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AND INNOVATION COMMITTEE

– ERAC –
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**ERAC 1204/18**

**NOTE**

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| From: | ERAC Secretariat |
| To: | ERAC delegations |
| Subject: | Final report of the ERAC Ad-hoc Working Group on Partnerships on "Process" |

Delegations will find in annex the final report of the ERAC Ad-hoc Working Group on Partnerships on "Process", as approved by ERAC at its Plenary meeting on 17 May 2018.

**ANNEX**

# RECOMMENDATIONS ON THE REQUIREMENTS FOR THE SET-UP OF A STRATEGIC COORDINATING PROCESS FOR THE SELECTION, IMPLEMENTATION, MONITORING AND PHASING OUT OF R&I PARTNERSHIPS

**Final report by the ERAC Ad-hoc Working Group on Partnerships**

**Requirements for the set-up of a strategic coordinating process for the selection, implementation, monitoring and phasing out of R&I partnerships**

**Conclusions** from the ERAC Ad-hoc Working Group for the ERAC plenary of 17 May 2018:

- The strategic coordinating process for R&I partnerships has to be seen in the context of the overall strategic programming process for the future Framework Programme (FP);

- The main objective of the strategic coordinating process is to make European R&I partnerships more effective and relevant elements of a European R&I system by ensuring in their selection and design that they achieve greater impacts for economy and society and contribute to a better coordination and coherence among relevant R&I partnerships and between R&I partnerships and the Framework Programme;

- The comparison with the ESFRI process provides important learning with respect to the working method, governance structure, output, resource requirements, time lines and general complexity, and can be used as a reference point during the design and implementation of the R&I partnership process, taking into account the differences between R&I partnerships and R&I infrastructures;

- The strategic coordinating process should become the recognised entry point for analysis and advice on the set-up, implementation and eventual phasing out of R&I partnerships in Europe, in particular those with cofunding/investment from the Framework Programme, in order to fully exploit the potential of R&I partnerships for the EU economy, society and its citizens in a coherent, open, transparent and effective manner;

- The strategic coordinating process should become a new element in the overall governance of Europe's R&I system with equal participation of Member States and the Commission. In order to obtain recognition, it must produce high-quality work based on strong ownership of all partners involved, including available expertise at national level, have a clear positioning in the overall governance, and develop robust and sound working methods and timeliness with regard to the needs of the R&I partnerships;

- The strategic coordinating process should be in place by summer 2019 at the latest, in order to advise timely on the selection of new and/or renewed R&I partnerships to be funded under the future FP. If the Commission starts preparation of partnership initiatives to be funded under the future FP before the strategic coordinating process is in place it should ensure provision of early information to Member States and Associated Countries and seek their feedback during the transition period;

- The operational design of the strategic coordinating process should acknowledge a number of boundary conditions and general requirements along seven dimensions: scope, positioning, participation pattern, division of labour between national and EU-level, stakeholder involvement, the choice of R&I partnership approaches ('instruments') and resources;

- More concretely, the WG concluded on the following boundary conditions:

  a) **Scope**: the strategic coordinating process should cover the EU R&I partnerships landscape comprehensively, including all those with EU relevance;

  b) **Positioning**: the strategic coordinating process should function as an entry point for setting up new R&I partnerships. It can only be of advisory character providing qualitative input, without duplicating and circumventing any existing decision making processes at EU and national level, namely the Commissions' right of initiative, comitology or funding decisions at national level. In this context, a clear and detailed positioning is needed in relation to existing decision-making procedures. Also, a transition mechanism is needed from the 'old' to the 'new' R&I partnership system;

  c) **Participation pattern**: The strategic coordinating process should aim at fully exploiting the potential of partnerships initiatives in an open and transparent way, in both the set-up and the implementation of R&I partnerships. 'Variable geometry' shall remain the key approach, and partnerships initiatives must remain open to newcomers at programme and at project level. R&I partnerships should become strategic instruments for Member States, Associated Countries and, in principle, all economic sectors of Europe that contribute to sustainable growth and wellbeing;

d) **Division of labour**: The strategic coordinating process should be jointly designed, steered and implemented by the Commission and MS/ACs. The commitment of participating states should be reflected in their national R&I policy priorities;

e) **Stakeholder involvement:** The coordination with stakeholders (in the broadest sense, e.g. industry, researchers, users and civil society) should mainly take place at national level, they do not directly take part in the strategic coordinating process;

f) **Choice of partnership approaches ('instruments')**: The strategic coordinating process should accommodate the variety of rationales/intervention logics of R&I partnerships. It has a role throughout their life-cycle and aims also at ensuring an overall coherence of the R&I partnership landscape, based on a very limited number of flexible instruments/approaches with clearly distinct intervention logics;

g) **Resources**: The European Commission should provide the necessary resources for the operational design, set-up and implementation of the strategic coordinating process, including its permanent secretariat, resources for external expertise as required, data collection and analysis as well as for the establishment of possible working groups.

