NOTE

Subject:	Report of the GPC Working Group on Framework Conditions for Joint Programming

Delegations will find attached Report of the GPC Working Group on Framework Conditions for Joint Programming, as adopted by the GPC on 9 September 2014 via written procedure.

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GPC Working Group

on Framework Conditions for Joint Programming

Final Report, 8 July 2014

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Executive Summary

The Council of the EU, in its Conclusions of 29 November 2010, welcomed the Voluntary Guidelines (VG) for Framework Conditions on Joint Programming and encouraged "their regular review in the light of new experience of the JPIs in applying them". On the basis of this mandate by the Council, the GPC set up a Working Group to carry out such a review. With this report, the Working Group presents the results of its findings. The report attempts to point out issues with regard to the Framework Conditions which are important for the further development of JP and JPIs, with a view to significantly contributing to the enhancement of the European Research Area.

The recommendations in this report are put forward to the GPC for consideration and approval. It is of utmost importance that the recommendations are supported by the GPC since they do not constitute the end of the work towards better Framework Conditions for Joint Programming, but a first step. A joint effort will be required to translate the recommendations into effective actions for the benefit of both the JPIs and the ERA.

The Working Group acknowledges the impressive progress JPIs have made since the publication of the VG. All possible shortcomings addressed in this report do not diminish the Working Groups' overall appreciation of the JPIs' efforts and achievements in any way.

The guiding principle of this report is that we wish to elaborate clearly that the term "Framework Conditions" has two aspects, both of which are already covered by the VG to varying degrees. We have named these two aspects "Joint Programming Functions" and "Enabling Environment". Whereas the former addresses the aspects of the "joint programming cycle" which have to be implemented by the JPIs, the latter addresses the conditions for this implementation which exist in the ERA. Both aspects are naturally closely interdependent, and we have neither managed, nor intended to, avoid a certain overlap between them throughout the report. However, we believe that outlining and differentiating between these two aspects is vital for the work that should follow this report.

Key Messages and Recommendations:

1. Joint Programming is a learning process. Its ambition is to substantively change the way we cooperate in the ERA. We believe that JPIs are, or should be, strategic hubs or platforms for research and innovation in their respective challenge. Such an undertaking cannot be designed on the drawing board, but needs to be developed over time. Trust must be built, new forms of collaboration must to be created. *We therefore call for both patience and continued and determined commitment by all actors and stakeholders in the process.*

2. The degree of divergence of rules and procedures for funding R&I throughout Member States and Associated Countries is such that it considerably impedes transnational collaboration in the ERA. *We therefore call for steps towards simplification of these rules and procedures and for developing common guidelines on terminology, rules and procedures for R&I funding, to be applied throughout the ERA on all levels on a voluntary basis*

3. A well-balanced governance system which provides effective leadership is a prerequisite for success in achieving the objectives of a JPI. *We call for continuous evaluation of the effectiveness of the governance system of each JPI, taking into account developments or change of priorities over*

time. Furthermore we call for an open, transparent and inclusive approach in the JPI, while maintaining the principle of variable geometry for joint activities.

4. The strategic process of translating an identified grand challenge into joint activities is the core task of every JPI. Its main elements are: defining strategic objectives, defining a vision, developing a Strategic Research (and innovation) Agenda, developing an implementation plan. ***The core elements of the strategic process need to be implemented by every JPI. The strategic process has to be understood as a continuous cycle. All steps need to be revised in the light of new developments and experience gained through implementation.***

5. Though the focus with regard to implementation of the SRAs or SRIAs has primarily been on the implementation of joint calls, JPIs have already carried out a large variety of joint activities. All these activities aim at the alignment of (national and European) resources. ***We therefore call for a refined perspective of, and new indicators for, JPIs' activities. The impact of JPIs should be measured by the amount of resources invested according to the strategic alignment activities of a JPI.***

6. The ultimate objective of JPIs is to contribute to overcoming societal challenges. JPIs can contribute to this objective by inducing (technological and/or societal) innovation, or by providing evidence (research findings, data) for political decision making. ***We therefore call for design and implementation of strategies in each JPI with regard to the dissemination and use of research findings, and to innovation.***

I. Introduction

1. The History of Framework Conditions for Joint Programming

How it all began

When in 2008 the Council started the Joint Programming Process with its "Conclusions Concerning Joint Programming of Research in Europe in Response to Major Societal Challenges"[1], it outlined some basic issues for transnational collaboration in the ERA to be tackled during the development and implementation of Joint Programming. The Conclusions (paragraph 8) read as follows:

The Council of the European Union

…

8. ENCOURAGES Member States, with the support of the Commission, to consider how best to address the following issues during the development and implementation of joint programming:
 – *a coherent approach on the peer review procedures;*
 – *a coherent approach for foresight activities and for evaluation of joint programmes;*
 – *a coherent approach to funding of cross-border research by national or regional authorities;*
 – *effective measures to ensure the optimum dissemination and use of research findings, inter alia via common practices for the protection, management and sharing of intellectual property rights;*
 – *involvement of the various scientific and, where appropriate, industry communities;*

The mandate of the GPC was an Annex to the above-mentioned Council Conclusions. With this mandate, the Council gave the GPC the task to initiate the consideration of issues referred to in paragraph 8. These issues were subsequently referred to as "Framework Conditions".

The Voluntary Guidelines

Supported by the Commission and a "High Level Working Group", the GPC started to develop Guidelines for Framework Conditions in 2009. This task was completed when the "Voluntary Guidelines for Framework Conditions" were adopted by the GPC on 4 November 2010. The Voluntary Guidelines were subsequently submitted to Council. In its Conclusions of 29 Nov. 2010, the Council stated as follows:

The Council of the European Union

…

WELCOMES the 2010 voluntary guidelines for Framework Conditions on Joint Programming, set out in the Annex, as a living document that will facilitate and simplify implementation of JPIs, and RECOMMENDS Member States participating in JPIs to use these guidelines, as appropriate, and ENCOURAGES their regular review in the light of new experience of the JPIs in applying them

The key elements in these Council Conclusions are:
 • the '*coherent approach*' the Council asked for,
 • the aim to '*facilitate and simplify implementation of JPI*'

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[1] Doc. 16775/08, 3 Dec. 2008

- the *Member States* being the addressees to use the guidelines, and
- the '*regular review*'

<u>JPIs TO COWORK</u>

In 2012, the "JPIs TO COWORK" project was launched with the objective to support JPIs in applying the Framework Conditions. The project was funded under the 7th Framework Programme and was carried out by a multinational consortium. With its several workshops and accompanying analytical work, the ToCoWork project contributed substantially to rationalising the Joint Programming Process, and to initiating a mutual learning process among JPIs.

<u>The Framework Conditions Working Group</u>

In September 2013, a GPC working group on Framework Conditions was set up with the mandate to examine ways of developing the Framework Conditions Guidelines so as to make them more useful and more widely used, as well as to collect experiences and identify the most important issues for common action.

