



MLE Modus Operandi

National strategies & roadmaps for international cooperation in R&I

Horizon 2020 Policy Support Facility



MLE on National Strategies and Roadmaps for International Cooperation in R&I

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1 CONTEXT

To support countries in reforming their research and innovation (R&I) systems, DG Research and Innovation has set up a 'Policy Support Facility' (PSF) under Horizon 2020, aimed at "improving the design, implementation and evaluation of R&I policies". The PSF provides best practice, leading expertise and guidance to Member States and Associated Countries (on a voluntary basis) through a broad range of services to address their specific needs.

In this way, the Horizon 2020 Policy Support Facility responds to the strong need expressed by the Member States (i.e. ERAC consultations) to offer customer-oriented services to support evidence-based policymaking.

There are three main services offered by the Horizon 2020 PSF to the Member States and Associated Countries:

- Peer reviews of national R&I systems which are in-depth assessments of a country's R&I system carried out by a panel of experts and leading to concrete recommendations to the national authorities on reforms necessary to strengthen their R&I system.
- Specific support to countries which can take form of 'pre-peer review' (providing a solid evidence-base and focus areas for a subsequent full peer review), 'post peer review' (providing concrete advice on how to adjust and strengthen the implementation of peer review recommendations) and 'ad-hoc requests' (providing a set of concrete recommendations on how to tackle a specific issue R&I policy issue and how to implement the accompanying reforms).
- Mutual learning exercises (MLE) which are demand-oriented, focused on specific R&I topics of interest to several volunteering countries, more hands-on, and translated into a project-based exchange of good practice.

2 BACKGROUND INFORMATION

Research and innovation are increasingly interlinked internationally, aided by rapidly developing information and communication technologies. The number of internationally co-authored scientific publications and the mobility of researchers are increasing. Research organisations are establishing offices abroad and companies are investing outside their home countries, in particular in the emerging economies.

Global challenges are important drivers for research and innovation. Our planet has finite resources, which need to be cared for sustainably; climate change and infectious diseases do not stop at national borders, food security needs to be ensured across the globe. Dialogues with international partners are required to build critical mass for tackling these challenges.

As more research and innovation is performed in third countries, the EU needs to access this knowledge. To remain a major global player, it must promote itself as an attractive location for carrying out research and innovation and be successful

in the global competition for talent, while at the same time preserving its economic interests.

Based on this evolving context, the Commission proposed in 2012 a strategic approach to enhance and focus the Union's international cooperation activities in research and innovation . In 2013, the Competitiveness Council adopted conclusions on "Enhancing and Focusing EU International Cooperation in Research and Innovation: a Strategic Approach" , where it reaffirms that *"international cooperation in research and innovation is vital to the strengthening of the Union's excellence and attractiveness in research and innovation as well as its competitiveness, in tackling global societal challenges, in contributing to the Union's external policies, and that good international relations may, in turn, facilitate effective cooperation in research and innovation"*. The Council invited the Strategic Forum for International Cooperation in R&I (SFIC) to *"contribute to the design and development of the multi-annual roadmaps in collaboration and open discussion with the relevant stakeholders, while developing joint research and innovation agendas between the Union, Member States and strategic partners in third countries' and to 'contribute to the development of the common principles for the conduct of international cooperation in research and innovation, notably through the provision of relevant advice and the sharing of information on international cooperation policies and activities and best practice developed at national level."*

During the plenary sessions of SFIC of 8 December 2017 and 8 March 2018, several delegations expressed their wish to engage in an exercise focussing on national frameworks for international cooperation in R&I (including Higher Education in some cases). This is motivated by the introduction or the updating of the national framework/roadmap for R&I cooperation in several EU Member States and Associated Countries. Roadmaps for international cooperation can be defined as initiatives designed to identify a medium- or long-term framework based on thematic priorities for cooperation in R&I with third countries.

In July 2018, the European Commission launched a call of interest in ERAC for a future PSF Mutual Learning Exercise. Out of six proposals, ERAC delegates chose the topic on "National strategies and roadmaps for international cooperation in R&I". This MLE constitutes an opportunity to take stock of current or planned policies and best practices at Member State level and beyond and to share experience among policy-makers and national authorities on the design of strategies and roadmaps promoting international cooperation in R&I.