**Recommendations** from the ERAC Ad-hoc Working Group for the ERAC plenary of 17 May 2018:

1. ERAC calls on the Commission to elaborate, in close consultation with the Member States and Associated Countries, a proposal for the Council on the operational design of the strategic coordinating process, to be discussed at the ERAC meeting in December 2018;

2. ERAC calls on the Commission to base its proposal on the conclusions of the ERAC Ad-hoc Working Group on R&I partnerships, in particular taking into account the seven dimensions described as boundary conditions and general requirements as well as on the guiding principles for the criteria framework;

3. ERAC calls on the Member States and Associated Countries to take into account the implications of the strategic coordinating process in the review of the ERA advisory structure foreseen in 2018;

4. In the context of the future FP, ERAC calls on the Commission to include the strategic coordinating process for R&I partnerships in the overall design of the strategic programming process;

5. ERAC calls on the Member States and Associated Countries to ensure that national policies, priorities and commitments to partnerships are reflected in their input to the strategic coordinating process;

6. ERAC underlines the need for the strategic coordinating process to ensure strong ownership from all partners, to have a clear positioning in the overall governance of the European R&I policy framework and implementation of the FP, to be based on sound working methods and to provide timely advice throughout the life-cycle of partnerships;

7. ERAC underlines that the strategic coordinating process needs to advise on the selection of new and/or renewed R&I partnerships under the future FP and consequently calls on all partners, that the strategic coordinating process should be operational by May 2019;

8. ERAC calls on the Commission to ensure an early and structured consultation of Member States and Associated Countries on any R&I partnership initiative be funded under the future FP, in particular those based on Article 185 and 187, on the basis of their Inception Impact Assessment[1], in case their preparation is expected to start before the strategic coordinating process is formally established;

1 The Inception Impact Assessment sets out the Commission's initial analysis of the problem, policy objectives and different solutions as well as their likely impacts. It is followed up by an impact assessment when stakeholders are consulted on all key aspects through open public consultations, and that accompanies the legislative proposal of the Commission.

**9.** ERAC underlines the key role of the Commission for achieving a rationalised and effective R&I partnership landscape and consequently calls on the Commission to play an active role in the strategic coordinating process by providing the necessary resources for its establishment and operation, including a permanent secretariat, external expertise as required and resources for data collection and analysis, as well as for the establishment of possible working groups.

**Annex**

**ERAC Ad-hoc Working Group on Partnerships**

**Issue Paper**

**Topic: Requirements for the set-up of a strategic coordinating process for the selection, implementation, monitoring and phasing out of R&I partnerships**

## 1. Introduction

The Council conclusions of 1 December 2017 (§19) gives a clear mandate for the Commission and the Member States (MS) to jointly establish a long-term strategic coordinating process for R&I partnerships, including a governance structure, to ensure the compliance with the principles outlined in the conclusions in selecting, implementing, monitoring and phasing out EU R&I partnership initiatives.

When designing the process, there are several considerations that need to be taken into account. First, partnerships need to be linked with the overall priority-setting process of the Framework Programme where the joint development of priorities and determination of instruments should be ensured (§11). Second, as requested by the Council, the process needs to cover all partnerships funded under the Framework Programme. The Ad-hoc WG is mandated to advise on the set-up and implementation of this process.

This issue paper aims to start the discussion on the requirements for the set-up of a strategic coordinating process for R&I partnerships. It provides a rationale for the process, an overview of the existing processes and governance structures for selecting EU R&I partnerships, looks at other policy areas where successful selection and coordination mechanisms are in place, and lists some general requirements and considerations for the R&I partnership process. It takes into account the results of the interim evaluation of Horizon 2020 and builds on several sources, including desk research carried out by Hungarian and German delegations, the Technopolis report and European Parliament policy briefs on PPPs and P2Ps.

