industry, and in particular SMEs, to make more research and innovation investment. **Direct follow-on activities for projects such as piloting, demonstration and take –up shall be supported through flexible instruments such as open calls.**

Sections 2 & 4	PART II INDUSTRIAL LEADERSHIP 1. LEADERSHIP IN ENABLING AND INDUSTRIAL TECHNOLOGIES 1.1. Information and Communication Technologies (ICT) In line with the Digital Agenda for Europe23, the specific objective of ICT research and innovation (R&I) is to enable Europe to develop and exploit the opportunities brought by ICT progress for the benefits of its citizens, businesses and scientific communities. These six major activity lines are expected to cover the full range of needs. These would include industrial leadership in generic ICT-based solutions, products and services needed to tackle major societal challenges as well as application-driven ICT research and innovation agendas which will be supported together with the relevant societal challenge. These six activity lines shall also include ICT specific research infrastructures such as living labs for large-scale experimentation, and infrastructures for underlying key enabling technologies and their integration in advanced products and innovative smart systems, including equipment, tools, support services, clean rooms and access to foundries for prototyping.	PART II INDUSTRIAL LEADERSHIP 1. LEADERSHIP IN ENABLING AND INDUSTRIAL TECHNOLOGIES 1.1. Information and Communication Technologies (ICT) In line with the Digital Agenda for Europe23, the specific objective of ICT research and innovation (R&I) is to enable Europe to develop and exploit the opportunities brought by ICT progress for the benefits of its citizens, businesses and scientific communities. **"ICT" encompasses all ICT- domains, including fixed, wireless, optical fibre networks and satellite networks, networked electronic media, computer based smart systems and embedded software as well as the broad fields of Photonics, Organic Electronics, Robotics and Nanoelectronics.** These six major activity lines are expected to cover the full range of needs. These would include industrial leadership in generic ICT-based solutions, products and services needed to tackle major societal challenges as well as application-driven ICT research and innovation agendas which will be supported together with the relevant societal challenge. **Special attention shall be given to ensuring that state-of-the-art ICT solutions are selected for projects funded under the Societal Challenges priority.** These six activity lines shall also include ICT specific research infrastructures such as living labs for large-scale experimentation, and infrastructures for underlying key enabling technologies and their integration in advanced products and innovative smart systems, including equipment, tools, support services, clean rooms and access to foundries for prototyping. **The diversity of research areas and cycles characteristic to ICT research shall be catered for through the introduction of flexibility in the rules for participation in order to allow for long-term cost-intensive large-scale research projects as well as fast opportunity seizing activities identified by the market.**

Section 4	PART II INDUSTRIAL LEADERSHIP 3. INNOVATION IN SMALL AND MEDIUM-SIZED ENTERPRISES 3.3. Broad lines of the activities, p. 59 (a) Mainstreaming SME support SMEs shall be supported across Horizon 2020. For this purpose a dedicated SME instrument shall provide staged and seamless support covering the whole innovation cycle. The SME instrument shall be targeted at all types of innovative SMEs showing a strong ambition to develop, grow and internationalise. It shall be provided for all types of innovation, including service, non-technological and social innovations. The aim is to develop and capitalise on the innovation potential of SMEs by filling the gap in funding for early stage high risk research and innovation, stimulating innovations and increasing private-sector commercialisation of research results. All of the specific objectives on societal challenges and on leadership in enabling and industrial technologies will apply the dedicated SME instrument and will allocate an amount for this. […]	PART II INDUSTRIAL LEADERSHIP 3. INNOVATION IN SMALL AND MEDIUM-SIZED ENTERPRISES 3.3. Broad lines of the activities, p. 59 (a) Mainstreaming SME support SMEs shall be supported across Horizon 2020. For this purpose a dedicated SME instrument shall provide staged and seamless support covering the whole innovation cycle. The SME instrument shall be targeted at all types of innovative SMEs showing a strong ambition to develop, grow and internationalise. It shall be provided for all types of innovation, including service, non-technological and social innovations. The aim is to develop and capitalise on the innovation potential of SMEs by filling the gap in funding for early stage high risk research and innovation, stimulating innovations and increasing private-sector commercialisation of research results. All of the specific objectives on societal challenges and on leadership in enabling and industrial technologies will apply the dedicated SME instrument and will allocate an amount for this. **This instrument shall create the necessary flexibility to allow for the integration of SMEs at project runtime and for limited shorter-than-project time-frames into research projects. It shall also allow the creation of a new category of smaller (micro) projects for SMEs that can be created independently or as spin-outs from larger research projects.** […]

