



## **Overview of Priority 6: International Cooperation in National ERA Road Maps**

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## Introduction

The purpose of this paper is to provide an overview based on the available National ERA action plans and strategies with regard to priority 6: International cooperation.

**Scope:** This paper is prepared based on the following 23 MS/AC (Member States and Associated Countries) road maps available in English in the ERA Portal Austria<sup>1</sup> as of March 2017: Austria, Belgium, Bulgaria, Bosnia and Herzegovina, Cyprus, Czech Republic, Denmark, Estonia, Finland, Germany, Ireland, Italy, Lithuania, Luxemburg, Malta, Montenegro, The Netherlands, Norway, Portugal, Romania, Slovenia, Switzerland and United Kingdom.

## ERA-Roadmap- Background

The ERA Roadmap<sup>2</sup> was agreed by ERAC (*European Research Area Committee*, formerly CREST) at its last meeting in Riga on 16/04/2015 and was given political endorsement at the Competitiveness Council on 29/05/2015.

The Roadmap covers both research and innovation related priorities in the years 2015-2020<sup>3</sup> with the aim of extracting more value from European cooperation, whenever possible; building on what Europe already does well rather than launching new initiatives.

The purpose of the Roadmap is to identify actions at national and European level within 6 key implementation priorities which are likely to have the biggest impact on Europe's science, research and innovation systems. These priorities are:

Priority 1- Effective national research systems

Priority 2a - Jointly Addressing Grand Challenges

Priority 2b- Make optimal use of public investments in Research Infrastructures

Priority 3- An Open Labour Market for Researchers

Priority 4- Gender Equality and Gender Mainstreaming in Research

Priority 5- Optimal Circulation and Transfer of Scientific Knowledge

Priority 6- International Cooperation

## Priority 6 -International cooperation

### High level objective/rationale

According to the ERAC, effective international cooperation with third countries at national and EU level is necessary to address grand societal challenges, facilitate access to new emerging markets and increase the attractiveness of the ERA. Furthermore, in order to take

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<sup>1</sup> Source: <https://era.gv.at/object/document/2763>

<sup>2</sup> Source: <https://era.gv.at/object/document/1841>

<sup>3</sup> Source: [ERAC 1208/15](https://era.gv.at/object/document/1208)

full advantage of existing research and innovation capacity in Europe as a whole, a common and coherent strategy for international cooperation that builds on the experience of bilateral and multilateral collaboration is required.

### **Top Action Priority**

*Develop and implement appropriate joint strategic approaches and actions for international STI cooperation on the basis of Member States' national priorities*

### **Recommended Actions**<sup>4</sup>

*“At National level, Member States and Associated Countries should define national strategies for internationalisation to foster stronger cooperation with key third countries. These should **reinforce multilateral STI cooperation** approaches in order to build critical mass and maximise impact, for example in tackling grand societal challenges.*

*At National and European levels there should be **better coordination** of the objectives and activities of the EU, Member States and Associated Countries towards third countries and International Organisations (notably through the Strategic Forum for International S&T Cooperation). Member States and Associated Countries should actively participate in the further development of the Multi-Annual Roadmaps for international cooperation to ensure that their priorities are properly reflected there and can support coherent priority setting. There should be **better uptake of the results of multilateral EU and intergovernmental projects and initiatives** with an international dimension (e.g. BILAT Projects), and **better use of bi- and multilateral agreements** between EU Member States and international partner countries.*

*At European and macro-regional level, make **better use of opportunities provided by Horizon 2020** to improve coordination with other external policy areas of the Union. The joint S&T committee meetings and policy dialogues should be better coordinated between European Commission, Member States and Associated Countries, who should also be more closely involved in their preparation. The **exchange of data on joint initiatives** between Member States/Associated Countries and third countries, and on **third country participation in programmes** of Member States and Associated Countries should be strengthened in this context”.*

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<sup>4</sup> Source: pg- 19-20, [ERAC 1208/15](#)

