

## Online questionnaire for the Green Paper on a common strategic framework for EU research and innovation funding.

This European Commission **Green Paper** proposes major changes to EU research and innovation funding to make participation easier, increase scientific and economic impact and provide better value for money. The questions are the same as those set out in the Green Paper. To facilitate responding, you are asked to rate the relative importance of the aspects covered in each of the questions. Text responses are limited to 1500 characters. If you wish to provide detailed written comments you are encouraged to use the written response submission form.

### Information about the respondent

- I am answering as: [ **FOODforce**, [www.foodforce.org](http://www.foodforce.org), **A Network of Directors and Senior Managers of Leading EU Research Organisations in the Areas of Food and Nutrition**]
- Country of location [**pan-European**]
- Our network's main activity is [**Research and Innovation**]
- Members of our network have received funding from: [**FP7, COST, national sources**]
- This response is submitted by a pan-European network of organisations whose primary FP7 funding targets are the **Cooperation** [KBBE theme] and **People** pillars.
- The period of the next Framework Programme *should be 7 years [2014-2020]* with an extensive Mid-term Review being conducted in 2017.
- FOODforce supports the goal of *integrating research and innovation activities under a common framework which aligns RTD, CIP and EIT funding streams and optimises their interaction with Structural Funds* as set out in the Innovation Union document. The aim must be to strengthen and underpin the European scientific community, facilitate improved training for young scientists and technologists and optimise knowledge exchange to the industry sector so that the European food chain sector can improve global competitiveness in the face of its traditional competitors and those of the emerging economies.

### Working together to deliver on Europe 2020

The questions in this section correspond to Section 4.1 of the Green Paper.

1. *How should the Common Strategic Framework make EU research and innovation funding more attractive and easy to access for participants? What is needed in addition to a single entry point with common IT tools, a one stop shop for support, a streamlined set of funding instruments covering the full innovation chain and further steps towards administrative simplification?*

**1.1** *Science projects and technology transfer projects should be kept separate as they have differing aims; project length should be, typically, 3-4 years and realistic consideration should be given to what can be delivered in this time. Networking activities should be reduced since other funding focuses increasingly on these and networking does not generate new data but optimises the sharing of pre-existing knowledge.*

**1.2** *The move towards greater interdisciplinarity [e.g. in responses to the requirements of Grand Challenges] requires effective and transparent *cross-disciplinary evaluation*. Many problem-led projects are currently too broad, have too many partners and attempt to “save the world”. This is unrealistic and inhibits the transfer of knowledge to the SME sector. Smaller, better-managed projects are needed that can answer specific questions that are of concern to industry.*

**1.3** *Support should be given to *Strategic Research Alliances between interdisciplinary, inter-sectoral organisations with track records in research for innovation* to develop effective mechanisms for spreading available best practice and experience to industry and other stakeholders. These should be twinned with less-experienced centres/organisations so as to facilitate the spread of available knowledge and experience across Europe.*

**1.4** *The requirements for single projects are often too complex, having simultaneous requirements for scientific excellence, geographical diversity, possible Third Country involvement, involvement of industries (especially SMEs) and socioeconomic impact. As a result, these requirements are difficult to integrate and lead to projects where promised outputs are not achieved. Greater consideration should be given to identifying the primary outcomes with less emphasis being placed on secondary issues. *Funding more than one project on a specific topic may be justified when radically different approaches are proposed by the applicant consortia.**

**1.5** *As currently presented, the Innovation Union proposals could increase, rather than reduce, complexity and careful consideration must be given to overall simplification, flexibility and optimisation of the overall impact. *All the relevant actors must be engaged, starting now, on the design stages and such planning should continue throughout the entire development period.**

**1.6** *The Lead Market Initiative, LMI, was proposed by the Commission under FP7 to foster the emergence of key global markets by, for example, improving legislation, encouraging public procurement and developing interoperable standards. The LMI should be continued within the CSFRI *extending the knowledge and experience already gained to other industry sectors.**

**Very important.**

## **2. *How should EU funding best cover the full innovation cycle from research to market uptake?***

**2.1** *Research should be divided into research-oriented, innovation/technology transfer and demonstration projects which are mature for exploitation. SME involvement would be more easily achieved in smaller, well-managed projects that proceed in a stepwise manner. After the initial research project a strong business case should be able to be submitted for follow-on funding for innovation and/or demonstration.*

**2.2** *Policy issues should be better integrated into research projects to ensure delivery of research data that are able to effectively inform policy innovation and to provide consistency between technology innovation and regulation (a necessary prerequisite to ensure that innovations are exploited). This focus on policy that is based on sound science will provide additional opportunities to better integrate inputs from the social sciences.*

**2.3** *Demonstration projects should be used more strategically to promote the innovation cycle; they should be broadened to include, for example, supply chain management, waste management, process innovation and development of business models. In addition, generic knowledge gained in demonstration projects should be effectively and efficiently disseminated.*

