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NOTE

Subject: GPC opinion on the "Future of Joint Programming to address societal challenges" in the context of the mid-term review of Horizon 2020 and the preparation of the 9th EU Framework Programme for research and innovation

Please find attached the GPC opinion on the "Future of Joint Programming to address societal challenges" in the context of the mid-term review of Horizon 2020 and the preparation of the 9th EU Framework Programme for research and innovation as adopted at the GPC plenary meeting on 6 June 2017.

GPC opinion on the “Future of Joint Programming to address societal challenges”

in the context of the mid-term review of Horizon 2020 and the preparation of the 9th EU Framework Programme for research and innovation

The present GPC Opinion on the “*Future of Joint Programming to address Societal Challenges*” aims at identifying the major challenges and proposing measures for future development, both in the perspective of the mid-term review of Horizon 2020 (H2020) and the preparation of the 9th Framework Programme (FP9) for Research and Innovation.

The Opinion was prepared following a long and open consultation and fruitful collaboration between the GPC, the ten JPIs, the EC as well as a broad spectrum of national and international stakeholders, and adopted by the GPC at its plenary meeting on 6 June 2017.

Executive Summary

The European Joint Programming Process (JPP) was designed as a central pillar to provide important inputs for addressing the most urgent problems the EU faces by stimulating joint efforts to tackle global Societal Challenges (SC). Therefore, the JPP should play a crucial role in a further developed European Research Area (ERA) and in relation to the next Framework Programme (FP). The JPP came up with the establishment of the Joint Programming Initiatives (JPI). For the future, the JPP should be considered with a wider perspective by including, where relevant¹, other Public-to-Public Partnerships (P2Ps) such as ERA-NETs, EJPs and Art.185 initiatives. **The overall principle of all these forms of collaboration should be a true and deepened partnership between Member States and Associated Countries (MS/AC) and the European Commission (EC) to jointly face the next decade SCs with a global perspective.**

¹ This can be further defined but there are several P2Ps addressing challenges other than the ones covered by the 10 current JPIs and those P2Ps also have a structural effect at European level (such as biodiversity, rare diseases or raw materials).

The important contribution of the JPP within the ERA consists in the creation of a shared vision on specific SC and on a mission-oriented process to address those challenges with a variety of tools. The central aim of the JPP is to create synergies by aligning national agendas, thereby reducing fragmentation, increasing the impact of national research and innovation investments and fostering innovative approaches to cross-border collaboration and science-policy interaction as well as being gateways for scientific excellence, societal relevance and international cooperation. The JPP is thus an extensive and successful attempt for advancing alignment of national policies and programmes targeting societal challenges. The combination of a coherent mission orientation and long-term programme management structures are unique in the European R&I landscape and can serve as a blueprint for future joint actions.

In the next FP, future P2Ps should act more as gateways between MS/AC policy-makers and the EC in the definition of future R&I programmes in the area of SCs. In order to be able to play such a political role, **P2Ps need to focus more on being strategic hubs for their respective challenges.** Some P2Ps, and some JPIs in particular, are already advanced in this process.

Though there is room for further development and improvement, the GPC considers the achievements of the JPIs and the overall JPP as promising and as a highly valuable contribution to the advancement of the ERA. The GPC therefore fully supports further investment into JPIs and the JPP in general.

Using their Strategic Research and Innovation Agendas (SRIA) as a basis, all the JPIs as well as some other P2Ps have engaged in a broad variety of joint actions such as calls, knowledge hubs, infrastructure and data sharing, foresight, mapping and international outreach. Progress has sometimes been slower than initially expected, owing to the very ambitious goals of JP, the variety of R&I policies in participating countries, and the complexity of the challenges. Sustainable solutions may only be reached by true collaboration and with a long-term perspective.

The GPC sees the following needs for the future:

- To **develop an overarching approach for the JPP** in the broader context of strategic, mission-driven research and innovation in Europe. P2Ps, and JPIs in particular, deserve a central role in the governance and organization of SC-related research and innovation in Europe, both at MS/AC and EC levels, as they are of considerable importance for structuring national and European R&I systems. All P2Ps on a given SC should contribute to a coherent research landscape.

