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**EUROPEAN RESEARCH AREA
COMMITTEE
High Level Group for
Joint Programming**

Secretariat

ERAC-GPC 1301/12

NOTE

Subject: **High Level Group for Joint Programming (GPC)
Recommendation on ways to involve industry**

Delegations will find in the annex Recommendation on ways to involve industry of the High Level Group for Joint Programming (GPC), as adopted by GPC at its meeting on 8 March 2012.

High Level Group for Joint Programming (GPC)**Recommendation on ways to involve industry¹ in Joint Programming Initiatives****Introduction**

Joint Programming (JP) was started in 2008 as “a process aiming to increase and improve the cross-border collaboration, coordination and integration of Member States' publicly funded research programmes in a limited number of strategic areas, and thus to help Europe boost the efficiency of its public research funding so as to better address major societal challenges”. It has raised a lot of expectations for increasing the coordination of national and regional research and demonstration programmes. The launching of ten initiatives is a proof of the interest and added value that could be reached following the strong joint efforts involved. All this, initiated before the Innovation Union was adopted as a political wish to radically improve the impact of the knowledge generated in Europe.

With this recommendation, the GPC considers that, as appropriate, in some of these ten initiatives and the others to come, it could be of key importance to better incorporate as needed relevant stakeholders, in particular industry and end users, while fully respecting the character of Joint Programming as a public-public cooperation platform. These could help Joint Programming to better fulfil its objective of tackling the societal challenges and moreover to contribute to the competitiveness of industry.

This document is based on some of the conclusions of the Competitiveness Councils and European Commission's communications on these issues and is the result of the GPC works and discussions. It should be underlined that, as the Framework Conditions, it is a living document and its recommendations are of voluntary nature, so due care is needed to decide in which initiatives, when and how they could be applied with added value.

¹ For the purpose of this document the term "industry" is used in a large sense, including as appropriate all types of business activities, sectors as well as all players (from SMEs to large enterprises and companies).

The ideas and recommendations concerning the ways to involve industry included in this document should be read in parallel with the Framework Conditions for Joint Programming². And these ideas and recommendations should also be taken into account by the interested parties along the following set of General Principles:

- a) Consistency with the Joint Programming concept of increasing the efficiency and effectiveness of Member States' efforts.
- b) Voluntary Nature, where the adoption is based on the simple recognition of the practical usefulness of what is being proposed.
- c) Streamlined and simple implementation.
- d) Flexibility, in allowing individual JPIs the possibility to choose the option considered most suitable in the specific case and circumstances.
- e) Openness to natural evolution, so to maximise the benefits that could be derived from experience.
- f) Low perceived administrative overhead by all categories of actors involved in the Joint Programming process.

² Voluntary guidelines on framework conditions for joint programming in research 2010 (ERAC-GPC 1309/10).

1. The context: Joint Programming and Innovation

- I. Joint Programming was introduced by the Council in 2008³ in order to strengthen Europe's capacity to transform the results of its research into tangible benefits for society and for the overall competitiveness of its economy, based on the joint identification of societal challenges of common interest and a strengthened political commitment by Member States.
- II. Innovation has been placed at the heart of the Europe 2020 strategy through the Innovation Union Flagship Initiative. Europe needs to get more impact out of its research. In that sense, fostering the cooperation between the science and business sectors could be of real benefit.
- III. Joint Programming Initiatives (JPIs), as part of the new European Research Area landscape, should also contribute to the achievement of these objectives. JPIs are aiming to develop strategic, mission oriented, transnational Research and Development in areas of societal relevance.
- IV. As JPIs were launched before the Innovation Union, it is worthwhile to have a look on the work already done and to consider – where appropriate – the incorporation of the key elements of the Flagship Innovation Union into ongoing initiatives and the ones that are under preparation, without refocusing Joint Programming process on other objectives than the response to societal challenges through the coordination of Member States Research and Development programmes.

³ Council Conclusions concerning joint programming of research in Europe in response to major societal challenges, 3.12.2008 (16775/08). WELCOMES the concept and objectives of joint programming as formulated in the communication of the Commission "Towards joint Programming research: Working together to tackle common challenges more effectively", which calls for the implementation of a process led by the Member States to step up their cooperation in the R&D area in order to better confront major societal challenges of European or worldwide scale, where public research plays a key role.