**Important.**

**3.** *What are the characteristics of EU funding that maximise the benefit of acting at the EU level? Should there be a strong emphasis on leveraging other sources of funding?*

**3.1** *Effective public-private-partnerships are crucial for innovation. However, different industry sectors have very different requirements and PPPs must be tailored to the needs, maturity and experience of the particular sector.*

**3.2** *In proposing the instruments of the CSFRI, the European Commission should set out how each of the proposed actions will add value to those already operating at both EU and Member State level, and should indicate where they are positioned in the overall funding landscape.*

**3.3** *Whilst FP7 represents only 5-6% of European public R&D spending, indirectly it influences 20-30% of such spending and so has a very considerable leveraging capacity. In the new Framework Programme, Cooperation-type projects that address Grand Challenges must be appropriately funded and resourced, placing even more emphasis on leverage [national/regional/public-private].*

**3.4** *Actions funded by the EU should be reimbursed at a level that is sustainable, certainly not decreasing from the current levels. If leading research institutions, industries and stakeholder groups do not participate, the spread of excellence, impact and European added-value will all be limited.*

**Important.**

**4.** *How should EU research and innovation funding be used to pool Member States' research and innovation resources? Should Joint Programming Initiatives between groups of Member States be supported?*

**4.1** *Joint Programming Initiatives (JPIs) are key mechanisms through which Member States can play their unique role within the ERA to address societal challenges through alignment of national activities within a common strategy. They should address fundamental, as well as strategic, research. For JPIs to be successful they should remain driven by Member States and their stakeholders, and should integrate existing activities such as those supported by ERA-Nets and ERA-Nets+.*

**4.2** *Many aspects of JPIs require a larger degree of implementation and funding than is achievable collectively by Member States. This offers a valid role for the EC to incorporate and fund some JPI areas within its activities so as to optimise the impact of these areas and increase opportunities for participation from all Member States. The significance of such strategic co-designing and alignment across Member States is a major contribution to joint programming.*

**4.3** *JPIs should be promoted as part of an effective and well-managed overall European process that is impact-led. Mechanisms for co-funding with national funding should be considered [for example, national funding for additional regional engagement in EU-funded projects generating policy-related data; national funding for personnel/mobility linked to EU-funded projects]. For countries with less efficient/less committed administrations, a too strict dependency on national funding can become a major bottleneck. Evaluation at EU level and,*

*possibly, pooling of national funding would assist in such cases, as would mechanisms for compensating Member States having strong negative imbalances between national contributions to CSFRI and funding received by their researchers and other stakeholders.*

**4.4** Incentives [maybe a designated number of Marie Curie Incoming and Outgoing Fellowships] should be given the Member State that has made the greatest improvement in cross-border interactions and cooperation. *This would be an effective motivator and would be available to both large and experienced, and smaller and less-experienced countries.*

**4.5** Some countries have smaller, often regionally-oriented centres with strong and longstanding links to local industries. *These have an important role to play within JPIs [as well as in ETPs, JTIs].*

#### **Of some importance.**

### **5. *What should be the balance between smaller, targeted projects and larger, strategic ones?***

**5.1** Another model should be considered: *clusters of smaller, targeted projects* where adequate funding is made available for management of the cluster. *Research clusters have been shown to be powerful centres of creativity, in which teams of researchers from a wide range of disciplines collaborate across traditional boundaries to bring research knowledge to bear on issues of intellectual, scientific, social, economic, environmental and cultural importance.* The individual projects clustered can, of course, be of different types [fundamental and applied research, training and mobility and infrastructure development, and could cut across the three areas of the Knowledge Triangle; Education, Research and Innovation]. However, clusters and projects, and their management teams should be carefully selected.

**5.2** Data on the participation of new partners [research, industry, SMEs, NGOs and other stakeholders] should be collected to determine whether spreading of participation is occurring in FP7; if not, measures should be taken to ensure access for new partners. To encourage such wider participation, consideration might be given to including in the call text *the stipulation that one or more partners in the consortium should be new to FP activities.* Targeted socio-economic projects could be linked to clusters of technologically-oriented projects addressing the same policy/economic challenge.

**5.3** *There should be a greater proportion of smaller, bottom-up projects that would allow stakeholders [in particular, SMEs] to generate ideas for call topics.* Larger projects should be more effectively evaluated for impact and delivery. It would be better to consider the most appropriate instrument for each call topic and new instruments should only be introduced where they bring demonstrable and significant added value, and then they must be explained clearly to the stakeholder communities.

**5.4** *It is necessary for staff members of the EC to “speak with one voice” when describing the requirements of individual call topics, calls and activities within the next Framework Programme.* If this does not happen, very considerable waste of time and resources will be experienced by partners, especially from the research community, and the likelihood of their future involvement in EU projects will be diminished.