3. Proposed amendments to Regulation laying down the rules for the participation and dissemination in 'Horizon 2020 – the Framework Programme for Research and Innovation (2014-2020)'

	Original article	Proposed amendment
Section 5	EXPLANATORY MEMORANDUM 1. CONTEXT OF THE PROPOSAL p.3, paragraph 6 The rules regarding intellectual property, exploitation and dissemination have been modelled on the widely acknowledged Seventh Framework Programme provisions with further improvements and clarifications. Specific new emphasis has been put on open access to research publications and an opening was made for experiments with open access to other results. The enlarged scope and new forms of funding as well as the need for flexibility in this area of the rules has been taken into account by the possibility to lay down additional or specific provisions where appropriate. Access rights for the European Union, and in the field of security research also for Member States, have been foreseen.	EXPLANATORY MEMORANDUM 1. CONTEXT OF THE PROPOSAL p.3, paragraph 6 The rules regarding intellectual property, exploitation and dissemination have been modelled on the widely acknowledged Seventh Framework Programme provisions with further improvements and clarifications. Specific new emphasis has been put on open access to research publications and an opening was made for experiments with open access to other results**, where access rights to IPRs and ownership, e.g. for economic exploitation of beneficiaries have to be respected.** The enlarged scope and new forms of funding as well as the need for flexibility in this area of the rules has been taken into account by the possibility to lay down additional or specific provisions where appropriate. Access rights for the European Union, and in the field of security research also for Member States, have been foreseen.

Section 4	PREAMBLE (6) An integrated approach should be ensured by bringing together activities covered by the Seventh Framework Programme for research, the Competitiveness and Innovation Framework Programme and the European Institute of Innovation and Technology (the EIT) to make participation easier, create a more coherent set of instruments and increase the scientific and economic impact while avoiding duplication and fragmentation. Common rules should apply in order to ensure a coherent framework which should facilitate the participation in programmes receiving Union financial contribution from the budget of Horizon 2020, including the participation in programmes managed by the EIT, joint undertakings or any other structures under Article 187 TFEU or participation in programmes undertaken by Member States pursuant to Article 185 TFEU. However, flexibility to adopt specific rules should be ensured when justified by the specific needs of the respective actions and with Commission consent.	PREAMBLE (6) An integrated approach should be ensured by bringing together activities covered by the Seventh Framework Programme for research, the Competitiveness and Innovation Framework Programme and the European Institute of Innovation and Technology (the EIT) to make participation easier, create a more coherent set of instruments and increase the scientific and economic impact while avoiding duplication and fragmentation. Common rules should apply in order to ensure a coherent framework which should facilitate the participation in programmes receiving Union financial contribution from the budget of Horizon 2020, including the participation in programmes managed by the EIT, joint undertakings or any other structures under Article 187 TFEU or participation in programmes undertaken by Member States pursuant to Article 185 TFEU. However, flexibility to adopt specific rules should be ensured when justified by the specific needs of the respective actions and with Commission consent. **This shall hold especially in order to boost opportunity-seizing activities in sectors with short research and innovation cycles, to ease the participation of SMEs and to simplify procedures for activities directly building on funded research results.**
Section 4	Article 8 Conditions for participation […] 5. Work programmes or work plans may provide for additional conditions according to specific policy requirements or to the nature and objectives of the action, including inter alia conditions regarding the number of participants, the type of participant and the place of establishment.	Article 8 Conditions for participation […] 5. Work programmes or work plans may provide for additional conditions according to specific policy requirements or to the nature and objectives of the action, including inter alia conditions regarding the number of participants, the type of participant and the place of establishment. **6. Flexibility in the conditions for participation shall be introduced in order to:** - **Boost opportunity-seizing activities in sectors with short research and innovation cycles,** - **Ease the participation of SMEs,** - **Simplify procedures for activities directly building on funded research results.**