2. Our Approach to Framework Conditions

The Voluntary Guidelines of 2010 are a comprehensive guide to the six framework condition areas which still applies today. The FC-WG decided to use the VG as a starting point, to address those issues which need additional clarification, as well as those issues which have emerged in the course of the development of the JP process to date. We regard the Framework Conditions as set out in the Council Conclusions of December 2008 as being primarily directed towards the Member States and Associated Countries, with a view to improving the conditions for transnational research cooperation in the ERA. This becomes very clear from the wording of the first three of the originally five framework condition areas, all of which begin with "a coherent approach …". The Council obviously wanted a joint effort to be started for more structured transnational collaboration in the ERA.

We therefore believe that a broader concept of Framework Conditions is required, a concept which more clearly addresses the environment in which JPIs operate. It is evident that JPIs depend on the way national funding organisations cooperate with each other and on the extent to which national systems, rules and programmes are interoperable.

We decided to clearly outline two main aspects of the "Framework Conditions". We have called these two aspects "Joint Programming Functions" and "Enabling Environment". Whereas the former addresses the aspects of the "joint programming cycle" which have to be implemented by the JPIs, the latter addresses the conditions for this implementation which exist in the ERA.

2.1. The Joint Programming Functions

In the light of the experience gained, we suggest regrouping the framework condition areas and calling them Joint Programming Functions. We have defined six Joint Programming Functions. The following table describes these JP Functions, what they entail, which of the 5 initial FC areas in the 2008 CC they correspond to, and which of the 6 FC areas in the VG they refer to:

Programming Function	Subject	2008 CC	2010 VG	Reasons
1. Governance	Governance systems; involvement of stakeholders, the scientific community and industry as appropriate; issues of openness and transparency	5	-	*Inter alia*, the Expert Group Report called for addressing governance issues in the FC. Experience shows that choosing the appropriate governance model is crucial for effective implementation.
2. Strategic Process	FLA as choosing and defining priority areas, Stock-taking of ongoing and planned research, actors and infrastructures, defining a vision, elaborating an SRA, implementation plan, regular updating	2	FLA	Choosing and defining priorities, the programming process (SRA, implementation plan) and its continuous update are the core functions of a JPI. We have therefore renamed the FLA chapter "Strategic Process".
3. Alignment	Alignment as defined and substantiated by the Alignment Working Group	-	-	Alignment has come up as a main issue for the implementation of the SRA. The Expert Group Report and the Dublin Conference clearly called for a focus on alignment. It is therefore only logical to take it up as a Programming Function.
4. Joint Activities	Including peer review and other issues related to various kinds of joint activities, funding issues	1,3	Peer Review, Funding	We believe that the focus on peer review is too narrow. To address the entire toolbox of joint activities altogether, including funding issues, seems more appropriate.
5. Dissemination and Use of Research Findings, Innovation and IPR issues	Dissemination, use of research findings, innovation, IPR issues	4	Dissemin. and use of research findings, IPR	As in the 2008 CC, we have grouped dissemination, use of knowledge, innovation and IPR issues together.
6. Evaluation of JPIs	Assessment and evaluation of JPIs	2	Evaluation	No changes to VG structure

In chapter III of this report, we will address, and make recommendations to, four out of these six Programming Functions. For Programming Functions 4 and 6, separate working groups have been established.

2.2.   Enabling Environment

The second aspect of the "Framework Conditions" is improving the environment for Joint Programming and the JPIs throughout the ERA. We will deal with this aspect in chapter IV of this report. The issues we will address there are: (1) national strategic approaches and their alignment, (2) full commitment by all stakeholders (3) the problem of divergent national rules and procedures, and (4) the willingness to engage in joint and coordinated activities.

3.   The Work of the FC Working Group

The Working Group was initiated by the GPC and constituted on 13 September 2013. After an initial phase of generic discussions on the concept of the future of Framework Conditions for Joint Programming, we set up a list of areas for action, focussing mainly on how the Framework Conditions could contribute to the advancement of the Joint Programming process. This list of areas was presented to the GPC on 5 December 2013. The group then analysed the findings of the ToCoWork project and the participating JPIs and participated in the final ToCoWork conference. We updated the list of framework condition areas and incorporated our "list of areas of attention" in order to produce the final structure of our report. During the next phase, the members of the group drafted chapters of the report, and finally a draft report was prepared to be delivered to the GPC for discussion. A discussion of the draft report took place at the GPC meeting on 19 May 2014. Taking ideas of GPC members on board, the report was then updated substantially. The chapter on the enabling environment was completed, and an executive summary added.

In the meantime, the "Technical Annex" has been finalised by the ToCoWork project team. With the permission of the ToCoWork team the "Technical Annex" forms an Annex to this report. The Technical Annex is a summary of the findings by the ToCoWork project that may be used by JPIs with regard to the Joint Programming Functions.

II. General observations

➢   **The Joint Programming process is a learning process.**

When it was launched back in 2009, there was no clear common understanding of either what could be the result of the Joint Programming process or what could happen and be developed during its implementation. The idea to spend large sums of national public research funds through joint calls proved to be only partly realistic. However, a closer look shows that the impact of the Joint Programming process on the European research landscape is remarkable. We have learned that the joint programming process as such is very important and requires substantial resources. We also believe that the intervention logic of JPIs cannot be determined at the beginning, but can only be developed over time and on the basis of the experience gained.

➢   **Joint Programming needs time.**

We have learned that to develop an exercise as complex as Joint Programming takes time. Mutual understanding and trust needs to be built. New forms of collaboration need to be developed. Governance systems need to be set up and tested, and maybe revised. Researchers, stakeholders, and not least Member States' administrations, need to learn to play their part. As a consequence, we need to push for progress, while at the same time allowing sufficient time for achieving results. It is imperative that we do not lose patience and or reduce our commitment, if the results are not achieved as quickly or in the form we initially expected them to have.

➢ **Joint Programming can sustainably change the way we cooperate in the ERA**

New ways of collaboration developed in the JPIs can illustrate how far collaboration can go in the European Research Area. JP can be seen as a test case for deepening collaboration in a defined area strategically. As such, JPIs can be seen as mini-ERAs with a focus on a specific societal challenge.

➢ **Joint Programming requires a balance between standard and tailored approaches**

As each societal challenge is different and may involve different sub-systems and actors, JPIs need a considerable degree of flexibility. On the other hand, a certain degree of standardisation may also be required. We therefore believe that minimum conditions for JPIs should be established. Other ways to achieve coherence may include efforts to share good practices and foster mutual learning, or the use of common (adaptable) templates for certain programming functions. Another example concerns the evaluation of JPIs, where a mix of common and JPI-specific indicators is proposed.

➢ **Interaction between JPIs**

There is still room for increasing interaction between JPIs. The creation of JPIs has involved only limited exchanges among them (regarding the establishment of the JPI and the governance structure, the pilot phase, budgets, etc.). A platform for mutual interaction and joint learning, also with regard to governance questions, should be established.

III. Joint Programming Functions (Framework Condition Areas)

JP Functions 3 "Alignment" and 6 "Evaluation of JPIs" are dealt with by separate working groups and are not part of this report. However, we could not exclude "alignment" from this report completely, since this is what Joint Programming essentially is about. We have tried to build on the work of the WG on Alignment.