#### **Important.**

### **6. *How could the Commission ensure the balance between a unique set of rules allowing for radical simplification and the necessity to keep a certain degree of flexibility and diversity to achieve objectives of different instruments, and respond to the needs of different beneficiaries, in particular SMEs?***

**6.1** EU funding is already very complicated and this is a barrier to many organisations, especially industries and SMEs, participating in current activities. *The CSFRI must be more than just legislation designed to bring together many already diverse programmes and sub-programmes.*

**6.2** There is a pressing need to optimise flexibility within FP and to pilot new instruments before their wider inclusion. *Current and past FP projects have assumed that SMEs are similar across all industry sectors, whereas there are great differences between, for example, the ICT and KBBE sectors and a “one size fits all” approach designed to bring together SMEs and research providers and/or increase the research activities of SMEs themselves cannot be easily accommodated through a single FP-wide mechanism.*

**Very important.**

**7. *What should be the measures of success for EU research and innovation funding? Which performance indicators could be used?***

**7.1** Description of deliverables and milestones in the proposal is only useful if projects are effectively monitored against these. Currently, innovations and technology transfer deliverables are demanded in research-oriented projects whilst novelty is demanded in projects having innovation/exploitation/technology transfer aims (*for most SMEs the knowledge to be transferred should be very basic*). Moreover, flexibility is frequently a key component for optimising the impact of a project. The measures of success should be more appropriate to the nature of the call [Innovations or technology transfer for those involving industry/SMEs; Scientific articles, new knowledge and identification of potential for industry application for research projects]. Similarly, the nature of the Technology Exploitation Plan should be dependent on the type and focus of the project. For scientific projects, this should address methods, exploitation of gained knowledge, what is considered to be potentially industrially-applicable (at a later stage) or worth of further research? For scientifically-mature projects, the measures of success should be patents, technology transfer agreements etc.

**7.2** *The performance indicators must fit the project*, rather than all projects having to fit with a selection of standardised performance indicators.

**7.3** To reach this situation, R&D projects should be evaluated from the correct perspective [*which requires that the EC is clear in its own mind what is needed and can seek evaluators having the necessary experience and knowledge*]. Political and social aspects should be considered in the call content, but should not be the only criterion used for evaluating proposals; researchers are best at engaging in scientific activity but less effective when requested to do work for the politicians.

**7.4** The true impact of a project can generally only be assessed some time [1-3 years] after the conclusion of project activity and funding, and publications may continue over the same post-project period. Performance indicators should, therefore, take these factors into account.

**Important.**

**8. *How should EU research and innovation funding relate to regional and national funding? How should this funding complement funds from the future Cohesion policy, designed to help the less developed regions of the EU, and the rural development funds?***

**8.1** Regional cohesion is important but it should complement FP activities and the latter should not be used to support the former. *The use of some share of rural development funding (CAP) for research and innovation would be beneficial for some areas of applied research.* Connections to FP and consistency of objectives are very important to ensure the quality of

research at this more local level. There should be some level of harmonising of EU and national research funding. However, there should always be a national funding source that is not wholly dependent on the EU.

**8.2** Experience has shown that many excellent proposals are received which cannot be funded by the EC. *Effective interactions between the EC, JTIIs and ERA-Nets should provide a mechanism where those delivering the greatest impact could be taken forward with appropriate national funding.*

**8.3** “Twinning” of universities and research centres could be funded within Structural Funds; *the aim would be for the more experienced centre/s to twin with a regional university/research centre/s to transfer knowledge and experience, assist and mentor.* The initially less-experienced organisation would then be expected to spread its knowledge to other national/regional organisations [see 22.2].

**Important.**

### **Tackling Societal Challenges**

The questions in this section correspond to Section 4.2 of the Green Paper.

**9. *How should a stronger focus on societal challenges affect the balance between curiosity-driven research and agenda-driven activities?***

**9.1** *Both curiosity-driven and agenda-driven activities are needed but consideration must be given to ensuring the widest dissemination of the results of curiosity-driven research so that opportunities for knowledge transfer can be identified at an early stage.* An open and transparent process should be undertaken to identify Grand Challenges which must be addressed in an interdisciplinary manner, bringing together expertise that generally operate separately. Responses to the Grand Challenges must be implemented across the whole Framework Programme [including problem-driven S&T activities, enabling technologies and training and mobility]. The identification and prioritisation of Grand Challenges must be conducted in a transparent and open manner [exploiting the Innovation Union’s European Forum on Forward Looking Activities], and must be broad enough to cover current FP7 Thematic priorities and address truly global issues as exemplified in the Danish CSFRI Position Paper:

- *Minimising dependence on sources of fossil energy,*
- *Optimising resource efficiency,*
- *Improving the health and well-being of the [whole] European population and decreasing associated health and social security costs, and*
- *Ensuring the availability of healthy food in Europe.*

**9.2** It is generally agreed that a significant proportion of the funding in the next Framework Programme should be directed towards addressing global Grand Challenges. *It is vital that the identification of these Grand Challenges involves and engages society.*

**9.3** *Since Grand challenges represent a very significant departure from the structure of previous FPs which have addressed thematic priorities, an interim evaluation of the impact of these new measures be undertaken at the earliest opportunity and any necessary changes implemented.* This would be of increased importance should be period of the next Framework Programme be 7 or 10 years.