3 SCOPE AND PRIORITY TOPICS

The Horizon 2020 PSF MLE on "National strategies and roadmaps for international cooperation in R&I" builds on the request for an MLE on the issue of international cooperation in R&I submitted by 10 delegations with the support of the French presidency of the SFIC. As specified in the proposal: *"the general objectives of the projected SFIC work are to foster a policy exchange on the various approaches towards international cooperation in R&I: (i) to compare the different policy making : i.e. motivation, process, timeframe, indicators, existence of international benchmarking processes, etc.; (ii) to identify transferrable good practice and joint approaches where relevant (i.e. synergies between countries and/or the EU; innovative approaches, etc.)."*

On 31 October 2018, a Concept Note was circulated to ERAC in view of exploring countries interest in participating in the MLE on "National strategies and roadmaps for international cooperation in R&I". Fourteen countries (Austria, Belgium, Denmark, Finland, France, Greece, Hungary, Ireland, Moldova, Norway, Portugal, Romania, Sweden and Turkey) expressed their interest in taking part in this MLE. All the 14 countries provided feedback to the Concept Note on the priority topics the MLE should address and their expectations.

On the basis of the concept note and the feedback received from participating countries and the discussions during the kick-off meeting, the topics listed below have been identified for discussion in the context of this MLE.

The final definition will be discussed and agreed upon during the MLE meetings. Opportunities to learn from experiences of non EU Member States / Associated Countries will also be considered.

The MLE will synergise but not overlap with the activity of the SFIC ad hoc working group for a benchmarking exercise on strategies and roadmaps for international cooperation in R&I. One MLE participant that is also a SFIC delegate will act as MLE Rapporteur to the SFIC.

Topic 1: Design and development of national strategies for R&I international cooperation

The two key-words that will guide this MLE-INCO with regards to the topic "design and development of national strategies for R&I cooperation" are embedding and alignment.

- **Embedding** refers to embedding of R&I internationalisation strategies into national R&I strategies.
- **Alignment** refers to alignment with multilateral R&I internationalisation endeavours, particularly EU ones. In this context also the questions of 'when to go for multilateral cooperation instead of bilateral?' and 'what opportunities for R&I internationalization are provided by Horizon Europe to which EU member states and countries associated can actively contribute through multilateral cooperation?' need to be considered.

A further focus should be on the intelligence (evidence base) as well as processes to establish sound and likewise engaging R&I internationalisation strategies and roadmaps. This also calls for smart monitoring and evaluation (incl. indicators).

The matrix below highlights the focus of this 1st pillar of the MLE-INCO based on the feedback of MS/AC during the kick-off meeting.

Rationales and objectives of international R&I strategy	Added-value of int. R&I coop. (intrinsic R&I & other such as science diplomacy, SDGs, devco; economy and innovation); Impact pathways and theory of change	Fit/integration with national R&I strategies (embedding)	Alignment with multilateral initiatives (incl. intern. organisations, EUREKA, COST) alignment of strategies; INCO in Horizon Europe	Drivers, Patterns of influence, Process methodology, Governance
Thematic priority setting	Alignment with and embedding in national R&I strategies	Alignment with EU initiatives	Methodology, indicators, benchmarks	
Selecting partner countries	Scientific considerations	Economic considerations	Cultural considerations incl. Science Diplomacy	

Based on this matrix, the major aspects of designing and developing national strategies for R&I international cooperation are grouped into **two building blocks**:

- Block 1: Strategic configuration of national R&I internationalisation strategies
 - Added value of national R&I internationalisation strategy (theory of change and impact pathways)
 - Embedding international cooperation within the overall national R&I strategy
 - Drivers, processes and evidence-base to select thematic priorities and partner countries (regions)
- Block 2: Synergies through European and multilateral R&I cooperation
 - Synergies and division of labour between EU/international level and national level for enhancing international R&I cooperation

Topic 2: Tools for international collaboration

The aim of the MLE is to foster a policy exchange on the various national approaches towards international cooperation in research and innovation. Thus the activities of the group of MLE participants are focused on learning from each other and taking these lessons 'back home' to implement good practices and good ideas within the national context. On the topic 'Tools for international cooperation', a strong evidence basis has already been developed by SFIC, in particular the Toolbox Working Group that produced its report in December 2018.

The report identified six types of instruments:

1. Strategies and roadmaps
2. STI agreements
3. STI Counsellors
4. Aligned funding schemes
5. Research and Innovation networking activities
6. International research marketing

The report also identifies a number of purposes for cooperation instruments including: meeting global challenges; achieving scientific excellence; leverage funding; explore competencies and complementarities; attract talents and STI investments; access to new markets; capacity building; regulating IPR; science diplomacy and international cooperation as a goal in itself.

