

EUROPEAN UNION

Brussels, 7 February 2013

**EUROPEAN RESEARCH AREA
COMMITTEE**

**High Level Group for
Joint Programming**

Secretariat

ERAC-GPC 1301/13

NOTE

Subject: 2012 Biennial Report

Delegations will find in the annex the 2012 Biennial Report of the High Level Group for Joint Programming (GPC), as adopted by the GPC at its meeting of 4 December 2012 and finalised via written procedure.

Foreword

This is the second biennial report by the High Level Group for Joint Programming (GPC), a dedicated configuration of ERAC. The aim of the report is to summarize the work and achievements made by the GPC since the last biennial report in November 2010. The report briefly outlines the activities and achievements made by the 10 Joint Programming Initiatives (JPIs) so far, acknowledging the great efforts made in the Member States and associated countries in this work. The report also states the views, opinions and suggestions for the future work of the GPC.

I wish to thank the Task Force Group of the Biennial Report (the delegations from France, Germany, Ireland, The Netherlands, Romania, Spain and Sweden), chaired by the GPC vice chair Armel de La Bourdonnaye, for their work to draft this report. In addition, the comments and suggestions made by the other members of the GPC, as well as interesting and constructive discussions at the GPC meetings have been vital to bring forward the report. I am convinced that the report will be a very useful input to the future work of GPC.

Rolf Annerberg, chairperson of the GPC

Executive Summary

A second wave of six JPIs was launched in 2011 through Council conclusions, meaning that ten JPIs are now in, or entering, their implementation phase. From 2009 onward, the ten JPIs have done considerable work in developing common visions, establishing governance structures and starting discussions on strategic research agendas and joint activities. Being a new process, some JPIs have developed new and innovative activities, methodologies and ways of cooperating.

At the level of the GPC, two major issues were dealt with, addressed respectively in the “GPC contribution to the ERAC input to a proposal on the ERA Framework” and the “Recommendation on ways to involve industry”.

GPC reaffirms its opinion that Joint Programming has a clear potential to make a decisive contribution to tackling major European societal challenges. There are, however, several areas which call for increased efforts and strengthened collaboration and cooperation between the Member States and associated countries. A mutual learning process and exchange between all running JPIs are essential to advance the implementation process and to guarantee best support of JPIs to the ERA. In this context, the framework conditions are essential and the work of the CSA “JPIs to Co-Work” could provide valuable input.

The Joint Programming process has been defined to combine and mobilise national R&D potential to tackle grand societal challenges. It is hence of utmost importance to widen the participation of Member States in JPIs, in order to utilise the scientific excellence and full research potential of all its members. It is also encouraged that the JPIs are exploring the full possible range of instruments and potential avenues for further development.

It is also important to create synergies between actions carried out at EU level (Horizon 2020) and Member State level (JPIs), thus national efforts and Horizon 2020 should mutually reinforce each other. In this respect, JPIs represent a unique opportunity to initiate coordination of research programmes at EU and Member States level. By taking account of the strategic research agendas of the JPIs, Horizon 2020 will have an important leverage effect on Member States’ investments.

Joint Programming is of strategic importance for cooperation among the Member States. It has the potential to substantially change the manner to tackle grand societal challenges; based on the principles of voluntary and open participation and variable geometry, interested Member States cooperate to address important research questions with a long-term effect.

Joint Programming is more than joint calls or ERA-NETs. In a mid-/long-term perspective Joint Programming offers the possibility for a genuine joint research and innovation policy contributing to solve the challenges among the Member States and also with the EU. Therefore Joint Programming and the JPIs – if successful – could be “blue print processes” to foster the coordination of Member States on major societal challenges and beyond.

1. Background and developments

1.1. Joint Programming and the GPC

As a follow up to the Green Paper on the European Research Area (2007), the Communication of the Commission to the Council of 15 July 2008 “Towards Joint Programming in Research: Working together to tackle common challenges more effectively” proposed an ambitious new approach for making better use of Europe's limited public R&D funds through enhanced cooperation. The Council Conclusions on Joint Programming of 2 December 2008 welcomed the concept and objectives as formulated in the Commission Communication and launched Joint Programming as a Member States’ driven process, supported by the Commission, carried out on a voluntary basis and according to the principle of variable geometry and open access.

A dedicated configuration of European Research Area Committee (ERAC, formerly CREST), the High Level Group for Joint Programming (GPC), was established with a view to identifying and substantiating a limited number of Joint Programming Initiative (JPI) themes. With ten themes selected, the GPC also undertook to develop guidelines on Framework Conditions for Joint Programming. The first Biennial Report describes these two principal tasks of the GPC in 2009 and 2010.

The relevance of transnational cooperation through joint programming was reaffirmed in the Commission Communication on “A Reinforced European Research Area Partnership for Excellence and Growth” in July 2012 and forms part of the priorities to develop the European Research Area further.

1.2. New mandate and changes in the rules of procedures

Following the adoption of Council Conclusions of 31 May 2011 on the development of the European Research Area (ERA) through ERA-related Groups, the GPC adopted new rules of procedure at its meeting of 11 November 2011. The main changes consist in

- a new governance based on the election of a chair and a vice-chair for a period of two years,
- the introduction of a 24-month rolling work programme.

As developed in the GPC contribution to the ERAC input to a proposal on the ERA Framework, the existing mandate for the GPC includes:

- responsibility for identifying the themes for JPIs;
- responsibility for assessing whether a proposed JPI conforms with a theme associated with the societal (global) challenges;
- responsibility for contribution to the preparation of Council decisions regarding JPIs;
- responsibility for improving governance guidelines (the Voluntary Guidelines on Framework Conditions) that have been adopted by the GPC, contributing to and taking into account the Innovation Union Flagship Initiative.

1.3. Adoption of the second wave of JPIs

In line with the Council conclusions of 28 May 2010 a second wave of six JPIs was launched in 2011 through Council conclusions following Commission recommendations. The new themes are the following:

- More Years, Better Lives – The Potential and Challenges of Demographic Change;
- Healthy and Productive Seas and Oceans;
- Urban Europe - Global Urban Challenges, Joint European Solutions;
- Connecting Climate Knowledge for Europe;
- Water Challenges for a Changing World;
- The Microbial Challenge – An Emerging Threat to Human Health.

1.4. Opinions adopted by the GPC

- o GPC's contribution on the ERA Framework

In its conclusions of 1 June 2011, the Council called on ERAC and its dedicated configurations to contribute towards supporting the implementation and monitoring of progress of the Innovation Union initiative, and to provide input for the development of a proposal on the ERA Framework.

To that end, the GPC adopted a contribution on 11 November 2011, focusing on issues relevant to the GPC area of activities, in particular on the operation of JPIs, its role in the European research and innovation landscape and more broadly, on cross-border operations and transnational research.

The main conclusion of the GPC opinion is that the policy measures included in the ERA Framework should support effective cross-border operations and transnational research, while at the same time stimulate the efforts to engage Member States and Associated Countries in a meaningful participation in these activities in a manner that is conducive to reaching the goal of excellence and relevance in research.

- Ways to involve Industry

Building on different Council conclusions, Commission recommendations and already existing links between industry and some JPIs, the GPC adopted a ‘Recommendation on ways to involve industry in Joint Programming Initiatives’ on 8 March 2012.

This Recommendation states “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.”

The GPC considers this Recommendation as a living document, whose recommendations are of a voluntary nature. A review is foreseen in one year of its adoption.

1.5. Other developments

- Expert group

In March 2012, the Commission set up an expert group to review the JPIs experience and make recommendations as to how Member States and the Commission can act to improve the Joint Programming process. The aim of the Group's report is more precisely to guide the Commission in better planning support for the Joint Programming process through Horizon 2020 and the ERA Framework.

The overall conclusion is that the Joint Programming process has started quite well, though it can only fully succeed if commitment and financial support from the national administrations and research financing organisations continues.

Recommendations address the Joint Programming process as such, and, on the basis of the first four years, the Group regards the degree of progress as very satisfactory, believing that sustainable JPIs require time to build up the necessary trust to engage in multi-annual joint programming. In this respect the Group considers the fact that JPIs are Member State driven has proved of value. Variable geometry is also considered to have proved itself to be a contributory success factor for JPIs. Through these two aspects a level of trust has been built up and the Group finds that Member States are highly motivated to engage in Joint Programming and to seek to integrate national research activities according to a jointly agreed Strategic Research Agenda (SRA). For the group, the challenge lies in the implementation of the agreed SRAs, with only one JPI having developed and budgeted such a plan so far.

The report also includes recommendations for Member States and for the Commission.

Member States are asked to develop a new mind-set relating to the Joint Programming process to benefit from its unique leverage at a time when there are risks of shrinking investment in public research. According to the Group, if they are to be coherent with their commitments to develop joint SRAs, Member States should align their national research programmes to these joint Agendas, focusing on those JPIs which correspond to national priorities and should orient in a consistent way their use of the regional and cohesion funds, where relevant.

The Commission is asked to support Member States in their efforts to sustain the Joint Programming process. The expert group considers, in this respect, that support through CSAs should continue in Horizon 2020.

○ JPIs TO CO-WORK

Funded by the European Commission under the 7th Framework Programme, the project “JPIs TO CO-WORK” aims to provide the existing JPIs with the necessary elements to better decide on the options they have to implement the Framework Conditions, by organizing a process of mutual learning between all running JPIs, mainly focused on these framework conditions and the best contribution that these JPIs can make to the ERA within the strategy Europe 2020.

2. Advances on the implementation of the Joint Programming Initiatives

2.1. Overview of the state of progress of the ten JPIs

From 2009 onward, the ten JPIs have done considerable work in developing common visions, establishing governance structures and starting discussions on SRAs and joint activities. Based on the summary made by the Expert Group on Joint Programming, this part provides an overview of the state of progress of the ten JPIs.

The general overview of the implementation is the following:

- at the end of 2012, six JPIs should have adopted their Strategic Research Agenda;
- five JPIs have launched pilot activities or calls, while the five others are preparing or considering to do so;
- to date, nine JPIs have obtained coordination and support actions from the Seventh Framework Programme with a total funding of 17.5 M€ in order to facilitate their governance.

JPI	Progress and Membership	Management and Programming	Joint Calls and Actions
Neurodegenerative diseases	Launched by Council Dec. 2009 27 countries including one non EU associated country (Canada) Governance structure in place. €2 million EC-funded coordination action (CSA) JUMPAHEAD awarded and supporting five work packages including the SRA implementation, dissemination and evaluation.	Top-level mapping of national and EU-level research strategies completed. Mapping database is publicly available on JPND website for searches. Independent Scientific Advisory Board guided the development of the Strategic Research Agenda (“JPND Research Strategy”). SRA was adopted following stakeholder consultation and launched in February 2012. SRA identifies future research needs and encourages networking, collaboration and resource sharing. First phase implementation plan, based on the areas highlighted in the SRA, has been adopted. A partnership program proposal with the European Commission is in preparation. Evidence of influencing activity at national levels for the development of national SRAs. Member of the Steering Group of the European Innovation Partnership (EIP) “Active and Healthy Ageing”	Four proposals funded in the first joint transnational call (€16 million) on the standardisation and harmonization of biomarkers in clinical research. A program named CoEN (Centres of Excellence Network) has been launched with 6M€. Key actions to execute the Phase 1 implementation plan include 7 major areas to be addressed through joint transnational calls. Two calls (25M€ total) will be launched in December 2012. Other calls will follow in 2013 and 2014. Six Implementation Action Groups have been established to determine transnational research needs in priority areas and to promote engagement, commitment and partnerships.