**9.4** It is vital that *the needs of society [consumers], academia and industry [SMEs, medium-sized enterprises and multinationals] are brought together in a common overall*

*strategic research agenda* which needs regular reviewing to ensure that changing concerns and emerging issues can be included.

**9.5** “*Science for Society*” must receive proportionately greater funding [and not just be confined to the problem-driven “FP7 Cooperation” area] since society’s awareness and understanding of developments in science and technology is vital for their acceptance. Along with this, the “voice/opinion of the consumer” must be heard when research and innovation agendas are set [see **13.1**].

**Important.**

## **10. *Should there be more room for bottom-up activities?***

**10.1** *Bottom-up activities should be used to ensure industry’s needs are effectively addressed and these approaches to fundamental research should be focussed on the ERC and New and Emerging Technologies.* Increased relative funding for bottom-up, non-thematic projects for SMEs [as currently conducted in the FP7 Capacities pillar] should continue to be a priority.

**10.2** Some bottom-up actions could be introduced in all sectors and be used to fund new issues and longer term research, and hence contribute to overall flexibility. *Radically different approaches to bottom-up call topics could each generate important and exploitable data. Consideration should thus be given to the funding of more than one project providing that the evaluation threshold has been exceeded.*

**Important.**

## **11. *How should EU research and innovation funding best support policy-making and forward-looking activities?***

**11.1** *The Joint Research Centre needs to play a more relevant, long-term role at the interface between EU policy and research* [see **12.1** and **12.2**]

**11.2** Much better connectivity is needed between research projects and tenders to support policy actions since these are, at present, mostly disconnected. *Follow-up funding to directly support the development of successful research projects into policy support actions should be available.* EU and national bodies should commit to a higher participation on advisory boards and stakeholder activities within EU-funded projects and appropriate incentives should be provided (e.g. time and efforts by Member States could be accounted as project co-financing).

**11.3** *Targeted funding for policy, policy development and dissemination, and foresight must be protected* when the overall agreed budget for the next Framework Programme is subdivided into its component elements.

**Important.**

## **12. *How should the role of the Commission's Joint Research Centre be improved in supporting policy-making and forward-looking activities?***

**12.1** *The JRC must be structured to respond in a timely and effective manner to both long-term issues and unexpected developments and situations.*

**12.2** *Opportunities for better interaction and engagement between the JRC Institute for Prospective Technological Studies, the EU S&T community and its stakeholders across Europe should be identified.* The JRC, the activities of which are generally little-known or appreciated, could have dedicated funding to orient ongoing high quality project towards more policy-oriented applications; follow-up of successful projects could be funded,

exchanges of staff between JRC, the EU Commission and research projects could be explicitly promoted rather than left to individual career choices.

**Important.**

**13. *How could EU research and innovation activities attract greater interest and involvement of citizens and civil society?***

**13.1** *Effective ways need to be found for giving a voice to “the public” [who are different from MEPs] when the strategic research and other agendas are being developed. This is not a simple matter but it is unrealistic to expect people to agree with, and buy into, activities over which they have had no say. Processes and mechanisms for engaging with the general public that have been adopted in, for example, Scandinavia should be considered for wider applicability across Europe, perhaps after appropriate modification to address cultural and other differences.*

**13.2** *Research, technical development and innovation is a medium-to-long-term activity. It will be the young people in Europe’s universities, research organisations and industries who will be responsible for many of the activities etc. which the current leadership of these sectors have initiated as well as for solving unforeseen problems. Provision should be made for representatives of this next generation to make their opinions known about medium-to-long term activities that are now being discussed.*

**13.3** *Science communication is a very important area and should be better accommodated within research projects and training and mobility activities. It is the responsibility of everyone engaged in FP projects, not just the coordinator, to communicate effectively to all stakeholders and transnational projects should explicitly include effective training for younger members of its consortia. Appropriate expertise should be involved in the project to optimise exchange of information with consumers and stakeholder activities [frequently coordinators spend much of their time doing this but they may themselves not be sufficiently-well trained or have enough time].*

**13.4** *A unified and easily accessible platform for communication of EU project results should be established and specific support actions for each area of research could be devised in order to support communication. EU- and nationally-funded projects must address [and must be seen to address] the needs of all consumers not just the most wealthy 25% with the purchasing power to respond to high tech products, tools and services. In addressing consumer needs, those of minority ethnic populations, migrants and asylum-seekers must be included. Key global issues [sustainability, food security, waste reduction, ageing population] should be related to national/local issues that are much easier for the public to relate to.*