Section 1	Article 9 Eligibility for funding 1. […] 2. In the case of a participating international organisation or in the case of a participating legal entity established in a third country, neither of which are eligible for funding according to paragraph 1, funding from the Union may be granted provided that at least one of the following conditions is fulfilled: a. the participation is deemed essential for carrying out the action by the Commission or the relevant funding body; b. such funding is provided for under a bilateral scientific and technological agreement or any other arrangement between the Union and the international organisation or, for entities established in third countries, the country in which the legal entity is established.	Article 9 Eligibility for funding 1. […] 2. In the case of a participating international organisation or in the case of a participating legal entity established in a third country, neither of which are eligible for funding according to paragraph 1, funding from the Union may be granted provided that at least one of the following conditions is fulfilled: a. the participation is deemed essential for carrying out the action by the Commission or the relevant funding body; b. such funding is provided for under a bilateral scientific and technological agreement or any other arrangement between the Union and the international organisation or, for entities established in third countries, the country in which the legal entity is established. c. **cooperation with such legal entity or with the research programme of such third country carries reasonable potential for activities such as international standardization.**
Section 4	Article 10 Calls for proposals Without prejudice to the other cases provided for in Regulation (EU) No XX/2012 [Financial Regulation] and in Regulation (EU) No XX/2012 [Delegated Regulation], calls for proposals shall not be issued for coordination and support actions and programme co-fund actions to be carried out by legal entities identified in the work programmes provided that the action does not fall under the scope of a call for proposals.	Article 10 Calls for proposals Without prejudice to the other cases provided for in Regulation (EU) No XX/2012 [Financial Regulation] and in Regulation (EU) No XX/2012 [Delegated Regulation], calls for proposals shall not be issued for coordination and support actions and programme co-fund actions to be carried out by legal entities identified in the work programmes provided that the action does not fall under the scope of a call for proposals. **Calls for proposal shall take all forms, including open calls, necessary to ensure the level of flexibility imposed by the diversity of research and innovations sectors and activities, from long-term horizontal projects to short-term opportunity-seizing activities.**

Sections 1 & 2	Article 14 Selection and award criteria 1. The proposals submitted shall be evaluated on the basis of the following award criteria: a. excellence; b. impact; c. quality and efficiency of the implementation. 2. The sole criterion of excellence shall apply for proposals for ERC frontier research actions. 3. The work programme or work plan shall lay down further details of the application of the award criteria laid down in paragraph 1, and specify weightings and thresholds.	Article 14 Selection and award criteria 1. The proposals submitted shall be evaluated on the basis of the following award criteria: a. excellence; b. impact; c. quality and efficiency of the implementation. 2. The sole criterion of excellence shall apply for proposals for ERC frontier research actions. 3. The work programme or work plan shall lay down further details of the application of the award criteria laid down in paragraph 1, and specify weightings and thresholds. **Special attention shall be given to ensuring that state-of-the-art solutions provided by key enabling and industrial technologies are used to meet Societal Challenges.** 4. **Where appropriate, the potential of a proposal to foster international cooperation on key topics such as standardization shall be taken into account in the evaluation procedure.**

Section 3	Article 22 Funding of the action […] 1. A single reimbursement rate of the eligible costs shall be applied per action for all activities funded therein. The maximum rate shall be fixed in the work programme or work plan. 2. The Horizon 2020 grant may reach a maximum of 100 % of the total eligible costs, without prejudice to the co-financing principle. 3. The Horizon 2020 grant shall be limited to a maximum of 70 % of the total eligible costs for the following actions: a. actions primarily consisting of activities such as prototyping, testing, demonstrating, experimental development, piloting, market replication; b. programme co-fund actions. […]	Article 22 Funding of the action […] **1.** A single reimbursement rate of the eligible costs shall be applied per action for all activities funded therein. The ~~**maximum**~~ **minimum** rate shall be fixed in the work programme or work plan, **together with the criteria against which the reimbursement is established. Similarly to management activities, 100% reimbursement rate shall remain the baseline applicable to all reimbursement applicable to direct costs.** **2.** The Horizon 2020 grant may reach a maximum of 100 % of the total eligible costs, without prejudice to the co-financing principle **for RTD oriented actions, the minimum reimbursement rate being provided according to pre-defined criteria of the work programme or work plan.** 3. The Horizon 2020 grant shall be limited to a maximum of 70 % of the total eligible costs **(the minimum reimbursement rate being provided according to pre-defined criteria of the work programme or work plan)** for the following actions: a. actions primarily consisting of activities such as prototyping, testing, demonstrating, experimental development, piloting, market replication; b. programme co-fund actions. **A specific instrument shall be set up allowing for activities described in this paragraph to be carried out also within actions described in paragraph 4.** […]