## National Road Maps - Priority 6: International Cooperation

### General Findings

- Establishing a national strategy for the period 2016-2020 for international cooperation is an objective included in most of the national roadmaps.
- Some countries find the MS/AC coordination in specific activities beyond H2020 or the SFIC Groups challenging and show interest to contribute through further involvement to better coordinate the objectives and the priorities setting for international cooperation.
- Not every country has addressed general objectives/goals and specific actions/measures with similar detail and consistency.
- As their national official Roadmaps have not been found, the following countries have not been included in the analysis: Hungary, Latvia, Poland, Slovakia, Spain and Sweden.
- Bulgaria, Lithuania and Bosnia and Herzegovina National Action Plans do not address the priority 6.
- France and Greece National Action Plans are written in their languages; therefore they could not be included in the overall analysis.

The common objectives and relevant measures indicated by MS/ACs with regard to international cooperation are outlined below:

### 1. Objective: Define national STI strategies and instruments for internationalisation

#### Examples of Measures:

- Dedicated funding programmes to support international cooperation
- Opening up the national programmes (and national funding) to 3<sup>rd</sup> country participation
- Increased funding for projects with international partners

#### EU MS countries that share this objective in their Roadmaps:

**AT-** *Formulation of a strategy for International Cooperation (Strategic framework "Beyond Europe" was published in 2013).*

**CZ-** *Funding instruments will be aimed also at the establishment of inter-institutional partnerships leading to long-term strategy cooperation resulting in large-scale R&D projects.*

**DE-** *Strengthen the international dimension of the European Research Area. The objective is to improve cooperation between MS and third countries, to make systematic use of synergies, and to plan strategic actions in partnership with the EU Commission.*

**EE-** *Develop cooperation opportunities with third country researchers and research institutions*

**FI-** *Strengthening the visibility and impact of Finnish higher education and research in Europe and globally.*

**LU-** *Promote further research collaborations of the University and the CRP with third countries*

**MO-** *Montenegro will continue to contribute to better coordination of objectives and priority setting for international cooperation and to join activities towards EU priorities in the field of science and research through active participation of scientific research community and officials into all ERA Bodies and into Joint Initiatives, as well as other EU relevant strategic events.*

**NL-** *Effective international cooperation with third countries at both national and EU level*

**SL-** *Increasing international recognition and competitiveness of Slovenian science on European and global scale by improving the quality and quantity of international collaborations; increased funding for international cooperation, increasing participation and success rate of Slovenian partners in international research projects.*

## **2. Objective: Increasing strategic partnerships with selected regions/3rd countries through bilateral cooperation**

### **Examples of Measures:**

- Number of bilateral agreements, joint calls
- Number of agreements in priority topics
- The amount of funding dedicated to bilateral cooperation activities

### **EU MS countries that share this objective in their Roadmaps:**

**AT-** *Implementation and, if possible, conclusion of bilateral treaties and agreements with priority target regions; Carrying out joint calls, in accordance with the budget available and the interest of the international partners; Participation in the international cooperation instruments in Horizon 2020. If appropriate, participation in joint activities by EU-MS with EU third countries.*

**CH-** *Bilateral research programmes have been established with Brazil, Russia, India, China and South Africa (BRICS) as well as Japan and South Korea.*

**CY-** *Promotion of MoU and bilateral STI agreements with third Countries, Enhancement of R&D cooperation with Mediterranean Countries*

**CZ-** *Increase cooperation with United States, Israel, Russia, China, Japan, South Korea, Taiwan, India and South Africa.*

**DE-** *Bilateral cooperation in science and research within the ERA and other third countries continues to be of key importance*

**DK-** *Increase cooperation with countries outside EUREKA, and to raise the level of Danish participation in EUREKA programmes, including Eurostars; - Monitor the development of the new EUREKA initiative "Global Stars", targeted at countries that are not currently members of EUREKA; Establish and strengthen cooperation with Danish enterprises operating in China, Evaluation of the international network programme, which has been*

*established with the countries with which Denmark cooperates bilaterally; The Ministry of Higher Education and Science will contribute to a taskforce within the framework of the so-called Policy Area Innovation under the EU Strategy for the Baltic Sea Region; Increase STI cooperation with Brazil, India, Israel, China, Japan, the Republic of Korea and the USA.*