Agriculture, Food security and Climate Change	Launched Oct. 2010. 21 countries. Permanent governance in place. First Stakeholder Advisory Board meeting in September, 2012. €2 million CSA contract awarded (FACCE CSA), and response to the call for an ERA-NET+ on adaptation of European agricultural systems to climate change. (~12 M€).	SRA identified five core themes, and developed further through mapping current and future research programmes, stakeholder consultation, Stakeholder Advisory Board feedback and interactions with 16 ERA-NETs. 4 out of 5 core themes have been mapped in mapping meetings. SRA to be adopted by December 2012. Member of the Steering Group of the EIP "Agriculture Sustainability and Productivity"	Pilot Action launched by 17 countries to mobilise researchers to come together in a “Knowledge Hub” aimed at integrating models of climate change and address uncertainties in climate change scenarios with regard to agriculture (crops, grassland and livestock) and economics and trade. Pilot joint action (€15 million). Bibliographic analysis undertaken of modelling of climate change impacts on agriculture and food security. International call on climate change mitigation will be launched this year. Preparation for a joint call with the ERA-NET BiodivERsA on agriculture and biodiversity and another with the Belmont Forum on Food Security and Land Use Change.
--	--	---	--

Healthy Diet for a Healthy Life	Launched Oct 2010. 22 countries. Governance structure in place and fully operational. €2 million CSA awarded (HDHL CSA). Kick-off meeting of CSA in Rome in February 2012.	Management Board mapping available MS resources. Vision paper adopted, leading to SRA development and adoption. Broad consultation including industry and research community in developing SRA. SRA launched at opening meeting (July 2012). Member of the Steering Group of the EIP "Agriculture Sustainability and Productivity"	Three joint infrastructural projects launched (one per each of the three research area of the SRA): (1) Knowledge Hub on Determinants of Diet and Physical Activity, launched on 1 st November 2012 (12 + 2 countries have signed MoU; <i>in cash</i> -funding volume will exceed €10 million, plus <i>in-kind</i> contributions from selected partners); (2) Roadmap Initiative for Biomarkers of Nutritional / Health Claims to be launched in early 2013; (3) European Nutritional Phenotype data sharing initiative to be launched in early 2013.
Cultural Heritage and Global Change	Launched Oct. 2010. 25 countries (17 members, 8 observers). Governance in place. €2 million CSA started Oct. 2011 (JHEP).	Mapping of key public and private EU research initiatives completed. On-going work on SRA through the development of a common framework to enable prioritization of research and identification of research areas, activities, gaps and needs by national consultation panels. SRA due end of 2012.	Pilot joint call to be launched in January 2013. Call for an ERA-NET Plus on Development of new methodologies and products for the assessment, protection and management of historical and modern artefacts, building and sites (Total Budget ~12 M€).

More Years, Better Lives	Launched Sep. 2011. 14 countries. Governance structure in place. €1.5 million CSA project (J-AGE) started Sept. 2012.	Vision document with five main societal themes adopted, in parallel with a “mapping” analysis of relevant national programmes. Full Strategic Research Agenda and 2 nd wave of mapping and foresight activities under development. SRA developed in 5 Working Groups (70 scientists in total). SRA due end of 2013.	First Joint activity on Data and Indicators in preparation (intended start beginning of 2013).
Microbial Challenge	Launched Dec. 2011. 17 countries. Governance structure agreed. National Expert Panels appointed in each participating country. €2 million CSA project (JPIAMR).	Vision with three main research areas adopted. Mapping exercise initiated and results analysed. SRA currently under development. (due end of 2012 / beginning of 2013).	Number of enabling actions include database to identify gaps and promote better use of resources and infrastructure, and standard AMR methods.
Connecting Climate Knowledge for Europe	Launched Dec. 2011. 15 countries (13 members, 2 observers). Governance structure adopted. Transdisciplinary Advisory Board in place and working. €2 million CSA project to be launched in January 2013. Official launch event on November 6, 2012.	Early work included mapping policies and programmes of member countries, developing and adopting a vision and SRA which links four main pillars. An implementation plan for the SRA has been developed.	Working Groups for each of four modules have formed and are agreeing and implementing actions. Planning for a joint call. First fast track activities (in total 14) adopted in May 2012. Several of them started already, and the rest will be started in 2013.

Urban Europe	Launched Dec. 2011. 16 countries (14 members, 2 observers). Governance structure in place, with stakeholder engagement through Urban Europe Forum and dedicated conferences. CSA not awarded at this stage.	Management Board has adopted Common Mission and Vision. Strategic Research Framework adopted, and SRA under development.	Review of relevant foresight activities undertaken. Cross-thematic joint call completed (proposal evaluation in Nov. 2012), second call planned. Pilot phase with 6 action lines, national stakeholder processes and foresight oriented megatrend study.
Water Challenges for a Changing World	Launched Dec. 2011. 22 countries (17 members, 5 observers). Governance established. €2 million CSA project (WatEur). Grant Agreement signed, starting date January 1st, 2013.	Vision document and mapping exercise released in May 2011. Mapping revealed that European countries invest 370 M€/yr. Current JPI partners represent more than 90% of this investment. Water JPI Objectives will be attained by 2020. These objectives include joint programming of 20% of the partners' budget for water research, development and innovation. Strategic Research and Innovation Agenda under development (first version to be released by mid 2014).	“Pilot activity” starting in 2013, “Joint Activities” starting in 2014. Both sets of activities will include calls; other types of activities are also considered. The Water JPI is actively cooperating with the EIP on Water. It is represented at the High Level Steering Group and at the Task Force.

Healthy and Productive Seas and Oceans	Launched Dec. 2011. 18 countries. Governance structure in place. €2 million CSA project started in September 2012 (CSA Oceans) An office for the JPI Oceans secretariat was opened in Brussels.	Common Vision with goals and objectives and strong links to policy adopted. Update of the early gap analysis underway. Planning for Strategic Research and Innovation Agenda underway. Draft SRA presented to the GPC in 2011. Full SRA scheduled for early 2014.	Two proposals for pilot actions presented at the JPI Oceans Management Board meeting on October 10, 2012.
--	--	--	--

2.2. *Success stories and promising ideas*

Being new processes, some JPIs have developed new and innovative activities, methodologies and ways of cooperating. In addition, the cooperation within the various initiatives is very important for European research and innovation policy. Here is just a small selection of what could be highlighted in this regard.

○ Agriculture, Food security and Climate Change (FACCE): Mapping Meetings

Within FACCE CSA a work package is devoted to “Mapping and Foresight for Strategic Collaboration”. The goal of this work package is to support the JPI in the development of its SRA and the prioritisation by the Governing Board of joint programming efforts.

The core of the mapping and foresight activities is a set of dedicated mapping meetings with the following objectives:

- Identifying complementarities, duplications, and gaps (in current and future research);
- Identifying areas for (improved) coordination, cooperation and exchange (information, people, practices);
- creating a common context and opportunities for networking; identification of perspectives and possibilities for pooling research resources (funding, people and facilities);
- proposing priorities for joint programming initiatives.

Each of the mapping meetings is organised around one of the five core themes as defined in the SRA developed by the Scientific Advisory board (SAB) of the FACCE JPI.

Each mapping meeting brings together approximately 50 persons in total. These include the country delegations representing the scientific communities and the ministries responsible for research policy and funding (one science expert and one policy representative per country).

In preparation of a mapping meeting each participating country or organisation is asked to deliver information, in structured poster formats, presenting (i) ongoing research, and, (ii) research policy (involved policy makers and funding organisations, current and future programmes, research institutes, infrastructures, existing strategic coordination initiatives and networks, and policy ambitions as articulated by governments and international organisations). It has been decided by the Governing Board that the Member States are responsible for the quality of the mapping of national programmes.

Each mapping exercise delivers a consolidated overview of current national and European research, policy, and funding, and recommendations for future joint actions. The information from the stock on research, funding and policies is the basis for the exchange of information and for identification of gaps, overlaps and opportunities for collaboration. Break-out and plenary discussions will be led towards consensus conclusions and recommendations which will be provided to the Governing Board.

- Antimicrobial Resistance (AMR): A European Platform for Peer Review

A promising initiative has been proposed for the development of the Joint Programming concept (yet to be approved): To create a European peer review platform to evaluate all scientific proposals and applications presented in the States participating in the JPI Antimicrobial Resistance.

A European peer review platform would be created and authorized by all Member States and associate countries participating in the JPI AMR to evaluate all proposals in the field. On a voluntary basis, the peer review platform for AMR would evaluate all scientific proposals submitted for grants, no matter if they are applications to national, trans- or multinational calls, be they relative to research projects, human resources training and mobility or infrastructures and centres of reference or excellence. Assessment will tackle scientific excellence and include an opportunity and strategic evaluation depending on the subject and topic and agreements taken by JPI AMR partners.

Therefore, the locus of control relative to the evaluation of proposals will be different from the locus of control of funding decisions, while respecting the principle of funding according to excellent quality. Funding of single nationality proposals would be made available from single nationality programmes, and multinational or transnational proposals would be funded from cross-border funding programmes, operating under a virtual common pot or other mechanisms.

- More Years, Better Lives: Strategic Orientation and Interaction with other relevant ERA-initiatives and national and European policy makers

In order to strengthen co-ordination between JPI with potentially overlapping (DC-related) themes, the JPI MYBL has also established so-called Liaison Officers to the JPND, Urban Europe and Healthy Diet for a Healthy Life. In addition, the links to the AAL Joint Programme will be intensified. With the ERA-NET on Ageing Research (ERA-AGE2) a Memorandum of Understanding has been already signed.

During the last meeting of the General Assembly of JPI-MYBL it was decided to set up a specific sub-group consisting of national policymakers of JPI member states aiming at strengthening the political impact of JPI-MYBL on the future research agendas at EU (Horizon 2020) and national level. This “task force” supports the idea of JPI MYBL to act as bridging element between national and EU research policy on DC. This understanding goes far beyond just launching joint calls under the umbrella of JPI-MYBL (a first joint activity is intended to start early in 2013) and will complement the initiative's efforts towards the long term adaptation and alignment of national and EU research programmes.

- Climate: Transdisciplinary Advisory Board and Sustainability Principle

In order (i) to give priority both to the perspectives of research experts and representatives of relevant organisations outside research, (ii) to avoid pre-framing of strategies and statements from one side and (iii) to emphasize the mutual importance of both perspectives, the JPI Climate has decided to install an advisory board consisting both of research and stakeholder representatives, covering a wide range of different backgrounds.