- To **further enhance and broaden the commitment and participation** in P2Ps in order to ensure their sustainability and to promote national and European coordination, involving both funding and performing organizations. A renewal of the political commitment at the highest level in the MS and ACs and clear guidelines on what it entails for a country to participate in the JPP are required. Actions to broaden the participation in the JPP should be intensified. Less research intensive countries should be encouraged to use JPIs and other P2Ps as a stairway to excellence and international collaboration.
- To continue to create mutual trust among MS/AC and foster a true partnership between MS/AC and the related EC DGs, as these are prerequisites for a sustainable and successful JPP. Predictable long-term solutions for the management of P2Ps are necessary in order for them to reach their full potential. This requires a sustained cooperation with, and support from the EC. A “**JP roadmap-model**” with regular evaluations should be considered in order to get predictability and sustainability for all relevant P2Ps, especially the JPIs.
- To pay close attention to and monitor the **impact of P2Ps on alignment and added value for science and society** at a national, European and global scale. The JPP should have a clear focus on science/policy interface, as well as Open Science, proactive knowledge transfer and other innovation actions including a closer link with innovation-oriented initiatives (KIC, EIP, JTI, ETP...).

1. Past Developments and Current Situation

Joint Programming and Public-to-Public Partnerships to Address Societal Challenges

The EU research and innovation policy is capable of providing important inputs for addressing some of the most urgent problems the EU faces by stimulating joint efforts to tackle common societal challenges. The Joint Programming Process (JPP) was proposed by the European Commission (EC) and endorsed by the Council (2008) as a new approach to address Societal Challenges (SC) that could not be addressed solely at the national level. This gave birth to the GPC², which as a first task identified the challenges that would benefit from the setting-up of Joint Programming Initiatives (JPIs). JP is a Member States (MS) driven process, supported by the EC, carried out on a voluntary basis and according to the principle of variable geometry and open access.

Within the ERA, research and innovation are being performed at EU level (through Horizon 2020) and at national and regional levels. Public-to-Public Partnerships (P2Ps) aim at coordination and collaboration between national and European R&I activities. By aligning national strategies and pooling resources, they increase the efficiency and effectiveness of public research efforts. Several P2P instruments and initiatives have been developed and deployed over the past years. The common feature is the joint commitment of MS/AC and the EC for tackling specific challenges. P2Ps span from primarily MS-lead initiatives (JPIs) to instruments strongly supported by the EC and Horizon 2020. P2Ps play a crucial role for structuring national and European RDI landscapes and for leveraging public investments to address SCs.

The ten JPIs are operating today as strategic hubs/platforms for R&I in their respective challenge. The main achievements of the JPIs include the establishment of new forms of long-term collaboration between national and European policy makers and actors. The aim is to increase the impact of national R&I investments, foster and test innovative approaches and science-policy cooperation, while reducing fragmentation, as well as being gateways for scientific excellence, relevance and international cooperation. The JPIs are important actors for advancing alignment of national policies and programmes/activities of Research Funding and Performing Organisations (RFOs and RPOs).

² High Level Group for Joint Programming, dedicated configuration of ERAC

Using their Strategic Research and Innovation Agendas (SRIA) as a basis, all the JPIs have carried out joint calls and are active in international outreach. The majority is performing activities such as knowledge hubs, foresight and data mapping, and share data and infrastructure. The development of the JPIs is encouraging. It has to be considered that bringing together large parts of a research community and a large number of stakeholders, integrating them in a functional governance structure, developing a SRIA and taking major steps in implementing it is a huge challenge and requires a lot of commitment. Considerable results have been achieved so far. However, there is still room for further development, as pointed out in a recent evaluation (Hernani³, 2016).

There were expectations in the beginning of the process that through JPIs substantial additional funds for research on societal challenges could be mobilized. These expectations were not realistic and could not be fulfilled. In times of budgetary constraints, MS could not mobilize large additional resources for transnational initiatives with a pilot character. The JPIs have then refined their concept and developed into strategic hubs/platforms for their respective challenge in pursuit of strategic alignment. Launching calls is still an objective, but by far not the only one nor the most important one. The GPC fully supports this development and its further pursuit.

Societal Challenges and the Joint Programming Process in H2020

The 'Societal Challenges' pillar is the largest of the three pillars in H2020, emphasizing that strategic research on SCs lies at the heart of the common framework program. Introducing the SCs in H2020 has been an important development. Strategic topics are covered, and the European Added Value of the collaborative R&I actions are in general considered high. The degree and nature of structuring effects of the activities at the national level is however unclear. The level of participation from the different MS/AC is very variable, and there has been a decrease in international participation since the former FP. Moreover, the multiplicity of calls within the seven programmes included in this pillar makes it difficult to achieve a mission-oriented objective.