**FI-** *Targeted countries in STI collaboration are United States, Russia and China, as well as India, Brazil, Japan, Korea & the ASEAN countries, as well as some African countries.*

**IR-** *Deepen bilateral engagements with Northern Ireland, the UK and with those third countries with which we have already developed cooperation in the R&D area.*

**IT-** *Develop a network aimed at coordinating initiatives and research and innovation programmes in the maritime and marine sector in the Mediterranean; The specific objectives to address this ERA priority relate to three initiatives which are currently underway: the Partnership for Research and Innovation in the Mediterranean Area (PRIMA), Developing a Marine and Maritime Network towards a Blue Economy in the Mediterranean (BLUEMED) and a Joint Research Initiative on migrants, migrations and integration.*

**LU-** *Focus on bilateral partnerships with US, China and Israel (target countries)*

**MO-** *Montenegro will focus on the implementation activities concerning the strengthening of participation in bilateral/regional and multilateral cooperation*

**MT-** *Bilateral R&I Agreements with China; Regional Initiatives in the Mediterranean Area*

**NL-** *NWO and KNAW carry out bilateral and multilateral (strategic) research funding programmes with China, India, Brazil, Indonesia and in Africa.*

**NO-** *Strengthened international cooperation through European research and innovation programmes and activities with eight priority countries (Brazil, Canada, China, India, Japan, Russia, South Africa and the US).*

**PT-** *Development of a cooperation programme involving the Community of Portuguese Speaking Countries.*

**SL-** *Increasing the scope and establishing a new strategic form of international bilateral Cooperation; Preparation of the Slovenian Strategy for Bilateral Cooperation Development in Research and Development 2016-2020 and the formation of new strategic partnerships; Bilateral cooperation will focus on neighbouring countries and regions, the Western Balkans, BRIC countries (Brazil, Russia, India, China) as emerging global centres for research and development, and other countries performing complementary research.*

### **3. Objective: Increase STI capacity of Europe by attracting the best talent and advance excellence in research and innovation**

#### **Examples of Measures**

- Mobility of researchers and research management staff
- Networking, matchmaking, information sharing events organized
- International access to research infrastructures
- National representation abroad

#### **EU MS/AC countries that share this objective in their Roadmaps:**

**AT-** *Relevant instruments for intensifying international RTI cooperation (e.g. mobility programmes); International networking and match-making events. Expansion and operation of an online information platform of Austrian activities; Relevant instruments for intensifying international RTI cooperation (e.g. external representations); Continuous improvement of the services provided by the RTI foreign offices OSTA*

**CH-** *Network of science and technology counsellors, based at Swiss embassies in strategically important regions.*

**CZ-** *International mobility leading to intensified networking and development of joint R&D teams*

**DE-** *Global networking between young scientists is also promoted through the annual meetings between Nobel laureates and selected young researchers from all over the world; Continuation of activities and initiatives by Germany's science organizations and higher education institutions abroad to strengthen the international dimension of the European Research Area; increase RI cooperation with Russia, China, India, Japan, South Korea, USA, Brazil.*

**DK-** *DK innovation centres abroad (Silicon Valley, Shanghai, Munich, São Paulo, New Delhi/Bangalore, Tel Aviv and Seoul) should strengthen partnerships with some of the world's leading innovation communities.*

**EE-** *Mobility support schemes in the Mobilitas Pluss programme; enhance the international communication of achievements by Estonian research and researchers as well as the innovation activities of enterprises.*

**IE-** *Target countries are USA, Brazil, China, India and Japan*

**ME-** *Strengthening international cooperation through mobility of researchers and conducting joint activities.*

**NL-** *Bringing the Innovative Research Incentive (Vernieuwingsimpuls) programme to the attention of selected international researchers; Investing in participation in global knowledge networks is an essential part of research and its application.*

**NO-** *Strengthened cooperation between Norwegian embassies/Innovation Norway offices and EU delegations/MS embassies in priority countries by promoting joint activities.*