In the following section, we will elaborate briefly, and make recommendations, on the Joint Programming Functions "Governance", "Strategic Process", "Joint Activities" and "Dissemination, Use of Research Findings, Innovation and IPR issues":

1.   Joint Programming Function 1: "Governance"

1.1. Introduction

Appropriate governance is a crucial element for the functioning of Joint Programming Initiatives. Both the Expert Group which analysed the JP Process in 2012 and the JPIs To-Co-work project have recommended adding it to the list of Framework Conditions. This report uses the following description of "governance" as developed in the ToCoWork project[2]:

"Governance is the function of selecting and involving the agents intervening in a Joint Programming Initiative (JPI), and setting up the rules and procedures and using them to make this involvement constructive for the purposes of the JPI."

The WG decided to address three areas with regard to governance:
1. Governance models and effectiveness of JPIs
2. Openness and transparency of JPIs
3. Involvement of stakeholders

Challenges in these areas are described separately, followed by recommendations.

1.2. Governance Models and Effectiveness of JPIs

Governance in JPIs usually involves three decision-making and advisory bodies: the management board (which may have different names), the scientific advisory board, and the stakeholders' advisory board. Most JPIs use this basic structure of three bodies, with only very slight variations. JPI Oceans uses a different structure. Scientists/researchers and stakeholders (public authorities, industry, civil society) together form the "strategic advisory board".

All JPIs have a secretariat for preparing and implementing the decisions of the governance bodies. Although formally, the secretariat has operational tasks, in practice it plays an important role with regard to the decisions taken by the governance bodies and the strategies to be developed. We therefore consider the secretariat to be part of the governance system of a JPI.

The effectiveness of a JPI and the likelihood of its being successful in the end depend to a large extent on whether the governance system functions well. In a nutshell, it must provide effective leadership for the JPI. We have identified the following crucial aspects/challenges in this respect:

Recommendations:

- *All actors in the governance system must share a common understanding of the basic objectives of the Joint Programming process, especially the final goal of contributing to meeting the societal challenge concerned, and must act accordingly.*

- *All actors in the governance system must share a common vision and a common understanding of the basic objectives of the JPI. Pursuing particular interests is legitimate, but must not lead to losing sight of the common goals.*

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[2] Briefing Paper of the Workshop in Warsaw, 18 – 19 December 2012 on "Framework Conditions of the Early Phase of Joint Programming Initiatives – GOVERNANCE and EVALUATION Principles"; JPIs To Co Work

- *Persisting conflicts must be solved sustainably, even if this entails substantive changes in the governance system.*

- *A balance should be found with regard to the representation of different interests in the system.*

- *Continuity over time should be sought as much as possible.*

- *The members of Governing Boards need to be closely linked to national strategic processes in the respective field.*

- *The secretariat is a crucial actor in every JPI. We therefore believe that the head of the secretariat should be chosen carefully and needs skills and experience in managing complex systems. The secretariat must be fully loyal to the objectives of the JPI and the decisions of the Governing Board.*

- *The effectiveness of the governance system should be monitored continuously, also taking into account the development or change of priorities over time. Adaptations should be made if necessary.*

1.3. Openness and Transparency of JPIs

We believe that openness and transparency with regard to new participants and observers as well as stakeholders, researchers and society at large should be a basic principle for JPIs, in order to avoid closed shops and to make JPIs suitable tools for the entire ERA.

We further believe that including and integrating countries with less developed STI capacities or resources is indispensable to achieve the fundamental goal of Joint Programming which is to find and implement solutions to challenges that affect all nations in the world, regardless of their STI capacities. Indeed, these countries may even be those most affected by certain global challenges. Their integration can enable them to contribute their specific knowledge and expertise.

However, as pointed out in a 2012 OECD policy brief[3], the reality is different: "... International collaboration in STI mostly occurs among actors with equivalent capacities and seeks to avoid duplication. This means that actors with lower research capabilities may be excluded from the priority setting and collaboration process".

Discussions also showed that non-balanced participation is a problem for JPIs, especially the implications of a lower level of participation of the EU13 MS. There are several reasons to be considered in this context[4]:
- practical reasons (financial or human resources, language)
- relevance of a topic to a country (e.g. oceans are not relevant to land-locked countries, Urban Europe is not relevant to countries without a metropolis)
- strategic choice (sometimes expectations of return on investment influence countries' decisions (not) to participate)
- Not (yet) connected to the relevant networks

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[3] OECD (2012), *Meeting Global Challenges through Better Governance: International Co-operation in Science, Technology and Innovation*, OECD Publishing.
[4] The First three items taken from: Summary Paper of the Workshop in Warsaw, 18 – 19 December 2012 on "Framework Conditions of the Early Phase of Joint Programming Initiatives – GOVERNANCE and EVALUATION Principles"; JPIs To Co Work

- Different national research policy priorities
- Fear of losing control of national research money
- Bad communication regarding the "added value" of JPIs
- Lack of openness already on the level of JPI CSAs
- Difficulties to make long-term commitments
- Competing networks, scientists, institutes, companies

Recommendations:

- *Notwithstanding the need for establishing effective and efficient governing structures and implementation methods, JPIs should aim to involve as many countries as possible. Therefore different and creative forms of participation should be developed.*

- *The work of JPIs should be as transparent as possible. The use of web-sites is already well established throughout the JPIs and should be further extended.*

- *Every JPI should, via its web-site, provide a contact person for countries, institutions or individuals who want to interact or co-operate with the JPI.*

1.4.   Involvement of Stakeholders

For relatively newly established initiatives such as JPIs, it is very important to connect to existing initiatives, organisations and networks. The challenge is to link diverse groups of stakeholders. Involving relevant stakeholders can help to transfer knowledge and experience, and to align activities to co-ordinate the use of resources and facilitate the dissemination of research results.[5]

The fact that societal challenges address a great diversity of stakeholders establishes further challenges:
- Creating a clear concept of stakeholder involvement
- Identifying stakeholders, and determining which organisations and institutions to involve
- Finding out how to address the relevant target groups, and which communication channels to use
- Determining at which stages to involve stakeholders in the whole programming cycle.

The JPI "Agriculture, Food Security and Climate Change" FACCE provides a **good practice** example of stakeholder involvement. Essential stakeholders such as the Standing Committee on Agricultural Research (SCAR) or the EC are represented as observers on the Governing Board. ERA-NETs and European Technology Platforms have personal links, as some members of the Governing Board also participate there. Links to other institutions are established through members of the Scientific Advisory Board and their background organisations. FACCE JPI clearly addresses the need to connect and co-ordinate its activities with existing international programmes and envisages the establishment of a fourth governance body that would bring these stakeholders together. Other international or transnational stakeholders, including representatives of farmers, extension services, etc., will be involved in FACCE JPI more indirectly, e.g. through consultation via questionnaires or at national level.

Recommendations:

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[5] OECD (2012), *Meeting Global Challenges through Better Governance: International Co-operation in Science, Technology and Innovation*, OECD Publishing.