**13.5** *Communicating the excitement of S&T to primary and secondary schoolchildren is a vital step in [1] ensuring a sufficient supply of enthusiastic and flexible young researchers who will increasingly be the powerhouse of cross-border research post 2020, and [2] spreading knowledge and awareness of EU research and its benefits to society [through their parents and families]. The Science, Art and Writing (SAW) initiative, a cross-curricular science education programme for schools ([www.sawtrust.org](http://www.sawtrust.org)), has been introduced and evaluated in primary and secondary education in the UK and the US, and is included in the EU FP7 consortium Smartcell, <http://www.smart-cell.org/> as an outreach component. SAW uses themes and images from S&T to stimulate scientific experimentation, art and creative writing and provides opportunities for scientists to work in innovative ways with teachers, children and other education experts. Funding should be made available to extend this concept to other regions of the EU. Prizes for schoolchildren – for example, representing S&T in art, poetry and stories [as well as their publication or exhibition] should be considered as this would have the important additional benefit of links science and the arts.*

## Very important.

### Strengthening competitiveness

The questions in this section correspond to Section 4.3 of the Green Paper.

#### **14. How should EU funding best take account of the broad nature of innovation, including non-technological innovation, eco-innovation and social innovation?**

**14.1** All the different parts of the EC that have an interest in, or responsibility for, innovation [in its *widest sense*] must be involved in the discussions about industrial-, eco- and social innovation, as should representatives of the innovation chain.

**14.2** European Innovation Partnerships, EIPs, well-managed governance frameworks drawing together public and private resources and responding to individual Grand Challenges across the capital

investment/demonstration/procurement/regulatory/standards/research/societal sectors, must be managed by experienced [and, therefore, well-paid] leaders who are delegated significant authority and resources. Progress on the first EIP, *Active and healthy ageing* should be closely monitored so that knowledge gained can be used within other EIPs.

**14.3** *Consideration should be given how best to spread the knowledge and experience of these leaders to younger, less-experienced colleagues and to countries and regions less mature in innovation activities.* In these latter regions, funding could be targeted at studying and promoting success stories, and on joint calls between SSH and Social Funds. Research should be directed towards capacity building and staff exchanges because the usefulness of much research is significantly reduced when confronted with the actual process of short-term policymaking.

### Important.

#### **15. How should industrial participation in EU research and innovation programmes be strengthened? How should Joint Technology Initiatives (such as those launched in the current Framework Programmes) or different forms of 'public private partnership' be supported? What should be the role of European Technology Platforms?**

**15.1** *There is an over-riding need to ensure minimal overlap or competition between JPis, ETPs, JTis, EIT-KICs, EUREKA, ERA-Nets etc; rather their synergies should be identified and exploited.* There is too much emphasis on PPPs being *the solution*; it is just *one solution* [for example, for the e-communication or pharmaceutical sectors that have high and traditional industry investment] but will not work in sectors, such as food, where industry investment in research and margins are low, and the industry sector comprises 99% SMEs and microenterprises. The agro-food industries often regard FP7 Cooperation call topics as too narrow and an effort to broaden them is needed. Bottom-up calls would also better address the needs of industry. JPis should cover the spectrum of basic to applied research as well as training and mobility.

**15.2** Simplification of requirements and regulations, their uniform interpretation and a single and common entry portal and uniform will assist SMEs to participate but, before they do, *it will take them time to develop the necessary trust and confidence with academic partners and other stakeholders.* This process cannot be rushed if durable partnerships are to result.

**15.3** *There is extensive experience associated with ERA-Nets and ETP Mirror Groups and such best practice, lessons and reasons for successes and failures should be considered by each JPI so that overall impact can be optimised.*

**15.4** *ETPs reflect the interests of all stakeholders in a specific industry sector and so are much more than simply lobby groups for industry.* However, many ETPs see their activities, Strategic Research Agendas and Implementation Action Plans losing out to those of JPIs. There is very considerable experience, knowledge and networking associated with ETPs and some ways should be sought to exploit and use this for the benefit of EU industries; this is especially true of ETPs that have established highly-networked National Food Platforms. JPIs should not have their impacts limited by national organisations that seek to limit or exclude inputs from other organisations.

**Important.**

**16.** *How and what types of Small and Medium-sized Enterprises (SME) should be supported at EU level; how should this complement national and regional level schemes? What kind of measures should be taken to decisively facilitate the participation of SMEs in EU research and innovation programmes?*

**16.1** *The timescale for proposal development→submission→evaluation→funding award→contract negotiation→project start is much too long for SMEs to wait and, to some, demonstrates a lack of understanding of their situation.* The new strands in the 2012 FP7 people pillar supporting academic-industry interactions scheme should be evaluated for their benefits to industry and on its students, amended if necessary and continued in the next Framework Programme. Innovative SMEs should be able to access *partial funding* for demonstration activities [taking into account this would be a near-market activity] within/ following on from FP projects.

