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Participation of the EU in research and development programmes
undertaken by several Member States based on Article 185 of the TFEU

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COMMISSION STAFF WORKING DOCUMENT

EVALUATION

of the

**Participation of the EU in research and development programmes undertaken by
several Member States based on Article 185 of the TFEU**

{SWD(2017) 341 final}

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GLOSSARY

Term	Definition
AAL	Active and Assisted Living Programme
BERD	Business Expenditure on Research & Development
BONUS	Joint Baltic Sea Research Programme
CBSS	Council of the Baltic Sea States
COST	European Cooperation in Science and Technology
CSA	Coordination & Support Action
DI	Designated Institute
DIS	Dedicated Implementation Structure
EDCTP	European & Developing Countries Clinical Trials Partnership
EMPIR	European Metrology Programme for Innovation and Research
EMRP	European Metrology Research Programme
ERA	European Research Area
ERA-NET	Networking of national research programmes in the European Research Area
EIROFORUM	EIROforum is a group of eight leading European Intergovernmental Research Organisations.
EUSBSR	EU Strategy for the Baltic Sea Region
EURAMET	European Association of National Metrology Institutes
EUREKA	EUREKA is an intergovernmental organisation for pan-European research and development funding and coordination
EUROSTARS	The Eurostars programme is a funding and support programme aimed at R&D-performing SMEs
FET	Future and Emerging Technologies
FP6	6th European Framework Programme for Research
FP7	7th European Framework Programme for Research
GBARD	Government Budget Allocations for Research & Development
HELCOM	Governing body of the "Convention on the Protection of the Marine Environment of the Baltic Sea Area"

Horizon 2020	Horizon 2020 is the EU Framework Programme for Research and Innovation
JPI	Joint Programming Initiative
KIC	Knowledge and Innovation Community
NMI	National Measurement Institute
PSIA	Participating States Initiated Activity
PRIMA	Partnership on Research and Innovation in the Mediterranean Area
RFO	Research Funding Organisations
RfP	Rules for Participation
RIA	Research and Innovation Action
RPO	Research Performing Organisations
SDG	Sustainable Development Goals
SRA	Strategic Research Agenda
SWD	Staff Working Document
TFEU	Treaty on the Functioning of the European Union
TMA	Training and Mobility Action

EXECUTIVE SUMMARY

Article 185 of the Treaty for the Functioning of the European Union (TFEU) gives the EU the possibility to participate financially in multiannual research programmes proposed by several Member States including countries associated to the EU's framework programmes for Research and Innovation (R&I). These joint multiannual research programmes (Article 185 initiatives) are part of a larger family of so-called Public-Public-Partnerships (P2Ps), including ERA-NETs¹ and Joint Programming Initiatives² (JPIs).

This Staff Working Document (SWD) builds mainly on the main findings from seven³ individual evaluations and the results of public stakeholder consultations. It is focused on the overarching issues that concern all initiatives, while the in-depth analysis and specific issues relating to the individual evaluations can be found in independent expert group reports referenced in annex 3 of this SWD.

Five initiatives have been established since 2003, of which four have been renewed under Horizon 2020:

- Active and Assisted Living Research and Development Programme (AAL2): innovative ICT-based solutions for active and healthy ageing.
- European and Developing Countries Clinical Trials Partnership 2 (EDCTP2): new or improved treatments for poverty-related diseases in sub-Saharan Africa;
- The European Metrology Programme for Innovation and Research (EMPIR): new measurement solutions for industrial competitiveness and societal challenges;
- Eurostars2: support to the transnational collaboration of R&D performing SMEs;
- BONUS: Joint Baltic Sea Research Programme (launched under Framework Programme 7 (FP7) but still active in 2017).

In October 2016 the European Commission adopted a proposal to establish a new public-public Partnership for Research and Innovation in the Mediterranean Area (PRIMA) under Article 185 TFEU. The initiative will start implementation in 2018.

While public funding for Article 185 initiatives under FP7 was about €1,6 billion (€600 M from the Union and €1.000 M from Member States), it will increase until the end of Horizon 2020 to nearly €4 billion (€2,2 billion from Member States and €1,7 billion from the Union).

The individual evaluations as well as the meta-evaluation identify particular strengths and challenges for the use of Article 185 TFEU which include specific issues related to the individual Article 185 initiatives and overarching issues related to the use of Article 185 more generally.

Strengths

The major strength of Article 185 initiatives is that they provide a long-term financial perspective as incentive for stable programming, contributing to more effective and efficient R&I programme coordination and cooperation across Europe. Consequently, Article 185 initiatives are of special relevance for achieving the European Research Area (ERA), in particular in terms of optimal transnational cooperation and the alignment of R&I programming practices across Europe.

¹ As ERA-NETS, the two Horizon 2020 instruments ERA-NET Cofund and European Joint Programming (EJP) Cofund are included.

² Joint Programming Initiatives are Member-State driven R&I programmes on societal challenges that have been directly established since 2010 by the Council and which are partly supported by Horizon 2020 through ERA-NETS.

³ Two final evaluations for Article 185 initiatives funded under FP7 (BONUS, EMRP), four interim-evaluations for Article 185 initiatives funded under Horizon 2020 (AAL2, EDCTP2, EMPIR, Eurostars2) and a meta-evaluation of Article 185 initiatives.

The Article 185 initiatives display a high coherence with wider EU policies beyond Horizon 2020, underlining the policy dimension of the programmes. The initiatives have clear positive network effects and are visible testimonials for joint European action at global level.

All Article 185 initiatives contribute to a more integrated and coordinated R&I programming in Europe, with a particular strength in scientific integration.

The governance structures of the Article 185 initiatives are efficient, considering the challenge to accommodate the diversity of national R&I practices and cultures within one programme. In particular, the Dedicated Implementation Structures (DIS) established for implementing the joint programmes are considered efficient, as the administrative expenditures stay below the limits set individually by the acts establishing the Article 185 initiatives. As Article 185 initiatives are implemented through indirect management, the administrative expenditures calculated do not include efforts at national level and cannot be compared with administrative expenditures of Horizon 2020, which is centrally and directly managed.

Challenges

One challenge concerns the sustainability of the currently active Article 185 initiatives. Most evaluations (notably AAL2, BONUS, Eurostars2, and to a lesser extent EDCTP2) identify potential alternatives to the use of Article 185 to ensure the desired sustainability of the underlying programme which might allow for more flexibility and administrative simplification. While this fits well into national and EU policy objectives to provide the structures and “seed” for Europe-wide joint activities which eventually achieve a higher degree of self-sustainability, the transition requires careful planning and implementation.

Another overarching challenge is the positioning of Article 185 initiatives within the overall, rather complex R&I landscape at national and EU level. The number of “partnership approaches” increased significantly over the last 10 years. This has led to proliferation of the landscape of Public-Public Partnerships (e.g. Article 185, ERA-NETs, Joint Programming Initiatives), Public-Private Partnerships (e.g. Article 187 initiatives, contractual Public Private Partnerships), broader governance and stakeholder platforms (European Innovation Platforms, European Technology Platforms and other related initiatives (European Institute of technology and its KICS, FET Flagships)). Against this background, most evaluations concluded that it is not always clear how the Article 185 initiatives are positioned within a broader context. This refers to both national R&I policies and the EU R&I policy framework, currently Horizon 2020.

While the initiatives make clear contributions to the ERA and are attractive for Member States due to their variable geometry approach, allowing Member States to “cherry pick” their participation, the assessments also underline that the participation of R&D less-intensive countries was not sufficient.

The assessments identify also a mismatch between the policy related objectives of Article 185 initiatives and the concrete activities implemented by the programmes. The elaboration of Strategic Research Agendas and the limitation to joint calls without substantive financial integration miss opportunities to achieve broader policy impacts. As a consequence, the evaluations underline the need for future joint programmes based on Article 185 TFEU to establish a broader set of activities and to play a more visible role with R&I activities delivering on overarching policy agendas, including international policy agendas.

1. INTRODUCTION



Summary box: Key features of this evaluation

- ❖ A legal requirement;
- ❖ Focused on the evaluation criteria of effectiveness, efficiency, relevance, coherence and EU added value;
- ❖ Contributes to the overall Horizon 2020 interim evaluation;
- ❖ Based on the results of two final and four interim evaluations, complemented by a meta-evaluation and contextualised with stakeholder consultation results.

The Treaty for the Functioning of the European Union (TFEU) provides under Article 185 the Union with the possibility to participate in multiannual research programmes jointly undertaken between Member States. The joint programmes supported by the Union are the so-called Article 185 initiatives. Four have been launched under the current Framework Programme Horizon 2020, on the basis of dedicated Commission proposals, adopted by a Decision of the European Parliament and Council.

The individual decisions require the Commission to evaluate the initiatives with assistance of independent experts, notably with respect to progress achieved towards their objectives, and for final evaluations the uptake of recommendations of earlier evaluations.

The evaluations focus on the evaluation criteria prescribed in the better regulation framework⁴, notably relevance, efficiency, effectiveness, coherence, and EU added value.

The results of this SWD have contributed to the overall interim evaluation of Horizon 2020 and will inform the forthcoming Commission Communication on the results of the Horizon 2020 interim evaluation. The SWD on the Horizon 2020 interim evaluation⁵ published in May 2017 provides in Annex 1 an overview on Article 185 initiatives.

This Commission Staff Working Document builds mainly on the main findings and insights of seven evaluations and their corresponding public stakeholder consultation. The SWD concentrates on the more general and overarching issues identified, while the more specific results and the in-depth analysis with respect to the individual Article 185 initiatives can be found in the respective independent expert group reports, referenced in annex 3 of this SWD.

The evaluations cover notably two final evaluations of initiatives funded under Framework Programme 7 (the BONUS 'Joint Baltic Sea Research Programme' and the European Metrology Research Programme EMRP), four interim-evaluations of initiatives funded under Horizon 2020 (the Active and Assisted Living R&D Programme (AAL2), the second European and Developing Countries Clinical Trials Partnership Programme (EDCTP2), the European Metrology Programme for Research and Innovation (EMPIR) and Eurostars2 for R&D performing SMEs, as well as a meta-evaluation on Article 185 as legal basis for Joint Programming.

The final evaluation of EMRP (FP7) and the interim evaluation of its successor programme EMPIR are treated jointly in a single report.