The first meeting of this board in May was very promising, with a critical and inspiring reflection on the plans and operations of JPI Climate with a fairly balanced share of contributions from representatives from both sides.

As regards the “sustainability principle”, in consideration of the grand societal challenge of climate change that is central to research efforts and initiated by JPI Climate, the members of the JPI

- (i) take into account the challenges of climate change in the work of the JPI based on active reflection of operations (e.g. “green meetings”), thereby
- (ii) seek to contribute to mitigating the carbon footprint of its work, and
- (iii) formulate the endeavour of constant improvement of the operations climate performance.

In doing so, JPI Climate is committed to increasing the credibility of climate impact research and functioning as a role model for other groups of society in terms of responsible science.

- Water: Participation in the European Innovation Partnership (EIP) on Water

Since the beginning of discussions on the launching of an EIP on Water, the Water JPI expressed interest to cooperate. On May 22nd, 2012, the Water JPI Governing Board ratified a Position Paper on the EIP on Water. The conclusions of this document stressed the synergic effect of both endeavours and stated the complementarities. The Water JPI showed concern for slow take-up of Research, Development and Innovation (RDI) results by industry agents, and identified the EIP as a key structure to implement these results. The Water JPI believes that sustained interaction with the EIP on Water will maximize the impact of RDI efforts.

The Water JPI is involved in the governance of the EIP on Water, with representatives at the High Level Steering Group (HLSG) and at the Task Force (TF) of the EIP. Since the first meeting of the HLSG on September 4th, 2012, work has been intense. The first meeting of the TF on September 25th finalized the discussions on the nine EIP priorities and started the drafting process of the Strategic Implementation Plan (SIP). The Water JPI requested the opinion of its Scientific and Technological Board on each priority. The goals were to assess if sufficient knowledge was ready for innovation, to identify the scientific and technological bottlenecks preventing innovation, and to list the specific topics which appear ready for market- or policy-oriented activities. Lively discussions led to formal reports sent to the drafting teams. Currently, the Water JPI community is revising the first SIP draft, which will be approved before the end of 2012. In 2013 the Water JPI will set up a structure to contribute to developments in each priority.

- Cultural Heritage: National Consultation Panels

There has been a consultation of the SRA from the JPI to national bodies to improve transparency. The process for the elaboration of the SRA has been set up to allow participation of all participants in the JPI, as well as the different consultation bodies (Scientific Committee and Advisory Board). The process involves the following steps:

- Development of common framework to enable prioritization of research. This task is carried out by an expert group.
- Identification of research areas, activities, gaps and needs by National Consultation Panels (NCP). Each participant in the JPI has set up an *ad hoc* NCP according to his own rules/priorities, including national experts and stakeholders. The NCPs identify research gaps and prioritise research using the common framework mentioned above.
- Undertake a joint foresight study and make an assessment of the technological capability. The results of this study will help to identify and rank common research gaps and priorities among those identified by NCPs.
- Review of the previous steps and additional input by the JPI Scientific Committee.

- Production of the SRA, based on the responses and results from NCPs, foresight studies and SC. The draft will be circulated to JPI partners for comments before the final version is submitted to the Executive Board.

While this process takes time, it was considered necessary to gather different inputs from participants and advisory bodies in the JPI for the elaboration of the SRA, a document designed to remain valid for the next 25 years.

- o JPI Oceans: Secretariat in Brussels

In its early phase the JPI Oceans secretariat started off with one person employed by the Research Council of Norway hosted in its liaison office in Brussels. In the further development of JPI Oceans, the location of the office proved to be key in bringing other people (in many cases from other EU liaison offices) to work full-, part-time and/or in working groups on the progress of the JPI. This has proved valuable as it allowed building the necessary trust across the participating countries.

This ‘good practice’ has led to a significant investment of Norway and Belgium in the outfitting and renting of a dedicated JPI Oceans office space in Brussels. This in turn gave other participating countries the possibility to second personnel to the JPI Oceans secretariat. Currently, the office is run by 10 people (part- and fulltime) from 7 different countries. In addition, the office has the capacity to allow more people work on specific tasks and projects such as the FP7 Support Action to support JPI Oceans (CSA Oceans) for short time periods. It has also allowed the Executive Committee representatives to work in the secretariat periodically.

The office in Brussels has proved its added value in the relation with the EU institutions as well. It has allowed JPI Oceans to align future activities of JPI Oceans with the future Framework Programme Horizon 2020 in close cooperation with the European Commission and EU Parliament.

3. Way forward and recommendations

The European Commission's Communication of 17 July 2012 entitled "A Reinforced European Research Area Partnership for Excellence and Growth" proposes a range of measures to be taken by the Commission, Member States and stakeholder organisations to open up and connect EU research systems. These should lead to a significant improvement in Europe's research performance to promote growth and job creation. The Communication acknowledges that substantial progress has been made in building the European Research Area (ERA) including in the area of Joint Programming, and that defining and implementing common research agendas on grand challenges is one of the core ERA priorities. However, the Communication suggests that "the implementation of joint programming remains sluggish". The strategic alignment of different sources of national and other funds at the EU level is regarded in the Communication as "too low to make a serious impression on big and complex challenges". While the reason for this is seen by the Commission as due in part to differences between national funding rules and selection processes, more fundamentally the Commission considers it a question of political will.

As a response to this opinion of the Joint Programming process, the GPC would like to express its view on the way forward, while reaffirming its conviction that Joint Programming has a clear potential to make a decisive contribution to tackling major European societal challenges.

Some of the following recommendations have been inspired by the valuable work of the Expert Group on Joint Programming, whose preliminary conclusions were presented to the GPC on 19 September 2012.

3.1. Advancing in the implementation of JPIs

○ Framework conditions for Joint Programming

A mutual learning process and exchange between all running JPIs are essential to advance the implementation process and to guarantee best support of JPIs to the ERA. GPC should start an exchange of experiences across all ten initiatives about the use of framework conditions, the achievements and suggestions to develop the updated version of framework conditions. In this context, the work of the CSA “JPIs to Co-Work” could provide valuable input. Mutual learning also includes a better exchange between thematic related JPIs. Some JPIs already initiated such a process. For instance, JPI Climate tries to bring together other climate related JPIs. Another mutual learning task could be an exchange of information about how different JPIs incorporate the international dimension and, when and where appropriate, how industry and other stakeholders can be involved.

To go further, taking advantage of the experience of the JPIs in synchronising and standardizing national funding rules in joint calls, a reflection could be initiated on a common minimum set of mutual compatibility conditions of national programmes at all stages, evaluation, selection and reporting procedures, implying – depending on the objectives and actors involved – agreements on principles, mutual recognition of procedures, common processes and agendas.

On the basis of these different elements, a reflection could be launched on a possible ERA Mark label for national programmes ensuring a barrier-free implementation of Joint Programming activities.

- Widening participation

The Joint Programming (JP) process has been defined to combine and mobilise national R&D potential to tackle the grand societal challenges. It is based on the principle of variable geometry and open and voluntary participation, and also on scientific excellence and full utilisation of the research potential of its members. Some Member States, though, may not for the time being be able to engage as full partners for different reasons (limited human resources, budgetary limitations, lack of appropriate infrastructure or critical mass in certain areas), but may still be interested in the envisaged R&D work and have excellent competent experts in the relevant areas.

Therefore, it is recommended to widen the participation of all Member States, by leaving open the possibility of having non-participating Member States contributing to the follow-up of the JPIs as observers. These observers may provide valuable contributions to enrich the initiatives with ideas, suggestions, comments or scientific assessments. This would also allow a better dissemination and potential exploitation of outcomes, and would be, from a policy point of view, an important contribution to the completion of ERA.

- Step up efforts to efficiently implement Strategic Research Agendas and explore further the scope of Joint Programming

Building and carrying out strategic research – and, as appropriate, innovation – agendas is a main undertaking of the JPIs in this early phase, for which a major fruitful step to make is to connect existing programmes, structures and people involved. More broadly, JPIs should be based on or embedded in national programmes, in particular through the involvement in governing bodies of appropriate national representatives. National programmes, ambitions and plans, including national stakeholders' contribution, are the foundations on which common vision and joint activities can be built. In this respect it also needs to be stressed that the trans-disciplinary nature of Joint Programming may call for the involvement of several national funding agencies from one country in order to make JPIs fully operational.

Joint Programming is also about building networks and trust. Mapping meetings can be helpful to build these, while at the same time producing an inventory of current and planned research activities, political ambitions and possibilities for cooperation to be carefully collected for the SRA and common activities.

While in the view of GPC the JPIs have already carried out substantial work in this direction, the Commission's Communication of 17 July 2012 suggests that implementation to date falls short. It is necessary to step up efforts to implement the joint research agendas, to ensure that adequate national resources are committed and strategically aligned at European level in these areas and to highlight and promote achievements to demonstrate impact.

Joint programming is more than joint calls. The daily work and experiences in the JPIs show that when it comes to joint activities, besides calls, other activities should be considered: smart specialization, research networks, common talent programmes, co-ordinated and structural exchange of researchers, research managers and civil servants, pooling capacities, common use of infrastructure, common use of highly specific and scarce expertise and/or joint forward looking activities. Exploring the full possible range of instruments and exchanging good practices between JPIs are potential avenues for further development of JPIs.

- Contribution to the ERA

JPIs are important players to realise the ERA in day-to-day work, thereby contributing to the Innovation Union Flagship Initiative. Therefore, the GPC should regularly discuss with the JPIs how they contribute to the political and structural objective of “achieving the ERA” and also to the societal challenges they address. Their concrete experience in relation to their objectives will be an essential input for realising the ERA.

Interaction between GPC and other ERA groups (SFIC, ESFRI, SGHRM) should be increased.

The GPC thus wishes to:

- encourage the implementation of JPIs through learning processes on the use of framework conditions, international cooperation, when and where appropriate the involvement of industry and users, common thematic areas, and through a possible ERA Mark label,
- call on JPIs to step up efforts to implement SRAs, ensure that JPIs build upon national programmes, that adequate national resources are committed and strategically aligned at European level in these areas,
- encourage JPIs to build on the success stories and to make good use of them by closely cooperating with each other in a process of mutual learning,
- encourage JPIs to widen the participation of interested countries,
- pursue and deepen exchanges between GPC and JPIs on these issues,
- supports the JPIs in using a wide range of JP tools beside joint calls.

3.2. Ensuring good articulation between JPIs and Horizon 2020

The Joint Programming process encourages Member States to better coordinate their national programmes, hence helping to mobilize a critical mass of resources on grand challenges faced by European societies, ensure that the whole scope of research is covered at the European level and avoid redundancies between national and EU research programmes. It is thus essential to create synergies between actions carried out at EU level (Horizon 2020) and Member State level (JPIs), because neither a Member State, nor the European Union through its framework programme have sufficient means to possibly respond to major European or global challenges alone.