**16.2** Increase funding for non-thematic, bottom-up funding would increase opportunities for SMEs. Many [low tech] food SMEs can only benefit from transfer of simple knowledge and data. The number of annual calls and their opening should be increased for activities involving SMEs. *There is a particular issue in the agro-food sector where Medium-sized organisations are well placed to drive innovation because, unlike SMEs, they have sufficient resources and awareness of the benefits of innovation and can participate more effectively than smaller organisations in knowledge exchange.* Consideration should be given to developing mechanisms to facilitate their involvement in future FP activities.

**Important.**

**17.** *How should open, light and fast implementation schemes (e.g. building on the current FET actions and CIP eco-innovation market replication projects) be designed to allow flexible exploration and commercialisation of novel ideas, in particular by SMEs?*

**17.1** *There is considerable knowledge, experience and best practice in many Third Countries of effective innovation, and funding should be directed toward scoping how such countries operate and to determine whether their best practices can be identified and adapted for use in different regions/countries of Europe.* Given the variation in the maturity of innovation across EU Member States and their cultural differences towards business, it is likely that no single mechanism will be applicable across the whole of the continent. If a research institute or university spends, for example, 10 years on a research topic and then is finally able to file valuable patents,] then it should get reasonable compensation for this extended work. At present, few organisations would be willing to “sell” their patents for what EU project funding can provide.

**17.2** *Next-step grants should be available for FP consortia to carry out early-stage “proof of concept” studies and/or translate research data produced within the project into policy and practice.*

**17.3** *Follow-up innovation grants [funded through Structural Funds and/or CIP] should be available to facilitate individual researchers to develop innovative companies using data developed in FP projects. This would also stimulate a more entrepreneurial ethos within the ERA.*

**Important.**

### **Strengthening Europe's science base and the European Research Area**

The questions in this section correspond to Section 4.4 of the Green Paper.

**21. How should the role of the European Research Council be strengthened in supporting world class excellence?**

**21.1** By common consent, the FP7 Ideas pillar is one of the success stories of FP7 and could serve to identify elements of best practice that can be adapted and exploited in other areas of the next Framework Programme.

**21.2** Currently Starting and Advanced Grants are awarded and the balance should be slightly shifted towards the former; consideration should also be given to the introduction of Intermediate Grants to address a key area of career development.

**21.3** *It is important that the ERC remains autonomous.*

**21.4** *Cross-border activities should be included but excellence should remain the sole evaluation criterion.* The starting point of different host institutions is very different and this could compromise attraction of researchers. A better balance of evaluators should be introduced for multidisciplinary projects.

**Very important.**

**22. How should EU support assist Member States in building up excellence?**

**22.1** *Excellence is excellence and must not be clouded with other issues [cohesion issues].* In FP7, many REGPOT projects [intended to promote and elevate regional potential through funding centres that show potential and enthusiasm for greater engagement in cross-border activities and FP projects] are being supported and these projects are an effective way to build up excellence and disseminate experience and best practice across Europe.

**22.2** In FP5, a similar process to that described in **21.1** was undertaken through the development of EU Centres of Excellence within the then-Candidate Countries. Whilst advances were made across a variety of fronts during the funding period of these Centres of Excellence, their further development ceased once the projects terminated. In retrospect, what was really needed was relatively small funding for interdisciplinary networking with other similar centres/ experienced organisations from [mainly] the EU-15. As a result much of the impact of the projects was dissipated in the next 3-5 years. *With this negative experience, attention should be given to how the FP7 REGPOT investment might be made more durable [perhaps being targeted at those centres who clearly demonstrate a significant national and regional impact].* A related process has been introduced in FP7 KBBE theme for FP6 Networks of Excellence that have demonstrated evidence of securing durability.

**22.3** During the period of the next Framework Programme the challenge will be to move from *cross-border spreading of EU excellence to developing and exploiting global excellence for the benefit of the ERA and its stakeholders.*

**22.4** *Steps should be implemented to ensure that established centres in present and future Candidate Countries are able to access funding to facilitate transfer knowledge, experience and best practice so that they can benefit directly once these countries have become members of the EU.*

**Important.**

**23.** *How should the role of Marie Curie Actions be strengthened in promoting researcher mobility and developing attractive careers?*

**23.1** The two new strands of the Initial Training Networks, **European Industrial Doctorates** (EID) and **Innovative Doctoral Programmes** (IPD), are greatly to be welcomed; however, *a broad range of measures* must be urgently taken to promote an entrepreneurial culture within the EU.

**23.2** Human capital is the source of innovation and the key to economic growth and social progress across Europe and the relative proportion of overall FP funding should be increased. *Consideration should be given to linkage with “Cooperation” training/career development activities.*

**23.3** Marie Curie Industry-Academia Interchange Fellowships, provided that they are positively evaluated [**23.1**, above], should be extended but *should be open to organisations other than “industry” so as to recognise wider career path development involving NGOs, charities, regulatory bodies and policymaking areas.*

**23.4** Effective management of FP and large national projects is necessary for optimal impact so *Marie Curie Management Fellowships [to train coordinators of the future, exploitation of research results, communication] should be considered within large interdisciplinary problem-driven projects.*

**23.5** Marie Curie Fellows are naturally regarded as supporting the very best younger researchers which provides an opportunity to *introduce new Marie Curie Generation Fellowships for young researchers to work with ex-Marie Curie Fellows [maybe up to 5-10 years after their Fellowship ended] who are now significant figures in their fields* [evaluation would cover the applicant young person, the older ex-MC fellow and the excellence of the research training and facilities that are offered].

