NOTE

Subject:	Final report of the Task Force - Priority 2a

Delegations will find attached the Final report of the Task Force : Priority 2a, as adopted by the GPC at its meeting on 6 March 2018.

GPC Task Force

ERA national action plans (NAPs) and strategies -
Analysis of Priority 2a

FINAL REPORT

Petra Žagar

December 2017

Introduction

Let us recall that in May 2015, the European Council reaffirmed its commitment to a fully operational European Research Area (ERA) and endorsed the ERA Roadmap 2015-2020[1], a living document to guide Member States in structuring their implementation of the ERA. It called on Member States to implement the ERA Roadmap through appropriate measures in ERA national action plans (NAPs) and strategies.

ERA Priority 2a is a sub-priority from Priority 2: *Optimal transnational cooperation and competition* and focuses on issues of jointly addressing grand challenges. Defined high level objective of Priority 2a is to work better together to address the grand challenges that face us all and are central to Europe's ability to respond to a dynamic and changing world. This can be achieved through improved cross border collaboration between national research actors and could reduce fragmentation and duplication of effort, make best use of resources and help provide the benefits of scale required to tackle issues that require large concerted efforts. Top action priority in the ERA Roadmap identified through MSs consultations for Priority 2a is improving alignment within and across the Joint Programming Process and the resulting initiatives (e.g. Joint Programming Initiatives (JPIs)) and speeding up their implementation.

Monitoring of ERA Roadmap implementation is integrated into the ERA Progress Report 2016[2], based on 24 core indicators, which include one headline and two complementary indicators, proposed by the European Research and Innovation Advisory Committee. Headline indicator for Priority 2a so-called *output indicator* is: GBARD (EUR) allocated to Europe-wide transnational, as well as bilateral or multilateral, public R&D programmes per FTE researcher in the public sector. Complementary indicators are: - participation in public-to-public collaborations (P2Ps) per FTE researcher in the public sector (*input indicator*) and - international co-publications with ERA partners per 1.000 researchers in the public sector (*outcome indicator*).

The ERAC-GPC, High level group for Joint Programming, decided that one of the tasks of the GPC Work Programme for 2016-2017 should be Analysis of ERA Roadmap national action plans (NAPs) and strategies for Priority 2a. The Task was taken on and carried out by Slovenian delegate, Petra Žagar with a considerable start-up help from Alexander Grablowitz from the EC, DG RTD B2.

---

[1] https://era.gv.at/object/document/1845/attach/ERA_Roadmap_st01208_en15.pdf
[2] http://ec.europa.eu/research/era/pdf/era_progress_report2016/era_progress_report_2016_com.pdf

2

Text analysis of NAPs and strategies

This analysis is based on 28[3] NAPs and strategies, of 23 Member States (MS) and 5 Associated Countries (AC) with more than 80 actions announced in the view of strengthening Joint Programming Process and jointly addressing grand societal challenges. The full text of objectives and actions for Priority 2a was analyzed with the word cloud tool. The word cloud tool shows greater prominence to words that appear more frequently in the source text meaning that visualization is proportional to the number of times the word appears in the input text. The word clouds show that words European, national, research and participation are most common in the NAPs and strategies, both in objectives and actions description.

objectives:

actions:

Joint programming initiatives or JPIs are specifically mentioned in only 10 NAPs' and strategies' actions, mainly in connection to additional funding, budget commitment, mapping, performance, strengthening structural impact, coordination, participation, integration and general awareness. Other NAPs and strategies use the term joint programming in general, including also ERA-NETs and Art. 185.

---

[3] AT, BE, BG, BA, CH, CY, CZ, DE, DK, EE, EL, ES, FI, FR, IE, IT, LT, LU, LV, ME, MT, NL, NO, PT, RO, SI, SK, UK

3

Another text analysis in form of collocates graph shows a higher frequency terms that appear in proximity. Stopword list was enabled to delete so-called function words that do not carry as much meaning, such as determiners and prepositions. Keywords are shown in green and collocates (words in proximity) are shown in maroon. This represents a network graph where keywords in green are shown linked to collocates in maroon. Again, there can be similarities seen between objectives and actions in the use of words, and in links between words, where one of the strongest is research-innovation in both cases. Difference can be seen in addressing national and European level where in listed objectives research is strongly connected to term national, differently to actions where word research has a strong link with adjective European.

objectives:
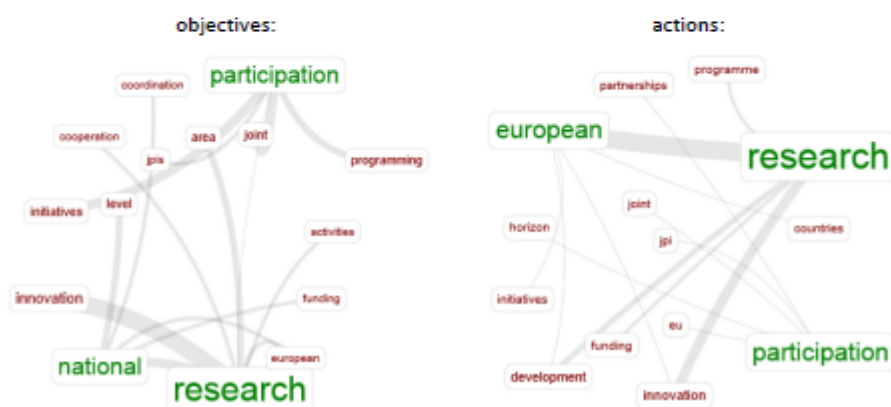
actions:

It can be concluded that MSs and ACs are focusing on national coordination of research to achieve effective participation through European research programmes.

Further analysis was made comparing the **actions** written in 23[4] NAPs and strategies of 20 MSs and 3 ACs. Four typical areas can be easily grouped, addressing:

 ↳ governance issues
 ↳ communication and information
 ↳ funding measures
 ↳ monitoring

Governance related issues were mentioned in 21 NAPs and strategies, representing 47% of actions, communication and funding in 9, each representing 20% of actions and monitoring in 6 of them, representing 13% of actions.