2. The Commission has outlined the “positive S&T impacts of JP on industry” with regards to innovation and competitiveness⁴

- **Pooling scattered data and expertise:** JP promotes cross-border project collaboration, which facilitates the pooling of data and expertise scattered across several countries or Europe as a whole. This enables the private sector to pursue, much more than it can now, "open innovation" strategies.
- **Rapid dissemination of research results:** Innovation is often accompanied by so-called first-mover advantages. The firm which is first to bring a new product or process to the market is often the one which can occupy a large share of the market. Rapid innovation, however, depends to a large extent on the rapid domestic and cross-border dissemination of research results. JP, by promoting cross-border project collaboration, facilitates such rapid dissemination.
- **Development of common, standardized solutions:** Industry has a great interest in market predictability, which to a large extent depends on the development and acceptance of common standards and norms. JP, facilitating the development of common, standardized solutions, contributes to such market predictability.

“In addition, a number of other benefits for industry can be identified:”

- **Facilitating access to public research support**
- **Facilitating the development of joint public-private strategic research agendas:** Europe's industry is well-networked and able to speak to Member States and to the Community with one voice. On the other hand, however, and as already mentioned, a multitude of various national and regional research programmes are operating in the different European countries, preventing the public sector from speaking with one voice to industry. JP will enable the public sector to speak with a single voice on particular research subjects and this will facilitate the interaction and strategic research coordination with the private sector (which can facilitate the development, further down the line, of joint technology initiatives).

⁴ Towards Joint Programming in Research: Impact Assessment {COM(2008) 468 final}. EC(2008) 2282}. Page 42, 43.

3. Council has addressed the issues of the involvement of the private sector in the Joint Programming and of positive impact of Joint Programming on innovation in some Council Conclusions

INVITING to define the role of JP in the implementation of *the Europe 2020 Strategy*, including with a view to further streamlining research and innovation instruments, and, in relation to the concept of European Innovation Partnerships⁵;

CALLS on ERAC, its Working Group on Knowledge Transfer and its dedicated configurations High Level Group for Joint Programming (GPC) and SFIC to contribute towards supporting the implementation and monitoring of progress of the Innovation Union initiative⁶;

During the *development and implementation* of joint programming⁷ ENCOURAGES the involvement of the various scientific and, where appropriate, industry communities;

Among *criteria for identifying joint programming themes*: CONSIDERS that relevant regional, national and European stakeholders, including where appropriate the private sector besides scientific communities and funding agencies, have been involved in developing the theme⁸.

On the *Strategic Research Agenda of certain JPIs and its implementation plan*,

- The following actions could be considered: (i) as appropriate, involve representatives of patient and care organizations and healthcare providers in this pilot initiative, including stakeholders from the private sector⁹.

⁵ Council Conclusions on joint programming in research Council meeting (26 November 2010).

⁶ Council Conclusions on the development of the European Research Area (ERA) through ERA-related groups (31 May 2011).

⁷ Council conclusions concerning joint programming of research in Europe in response to major societal challenges (2009/C 24/04).

⁸ Council conclusions concerning joint programming of research in Europe in response to major societal challenges (2009/C 24/04).

⁹ Council Conclusions on research joint programming: initiative on combating neurodegenerative diseases (Alzheimer's) Competitiveness Council (3 December 2009).

- INVITES to develop a SRA establishing medium to long term research needs and objectives in the area of demographic change. The SRA should be further developed towards an implementation plan establishing priorities and timelines and specifying the actions, instruments and resources required for its implementation. The contents, work programmes and implementation plans should take into account the scientific, technological and innovation impacts of the supported research¹⁰.
- RECOMMENDS to consider, subject to the needs identified by participating MS in the SRA, actions as part of an implementation plan, such as: encouraging better collaboration between the public and private sectors, together with open innovation between different research activities and business sectors; exporting and disseminating knowledge, innovation and interdisciplinary methodological approaches¹¹.