³ Report produced by the Expert Group that was established by the EC to carry out the “Evaluation of Joint Programming to Address Grand Societal Challenges”, 2016

There is some overlap between the SCs in Horizon 2020 and many of the JPIs'. Regarding the content of SCs and JPIs, there are some JPIs directly in line with H2020 SCs whereas other JPIs had little overlap with H2020 SCs. Coordination is therefore natural and desirable. In most cases, there are regular exchanges of information between the thematic EC DG RTD thematic directorates and the JPIs.

Establishing a new practice, the GPC, following collaboration with the 10 JPIs, has submitted the JPIs' Strategic Plans for 2018-2020 as an input to the last Work Programmes (WP) of H2020 to the EC. These plans contain suggestions regarding topics to be addressed, and what tools would be valuable for the JPIs to foster transnational cooperation.

Regarding coordination of efforts between the JPIs and the FP, this has been fragmented, and the funding support from the EC to JPIs has been variable. On the one hand, each JPI has benefited from two CSAs. On the other hand, only part of the ten JPIs have benefited from the ERA-NET Cofund instrument. The EC is also funding the ERA-LEARN 2020 project as a support platform for the P2P community.

2. Main Challenges and Suggested Measures

Tackling SCs is high on the political agenda in Europe and globally. A central property of a SC is its global relevance. Addressing SCs requires long-term commitment, coordination of efforts and investments. JPIs and other forms of P2Ps are excellent platforms to address the major SCs of our time.

Though there is room for further development and improvement, the GPC considers the achievements of the JPIs and the overall JPP as promising and as a highly valuable contribution to the advancement of the ERA. The GPC fully supports further investment into JPIs and the JPP in general.

Therefore, the JPP should play a crucial role in a further developed ERA and in relation to the next FP. However, compared to the current situation where the JPP mainly includes the ten current JPIs, it should take a wider view and integrate where relevant the other P2P initiatives such as ERA-NETs, EJPs and Art.185 initiatives. The overall principle of all these forms of collaboration should be a true and deepened partnership between MS/AC and EC to jointly face next decade grand challenges with an international perspective.

The P2Ps, and JPIs in particular, have the potential to successfully contribute to this important task of tackling SCs by structuring the R&I landscape in their respective areas. Hence, in the next FP, P2Ps should act as the major partner of the EC, with MS/AC, in the definition of future R&I programmes in the area of SCs. In order to be able to play such a political role, P2Ps need to focus more on developing into strategic hubs for their respective challenges. Some P2Ps, and some JPIs in particular, are already advanced in this process.

As pointed out in the Hernani report, coordination and governance in the area of SCs, gathering the JPIs, H2020 and the regional and national levels, need to be addressed in order to increase impact and efficiency. Furthermore, efforts are needed for increased commitment and sustainable long-term solutions for the JPIs. The GPC sees the following four main challenges for the future and suggests several recommendations to address them both in the remit of H2020 and in view of the next FP.

a. Coordination & Governance

Challenge

Solutions to SCs are sought at several levels in Europe today: at the national, the trans-national and the EC level. Fragmentation and duplication of efforts for addressing SCs must be counteracted in order to reach solutions more efficiently.

Measures

- The GPC recommends to **develop an overarching approach for the JPP** in the broader context of strategic, mission-oriented R&I in Europe.
- P2Ps deserve a **central role in the governance and organization of SC-related R&I** in Europe, both at MS/AC and EC levels, as they are of considerable importance for structuring national and European R&I systems. In particular, JPIs are committed to develop consolidated shared visions on major themes, and they can help mobilize national partners and means to implement joint mission-oriented actions.
- All P2Ps on a given SC should contribute to a **coherent research and innovation landscape**.

b. Commitment & Participation

Challenge

The recent evaluation of the JPP points toward the need to raise political awareness in MS/AC, to establish proper national structures for participation in each initiative, and to establish regular monitoring. Increasing commitment requires both a proper rooting of the JPP in national research systems and participation/support from higher political levels in MS/AC in order to take active part in joint actions.