- *Relevant stakeholders and decision-makers have to be engaged and involved in the forward-looking and agenda buildingprocess itself. This will increase the likelihood that results will be taken into account and the necessary decisions made. A participative and inclusive approach is needed.*[6]

- *An analysis of key stakeholders should be undertaken to ensure their relevance.*

- *Alternative ways of stakeholder involvement like online surveys, online debate [7], stakeholder workshops, citizens' jury [8], etc. should be considered.*

- *Policy involvement in the generation of the SRIA is essential to guarantee the strategic long-term vision of overcoming societal challenges and to involve national activities and resources.*

- *A timely graduated involvement of stakeholders should be considered, depending on the risk and benefits of their inclusion.*

- *The involvement of stakeholders should be part of the evaluation of JPIs.*

2. Joint Programming Function 2: "The Strategic Process (Foresight)"

2.1. Introduction

We decided to rename Chapter 2 of the Voluntary Guidelines for Framework Conditions "Forward-looking Activities" and call it "Strategic Process". Thus we would like to express that FLA or foresight (we are using the two terms as synonyms) is not something that JPIs might use to support their activities, but that a major part of the activities of JPIs actually is foresight.

The definition for foresight given on the website of the European Foresight Platform reads as follows:
"Foresight is a systematic, participatory, future-intelligence-gathering and medium-to-long-term vision-building process aimed at enabling present-day decisions and mobilising joint actions. It can be envisaged as a triangle combining "Thinking the Future", "Debating the Future" and "Shaping the Future."

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[6] European Commission (2011,) *Framework Conditions for Joint Programming in Research — Voluntary Guidelines 2010*

[7] The main difference to online surveys is that participants can interact and therefore create more added value. For examples, see Haegeman et al (2012).

[8] A citizens' jury is a means for obtaining informed citizen input into policy decisions. For a full description, see Slocum (2003).
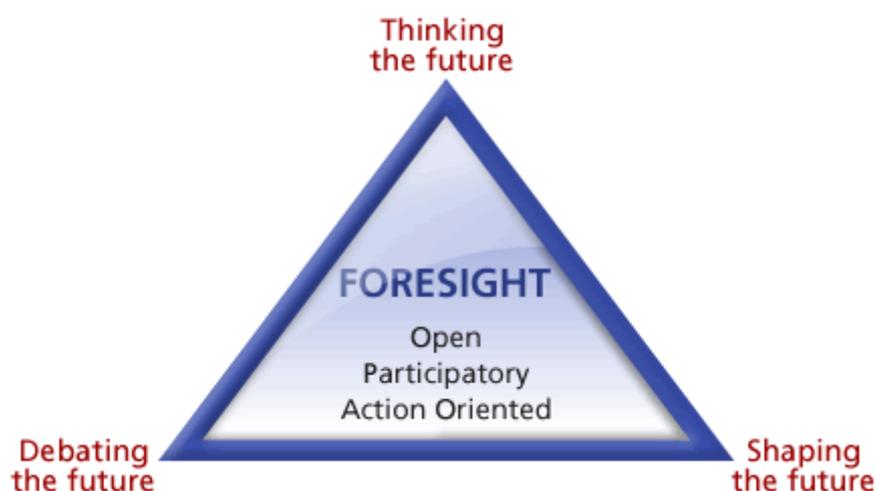
Figure 1: The foresight triangle (Source: JRC-IPTS)

In the Joint Programming Process, foresight is carried out in two phases: In the phase of identifying Grand Challenge Areas (Phase 1 of the Joint Programming Cycle), foresight is used for "early identification of existing and emerging grand societal challenges that could have far-reaching scientific and technological implications"[9]. In Phase 2, which we call the "Strategic Process" of JPIs, foresight is carried out to "translate an already identified grand challenge into an operational reality"[10].

2.2. Identifying Grand Challenge Areas

While for the 10 existing JPIs, this phase is already in the past, a new "Phase 1" for identifying themes for new JPIs may well lie ahead of us, depending on an assessment of the Joint Programming Process and political decisions to be made in the future. The body responsible for governing this process would be the GPC.

While the selection process leading to the themes for the 10 existing JPIs has often been criticised for having been rushed, the process was nonetheless built on existing analyses on national, European and global level. It was a decentralised process, involving researchers and societal stakeholders in a flexible manner. However, we can certainly learn from this experience and benefit from it in a possible future identification exercise. The "Expert Group Report on the JP Process" recommended "preparing a systematic process that can be used for deciding on future Challenges including monitoring, evaluations and other forward looking activities"

Recommendation:
A possible future "challenge identification exercise" should be built on the experience gained and be properly planned in advance. Member States should be invited to provide input to the process, all

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[9] Voluntary Guidelines 2010
[10] Voluntary Guidelines 2010

relevant stakeholders should be involved. Studies, workshops, stakeholder consultations and other foresight tools should be used. The GPC should eventually prepare proposals to the Council for discussion at the political level. This discussion at the political level should be used to build ownership of, and commitment to, the new initiatives and finally lead to the adoption of those initiatives which receive sufficient political support.

2.3. The Strategic Process of JPIs

We have decided to call the process of translating an identified grand challenge into an operational reality the "strategic process" of JPIs. In a slight variation of the Joint Programming Cycle as developed by ESF[11], and drawing on experience from the ongoing JPIs, the strategic process contains the following elements:

    i.   Defining the strategic objectives of the JPI
    ii.   Identifying specific themes or aspects within the challenge area on which the JPI wants to focus its activities
    iii.   Developing a common evidence-based vision
    iv.   Developing a Strategic Research Agenda
    v.   Developing/choosing tools for the implementation of the SRA
    vi.   Developing an implementation plan

While there is certain logic in the order of these six elements, especially during the orientation phase of a JPI, in practice these elements will often be carried out in parallel.

We are now in a position to look back on how the 10 JPIs tackled the challenge of carrying out a large part of the strategic process. All 10 JPIs have permanent governance systems in place. 7 out of 10 JPIs have adopted a Strategic Research Agenda. 3 JPIs have formally adopted an implementation plan. All JPIs have started to carry out joint activities. Drawing on the experience gained and taking into account what we consider to be desirable developments for the future, we would like to outline the following observations and make recommendations accordingly:

Observation 1:
While we agree that different challenges require different solutions, we believe that all elements of the strategic process need to be carried out by each JPI. As the skeletal structure of the Strategic Process, these elements are obligatory. JPIs are, however, largely autonomous with regard to choosing the methods they apply in their strategic process and the tools they use for implementation.

Observation 2:
The strategic process is, in fact, a cycle. All steps taken need to be constantly reviewed during implementation in the light of the experience gained and the changing environment. The strategic process of a JPI never ends. The issue of the overall duration of a JPI is closely related to its cyclic nature. We believe that all the societal challenges selected so far are long-term challenges. If a JPI proves to be successful, the established structures can be maintained as long as there is a need for research and innovation within the respective challenge.