The added value of the MLE is to take this SFIC analytical work a step further and engage in concrete operational policy learning by the participants.

The discussions amongst the participants in the kick-off meeting came to a number of conclusions regarding the scope of Topic 2 Tools:

- Overlap with recent and current activities in SFIC regarding tools and instruments should be avoided and coordination to exploit synergies ensured.
- A choice was made for 'deepening' rather than covering a broad array of tools.
- The type of tool that all participants can learn from is STI Agreements. In order to make the exercise relevant for all Ministries and Agencies taking part in the MLE, the definition of what type of STI Agreement we will look at should not be too narrowly defined.
- A practical way forward proposed is to compare from each country one 'good practice case' and one case where participants have doubts about the effectiveness and efficiency.
- As a preparation for the second Country Visit (probably early September) the expert will prepare templates to compare the two type of cases. This is to be disseminated well before the summer break so that all countries have time to contribute and the Challenge Paper finalised in time before the Country Visit.
- The template and challenge paper should not only include views on current STI Agreements but also take into account what the future needs and challenges for these STI agreements could be.

Topic 3: Framework Conditions

Topic 3 addresses how framework conditions for R&I international cooperation are catered for within strategies for R&I international cooperation. The MLE has been set to provide evidence of experience on catering for framework conditions in national strategies for R&I cooperation (such as reciprocity, intellectual property rights, openness of national research programmes to entities from other countries, open science, ethics, etc.).

In general, addressing framework conditions relates to the designing STI agreements. Not only on the removal of possible international R&I cooperation

barriers but also on how the European added value (EAV) is defined; within highly competitive domains and with regard to possible dual-use.

The European Commission structures framework conditions as follows:

- **Public R&I funding:** Funding, awareness networking, country contact points, joint analysis, reciprocity - mutual opening for participation and sometimes funding
- **Innovation cooperation:** The IPR system and its enforcement, standardization, institutional constraints of researchers to move internationally, access to public procurement of innovative solutions.
- **Common principles:** open access, ethics, research integrity, RRI, gender, dual use - EU as a whole address these together better for negotiating with third countries

During the kick-off meeting, initial feedback from countries focused on:

- Ethics
- AI (e.g. China, US, Canada)
- Genetics
- Open Access
- Mobility
- Culture and Gender (Austria mentioned covered elsewhere)
- Foresight

These themes seem to span around the third category of the Commission labelled 'common principles'. While this focus on principles was considered helpful, participants expressed their preference to further focus the work. Subsequently, the further discussion on framework conditions covered also:

- How to deal with the changing international environment, e.g. changes in China, Africa and Russia. The EC is launching new strategy on China concerning standardisation, IPR and their enforcement, ethics and open access, China itself is not a framework condition but rather a driver. Also Science Europe and other entities organise processes for countries to address China. How to deal with geopolitical changes, was further supported, for instance differences in addressing academic freedom, research integrity and how to take these into account in country strategies.
- Framework conditions as deal breakers? In what conditions framework conditions can cause breaking the deal? Could gender or open access issues be enough for breaking a deal? Are there double standards in practice, e.g. when a country is considered an important partner, how this affects on bearing with the short-comings in framework conditions? Further on, how about the measures for preventing a deal break, e.g. around communication?
- Some concerns were shared about addressing sensitive topics that may not be published. The MLE methodology leads to publication of the work, which is good to consider in defining the topics.

Finally, a step by step approach was supported to let the first topic on strategy and second topic on tools to direct the focus of the work on third topic on framework conditions. All the topics are related. Therefore, when the first two are

discussed, the framework conditions can also be addressed in some extent. This will define the scope of the work on framework conditions.

4 OBJECTIVES AND OUTCOMES

The purpose of the MLE is to facilitate the exchange of information, experiences and lessons learned, as well as to identify good practices, in relation to the various approaches at national level towards international cooperation in R&I and to the design of national roadmaps/frameworks (i.e. objectives, process, timeframe, indicators, existence of international benchmarking processes, etc.). A set of recommendations could be drafted at the end of the exercise, taking up the main findings of the MLE and providing insights for Member States, which want to launch their own national frameworks. These recommendations could be a source of inspiration for a dedicated Opinion of SFIC.