Hence JP of national efforts and Horizon 2020 shall mutually reinforce each other. In this respect, JPIs represent a unique opportunity to initiate and continue coordination of research programmes at EU and Member States level. By taking account of the strategic research agendas of the JPIs, Horizon 2020 will have an important leverage effect on Member States' investments.

The Framework Programme has also played an important role to facilitate and accelerate the progress of the JPIs by supporting JPIs' secretariats. This support should be continued during the coming years, subject to their progress. Horizon 2020 funding for running JPIs secretariats could serve as leverage for the JP process.

However, leadership by the Member States has to remain at the core of the Joint Programming Initiatives, in order to ensure real commitment and genuine partnership amongst Member States and with the European Commission. The facilitator role of the Commission should be maintained in the process, with a view to ensure good co-ordination and streamlining, broad access and transparency, particularly in the early stages of the JPIs. As the activities develop, it should be established which instruments provide the best means within Horizon 2020 to financially support additional activities identified by the Member States. The use of flexible mechanisms will ensure the optimal participation.

The GPC calls for:

- continued support to JPIs main tasks via CSAs in H2020;
- complementarity, coherence and alignment between Horizon 2020 and JPIs and their SRAs;
- transparency, dialogue and synergies: JPIs should act in an advisory role directly to Member States, the Program Committees and the Commission and should help to build up trust between the different actors.

3.3. Preparing for new challenges

The Horizon 2020 Regulation (Partial General Approach of 31 May 2012, Article 14) states that “it 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, economies and society. Proposals for changes to the priorities and actions under Horizon 2020 will take into account the external advice from specified groups as well as the recommendations from the interim evaluation referred to in Article 26.” In addition, advice on the identification and design of strategic priorities by the European Research Area Committee and other ERA-related Groups shall, where appropriate, also be taken into consideration. This presents an opportunity for the GPC to provide advice on the potential selection of themes for future JPIs. The Expert Group on Joint Programming considers that mutual responsibility for and ‘ownership’ of the process within the GPC is a very positive development.

To inform this advice it is recommended that a foresight exercise be undertaken to consider appropriate themes for future JPIs, beyond those already identified, taking into account the final shape of Horizon 2020 and the work of the European Forum on Forward Looking Activities (EFFLA). The exercise should also seek to determine Member States’ likely commitment to fully participate (by ensuring that adequate national resources are committed and strategically aligned at European level) in the thematic areas that could be proposed. Terms of Reference for such a foresight exercise could be proposed by the GPC. In this respect, Member States should consider how many JPIs they can maintain a sustainable commitment to.

At the same time, it is important that an evaluation of the current initiatives is undertaken to assess their impact before launching new JPIs. The GPC should have the possibility to propose to the Council that a JPI is re-defined or finished if it does not fulfil anymore the original selection or maturity criteria.

The GPC proposes

- to launch a foresight exercise after finishing the discussion of Horizon 2020, taking into account the outcomes of EFFLA. This exercise would consider themes for future JPIs and/or more generally possible challenges to be addressed at European level. This work should be conducted while considering the Member States' capacity to commit in new initiatives and the impact of already existing JPIs;
- to launch an evaluation of the JPIs after the start of Horizon 2020.

3.4. Making full use of the Joint Programming process for tackling grand challenges in the ERA and contributing to the Innovation Union

- Link with related initiatives within the ERA

The increasing number of instruments, programmes and initiatives on similar topics at EU level leads to a continuously growing complexity and increased need for coherence and coordination. This process hampers the engagement of researchers, research organisations, funding organisations and enterprises not only within the JP process. For instance, within the field of ageing currently exist the JPI (More Years, Better Lives), an art.185 initiative (Ambient Assisted Living), an EIP (Active and Healthy Ageing), and possibly a KIC (Innovation for healthy living and active ageing). There is a risk that these instruments and platforms compete with each other instead of complementing each other. Due to work overload there is a risk that the national stakeholders cannot sufficiently use and pool resources and competences. Many of the JPIs have strong links with other initiatives such as ERA-Nets, Joint Technology Initiatives, European Technology Platforms, Knowledge Innovation Communities and European Research Infrastructures. In this regard JPIs are demonstrating their potential to add coherence to the ERA landscape. The interaction of JPIs and other programmes, instruments (especially EIPs), etc. needs to be streamlined in order to avoid unwanted duplication and fragmentation within the ERA and to guarantee the success of JPIs. For this purpose, GPC should develop a position.

The European Commission should also better explain the coherence of the ERA landscape and clarify the focus of the existing instruments and their interdependencies in an exchange of views with the GPC and other fora as appropriate.

- Role of Joint Programming and JPIs in the ERA

Joint Programming is of strategic importance for cooperation among Member States. It has the potential to substantially change the manner to tackle grand societal challenges. Based on the principles of voluntary and open participation and variable geometry, interested Member States cooperate to address important research questions with a long-term effect, with, as appropriate, a prospect of turning research results into innovations. Joint Programming is more than joint calls or larger ERA-NETs. Joint Programming offers the possibility for a genuine joint research policy among the Member States and also with the EU. Therefore Joint Programming and the JPIs – if successful – could be “blue print processes” to foster the coordination of Member States in research on major current and future societal challenges.

There is a strong link between coordination of research policies and Joint Programming, in particular when it comes to aligning policy instruments, harmonisation of evaluation criteria, synchronisation of research investment decisions, research agenda building, strategy plan development and evaluations, and certifying (e.g. evaluation procedures from different institutes and countries). These are points to be followed by the GPC closely.

The GPC pays particular attention to

- the articulation of the different ERA instruments and initiatives developed on similar themes and would like their respective role, coherence and scope to be clarified to avoid redundancies and needless competition. These could apply in particular to the articulation between EIPs, JPIs, Art.185 and the implementation of calls in Horizon 2020, including those on basic and applied research.
- the process of coordination of research policies, since it addresses many Joint Programming related issues.

Annexes

- I. Synopsis of the GPC meetings and related work
- II. New GPC Rules of Procedure
- III. GPC's contribution on the ERA Framework
- IV. GPC Recommendation on the Ways to Involve Industry in Joint Programming
- V. GPC work programme – 2012-2014

Synopsis of the GPC meetings and related work

Date	Event	Reference	Chair	Outcomes
15.03.2011	GPC HLG	ERAC-GPC 1301/11	HU	First exchange of views on the review of ERA related groups – State of play of JPIs JPND, FACCE and HDHL – Presentation of second wave roadmap
06.05.2011	GPC HLG	ERAC-GPC 1302/11	HU	Presentation of discussions in ERAC on ERA policy, ERA instruments, ERA related Groups and ERA framework – Follow up of 1 st biennial report – Presentation and discussion on EIP AHA – Exchange of views on the second wave of JPIs – First exchange of views on ways to involve industry in JP – Exchange of views on the possible future role of Netwatch in monitoring JPIs (general support)
07.09.2011	GPC HLG	ERAC-GPC 1303/11	PL	Discussion on the draft GPC's contribution on the ERA Framework – Presentation of the Commission recommendation on the JPI MYBL
26.09.2011	Workshop			Workshop “Cross-border operation for Joint Programming – The potential of the ERA Framework” co-organised by the GPC and the Commission; main conclusions on opening up national programmes, partnership between Member States, cross-border operations, cooperation and operation at programme level, efficient JPI governance

10.10.2011	GPC HLG	ERAC-GPC 1304/11	PL	Outcome of the Competitiveness Council of 29-30 September 2011 (adoption of conclusions on JPI MYBL) – Discussion on GPC's contribution on the ERA Framework – Discussion on GPC Rules of Procedure – Discussion on possible specific items of the work programme and working methods
11.11.2011	GPC HLG	ERAC-GPC 1307/11	PL	Outcome of the Annual Joint Programming event – Adoption of new GPC Rules of Procedure (doc. 1305/11 ¹) – Adoption of GPC's contribution on the ERA Framework (doc. 1306/11 ²) – Presentation of the Commission recommendations and upcoming conclusions for the “second wave” JPIs (AMR, Oceans, Climate, Water, Urban Europe) – Discussion on the possible way forward (involvement of industry, monitoring of JPIs, challenges, use of Structural Funds)

¹ See Annex II.

² See Annex III.

08.03.2012	GPC HLG	ERAC-GPC 1302/12	DK, and newly elected chair, Mr. Rolf ANNERBERG	Election of GPC Chair and Vice-Chair for a period of two years – Adoption of GPC Recommendation on the Ways to Involve Industry in Joint Programming (doc. 1301/12 ¹) – Presentation on cross-border financing in Denmark – Discussion on JPIs monitoring – Presentation of “JPIs to Co-Work” Support Action – Presentation of mandate and timetable of the Expert Group on Joint Programming process
24.05.2012	GPC HLG	ERAC-GPC 1303/12	GPC Chair	Discussion on the GPC work programme (approved by written procedure, doc. 1304/12 ²) – Appointment of Task Force and Rapporteur for the 2012 Biennial Report – Information and discussion on the use of Structural Funds in JP – Synergies with other ERAC Groups: Presentation by the SFIC Chair – Information on the progress of the 10 JPIs – Informations on the “JPIs to Co-Work” project and the Commission Expert Group on Joint Programming

¹ See Annex IV.

² See Annex V.

19.09.2012	GPC HLG	ERAC-GPC 1305/12	GPC Chair	Presentation of the Commission communication on “A Reinforced ERA Partnership for Excellence and Growth” and discussion – Progress report by the Commission Expert Group on Joint Programming – Progress report on the drafting of the 2012 Biennial Report – Information by the upcoming Irish Presidency on the conference on Joint Programming to be held in 2013
04.12.2012	GPC HLG		GPC Chair	Synergies with other ERAC Groups: Presentation by ESFRI representative – Presentation of the “Joint and Open R&D programmes in Europe” (JOEP) study by DG Research and Innovation – Discussion on the report of the Expert Group on Joint Programming – 2012 Biennial Report: Presentation of the draft and discussion

**HIGH LEVEL GROUP ON JOINT PROGRAMMING (GPC)
DRAFT RULES OF PROCEDURE**

Article 1

COMPOSITION

1. The High Level Group on Joint Programming (GPC) (hereinafter referred to as "the Group") shall consist of the Member States and the Commission (hereinafter referred to as "the Members").
2. Each Member shall nominate up to two representatives responsible for research and innovation policies.
3. Each Member may nominate up to two alternate representatives. However, each Member shall be represented in a meeting by a maximum of two representatives.
4. Notice of nominations or replacements of the representatives and their alternates of Members shall be sent to the Secretariat.
5. At the meetings, the Members' representatives may be assisted by advisers.

Article 2

OBSERVERS

1. The GPC shall also include the countries associated to the Framework Programme (hereinafter referred to as "the Observers").

2. Each Observer shall nominate up to two representatives responsible for research and innovation policies.
3. Each Observer may nominate up to two alternate representatives. However, each Observer shall be represented in a meeting by a maximum of two representatives.
4. Notice of nominations or replacements of the representatives and their alternates of Observers shall be sent to the Secretariat.
5. At the meetings, the Observers' representatives may be assisted by advisers.