---

[4] AT, BE, CH, CY, CZ, DE, DK, EE, EL, ES, FI, FR, IE, IT, LT, LV, ME, MT, NL, NO, PT, RO, SI

4

As actions describing the **governance issues** were very diverse, additional grouping was made within:

↪ national structures for coordination
↪ strategic networking
↪ alignment
↪ utilization of other instruments

Detailed GOVERNANCE

Alignment; 4; 15%
Utilization other instruments; 3; 12%
Strategic networking; 5; 19%
National structures; 14; 54%
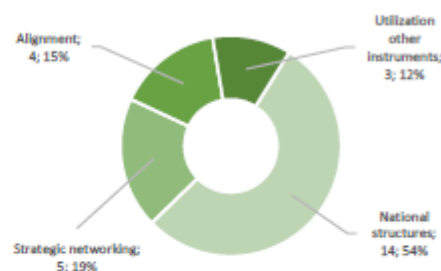
In the below table, the review of often-mentioned actions is shown concerning the identified four typical areas of actions:

GOVERNANCE				COMMUNICATION	FUNDING	MONITORING
national structures	**startegic networking**	**alignment**	**other instruments**			
-nat'l coordination, nat'l structures (continue or establish new) -establish network to support participation -inter-ministerial cooperation, coordination between ministries -new established managemnet model -set up joint ministerial governance framework -strenghthening coord of JPIs at nat'l level through better coord programming and funding -setting up inter-ministerial board to coordinate participation in P2Ps -implementing common model for management	-strategic cooperation/ networking -integration of existing network structures -ensure best possible participation in all relevant transnat'l EU R&D programmes -design and implement 'bivalent' programmes -provide support for the development of ER Networks -strengthen nat'l and better use of EU networking instruments	-alignment of nat'l strategies with strategies of EU level -policy dialogue GPC/H2020 -develop strategies to match funding schemes for shared EU priorities -connecting stratgeic routes of the nat'l research agendas and EU themes -strenghthen role of JPI SRIAs in devising priorities of RDI policy	-continuation and greater utilization of other instruments (EUREKA, COST, A.185, A.187)) -ESA /networking between institutions	-linkage between science, societal stakeholders, business sector and political sector -increasing visibility of networking of science -targeted information activities -web based information and comm system -nat'l debates -icrease particip by promotional and networking activities -effective and targeted dissemination of information on JU,JPI,H2020... -raising general awarenes (spreading knowledge, disseminat eresults,	-continuation, expansion, support to transnta'l coop -additional funding -budget commitments for JPIs -investment in P2P covered by ESIF -implemenattion of funding scheme -funding allocation -targeted cofunfing of transnat'l coop	-monitoring system at nat'l level -mapping and assesment -establishment of committee for the eval. of participation in P2Ps -mapping of stakeholders (JPI Oceans) -establishinh monitoring and assesments system

The deviation from top action priority in the ERA Roadmap identified through MSs consultation is seen, as it was found through the analysis of NAPs and strategies that there is a little focus on alignment and that much higher priority is aimed at the establishment of national structures, inter-ministerial configurations, management models, etc. In this view, it is quite interesting that setting up national coordination structures or its derivatives is most commonly mentioned action in the NAPs and strategies, especially when ERA-NET scheme dates back in 2002 and first JPI in 2008 and governing structures are still not set. However, it is commendable that MSs and ACs recognized non-established coordination structures as obstacle in achieving Priority 2a and are trying to solve it through a variety of activities in NAPs and strategies. This coincides with short-term recommendations of the Hernani report[5] on the national level, saying that EU MSs and ACs should ensure that they have a national coordination system for joint programming that is fit-for-purpose. It

---

[5] https://www.era-learn.eu/...report.../JP_evaluation_final_report.pdf

is clear that it is an issue that has been recognized by MSs and ACs and is being addressed through NAPs and strategies.

Comparison of NAPs and strategies and ERA Progress Report 2016

In February 2017 European Commission has published the third edition of the European Research Area (ERA) Progress Report. The report presents the state of play of ERA and the progress on ERA implementation over period 2014-2016.

According to the report, the measures for achieving two challenges for Priority 2a (strengthen participation in JP and better alignment of R&D programmes) from NAPs and strategies are grouped into 4 types:

↳ Communication and information measures include better information of R&D actors concerning the opportunities and added value from participating in Joint Programming;

↳ Governance and coordination measures are introduced by a number of Member States. Dedicated funding measures are introduced by a number of Member States for the participation in Joint Programming;

↳ Harmonization of funding rules is introduced by several Member States aiming at facilitating the national participation in the JPI's;

↳ Outreach measures towards smart specialization strategies and sectorial policies, especially focusing on a better articulation between the European Structural funds (ESIF), notably the regional smart specialization strategies, and the SRIA's of the JPI's.

Here is a comparison of grouping of actions from text analysis of NAPs and strategies and ERA Progress Report 2016:

Results are similar to the ones on previous page that present text analysis of the actions of NAPs and strategies and cannot be strongly connected only in the field of smart specialization strategies where only EL and MT have mentioned it in the NAPs' objectives and actions and only CZ and EE mentioned ESIF in their objectives and actions.