## 2. Rationale for the strategic coordinating process for R&I partnerships

R&I partnerships have first been introduced in FP6 (PPPs in FP7) and while the first years can be seen as 'experimentation phase', the landscape has become too complex under H2020, also confirmed by the findings of the Horizon 2020 Interim Evaluation. One of the underlying reasons, also substantiated in the next chapter, is that the current processes and criteria for setting up new partnerships are instrument specific, and there is no overview of the partnership landscape or what is under preparation. Without a strategic coordinating process for the partnerships, there is a risk of ad-hoc decisions and proliferation of new partnerships[2] with a potential overlap, and the risk of a resulting lack of coherence and coordination. However, the experiences with R&I partnerships also confirmed that all parties involved see them as an important element of the European R&I landscape, bridging the gap between the EU level and national/regional level and/or between the private and the public sector.

Consequently, the main rationale for the strategic coordinating process is to ensure a better coherence, openness, transparency of information and coordination of the R&I partnership landscape along their life-cycle – or to make R&I partnerships more effective elements of an European (encompassing EU, national/regional and private sector) R&I system in order to maximise impacts of investments.

Besides, there are other developments that support the need for this strategic process, notably the shift from R&D policy to a broader innovation policy approach, the (renewed) discussion on the consistency between national and EU R&I policies and the implications for the steering and governance of the Framework Programme and the need to ensure that maturity of R&I partnerships does not lead to 'rigidity' and leaves sufficient room for new initiatives.

2 E.g. already the total share of Horizon 2020 funding estimated to be allocated to partnerships and projects initiated by partnerships is around 25%.

## 3. Overview of the existing processes and governance structures for selecting partnerships

*Table 1: Overview of the existing processes and governance structures for selecting and implementing EU R&I partnerships*

<table>
<tr><th colspan="4">Public-to-Public Partnerships</th></tr>
<tr><td colspan="4">Both bottom up and top down approaches are used in the selection of new topics. H2020 regulation Article 26 provides the framework for ERA-NETs and Art 185s. The ERA-LEARN 2020 initiative has been set up to support the implementation and monitoring of P2Ps.</td></tr>
<tr><th>Art 185</th><th>ERA-NET</th><th>EJP</th><th>JPI</th></tr>
<tr><td>Established based on COM Proposal incl. ex-ante Impact Assessment, Decision of Council and EP. Top down initiatives that are based on high-level political commitment. Each Art 185 seems to have its own particular story on how it came into existence. The existing Art 185s have had very diverse lobbies and high-level political supporters to endure the long formal decision-making process.</td><td>Topics are identified in the Work Programmes and approved in the FP Programme Committees.</td><td>Topics are identified in the Work Programmes, and approved by the FP Programme Committees.</td><td>The GPC requests MS to identify topics capable of integrating a JPI. Topics are approved via Council decision after proposal from GPC. It started out as a top down process, but has not managed to maintain the high level commitment. In the initial phase (2009-11) the focus was on the selection of the resulting 10 JPIs. Recently, the GPC has elaborated detailed selection criteria in order to establish the JPIs. The process was used for the first time in 2017.</td></tr>
<tr><th colspan="4">Public-Private Partnerships</th></tr>
<tr><td colspan="4">Prepared and planned bottom-up by industry, and originate mostly from the large number of European Technology Platforms (ETPs). New PPPs can be prepared and negotiated basically all the time. However, establishing a JTI can take 1-2 years. The contractual PPPs introduced in FP7 offer a more flexible scheme, since they can be implemented directly via the Work Programmes.</td></tr>
<tr><th colspan="2">Art 187</th><th colspan="2">cPPP</th></tr>
<tr><td colspan="2">After a negotiation between the industry consortia and the COM, the partnership is established based on COM Proposal incl. ex-ante Impact Assessment, and the Decision of Council. In 2004 COM identified that the implementation of SRAs of some ETPs would require a pan-European approach with dedicated EU funding, using Article 187 (/171) TFEU. Followed by the evaluation of JTIs in FP7, in 2013 COM presented legislative proposals for JTIs to be established at the start of H2020 (three of them were renewed (FCH, IMI, Clean Sky), ENIAC and ARTEMIS merged to ECSEL and two new ones established (BBI, S2R). COM is a founding and full member of the JU board and has veto rights to all major funding decisions. COM presented the proposal for a new JTI (HPC) in January 2018. In JTIs, industry contributes with an in-kind and in-cash budget that usually is at least as large as the EU funding and, in a few cases, MS are also contributing important amounts to the JTI.</td><td colspan="2">Set up in an ad hoc manner as a response to the financial crisis. Three cPPPs were proposed in 2008 in the European Economic Recovery Plan and launched in March 2009. An interim evaluation was conducted in 2011 and a final assessment in 2013. The cPPP scheme was integrated into the H2020 regulation (Art 25). The existing three cPPPs were continued in H2020, five new ones were created in 2013, one (Big Data) in 2014 and one (Cybersecurity) in 2016. New cPPPs were proposed in communication COM(2013) 494, inviting concrete industry proposals. COM assessed these proposals against H2020 criteria in Art 25. After a negotiation between the industry consortia and the COM, the partnership is recognised by the COM through a contractual agreement. In cPPPs, industry contributes with an in-kind budget that usually is at least as large as the EU funding. MS are not involved and play no role in cPPPs except when they approve WPs at FP Committee level.</td></tr>
</table>