⁴ https://ec.europa.eu/info/better-regulation-guidelines-and-toolbox_en

⁵ [https://ec.europa.eu/research/evaluations/pdf/archive/h2020_evaluations/swd\(2017\)221-interim_evaluation-h2020.pdf](https://ec.europa.eu/research/evaluations/pdf/archive/h2020_evaluations/swd(2017)221-interim_evaluation-h2020.pdf)

2. BACKGROUND

2.1 Context



Summary box:

Key features of the use of Article 185 as legal basis for Joint Programming between the EU and Member States

- ❖ Article 185 initiatives contribute to the coordination between EU and Member States R&I policies as requested by Article 181 TFEU;
- ❖ Horizon 2020 specifically aims to establish synergies with national R&I programmes via Public-Public-Partnerships (P2Ps);
- ❖ A variety of P2P instruments are in use today, with Article 185 initiatives requiring an ordinary legislative procedure and being the most long-term-oriented form of P2P with prior financial commitments from the EU and the Participating States;
- ❖ Article 185 initiatives are joint multi-annual R&I funding programmes initiated by Member States in variable geometry with financial EU contributions;
- ❖ Under Horizon 2020, Article 26 specifies the conditions for the participation of the EU in Article 185 initiatives, notably the need for a Dedicated Implementation Structure (DIS), commitment of the participating states for integration at scientific, managerial and financial level, relevance for Horizon 2020 objectives, EU added value, critical mass and the appropriateness of Article 185 for achieving the objectives;
- ❖ Five Article 185 initiatives have been launched since 2003, of which four have been renewed under Horizon 2020, a sixth one, PRIMA, starts implementation in 2018;
- ❖ The four Article 185 initiatives funded under Horizon 2020 have a cumulated budget of about 3,9 billion €, with about 2,2 billion € from EU Member States and 1,7 billion € from the Framework Programme;
- ❖ The Article 185 initiatives display a variety of strategic approaches (thematic, regional or target-group) and implementation modes (fully centralised, fully decentralised and hybrid model).

Article 181 of the Treaty on the Functioning of the European Union (TFEU) calls for the EU and Member States to coordinate their research and technological development activities and invites the Commission, in close collaboration with Member States, to take any useful initiatives to promote this coordination.

Article 185 introduces the possibility for Union participation in joint programmes between Member States: *"In implementing the multiannual framework programme, the Union may make provision, in agreement with the Member States concerned, for participation in research and development programmes undertaken by several Member States, including participation in the structures created for the execution of those programmes"*.

As a consequence, the current **Framework Programme, Horizon 2020, specifically aims to establish synergies with national programmes** and Joint Programming Initiatives (JPIs) by providing support to Public-to-Public Partnerships (P2Ps). One form of support for P2Ps is via Article 185 initiatives⁶. Other forms include ERA-NET Cofund, European Joint Programming Cofund (EJP-Cofund) and Joint Programming Initiatives (JPIs).

A comparison⁷ of the main features of Article 185 initiatives and other options for joint programming is shown below.

⁶ More information on the P2P instruments can be found in the SWD on the Horizon 2020 interim evaluation, annex 1, chapter I, p. 267 ff.

⁷ Based on information from the Hearings and the Commission

Table 1: Comparison of main characteristics of P2P approaches funded under Horizon 2020; Source: EC

	ERA-NET Cofund	EJP Cofund	Art. 185	JPI
Number⁸	45	2	6 ⁹	10
Main activities	Single transnational call for proposals with Union cofunding	Direct research, demonstration and coordination activities	Multiple transnational calls for proposals	- SRA elaboration; - regular joint calls
Other activities	Possibility to include additional activities incl. additional joint calls in a variable geometry	Possibility to include a limited number of calls for proposals, e.g. by including RFOs	To be defined in the basic act, if justified by the nature of the initiative	- global outreach; - involvement of sectorial ministries
Beneficiaries/ recipients of EU contribution	Typically RFOs RPOs ¹⁰ in exceptional cases Mandated by PS	Typically RPOs RFOs in addition Mandated by PS	Designated Implementation Structure (indirect management)	n/a
Participating States (PS) contribution	Normally cash, possibility to allow for in-kind ERA-NETs with RPOs	Normally in-kind, but possibility to include cash contributions from RFOs	Defined in the basic act, normally cash, in-kind contributions if justified by the nature of the initiative	- contributions (in kind and cash) for secretariat; - contributions to joint calls
Union contribution	Reimbursement rate set at 33%	Reimbursement rate set in the WP, maximum 70%	Defined in the basic act, in most cases matching the contributions of PS	- support from the FP with CSAs (administrative costs) and ERA-NET Cofund
Duration	5 years	5 years	Typically 10 or more years, with Union contribution over up to 7 years	- not defined ex-ante
Establishment	WP H2020	WP H2020	COM Proposal incl. ex-ante Impact Assessment, Decision of Council and EP	- Council decision after proposal from GPC
Other issues	Can be used to prepare for Art.185 (examples: EMRP/EMPIR, BONUS)	Could be used to prepare for Art.185	Conditional to a dedicated implementation structure Commitment for strong financial, management and scientific integration	- Member States driven initiatives

At the beginning of FP7, the Article 185 initiatives were the only large scale joint programming instrument that was available to EU Member States. Since then, ERA-NETs have increasingly implemented multi-annual calls and other instruments and initiatives have been introduced including ERA-NET Plus, Joint Programming Initiatives (JPIs), ERA-NET Cofund and (more recently) the European Joint Programming Cofund (EJP Cofund)¹¹.

The main differentiating factors for the Article 185 initiatives are the long term dimension, the legislative procedure for establishment and the Dedicated Implementation Structure. **Article 185 initiatives are multiannual R&I programmes jointly implemented by several Member States, including** countries associated to the EU's framework programmes for R&I, in which the Union participates by providing a financial

⁸ Date: August 2017

⁹ Including the forthcoming PRIMA initiative

¹⁰ Research Funding Organisations (RFO); Research Performing Organisations (RPOs)

¹¹ <https://www.era-learn.eu/public-to-public-partnerships>

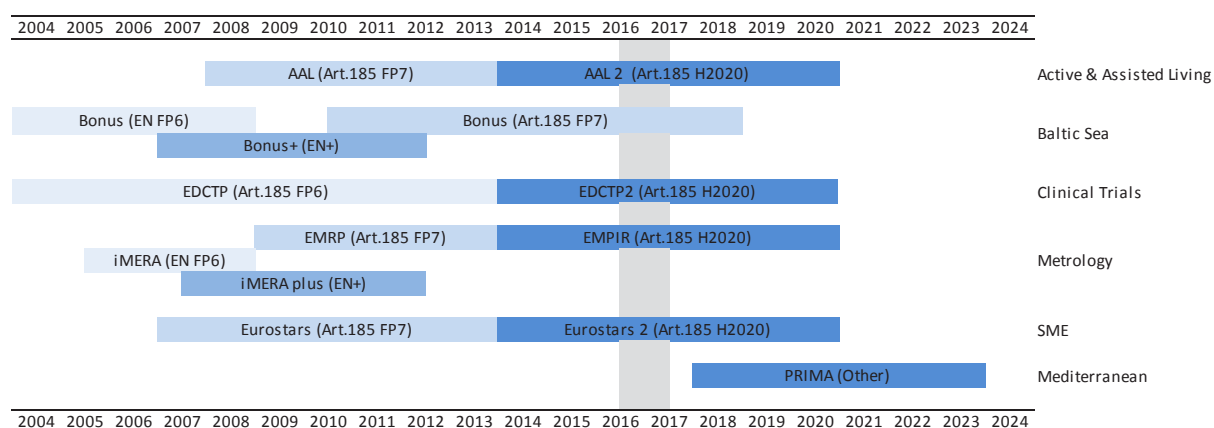
contribution. They were first promoted by the Commission in 2001 as a way to implement the joint programming of research activities¹².

Under **Horizon 2020 it is stated in Article 26 of its Regulation**¹³ that Article 185 initiatives are proposed only in cases *'where there is a need for a dedicated implementation structure and where there is a high level of commitment of the participating countries to integration at scientific, management and financial levels'*. The actions supported may be supported within or across the priorities of Horizon 2020, as far as they have a sufficient EU added value. In addition Article 185 initiatives have to apply the Rules for Participation of Horizon 2020, unless specific derogations are justified and introduced in their basic acts. **Five initiatives have been established since 2003**, of which four have been renewed under Horizon 2020:

- Active and Assisted Living Research and Development Programme (AAL2): innovative ICT-based solutions for active and healthy ageing¹⁴.
- European and Developing Countries Clinical Trials Partnership Programme (EDCTP2): new or improved treatments for poverty-related diseases in sub-Saharan Africa¹⁵;
- The European Metrology Programme for Innovation and Research (EMPIR): new measurement solutions for industrial competitiveness and societal challenges¹⁶;
- Eurostars2: support to the transnational collaboration of R&D performing SMEs¹⁷;
- BONUS: Joint Baltic Sea Research Programme (launched under FP7 but still active in 2017)¹⁸.

In October 2016 the European Commission adopted a proposal to establish a new public-public Partnership for Research and Innovation in the Mediterranean Area (PRIMA) under Article 185 TFEU. PRIMA will focus on two key socioeconomic issues that are important for the region: food systems and water resources. This will establish a 10 years partnership programme with € 220 million in EU funds from the Horizon 2020 to match the commitments of the participating states¹⁹.

Table 2: Origins and duration of currently active Article 185 initiatives; Source: ERA-Learn 2020²⁰



¹² COM (2001) 2812 final: Communication from the Commission to the Council and the European Parliament: The Framework programme and the European Research Area: application of Article 169 and the networking of national programmes;

¹³ Regulation (EU) No 1291/2013 of the European Parliament and of the Council of 11 December 2013 establishing Horizon 2020 OJ L347, 20.12.2013, p.1

¹⁴ <http://www.aal-europe.eu/>

¹⁵ <http://www.edctp.org/>

¹⁶ <https://www.euramet.org/research-innovation/research-empir/>

¹⁷ <https://www.Eurostars-eureka.eu/>

¹⁸ <https://www.bonusportal.org/>

¹⁹ As the PRIMA initiative is only about to start, it is not included further in the analysis of this SWD.

²⁰ <https://www.era-learn.eu/>

Table 3 summarises participation and financial contributions as defined in the basic acts.