There is also a connection missing to the monitoring actions but those might be considered as part of the governance and coordination measures division within ERA Progress Report.
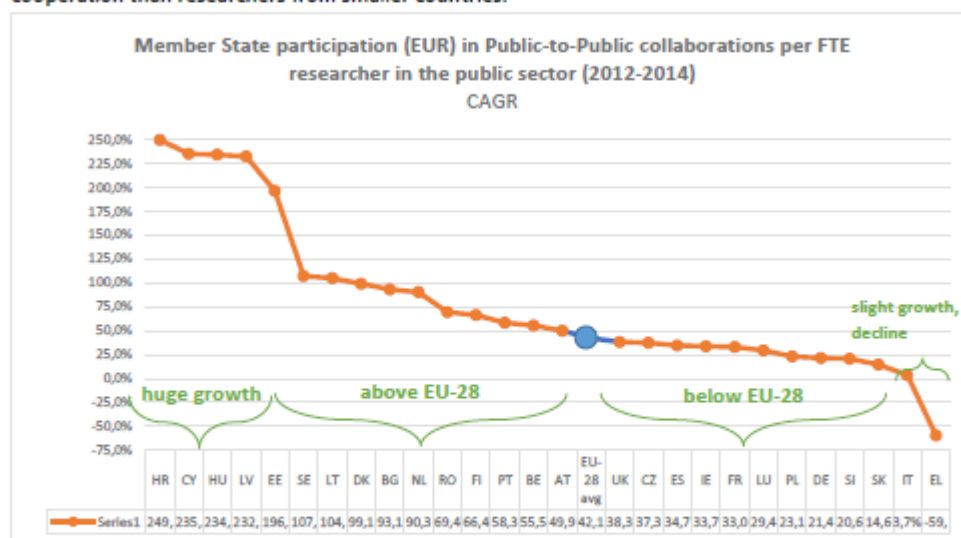
6

However, both show that NAPs and strategies are not corresponding to the main challenges identified in the ERA Roadmap (very little on improving alignment within/across JPP and speeding up their implementation).

ERA Progress Report - Headline and complementary indicators for Priority 2a

For the first time progress has been measured for each country on each priority, based on the ERA Monitoring Mechanism, with a set of core "8x3" indicators. Report also provides a first insight into the development of the ERA priorities, their link to the ERA Roadmap and the main areas targeted in the national action plans ERA NAPs and strategies.

The analysis carried out in 2016 shows strong progress in all ERA priorities across the EU where Priority 2a has one of the highest growth rates among all eight ERA headline indicators with annual growth rate of 7,8% over the period 2010-2014 for *national GBARD allocated to Europe-wide transnational, as well as bilateral or multilateral, public R&D programmes per FTE researcher in the public sector*. This result is a fair indication of the increasing internationalization of science.

Complementary indicator, the *MSs participation in public-to-public collaborations within the EU R&D policy framework per FTE researcher in the public sector* showed much higher growth rate and it is with its 42,1% the indicator with the highest growth rate of all ERA indicators in the years 2012-2014. This result shows increasing importance governments attribute to the more policy driven instruments for implementing the ERA. To account for country size differences, national investments to P2Ps (complementary indicator) have been normalized by the number of FTE researchers but it can still be affected by a small-country bias to extend that researchers from larger countries are more likely to find domestic partners and thus have less incentive to develop transnational cooperation than researchers from smaller countries.


Member State participation (EUR) in Public-to-Public collaborations per FTE researcher in the public sector (2012-2014) CAGR

HR, CY, HU, LV and EE show massive growth of complementary indicator CAGR[6] which exceeded the EU-28's average annual growth rate by 4-6 times despite the below average EU-28 performance in complementary indicator for EE, HU and HR. CAGR data[7] (period 2012-2014) for MT not available thus not included in the graph.

Second complementary indicator for Priority 2a, the *co-publications within ERA partners per 1.000 researchers in the public sector* also showed growth of 3,6% in the years 2005-2014.

Now let us take a look at the comparison of CAGRs of the indicator ▇ Niz 1: GBARD allocated to EU-wide transnational (and bi- or multi- lateral) public R&D programmes per FTE researcher in the public sector that is shown in the column chart and indicator ● Niz 2: Member States participation in P2P collaborations per FTE researcher in the public sector in the form of line chart.

Priority 2a: Comparison CAGR

	HR	CY	HU	LV	EE	SE	LT	DK	BG	NL	RO	FI	PT	BE	AT	EU-28 avg	UK	CZ	ES	IE	LU	PL	DE	SI	SK	IT	EL
▇ Niz1	22,	0,7	3,7	47,	25,	-2,	24,	-3,	15,	10,	9,5	-0,	1,3	1,0	3,4	7,8	11,	-3,	6,1	5,7	35,	76,	-1,	-18	15,	18,	-12
● Niz2	249	235	234	223	196	107	104	99,	93,	90,	69,	66,	58,	55,	49,	42,	38,	37,	34,	33,	29,	23,	21,	20,	14,	3,7	-59
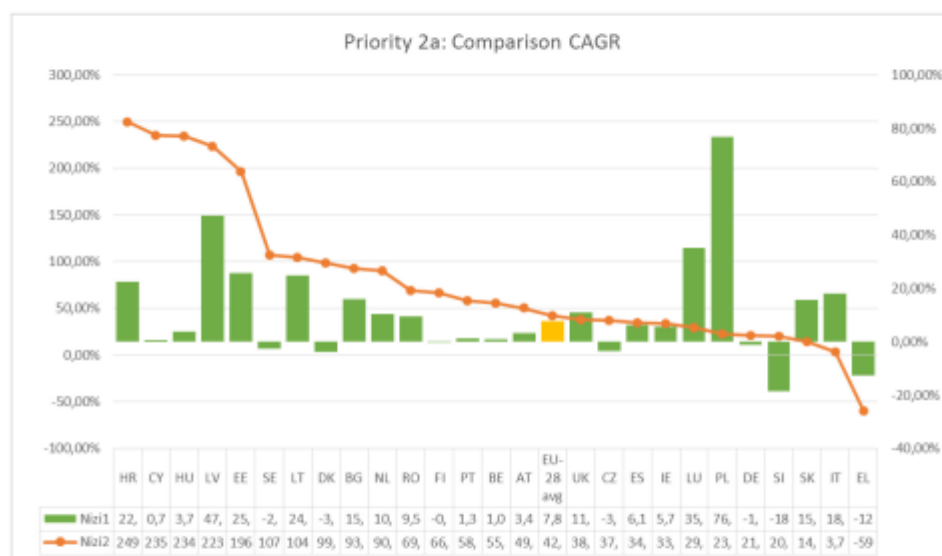
Three different groups of countries can be identified:

- ↳ Group 1: ⇩ decreasing headline indicator - ⇩ decreasing complementary indicator (EL)
- ↳ Group 2: ⇩ decreasing headline indicator - ⇧ increasing complementary indicator (SI, DK, CZ, SE, DE, FI)
- ↳ Group 3: ⇧ increasing headline indicator - ⇧ increasing complementary indicator (CY, BE, PT, AT, HU, IE, ES, RO, NL, UK, SK, BG, IT, HR, LT, EE, LU, LV, PL)

---

[6] CAGR = compound annual growth rate, which shows the average year-over-year change in a country's performance, taking compounding effects into account
[7] Data source is ERA Progress Report:
http://ec.europa.eu/research/era/pdf/era_progress_report2016/era_progress_report_2016_com.pdf

8

It can be concluded that MSs and ACs are increasing investments in transnational projects and the reason might be better understanding and recognition that transnational P2P collaboration is more effective in an EU framework than bi- or multi- lateral cooperation.

Comparison of NAPs and strategies and MLE on Alignment and Interoperability

MLE on Alignment and Interoperability was proposed by the ERAC-GPC and launched in July 2016 to help address the need to foster better alignment and interoperability of National Research Programmes – in line with the ERA Priority 2. This MLE was designed to identify opportunities and good practices to overcome national challenges that prevent stronger participation of MSs and ACs in the Joint Programming Process (JPP). The participating countries agreed to address 3 main challenges/actions: - topics related to efficient and effective national coordination, - topics related to efficient and effective activities at national level and - topics related to the resources needed for an efficient and effective participation in the JPP. First sequence on National Coordination[8] contained three 'main issues' that were addressed during mutual learning in order to be able to develop options for each participant for their own country. Three main topics in first sequence are: - national preconditions for participation in JPP/JPI, - national governance structures and - communication flows and visibility.

---

[8] Final Report: https://rio.jrc.ec.europa.eu/sites/default/files/report/MLE-AI_final%20report_KI-AX-17-010-EN-N.pdf

9

In general similar four issues as recognized in the text analysis of NAPs and strategies are recognized throughout the MLE on Alignment and Interoperability only here, actions were more specifically addressed:
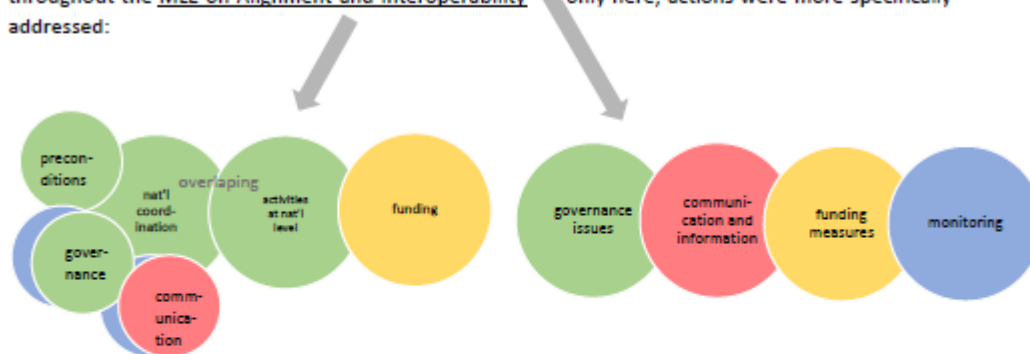
In the MLE *monitoring* appeared under the discussions about governance and also about communication, especially when discussing impact where monitoring is one of key factors (among evaluation and dissemination).

As it is seen from the text analysis and also from the conclusions of the MLE MSs are recognizing weaknesses in areas that have little to do with implementation of JPP in the sense of funding projects but are in need for different support – more on coordination and outreach / communication measures.

Conclusions

1. There is overall perception that MSs/ACs are lacking experience in implementing ERA Priorities at national level.
2. MSs/ACs are focusing on national coordination of research to achieve effective participation through European research programmes, focus is aimed at the establishment of national structures, inter-ministerial configurations, management models, etc.
3. Very little focus is set on alignment within/across JP.
4. MSs/ACs are recognizing weaknesses in areas that have little to do with implementation of JPP in the sense of funding projects but are in need for different support – more on coordination and outreach (communication measures).
5. MSs/ACs are increasing investments in transnational projects and the reason might be better understanding and recognition that transnational P2P collaboration is more effective in an EU framework than bi- or multi- lateral cooperation.

10

Recommendations

1. GPC should regularly monitor the implementation of Priority 2a actions written in NAPs and Strategies.

   For this purpose, an Excel spreadsheet is prepared for 23 MSs and ACs that have described actions in their NAPs and strategies (Annex 1). It is proposed that GPC delegates answers questions that lead them to final answer which is further marked in progress sheet on progress scale: FINISHED – ON TRACK – ON-GOING WITH DELAY – POSTPONED – TERMINATED - CANCELED. Delegates should choose from drop-down menu.

2. As MSs/ACs are recognizing weaknesses in the field of coordination, outreach and communication measures at national level in order for efficient and effective participation in JP an additional MLE on the topic could be requested.