<table>
<tr><th colspan="2">FET Flagship (FF)</th></tr>
<tr><td colspan="2">The two initial Flagships, and the more recent Quantum Flagship, have followed different modes of selection. The preparation of a ‘third wave’ FFs is similar to the first FFs but is carried out in closer collaboration with the national authorities. In December 2016 Commissioner Oettinger hosted a round table on Future FFs with high-level representatives from MS, and 28 R&I stakeholder organisations to discuss priorities for new initiatives. As part of the H2020 WP 2018-20, a competitive call for preparatory actions for future FFs covering the selected priority areas has been launched. The objective is to launch some 4 to 6 preparatory actions and then select 1-2 new FFs (2021-27). COM set up a Board of Funders (BoFs) in 2015. The BoF is open to all MS and AC. It is tasked with exchanging information on the overall direction, strategy and the management structure of the FFs. After expanding its mandate in 2017, it has also been involved in debates on new FFs.</td></tr>
<tr><th>Graphene and Human Brain Project</th><th>Quantum Technology</th></tr>
<tr><td>The selection process was based on a bottom-up researcher-driven approach, with evaluation achieved by means of the open call mechanism (in accordance with FP criteria). To prepare the launch of the FFs, 6 preparatory actions were funded starting from May 2011 in response to a FP call in WP. October 2012, the 6 finalists submitted their complete proposals. A panel of 25 experts evaluated the six pilots' proposals and chose two projects on 28 January 2013.</td><td>Top-down approach, informed by wider support from the scientific community, industries and national authorities. Proposed in the COM communication on the European Cloud Initiative in 2016. Preparation phase started in 2016 to be ready for launching an operational ramp-up phase as of 2018. COM appointed an independent High Level Steering Committee with representatives from academia and industry to oversee this preparatory phase and provide recommendations on various aspects. Dedicated call in WP 2018.</td></tr>
<tr><th colspan="2">EIT-KIC</th></tr>
<tr><td colspan="2">The KICs are selected by means of a competitive call based on priority fields and time schedule defined in the EIT Strategic Innovation Agenda (SIA). The SIA is a decision of the Council and EP based on a proposal from COM that receives input from the EIT Governing Board. The first three KICs were set by the EU as part of the initial EIT regulation. The following five KICs were selected in 2013 by the EU as part of the EIT’s SIA 2013-20 and at the same time the EIT was integrated into H2020.</td></tr>
</table>

The above analysis confirms that there is currently no overarching systematic process for identifying, implementing and monitoring partnerships. Rather the processes for selecting and establishing new partnerships are instrument specific. In some cases the individual initiatives each have their own story on how they came into existence. There is no clear policy agenda at the European level to define what new topics should be pushed forward, giving room for lobbying rather than basing the selection on systematic evidence and analysis.

The Horizon 2020 Interim Evaluation has recently been the most comprehensive attempt to collect data on EU R&I partnerships. However, this evaluation revealed shortcomings with regards to Key Performance Indicators (KPIs) used for assessing partnerships, as well as inconsistencies with collecting KPIs (e.g. measurement of the leverage) because there is no harmonised methodology between the different initiatives. Also, the evaluation of partnership instruments separately provides little insight into the complementarity of different partnership approaches and initiatives, and their overall systemic performance. Thus, the Council conclusions call for a new strategic coordinating process covering all EU R&I partnerships to substantially improve the overall coherence and effectiveness of the R&I partnership landscape and contribute to its rationalisation along the life-cycle R&I partnerships, also considering the appropriate budget share or even a possible capping of R&I partnerships during the negotiations of FP9.