Table 3: Participation and financial contribution of the Union and the Participating States to the Article 185 initiatives under Horizon 2020 (in green: contributions for the programmes under FP6/FP7); MS = Member States; AC = Associated Countries; TC: Third Countries; source: EC

Article 185 initiatives Horizon 2020 Framework Programme 6/7	Participating countries	EU (max) [Euro million]	Participating States (min) [Euro million]
Active and Assisted Living R&D Programme (AAL2) AAL (FP7)	17 MS + 3 AC	175	175
	20 MS + 3AC	150	200
Second European and Developing Countries Clinical Trials Partnership Programme (EDCTP2) EDCTP (FP6)	13 MS + 1AC	683	683
	14 MS + 2AC	200	200
European Metrology Research Programme (EMPIR) EMRP (FP7)	23 MS + 5 AC	300	300
	19 MS + 3 AC	200	200
Eurostars2 (for SMEs) Eurostars (FP7)	28 MS + 5 AC	287	861
	26 MS + 5 AC	100	300
BONUS (FP7)	8 MS	50	50
Partnership for Research and Innovation in the Mediterranean Area (PRIMA)	11 MS + 3 AC + 5 TC	220	220
Total Horizon 2020		1645	2229
Total FP6/FP7		700	950

The **five Article 185 initiatives display a variety of key characteristics** – BONUS and EDCTP focus on specific regional issues (environmental quality of the Baltic sea and clinical development of medicines against poverty-related and neglected infectious diseases in Sub-Saharan Africa) – Eurostars has a target group orientation (R&D intensive SME) while EMPIR and AAL focus on specific technologies with a, however, very different scope – AAL targets ICT solutions for active ageing with a strong end-user perspective, while EMPIR focus on metrology technologies in diverse application areas.

In addition, EDCTP2 and the forthcoming PRIMA initiatives include a strong rationale linked to international cooperation and international policy agendas, while EMRP/EMPIR links mainly institutionally funded activities of the national metrology institutes²¹.

Among the initiatives, one can distinguish between **three "models" with respect to implementation**.

- **Fully centralised implementation:** This model, used by EMRP and EMPIR is clearly the most integrated one, whereby the whole programme including the management of the grants on the basis of Framework Programme Model Grant Agreements is implemented by the Dedicated Implementation Structure (DIS).
- **Fully decentralised implementation:** In this model (AAL2 and Eurostars2) the DIS is mainly organising the central evaluation and channels the EU cofunding to the national funding agencies that are managing individual national grant agreements for the funded projects.
- **Hybrid implementations:** Two further models are used. The EDCTP2 model combines the fully centralised implementation for the Union funds according to Horizon 2020 standards with national activities in the programme being implemented by national rules. The PRIMA initiative will use a similar management model. Here, the matching of EU and national contributions take place at programme level. The BONUS

²¹ National Metrology Institutes are in most EU countries governmental research laboratories that follow a public mission and conduct *inter alia* R&D activities.

model applies common rules of FP7 to all activities, but splits the funding in a European grant and a national grant, so that again, the matching of EU and national contributions take place at project level.

The following table summarizes the core characteristics of the currently active Article 185 initiatives. The diversity of management models is based on the specific needs of the addressed thematic field.

Table 4: Core characteristics of Article 185 initiatives; Source: EC

Characteristics	AAL2	BONUS	EDCTP2	EMPIR	EUROSTARS2	PRIMA
Management mode	decentralised	hybrid	hybrid	Fully centralised	decentralised	hybrid
Funding Rules	National	Hybrid	H2020	H2020	National	H2020
Type of PS contributions	Cash	Mainly cash	Cash and in-kind	Mainly in-kind	Cash	Cash and in-kind
Matching mode	Project level	Project level	Programme level	Project level	Project level	Programme level

2.2 Objectives and intervention logic

Summary box: Intervention Logic of Article 185 initiatives



- ❖ A more coordinated implementation of national and EU R&D programmes is core priority of the ERA policy framework;
- ❖ Article 185 initiatives are key components of an overall partnership strategy between the EU and its Member States;
- ❖ Article 185 initiatives contribute to broader EU policy objectives and are well integrated in the overall Horizon 2020 intervention logic.

Since the first communication on the European Research Area (ERA) in 2000²², the **notion of a "more coordinated implementation of national and European research programmes" played a prominent role in the further advancement of the ERA.** In the preparation of the 6th EU Framework Programme for Research and technological Development (FP6), the Commission presented for the first time an overall approach for the use of Article 185 (formerly Article 169) within an EU FP²³. The communication describes the principles for the establishment of Article 185 initiatives, which was at the time defined as *"joint implementation of whole programmes or large part of programmes"*. The overall objective was that *"broad coordinated mobilisation of Community and national efforts is especially necessary in order to achieve results [...] unattainable with the other two instruments because of the scale and diversity of the resources mobilised and the structural effects of combining the national efforts"*. The first initiative launched under FP6 based on Article 169 was EDCTP with a Union contribution of 200 M€²⁴.

Under the 7th EU Framework Programme for Research and technological Development (FP7), four additional initiatives were launched, notably AAL, BONUS, EMRP and Eurostars. These initiatives were described in the Annex IV of the Council Decision 2006/971/EC that described the objectives of Article 185 initiatives under FP7 in Annex I, notably *"The action will also be used to enhance the complementarity and synergy between the Framework Programme and activities carried out in the framework of intergovernmental structures such as Eureka, EIROforum and COST"*. In addition, the decision states that *"The participation of the Community in national research programmes jointly implemented on the basis of Article 169 is especially relevant to European cooperation on a large scale in 'variable geometry' between Member States"*.

²² COM (2000) 6 final

²³ COM (2001) 2812 final: Communication from the Commission to the Council and the European Parliament: The Framework programme and the European Research Area: application of Article 169 and the networking of national programmes;

²⁴ COM (2002) 474;

sharing common needs and/or interests. In well identified cases, such Article 169 initiatives will be launched in areas identified in close association with the Member States, including the possible cooperation with intergovernmental programmes, on the basis of the criteria defined in the Seventh Framework Programme decision".

On the basis of the collective experiences with both, public-public-partnerships (P2Ps) and public-private-partnerships (PPPs), the **Commission adopted in 2011 a communication on "partnering in research and innovation"**²⁵ that summarizes the aims of partnerships as follows:

- build critical mass to ensure the scale and scope required;
- facilitate joint vision development and strategic agenda setting, including at international level;
- contribute to the evolution to a programming approach in European R&I so as to realise a broad-based focus embracing all potential partners;
- provide for flexible structures that facilitate the size and scope of a partnership, depending on its nature and goals.

More specifically, the communication states that the main objective of Article 185 initiatives is to *"integrate national and European research programmes in a selected area"* and notes that the active Article 185 initiatives were *"effective in achieving scientific and management integration, while further progress is needed towards financial integration"*.

Article 26 of Regulation (EU) No 1291/2013 establishing Horizon 2020 was introduced as a novelty describing the conditions and criteria under which the Union can participate in Article 185 initiatives. In addition, the Horizon 2020 Specific programme defines in a section on 'Partnering' that **"existing public-public and public-private partnerships may receive support from Horizon 2020, provided they address Horizon 2020 objectives, contributing to realising the ERA, meet the criteria laid down in Horizon 2020 and have shown to make significant progress under the Seventh Framework programme"**:

Article 185 initiatives display a varied set of objectives, according to their specific needs. In general, all initiatives include general, specific and operational objectives, which are described in an annex to their respective basic acts and their accompanying *ex-ante* Impact Assessments. **The "general objectives" are broader EU policy objectives such as Europe 2020, the Innovation Union (competitiveness) or sustainable development**, the specific and operational objective are mainly oriented towards issues around the main activities of the Article 185, notably the set-up and implementation of a joint programme, in particular through regular joint calls for proposals.

More detailed information and in-depth analysis on the individual objectives can be found the expert group reports referenced in annex 3.

The main novelties for the set-up and implementation of Article 185 initiatives from FP7 to Horizon 2020 are the following:

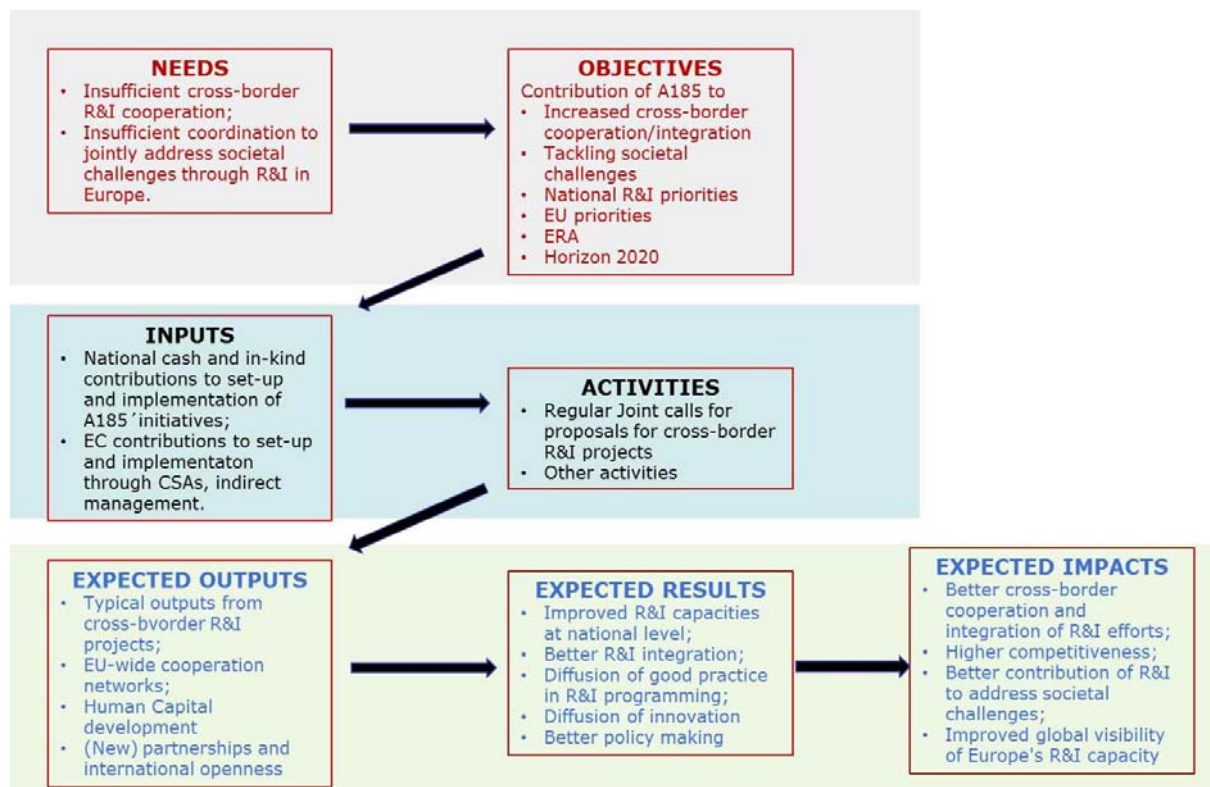
- application of Horizon 2020 rules for participation by default (derogations are possible in the respective basic acts);
- introduction of Art 26 of the Horizon 2020 regulation that specifies the conditions and criteria under which the EU can participate in Article 185 initiatives;

²⁵ COM (2011) 572 final

- harmonised supervision strategy applied by DG RTD (Directorate General for Research & Innovation) for monitoring the implementation of Article 185 initiatives in order to protect the financial interests of the EU in accordance with the financial regulation.