INSTRUCTIONS FOR FILLING IN THE "PROGRESS" WORKSHEET

1. Excel spreadsheet is prepared for 23 MSs and ACs that have described actions in their NAPs and strategies
2. GPC delegates should asses the progress of each action with the following questions:

(1) Has any activity for this action, item... taken place?	YES				NO			
(2) Was the activity delayed?	YES		NO		YES		NO	
(3) Is the activity stopped?	YES	NO	YES	NO	YES	NO	YES	NO
	TERMINATED	ON-GOING WITH DELAY	FINISHED	ON TRACK	CANCELLED	POSTPONED TILL	CANCELLED	SCHEDULED FOR

3. Depending on the questions and answers delegates are guided to the final answer (one among 8 in row "9").
4. They move to the "PROGRESS" sheet and from drop-down menu in column "E" mark the answer gained from question/answer matrix:

FINISHED
ON TRACK
ON-GOING WITH DELAY
POSTPONED
TERMINATED
CANCELLED
SCHEDUELED FOR

5. Additional comments may be written in the column "F"

PROGRESS TOOL

		ACTIONS as written in ERA NAPs and Strategies	Assesment of GPC Delegates:	Progress (December 2017)

AT
- Initiative for strategic cooperation/networking along the GCs, in consideration / by integration of existing network structures
- Outcome-oriented linkage between science, societal stakeholders, the business sector and the political sector
- Alignment of the Austrian strategies/measures/ programmes with jointly prepared strategies at European level

BE

Federal
- Revise and reform, when justified, national, bilateral, transnational, intergovernmental and international research activities (2016-2019) in order to maximize complementarity with other funding entities.
- Improve the Belgian participation in European and international space research activities through the creation of a Belgian Interfederal Space Agency (BISA).
- Better inform the FRI about JPIs, ERA-NETs and COST and improve BELSPO's support by the creation of a working group with the aim of increasing knowledge and avoid misunderstandings, by drafting of a paper describing the most relevant instruments (ERANETS , JPIs , Art. 185 and COST) and by sharing good practices through hands-on-meetings (2016-2017).

Flemish Government
- A formal coordination between the EWI Department and its RFOs should be implemented to come to an overall strategy, vision and decision framework with an independent selection committee using objective criteria and a qualitative analysis on how Flanders will position itself (based on its strengths) with respect to the ERA and its policies and instruments regarding the JP process as a result of a participatory process with the stakeholders (through the existing stakeholder platforms). An optimal balance must be struck between bottom-up and top-down initiatives that ensures sustainability and critical mass. This exercise needs to be repeated at regular intervals. The EWI Department will start to prepare proposals for such a process in 2016.
- Additional funding for JP and addressing grand societal challenges (JPIs, art.185, ...) is needed and is in line with the intention of the Flemish government to reach the 3% R&D intensity level by 2020. A long-term financial plan will set out the commitments of Flanders in the JP process. The EWI Department will start to prepare proposals for such a plan in 2016.
- In the immediate future the EWI Department will focus on strategy and policy related JP horizontal issues and selected agenda items of the High Level Group for JP during the meetings of the relevant working group of its stakeholder platform. A particular information item is the establishment of structural overviews of the participation of Flanders/Belgium in the Peer to Peers networks (P2Ps).
- In European Union (EU) committees and high level policy groups, Flanders will, through the Belgian delegation and on the request of the Flemish stakeholders continue to support the position that long-term funding of JPIs, ERA-NRTs Co-Fun etc. Is to be added to the common pot of the EU Framework Programme/Horizon 2020, as this has the advantage of being a single, transparent and open competition, instead of the multitude of programmes. An additional advantage is a single system or, alternatively, greater uniformity in submission and selection procedures and management not to extend the number of JPIs in "too light" a manner. On the contrary, existing ones should be evaluated and, depending on the outcome, be continued, stopped or integrated. Also, the multitude of submission and evaluation forms and procedures is to be reduced.
- When performing an analysis of the Flemish policy mix and instrument mix (cf. also priority 1), care should be taken not to block categories of research actors from participating in ERA-NET CoFund or JPI calls.

Brussels-Central
- In 2016, Innoviris has already joined the new ERA-NET Cofund action on sustainable urbanisation. This topic has been identified as of common interest to both the Belmont Forum and the JPI Urban Europe consortium. This ERA-NET Cofund action will be realised together with EU partners (JPI Urban Europe Consortium members) and the research councils of Qatar, the United States of America (USA), Mexico, Japan, Argentina, Australia and Brazil. Additionally, Innoviris will join an ERA-NET Cofund action on clinical trials in 2018.
- The alignment of research and innovation projects at the Belgian level remains a challenge. Each entity has its own RDI funding priorities and its own funding rules. There is no real coherent nation-al strategy for aligning research systems between entities and no real organised cooperation be-tween the different sector-based ministries that should be involved in joint programming.
- The only national body, the Inter-Ministerial Conference on Scientific Policy (CIMPS/IMCWB), does not currently deal with the issue of joint programming in a sufficient and effective way.
- Nevertheless, the BEL-SME initiative is one example of voluntary cooperation between the applied research funding agencies of the three Belgian Regions. BEL-SME encourages SMEs to form consor-tia and submit their collaborative projects in the areas of applied research and innovation. The pro-jects are assessed and funded by regional agencies.
- The involvement of Innoviris in JPI initiatives and ERA-NETs and our participation at the ERAC High-Level Group for Joint Programming (GPC, at the political level) enhances the interoperability and strategic planning of research programmes in line with European standards.
- The Brussels-Capital Region furthermore proposes to implement single contact points in each of the regional funding agencies for interregional collaboration, in order to allow for efficient commu-nication and, eventually, expanded cooperation.

Wallonia and Wallonia-Brussels Gov.
- Establish a track record of participation (currently underway);
- Integrate proposals by researchers from the Wallonia-Brussels Federation as part of these European networks in the electronic submission system of the F.R.S.-FNRS (rollout mid-2016);
- Maintain the financial resources to be able to continue to meet the needs of researchers.
- A review of Walloon participation in JP initiatives is underway and will be available in late summer 2016