The exercise will adopt a hands-on "learning by doing" approach supported by external expertise. In addition to tacit learning, there will be a final written report drawing on the lessons derived from the three topics discussed within the workshops. The report will identify practices (both successful and unsuccessful), include a set of concrete operational recommendations, lessons learned and success factors based on robust evidence about the impacts of the measures and the contextual factors that may explain the impacts. It will contain a solid policy-oriented Executive Summary.

5 WORKING APPROACH AND METHODOLOGY

The MLE will follow the standard methodology for conducting Mutual Learning Exercises in the context of the Horizon 2020 Policy Support Facility "Mutual Learning Exercise- a new methodology"¹. As a *Member State driven* and *policy challenge*-based activity the MLE will promote mutual learning between the participating countries.

The participating countries will get together to explore the best ways to tackle the identified policy challenges, wishing to learn from other countries' experiences.

It will take the form of a project-type of collaboration for a set period of time, in principle, up to 12 months, with defined resources and goals.

Each participating country is expected to gain tailored information and expertise from the process, and also to be open to learn from other participants' circumstances/experiences. Thus, the project is based on open, frank, and confidential knowledge exchange between the participating countries. All participating countries are expected to participate actively, in a forthright manner, and to collect and synthesise the necessary empirical evidence in a timely manner and provide friendly peer support for mutual learning. The specific

¹ Mutual Learning Exercises in the context of the Horizon 2020 Policy Support Facility "Mutual Learning Exercise- a new methodology", Terttu Luukkonen, DG RTD

knowledge interests around the identified policy challenges may vary to some extent between the participating MS, but they are sufficiently close in order that the process can benefit all participants and that learning is mutual. This process is called *peer-supported learning*.

6 DISTRIBUTION OF WORK

The MLE on International Cooperation involves:

- Participating countries: 15 countries (Austria, Belgium, Denmark, Finland, France, Greece, Hungary, Ireland, Moldova, Norway, Portugal, Romania, Slovenia, Sweden and Turkey) have confirmed their interest to actively participate in the MLE. Participating countries will appoint as their participant a sufficiently high-level person with experience and knowledge on the policy challenge, providing resources -in terms of labour- to contribute, provide data and information as the process requires, allotting time to attend meetings and potential country visits, among others
- Independent Experts: The MLE will be supported by an independent expert panel, chaired by Gunnel Gustafsson. Members of the Expert Panel are Klaus Schuch, who will act as Rapporteur, Patries Boekholt and Totti Könnölä
- Commission services. The Directorate General for Research & Innovation will actively support the work of this MLE. The Horizon 2020 Policy Support Facility Team within Unit G1 – “ERA and Country Intelligence” will closely cooperate with Directorate H – “International Cooperation”. The contacts are Ioana Petre from Unit G1 and Efthymios Sakellariou from Unit H2.
- PSF Contractor: The role of the PSF contractor is defined in the framework contract: in line with its provisions, the PSF contractor will provide full support to the Chair and the Rapporteur, and will notably be in charge of the operational and logistic tasks in relation to the organisation of meetings, country visits and overall development of the MLE. Moreover, full deployment by the PSF contractor of very substantial quality control measures at all stages will be crucial for the success of this exercise.

7 TIME SCHEDULE, MEETINGS AND REPORTS

The MLE is structured around six meetings, plus one dissemination event:

- Kick off meeting
- First Country Visit to address the first topic
- Second Country Visit to address the second topic
- Third Country Visit to address the third topic
- Final meeting in Brussels
- Dissemination event