While mainly stemming from common Member States priorities, the Article 185 initiatives are also bound to the objectives and intervention logic of Horizon 2020 (FP7 for BONUS and EMRP) due to the financial contribution of the EU matching the Member States commitments. Consequently, the intervention logic of Horizon 2020 applies in general to Article 185 initiatives as well. The following picture presents a simplified intervention logic, based on the overall Horizon 2020 intervention logic.

Figure 1: Simplified intervention logic of Article 185 initiatives based on overall Horizon 2020 intervention logic²⁶; Comparable intervention logics from national level are not available.



The basis acts establishing the Article 185 initiatives and their corresponding ex-ante impact assessments comprise a number of objectives, which are of direct relevance for answering the evaluation questions. However, while for all initiatives general, specific and operational objectives have been defined, they span a broad spectrum and are very specific to the individual Article 185 initiatives. Consequently, a comparative assessment of the objectives could not be made. However, the individual expert groups assessed all levels of objectives in detail and the results of their assessment can be found in the respective reports referenced in the annex to this SWD.

Notably the specific and operational objectives are closely linked to the specific Key Performance Indicators (KPIs) that are defined in the ex-ante IAs of the individual Article 185 initiatives. The baseline for most KPIs is the situation at the start of the initiative with reference to the achievements of their predecessor initiative (except for BONUS).

²⁶ Based on SWD (2017) 221; please note that in the basic acts establishing the Article 185 initiatives, no intervention logic was defined.

Again, the detailed assessment of the progress of the individual Article 185 initiatives towards meeting their KPI targets can be found in the expert group reports.

3. EVALUATION QUESTIONS

In line with the Commission's Better Regulation Guidelines²⁷, this Commission Staff Working Document on Article 185 initiatives addresses the five evaluation questions of effectiveness, efficiency, relevance, coherence and EU added value. For the assessment of effectiveness, the criteria of Article 26 of the Horizon 2020 regulation are analysed as well. More in-depth analysis on the evaluation criteria with respect to the individual Article 185 initiatives can be found in the expert group reports annexed to this SWD.

- **Relevance:** assessment of whether the original objectives of the Article 185 initiatives are still relevant and how well they still match the current needs and problems;
- **Efficiency:** the relationship between the resources used by the Article 185 initiatives and the changes it is generating;
- **Effectiveness:** how successful the Article 185 initiatives have been in achieving or progressing towards its objectives;
- **Coherence:** how well or not the different actions work together, internally and with other EU interventions/policies;
- **EU added value:** assessment of the value resulting from the Article 185 initiatives that is additional to the value that could result from interventions which would be carried out at regional or national levels.

The following sub-questions have been addressed:

Main evaluation questions	Sub-questions per evaluation criteria
How relevant have Article 185 initiatives been so far?	<ul style="list-style-type: none"> • Are Article 185 initiatives tackling the right issues? • Are Article 185 initiatives still relevant for Horizon 2020 objectives? • Are the Article 185 initiatives still relevant for broader policy objectives? • Are Article 185 initiatives still relevant for Member States • Are Article 185 initiatives sufficiently flexible to adapt to changing policy needs? • Are the Article 185 initiatives relevant for the less R&D intensive Member States?
How efficient have Article 185 initiatives been so far?	<ul style="list-style-type: none"> • Are the DIS working efficiently? • Does the management model of Article 185 initiatives have implications for their efficiency? • Is the administrative burden associated with the indirect management of Union funds appropriate? • What is the progress of the Article 185 initiatives with respect to the achievement of their efficiency related objectives/KPIs (Key Performance Indicators); • How can the efficiency be compared across the Article 185 initiatives?
How effective have Article 185 initiatives been so far?	<ul style="list-style-type: none"> • Are the Article 185 initiatives achieving their objectives effectively? • What progress has been made towards the completion of the ERA? • What progress has been made towards achieving scientific impacts? • What progress has been made towards achieving economic impacts? • What progress has been made towards achieving societal impacts?
How coherent have Article 185 initiatives been so far?	<ul style="list-style-type: none"> • Are Article 185 initiatives coherent with Horizon 2020 and wider EU objectives and actions? • Are Article 185 initiatives coherent with other P2P initiatives aiming at improving transnational cooperation? • Are Article 185 initiatives coherent with Member States R&I policy objectives?
What is the European added value of Article 185 initiatives so far?	<ul style="list-style-type: none"> • What is the added value of Article 185 initiatives as compared to other P2P instruments? • What is the EU added value of Article 185 initiatives? • What is the added value of Article 185 initiatives for participating states?

²⁷ More information: http://ec.europa.eu/smart-regulation/guidelines/toc_guide_en.htm. The SWD on the interim evaluation of Horizon 2020 also covers an evaluation of the issues mentioned in Article 32 of the Regulation 1291/2013/27 (cross-cutting issues, an in-depth assessment of public-private partnerships including the Joint Technology Initiatives, the Fast Track to Innovation pilot, and the funding model of Horizon 2020)

4. METHODOLOGY



Summary box: Data sources used for this evaluation

- ❖ In depth analyses of the individual Article 185 initiatives by independent expert groups, complemented by the analysis of the expert group for the meta-evaluation of Article 185;
- ❖ Public stakeholder consultation comprising general issues with respect to the use of Article 185 as legal basis for joint programmes of EU Member States supported by the EU and specific issues related to the individual Article 185 initiatives (AAL2, BONUS and Eurostars2);
- ❖ Specific stakeholder consultations for EMRP/EMPIR and EDCTP2.

The evaluation package has been coordinated by the Joint Programming Sector of the Commission's Directorate for Research and Innovation (DG RTD) and managed by the lead services in DG RTD and DG CONNECT (Directorate General for Communications Networks, Content and Technology) responsible for the individual initiatives.

For each of the evaluations an existing or newly established Interservice Group ensured the support and policy coordination with the relevant Commission services²⁸. A common template/framework for the Terms of Reference for the independent expert groups has been elaborated in order to ensure a high level of coherence between the individual evaluations.

The evaluations are based on the work of independent expert groups (see annex 3) and on the results of public consultations (see annex 2). The expert groups worked with a variety of methods, from desk research to interviews and surveys among Article 185 stakeholders and beneficiaries. More details on individual methodologies can be found in the respective expert group reports.



Stakeholder Box: Stakeholder consultation on the Article 185 evaluations

- More than 700 online questionnaire responses from stakeholders²⁹
- Disaggregated analysis of online responses (according to stakeholder type and Article 185 initiative);
- more than 130 stakeholder interviews within individual evaluations
- Hearings with EU Member States and EU level representatives as part of the Article 185 meta-evaluation;
- Key stakeholder views on Article 185 initiatives based on the public consultations:
 - Stakeholders consider the EU added value of at project level (high quality R&I projects not realisable at national level, supporting competitiveness) and at programme level (higher impacts, knowledge gains);
 - Respondents assess that Article 185 initiatives are relevant for achieving EU policy objectives, support the European Research Area and in general foster excellent science;
 - While being coherent with Horizon 2020 and broader Union policies, initiatives are perceived to be less embedded in national policies;
 - They are considered overall effective and contribute well to the different levels of integration, in particular the scientific integration;
 - Article 185 initiatives are recognized to allow for easier cross-country cooperation than national programmes or Horizon 2020 and allow projects that otherwise would not be realised.

²⁸ Notably the Secretary General, the Legal Service and sectorial Directorate-Generals as appropriate.

²⁹ With 58% respondents having received support from Horizon 2020 and 62% respondents being involved in either the management or the implementation of Article 185 initiatives as beneficiaries, it can be assumed that replies are relevant and based on professional knowledge and personal experiences (see annex 2)

5. LIMITATIONS AND CHALLENGES OF THIS EVALUATION

This section summarises the key limitations and challenges that characterise this evaluation and contextualise its results.



Summary box: key challenges and limitations of this evaluation

- ❖ It is too early to discuss the impact of the Article 185 initiatives that have been launched under Horizon 2020, as the overwhelming majority of results and impacts have not yet materialised; from about 800 projects selected for funding until 31 December 2016, none has been finished;
- ❖ The estimation of likely outcomes/impacts from the Article 185 initiatives funded under Horizon 2020 is based, as far as possible and appropriate, on the results of the respective predecessor initiatives funded under FP7 (except BONUS with no successor programme under Horizon 2020);
- ❖ Even for the here analysed FP7 initiatives, not all results and impacts can be analysed, as only 20% (BONUS), respectively 80% (EMRP) of the projects have finished;
- ❖ Funded projects from the Article 185 initiatives under Horizon 2020 will lead to measurable impacts by 2020 at the earliest;
- ❖ Different approaches and standards of the Article 185 initiatives with respect to data collection and availability, management model and operational objectives/KPIs impede a more thorough comparative assessment;
- ❖ The SWD concentrates on overarching issues and finding identified by the in-depth analysis executed by the independent expert groups. More specific analysis can be found in the respective expert group reports annexed to this SWD.

Especially in the case of the interim evaluation of Article 185 initiatives supported by Horizon 2020 only, the achievements of the first two years of activity can be analysed. Therefore, it has to be noted that **only initial progress towards the achievement of the different objectives can be assessed**. As all Article 185 initiative launched under Horizon 2020 are based on a predecessor initiative, a significant part of the interim evaluations is based on the **outcomes and results of the previous programmes, notably AAL, EDCTP, EMRP and Eurostars, including the results of their final evaluations**.

The final evaluations of EMRP and BONUS are able to analyse parts of the programming period, while acknowledging that a substantive part of research projects funded under the respective initiative have not yet finished, thus limiting the possibility for a thorough assessment of their impacts. In the case of BONUS, only **about 20% of the funded projects have been finished until December 2016** and in the case of **EMRP, about 80% have been finalised**.

Another limitation of the assessment of progress towards the achievement of the original objectives is the time lag between the adoption of the basic act, the launch of the first joint calls for proposals resulting in the award of the first grants, and the realization of measurable impacts resulting from the implementation of the joint programme. By the end of 2016, no project stemming from the first call for proposals has been finalised and assuming that measurable impact from project results occur usually several years after closure of the project, **the first impacts from projects can be expected for 2020 at the earliest**.