Section 3	Article 24 Indirect costs 1. Indirect eligible costs shall be determined by applying a flat rate of 20% of the total direct eligible costs, excluding direct eligible costs for subcontracting and the costs of resources made available by third parties which are not used on the premises of the beneficiary, as well as financial support to third parties. 2. By way of derogation from paragraph 1, indirect costs may be declared in the form of a lump sum or scale of unit costs when provided for in the work programme or work plan. […]	Article 24 ~~**Indirect**~~ **Eligible** costs **1. Eligible costs cover direct eligible costs and indirect eligible costs.** **2. Direct eligible costs shall include:** **a) Personnel costs (researchers, technicians and other supporting staff to the extent employed on the research project); and costs related to travels and meetings as a result of the research activity;** **b) Costs of instruments and equipment to the extent and for the period used for the research project. If such instruments and equipment are not used for their full life for the research project, only the depreciation costs corresponding to the life of the research project, as calculated on the basis of good accounting practice;** **c) Subcontracting and the costs of resources made available by third parties which are not used on the premises of the beneficiary, as well as financial support to third parties;** **d) Other operating expenses, including costs of materials, supplies and similar products incurred directly as a result of the research activity.** 3. Indirect eligible costs shall be determined by applying a flat rate of 20% of the total direct eligible costs, excluding direct eligible costs for subcontracting and the costs of resources made available by third parties which are not used on the premises of the beneficiary, as well as financial support to third parties. **4. By way of derogation from paragraph 3, a specific instrument allowing for beneficiaries to opt out from the flat-rate and report real indirect costs shall be put in place for organisations:** **a) with cost-intensive facilities e.g. complex manufacturing or testing facilities due to the area of their activity.** **b) with National social specificities that would render their participation difficult.** 5. By way of derogation from paragraph 1, indirect costs may be declared in the form of a lump sum or scale of unit costs when provided for in the work programme or work plan. […]

Section 3	Article 25 Annual productive hours 1. Eligible personnel costs shall only cover the actual hours worked by the persons directly carrying out work under the action. The evidence regarding the actual hours worked shall be provided by the participant, normally through a time recording system. 2. For persons working exclusively for the action, no time recording is required. In such cases, the participant shall sign a declaration confirming that the person concerned has worked exclusively for the action. 3. The grant agreement shall contain the minimum requirements for the time recording system as well as the number of annual productive hours to be used for the calculation of the hourly personnel rates.	**This Article should be revised in that way that the basic principles for a broad acceptance of the usual accounting practices of grant beneficiaries are fully implemented in order to achieve a real simplification of accounting. Average unit cost should be based on the cost of the entire unit in the beneficiary organisation and not only on average cost of persons, which are directly involved in the action.**
Section 3	Article 26 Personnel costs of the owners of small and medium-sized enterprises and natural persons without salary The owners of small and medium-sized enterprises who do not receive a salary and other natural persons who do not receive a salary may charge personnel costs on the basis of a scale of unit cost.	**This Article should be revised in that way that the basic principles for a broad acceptance of the usual accounting practices of grant beneficiaries are fully implemented in order to achieve a real simplification of accounting. Average unit cost should be based on the cost of the entire unit in the beneficiary organisation and not only on average cost of persons, which are directly involved in the action.**