Article 3

CHAIR

1. The Group shall be chaired by one of its Member States' representatives for a period of two years. The Chair shall be elected according to the procedure defined in Article 9. The Chair's term shall not be renewable more than once.
2. The Member State from which a representative has been elected as the Chair shall nominate another representative in his/her place for the period of the Chair's term.
3. The Chair shall have no voting rights.
4. The Chair shall be responsible for chairing the Group's meetings and the overall guidance of its work.

Article 4
VICE-CHAIR

1. The Group shall have a Vice-Chair elected for a period of two years from among its Member States' representatives, according to the procedure defined in Article 9. The Vice-Chair's term shall not be renewable more than once.
2. The Member State whose representative has been elected as the Vice-Chair shall nominate another representative in his/her place for the period of the Vice-Chair's term.
3. The Vice-Chair shall have no voting rights.
4. The Vice-Chair shall cooperate with the Chair in carrying out his/her tasks and shall replace him/her on mutually agreed occasions.

Article 5
SECRETARIAT

1. The Secretariat of the Group shall be provided by the General Secretariat of the Council of the EU.
2. The Secretariat shall ensure proper running of the Group's meetings. It shall prepare the summary of conclusions of each meeting of the Group and, in agreement with the Chair submit it to the Group for approval at the following meeting.
3. All correspondence for the Group shall be addressed to the Secretariat, using the following electronic address [erac.gpc@consilium.europa.eu].

4. All correspondence from the Group to the Members and Observers shall be addressed from the Secretariat to the electronic addresses of the Members' and Observers' representatives (including the alternates). All representatives (including the alternates) must provide their electronic addresses to the Secretariat.

Article 6 MEETINGS

1. The Group shall meet at least twice a year depending on the needs to fulfil its mandate.
2. The Group shall meet when convened by the Chair on his/her own initiative or at the request of at least six Members.

Article 7 WORK PROGRAMME

1. The Group shall have a 24 months rolling Work Programme.
2. The Work Programme shall be adopted by the Group.
3. The Work Programme shall describe activities of the Group which are in line with its mandate.

The Work Programme shall be updated every 12 months.

Article 8
AGENDA

1. Taking into account the Group's Work Programme, the Secretariat shall draw up the provisional agenda for each meeting. After the agreement of the Chair, it shall be submitted to the Group at least 10 working days before the beginning of the meeting.
2. The agenda may also include items in respect of which a request for inclusion, together with any documents relating thereto, has been received by the Secretariat from the Members or Observers at least 12 working days before the beginning of that meeting, unless under exceptional circumstances which have been accepted by the Chair.
3. The Group may invite other experts as observers, including members of the European Parliament, when relevant agenda items so require. The provisional agenda shall clearly indicate which items are subject to such an invitation.
4. Documentation to be submitted to the Group shall include, where appropriate, a brief summary highlighting the key issues on which its opinion is requested and shall normally be available at least 10 working days before the meeting, unless exceptional circumstances accepted by the Chair. In any case this time limit shall not be less than two working days.
5. The agenda shall be approved by the Group at the beginning of each meeting.
6. By consensus and in duly justified cases, the Group may derogate from the abovementioned provisions.

Article 9

VOTING ARRANGEMENTS AND QUORUM

1. Each Member shall have one vote. The presence of the representatives of at least 15 Members is required to enable the Group to adopt its decisions.
2. Decisions of the Group, including opinions and reports, shall be adopted by a 2/3 majority of its Members present at the meeting if a vote is requested¹. Any minority views of the Members shall be recorded.
3. The vote shall be cast by one of the representatives or alternate representatives nominated in accordance with paragraphs 1 to 3 of Article 1.
4. In urgent cases decisions of the Group, including opinions and reports, may be adopted by means of a written procedure. Such procedure shall be set in motion by the Secretariat upon the request of the Chair who shall also fix its time limit according to the urgency of each case. In any case this time limit shall not be less than two working days.

Article 10

AD-HOC WORKING GROUPS

1. The Group may, on a case by case basis, nominate rapporteurs and, if necessary, establish temporary ad hoc working groups with specific mandates to deal with questions relevant to its mandate. The proceedings of these working groups shall be under the responsibility of the chair of each working group.

¹ This provision emphasises that the main aim is to take decisions by consensus. Only when a vote will be requested, the majority rule will apply.

2. Specifically an ad-hoc working group could be established in order to prepare the first Work Programme as well as to propose and provide support for actions in view of its implementation.

Article 11

PUBLIC ACCESS TO DOCUMENTS AND TRANSPARENCY

1. The meetings of the Group and its working groups are confidential and not open to the public.
2. The official documents of the Group, notably the agendas, work programmes, summary conclusions, opinions and reports, shall be made public unless otherwise decided by the Group. These documents shall bear a GPC number and, when relevant, their author(s).

**GPC contribution to the ERAC input to a proposal
on the ERA Framework¹**

Contents

GPC Opinion.....	44
Annex 1 Background and supporting evidence	49
A1.1 ERA background.....	49
A1.2 Existing mandate for GPC	51
A1.3 Mandate for ERAC opinion	51
A1.4 GPC assignment and the scope of contribution	53
A1.5 Key issues	54
5.1. Aspects specific to JPIs.....	54
5.2 Issues of general nature.....	61

¹ This text represents a consensus opinion of the High Level Group on Joint Programming and does not prejudice in any way the positions articulated by Member States concerning the ERA Framework and other issues such as the European Commission's Communication on Partnering in Research and Innovation.

GPC Opinion

Following the Council Conclusions on the development of the European Research Area (ERA) through ERA-related Groups of 31 May 2011 (doc. 11032/11), the GPC has undertaken the task of preparing a contribution to the ERAC opinion to a proposal on the ERA Framework and, at the same time, to the implementation of the Innovation Union Flagship Initiative. The specific aim of this contribution is to focus on issues relevant to the GPC area of activities, in particular on the operation of JPIs, its role in the European research and innovation landscape and more broadly, on topics such as cross-border operations and transnational research.

The contribution report was drafted by the GPC Task Force, composed of GPC delegates who volunteered to participate in the TF proceedings. It was subsequently discussed at two consecutive GPC meetings and adopted by the Group, following its standard acceptance procedure.

Seeing the development of ERA as an evolutionary process, it is important to identify obstacles to cross-border cooperation and instruments to support such cooperation simultaneously. Building on experience gained by the pilot JPI and other forms of cross-border cooperation, as well as evaluation of GPC-related activities, will help identifying which instruments could be prioritized first and towards 2014. This document examines barriers to and possibilities for effective operation of JPIs in the context of their contribution to a successful completion of the ERA.

The document is composed of two main parts. The first part presents the GPC recommendations with respect to the ERA Framework. The second part, included as the Annexes, contains comments regarding the ERA background and formal requirements concerning the GPC contribution, as well as supporting evidence based on identified weaknesses accompanied by proposals for specific policy measures.

The grand societal challenges have been identified as a critically important arena where the global competition will be of considerable magnitude and impact. In an effort to strengthen the ERA, while addressing the grand challenges, the increasing investments of MS/AC resources in order to reach and realize the critical mass is seen as a factor of prime significance. The aim of Europe 2020, namely to reach the 3% goal as soon as possible is of particular importance in this context.

Furthermore, the insufficient level of participation by small MS/AC and by less RD&I intensive MS/AC and regions in JPIs is raising concerns. Therefore an increased level of participation of these MS/AC should be promoted, as long as it helps to use the EU's full intellectual capacity, both in infrastructure and human resources, and to successfully tackle major societal challenges in the global competitive environment. Amongst the whole range of possible activities it requires enlisting considerable financial engagement of MS/AC in transnational research and innovation funding, especially through instruments of joint programming, such as the JPIs, or other initiatives, like the SET-Plan, PPPs, or programmes according to Art. 185 of the Treaty (TFEU). Recognising at the same time that most JPs have not yet reached a stage of implementation, but show encouraging signs for involving more cooperation once they reach this stage.

With this background perspective the following main conclusion is proposed:

The policy measures included in the ERA Framework should support effective cross-border operations and transnational research, while at the same time stimulate the efforts to engage MS/AC in a meaningful participation in these activities in a manner that is conducive to reaching the goal of excellence and relevance in research.

A number of specific conclusions and recommendations have been made regarding these policy measures, which should address the means and instruments to sustain a constant and decisive drive for enhanced quality and competitive efficiency of excellent world class scientific and innovation activities through effective cross-border operations and transnational research. Simultaneously, efforts should be undertaken to engage MS/AC and regions in a meaningful participation in these activities through appropriate mechanisms.

A. The ERA Framework should stimulate development of an effective EU research and innovation policy strategy for cross-border cooperation, with structures and processes to design, implement and monitor policy actions, strengthening world class research in a coordinated manner at and between MS/AC and EU levels and with other policy areas.

At the same time it must be ensured that research and innovations activities undertaken within Joint Programming initiatives are firmly rooted in society and responsive to its needs.

1. Research collaboration across borders between all the stakeholders, namely the research performing organisations, research and innovation funding organisations as well as private sector (industry, SME), should be encouraged wherever appropriate. In particular, in relation to grand challenges, development of shared perspectives and visions, together with the definition of strategic research agendas and its innovation activities should be supported. It should be recognised, however, that scientific and technological collaboration is driven by researchers and industry, while managerial and financial aspects should create an adequate supportive environment.
2. In order to strengthen the links and coherence between different ERA actors, there is need for more information and overall picture of the ERA research and innovation landscape. There should be a better overview of different EU programmes as well as different national programmes. Also more links and communication between different ERA initiatives and instruments are needed.
3. Better understanding should be developed between the Commission, the MS/AC and the scientific communities on what the European Innovation Partnerships will mean for Joint Programming. This is essential for defining the most useful role for Joint Programming Initiatives.

4. **Comprehensive evaluation and impact metrics and criteria should be developed, so that there could be an objective assessment of the strengths and weaknesses of European research and innovation systems.** Particular account should be taken of the quality of research, its impact on the grand challenges of our society, the competitiveness of industry and the economic growth. Potential for contribution to exploitation and full utilisation of the intellectual capital of all MS/AC should also be taken into account.
5. While in some areas different national funding systems may create desirable competition, a good balance and a good division of work between the European, the national and the regional levels should be pursued. It is likely, however, that such balance would be different vertically – across the disciplines, and horizontally – across the MS/AC, and should be established on a case-by-case basis.
6. **The role of the Commission should – based on the positive experiences and well-established networks of programme owners in ERA-Nets and other coordination measures in FP6 and FP7 – include support and provision of incentives for joint development of strategic research agendas and as appropriate innovation activities, and coordination and implementation of joint programmes.** This should be done as early as possible. The emphasis should be on finding ways to enable transnational research, rather than transnational funding per se.
7. MS/AC could be supported, while respecting their competence, to undertake a review of legal systems, with the aim to ensure that the legal mandate, rules and procedures enable optimal support cross-border research and innovation activities.
8. Retaining of the general principle of variable geometry, i.e. that the participation in activities of JPI is voluntary and is open to all MS/AS either as partners or observers, should be ensured.