4. More recently, the Commission in its recommendations on specific JPIs encourages Members States

to include the following actions, as part of the strategic research agenda and of the implementation plan:

- (g) exporting and disseminating knowledge, innovation and interdisciplinary approaches to other parts of Europe and worldwide and ensuring the *effective use of research outputs to enhance European competitiveness* and policy making;
- (h) encouraging *better collaboration between the public and private sectors, together with open innovation* between different business sectors¹²;

¹⁰ Launching of joint research programming initiative 'More Years Better Lives' Competitiveness Council (30 September 2011).

¹¹ Launching of joint research programming initiative 'More Years Better Lives' Competitiveness Council (30 September 2011).

¹² Commission Recommendations on the research joint programming: A) 28 April 2010; on 'Agriculture, food security and climate change' B) 28 April 2010 on 'A healthy diet for a healthy life' C) 26 April 2010 on 'Cultural Heritage and Global Change: a new challenge for Europe' D) 16 September 2011; 'Healthy and Productive Seas and Oceans' E) 21 October 2011; 'Connecting Climate Knowledge for Europe' and "Urban Europe - Global Urban Challenges, Joint European Solutions" F) 27 October 2011 'Water challenges for a changing world'.

- (d) identifying areas, research or pilot-testing activities that would benefit from coordination, from joint calls for proposals or from pooling of resources (including financial resources) ¹³.

5. GPC has highlighted the relevance of the better involvement of industry and end-users in the Joint Programming and of positive impact of Joint Programming on innovation ¹⁴

In its report to the Council ¹⁵ challenges and the impact of Joint Programming on innovation are addressed:

“It can be argued that societal challenges, such as climate change and diet related diseases, are by definition not only research issues but also innovation issues which proves that *innovation is an inherent aspect of JPIs*. If JPIs succeeded to involve more the industry in the elaboration of the SRAs, this would ensure that the innovation potential is brought to the forefront.”

“Further development of the *Guidelines for Framework Conditions* should not be limited to dealing only with the science-driven challenges but should fully embrace the issues arising from societal-driven (innovation) challenges. Finally, taking account, as appropriate, the implementation of the European Innovation Partnerships is also relevant.”

Involvement of actors: “If JP is to become a building block of ‘Innovation Union’, then expanding the contribution of and consultation with a wider spectrum of industry, end users and citizens assumes a greater imperative”. “Each JPI is thematically different and that requires an “à la carte” approach to the question of involvement of industry”. “Industry has participated in various ways in defining JPI priorities”. ¹⁶

¹³ Commission Recommendations on the research joint programming of 27 October 2011 on the research joint programming initiative ‘Water challenges for a changing world’.

¹⁴ GPC has included these issues in its meetings, in particular May and September 2011.

¹⁵ Joint Programming in research 2008-2010 and beyond. Report of the High Level Group on Joint Programming to the Council. November 2010.

¹⁶ “This has in the main gone through European Technology Platforms. These were associated from the start in Diet and Health (Food for life), they are a partner in Cultural Heritage (ETP Construction) and Agriculture and Climate Change (ETP Plants for the Future).”

“Industry will participate in most JPIs in the definition of SRA. JPIs can generate research supporting standards or regulatory needs and involving industry early on would favour uptake of results and standardization activities”.

The Framework Conditions states that:

“Recommended Guidelines. The Peer Review process should conform to a list of core principles:

Relevance – Proposals are eligible when the objectives of the specific JPI are met. The socio-economic impact and innovation potential should be also taken duly into account.

Excellence - The evaluation should aim at assessing the scientific excellence of the proposals. Provisions should be made towards evaluating multi-disciplinary proposals, to ensure that they are not penalised with respect to those aligned within traditional disciplinary boundaries.”

“JPIs should provide tangible proof that the work they conduct pays dividends in terms of enhanced quality of life for all, environmental sustainability, industrial competitiveness, employment opportunities, and academic excellence”.¹⁷

Even more, the existing mandate for GPC includes the “responsibility for improving governance guidelines (the Voluntary Guideline for Framework Conditions) that have been adopted by the GPC-ERAC, contributing to and taking into account the IU Flagship Initiative”.

6. Commission has launched a CSA¹⁸ financed by FP7

To provide Joint Programming Initiatives with elements to better decide on the options they have to implement Framework Conditions and promote common guidelines, that includes innovation as an element for the *Framework Conditions*.