Section 3	Article 27 Scales of unit costs 1. In accordance with Article X of Regulation (EU) No XX/XX [financial regulation], the Commission may establish methods to determine scales of unit costs based on: a) statistical data or similar objective means; b) auditable historical data of the participant. 2. Direct eligible personnel costs may be financed on the basis of scale of unit costs determined according to the participant's usual cost accounting practices, provided that they comply with the following cumulative criteria: a) they are calculated on the basis of the total actual personnel costs recorded in the participant's general accounts which may be adjusted on the basis of budgeted or estimated elements according to the conditions defined by the Commission; b) they comply with the provisions in Article 23; c) they ensure compliance with the non-profit requirement and avoidance of double funding of costs; d) they are calculated with due regard to the provisions on productive hours in Article 25.	**This Article should be revised in that way that the basic principles for a broad acceptance of the usual accounting practices of grant beneficiaries are fully implemented in order to achieve a real simplification of accounting. Average unit cost should be based on the cost of the entire unit in the beneficiary organisation and not only on average cost of persons, which are directly involved in the action.**
Section 3	Article 29 Certificates on the methodology 1. Participants that calculate and claim direct personnel costs on the basis of scale of unit costs may submit to the Commission a certificate on the methodology. That methodology shall comply with the conditions set out in Article 27(2) and meet the requirements of grant agreement. 2. Where the Commission accepts a certificate on the methodology, it shall be valid for all actions financed under Regulation (EU) No XX/XX [Horizon 2020] and the participant shall calculate and claim costs on its basis.	**This Article should be revised in that way that the basic principles in [3, Section 1, p. 3] for a broad acceptance of the usual accounting practices of grant beneficiaries are fully implemented in order to achieve a real simplification of accounting. Average unit cost should be based on the cost of the entire unit in the beneficiary organisation and not only on average cost of persons, which are directly involved in the action.**

Section 2	Article 37 Appointment of independent experts 1. […] 2. Independent experts shall be chosen on the basis of skills, experience and knowledge appropriate to carry out the tasks assigned to them. […]	Article 37 Appointment of independent experts 1. […] 2. Independent experts shall be chosen on the basis of skills, experience and knowledge appropriate to carry out the tasks assigned to them. **Experts from relevant sectors shall be involved wherever key and industrial technologies are to be used to meet Societal Challenges** […]
Section 5	Article 38 Ownership of results 1. […] 2. […] Unless otherwise agreed in the joint ownership agreement, each joint owner shall be entitled to grant non-exclusive licences to third parties to exploit the jointly owned results, without any right to sub-licence, subject to the following conditions: a. prior notice shall be given to the other joint owners; b. fair and reasonable compensation shall be provided to the other joint owners.	Article 38 Ownership of results 1. […] 2. […] Unless otherwise agreed in the joint ownership agreement, each joint owner shall be entitled to grant non-exclusive licences to third parties to exploit the jointly owned results, without any right to sub-licence, subject to the following conditions: a. prior notice shall be given to the other joint owners; ~~b. fair and reasonable compensation shall be provided to the other joint owners.~~

Section5	Article 40 Exploitation and dissemination of results 1. […] 2. […] Additional dissemination obligations may be laid down in the grant agreement. With regard to dissemination through research publications, open access shall apply under the terms and conditions laid down in the grant agreement. With regard to dissemination of other results, including research data, the grant agreement may lay down the terms and conditions under which open access to such results shall be provided, in particular in ERC frontier research or in other appropriate areas.	Article 40 Exploitation and dissemination of results 1. […] 2. […] Additional dissemination obligations may be laid down in the grant agreement. With regard to dissemination through research publications, open access shall apply under the terms and conditions laid down in the grant agreement. With regard to dissemination of other results, including research data**, and without prejudice to the legitimate right to protect commercially exploitable results as described in Article 39,** the grant agreement may lay down the terms and conditions under which open access to such results shall be provided, in particular in ERC frontier research or in other appropriate areas.
Section 5	Article 41 Transfer and licensing of results 1. […] Without prejudice to confidentiality obligations arising from laws or regulations in the case of mergers and acquisitions, where other participants still enjoy access rights to the results to be transferred, the participant who intends to transfer the results shall give prior notice to those other participants, together with sufficient information concerning the intended new owner of the results to permit the other participants to analyse the effect of the intended transfer on the possible exercise of their access rights. Following notification, a participant may object to the transfer of ownership if it demonstrates that the intended transfer would adversely affect the exercise of its access rights. In such case, the transfer may not take place until agreement has been reached between the participants concerned. The grant agreement may lay down time-limits.	Article 41 Transfer and licensing of results 1. […] Without prejudice to confidentiality obligations arising from laws or regulations in the case of mergers and acquisitions, where other participants still enjoy access rights to the results to be transferred, the participant who intends to transfer the results shall ~~give prior notice to~~ **inform** those other participants and **ensure that those participants shall fully enjoy their access rights**. **The participant shall provide** sufficient information concerning the intended new owner of the results to permit the other participants to analyse the effect of the intended transfer on the possible exercise of their access rights. ~~**Following notification, a participant may object to the transfer of ownership if it demonstrates that the intended transfer would adversely affect the exercise of its access rights. In such case, the transfer may not take place until agreement has been reached between the participants concerned. The grant agreement may lay down time-limits.**~~