B. **To encourage wider participation by MS/AC in Joint Programming initiatives, supporting measures aiming for effective alignment, implementation and coordination of their research, and as appropriate innovation, programmes should be available at the EU level.** Furthermore, any such supporting measures should be conditional on reciprocal implementation of relevant policy measures at the national level. In particular, access to any incentive funding provided at the EU level for the implementation of jointly agreed programmes shall be accompanied by adequate financial and administrative commitment from the involved MS/AC.

9. Less RD&I intensive MS/AC should be encouraged to participate in a review of national policies and scientific and innovation programmes, with the objective to develop, where not available, or enhance national programmes to make them compatible with regard to the ERA initiatives (namely JPIs) on major societal challenges.
10. **Less RD&I intensive MS/AC should be encouraged to use cohesion (structural) funds at their disposal as a contribution to JPIs or other forms of transnational co-operations.**
11. Meaningful partnership between countries at different levels of RD&I intensity, wishing to participate in the ERA initiatives (namely JPIs) should be encouraged. An organisational support, extended use of existing funding and incentive funding provided at the EU level could be made available for such undertakings

Annex 1 Background and supporting evidence

A1.1 ERA background

The primary political context for the **ERA Framework** is provided by the **Europe 2020 Strategy's Innovation Union (IU) Flagship Initiative**.

Since the Council endorsed the creation of the ERA in 2000, substantial efforts have been deployed through the initiatives of successive RTD Framework Programme initiatives, the Open Method of Coordination, and as a result of increased political commitment from MSs via the ERA partnership approach since 2008. Despite notable progress achieved over the years in implementing the ERA, especially since 2007 through the impact of inter alia ERANET, ERANET+, Article 185 programmes, Joint Technology Initiatives and Joint Programming Initiatives (JPI), further steps are required to complete the ERA:

- systemic links between MS/AS and between EU are weak and obstacles remain to the free movement of ideas, knowledge and researchers, as well as to the operation of research actors and funders across borders;
- the perception in the Council, the European Parliament and of stakeholders is that European research system of ERA initiatives is a rather fragmented and complex patchwork; and
- the operational steps necessary to deliver the vision set out in the ERA Vision 2020 are not clear.

The Lisbon Treaty identifies the ERA as mean to achieve the objective of strengthening the EU scientific and technological basis and gives the competences to the Commission to propose all measures necessary to realise the ERA, be they binding legislation, policy guidelines, co-ordination measures and of course funding programmes. The size, performance, efficiency and integration of the EU's research system must increase rapidly if it is to be commensurate with the EU aspirations for global excellence and knowledge-based competitiveness and the socio-economic imperatives of its citizens, as set out in Europe 2020.

Based on the Innovation Union (IU) Flagship Initiative adopted by the Commission in October 2010 as part of the Europe 2020 Strategy, and considering the reinforced legal basis for research policy in the Lisbon Treaty (i.e. Art. 179 & 182(5) TFEU), the Commission intends to explore all possible barriers and problems which continue to hamper completion of the ERA and, in turn, all possible actions which could be taken to remove such barriers. The IU Flagship Initiative announces for 2012 the ERA Framework and supporting measures to remove obstacles to mobility and cross-border co-operation, to be in force by the end of 2014, as formally endorsed by the European Council of 4 February 2011.

Following from there, the Competitiveness Council of 31 May 2011¹, while acknowledging the considerable progress achieved in implementing the ERA, stressed that the ERA Framework should result in a continuation of the comprehensive and strategic approach to implement the Ljubljana process of realizing the ERA in line with the ERA 2020 vision and take full advantage of Europe's intellectual capital, that societal challenges should be addressed, while encouraging the competitiveness of Europe's industries and the excellence of its scientific and technological base. Further specific aims for the ERA Framework, relevant to the above general objectives include support for the innovation cycle as a whole – from innovative ideas to new technologies, and the promotion of cross-border operations, mobility, research infrastructures and knowledge circulation.

¹ Council Conclusions on the development of the European Research Area (ERA) through ERA-related Groups of 31 May 2011.

There is a clear need for an overall picture of the ERA; to have a better overview of different initiatives and instruments. These include all ERA instruments as well as Horizon 2020, and national programmes. More links and communication between different ERA initiatives are needed (e.g. between JPIs and infrastructures).

A1.2 Existing mandate for GPC

The existing mandate for the GPC includes:

- responsibility for identifying the themes for JPIs;
- responsibility for assessing whether a proposed JPI conforms with a theme associated with the societal (global) challenges;
- responsibility for contribution to the preparation of Council decisions regarding JPI;
- 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.

A1.3 Mandate for ERAC opinion

ERAC (European Research Area Committee, formerly CREST) is a strategic policy advisory body whose function is to assist the European Commission and the Council of the European Union in the sphere of research and technological development. CREST was set up in the early nineteen-seventies. In 1995, the basis for the Committee's work was replaced by a new Resolution from the Council.

In its Resolution of 7 December 2009 the Council has launched the process of redefining the mission of CREST in the context of an enhanced governance of the European Research Area. In its Resolution of 26 May 2010, this resulted in a revised mandate for CREST. CREST was renamed as European Research Area Committee (ERAC) in order to better align its role with the new emphasis given to the ERA by the Treaty on the functioning of the European Union. The new mandate also reflects better the shared competence between the MS and the EU and its strategic policy mission. The mandate of ERAC will be reviewed again by the end of 2012.

ERAC's activities have gained increased importance because of the greater prominence of research and technological development in Europe, which is nowadays acknowledged to be an important element of Europe's competitiveness and economic growth.

At its 6th meeting on 24 May 2011, ERAC decided that its opinion on the development of an ERA Framework which the Commission announced would be tabled in 2012, would be prepared by the ERAC Steering Board in an ad hoc enlarged format (hereafter ERAC SB+).

The SB+ shall base its work on a clear, comprehensive and substantiated overview of the current situation, against the background of the EU's legal and political commitments (ERA Vision 2020, Lisbon Treaty, Europe 2020, Innovation Union, European Council Feb 2011, etc.). The SB+ shall take account of, and consolidate the input from the four ERA related Groups¹ and ESFRI, as requested by the Competitiveness Council.

The draft opinion of ERAC should propose against these background elements of an approach to developing an ERA Framework which aims to address areas of underperformance of European research and exploitation of the knowledge generated by eliminating remaining obstacles to the completion of ERA, focusing in particular on continuing inefficiencies in the European research system, unexploited cross-border synergies and co-ordination failures, taking into account the IU Flagship Initiative.

¹ Apart from the GPC these Groups include: the Strategic Forum for International S&T Cooperation (SFIC), the Steering Group on Human Resources and Mobility (SGHRM) and the Knowledge Transfer Group (GKT).

Based on what is mentioned above, the scope for the ERAC opinion on the ERA Framework shall include:

- to propose an approach to develop the ERA Framework which builds upon its strengths and diminishes existing obstacles;
- focusing on theme-specific issues: researchers' careers, cross-border operations, research infrastructures, knowledge exploitation and circulation, and international dimension;
- focusing on cross-cutting issues: clear definition and objectives for the ERA, developing an inclusive approach and more openness.

A1.4 GPC assignment and the scope of contribution

The GPC assignment and the scope concerning the provision for contribution to the development of ERA Framework follows from the Council Conclusions on the development of the European Research Area (ERA) through ERA-related Groups of 31 May 2011 (doc. 11032/11), the above described scope for the ERAC opinion, and includes specifically an approach to develop the ERA Framework which builds upon its strengths and diminishes existing obstacles:

- focusing on cross-border operations by research institutions in partnership with industry and funding agencies;
- focusing on cross-cutting issues: clear relationship between joint programming and other ERA instruments, effective communication and exchange of experiences between JPIs, gathering satisfactory contribution, and producing relevant deliverables.

A1.5 Key issues

5.1. Aspects specific to JPIs

Legal background

According to the Council Conclusions concerning joint programming of research in Europe in response to major societal challenges of 2 December 2008 (Doc. 16014/08) a dedicated configuration of CREST, the High Level Group for Joint Programming (GPC), was established, with a view to identifying and substantiating a limited number of joint programming themes. After the constitutive meeting of GPC on 13 February 2009 (Doc. 1301/09), it was agreed on 3 April 2009 that the CREST Rules of procedure should apply also to GPC with some modifications (Doc. 1302/09). According to these rules MS representatives and the Commission were required to enable GPC to adopt formal opinions. Thus, these rules were used during the first mandate of GPC (2009-2010) to identify ten JPI themes (see Annex 2) as well as to create the Framework Conditions document.

Once the JPI themes were identified, the first pilot joint programming initiative on combating neurodegenerative diseases, in particular Alzheimer's was launched on 8 December 2009 according to the Council Conclusions (Doc. 17226/09) taking into account the Proposal of the Commission for a Council Recommendation on measures to combat neurodegenerative diseases, in particular Alzheimer's, through joint programming of research activities (Doc. 12382/09). This document invites the MS to cooperate with the Commission with a view to exploring possible Commission initiatives to assist Member States in developing and implementing the common research agenda and invites the Commission to explore how best to contribute with complementary measures to the strategic research agenda and its innovation activities if needed, and to its implementation plan via EU funding instruments.

The first wave of three actual JPIs, identified by GPC during 2009, were launched in 2010 through Council conclusions following Commission input in the form of a Commission Recommendation. The same procedure is followed in 2011 for launching the six JPIs identified by GPC during 2010 (second wave).

This procedure has lastly been confirmed by the Council conclusions of 26 November 2010 on Progress in Joint Programming (doc. 17166/10), where the Council invited the Commission, "within the remit of its competence, to further contribute to the preparation of JPIs ...with a view to adopting Recommendations...".

Identification of themes for major (societal) challenges

The selection and prioritisation of themes for major (societal) challenges could have significant influence on the future of the ERA, if considerable resources will be mobilised for associated research.

In the recent past and in other fields of EU governance the open method of co-ordination (OMC) produced quite satisfactory results. The opportunity of using the OMC, a set of ‘minimal common denominators’ or ‘voluntary common framework conditions’, could be considered when dealing with major challenges, with the objective to achieve a better co-ordination of research and innovation policies and activities among the MS/AS.

The ERA related Groups, according to their respective mandates (namely: the GPC dealing with Joint Programming of EU research on major societal challenges, the SFIC dealing with international collaboration, the SGHRM dealing with human resources, the GKT dealing with knowledge transfer and the ESFRI dealing with research infrastructures), represent the appropriate *forums* to provide opportunities for discussion, common prioritisations and to fulfil these tasks. In addition forward looking activities may prove useful.

Principles for establishment of JPIs

The individual JPIs are established on the legal basis stated above and according to the general principle that MS decide on voluntary bases about their participation, the strategic research agenda and its innovation activities and the governance and financing models of individual JPIs.