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[11] See also the VG 2010, "phases of the Joint Programming Cycle", page 24

Observation 3:

All seven elements of the strategic process represent steps in a complex foresight process. JPIs have used various foresight tools to carry out these steps. They have commissioned studies, held workshops, consulted stakeholders, carried out mapping exercises etc. Such a complex endeavour requires sound management and appropriate financial and human resources. It also requires specific knowledge of the area under consideration, national/regional priorities and capacities and of foresight activities, in order to get robust results within a tight timeframe[12].

Recommendations:

- *JPIs should be aware of their strategic role in Europe with regard to their challenge area. In order to fulfil this role, they should aim at building up the necessary human resources in order to implement the strategic process effectively, and to play their strategic role convincingly.*

- *JPIs should seek external expertise where necessary to carry out the foresight processes effectively.*

- *JPIs should regularly revise their strategic documents in the light of new developments.*

- *JPI's should be closely connected to relevant bodies and processes at national / regional level*

3.   Joint Programming Function 4: "Joint Activities"

The Joint Programming Initiatives have developed a number of activities in order to ensure the implementation of their Strategic Research Agendas. In addition to these Strategic Research Agendas, several JPIs have set up Implementation Plans to ensure a follow-up of the Agendas.

Though varied in conception, design and follow-up, the activities developed by the different JPIs to implement their Strategic Research Agendas, including through Implementation Plans, generally fall into the following categories:

1.   **Mapping of research capacity and capability in order to identify opportunities for Joint activities**
2.   **Identification of areas of national research for alignment at European level (co-investment with the European Commission)**
3.   **Enhanced coordination, linking and alignment of national research funding, research programmes, national infrastructure and national strategies**
4.   **Implementation of calls for proposals (funding)**
5.   **Networking, cooperation and partnership activities – with researchers, industry, policy-makers and others**
6.   **Capacity building initiatives with researchers**
7.   **Outreach and communication activities**

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[12] For an overview of design principles for embedding foresight in transnational research programming, see Könnölä & Haegeman (2012).

The different JPIs have chosen different modalities to implement their activities and actions. The emphasis here is on the specific activities of the different JPIs, and not on the modalities chosen to conduct the different activities.

From our point of view, of the activities listed above, activities 2 and 3 are key to the success of the Joint Programming Initiatives. Furthermore, of these two activities, **activity 3** is the **core activity** of any **JPI** while activity 1 is vital in order to enable the development of activities 2 and 3. Individual JPIs have furthermore defined activity 4 (calls for proposals) as a key contributor to activities 2 and 3.

We are aware of the fact that points 2 and 3 in particular have overlaps with the work of the Working Group on Alignment. However, in our report we address these issues from a more operational perspective and therefore believe that our findings will complement the report of the WG on Alignment rather than compete with it.

Below, the 7 identified activities are addressed in detail:

1. Mapping:

We assume that at this stage all JPIs have concluded mapping the research fields and capacities relating to the scope of the relevant JPI. Both the mapping exercises and the tentative operationalisation of the exercises have been conducted using very varied approaches. This makes it difficult to compare them across JPIs.

Additionally, the design of the mapping exercises has not always – at an early stage - taken into account the necessity of the later use to be made of the results of the exercises for purposes of coordination, linking and alignment of national research funding (programmes), national infrastructure and national strategies.

Recommendation:

***Mapping** exercises conducted to update or complete the baseline for coordination, linking and alignment of national research funding (programmes), national infrastructure and national strategies, should be conducted **in accordance with guidelines** to be developed under the auspices of the GPC.*

The mapping guidelines should be developed in cooperation with national policymakers, ensuring that the mapping is of immediate practical use at the national level. This applies in particular to guidance on the alignment of national funding, national programmes, national infrastructure and national strategies.

2 and 3.   Alignment at European level (co-investment with the European Commission) and enhanced coordination, linking and alignment of national research funding (programmes) and national infrastructure

Based on the existing Strategic Research Agendas - and Implementation Plans where they exist – no JPIs at present would seem to have a complete set of detailed follow-up plans to ensure that **activities 2 and 3** are accomplished.

FACCE-JPI could arguably be said to represent good practice with respect to <u>activity 2</u>, whereas JPND and JPI HDHL are good representatives of JPIs with fairly well-developed plans for <u>activity 3</u> - national alignment.

A forward-looking integrated approach towards co-investment with the European Commission is, however, no guarantee for further alignment of national programmes, although it would lead to smarter use of national funds in specific instances. To ensure maximum impact of a programme of co-investment with the European Commission, the JPIs will also need to integrate long-term programme planning at national level with its co-investment activities.

It is still early days for national alignment at this stage, even with the most ambitious JPIs. The actions undertaken with respect to coordination of national funding programmes and strategies are light-touch, and could benefit considerably from better interaction with national priorities and plans in relation to the Strategic Research Agendas already in place.

There is also the impression that the interlocutors for the JPIs in most instances and for the most part still are the researchers at national and European level, and not the decision-makers at national level. In order to achieve substantive alignment, the JPIs, supported by GPC and other ERA groups, will need to enter into far-reaching dialogue with national policy-makers and decision-makers, on the basis of their respective Strategic Research Agendas. This dialogue should be facilitated through the fact that the different members (countries) are already represented at a high level on the Governing Boards.

A specific feature which makes the process of coordination, linking and alignment of national research funding (programmes), national infrastructure and national strategies particularly challenging, is the **lack of common indicators** for a definition of successful alignment.

Even though alignment by definition is an ongoing process, how can we measure it at set times in the process? In other words: how can we take snapshots of the ongoing alignment process? Specific indicators will have to be established to ensure that the alignment process takes place against an evidence-based background.

The indicators could be based on many different parameters. As a possible example, we could use the percentage of national funding (programmes) disbursed in accordance with the Strategic Research Agenda of the JPI in which the country in question takes part, as an indicator. The definition of indicators is not a simple matter, but is necessary in order to substantiate any progress made.

Defining indicators also requires determining the baseline on which the indicators are to be established. Such baselines should be developed on the basis of a common approach by GPC.

Recommendation:

Alignment at European level (co-investment with the European Commission) and enhanced coordination, linking and alignment of national research funding (programmes), national infrastructure and national strategies should be measured on the basis of Joint Programming indicators, developed by GPC.

The development of indicators entails the setting of a baseline for the individual JPI. The baseline is to be set in coordination with GPC, on the basis of a common approach for all JPIs.

4.   Implementation of calls for proposals (funding)

Many JPIs have conducted calls for proposals, with the explicit intention that such calls contribute to alignment.

In several instances this has led to leveraging of national funds for the specific topics identified in Strategic Research Agendas. To what extent the calls have led to deeper dialogue with national funders and ensured a permanent change of national strategy is debatable, and evidence to back up such a claim may be difficult to access.

Calls for proposals by e.g. FACCE-JPI have been designed with a view to coordinating with ongoing and planned initiatives at European level, and as such have entailed smarter use of public funding in certain fields of research.

The use of calls for proposals as instruments of leverage of national funds will ultimately be successful if it leads to a permanent change of approach and funding at national level. At this stage, it is not possible to state that this change is taking place yet.