To increase and strengthen participation, the EC has provided the JPIs with CSAs dedicated to widening issues and international cooperation. From the EC side, the regulatory constraints encountered when seeking the use of the structural funds in the context of JP should be assessed.

Measures

- The GPC recommends to **further enhance and broaden the commitment and participation** in P2Ps in order to ensure the sustainability of the JPP and to promote national and European coordination, involving both funding and performing organizations.
- A **renewal of the political commitment at the highest level in MS/AC**, in order to collaborate in a closer and more strategic way to increase the ambition and to invest in joint actions, is needed.
- Provide **clear guidance** on what it entails for a country to participate in the JPP. Lessons from the PSF MLE on Alignment should be distributed and used.
- The emphasis on **widening and inclusiveness** should be pursued. Many of the initiatives and tools of the JPIs are open to all and offer excellent scientific and science policy networks. Less research-intensive countries should be encouraged to use JPIs and other P2Ps as a stairway to excellence through collaboration.
- True and **sustainable alignment** of national research programmes will also benefit from in-kind collaborations between RPOs in different countries. Instruments should allow for accommodating easy institutional collaboration on SCs.

- The **EC support** tools for transnational coordination and cooperation should include instruments where both "fresh" money (cash), institutional (in-kind), and structural funding, may be combined.

c. Sustainability

Challenge

The day-to-day management of these growing initiatives is drawing on scarce resources, and the need to find sustainable solutions is imperative. Thus, JPIs and some other P2Ps are in need of support for a sustainable management.

The EC has, to varying degrees, supported MS/AC efforts to transnational alignment and R&I cooperation with CSAs and Co-fund instruments (ERA-NET, EJP, art.185). This has been valuable and necessary. Flexible long-term support (“glue-money”) from the EC is needed for the JPIs and others P2Ps to be sustainable, especially in view of their central role for addressing SCs in the next FP.

Measures

- To continue to develop mutual trust among MS/AC and foster a true partnership between MS/AC and the related EC DGs, as these are prerequisites for a sustainable and successful JPP, **predictable long-term solutions** for the management of P2Ps are necessary in order for them to reach their full potential.
- A **JP Roadmap-model** with regular evaluations should be considered in order to get predictability and sustainability for the JPIs and the overall JPP. This model could include the establishment of legal structures if necessary for a more efficient implementation.
- To secure sustainability and avoid operational bureaucracy, **long-term support and cooperation with the EC is necessary**. Flexible tools and instruments should be designed and suited for the diversity of JPIs and other P2Ps. Multiannual support for management and transnational activities should be included, based on evaluations.

- In order to rationalize expenses and maximize the cost benefit of the whole JPP, the establishment of a **common administrative management service** could be considered.

d. Impact

Challenge

The evaluations of the FP and the JPP point towards the need for increased awareness of impact and to the necessity to include relevant stakeholder groups, including public sector and industry. The JPP ultimate goal is to promote societal advance, thus further developments in the JPP need to have this issue high on the agenda.

Measures

- JPIs and other relevant P2Ps should develop their focus on **science/policy interface, as well as Open Science**, in order to ensure that results from research and innovation activities are used for new and updated public policies.
- Develop instruments to **monitor the impact** of JPIs and other P2Ps on alignment and added value for science and society at a national, European and global scale.
- The JP approach should seek a closer interaction between the JPIs, other P2Ps as well as other initiatives tackling the same challenges but which are more **innovation-oriented** (EIP, KIC, JTI, ETP...).
- Those JPIs and other relevant P2Ps who have not yet established a **comprehensive stakeholder network** and have not yet established procedures on how to use them, should do so with high priority. The stakeholders can play a role not only in the programming phase but especially when it comes to knowledge transfer and innovation.

Main actions to enhance the JPP in the remit of H2020 and in view of the next FP:

	MS/AC actions (through GPC)	EC actions	MS/AC and EC joint actions
In the remit of H2020	Develop a JPP roadmap model, in view of a possible implementation for FP9	Provide CSAs focusing on the link between JPIs and innovation-oriented initiatives tackling similar challenges	Have a discussion and a decision on the main challenges to address in FP9 and the best way to tackle them
For the next FP	Provide new guidelines and update framework conditions for a more efficient commitment	Set up long-term and flexible instruments to support JPIs and other P2Ps	Set up a new governance for strategic thematic research on SCs including all major P2P instruments, and renew and strengthen the commitment to the JPP