CH	Providing Swiss researchers an entire and best possible participation in all relevant transnational European RDI programmes, initiatives and projects, is a main objective of the Swiss Confederation, as well as establishing and maintaining an optimal transnational cooperation within Europe. Switzerland will continue its efforts in the future to reach this goal. Wherever possible, Switzerland tries to expand and promote the participation in such RDI activities. Therefore, the focus lays on the expansion of existing measures.
	The SNSF endeavours to extend bi- and multilateral agreements, thereby including also the further development of common funding principles. In its Multi-Year Programme 2017-202027 the SNSF targets to improve support of international cooperation in all funding schemes through additional funds.
CY	Involvement in the policy dialogue regarding the JPI Initiatives in the framework of the GPC and the H2020 –Programme Committee (PC)
	Mapping and assessment exercise for the identification and selection of initiatives where Cyprus could participate further on the basis of national priorities and its RDTI capacity (JPI's, COFUND, Art. 185 & 187, COST)
	Budget Commitment for JP Initiatives and Art. 185 Initiatives
	Strengthen the European orientation of the national R&I Funding Programmes giving emphasis to tackling Societal Challenges
CZ	Public authorities will prepare, adopt and implement an Action Plan for International Cooperation of the CZ in R&D and Innovation and Internationalisation of the Czech R&D and Innovation Ecosystem.
	In order to keep on enabling participation of Czech research organisations and private enterprises in the COST and EUREKA programmes (that the CZ is already a Member State of) the "Inter-Excellence" R&D programme will be prepared, adopted and implemented since 2016 as well as other complementary funding instruments that will preserve the Czech involvement in the EUROSTARS, EMPIR and ECSEL programmes.
	Public authorities of the CZ will identify barriers and develop a concrete set of coordination and funding measures, which will enable an intensified involvement of Czech research organisations and private enterprises in cross-border and international R&D initiatives and programmes based on the interoperability of national approaches and mutual recognition of evaluation procedures. In this respect particular focus will be put on participation of Czech R&D performing entities in JP Initiatives, ERA-NET, ERA-NET Co-fund schemes and the TFEU Article 185 programmes AAL (Active and Assisted Living R&D Programme), EDCTP (European & Developing Countries Clinical Trials Partnership) and PRIMA (depending on the decision of European Commission).
	Public authorities of the CZ will support the Czech research organisations to develop long-term international strategy partnerships established within the framework of the Horizon 2020 "Teaming" instrument. Related investment costs will be covered by using the European Structural and Investment Funds (hereinafter referred to as "ESIF") raised within the implementation framework of the Operational Programme Research, Development and Education (hereinafter referred to as "OP RDE").

governance issues • communication and information • funding measures • monitoring

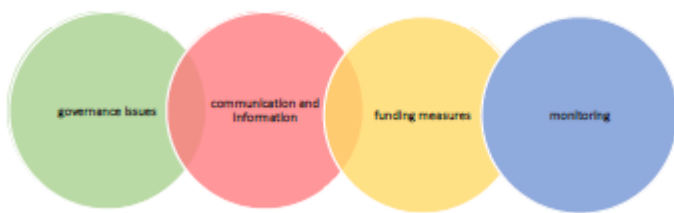|			
DE	Strengthening the structural impact of the JP Initiatives (JPIs): In particular, this measure includes designing and implementing 'bivalent' programmes, i.e. when BMBF funding programmes are being planned, wherever possible and appropriate a European component is also to be developed that is geared in terms of content to the strategic research agendas agreed within the context of JPIs.		
	Continuation and greater utilization of other instruments, initiatives and platforms of cross-border cooperation in the European Research Area: In addition to active participation in JPIs, European Innovation Partnerships (EIPs), ERA-NETs and ERA-NET Cofund Actions in Horizon 2020, this measure applies in particular to the two transnational European research initiatives EUREKA and COST which usefully complement the EU Framework Programme for Research and Innovation as important instruments in the European Research Area with their marked bottom-up approach, their flexibility and their lean administration.		
	Utilization and expansion of measures in accordance with Article 185 TFEU (public-public partnerships – P2Ps), such as the successful SME research funding programme EUROSTARS implemented under the EUREKA initiative, the European Metrology Programme for Innovation and Research EMPIR implemented by EURAMET e.V., the Joint Baltic Sea Research and Development Programme BONUS and the European and Developing Countries Clinical Trials Partnership programme EDCTP carried out in close partnership between European and sub-Saharan African countries, as well as measures under Article 187 TFEU (public-private partnerships – PPPs) with the participation of German industry, such as the initiatives for biobased industries (BBI), fuel cells and hydrogen (FCH), aviation (Clean Sky 2 – CS 2 and the Single European Sky ATM Research – SESAR) or innovative medicines (IMI). In this way, important impulses are given in areas in which the market often fails (P2Ps), and, at European level, such measures are driven by industry (PPPs) in order to create a critical mass for near-market support of key technologies which are of particular importance for Europe's global competitiveness.		
	Increasing the visibility and documentation of the European/international networking of German science: The Federal Government will work towards improving the relevant indicators, including for the purpose of data collection in the ERA Monitoring Mechanism (EMM) in accordance with Article 181 TFEU.		
	Continuation, expansion and support of transnational cooperation by the science organizations: The German Research Foundation DFG contributes at various levels and in various integration phases to creating a science-led environment for transnational research cooperation. At project level, the required financial resources can either be obtained through the flexible use of project funds or additionally applied for. At institutional level, the DFG cooperates with foreign partner organizations – for example within supraregional or international collaborations such as Science Europe and the Global Research Council – in order to better coordinate the research funding systems for the benefit of the scientific community, for example by working towards comparable standards and procedures. Tried and tested mechanisms of the DFG for transnational research funding such as the "Money Follows Cooperation Line", "Money Follows Researcher" and "Lead Agency" processes in Germany, Austria, Switzerland and Luxembourg as well as funding based on bilateral and multilateral agreements in the various programmes are to be continued. The development and expansion of the Lead Agency process is being trialled by means of pilot measures with other countries. The Helmholtz Association is helping to reinforce the long-term pooling of research expertise and research backing for relevant initiatives at European level with the further development of the European Energy Research Alliance (EERA) and the European Climate Research Alliance (ECRA) which also includes the activities of relevant JPIs and Knowledge and Innovation Communities (KICs) of the European Institute of Innovation and Technology (EIT). The Helmholtz Association also continues to work actively in the EU-funded Human Brain Project (a Future and Emerging Technologies (FET) Flagship) as well as in the three KICs established so far by the EIT. The German Rectors' Conference (HRK) aims to develop a European Research Map on the basis of its national Research Map for universities; this web-based tool will make it easier to search for key research priorities of European universities and will thus improve their visibility. The HRK also maintains a database of collaborations between European universities in border regions. These collaborations form an important component of the European Research Area. With nine neighbouring countries, Germany is a key location for such cooperation. The HRK wants to create a future platform for the exchange of European experience and for developing ideas and strategies in this area.		
DK	Danish participation in the Horizon 2020 programme committees is supplemented by a number of so-called 'reference groups' with relevant experts. The Ministry of Higher Education and Science will establish a strategic reference group to discuss main strategic issues concerning Danish participation in Horizon 2020, including Danish participation in co-financed instruments.		
	In 2016-2017, the Ministry of Higher Education and Science will map the Danish participation in Horizon 2020, including in co-financed instruments. Based on this mapping a strategy and an action plan for future Danish participation in the EU Framework Programme for Research and Innovation will be developed.		
	In 2016, the Ministry of Higher Education and Science will establish a national ERFA network to support Danish participation in EU partnerships. The network will function as a platform for exchange of experiences and thus for building routine and capacity for Danish participation in EU partnerships, debate about best practice and coordination at practical as well as strategic levels.		
	In 2016, the Ministry of Higher Education and Science will strengthen the EU-DK Support initiative, i.a. through targeted information activities and implementation of a funding scheme promoting outreach work targeted at new actors. In addition, support for the preparation of Horizon 2020 applications will continue through the EUopSTART scheme, just as the effort to promote Danish participation in KICs will continue.		
	In 2016, Innovation Fund Denmark will develop an international strategy establishing the priorities for its international cooperation. The fund's efforts include a targeted focus on international programmes, which will facilitate cooperation between Danish actors and strong international partners. This includes a specific focus on the programmes that are deemed to provide the best opportunities for creating growth, jobs and export.		
EE	The objective is supported by the programme for enhancing the RD capacity of public authorities (RITA), and the Mobilitas Plus programme for supporting internationalisation, mobility and a new generation of researchers in research and higher education sector (EU Structural Funds). Also, from the international cooperation grants of the Estonian Research Council and the ministries (support from the Estonian state budget funded from tax revenue).		