**23.6** *“Hard” science and technology and social science engagement should be promoted [through extra weighting in the evaluation] in ITNs etc.* since this interaction, specified in the ERA documentation, is remains only poorly-established at European level.

**23.7** The benefits [to both parties] arising from IRSES projects, newly-introduced in FP7, should be evaluated, even at this early stage, to identify in which areas it has performed well so that improvements might be introduced in the next Framework Programme.

**23.8** Many partners in *FOODforce* commented positively on their experiences of trans-national mobility programmes such as LEONARDO and ERASMUS; however, the aims of these must be kept separate from future Marie Curie activities.

**Important.**

**24.** *What actions should be taken at EU level to further strengthen the role of women in science and innovation?*

**24.1** *Women in science, technology, engineering and industry face career structures and cultures that are weighted against them, rather than straightforward individual sexual discrimination.* This is a societal issue which, of course, cannot be wholly addressed by the European Commission; however, the EC should continue to work with EU Member States to promote the importance of women in these areas, which are at the core of the CSFRI, and also

to achieve gender parity amongst those favouring the sciences in primary and secondary education. Information made available to primary and secondary schoolchildren will be very important in reducing later gender stereotyping.

**24.2** *Consideration must be given to changing the emphasis from “activities promoting women” to “activities promoting families”;* the resulting set of measures [which could include flexible working, availability of local child care facilities, project activities organised at family-friendly venues] would help to increase the participation of women in science, technology and innovation. It is also important that effective role models for women in science, technology and innovation are presented locally and nationally [at schools, colleges and universities, and on project websites and social networks].

**24.3** *All projects should be linked to local, national and regional networks promoting women in science and technology, industry and innovation.* Within clusters of FP and national projects active networking of female participants should be encouraged.

**24.4** A very important issue for women entering science, engineering, technology and industry is *the lack of women reaching the highest levels in these sectors*; this must also be speedily and effectively addressed if Europe is to effectively mobilise all its resources in support of the Knowledge Agenda.

**24.5** *The importance of academic, technical and industrial organisations across Europe actively demonstrate and promote, rather than just support, true gender equality cannot be over-estimated.*

**24.6** *Empowerment of women should be facilitated*, e.g. by providing guidance and best practice to help women return to the labour market after an absence.

**24.7** The EC’s Women and Science Unit, the Helsinki Group on Women and Science and similar organisations should address the issue of *why so many of the few women in scientific research drop out and promote guidance, best practices and information* on, for example, women’s lack of self-confidence, lack of information on science careers for women, lack of career opportunities for women, visibility of role models, the gender pay gap and barriers to recruitment etc.

**Important.**

**25. How should research infrastructures (including EU-wide e-Infrastructures) be supported at EU level?**

**25.1** *There is a need for sustainable investment in new infrastructures and e-infrastructures [both included in the term (e-)infrastructures, below], and for funding that will facilitate the further integration and exploitation of existing (e-)infrastructures.*

**25.2** *International links should be developed to facilitate open access to global (e-)infrastructures and new EU (e-)infrastructures should be prioritised against open access (e-)infrastructures in Third Countries.* European involvement in global infrastructures will promote the excellence of EU S&T.

**25.3** *Effective foresight and horizon-screening activities should be used to provide a basis for prioritisation of new (e-)infrastructures and the development and sharing of these should be integrated with research funding at both national and EU levels.*

**Important.**

**26. How should international cooperation with non-EU countries be supported e.g. in terms of priority areas of strategic interest, instruments, reciprocity (including on IPR aspects) or cooperation with Member States?**

**26.1** The period of the new Framework Programme will see *the increased development of global partnerships* addressing Grand Challenges and this will require the opening up of rules for participation in practice rather than in principle.

**26.2** *The impacts and benefits of “twinning” complementary EU- and Third Country-funded projects should be evaluated and, if appropriate, extended within the new Framework Programme.* Current demands for international collaboration are too strict/specific. If the participation of several of non-EU countries is expected, the scientific content is too easily compromised (in many countries the level of science is just not good enough or the scientist finds it difficult to adapt and follow the EU rules).

**26.3** The real benefit of including Third Countries in particular areas/topics should be considered prior to calls being made and consideration should be given to whether alternative mechanisms might not be more appropriate. If the main focus is to spread the EU know-how this should be clearly stated and then it can be accepted that the scientific outcome will not necessarily be the best one. It is also questionable whether the role of an EU scientist should be to teach/educate within a *research project*. Other mechanisms should be offered outside EU projects funding research.