## 4. ESFRI process as 'blueprint' for R&I partnership process?

The area of Research Infrastructure (RI) is probably the best example of strategic decision-making in the EU R&I policy. ESFRI was established in 2002 based on a recommendation by the Council. The objective of this forum is to support a coherent and strategy-led approach to policy making on RI in Europe. It is constituted as an informal discussion body for coordination, information, participation and the exchange of best practices. The Member States and Associated Countries (AC) still remain the main source of funding for the RIs. MS/AC participate in individual RIs according to their individual interests, based on variable geometry.

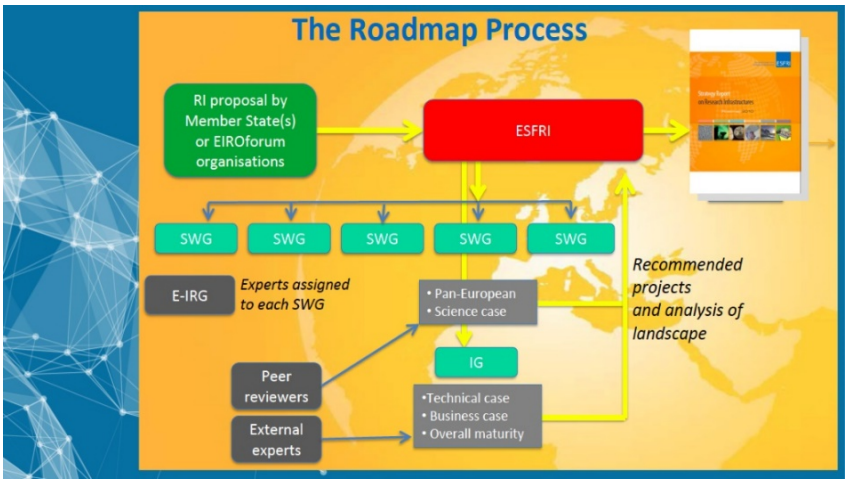
ESFRI currently consists of 40 members (28 MS, 11 AC, COM) and two observers. Over the years, ESFRI has received the following mandates by the Council: to develop a RI roadmap and update it; to contribute to the ERA Framework; to support and monitor the implementation of ESFRI projects; to periodically assess the scientific status of ESFRI landmarks and to develop an action plan for RI long-term sustainability with recommendations for the implementation at regional, national and EU level. The implementations of the mandates are prepared by the Executive Board. The resulting recommendations are then discussed and decided by the ESFRI Forum based on consensus. The ESFRI Forum meets four times a year, the Executive Board about six times a year. ESFRI has established various long-term working groups on different thematic areas and implementation for its numerous tasks. Additionally, ESFRI works with short-term ad-hoc working groups on topics such as evaluation, regional issues and long-term sustainability.

*Table 2: ESFRI timeline*

| *When* | *What* |
|---|---|
| **2002** | Establishment of ESFRI based on Council conclusions of 2001 |
| **2004** | Roadmap mandate based on Council conclusions |
| **2005** | ESFRI agreed in June 2005 on the process |
| **2005** | Early autumn 15 expert groups with almost 1000 high level experts from all fields started analysing the needs of specific scientific areas (duration 9 months) |
| **2006** | The drafting group started with the goal to publish a roadmap with no more than 40-50 projects, approval autumn 2006, 35 projects |
| **2007** | Start of revision of the roadmap |
| **2008** | Publication of the second ESFRI roadmap |
| **2010** | Publication of the third ESFRI roadmap |
| **2011-16** | Revision of the whole roadmap process and sharpening of the criteria |
| **2014** | Renewal of roadmap mandate and prioritisation for H2020 funding based on Council conclusions |
| **2016** | Monitoring and regular peer review mandate based on Council conclusions |
| **2016** | Publication of the fourth ESFRI roadmap |
| **2018** | Planned publication of the fifth ESFRI roadmap |

## 4.1. ESFRI Roadmap process

ESFRI organises open calls for proposals. Only ESFRI delegations or EIROforum[3] members can submit proposals for the ESFRI Roadmap, so the first step for potential applicants is to contact them for a first assessment. ESFRI has developed and applies transparent evaluation, assessment, monitoring and periodic review mechanisms based on two independent processes, 1) the evaluation of the scientific case through the Strategy Workings Groups (SWG)[4] and 2) the assessment of maturity of the proposals through the Implementation Group (IG) – both processes being conducted in close cooperation with experts from the e-Infrastructure Reflections Group (e-IRG). In both cases, international and independent reviewers are involved to provide advice, but ESFRI is solely and entirely responsible for the evaluation procedures and outcomes. The final decision is taken by the ESFRI Plenary. The 2016 ESFRI Roadmap included a Landscape Analysis, Gap Analysis and Outlook, and a list of projects with the rationale behind their selection.