governance issues — communication and information — funding measures — monitoring

EL	The future active participation of the country (GSRT) in ERAC / GPC Commission.
	The introduction/establishment of a Committee in GSRT for the evaluation of the country's participation in JP actions / ERA under Horizon 2020. The selection criteria are: a) The objective, priority areas, actions' targets and their consistency with national RIS3, b) The added value in relation to the promotion of respective national actions, c) The availability of financial resources, d) Other matters, mainly managerial capacity on behalf of GSRT. The Commission has already approved the involvement of GSRT in six international research networks between public - public sector such as ERANET Cofund actions (ERANETMED, EURONANOMED, COFASP, E-RARE, TRANSCAN, ERANET RUS PLUS), and three more international research networks ATC-ERANET COFUND, QUANTERA fET ERANET COFUND and FLAG-ERA II.
	The country's involvement in the PRIMA initiative for the Euro-Mediterranean cooperation (possible Article 185 TFEU).
	Also, the participation in intergovernmental networks complementing the FP for R&I and consisting important tools for building ERA, through bottom-up approach, flexibility and their coherent governance structure, such as COST, will remain, as well as ESA programs and European Commission in space issues, also enabling networking between institutions. The continuation of participation in future calls under Eureka / Eurostars is being examined.
	Incorporation in the national legislation (YPASYD) of all the possibilities offered by Regulation 1303/2013 (GRNET) on the harmonization of the research program management procedures with those applied in Horizon 2020. These relate mainly to the simplification of procedures and cost models, subject to the limitations imposed by the regulatory framework of state aid. GSRT intends to apply these processes both in co-financed projects in the context of smart specialization strategy and national programs.
ES	To design a web based information and communication system for the JP thematic priorities for a greater openness and involvement of the research community.
	To prepare a prospective map with the research capacities and thematic areas funded by the State Plan in order to facilitate coordination at European level.
	To review the funding allocation criteria and procedures for transnational projects.
IE	Government Departments and Agencies will explore the potential for competitive funding mechanism aimed at stimulating solutions-driven collaborations;
	The IRC and HRB will target supports to cultivate interdisciplinary research, increase the engagement of public entities and civic society in public policy and societal challenge-based research.
	Irish RFOs will continue to act as leaders with regards to participation, engagement and investment in relevant JP Initiatives (JPIs).
	The Strategic Research Agendas of the JPIs, developed with input from representatives of Irish RFOs, will continue to inform national research funding programmes which will in turn inform the review of national research prioritisation in 2017.
	RFOs will continue to operate national steering groups to ensure strong stakeholder engagement with the JPIs and enhanced co-ordination of national activity.
	Regular meetings of the national JP Oversight Group will be convened to bring together representatives from the network of JPI steering groups to ensure effective oversight.
	Relevant RFOs will develop further involvement in relevant JPI activities and ERA-Net initiatives.
IT	Launching a joint ministerial consultation in order to set up a steering board to coordinate national and EU research programmes on Grand Societal Challenges (Tavolo di ricerca sulle Grandi Sfide della Società Contemporanea - TASSC). One of the tasks of the TASSC (see Fig. 4) will be to develop strategies and match funding schemes for shared EU priorities and national specialisations, in view of optimizing transnational research and innovation investments on Grand Challenges. The TASSC will be supported by Thematic Focus Groups (Tavoli Tematici - TT) bringing together representatives from authorities responsible for national research activities and programmes, National representatives in JPIs and in the configurations of the Committee for the Specific Programme Implementing Horizon 2020, representatives from National Technology Clusters (Cluster Tecnologici Nazionali - CTN) and relevant Regional Directors. The TASSC, acting as a steering board, will be chaired by the Head of the Department for Higher Education and Research (MIUR), and its members shall include the Head of the Department for economic Development and Social Cohesion and DGs from relevant Ministries.
	Setting up an Inter- Ministerial Executive Board (Gruppo Operativo Interministeriale – GOI: see Fig. 5) to coordinate Italy's participation in JP activities (especially JPIs). The Group, led by MIUR, shall include representatives from relevant Ministries and Regions. It shall support and coordinate Italy's participation in JPIs, according to guidelines set out by the TASSC (see Specific objective 2a), and shall provide output to Italian representatives in the JPI scientific and management bodies.
LT	to provide support for cross-sectoral cooperation in R&D.
	to provide support for the development of the European research network and encourage institutions of research and higher education to be actively involved in that.
	to ensure the financing of high-level research projects oriented to solving issues of strategic importance to the public and society and projects promoting economic development.
LV	to engage in certain JPIs as a member state and align Latvian research programs with JPI;
	to evaluate to which of the JPIs Latvian scientists can provide their contribution, what will be the return and which of the social challenges are most topical for the Latvian society and economy;
	to establish a working group with representation of line ministries and research institutions for coordination of Latvian participation in JPI;
	to plan financial resources for participation in relevant JPIs and organization, as well as implementation of the respective research projects at the EU level with the involvement of Latvian specialists;
	to organize informative seminars on JPI strategic areas.