Annex 2: Summary Table of occurrences of expressions referring to direct or indirect costs as well as references to the still unavailable Financial Regulation in the Regulation laying down the rules for the participation

Occurrences of expressions similar to “direct costs” are marked in yellow. References to the Financial Regulation are marked in green.

EXPLANATORY MEMORANDUM 1. CONTEXT OF THE PROPOSAL p.3, paragraphs 2 and 3 - For direct costs, these rules provide for a broad acceptance of the usual accounting practices of grant beneficiaries, subject to a minimum number of boundary conditions. The grant agreement will include further simplification provisions allowing beneficiaries to gain legal certainty on the eligibility of the costs charged to actions under "Horizon 2020". Those simplification provisions will include, among others, a clear definition of the time recording requirements and objective references regarding the annual productive hours. - For indirect costs, the calculation is radically simplified; the reimbursement foresees a flat rate based on total direct eligible costs of participants with a possibility to declare costs actually incurred which is limited to non-profit legal entities.
Article 21 Forms of grants Grants may take any of the forms provided for in Article [116] of Regulation (EU) No XX/2012 [the Financial Regulation].

Article 22

Funding of the action

[…]

3) A single reimbursement rate of the eligible costs shall be applied per action for all activities funded therein. The maximum rate shall be fixed in the work programme or work plan.

4) The Horizon 2020 grant may reach a maximum of 100 % of the total eligible costs, without prejudice to the co-financing principle.

5) The Horizon 2020 grant shall be limited to a maximum of 70 % of the total eligible costs for the following actions:

[…]

Article 23

Eligibility of costs

1. Conditions for eligibility of costs are defined in Article X of Regulation (EU) No xx [the Financial Regulation/Delegated Regulation]. Costs incurred by third parties under the action may be eligible according to the provisions of this Regulation and of the grant agreement.

[…]

Article 24

Indirect costs

1. Indirect eligible costs shall be determined by applying a flat rate of 20% of the total direct eligible costs, excluding direct eligible costs for subcontracting and the costs of resources made available by third parties which are not used on the premises of the beneficiary, as well as financial support to third parties.

[…]

Article 25

Annual productive hours

1. Eligible personnel costs shall only cover the actual hours worked by the persons directly carrying out work under the action. The evidence regarding the actual hours worked shall be provided by the participant, normally through a time recording system.

[…]

Article 26

Personnel costs of the owners of small and medium-sized enterprises and natural persons without salary

The owners of small and medium-sized enterprises who do not receive a salary and other natural persons who do not receive a salary may charge personnel costs on the basis of a scale of unit cost.

Article 27

Scales of unit costs

1) In accordance with Article X of Regulation (EU) No XX/XX [financial regulation], the Commission may establish methods to determine scales of unit costs based on:

   a) statistical data or similar objective means;
   b) auditable historical data of the participant.

2) Direct eligible personnel costs may be financed on the basis of scale of unit costs determined according to the participant's usual cost accounting practices, provided that they comply with the following cumulative criteria:

[…]

Article 28

Certificate on the financial statements

The certificate on financial statements shall cover the total amount of the grant claimed by a participant under the form of reimbursement of actual costs and under the form of scale of unit costs referred to Article 27(2). The certificate shall only be submitted when that amount is equal to or greater than EUR 325 000 at the time of claiming the payment of the balance of the grant.