¹⁷ The Framework Conditions 5.4.2 Dissemination and Take-up of Research Results. 4th Workshop: Dissemination of research results + Intellectual property + innovation.

¹⁸ JPIs to co-work. A process of mutual learning: Towards a Common adoption of Framework Objective.

7. Some JPI have taken a step forward to incorporate industry in some way

At this stage, although mostly of the ongoing JP initiatives are mainly research driven, it is worth to note the contribution of certain European Technology Platforms to the issues addressed by some of the JPIs. This concerns: the ETP Food for life and the JPI “A Healthy Diet for a Healthy Life”¹⁹, the ETP Construction and the JPI in “Cultural Heritage”, the ETP Plants for the Future and the JPI “Agriculture, Food Security and Climate Change” and Water supply and sanitation TP²⁰ and the JPI “Water Challenges for a Changing World”²¹.

Water JPI has industry involvement in its Stakeholders Advisory Group (the new Chair is from the Water supply and & sanitation TP which is largely water utilities).

The JPI Urban Europe in its mission states that it is a coordinated research and innovation initiative to shape urban development in times of a global shift²².

Understanding and responding to climate change requires coordinated and large-scale European efforts, in research, innovation and in governance. The JPI Climate provides a platform where these objectives can be met, aligning national research priorities according to a jointly agreed Strategic Research Agenda (SRA) with the aim of complementing and supporting initiatives at the European level. The JPI Climate stands for a broad view on innovation encompassing societal innovation, complementing the 2020 strategy of the EU for green growth, supporting the de-coupling of welfare and growing resource-use.

¹⁹ “Industrial involvement is important for the implementation of the JPI “A healthy diet for a healthy life”. Specifically in the area of “Diet and food production” industrial participation will need to be at the heart of the research and innovation activities. In order to stay in line with the industrial research needs, the JPI is working in collaboration with the ETP “Food for Life”. The ETP Strategic Research Agenda will be one of the major inputs for development of the JPI SRA and implementation of the JPI”. (State of Play JPI; 10-3-2011).

²⁰ WssTP and the water EUREKA Cluster “Acqueau” are observers in the Scientific and Technological Board.

²¹ GPC contribution to the ERAC input to a proposal on the ERA Framework. Annex 2. October 2011; final.

²² Urban Europe’s Mission: represents a forward-thinking and long-term oriented, coordinated research and innovation initiative to shape urban development in times of a global shift. (Status Report. GPC-Meeting; 15 March 2011).

8. Some interesting thoughts on the involvement of industry.

In certain cases, the involvement of industry in JPIs could be both desirable and necessary. Quite a lot is already happening as presented above.

- More "user" involvement could be desirable and the benefits that such perspectives can bring. Not only "industry" but wider (i.e. commercial services, and public and third sector policy makers).
- Early and sustained engagement is a key factor to ensure that research is 'pulled through' to achieve impact on the economy and society or business performance and policymaking.
- For rapid uptake of research results early involvement of industry in co-design of research programmes can be needed. Early consideration of user requirements and possible applications, should influence the design of research to maximise the opportunities for exploitation throughout the research programme.
- Sustained engagement throughout the programme - the knowledge being developed during the programme is of value to industry, not just the results at the end. It is important that engagement with users is regarded as an integral part of the design of the programme and not a 'bolt-on' at the end.
- The relationship between researchers and industry should be bi-directional, i.e. research should be taken up by users, but user requirements should also shape research. Consideration of user requirements should occur at all levels in the JPI - at the strategic level as well as at the level of individual research projects.
- JP Climate noted that national level attempts to engage business with research programmes have shown this to be challenging. And to achieve this successfully, considerable resource must be committed.

- There should be a range of mechanisms to encourage and facilitate researchers and users working together. The approach of demonstration projects, as suggested in the recommendation, is welcomed. Other mechanisms that could be considered include networks, people exchange (i.e. researchers spending time in businesses or vice versa) and events to facilitate collaboration.
- If the JPIs are successful, there are considerable economic opportunities from the application of research, particularly at this time of economic downturn. (In the case of Climate, there is also (huge) benefit to decision-makers having the best knowledge - pulled from across Europe - on the likely impacts of climate change, allowing policy-makers and society to make well-informed decisions.)