governance issues
communication and information
funding measures
monitoring

Country		Measure	Status
ME		Increase participation in H2020 by further promotional and networking activities on national level. Efforts will be focused on areas of strategic interest for the country and participation of SMEs in these actions will be further encouraged. In addition to ERAC, participation in other related ERA advisory bodies will also be considered as part of these measures.	
		New legislation on research and innovation activities to be adopted in 2016 and 2017 (Research Strategy, Innovation Law and Strategy), in line with EU strategies.	
MT		Initially participation in the JP Initiatives was to focus on JPND and JPI Oceans, since these initiatives are clearly in line with the National R&I Strategy and the smart specialisation priorities. However, due to resource constraints and the timing of the calls, a decision was taken to focus on strengthening participation in JPI Oceans. This is also due to the higher level of interest on the part of local stakeholders in this initiative.	
		The online web-based portal PluMTri (Platform for Maltese Research and Innovation) plumtri.org will be used to ensure more effective and targeted dissemination of information on the Joint Undertakings, JP Initiatives, COST and H2020 to the relevant stakeholders. The aim is to progress towards the setting up of online communities for each of the initiatives Malta is active in and thereby provide easier and faster access for local stakeholders to relevant information and contacts.	
		Strengthening participation in JPI Oceans will be undertaken by mapping the full range of local stakeholders with an interest in this initiative in the public and private sectors and securing resources for effective participation. The aim is to define a more strategic approach to participation.	
NL		During the 2014-2017 period, the ministries of Education, Culture and Science and Economic Affairs will be making available a total of €36 million as part of a special measure to enable NWO to co-finance specific European collaborations connected with the top sector research agendas in order to stimulate the internationalisation of these top sectors and expand links with the Grand Challenges of Horizon 2020.	
		Connecting the strategic routes of the Dutch national research agenda and European themes will open the way to substantive collaboration with international partners.	
NO	National level	Implementing a common model for management and funding which will ease the administration of and the communication between the different actors within and between the JPI(s). Responsibility: MER and RCN.	
		Raising the general awareness by spreading knowledge about, disseminate results from, and visualize impact of the JPIs, to speed up their implementation. Responsibility: relevant ministries and RCN.	
		Utilize different arenas (regular and irregular, new and existing) for the JPI-responsible persons to meet the end-users, public or private, both to ensure commitment and to seek new ways of approaching the societal challenge. Establish regular arenas for the JPI-responsible persons to meet to secure common learning, e.g. in foresight activities, that may pave way for innovative solutions. Responsibility: RCN.	
	EU-level	Contribute to increased communication between involved countries and the European Commission on how to cooperate through JPIs - spreading good practices and visualizing impact - in order to further speed up their implementation. Responsibility: MER, various other ministries and RCN.	
PT		main issue is better interministerial cooperation on societal challenges	
RO		Strengthening the scientific expertise in JPI domains of interest for Romania	
		Strengthening governance of active partivipation in the implementation of strategic research and innovation agendas	
		Development of a robust national structure for appropriate JPIs national coordination. National mirror groups for each JPI could increase Romania's visibility, create a pool of top level experts to be promoted in various JPI activities, and increase the active involvement of stakeholders	
		Allocation of funding to support active partivipation in JPIs	
		A dedicated sub-programme of the current National Plan for RDI to support the projects selected to be funded and to follow joint calls under JPIs and is expected to run starting from 2017	
		Integration of Romanian research in the ERA in the fields covered by the JPIs and specific JPP	
		Participation of Romanian Research organizations to identification of joint solutions and actions to address societal challenges with relevant impact on European communities	
SI		Targeted co-funding of transnational public research.	ON TRACK
		Establishing a monitoring and assessment system for each individual partnering instrument based on which a review of benefits of cooperation in all existing (and potential new) JPI and ERA-NET initiatives and other forms of JP can be performed.	CANCELLED
		Strengthening the role of JPI SRIAs in devising priorities of RDI policy.	ON TRACK
		Integrating social sciences and humanities (SSH) in research.	ON TRACK
		Strengthening national and better use of international/EU networking instruments for researchers and institutions.	ON TRACK
		Joining forces in the efforts to unify standards and procedures for assessing projects in EU and joint calls, especially according to the Lead Agency principle	POSTPONED
SK		Tackling global societal challenges – by developing and deploying effective solutions more rapidly and by optimising the use of research infrastructures.	
UK		Will use the review of the Commission expert group on JP published in 2016 and Lund Declaration to engage with UK stakeholder on JPIs	
		Implementation of Global Challenges Research Fund (GCRF)	
		Development of Dementia Research Institute	

governance issues | communication and information | funding measures | monitoring

implementation of this measure is (time-wise) unclear

TOTAL ACTIONS	93
governance	52
comm & information	19
funding	12
monitoring	10
	0