Using calls for proposals in JPIs also raises the question of which sources of funding are accessed nationally. For many JPI members (countries), institutional funding makes up the bulk of national funding[13]. Accessing research agency funding for JPI calls will obviously still be of interest in such cases, but will not ensure the deeper impact achieved when accessing institutional funding. JPI HDHL is among the JPIs starting to look at including institutional funding in its joint activities.

The JPIs are still at an early stage in dealing with the question of how to leverage national funds, together with European and international funds. The development of the use of the place-based Structural Funds - together with other European, international and national funding – is of interest for the JPIs, not least in order to increase JPI membership in the newer Member States.

Recommendations:

- *Implementation of calls for proposals (funding) as an instrument of alignment needs to be further explored and developed, based on existing best practices. Access to institutional funding as an instrument of alignment should also be developed.*

- *Furthermore, there is a need to explore and develop JPI mechanisms for the leveraging of national funds together with European and international funds.*

- *It is of specific interest to explore and develop the use and leverage of Structural Funds. This will be of specific benefit to newer member states, which are currently underrepresented in the Joint Programming Initiatives.*

- *The use and leverage of Structural Funds should be explored and developed in an effort organised by GPC, in cooperation with the member states which can access such funds. The use of the Structural Funds for JPI purposes may have positive consequences for the participation of these states in the Joint Programming Initiatives.*

5. Networking, cooperation and partnership activities – with researchers, industry, policymakers and others

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[13] In the EU27, on average around half of GBAORD is estimated to be institutional funding (Doussineau et al, 2013).

All JPIs have conducted extensive outreach activities with a range of stakeholders. These activities are ongoing.

As an example, JPND has developed a stakeholder database to "ensure that relevant stakeholders remain informed concerning the outputs, results and initiatives of JPND." JPND initiated a broad stakeholder process, organised as a combination of face-to-face meetings, workshops and on-line consultation, including an Industry Consultation. JPND has also set up Action Groups for engagement with industry, users and the general public. FACCE-JPI has set up a Stakeholder Advisory Board with 22 member organisations, as have other JPIs. JPIAMR has set up a Stakeholders Forum for which all interested parties can sign up through an online form.

Recommendation:

JPI networking activities need to be further focused and targeted towards policymakers and programme-level agencies at national level, as well as towards industry. As all JPIs are working towards the goal of ever closer alignment of national programmes, the outreach, networking, cooperation and partnership actions should be designed with this in mind.

6. Capacity building initiatives with researchers

All JPIs have developed capacity building initiatives with researchers in the research fields in question, both through their Scientific Advisory Boards and through wider outreach initiatives.

JPIAMR, for example, has conducted a series of Scientific Advisory Board Workshops with a view to identifying specific research priorities. JPIAMR is developing a Research Infrastructure strategy and establishing a number of Alignment Actions to "promote alignment of research activity across Europe."

Recommendation:

JPIs have given priority to engaging with the national research communities of JPI members, in order to develop their Strategic Research and Innovation Agendas. This has been a valuable investment in order to integrate these research communities in the work of the respective JPIs.

The challenge is now to turn the researcher-driven identification of research domains and topics into closer engagement with national funding agencies and national priorities. The establishment of alignment actions (cf JPIAMR) in order to overcome fragmentation and promote pooling of national research efforts is one promising development. These types of activities need to be promoted and strengthened.

7. Outreach and communication activities

All JPIs have developed communication plans and have set up websites to communicate their work. The Water JPI Communication and Dissemination Strategy is one example. Much valuable work has been done in outreach and communication, also to the broader public. The different JPIs have chosen different approaches, also with respect to website design and overall communication strategy.

Recommendation:

All JPIs should be encouraged to continue and strengthen their outreach and communication strategies. Further efforts need to be made to communicate with the general public, including information on how alignment is progressing. Thus the general public will understand that alignment of national resources to reduce fragmentation is sensible from a research perspective. Public support will also be enhanced when it is made clear that alignment contributes to sensible and smart use of public funding for research.

4. Joint Programming Function 5: "Dissemination and Use of Research Findings, Innovation and IPR issues"

1. Introduction

Learning from the findings of the ToCoWork project, we decided to group together the issues of "Dissemination and Use of Research Findings", "IPR Issues" and "Innovation", since they are all three related to the transfer of research results to final users or beneficiaries[14], or more directly to the use of research findings to induce innovation. Furthermore we decided that in the context of innovation, we need to address the role of JPIs for evidence-based policy making. Finally we added the issue of involvement of industry, since this can be of particular importance for the innovation capacity of JPIs.

The VG have already recommended to JPIs to set up strategies on dissemination, open access and IPR issues. We understand, however, that so far the resources of most JPIs have been put into other, more urgent issues. We also understand that JPIs are now entering a phase where these issues become important for the JPIs on a practical level and need to receive current attention.

2. Dissemination, Open Access

Joint Programming is to a large degree about publicly funded research. Notwithstanding the importance of the protection and exploitation of IP that will play a role in some JPIs, the issue of dissemination of research findings needs to be high on the agenda of every JPI. It is the first step in making use of generated knowledge, and it is necessary to increase transparency and public awareness. Research results must not end up in a drawer somewhere – this is something that must be avoided at all costs.

As already recommended by the VG, open access should be applied to the research output of JPIs as much as possible. This claim is even more valid since open access to publications has been made obligatory in Horizon 2020. The question with regard to open access to publications is not so much if but rather how to implement it in JPIs. Furthermore open access to research data needs to be discussed within JPIs as well. Open access to research data can be a very effective mechanism to drive research in a given area without coordinating the research efforts.

The problems arising when addressing the issue of a common approach to dissemination and open access will be very much the same across the JPIs, therefore we think that a joint effort should be made

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[14] According to the results of JPIs ToCoWork Work Package 5: IV Workshop (October 2013, Stockholm), http://www.jpis2cowork.eu/images/workshop/IV-WS/3-JPIsTOCO-WORK_survey_outcome.pdf

to develop dissemination and open access strategies. A process should be started, with support from the Commission, to organise the development of dissemination and open access strategies for each JPI. Additional support could be provided by experts, and best practices already used in the JPIs could be exchanged. Following the principle of "no one size fits all", the JPIs will be free to make decisions for themselves according to their specific needs. However, certain principles should be followed by all JPIs, and JPIs should strive to make their strategies as coherent with each other as possible.

Recommendation:

JPIs should develop strategies for the dissemination of research findings and open access to publications as well research data. A process to support the development of such strategies should be drawn up with the support of the EC. Coherence between the strategies of the various JPIs should be sought as much as possible.

3. Use of Research Findings, Innovation and Evidence-based Policy

JPIs serve the purpose of contributing to meeting societal challenges and increasing competitiveness. Therefore they should, at some stage, deliver input for innovation and/or political decision-making. In order to be able to meet these challenges, JPIs need to decide on strategies how to deal with research findings, as well as on how to implement these strategies. Relying on dissemination and open access will not be enough. A proactive strategy will be required to drive the change process.