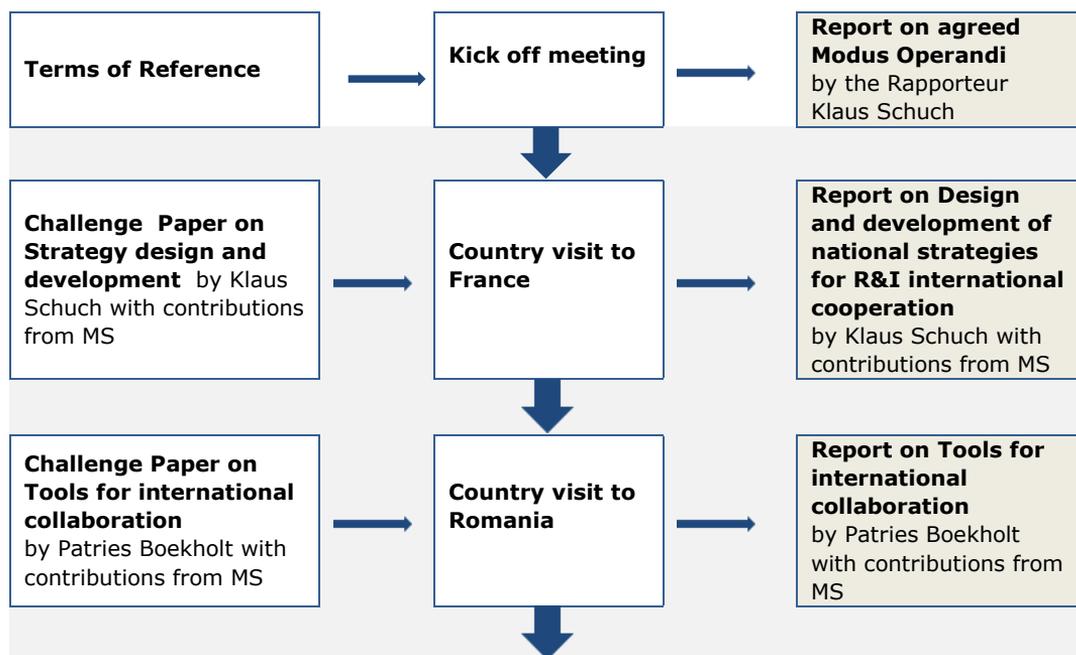
The **final dates for the meetings** are indicated in the diagrams and tables below, based upon the discussions and decisions taken during the Kick-off meeting.

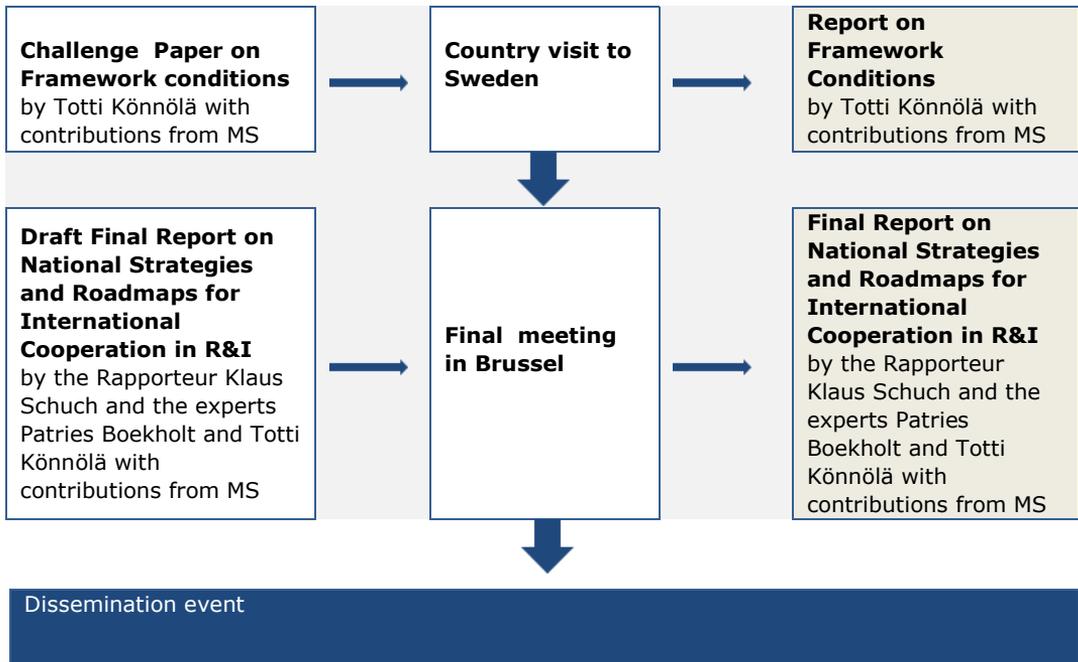
Three **country visits** are foreseen and agreed upon with the hosting countries: one to the France nisation, one to Romania, and one to Sweden.

An overview of the indicative time schedule is shown in the table below.

Indicative time schedule		
Date	Main topic	Place
March 20, 2019	Kick-off meeting with MS and independent experts	Brussels
June 3-4, 2019	Design and development of national strategies for international R&I cooperation	Paris (France)
September 16-17, 2019	Tools for international collaboration	Bucharest (Romania)
Tbd, November	Framework conditions	Stockholm (Sweden)
Tbd, January 2020	Draft final report	Brussels
Tbd, March 2020	Dissemination event	Brussels

The **flow of meetings and reports** is as follows:





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