Due to the novel nature of this initiative, the development of governance arrangements, strategic research agendas, funding methodologies and commitment of funding has taken considerable time and effort. This problem has been initially solved by creating the roles of partners and observers. This approach provides the opportunity to the MS that are not able to formulate a clear decision on its participation to keep the contact with the JPI activities.

The European Commission has a facilitating role and provides support as necessary.

Recommendations

- Ensure retaining the general principle of variable geometry, i.e. that the participation in research activities of JPI should always be open to all MS/AS either as partners or observers. To this aim a specific and clear statement should be included in the Framework Conditions.
- The EC is invited to improve clarity of its role in the strategic level of JPIs so it will be the same regarding all the initiatives, at the same time bearing in mind that JPIs are Member States driven and the Commission should not participate in JPIs operative management.
- The Member States participating in a JPI should use innovative procedures for implementation, while the Commission should provide financial support for coordination as early as possible.

Partnership between participating MS

There is a significant degree of collaboration and cooperation amongst MS with high level of R&D intensity, both larger and smaller ones. Such relationship provides good breeding conditions for high quality and relevance of research results. On the other hand less RD&I intensive MS/AS and regions are significantly less active in various forms of transnational collaboration. This situation could have the consequence that these countries do not fully exploit their intellectual potential and is detrimental to their future prospect for increasing levels of RD&I intensity. Use of EU funding, such as the structural funds, could help address this problem.

Recommendations

- Meaningfully encourage active participation of small and less RD&I intensive MS/AS and regions in the development of shared strategic research agendas and innovation related activities, providing, where appropriate, incentives via structural funds or other mechanisms. This should be done taking into account, on the one hand, the existing national programmes and, on the other, the research activities in MS/AS which do not have formalised programmes but support research in the field in question.

Cross-cutting JPI governance issues

Although it is generally accepted that some common rules should be implemented in order to harmonize the governance of the ERA activities, care must be taken that the resulting regulatory approach is not too heavy (these MS/AC which have already adopted good practices should be given the role of standard setters). Instead, the rules should encourage the development of new cooperation models and innovative solutions. The possible incentive funding available at the EU level could be dependent on the degree of transnational cooperation especially, if it includes some harmonising elements in order to remove barriers of cooperation.

To fulfil this aim the Framework Conditions for Joint Programming described in the 2010 Guidelines are in the process of being tested for the development of JPIs. These guidelines aim to enhance the efficiency and the transparency in the evaluation process, establish a system capable of forward looking, and propose the creation of well-accepted mechanisms for monitoring the programmes and their objectives, ensure that relevant information is exploited as needed are well-organised and easily accessible, and establish adequate treatment of IPR issues.

Nevertheless, to fully implement the JPIs some problems still remain to be solved in the definition of the terms of reference used for their governance. For instance, JPIs, like other ERA activities, are mainly based in voluntary financial and scientific contributions of MS/AC and thus, it would probably not be realistic to develop governance procedures that provide the same decision making opportunities when it comes to joint activities and the implementation of the strategic research agenda, independently of their respective contributions, either financial or in-kind. However, such decisions should remain in the competences of the individual JPIs.

A sustainable governance system should take into account the relative contribution levels of the funding agencies. The existence of imbalances could hamper the viability of the collaborations and could reduce the budgetary contributions of the countries.

The Community funding may have a significant influence on facilitating the coordination process of JPIs. The strategic research agendas and its related innovation activities of JPIs and in general of the ERA programmes should take into account the activities supported by FP. It is therefore important to define the adequate role of the EC in the governance system of the JPIs, recognizing joint programming as a Member States driven process.

In addition, some kind of incentive EU funding may prove useful for individual JPIs trying to set up a ‘common pot’ funding mechanism, as such funding could reduce financial risk that individual member states otherwise face if joining a common pot system.

Furthermore, it would be important to define the role, when appropriate, for countries outside Europe to take part in Joint Programmes addressing global challenges. Here, the relevant ERA related group, particularly the SFIC, could play an active role, if deemed necessary by the JPIs.

An additional problem that should be taken into account when considering the governance structures and the strategic research agendas of JPI is their relationships with other JPIs and with other related ERA activities (e.g. HORIZON 2020), and in general their integration in the framework of the Innovation Union. In the very beginning, JPIs appeared to be oriented mainly to align the national academic research programmes, but now the scenario is more complex because the Innovation Union suggests that it could be necessary to align both academic and industrial national programmes, which is by far a more difficult task.

While some evidence suggests that certain JPIs may share certain common objectives, either between themselves or with other European large initiatives or industrial platforms, the care in developing and implementing strategic research agendas is required in order to avoid risk of duplication.

Recommendations

- The Guidelines on Framework Conditions for Joint Programming is a living document that should be adapted according to the progress of JPIs and with the implementation of IU Flagship Initiative in order to create flexible governance scenarios to facilitate cooperation, but these governance scenarios should not be so dispersed that they would increase the confusion within the research community (as has happened with other initiatives). Future revisions of the Guidelines will need to better take into account the difference in the needs of actors (RPOs and RFOs) in the fields of both, basic research and applied research.

- Following the recommendations of the Council¹ so far the Commission delivers a limited financial support for launching the JPI governance structure. However, its role for providing support to administrative issues and/or for coordinating/integrating some FP activities on the JPI research agenda should be more clearly defined.
- Some overlapping in the research initiatives and diversification in the governance rules of the ERA programmes is not necessarily negative. However to increase the efficiency, the transparency and the coordination of all European initiatives inside ERA it would be necessary to improve the communication channels across the different initiatives, for instance, by creating a unique information window to follow the development of the initiatives practically in real time (web open access window). In this context the Commission should support further development of NETWATCH and ERAWATCH.
- The relation between the prioritisation process leading to identification of JP themes and the prioritisation process leading to identification of grand challenges in the FP context also need to be clarified in order to reduce duplication, and instead contribute towards complementarity.
- The MS which have already adopted good governance practices should be given the role of standard setters, and not to be forced to accept a harmonized system based on a lowest common denominator.
- Communication between the individual JPIs should be improved in order to avoid the risk of duplication of research effort.

¹ Council Conclusions on Joint Programming of December 2008, December 2009 and October 2010.

5.2 Issues of general nature

Issues of general nature concern the broad spectrum of GPC topics of interest, in particular cross-border operations and transnational cooperation, which are going beyond aspects specific to JPIs. Following the mandate for GPC contribution and taking into account that:

- nearly 5% of the national research spending of MS is trans-nationally coordinated,
- further development of existing processes, including NETWATCH and ERAWATCH, is needed whereby all MS would meaningfully engaged in systematic exchange of information on possible national programmes or initiatives which might be suitable for cross border operation,
- the quality and relevance of research carried out in transnational consortia selected by international peer review is usually higher, according to a common perception¹, than that achieved in purely nationally selected and funded projects,
- the IU Flagship Initiative facilitates taking full advantage of the knowledge generated in Europe in favour of society and competitiveness,
- the process to formulate the HORIZON 2020 is under way, providing an opportunity for alignment of EU, national and regional RTD and innovation efforts,

certain issues of general nature are discussed below in greater detail.

¹ The Impact of Collaboration on Europe's Scientific and Technological Performance, Fraunhofer ISI, Idea Consult, SPRU (2009), a study commissioned by the European Commission.

Cross-border operations

Cross-border operations represent an important element of the ERA. From the GPC perspective two types of cross-border operations can be distinguished:

- activities of a scientific nature, involving research-performing organisations (RPO) and industry,
- activities of organisational and financial nature, involving research and innovation funding organisations (RFO).

The factors that hamper a more effective cross-border research are specific to these two types. For RPO they include:

- resistance of local scientific communities and industry against aligning national programmes with JPIs or opening them for international competition, due to an assumed difficulty to obtain grants as more competitive foreign research teams could propose better solutions,
- demand for the principle of “juste retour” to be used in managing the international programmes, especially when applied research is concerned.

Factors concerned with RFO operations include:

- a parallel to the above mentioned resistance by local scientific communities and industries,
- difficulty to obtain long term financial commitment required from a relatively large number of countries (particularly in the time of economic crisis), due to restrictions on annual budgets and the date of the final negotiations of the budget,

- lack of relevant national programmes, due to different science and innovation policy cultures or inefficiency of its administration,
- high diversity of funding agencies that are addressing different types of RD&I in the innovation cycle, and are subject to different ministries, administrative rules and laws,
- existence of long term national funding programmes, which do not include ERA activities (like JPIs), and are not flexible enough to accommodate easily these new financial requirements,
- a risk to cause many political problems if the exposure of national programmes to international competition, which acts as a mirror to monitor the quality of both the national programme and the domestic research teams, results in negative outcome; this could be particularly critical if these national programmes involve large budgets and large numbers of research teams in strategic areas (agriculture, health, food, and others).

Recommendations

- Promote formulation of national programmes in a flexible way, allowing for future alignment with future Joint Programmes and EU programmes.
- Intensify coordination and integration of existing national (or regional) research programmes and its innovation activities based on available coordination measures (rather than setting up entirely new joint programmes that would require new dedicated national funds apart from the current ones). This should be done with a clear view on matching programmes, which address similar phases in the innovation cycle (e.g. basic research, applied research, or even demonstration => see the experiences of the Industrial Initiatives of the SET-Plan). Implementation of JPIs should include not only opening new competitive calls; but also focus on increased cooperation in strategic level (for example cooperation between existing research centres, infrastructures etc, see the positive experiences of SET-Plan).

- Promote harmonisation of implementation of JP in the MS/AC participating in cross-border operations, through a further development of the Guidelines for Framework Conditions of the GPC. Include however adequate flexibility in such rules (otherwise funding organisations might prefer not participate if they are obligated to change already well-organised existing procedures).
- Use the experiences gathered so far and building on existing networks, including instruments such as ERANETs, PPPs and other under FPs 6 & 7, as well as EUROCORES of ESF give good foundation to develop further calls for proposals, common evaluation procedures and monitoring (ex-ante and ex-post evaluation).
- Meaningfully encourage participation in cross-border operations of MS/AC with different levels of R&D intensity, providing, where appropriate, measures to promote such activities. Explore the opportunities for using structural funds for such purposes.
- Undertake steps to overcome challenges with national strategies (e.g. reluctance of researchers to share data and cooperate with the industry) in reference to knowledge exploitation, transfer and more specifically open access, building on good examples of where there is open access on a European level.
- Recognise, that in some cases there are good reasons to establish barriers to unregulated cross-border research (e.g. in biomedical research there are barriers arising from the regulations surrounding patient confidentiality and access to clinical samples and records; these regulations exist for protection of patients, but they are a barriers to cross border clinical research).
- Ensure that progress and knowledge obtained from research activities is measured by research outcomes and impact on competitiveness and the society, not by counting numbers of joint initiatives. The objective should be to do more/better research, development and innovation taking full advantage of the generated knowledge and the requirements for delivering this vary between discipline and ‘challenge’.