3 An organisation consisting of eight European intergovernmental scientific research organisations (CERN, EUROfusion, EMBL, ESA, ESO, ESFR, European XFEL, ILL).

4 Environment, Energy, Health&Food, Physical Science and Engineering, Social and Cultural Innovation, e-Infrastructures

4.2. Possible lessons-learned from ESFRI for the Partnership process

The strengths of ESFRI are, in particular, its **self-limitation to strategy issues**, the application of the principle of **variable geometry**, encouraging the participation in accordance with national priorities, the establishment of a **sound working method** and **evaluation system** with strict adherence to **excellence in science**, a solid **governance structure** with the inclusion of representatives of all MS and AC, thus encouraging the setting up of national roadmap processes. Moreover, ESFRI has a **clear deliverable** (roadmap with landscape analysis) and has contributed to the **visibility of investments into RIs** and their significance for research as well as for society at large.

Looking at the challenges, it is quite a big endeavour requiring input from a lot of organisations and individuals willing to dedicate considerable amounts of time for the common good. Before transferring it into other fields of EU-action it should be carefully evaluated **whether the same level of commitment can be found in that particular field of action** and whether the returns from this action will justify the efforts to be invested. Secondly, ESFRI has learned over time that a lot more attention needs to be addressed to the **maturity of projects** before embarking on a formal process. When stakeholder commitments and professional project planning are insufficient in the beginning, these difficulties will not simply vanish over time, but will rather make the life of the project all the more difficult over time.

When considering ESFRI as a blueprint for EU R&I partnerships, some major differences between the two need to be taken into account: there is a different dynamic as ESFRI is **national funding only**, RIs have **highly similar implementation models**, there is no **involvement of the private sector**, the set-up of the ESFRI process required a very long prior trust-building process, the developed ESFRI process has a very long timeframe, and is not very flexible.

The ESFRI process provides good ‘transferable’ elements, most significantly self-limitation to strategy issues, sound working method and evaluation system, solid governance model, clear deliverable, landscape analysis (e.g. Societal Challenges needs, what parts are the partnerships addressing, what is missing, where are gaps not addressed at the EU or national level or by foundations etc.). But there are also differences that are not applicable to partnerships (e.g. long timeframe, lack of flexibility).

## 5. Key features for the strategic coordinating process for R&I partnerships

This chapter describes a number of key features that should characterise the 'strategic coordinating process', notably a vision/mission, some general principles of functioning and eventually a number of boundary conditions and general requirements. It is not intended to make concrete proposals for the preparation and implementation of this strategic coordinating process, as this is considered to be outside the remits of this Working Group.

### 5.1 Vision & Mission

The starting point for the design of the strategic process is the question of its objectives and goals. Based on the rationale (chapter 2), the core objective is to make R&I partnerships more effective elements of the European R&I system (encompassing EU, national/regional and private sector) with clear intervention logic maximising impacts and supporting the completion of ERA.

Consequently, a vision/mission for the strategic process should be the following: the strategic coordinating process is the recognised early entry point for analysis and advice on the possible set-up, implementation, monitoring and phasing out of R&I partnerships in Europe enabling decisions to fully exploit the potential of R&I partnerships for the EU, the Participating States and citizen in a coherent, open and effective manner.

### 5.2 Principles of functioning

Obviously, there is a clear link between the guiding principles, the criteria for selecting, implementing, monitoring and phasing out and the strategic coordinating process. In essence, the strategic process should base its work on the criteria framework, which in turn responds to the guiding principles.

In order to achieve its vision/mission, the strategic process should be based on a number of further principles of functioning, because its work is not foreseen in the existing decision making processes at EU and national level. Overall, there are four principles/preconditions to make the process successful:

a) **Ownership**: Not being foreseen in the legal decision making processes, the strategic process requires a high degree of ownership from all partners, notably European Commission and Member States/ACs governments. Without ownership there will be no success in enabling a coherent, open and effective R&I partnership landscape. Ownership encompasses contents, resources and procedures.

b) **Clear Positioning**: The strategic process should have a clear relation and interlinkages with related processes and thus a clear positioning in the overall R&I policy framework. This relates foremost to the 'strategic programming process' for the future FP, but also to the planned 'missions', the regional innovation strategies (part of ESIF) and the ERA-related groups, in particular the GPC[5]. The clear positioning is needed also in relation to the formal decision making processes at national and EU level, notably Comitology (WPs of the FP), Council and European Parliament (legislative procedures for EIT/KICs, A185 and A187 initiatives).