**26.4** *European expertise should be used to build capacities and establish innovation in developing Third Countries;* however, this should be funded through the EU’s development budget rather than its research budget.

**26.5** The excellence of areas such as mathematics and physics in, for example, Russia and their applicability to a wide range of economic, social and industrial areas, emphasises the importance of including such countries in future international cooperation activities. The same argument can be applied to researchers from many of the Independent Republics of the Former Soviet Union [although assurances would be needed that transferred funds were properly accounted for].

### **Important.**

**27. Which key issues and obstacles concerning the ERA should EU funding instruments seek to overcome, and which should be addressed by other (e.g. legislative) measures?**

**27.1** Interdisciplinary S&T is at the heart of the Framework Programme and is also necessary to address effectively the complex issues underlying the Grand Challenges; *too narrowly focussing call topics militates against effective interdisciplinarity as does insufficient funding for ambitious calls.*

**27.2** *The effective functioning of the ERA depends upon cross-border cooperation and collaboration between internationally-recognised research organisations that demonstrate excellence in S&T, training and knowledge exchange;* networks of these organisations could also be “twinning” with centres of regional excellence so that experience and best practices could be most effectively spread across the EU.

**27.3** Provision should be made within the new Framework Programme to monitor organisations [academic, industry, NGOs] that are participating for the first time, to seek their opinions on their experiences, barriers etc. and these should be considered and *common problems addressed.* However, *FOODforce partners have, by definition, long experience of participation in FP programmes and projects and so should not speak for their colleagues engaging in EU funding for the first time.*

### **Important.**

## **Closing questions**

**Are there any other ideas of comments which you believe are important for future EU research and innovation funding and are not covered in the Green Paper?**

1. Whilst FP and bilateral projects, conferences etc. have brought the S&T community together and facilitated organisational and scientific interactions, there seems to be very little similar activity for policymakers and funding agencies. Too often they seem intent on “preserving their patch” from foreign intervention and ideas. *One reason for this is that they have not been able to develop the kind of transnational trust and confidence one with another that characterises those FP projects that have the greatest impact. Funding should be made available for such people to spend time with the equivalent organisation in another country, with EFSA etc.*
2. In current EU-funded proposals, bureaucracy, although still requiring simplification, is significantly reduced post-evaluation for projects that are to be funded since the DoW, workplans and reports have the same format which is quite familiar to project participants. *This facilitates the reporting, planning etc. at all levels and should be retained across the CSFRI.*
3. The evaluation process is central to the success and impact of all Framework Programme projects and is both complex and overwhelmingly very well conducted. However, given the challenges associated with the CSFRI, the evaluation process will be even more crucial in the next Framework Programme. *The quality, professional knowledge and experience of evaluators must not be compromised by the need for geographic balance and those submitting to the database of potential evaluators must be effectively screened before being invited to serve as evaluators.* One inexperienced or inappropriate evaluator can, despite the available checks and balances, distort the overall consensus marking and impact on the proposals selected for funding.

## **FOODforce**, [www.foodforce.org](http://www.foodforce.org)

The FOODforce network brings together the Directors and senior staff of leading European research organisations active in the areas of food and nutrition. It identifies common interests and activities which can be fed into the European Commission, directly, and through the European Technology Platform Food for Life as suggestions for call topics. Networked organisations identify and exchange best practice in issues relating to research policy, strategy, management of research, training, knowledge exchange and transfer, and foresight.

FOODforce has a particular focus on *food production/technology/manufacturing, consumption of healthy diets and nutrition, and sustainable use of renewable resources from small scale to large scale*. It addresses research and innovation, interfaces with society and its consumers, industry [and especially SMEs], and policymakers. It promotes the activities and opportunities for PhD students and early-stage researchers, has an impact reflecting its unique network structure [research providers; transnational] and its well balanced regional and multi-national approach to food research and development.

FOODforce links fundamental research to business development (and *vice versa*), from public to private R&D (and *vice versa*), and links national research to international research (and *vice versa*). It operates an effective dissemination of information and intelligence and operates independently of the ETP Food for Life. Key activities of FOODforce partners include:

- Exchanging information especially concerning DG Research as is done now,
- Engaging in strategic activities; for example, ETP Food for Life - of which it was one of the core founders,
- Supporting and exchanging information about ETP Food for Life/JPIs/EIT-KICs, including regional and multi-national involvement,
- Linking with Third Countries and preferred non-EU countries,
- Supporting involvement of regional SME and SME associations in European research projects > deliverables,
- Exchanging best practices in managing food science in Europe, with particular emphasis on SME involvement > deliverables,
- Benchmarking research to improve quality and productivity (peer reviews, customer satisfaction models, contract models, etc.),
- Influencing policy at national and regional levels,
- Collaboration (exchange of personnel, outsourcing strategies, IPR etc.)
- Supporting Large Initiatives (incl. sharing risks, facility sharing) and Infrastructures, and
- Supporting management development (HRM issues, training of young scientists, financial tools, etc.)