Another set of limitations of this SWD stems from the characteristics of Article 185 initiatives, which are managed and implemented mainly by Member States, either directly (as in the case of AAL2 and Eurostars2) or indirectly by the DIS (as in the case of

the other Article 185 initiatives). These characteristics and the **substantive differences among the Article 185 initiatives with respect to management model and implementation** impede a comparative assessment of the initiatives to a significant extent. **Data availability on KPIs and definitions are not harmonised among the Article 185 initiatives, further limiting the possibility for a thorough comparative assessment.** No project data are available in the general EU project database (eCORDA) and the data collection by the DIS differs among initiatives.

Consequently, this SWD concentrates on the overarching issues and findings identified by the independent expert groups. Specific issues relating to the individual Article 185 initiatives, including the recommendations concerning improvements under Horizon 2020 and beyond are not included in the SWD but can be found in the respective reports referenced in annex 3.

6. IMPLEMENTATION - STATE OF PLAY

The following sections summarise the implementation state of play of the Article 185 initiatives based on the final evaluation reports from the independent expert groups.



Summary box: key features of implementation of Article 185 initiatives

- ❖ Article 185 initiatives under Horizon 2020 successfully established their Dedicated Implementation Structures (DIS), adopted their Strategic Research Agenda (SRA), signed the delegation agreements between the DIS and the EU and funded until December 2016 in total about 800 projects with a total funding volume of 1.400 M€;
- ❖ 95% of the operational public budget is provided for funding of transnational projects, while the remaining 5% cover other activities, including communication and mobility measures;
- ❖ Article 185 initiatives display a substantive variety in key comparators, including success rates, project size, average number of participants per funded project, EU-13 participation and third country participation;
- ❖ Five Member States (UK, DE, NL, SE and FR) provided about 70% of all national contributions to Article 185 initiatives between 2007-2016;
- ❖ While public funding for Article 185 initiatives under FP7 was about 1,6 billion € (600 M€ from FP7 and 1.000 M€ from Member States) it will increase for the current initiatives until the end of Horizon 2020 to nearly 4 billion € (2,2 billion from Member States and 1,7 billion €);

After adoption of the acts establishing the Article 185 initiatives, the Participating States (Member States and Associated Countries in variable geometry) adopted their respective **Strategic Research Agendas (SRAs)**, selected a **Dedicated Implementation Structure (DIS)**, demonstrated its fitness for implementation in an ex-ante assessment carried out by the Commission and approved the signature of the **Delegation Agreements (DA)** between the EU and the DIS in order to respect the requirements from the Financial Regulation for the indirect management of Union funds.

The bases of the activities of the Article 185 initiatives are usually the Strategic Research Agendas (SRAs) that define the activity plan of the initiative. They include a variety of activities designed to achieve the objectives of the programme. The **core activities are joint calls for proposals**, resulting into transnational R&D projects. After the adoption of the basic acts (in 2014 for AAL2, EDCTP2, EMPIR and Eurostars2, 2010 for BONUS and 2009 for EMRP) the first calls for proposals have been launched shortly afterwards.

According to the available data, about **95% of the available operational budget is provided for R&D projects stemming from the joint calls for proposals**³⁰. The remaining 5% of available national and EU funding is devoted to other activities, including mobility measures, capacity building, communication and dissemination activities or networking.

The following tables summarize the implementation of the initiatives with respect to the funding of projects, as the main element of programme implementation. As this SWD covers both, FP7 and H2020 Article 185 initiatives, the project funding overview is divided into F7 and Horizon 2020 initiatives in order to provide a complete overview.

³⁰ Except EDCTP2, as here mobility measures and researcher grants are important instruments in the use of the EU funds, while the share of R&D projects within the PSIAs is not measured.

Tables 5 and 6 underline the diversity among the currently active Article 185 initiatives. Key comparators such as success rate, project size, average number of participants, EU 13 participation or third country participation differ substantially.

- The success rates are between 17% (BONUS) and 60% (EMRP),
- The project budgets are between 5,8 M€ (EDCTP2) and 1,3 M€ (Eurostars2),
- The average number of participants per transnational project is between 3 (Eurostars2) and 11 (EMPIR);
- EU-13 participation is between 0% (EDCTP2) and 16% (BONUS, EMRP);
- Third country participation is between 64% (EDCTP2) and 2% (EMRP).

Table 5: Overview on Article 185 project data under Horizon 2020. Basis is selected projects for funding 2014-2016 (cut-off: December 2016).

Article 185 Initiative (H2020)	AAL2	EDCTP2 ³¹		EMPIR	Eurostars2
		Joint calls/actions	PSIAs		
Number of eligible proposals (step 2)	227	184	-	171	1663
Number of projects on ranking list (above threshold)	129	-	-	145	680
Number of funded projects	52	60	117	91	579
Success Rate (%) (funded projects/eligible proposals)	23%	33%	-	53% ³²	34%
Total project costs (M€)	110	135 ³³	228 ³⁴	228	835,8
Total public funding (EU and MS) (M€)	67	98	-	226	434
MS funding (planned) (M€)	35	14 ³⁵	556 ³⁶	114	327
EU funding (planned) (M€=)	32	271 ³⁷	-	113	97
Average project size (M€)	2	6 ³⁸	-	3	1
Average number of participants/project	7	10 ³⁹	-	11	3
EU13 participation (%)	15%	0%	-	11%	8%
Third country participation (%)	18%	64%	-	3%	22%

³¹ The figures provided refer to the Research & Innovation Actions (RIAs) and the Coordination & Support Actions (CSAs). The Training & Mobility Actions (TMA) are fellowships that are excluded from this table, represent 26 additional grants (single beneficiaries).

³² Figure for the second stage of a 2-stage call procedure, with EMPIR specific features due to the underlying institutional programmes of the participating states.

³³ Including complementary funding of EUR 39 million leveraged by EDCTP from third parties, mainly for large-scale clinical trials.

³⁴ Certified costs incurred by Participating States in 2014-2016, and acceptable to the Commission as in-kind contribution to the EDCTP2 programme.

³⁵ Participating States Cash contribution to the EDCTP2

³⁶ Planned budget of Participating States for the implementation of PSIAs that have been included in the EDCTP2 Annual Work Plans 2014, 2015 and 2016.

³⁷ EU contribution committed by the Commission for the implementation of the EDCTP2 Annual Work Plans 2014, 2015 and 2016.

³⁸ This figure refers to collaborative clinical research actions only (excluding capacity building actions, such as individual fellowship grants).

³⁹ This figure refers to collaborative clinical research actions only (e.g. excluding individual fellowship grants).

Table 6: Overview on Article 185 project data under FP7. Basis is selected projects for funding 2007-2013 (cut-off: December 2013).

Article 185 Initiative (FP7)	AAL	BONUS	EDCTP	EMRP	EUROSTARS
Number of eligible proposals (step 2)	645	233	789	200	3018
Number of projects on ranking list (above threshold)	301	90	-	181	1220
Number of funded projects	155	40	254	119	783
Success Rate (%) (funded projects/eligible proposals)	24%	17%	32%	60% ²²	26%
Total project costs (M€)	409	83,1	375	408	1130
Total public funding (EU and MS) (M€)	241	83,1	288	428	400
MS funding (planned) (M€)	138	42	139 ⁴⁰	228	300
EU funding (planned) (M€)	103	42	149 ⁴¹	200€	100
Average project size (M€)	2,6	1,9	87	3,1	1,4
Average number of participants/project	7	7,1	4.7 ⁴²	11	3,5
EU13 participation (%)	8,4%	21,5 %	9 ⁴³	16%	7,6%
Third country participation (%)	12,5%	2,5 %	0%	2%	13%

While public funding for Article 185 initiatives **under FP7 was about 1,6 billion €** (600 M€ from FP7 and 1.000 M€ from Member States) it will increase until the end of **Horizon 2020 to nearly 4 billion €** (2,2 billion from Member States and 1,7 billion € from Horizon 2020). Data from the ERA progress report 2016⁴⁴ and from the SWD on the Horizon 2020 interim evaluation estimate that on average 20% of national GBARD to transnational cooperation are invested into P2Ps, including the Article 185 initiatives. In general, smaller Member States tend to invest a higher share of their GBARD to transnational cooperation for P2Ps than larger Member States such as Germany or the UK.

Beside this part of the programme implementation, all initiatives successfully established governance and implementation structures, put in place communication activities and eventually monitor regularly the implementation of the programme. More details can be found in the sections on the individual initiatives following hereafter.

The following table shows the financial contributions of EU Member States in Article 185 initiatives. As for the tables above, information for FP7 and Horizon 2020 initiatives are presented separately. The table underlines that between 2007 and 2016, spanning FP7 and Horizon 2020, five EU Member States, notably UK, DE, FR, NL and SE contributed about 70% of the overall national contributions to the Article 185 initiatives.

⁴⁰ In addition, Member States and Associated Countries incurred costs amounting to EUR 606 million for the implementation of activities in the scope of the first EDCTP programme (2003-2015).

⁴¹ In addition, EUR 43 million of EU funding supported non-grant activities for the implementation of the first EDCTP programme (2003-2015).

⁴² This figure refers to 66 collaborative clinical trials and research projects only (excluding 156 capacity building actions, such as 78 individual fellowship grants).

⁴³ This figure refers to 66 collaborative clinical trials and research projects only (excluding 156 capacity building actions, such as 78 individual fellowship grants).

⁴⁴ http://ec.europa.eu/research/era/eraprogress_en.htm

Table 7: Overview of national financial contributions to Article 185 initiatives funded under FP7 and Horizon 2020*; Source: DIS of the individual Article 185 initiatives

Participating State	National contributions under FP7 (M€) ⁴⁵ (2007-2013)	National contributions under Horizon 2020 (M€) (2014-2016)	Total (2007-2016) (M€)
EU Member States			
Austria	35,39	22,41	57,80
Belgium	60,12	14,88	75,01
Bulgaria	0,25	2,52	2,77
Croatia	0	0,79	0,79
Cyprus	2,05	1,22	3,27
Czech Republic	12,80	7,70	20,51
Denmark	76,31	32,26	108,92
Estonia	4,27	0,34	4,61
Finland	32,25	9,58	41,83
France	128,33	55,93	184,26
Germany	213,70	104,48	318,17
Greece	10,15	0	10,15
Hungary	7,30	3,46	10,76
Ireland	5,72	5,79	11,50
Italy	140,67	13,42	154,09
Latvia	0,93	0,46	1,39
Lithuania	3,44	4,18	7,62
Luxemburg	3,15	1,34	4,49
Malta	0,11	0	0,11
Netherlands	91,53	66,46	158,00
Poland	8,77	3,56	12,33
Portugal	14,87	3,11	17,98
Romania	6,14	5,56	11,70
Slovakia	3,17	1,58	4,75
Slovenia	5,14	3,23	8,38
Spain	64,47	37,86	102,33
Sweden	87,15	59,09	146,24
United Kingdom	252,02	193,64	445,67
Associated Countries			
Switzerland	73,84	17,50	84,78
Norway	14,13	12,00	22,85
Turkey	1,61	4,50	6,11
Bosnia & Herzegovina	0,09	0,35	0,44
Serbia		0,26	0,26
Israel		0,16	0,16
Third countries			
Gabon		0.25	0.25
Burkina Faso		0.27	0.27
DR Congo		0.20	0.20

*Data are shown as expenditures or granted resources in case of unfinished projects under FP7 and national commitments for Horizon 2020 Article 185 initiatives. As a number of FP7 projects are still on-going, the final national contributions will be higher. Preliminary commitments for PRIMA are not included.