In some cases, industry has to play a key role in tackling societal challenges, especially in the situations when Joint Programming presents the potential of positive impact on innovation. The grand societal challenges should not be taken solely as proposals for new research activities as research has a specific exploratory, observatory and anticipatory role which is complementary to other elements of innovations. Thereby, ways to better involve industry, including SMEs, in the work of the JPIs should be studied further by the Member States.

9. RECOMMENDATIONS OF THE GPC ON THE WAYS TO INVOLVE INDUSTRY INTO JOINT PROGRAMMING INITIATIVES (JPIs)

CONSIDERING,

- the above mentioned Council conclusions and the Commissions' recommendations, the discussions with stakeholders and within the GPC,
- that Joint Programming is a process led by the Member States to step up their cooperation in the R&D area in order to better confront major societal challenges of European or worldwide scale, where public research plays a key role;- the role that JPIs could play in the implementation of the Innovation Union Flagship and the possible relevance of including knowledge-based innovation and involving industry as one of several elements for contributing to the success of the implementation of the Joint Programming Initiatives,

- that this document, like the Guidelines on Framework Conditions for Joint Programming, is a living document that should be adapted according to the progress of JPIs,
- the voluntary nature and the openness to natural evolution of the guidelines for the Framework Conditions.

THE GPC RECOMMENDS

The involvement of industry into the Joint Programming Initiatives, as appropriate, by implementing, on a voluntary and non-binding basis some of the following actions:

- 1) Vision and mission of the JPIs could, as appropriate, consider including innovation elements and related indicators.
- 2) In order to clarify the European Research and Innovation landscape, to foster the collaboration with other initiatives and to facilitate the participation, existing JPIs could assess their relation to the innovation value chain.
- 3) Strategic Research Agendas (SRAs):
 - a) In certain cases, the SRAs could be more effective if their contents, related work programmes & implementation plans also reflect the interests of public sector, industry and end-users. Their early involvement in the preparation of the vision could result in a greater impact on the long term. The role of the private sector could be also very valuable in the foresight activities.
 - b) European Technology Platforms (ETPs) could also bring valuable input to SRAs. ETPs have a critical mass and adequate expertise to give, as appropriate, relevant inputs during the preparation of SRAs.

- c) In order to get the knowledge generated by the Research and Development Programmes closer to the market, their activities could cover as much as possible the knowledge-based innovation. In this regard all possible instruments could be taken into consideration e.g. demonstration, pilots, large scale trials to test out solutions of sufficiently scale in a coordinated way across countries and different contexts.
- 4) Simple Participation rules / funding: all participants, including industry as appropriate, necessary for reaching the objectives of the SRA, could be eligible for funding by Agencies, subject to national funding rules.
- 5) Projects and its evaluation:
- a) The JPIs should foster projects implemented by consortia with researchers and as appropriate, industry and end users.
- b) As appropriate, the projects could include demonstration and trial activities.
- c) Scientific and technological excellence of the proposals should always be the cornerstone for the evaluation but *Relevance* could also be a key element. The socio-economic impact and innovation potential should be also taken duly into account.
- d) Evaluation criteria foreseen to assess the degree of exploitation of research and innovation findings, going well beyond the classical idea of “dissemination and use”.
- e) Participation of experts from industry going to be pursued in the evaluation of projects.
- 6) In case that the participation on industry is considered of interest in any JPI, it should be identified in a transparent way based in criteria such as:
- a) The clear added value to the JPI.
- b) Clear definition of role of the industrial partner.

- c) The scale of impact on competitiveness, growth and socioeconomic issues of the JPI (participation in the research project but also to find the market applications to the conducted research).
 - d) Long term commitment based on a shared vision and clearly defined objectives.
- 7) The JPIs should safeguard in their governance structure that all relevant interests are taken into consideration. As appropriate, it could be of interest that Board, Advisory Boards and implementation bodies of SRA could have the involvement of governmental innovation agencies or other organizations able to support elements of innovation include as appropriate some experts with and industrial background. In case “Fora of Stakeholders” are foreseen, European / National Technology Platforms should be involved as active participants.
- 8) As Ways to involve industry in Joint Programming Initiatives is a living document and its recommendations are of voluntary nature, a review is foreseen in one year of its adoption.