5 As part of the ERA governance review, the role and function of the GPC is currently under review and should be reflected also in view of the further developments in the set-up and implementation of the strategic process in order to exclude institutional inefficiencies and overlaps.

c) **Soundness**: The work of the strategic process needs to be 'sound', notably in its governance structure and working methods. In order to be 'sound', the process needs to be understood as a long-term endeavour, have a forward looking perspective, have clear deliverables and involve the right experts and 'intelligence'.

d) **Timeliness:** The timing of the strategic process is essential – as most large scale R&I partnerships may be decided upon rather at the beginning of the future FP in 2021, the strategic process should ideally be in place by mid-2019. Timeliness, however, needs to include also the requirement, that the strategic process provides advice but does not in any way 'block' or substantially delay decisions on new or renewed R&I partnerships. This is of particular relevance for the PPPs and for the short and medium term in view of a 'transition period' between Horizon 2020 and the future FP.

### 5.3 Boundary conditions and general requirements

In total, the following section covers seven dimensions that the working group has identified and that should inform the operational design of the strategic coordinating process. They need to be further detailed, but define the boundary conditions and general requirements when setting-up and implementing the strategic coordinating process, notably scope, positioning, participation pattern, division of labour between national and EU-level, stakeholder involvement, the choice of R&I partnership approaches (instruments) and resources.

a) Scope

The process needs to take a holistic approach and cover all types of partnerships (today's P2P, PPP, EIT-KICs, FET-Flagships), as requested in the Council conclusions. This ensures a comprehensive overview on what is being done thematically across partnerships, and how different approaches contribute to policy objectives, instead of looking at individual instruments. For instance, in the interim evaluation of partnerships there were, on the one hand, requests for increased involvement of MS in PPPs and their governance, and on the other, requests for greater involvement of industry in P2Ps. In a related manner, if there will be a shift towards a mission-oriented approach, it is more important to strengthen links between research, societal and industry driven approaches and thematically related partnerships to solve specific problems. Lastly, there is increasing public funding involved in PPPs (e.g. national programmes for industry RDI), but no overall forum to discuss MS involvement in PPPs.

Due to the revised approach for partnerships under FP9, the exact definition of the scope cannot be fixed in this paper. However, in principle the Working Group understands by EU R&I partnerships those that are co-funded from the Framework Programme (joint actions between the Union, MS/AC and/or industry), MS/AC-led partnerships where COM may have provided networking support (e.g. in the form of a CSA). In order to fully act as a strategic coordinating process and improve overall coherence of the R&I landscape, the scope should also include R&I partnerships which are as such not co-funded or established by the Framework Programme, but are of pan-European relevance, such as the JPIs, or those that are co-funded under other EU programmes. Once the process is launched, a more detailed definition can be given of what falls in the scope.

It is important to recall that there is no ‘one size fits all’ approach. The process needs to acknowledge the differences between different partnership approaches (e.g. PPP vs P2P, small vs large-scale), including their respective timeframes. A more specific distinction between partnership approaches can be for instance ensured at the criteria level.

b) Positioning

The strategic coordinating process must function as an entry point for setting up new R&I partnerships. The different types of R&I partnerships are based on different legal decision making processes (e.g. for Article 185 initiatives ordinary legislative procedure, based on a Commission proposal and its ex-ante Impact Assessment, or comitology for Co-fund actions). Consequently, the process can only be of advisory character providing qualitative input, without duplicating and circumventing any existing decision making processes at EU and national level, namely the Commissions' right of initiative, comitology or funding decisions at national level. Furthermore, the process has to take into account the different life-cycles of the existing partnerships and any potential renewal under the future Framework Programme. A mechanism is therefore needed that allows a careful transition from the 'old' to the 'new' R&I partnership system and landscape.

c) Participation pattern

The strategic coordinating process should be open to all MS and ACs, encourage all countries to participate in and contribute to partnerships and have openness towards the priorities and needs of MS and AC with different socio-economic situations. Moreover, it should ensure openness and transparency during the preparation and identification of new partnerships, as well as in the implementation phase of partnerships. The rationale for a strong focus on 'openness' is the idea that European R&I partnerships can and should be an important strategic instrument in all MS/AC R&I policies and that, in principle, R&I partnerships can be imagined across all economic sectors[6]. Equal access to the agenda setting in the coordination mechanism of all MS/AC representatives is therefore essential. The variable geometry nature of R&I partnerships is essential and should be better used to respond to the needs and priorities of all MS/ACs.