6.1 Active and Assisted Living (AAL2)

The Active and Assisted Living Programme aims at creating better conditions of life for the older adults and to strengthen the resulting international industrial opportunities in the area of information and communication technology (ICT). It carries out its mandate through annual calls for proposals for transnational projects that involve small and medium enterprises (SME), research bodies and end-user organisations (representing older adults).

Under AAL2, the executive board has introduced a new and updated strategy that reflects both the new policy environment (operation within Horizon 2020) and changing market

⁴⁵ BONUS data include all national contributions until December 2016, as the programme was started later during FP7

conditions. The strategy also takes into account the recommendations made in the AAL1 final evaluation report.

To fulfil its objectives and reflecting its market orientation, over the period 2014-2016 the Programme issued three calls for proposals. These have resulted in 52 projects being funded with a total public funding commitment of €67 million, of which €35 million (52%) was contributed by the Participating States.⁴⁶ The success rate under AAL2 calls has averaged 23%. For the years 2017 – 2020 further four calls are planned, with a total indicative budget of approximately €250 million.

In addition, the AAL Programme has put in place a series of support actions designed to help the Programme achieve its objectives and multiply its overall socio-economic impact. These support actions have addressed specific challenges – some of which were identified in previous evaluations – such as access to finance, commercialisation and deployment of AAL solutions, market barriers, and user-centred design. New, more flexible instruments have been introduced, notably: a Challenge Prize which has sought ideas both within and outside the AAL community; and hackathons, which have opened up the programme to app developers and entrepreneurs.

6.2 Joint Baltic Sea Research and Development Programme (BONUS)

The BONUS 'Joint Baltic Sea Research Programme' is aligned with the objectives of the European Strategy for Marine and Maritime Research. It is an integral part of the EU Strategy for the Baltic Sea, which seeks to provide both a co-ordinated and inclusive framework in response to the key challenges facing the Baltic Sea Region, together with concrete solutions for these challenges.

The BONUS Article 185 initiative was implemented in two phases, following a preparation via an ERA-NET under Framework Programme 6, and a first cofunded call as an ERA-NET Plus under FP7. There was an initial strategic phase of 15 months, during which there was extensive consultation among the member countries in order to design and agree a SRA, followed by an implementation phase during which there were three calls for transnational proposals and projects were contracted. Three years after the first SRA was agreed, the Steering Committee approved an updated and expanded version.

The calls address the different Strategic Objectives and the themes defined in the SRA. The overall success rate for proposals across all four calls is 16%, but the rate varies a great deal by theme. As a result of all four thematic calls for proposals, the BONUS programme funds a total of 40 projects.

The total amount of funding of all projects including both EU and national funding (excluding in-kind contributions) is 79.253.418€. The total volume of all projects is 82.882.011€. This has executed 82,9% of the planned budget of the BONUS programme. An extension of the implementation agreement has been granted in 2016 to allow the BONUS programme to commit funds until September 2018 in order to allow it to use up unspent budget to better achieve its objectives and implement one more call.

The BONUS programme is co-financed by a total of 20 different funding institutions from eight participating countries ensuring 50% of the national co-financing for their respective partners in the approved projects.

⁴⁶ These figures are provisional at December 2016 and may be subject to change as a result of negotiations relating to Calls 2015 and 2016. The data exclude the contributions of Switzerland and Canada which do not participate on a cofunded basis.

6.3 Second European and Developing Countries Clinical Trials Partnership Programme (EDCTP2)

The EDCTP2 programme aims at the reduction of the social and economic burden of poverty-related diseases in developing countries, in particular in sub-Saharan Africa, by accelerating the clinical development of effective, safe, accessible, suitable and affordable medical interventions for poverty-related diseases, in partnership with sub-Saharan Africa.

The funding of projects is based on annual work plans, which are drawn from the EDCTP2 basic act and the EDCTP2 Strategic Business Plan (2014-2024). The annual work plans also include the Participating States' Initiated Activities (PSIAs), i.e. activities funded and implemented directly by one or more EDCTP2 Participating States and which are an integral part of the programme.

The EDCTP2 calls for proposals have been supported through three distinct types of actions in accordance with Horizon 2020 provisions: Research & Innovation Actions (RIA), Coordination & Support Actions (CSA), and Training & Mobility Actions (TMA). RIAs refer to multicentre clinical trials conducted in sub-Saharan Africa by research consortia involving both European and African research teams. They integrate capacity development and networking elements. CSAs provide support for activities expected to strengthen the enabling environment for conducting clinical trials and clinical research, including ethical review and regulatory capacities. Finally, fellowships focusing on career development of individual researchers or research team members are funded within the TMAs.

The first three calls of the EDCTP2 were launched in December 2014. In 2015, a total of 11 calls for proposals were ongoing: 3 calls of the 2014 work plan and 8 calls of the 2015 work plan. In 2016 all pending activities from the 2015 work plan were implemented and 9 calls for proposals were launched from the 2016 work plan, including 4 RIA, 2 CSA and 3 TMA calls. A total of 20 calls for proposals have been launched so far under EDCTP2. These activities have increased the total number of proposals selected for funding to a cumulative figure of 60 (13 under RIA, 21 under CSA, and 26 under TMA). The total number of grants signed was 24 by 31/12/2016.

The European Commission committed 214, 8 M€ of EU funding to the implementation of the EDCTP2 annual work plans 2014, 2015 and 2016, including 9.2 M€ (4.3%) for administrative expenditures of the EDCTP2 implementation structure (EDCTP2-IS). The 14 European Participating States budgeted 514 M€ for the multi-annual implementation of 133 national programme activities, so-called Participating States Initiated Activities (PSIAs) as part of the EDCTP2 programme.

6.4 European Metrology Research Programme (EMRP) and European Metrology Programme for Innovation and Research (EMPIR)

The **European Metrology Research Programme (EMRP)** was established in 2009 by the then 22 participating countries and the European Union. EURAMET - the European Association of National Metrology Institutes - is the body responsible for the implementation of the EMRP. The core activity of the EMRP consisted of funding transnational joint research projects to advance metrology and its applications. In view of the concentrated capacities in metrology, the core part of the EMRP is executed by National Metrology Institutes (NMIs) and Designated Institutes (DIs) identified by the participating states. The joint research projects are supplemented by three researcher grant schemes: Researcher Excellence Grants aim at broadening metrological expertise

in the programme and are exclusively available to the wider non-NMI/DI research community. Researcher Mobility Grants obviously encourage transnational mobility within the programme participants but also provide an opportunity for the European countries not participating to engage in capacity building of their metrology research capability. The Early Stage Researcher Mobility Grants provide the next generation of metrology researchers from the participating NMIs and DIs with the opportunity to gain transnational experience.

The Programme deliberately chose cross-disciplinary themes, addressing the grand challenges and using the emerging technologies, which cut across the traditional disciplines. The topics addressed are interdisciplinary and multidisciplinary (environment, health, energy and general industry requirements), and cooperation is taking place among scientists of different countries and regions. This was meant to encourage the NMI/DIs to be more open about how they can access the expertise of the wider research community.

Seven of the EMRP participating states joined the EU after April 2004. These seven countries have participated in joint research projects funded under EMRP enabling them to collaborate in projects with more experienced Member States to develop their metrology capabilities. Three additional New Member States have participated via Researcher Grants.

All calls for the programme are now complete and the projects started. 119 Joint Research Projects (JRPs) have been contracted worth almost 368 M€. Over 39.7 M€ has been contracted in the associated Researcher Grants. This represents 2116 funded years of effort in the JRPs, 498 funded years in Researcher Grants and 123 years of effort from the unfunded partners. 48 Countries participate in the programme. 91 industrial companies are unfunded partners, 309 academic and research organisations are homes to the researcher grants. 211 SMEs and 149 Large Enterprises are associated with the projects as collaborators. The EMRP programme formally finalised in 2013, with the last projects ending in 2019.

The **European Metrology Programme for Innovation and Research (EMPIR)** was established in 2014 by twenty-eight participating countries and the European Union. The DIS (EURAMET e.V.) established for EMRP was entrusted again with the management of the EMRP successor programme EMPIR.

The key difference between the operation of the EMRP and EMPIR programmes is the full opening to researchers from non-NMIs. The Researcher Grant schemes are replaced by the involvement of non-NMIs and non-DIs as directly funded partners in the Joint Research Projects and the development of new types of project. Both "Research Potential" and "Support for Impact" calls were piloted in 2014, the first being research projects aimed at developing research capacity in newer NMIs, the second being a support action aimed at new opportunities for exploiting the results of completed EMRP and iMERA-Plus⁴⁷ projects.

In 2014 the annual EMPIR call included calls for joint research for 'Metrology for Industry' and 'Research Potential' and a call for 'Support for Impact' projects designed to increase the impact from completed iMERA Plus and EMRP projects. The annual call 2014 resulted in 27 funded projects with an overall budget of 51,4 M€. The annual EMPIR call 2015 resulted in 33 funded projects with an overall budget of 81.7 €. In 2016, the annual call included again five topics, notably 'Metrology for Environment', 'Metrology for Energy',

⁴⁷ ERA-NET plus on metrology funded under FP7, as predecessor of EMRP /EMPIR.

'Metrology for Pre-Co Normative' and 'Research Potential' as well as a Call for Support for Impact. 31 projects were selected in the end of 2016.

6.5 Eurostars2

Eurostars supports international innovative projects led by research and development-performing small- and medium-sized enterprises (R&D-performing SMEs). With its bottom-up approach, Eurostars supports the development of rapidly marketable innovative products, processes and services. Eurostars has been developed to meet the specific needs of SMEs. It aims to be the first step in international cooperation, enabling small businesses to combine and share expertise and benefit from working beyond national borders.