Article 29

Certificates on the methodology

1. Participants that calculate and claim direct personnel costs on the basis of scale of unit costs may submit to the Commission a certificate on the methodology. That methodology shall comply with the conditions set out in Article 27(2) and meet the requirements of grant agreement.
2. Where the Commission accepts a certificate on the methodology, it shall be valid for all actions financed under Regulation (EU) No XX/XX [Horizon 2020] and the participant shall calculate and claim costs on its basis.

Article 31

Cumulative funding

An action for which a grant from the Union budget has been awarded may also give rise to the award of a grant on the basis of Regulation (EU) No XX/XX [Horizon 2020] provided that the grants do not cover the same cost items.

Annex 3: Short description of the individual ETPs represented in the xETP framework

1. EPoSS

EPoSS, the European Technology Platform on Smart Systems Integration, is an industry-driven policy initiative, defining R&D and innovation needs as well as policy requirements related to Smart Systems Integration and integrated Micro- and Nanosystems. EPoSS is contributing to the Europe 2020 strategy, aiming at boosting economic growth, creating more and better jobs and ensuring sustainable prosperity in Europe.

A group of major industrial companies and research organizations from more than 20 European Member States intend to co-ordinate their activities in Smart Systems Integration. A main objective is to develop a vision and to set-up a Strategic Research Agenda on Innovative Smart Systems Integration.

EPoSS brings together European private and public stakeholders in order to create an enduring basis for structuring initiatives, for co-ordinating and bundling efforts, for setting-up sustainable structures of a European Research Area on Smart Systems Integration.

2. ISI

The Integral SatCom Initiative is an ICT European Technology Platform led by European SatCom industry and supported by the European Commission to address Satellite Communications (SatCom) strategic research challenges. It gathers more than 200 member organizations representing all the European SatCom industry stakeholders from 29 different countries. It includes members from manufacturing industry, network operations and service provision, SMEs, research centres and academia, European and National Institutions.

3. NESSI

NESSI, the European Technology Platform dedicated to Software and Services is taking an active role in assisting its members addressing future challenges. NESSI represents the Software and Service industry for its members and partners in front of the European Commission and other stakeholders.

NESSI contributes to ensuring that enough resources are invested in leading-edge industrial and academic research for innovative technologies in the software and service domain. NESSI offers its opinion concerning research actions and technology matters for EU to enable the software and services sector to play its pivotal role for the European economy and society.

4. Net!Works

Net!Works is the European Technology Platform for communications networks and services. Communications networks enable interaction between users of various types of equipment, either mobile (e.g. mobile phones) or fixed (e.g. PCs); they are the foundation of the Internet. The Net!Works European Technology Platform gathers more than 800 players of the communications networks sector: industry leaders, innovative SMEs, and leading academic institutions. The mission of Net!Works is to strengthen Europe's

leadership in networking technology and services so that it best serves Europe's citizens and the European economy.

Bridging the gap between research and innovation and the expectations from the European society is critical. Therefore Net!Works is now committing to interact more with actors outside the research community. Decision makers from the various public authorities in charge of economic development or of local and regional policies, for example, will be asked to provide their views and cooperate

5. Photonics 21

In December 2005 the European Technology Platform “Photonics21” was set up as an industry driven platform to unify the community in the area of optical technologies. Today, more than 2,000 representatives of industry and science from most European countries have joined together to further advance Europe’s position in optical technologies. In September 2009, the European Commission defined photonics as one of five European Key Enabling Technologies (KET’s) and set up a High Level Expert Group of Science and Industry Representatives, where Photonics21 was represented, to develop possible policy measures to promote the industrial take-up of KETs by EU industries. In its final report published in June 2011 the group proposes 11 policy recommendations for the development and deployment of KETs in Europe, which acts as input for the next European Innovation Framework Programme “Horizon 2020”.

The current global photonics market is estimated to be €300 billion. Europe’s share of this world market is approaching €60 billion, representing 20% of the total market. The European photonics industry has many market-leading industrial players and more than 5000 highly innovative SMEs. It employs ~ 300,000 employees directly, with subcontractors employing many more. The estimated annual growth rate of the €300 billion global photonics market is now greater than 10%. Between 2005 and 2008 this rapid growth resulted in more than 40,000 new jobs being created in Europe.