All MS/ACs should engage in a national co-programming process to ensure that these needs are well articulated, obtain the appropriate R&I policy priority in their national context and ensure the necessary resource allocation and alignment, so that these can be brought to the agenda of the coordination mechanism.

6 Today only about 1-2% of EU BERD is 'coordinated' Europe-wide by using PPPs (JUs, cPPPs).

d) Division of Labour between EU and MS/AC[7]

Three principles should apply for the division of labour in implementing the coordinating process:

1. EU, MS and involved AC should have equal rights and obligations and be formal members of the coordinating process;

2. While fully respecting the existing legal framework for different partnership approaches, MS, involved AC and the EU are jointly responsible for advising on selecting, implementing, monitoring and phasing-out of R&I partnerships, being it EU co-funded ones or not.

3. The work of the coordinating process should have a visible influence and be reflected in national and EU-level R&I policy priorities. In practice the take-up of its recommendations by proper bodies will depend on the quality of its work, and national commitments.

e) Stakeholder involvement

The Council conclusions of 1 December 2017 (§ 15) stress the importance for a need to better reflect the views and needs of stakeholders, users and citizens in the R&I agenda. The coordinating process should formally consist of policy representatives of MS/ACs and COM and not include stakeholders (in the broadest sense, e.g. industry, researchers, users, civil society) as members. Stakeholder involvement should predominantly be organised at national level. MS representatives should present national industrial interests, to ensure a better coordination between national and EU-level industry driven R&I partnerships, to improve the 'directionality' R&I partnerships and increase competitiveness.

7 Associated Countries may require specific conditions due to their legal status.

Depending on the main objective of the foreseen partnership initiatives (e.g. industrial/sectorial competitiveness, societal challenge related, mission oriented, bottom-up scientific excellence) the type of stakeholders involved in this national process will vary. While in H2020 the demarcation between P2Ps (mostly societal challenge driven) and PPPs (mostly competitiveness driven) is quite pronounced, these demarcation lines may be more blurred in the future.

The new coordination mechanism should consider how and at what stage to involve industrial interests, when considerable private investments are expected in the PPPs. The success of strategic research agendas in PPPs will depend on prior commitment of private sector partners to invest. The coordination mechanism should ensure that chosen topics of PPPs have a high EU added value and societal relevance, are sufficiently ambitious and at the forefront of changing technology trajectories and business models.

f) The choice of R&I partnership approaches

Today's partnership initiatives have a mix of science driven (e.g. FET Flagships), policy driven (e.g. JPIs, Article 185) and industrial innovation driven (Article 187, cPPP, EIT-KICs) approaches, or a combination of all three. The topics and the objectives of the partnership initiatives will for a large part determine whether the funding approaches tend to be more top-down or bottom-up. It also depends on the degree of granularity in defining the topic of a foreseen initiative in how much room for manoeuvre do the direct beneficiaries (e.g. researchers, companies, universities) have in order to decide on the topic of research projects (thus strengthening the bottom-up character). The process needs to accommodate both bottom-up and top-down approaches.

The set of topics to be chosen is not endless. The COM proposal for future FP is expected to already include a set of priorities based on global challenges. Once missions have been defined, it needs to be explored to what extent and when, partnerships are needed to implement parts of their activities. The new 'mission-oriented' approach in the future FP may be an opportunity for the strategy process to advise on the selection of a limited number of topics that have the potential for big impact and visibility to the general public. The coordinating process should ensure sufficient openness for new topics and new sets of stakeholders to avoid that the partnership landscape becomes too static. Therefore, requiring exit strategies for running partnerships is important to maintain a dynamic partnership landscape.

g) Resources

A sound, reliable and recognised work of the strategic process requires adequate resources, in particular as it does not only encompass the 'selection' phase of the life-cycle but also the implementation and phasing-out phases. The Commission will need to play the main role for providing the necessary resources for the set-up and implementation of the strategic process, including resources for a secretariat and resources for needed intelligence, analysis and expert involvement. Due to the diversity of the R&I partnership landscape, part of the work of the strategic process might be delegated to specific working groups, which again increases the resource requirements.