Innovation is a key factor in JPIs for tackling societal challenges. Amongst other criteria, JPIs will also be evaluated regarding the level of innovation they have been able to contribute. Innovation should refer to industry, to policy-making as well as to societal innovation, and specific approaches should be developed.

Innovation should not be an abstract goal; it should address concrete and realistic issues. A focus on societal-driven innovation challenges, the transfer of results into innovations serving both the economy and society, and a clear impact on competitiveness and socio-economic issues are some of the aspects to be considered. Adequate timing and consultation of end-users are part of the innovation strategy process. In addition, collaboration with innovation-related initiatives (KICs, EIPs, …) is important for reducing fragmentation and increasing alignment between research and innovation efforts.

Recommendation:

JPIs should develop a strategy for the use of research findings and innovations, or incorporate these issues into their SRA. Such a strategy should address all forms of innovation, whether they are technological or societal. It should also provide input for evidence-based political decision making.

4. Knowledge Transfer and Involvement of Industry

Concrete achievements in the field of innovation are rarely possible without the involvement of, and cooperation with, industry. Industry should, as appropriate, be considered both as a partner in joint research activities and as an end-user. Partnering with the business sector requires a solid and accomplished network that ensures good results. The restricted academic-industry consortium approach tends to be too narrow and not to be sufficiently flexible; concrete incentives and drivers to approach and engage industries are needed. Depending on the topics, the involvement of business should be considered in a wide range of areas from an early stage, e.g. in drawing up the SRA, shaping call topics, designing the peer review process, open access issues, IPR issues, innovation policy, and foresight. For

this purpose, clear definitions of the role of the industrial partners and guidelines on industry involvement should be developed.

Among the reasons for involving business in the innovation cycle within JPIs and identifying common areas of concern is the necessity to understand user requirements early on, the possibility to pool resources and support the pull side of research, as well as faster dissemination of research results. On the other hand, involvement of the business and industry sector also implies competition and IPR issues, conflicts of interest, the applicability of national rules limiting funding of private research, or the exploitation of publicly funded research.

Recommendation:

JPIs should develop a strategy for knowledge transfer and the involvement of industry. Such a strategy may vary substantially from JPI to JPI, depending on the nature of the challenge addressed. A process to support the development of such strategies should be developed with the support of the EC.

5. IPR Issues

Though the VG has already recommended that each JPI set up an IPR strategy, intellectual property rights (IPR) remain the "most unprocessed framework condition".[15] This may indicate that many JPIs are not yet aware of the importance of, or need for, IPR as they are still at an early stage of development.

As stated in OECD recommendations, well protected and appropriately enforced IPRs are prerequisite for successful innovation, and they can be arranged by several means so that they enable knowledge transfer and dissemination: "A variety of collaborative mechanisms, such as licensing markets or pools and clearing houses, can facilitate access to and use of knowledge. Patent systems need to be properly tailored to ensure a proper balance between incentives for innovation and the public benefit that flows from dissemination of the knowledge in the marketplace."[16]

Thanks to cross-border collaboration, JPIs have a strong potential to facilitate the rapid dissemination of research results. This may be useful in contributing to market predictability, due to the development of common, standardised solutions. Another aspect is that not only the result, but also the knowledge developed is valuable for industry. Therefore clear rules for IPR should be set up from the very beginning.

Recommendations:

JPIs should develop IPR strategies. A process to support the development of such strategies should be developed with the support of the EC. Coherence between the different IPR strategies should be sought as much as possible.

With the support of the Commission, differences in IPR regulations in Member States which interfere with common IPR strategies in JPIs should be identified with the aim to take measures to reduce such differences.

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[15] According to the results of JPIs ToCoWork Work Package 5: IV Workshop (October 2013, Stockholm), http://www.jpis2cowork.eu/images/workshop/IV-WS/3-JPIsTOCO-WORK_survey_outcome.pdf

[16] OECD (2012), The OECD Innovation Strategy: Getting a Head Start on Tomorrow, OECD Publishing

IV. Enabling Environment for Joint Programming

As pointed out in the introductory chapter of this report, the Framework Conditions are meant to have impact in two directions: the smooth functioning of the JPIs and the improvement of the environment in which they operate. All relevant issues have been mentioned already in the Voluntary Guidelines. This report attempts to carve out these two elements more clearly in order to clarify the responsibilities for action both on the side of the JPIs as well on the side of those who can improve the environment, which includes the GPC as the dedicated forum of MS and AC. The WG believes that more emphasis than in the past should be put on the latter, since it determines, to a large extent, the opportunities and success JPIs and the entire JP process can have at the end of the day. The issues which are at stake when we talk about an enabling environment for JPIs are the following:

1. The existence of medium-to-long term national strategies towards a certain societal challenge and the readiness of MS and AC to align those strategies within the remit of a JPI;
2. The level of medium-to-long-term commitment by Member States, Associated Countries, national Funding Agencies (including their European federations) and the European Commission to invest in, support, enable and facilitate Joint Programming Initiatives;
3. The degree of divergence of rules for funding R&I throughout Member States and Associated Countries, and the readiness of MS and AC to take steps towards simplification and developing common standards;
4. The readiness of Member States (and funding agencies) to participate in joint activities (joint or coordinated calls, co-ordinating facilities, opening up of national programmes, etc.) and to facilitate this participation by administrative and/or legal measures, including the development of new and innovative methods for funding.

1. The existence of national strategies towards a certain societal challenge and the readiness of MS and AC to align those strategies within the remit of a JPI

The GPC Working Group on Alignment has focussed on these issues in more detail. In order to provide a complete picture, however, we will address these issues briefly.

MS, AC, and funding organisations should not only consider the JPIs' activities when designing their national strategies and programmes, but should use the JPIs as a platform to involve the European level as well as other MS and AC in the planning process. The "thematic programming" exercise of the FACCE JPI provides an example of how JPIs could organise a process of distributing tasks or themes to MS/AC, thus directly aligning MS/AC funding activities in a given area.

Equally importantly, the EC, as the body responsible for drafting and implementing the Framework Programmes, should collaborate closely with the JPIs both when developing the next Framework Programme and when implementing the current one.

On the level of the research to be carried out, complementarity needs to be ensured between the national, the transnational (JPI's own activities) and the supranational (FP) level. The results of the relevant projects of all levels need to be taken into account for the JPIs task of collecting results and

data and make them usable and used, in order to induce innovation and provide the basis for political decision-making.

In order to be able to fulfil this role, full collaboration by all actors in the ERA is required.

Recommendation:

- *MS/AC administrations and funding agencies need to fully engage in strategic alignment organised by JPIs.*

2. **The level of medium-to-long term commitment by Member States, Associated Countries, national Funding Agencies (including their European federations) and the European Commission to invest in, support, enable and facilitate Joint Programming Initiatives**

The working group considers JPIs as promising tools to enhance the ERA significantly and to contribute substantially to meeting societal challenges. We assume that this view is shared by all GPC members. The JPIs are not just a partnership to perform joint calls. A look at the visions and Strategic Research Agendas and at what JPIs have achieved to date clearly shows that they already are much more than that. From our perspective, JPIs are strategic hubs or platforms for Research and Innovation in the challenge they are engaged in. As a strategic hub, their mission must be to assemble all relevant players in the given field at their table and structure research and innovation efforts in the challenge concerned. Their main objective should be to jointly structure the funding activities for R&I throughout ERA, in order to maximise the output for meeting the societal challenges while at the same time avoiding unnecessary duplication and increasing excellence through collaboration and competition. In addition, their ambition should be to substantially increase the amount of R&I funding spent in a jointly and/or co-ordinated manner.