Eurostars2 is jointly undertaken by 34 Participating States and Partner Countries. The EU contribution of 287 M€ under Horizon 2020 is equivalent to one third of the effective contribution from Participating states (for both operational administrative expenditures and may go up to a maximum of half of the contributions of the Participating States). Eurostars2 is organised on the basis of continuously open call for proposals, with two cut-off dates per year for the award of financial support. Financial support should mainly take the form of grants to selected projects. The programme is managed by the EUREKA Secretariat AISBL ("ESE") in Brussels.

A project should last no longer than three years and, within two years of completion, the product of research should be ready for market introduction. Research and development performing SMEs shall take the lead and should be able to exploit commercially the project results, thus improving their competitive position. Research organisations, universities, other SMEs, large companies and others actors of the innovation chain can also participate in Eurostars2 projects.

For the purpose of being eligible as a Eurostars2 project, the consortium is a partnership composed of at least two entities established in two different Participating States or Eurostars2 Partner Countries. Partners in the selected projects are administratively handled by their respective national administrations. It is assumed that the bottom-up nature of the scheme and national funding procedures fit the specific needs of R&D performing SMEs.

To fulfil its objectives and reflecting its market orientation, over the period 2014-2016 the programme issued six calls for proposals. These have resulted in 579 projects (as of December 2016) being selected for funding participating states. The number of participants of approved projects amounts to 1512 participants. The success rate under Eurostars2 was more than 30% in total (number of proposals selected for funding/number of applications).

The number of participants that applied varies a lot across participating countries. Among the top five countries one finds Germany (664), The Netherlands (432); Spain (421); France (353) and Switzerland (353). The success rate of applicants varies strongly across participating countries. The success rate for all participating states is 31.65%. Among the top five successful applicant countries we have Norway (40%); Switzerland (38.5%); The Netherlands (38.9%); Sweden (37.8%); Denmark (37.7%). At the other end, the least successful applicant countries are Croatia (9.1%); Cyprus (9.3%).

7. ANSWERS TO THE EVALUATION QUESTIONS

The following sections are based on the results of the individual evaluations and are complemented by the results of the Article 185 meta-evaluation and contextualised with the results of the public stakeholder consultation.

7.1 How relevant have the Article 185 initiatives been so far?

This question aims to determine whether the original objectives of the Article 185 initiatives as defined in their basic acts and the corresponding ex-ante impact assessments are still relevant and how well they still match the current needs and problems of stakeholders. It also addresses the question of the flexibility of the programmes against new political and socio-economic developments.

Summary box: key findings on relevance



- ❖ All evaluations find a high relevance of the Article 185 initiatives and their objectives within their specific fields. However, the unclear selection process for the Article 185 initiatives impedes an assessment of the overall relevance of the use of Article 185 for achieving national and EU policy objectives;
- ❖ Article 185 initiatives continue to be the only available Joint Programming approach with stable multi-annual funding structures, a characteristic that is considered relevant for the addressed topics;
- ❖ While all evaluations underline the relevance of Article 185 initiatives for the completion of the ERA, notably by the transnational nature of their funded projects and by their contribution to the alignment of R&I programming practices across Europe, the relevance of the Article 185 initiatives for the thematic priorities of Horizon 2020 remains in some cases unclear;
- ❖ The relevance of Article 185 initiatives lies also in their contribution to a wide range of EU and global objectives, such as the Sustainable Development Goals, the Blue Growth Strategy or the European Blueprint for Digital Innovation in Health and Care as part of president Juncker's Digital Agenda priority or international cooperation;
- ❖ Some Article 185 initiatives are confronted with decreasing commitment from Participating States, notably AAL2 and to a lesser extent EDCTP2 and Eurostars2, and a limited relevance of Article 185 initiatives in national R&I strategies can be observed;
- ❖ The Article 185 initiatives have shown sufficient flexibility to respond to changing policy requirements in order to maintain or enhance their relevance.
- ❖ The relevance of Article 185 initiatives for capacity building in the less R&D intensive regions/countries is under-developed as the R&D intensive countries dominate the agenda setting process and the funding of Article 185 initiatives.

7.1.1 Are Article 185 initiatives tackling the right issues?

All individual evaluations highlight the relevance of the programmes within their thematic field and confirm the relevance of the initial objectives of the programmes. As, except for BONUS, all active Article 185 initiatives are based on predecessor programmes, the continued relevance was ensured by revising and updating the SRA while preparing the successor programmes.

However, the meta-evaluation underlines that due to the lack of a transparent selection process for Article 185 initiatives, there is no available evidence to assess to what extent the use of Article 185 is concentrated on the most relevant topics.

Article 185 initiatives are the **joint programming instrument with the longest and most stable funding structures and the evaluations underline that this particular characteristic was needed in order to respond to the challenges identified in the individual SRAs.**

Other P2P instruments, such as ERA-NETs or JPIs, would not have been able to ensure an equal amount of national and EU funding opportunities and thus reduce the relevance of the programme with respect to their contributions to overcome the insufficient cross-border cooperation in Europe.

**Example Box: Relevance of support for R&D intensive SMEs -
The case of Eurostars2**



- ❖ Eurostars is a joint programme between EUREKA and the European Commission, cofunded from the national budgets of 36 Eurostars members and by the European Union through Horizon 2020 with the aim to foster transnational cooperation among R&D intensive SMEs and to create rapidly marketable innovations;
- ❖ The lack in Europe of such fast-growing firms is a bottleneck to European economic performance, due to their role in the overall employment and productivity growth;
- ❖ Thanks to Eurostars, 12 national programmes have been newly created to follow the Eurostars rule and 14 have been adapted to this purpose. They have accepted the use of a central independent evaluation and accepted to fund the projects according to a common ranking list issued by this central evaluation.

7.1.2 Are Article 185 initiatives still relevant for Horizon 2020?

While Article 185 initiatives make clear contributions to the general objectives of Horizon 2020, their relevance for the thematic priorities of Horizon 2020 are not clear in all cases.

While EMPIR and EDCTP2 have a unique and clear position in Horizon 2020, it is less clear for AAL2, BONUS and Eurostars2, because a number of other Horizon 2020 actions tackle related topics. On the other side, the topics addressed by EMPIR and EDCTP2 are to a large extent not tackled with other Horizon 2020 actions.

7.1.3 Are Article 185 initiatives relevant for broader policy objectives?

The individual evaluations underline that besides the relevance for their specific field, the currently active Article 185 initiatives are relevant for broader policy objectives in R&I, in particular contributing to the ERA and to more harmonised R&I programming practices in Europe.

The assessments show **contributions to wider EU policy objectives**, for example the EU's commitment to the United Nations' Sustainable Development Goals (SDGs) in the case of EDCTP2 or policy objectives related to the demographic change in Europe in the case of AAL2. Some initiatives, notably EDCTP2 and the forthcoming PRIMA, are clearly linked to international policy agendas, being it global health policies in the case of EDCTP2 or foreign policy in the case of PRIMA.

These results are supported by the accompanying public consultation, as stakeholders assess the particular relevance of Article 185 initiatives for "support of the ERA", "support a knowledge economy" and "spread and widen excellence".

The projects stemming from the Article 185 initiatives are regarded by stakeholders as of high quality due to their transnational character and embedment in a transnational programme.

7.1.4 Are Article 185 initiatives still relevant for Member States?

Member States are the main drivers for Article 185 initiatives, not only financially, but also with respect to priority setting and overall governance. Looking at the overall financial contributions from Member States, a nearly doubling of national contributions between FP7 and Horizon 2020 can be expected, which clearly proves the relevance of Article 185 use for Member States. Also the fact that, all EU Member States participate at least in one Article 185 funded under Horizon 2020, proves the relevance of the variable geometry approach applied in Article 185 initiatives.

This positive overall picture, however, hides a more mixed picture on the level of the individual initiatives and on the level of individual Member States.

The assessments show that **some Article 185 initiatives are confronted with decreasing commitments from Member States**, notably AAL2, where some originally participating countries stepped down and to a lesser extent EDCTP2 and Eurostars2, where some Participating States are not able to meet their original financial commitments. On the other hand, the overall national contributions to Article 185 initiatives grew from FP7 to Horizon 2020 substantially.

In the case of AAL2, the assessment explains that the decreasing commitment of some participating countries is linked to the stronger "upstream" focus of AAL2 as compared to AAL1, whereby some participating funding agencies have no possibility and/or experience in supporting projects with higher technological readiness levels (TRLs). At the same time, the EU13 participation of AAL increased between AAL1 and AAL2.

Conversely, the commitments of the Participating States to EMPIR are strong, and there are several countries who have expressed willingness in increasing their commitments.

Findings from the meta-evaluation show that Article 185 initiatives are not at the core of the national R&I strategies. In more than one third of Member States, Article 185 initiatives are not mentioned in the national R&I strategy and/or the national ERA action plan. However, the meta-evaluation also showed that participation in Article 185 initiatives improved in some Member States the national coordination in the concerned areas, not only within the scientific community, but also across governmental departments

Overall, the evaluations, including the meta-evaluation, find a somewhat mixed picture with respect to Member States relevance: Many Member States do not have an overall strategy for their participation in Article 185 initiatives, but assess their participation on the level of the individual initiative. Still, the meta-evaluation identified a number of benefits for Member States participation in Article 185 initiatives, including better coordination on national level or international cooperation and visibility. The latter benefit is particularly relevant for EDCTP2 which boosts multilateral cooperation and sustains clinical trials networks across countries on the European and African continent.

7.1.5 Are Article 185 initiatives sufficiently flexible to respond to changing policy needs?

The Article 185 initiatives showed sufficient flexibility in responding to evolving policy agendas such as BONUS, which was able to quickly respond to new EU policies, notably the Blue Growth Strategy or the Marine Spatial Planning Directives. Also EDCTP2 showed both, relevance and flexibility during the recent Ebola outbreak in Africa, as the existing cooperation network of EDCTP2 was able to make important contributions to the containment and analysis of the outbreak.

Example Box: Programme flexibility – The case of BONUS



- ❖ The development and implementation of an ecosystem approach in the Baltic Sea necessitates a research strategy striving for a holistic, integrated, inter-disciplinary scientific approach addressing both the natural and socio-economic systems;
- ❖ BONUS is a reference body for structuring environmental research in the Baltic Sea region. Together with its acknowledged reputation in the region, this flexibility makes BONUS a relevant tool to build the ERA in the region;

- ❖ While being established and conceived during FP7, BONUS has shown flexibility in its updated SRA response to new strategies provided by the Blue Growth (European Commission, 2012) and Marine Spatial Planning Directives (European Parliament and Council, 2014) and to the new EU R&I policy framework Horizon 2020;
- ❖ Both the policymaking community and the researchers involved believe that networking has increased within both policy and research communities.