**RO-** *Stronger networking activities with partners from third countries*

**UK-** *Strengthen bilateral links with key third country partners beyond Europe, such as India and China, using the Science and Innovation Network (SIN) based in embassies in strategic locations throughout the world.*

**4. Objective: Strengthening the cooperation between MS/ACs in programming, monitoring and review of international activities and especially in alignment of national RI programmes to tackle global challenges jointly**

#### **Examples of Measures**

- Participation in JPIs in setting up the strategic research and innovation agenda
- Increasing national funding for JPI/Era-Net calls

#### **EU MS/AC countries that share this objective in their Roadmaps:**



**BE-Flemish-** Care should be taken not to block categories of research actors from participating in ERA-NET Co-Fund or JPI calls.

**DE-** Systematic promotion of multilateral S&T cooperation approaches in variable geometry; Increasing the international dimension of Joint Programming Initiatives-JPIs- (The Federal Government is in favour of implementing the JPIs with a greater focus on structure building. This includes the development of the JPIs into a platform for research cooperation with third countries); Targeted calls for proposals under Horizon 2020 on specific challenges with a regional and specific focus on developing and emerging countries in particular; Thematic collaborations of EU Member States with third countries, in particular in the area of global challenges

**IT-** Propose the launch of a CSA to support a JPI on research and innovation activities addressing migrants and migrations, with special focus on integration.

**NO-** Making the European R & I systems more open by ensuring that the Horizon 2020 programmes specify when international cooperation is key to solving grand, societal challenges

**NL-** in order to effectively respond to major societal challenges; Promote joint activities with other countries (ERA nets, JPIs, etc.).

**RO-** Strengthened cooperation with third countries and regions at multilateral level.

**5. Objective: Strengthening the SFIC's role (Strategic Forum for International Cooperation in Science and Technology) in coordination between European MS/AC initiatives and EC programmes and policies to support international cooperation.**

**Examples of Measures**

- SFIC's involvement in elaborations of the multiannual roadmaps
- Systematic exchanges between the EC and SFIC in INCO relevant calls within the Framework Programme
- Systematic exchanges between SFIC and the EC funded projects with international focus (BILATs, EU Centres, Service Facility, etc)

**EU MS countries that share this objective in their Roadmaps:**

**DE-** Strengthening the role of the SFIC, ensuring that the EU's multi-annual roadmaps for cooperation with key partner countries and regions under Horizon 2020 are interlinked with SFIC initiatives.

**NO-** Joint activities towards priority countries through continued strong commitment to the work of SFIC

**RO-** More active bilateral and multilateral policy dialogue by active involvement in the SFIC activities.

## Conclusions

By March 2017, 23 National ERA action plans and strategies were made available (in English) in the ERA Portal Austria. As 3 of them do not address directly the 6th priority area, the 20 remaining Roadmaps have been reviewed to underline the objectives and related measures, that were considered as the most relevant ones to develop and implement joint strategic approaches and actions for international STI cooperation on the basis of their national priorities.

Not every country has addressed general objectives/goals and specific actions/measures with similar detail and consistency. Despite this challenge, synergies have been found around 5 objectives where there is a common ground and mutual interest and where a group of countries indicated that efforts should be focused to strengthen international cooperation. These objectives are:

- Define national strategies and funding instruments for internationalisation to foster stronger cooperating with key third countries
- Increasing strategic partnerships with selected regions/3<sup>rd</sup> countries through bilateral cooperation
- Increase STI capacity of Europe by attracting the best talent and advance excellence in research
- Strengthening the cooperation between MS/ACs in programming, monitoring and review of international activities and especially in alignment of national RI programmes to tackle global challenges jointly
- Strengthening the SFIC's role (Strategic Forum for International Cooperation in Science and Technology) in coordination between European MS/AC initiatives and EC programmes and policies to support international cooperation in STI.

As some MS/AC suggest, it is clearly a challenge coordinating all the MS/AC in specific activities beyond H2020 or the SFIC Groups. Therefore, as some MS/AC indicates further contribution and involvement to better coordinate the objectives and the priorities setting for international cooperation is expected.