Opening-up of national programmes

The opening-up of national programmes constitutes an opportunity for foreign researchers to apply to national research and innovation funding agencies in collaboration with national researchers and the industry, and receiving in some occasions financial grants directly from the programme or indirectly via sub-contracting arrangements. It is an excellent way to increase the trust between researchers from different countries and regions facilitating the creation of a truly integrated ERA.

The main drivers for opening-up are:

- to use foreign excellence to compensate for capabilities / skills / capacities (infrastructures, human resources), which might be missing on national level,
- to strengthen existing indigenous R&D capacity and innovation environments via collaboration,
- to exploit foreign capabilities in the pursuit of indigenous goals.

Two different options in implementation of the opening-up concept can be considered, *i.e.*, with or without the provision of funds to foreign research teams. In each of these cases two further possibilities can be identified.

In the first case:

- opening exclusively to foreign researchers and companies that shall undertake funded research in the founder country,
- opening to foreign researchers, allowing conducting the funded research in a foreign country.

In the second case:

- cooperation with matching co-funding schemes (e. g., bi-or multi-lateral cooperation, Joint Programming, ERANETs, etc., that is treated separately here),
- stimulating the participation of foreign researchers as observers and/or advisors with a low provision of travel funds to facilitate common meetings, sporadic visits, seminars, etc.

Barriers to opening-up the national programmes to the participation of foreign researchers are different depending of the schemes described above. On particular, the participation of foreign researchers and companies is more problematic when a transfer of funds is involved, as:

- there are various levels of local resistance to providing grants to foreign researchers and companies (even if they are affiliated), when the benefits of research are not going to be captured domestically,
- domestic researchers can be opposed to such grant provisions, because this reduces their own research budgets, a factor that appears to be specially critical under the economic crisis,
- concerns about IPR arrangements is a particular barrier affecting the participation of foreign-based firms,
- the fear, that technologies or innovations created by funding researchers or companies from other countries may not lead to investments and market implementation in the funding country,
- legal constraints to transfer money to other countries (due to problems concerning the signature of specific agreements for such money transfers as well as concerning the capacity for monitoring the budget management in a foreign country),

- concerns about administrative work-load and transactional costs in all stages: during evaluation and decision process for funding agencies and especially during the funding period for both funding agencies and funding recipients (i.e. efficiency of R&D funding),
- commitment to use national languages in the calls for proposals and in the implementation of the projects,
- difficulties to get on time and in a simple way the information about the open-up national calls for proposals.

Recommendations

- Meaningfully encourage opening-up of the national programmes by providing, where appropriate, incentive funding at the EU level. The scale of Community involvement shall depend on the degree of such opening. A clear view is needed, however, on the differences in the needs of basic research vs. applied research and innovation.
- Support a better fitting of national rules and administrative practises related to RD&I funding, according to the principle of voluntariness.
- Facilitate timely diffusion and in the appropriate languages of these open national programs by adopting the tools provided, for example by Cordis or using portals such as NETWATCH and EURAXESS as the proper web space where the open national programmes should be advertised.

Cooperation and coordination at programme level

It is recognised that transnational cooperation and coordination at programme level is the best way to tackle major societal challenges facing the EU¹.

¹ Commission Communication on Joint Programming, C(2008)468 July 2008.

The impact of collaborative research and open innovation is higher than non-collaborative ones – clearly this means that where collaboration occurs it is usually successful. And while the engagement in research collaboration across Europe, either through participation in joint research and technological development or the use of shared facilities, takes effort to organise and to coordinate the partners, but delivers collaborative projects and usually better quality results than these obtained on purely national scale.

One of the obstacles in such coordinating effort is a significant gap in levels RD&I intensity between MS/AC. The two borderline cases include:

- MS/AC with high intensity RD&I, well engaged in transnational cooperation, which are able to contribute to these major challenges keeping high scientific standards,
- small MS/AC or less RD&I intensive MS/AC which are not able, at least initially, to contribute significantly to these challenges.

However, there are many cases in between, and in practice limited resources lead most countries to selectively participate in such initiatives that are most highly prioritised by themselves. While all MS/AC should seek to increase their transnational cooperation, the degree of such increase will vary from country to country and the procedures used for the cooperation will not be necessarily those adequate to tackle the big challenges.

In addition, one important issue that should be considered to determine the budget that the countries could be able to invest for supporting the cooperation in competitive international activities is the fact, not always well documented, that in many EU countries, the contribution to FP might account for 30% or more of their total budget devoted to support competitive RTD programmes in their respective countries. Therefore, some countries have a rather low margin to develop competitive cooperation activities using the remaining funds earmarked for competitive national programmes which not necessarily fit the joint programmes of ERA, without compromising their domestic research needs. Furthermore, joint programmes of ERA sometimes arise when all the national funds have been already earmarked for other purposes.

This low margin can be due to still low level of investments in science and technology and/or to the development of political initiatives that give priority to non competitive research activities. Thus, to be able to collaborate in ERA initiatives these countries should find the way either to increase their budgets for competitive programmes or to reallocate part of the non-competitive funds for these international cooperation activities.

It should be accepted that ERA initiatives would engage countries collaborating at different rates and therefore, this means that not all the initiatives should involve all the countries depending of the rate and skills required to reach the challenge. Indeed, variable geometry allows different countries to take into account differing preferences as well as resource endowments.

Recommendations

- Alongside ERA activities addressing the major societal challenges consider also other types of transnational collaborative programmes that could enhance participation of different MS/AC, in particular small or less RD&I intensive.
- Promote setting the research and innovation objectives at the EU level, *i.e.*, at the FP level (only) in those areas that have European added-value.
- Taking into account that JPIs, through the development of strategic research agendas and its related innovation activities by the participating MS/AC, address the major challenges not adequately dealt with by the FP encourage the open partnership approach that will lead to the evolutionary alignment of national programmes, and if necessary, of modification of the strategic research agendas.
- Setting long-term objectives (7-10 years) for the FP and ERA programmes would facilitate harmonisation of the national research programmes and innovation related activities with the EU objectives.

- Promote efforts to show the added value of joint activities, keeping in mind that there are two different things: commitment to preparation of strategic research agenda (strategic level) and commitment to implement the plan (financial commitments). Financial commitments can come only if the joint strategic plan is attractive and brings clear added value.
- Encourage inclusion in national science and technology development budgets funds for participation in the collaborative research tackling the grand societal challenges and alignment of existing national programmes for joint programmes of ERA, while taking national priorities of MS/AC into account.
- Encourage the use of common standard rules for operating national and regional programmes. In particular using commonly agreed management standards and procedures could be eligibility criteria for receiving incentive funding at the EU level.
- Although participation should always be open, consider adoption of some minimum resource thresholds provided by the MS/AC in order to gain participation in the governance of research and innovation programmes tackling the major societal challenges.

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 Programming¹. 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.

¹ 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 2008¹ 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.

¹ 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 competitiveness¹

- **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).

¹ 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 Partnerships¹;

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 initiative²;

During the *development and implementation* of joint programming³ 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 theme⁴.

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 sector⁵.

¹ Council Conclusions on joint programming in research Council meeting (26 November 2010).

² Council Conclusions on the development of the European Research Area (ERA) through ERA-related groups (31 May 2011).

³ Council conclusions concerning joint programming of research in Europe in response to major societal challenges (2009/C 24/04).

⁴ Council conclusions concerning joint programming of research in Europe in response to major societal challenges (2009/C 24/04).

⁵ 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 research¹.
- 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 approaches².

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 sectors³;

¹ Launching of joint research programming initiative 'More Years Better Lives' Competitiveness Council (30 September 2011).

² Launching of joint research programming initiative 'More Years Better Lives' Competitiveness Council (30 September 2011).

³ 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) ¹.

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 ²

In its report to the Council³ 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”. ⁴

¹ Commission Recommendations on the research joint programming of 27 October 2011 on the research joint programming initiative ‘Water challenges for a changing world’.

² GPC has included these issues in its meetings, in particular May and September 2011.

³ Joint Programming in research 2008-2010 and beyond. Report of the High Level Group on Joint Programming to the Council. November 2010.

⁴ “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”.¹

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 CSA² 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*.

¹ The Framework Conditions 5.4.2 Dissemination and Take-up of Research Results. 4th Workshop: Dissemination of research results + Intellectual property + innovation.

² JPIs to co-work. A process of mutual learning: Towards a Common adoption of Framework Objective.

7. Some JPI have taken an 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”¹, 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 TP² and the JPI “Water Challenges for a Changing World”³.

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 shift⁴.

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.

¹ “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).

² WssTP and the water EUREKA Cluster “Acqueau” are observers in the Scientific and Technological Board.

³ GPC contribution to the ERAC input to a proposal on the ERA Framework. Annex 2. October 2011; final.

⁴ 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.

PROVISIONAL GPC WORK PROGRAMME 2012 - 2014

<u>THEME</u>	<u>TIMELINE</u>				
	<u>24 May 2012</u> (20 th meeting)	<u>19 September 2012</u> (21 st meeting)	<u>4 December 2012</u> (22 nd meeting)	<u>1st Semester 2013</u>	<u>2nd Semester 2013</u>
		←-----	Following of “JPIs to Co Work” project	----->	Discussion of the draft document. Opening of the written procedure so that it can be adopted by the Group and submitted to the Competitiveness Council in 1 st semester 2014.
<u>Framework Conditions For Joint Programming In Research (including “ways to involve industry in JPIs”</u>					
<u>GPC Biennial report</u>	Creation of a Task Force	(pos.) Presentation by the appointed rapporteur and discussion of the first draft.	Adoption of the document in view of its endorsement by the Competitiveness Council on 18-19 February 2013		

<u>Participation in the evolution of ERA</u>	Presentation of the communication on ERA by the Commission (if adopted)			Interaction with SFIC and SGHRM	
<u>Interaction with other related groups / projects / entities</u>	Presentation by the Chair of SFIC, followed by discussion Structural funds - Presentation by the Commission followed by discussion	Presentation by the Chair of ESFRI, followed by discussion Discussion on the work of the Commission's Expert Group on the Joint Programming process	Presentation by the Chair of ERAC Working Group on Knowledge Transfer, followed by discussion	Interaction with SFIC and SGHRM Interaction with « JPIs to Co-Work » project (project should end up in 2014 S1) Interaction with ESFRI and ERAC Working Group on Knowledge Transfer Relations between JPIs and EIP	Interaction with SFIC and SGHRM
<u>Status of implementation of the JPIs</u>	Presentation of the state of play of the JPIs by the 10 JPI Coordinators			Review of the 10 JPIs (possibly linked with an event organised by IRL Presidency in Dublin 28th Feb - 1st March)	Review of the JPIs
<u>Mandate / Rules of Procedure / Administrative issues</u>	Adoption of the provisional work programme			Review of the Rules of Procedure of the GPC Update of provisional work programme	Election of Chair and Vice-Chair Update of provisional work programme