Furthermore, the WG believes that JPIs are designed to be long-term structures. They are about to build up new forms of collaboration in the ERA. This involves learning processes on all sides. It involves building up trust. All of this needs time.

Considering all of the above, the Working Group believes that considerable and sustainable human resources are needed for JPIs to properly fulfil their tasks. The amount of personnel needed may vary from JPI to JPI, but in any case, it has to be adequate to the respective JPI's ambition. We therefore believe that MS, AC and the European Commission need to take the relevant decisions on the resources to be made available to JPIs. In this context, it also needs to be considered that a programming process at European level can be used at national level, thus reducing costs for national programming considerably, as has already been demonstrated in the context of SCAR foresight activities.

We believe that it is not sustainable to have JPIs fight for every euro they need from the EC and the MS. We believe that a robust human resource basis should be developed and further resources be made available, on the basis of the activities planned in the respective implementation plans.

Commitment does not only mean making management resources available to the JPIs. It also means that MS, AC, national funding organisations and the Commission need to collaborate actively with the JPIs. Therefore, MS and AC must establish closer links to the JPIs. They should deploy personnel with experience of national funding activities and strategic processes for their participation in and collaboration with JPIs. The members of Governing Boards need to be closely linked to national strategic processes in the respective field.

Recommendations:

- *Adequate resources should be made available to the JPIs in order to put them in a position to fulfil their task as a strategic hub for the respective challenge.*

- *Closer links between MS/AC and JPIs need to be established by deploying experienced personnel on the part of the MS/AC, and by involving the individuals responsible for national strategies and programmes.*

3. The degree of divergence of rules and procedures for funding R&I throughout Member States and Associated Countries and the readiness of MS and AC to take steps towards simplification and developing common standards

Little progress has been made in the ERA since its beginning 15 years ago with regard to reducing the barriers to transnational collaboration which are due to non-compatible national rules and procedures. At the same time, this incompatibility causes considerable difficulties for JPIs and other transnational initiatives in performing joint activities[17], thus also constituting barriers for the advancement of the ERA. Some of these rules have no justification other than that they have a tradition in the administration of the respective countries. Some others certainly have a legal basis or other foundations in the national systems.

We believe that there is considerable potential in making progress towards more interoperability of national programmes and systems. A first but important step could be to establish a comprehensive universal terminology. This would make joint activities more easily comprehensible for applicants, but would also establish a common language for programme owners, facilitating their transnational collaboration. Further options would be to develop default procedures for the implementation of calls, setting standards for call publication, call evaluation, peer review, programme monitoring and evaluation, and developing a default set of eligibility criteria.

We do not believe that EU legislation is the way to proceed in this matter. We think that a common effort should be made to develop comprehensive guidelines to be applied by member states on a voluntary basis. A system could be developed to give a label ("ERA mark") to those programmes which apply the guidelines to a large extent.

Recommendation:

- *Common guidelines on terminology, rules and procedures for R&I programme implementation should be developed in a joint effort of MS, stakeholder organisations and the EC, to be applied throughout the ERA on a voluntary basis.*

- *A funding instrument for joint activities should be developed. It should be applied by all national funding agencies in order to facilitate the implementation of joint activities.*

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[17] As shown in the JOREP study

4. The readiness of Member States (and funding agencies) to participate in joint activities (joint calls, coordinated calls, opening up of national programmes, etc.) and to facilitate this participation by administrative and/or legal measures

It is one aspect of transnational collaboration to align strategies and programmes. Another aspect is to implement the strategies and programmes jointly. The JOREP study analysed the investments in joint research programmes in a number of Member States and categorised the different kinds of collaboration. One of its findings was that the investments in what they called "coordinated programmes", which compare to the joint calls in JPIs, is still very low compared to overall public investment in R&D in these countries. National programmes are opened up even more rarely, a fact which has also been investigated by this study. The rarest phenomenon, according to the study, is the opening up of national programmes where foreign participants are entitled to receive funding.

The WG believes that Joint Programming can only fulfil its purpose fully if the share of funding channelled through joint and opened-up programmes can be increased significantly. The reason for that is obviously the fact that without opened, coordinated or joint calls, there is no competition possible on a European scale. However, such competition would be required to get the highest quality results. One precondition for such an increase in funding is enhanced interoperability as described under point 2. Another precondition is that a number of problems connected to funding can be solved.

We are aware that a significant increase of "real common pot" solutions outside the Framework Programmes is not likely to happen. The same applies to the opening up of national programmes where foreign participants are entitled to receive funding. We therefore propose to develop other creative solutions to overcome the well-known difficulties connected with virtual common pot systems, including the problem of raising funding for participating in foreign programmes.

One solution could be for MS/AC to earmark a certain amount of funding to be spent flexibly across several or all initiatives/programmes in which they participate.

The WG believes that in the area covered by a JPI, national programmes carried out in a closed and/or not coordinated way should be the exception, while the rule should be to enable competition/collaboration on European scale.

Recommendation:

- *Hand in hand with an increased interoperability of programmes (point 2), the amount of programmes carried out jointly, in a coordinated way or opened up for researchers from other countries should be increased significantly. Purely national implementation should only be applied when duly justified.*

- *Acknowledging the reluctance towards real common pots, creative solutions should be sought to overcome the difficulties of funding transnational activities.*

GLOSSARY

AC	Associated Country
EC	European Commission
ERA	European Research Area
Expert Group	Group of experts, chaired by Helena Acheson, who analysed the Joint Programming Process in 2012.
CC	Council Conclusions
FACCE	JPI on Agriculture, Food Security and Climate Change
FC	Framework Conditions
FC-WG	GPC Working Group on Framework Conditions for Joint Programming
FLA	*Forward Looking Activities*
GPC	*"Groupe de haute niveau pour la Programmation Conjointe"* – dedicated configuration of ERAC for Joint Programming
JP	Joint Programming
JPI	Joint Programming Initiative
JPIAMR	JPI on Anti-Microbial Resistance
JPI HDHL	JPI "Healthy Diet fora Healthy Life"
JPND	JPI on Neurodegenerative Diseases
JPIs To-Co-Work	Project to support JPIs, funded under FP7
MS	Member State(s)
SCAR	Standing Committee on Agricultural Research
SRA	Strategic Research Agenda
SRIA	Strategic Research and Innovation Agenda
VG	Voluntary Guidelines on Framework conditions for Joint Programming (2010)
WG	Working Group

Annex

A Technical Annex for the

Voluntary Guidelines on Framework Conditions for Joint Programming in Research