7.1.6 Are Article 185 initiatives relevant for the less R&D intensive Member States?

Capacity building across Europe, including the less R&D intensive regions/countries is one objective in a number of Article 185 initiatives, notably EDCTP2, BONUS and EMPIR. The assessments note that **the initiatives were able to make contributions to capacity building, but that the set-up of the initiatives is still dominated by the more R&D intensive countries**. This finding is supported by the fact that five R&D intensive EU Member States (UK, DE, FR, NL and SE) provide 70% of all national funding for the currently active Article 185 initiatives (see also table 7).

For EDCTP2, the aspect of capacity building is not limited to Europe, but essentially developed towards Africa. Here, EDCTP2 contributes to the achievement of sustainable capacity for conducting clinical trials by attracting and retaining scientific leadership in Africa, improving and upgrading research infrastructure and strengthening the ethical and legal framework for conducting trials.



Stakeholder Box: What do stakeholders think?

- ❖ Respondents consider that Article 185 initiatives are highly relevant for achieving a broader set of EU policy objectives. They are perceived to be particularly relevant for building a society and economy based on knowledge and innovation;
- ❖ They see Article 185 initiatives strongly supporting the European Research Area (90%);
- ❖ The initiatives are considered highly relevant in spreading excellence and widening participation (88%) and in general foster excellent science (87%);
- ❖ Furthermore respondents regard the initiatives as highly relevant (65%) for the country specific thematic context.

7.2 How efficient have the Article 185 initiatives been so far?

The questions aims to consider the relation between the inputs to the Article 185 initiatives and their operational performance achieved so far.



Summary box: key findings on efficiency

- ❖ The implementation structures of the Article 185 initiatives are in general efficient, independently of the applied management model, when considering the challenge to accommodate the multitude of different national practices and cultures in R&I programming;
- ❖ The work of the individual DIS is efficient, with all initiatives respecting the thresholds of the Union contribution foreseen for administrative expenditures;
- ❖ Individual assessments find administrative requirements from the Commission for the adoption of annual work plans, annual reporting and its approval rather heavy;
- ❖ The fully decentralised implementation modes of AAL2 and Eurostars2 bear the risk of additional administrative burden for beneficiaries;
- ❖ The central evaluation system of Article 185 initiatives is considered as major achievement to improve efficiency of transnational programming;
- ❖ All Article 185 initiatives appear to be on good track to meet eventually their efficiency related objectives until the end of the programme.

7.2.1 Are the Dedicated Implementation Structures working efficiently?

The individual evaluations assess the existing implementation structures as in general efficient, notably when acknowledging the challenge to accommodate the diversity of **national R&I programming practices and cultures.** This is especially the case in the two decentralised Article 185 initiatives, AAL2 and Eurostars2, and BONUS with its hybrid implementation model. The implementation model of EMPIR and EDCTP2, on the other hand, does not require the accommodation of the national diversity, as they work with a single set of funding rules (Horizon 2020 RfP in the case of EDCTP2 and EMPIR).

Overall, all Article 185 initiatives stay below the maximum of 4-6% of EU funding for administrative expenditures⁴⁸, which is regarded as efficient. As the EU contribution is max. 50% of the total public funding, the administrative costs are only 2-3% of the total public funding. However, this calculation does not include the administrative expenditures at national level, which can be seen as additional in-kind contributions from Participating States.

The centralised evaluation system by the DIS, which is applied in all Article 185 initiatives is seen by all assessments as major achievement and contribution to managerial integration of the participating national programmes, thus enhancing the overall efficiency of programme implementation. Still, many stakeholders think that the application for projects in Article 185 joint calls is more burdensome than in national programmes (see box below).

Example Box:
Article 185 initiatives and best practice in evaluation standards



- ❖ All Article 185 initiatives apply the core elements of the Horizon 2020 evaluation procedure, notably the two step procedure with international peer-review and the establishment of a binding ranking list;
- ❖ The international peer-review procedure ensures the highest level of scientific, managerial and results-oriented quality of projects funded under the Article 185 initiatives;
- ❖ The selection according to ranking list ensures that only best projects being funded – resulting in some cases in additional national contributions for projects under Article 185 initiatives as national funding agencies aim at funding all national participants in projects on the ranking list.

While the efficiency of the DIS is analysed within the individual evaluations and for the individual Article 185 initiatives, the meta-evaluation looked at the efficiency of the basic set-up of Article 185 initiatives and identified a number of efficiency issues that are applicable to all Article 185 initiatives.

The main finding here is that each Article 185 initiative having its own DIS, has clear efficiency limits and some general activities might be more efficiently managed by one overarching body. In addition, the efficiency of the DIS is further hampered by the limited function of the DIS, notably to organise and implement joint calls, which is only a part of the overall, more strategic programme of an Article 185 initiative.

7.2.2 Does the management model have implications for the efficiency of Article 185 initiatives?

The efficiency of the Article 185 initiatives does not seem to depend on the applied management model of the Article 185 initiative, but is to a large extent case specific. Still, it can be argued that more harmonisation of the applied R&I programming practices will increase their efficiency. The fully centralised model of EMRP/EMPIR, however, cannot be transferred to other Article 185 initiatives, which work

⁴⁸ This maximum is set by the acts establishing the Article 185 initiatives. In EMRP/EMPIR, the administrative expenditures are fully covered by participating states. EUROSTARS2 sets the limit at 4% of the union contribution (Article 5 (3)). EDCTP2 and AAL2 have a limit of 6% for the administrative expenditures (Article 2(3)). The BONUS basic act sets the limit at a maximum of 5 M€ for the running costs, which equals 5% of the Union contribution.

under different conditions. The fact, that metrology research is very similarly organised in all EU Member States, is clearly a prerequisite for the appropriateness of the fully centralised management model. This similarity across Member States is not the case for the other Article 185 initiatives.

At national level, **the reporting requirements for beneficiaries in initiatives with decentralised or hybrid implementation that require multiple reporting was identified as a challenge.** Especially the AAL2 and Eurostars2 evaluations find significant risks for administrative efficiency, in particular with respect to time to grant and double reporting requirements. As these two initiatives are targeting SMEs with a high sensitivity towards administrative burden, the identified inefficiencies might have further negative consequences.

Initiatives with fully centralised implementation are considered as more efficient in their programme implementation, notably EMRP/EMPIR shows a very efficient implementation.

Example Box: Managerial efficiency of the fully centralised implementation of EMPIR



- ❖ The entire EMPIR programme of about 600 M€ is implemented by EURAMET e.V.;
- ❖ A two-stage call process brings the European metrology community together, along with the academic community and measurement research end-users, to develop and deliver collaborative research projects;
- ❖ Project selection is based on an assessment, by the EMPIR committee, of alignment with strategic requirements (stage 1) and independent expert review (stage 2);
- ❖ All participating National Metrology Institutes (NMIs) ensure that selected projects are funded through their institutional budgets (in-kind contributions), thus structuring metrology R&D across Europe in a substantive way (50% of total European metrology R&D integrated within EMPIR);
- ❖ Common templates, procedures, rules of participation and grant agreements based on Horizon 2020 standards applied to all projects ensuring maximum simplification gains for beneficiaries;
- ❖ Time to grant is on average seven months from call closure to grant, outperforming other Article 185 initiatives working under a decentralised funding model.

7.2.3 Is the administrative burden associated with indirect management of union funds appropriate?

Due to application of the Horizon 2020 rules for participation to the Article 185 initiatives the **supervision by the Commission Services became more complex than under FP7. This requires dedicated procedures for the approval of the annual work plan and more detailed reporting of the initiatives to the Commission, leading to additional administrative burden mainly on the level of the DIS, but also for the Commission services concerned.** As the EU funding for Article 185 initiatives is implemented by indirect management, this finding does not contradict findings from the Horizon 2020 interim evaluation, where clear simplification benefits were found for the direct management of union funds.

In addition, the meta-evaluation identified room for simplification for the Commission concerning the administrative procedures for the implementation of Article 185 initiatives, in particular with respect to the Delegation agreement and the approval of the annual work plan (AWP).

7.2.4 What is the progress of the Article 185 initiatives with respect to their efficiency related objectives?

Some initiatives included a number of efficiency related targets in their specific and/or operational objectives, notably EMPIR and Eurostars, and all evaluation reports make reference to efficiency related recommendations from earlier evaluations.

Overall, there is a consensus among the evaluations that it is too early in the implementation of the programme to fully assess the efficiency of the programmes, however, **all initiatives are on good track to eventually achieve their efficiency objectives**. Typical efficiency related objectives concern time-to-contract and/or time-to-pay indicators as well as leveraged public or private funding.

Obviously, BONUS is an exception here, as it is the only final evaluation without a successor initiative. A comparison of the efficiency related KPIs cannot be done, as either data are not available or the data collection methodologies differ substantially between the Article 185 initiatives. For the future, a more harmonised data collection and monitoring framework would facilitate the comparison between different Article 185 implementation modes.

7.2.5 How can the efficiency be compared across the Article 185 initiatives?

As stated earlier, the comparability of the Article 185 initiatives is limited due to their diversity in management and implementation models and absence of common standards with respect to reporting and monitoring. At project level⁴⁹, however, some key criteria can be compared, notably success rate, average funding per project, average number of participants, EU13 participation or third country participation (see also chapter 5).

Tables 5 and 6 underline the diversity among the Article 185 initiatives. Key comparators such as success rate, project size, average number of participants, EU 13 participation or third country participation differ substantially.

- The success rates are between 17% (BONUS) and 60% (EMRP),
- The project sizes are between 5,8 M€ (EDCTP2) and 1,3 M€ (EUROSTARS2),
- The average number of participants per transnational project is between 3 (Eurostars2) and 11 (EMPIR);
- EU13 participation is between 0% (EDCTP2) and 16% (BONUS, EMRP);
- Third country participation is between 64% (EDCTP2) and 2% (EMRP).

In addition, the comparison of project data from Article 185 initiatives funded since FP7 reveals some developments that have been achieved (see box below).

Example Box: Developments of Article 185 initiatives from FP7 to Horizon 2020



When comparing the individual initiatives under Horizon 2020 and their predecessors, the following developments can be observed:

- AAL: nearly doubling EU-13 participation from 8,44% to 15%;
- EDCTP: growth of participation of African partners (55%-> 64%) while establishing larger consortia (9 -> 10 partners) with a larger budget (4,7M€ -> 5,8 M€);
- EMPIR: high success rate due to specific management model (60% -> 53%) (eligibility limited to NMIs/DIs) but decreasing EU-13 participation (16% -> 11%);
- Eurostars: substantive increase in third country participation (13% -> 22%) and success rates (26% -> 34%);

⁴⁹ Project data are not included in eCORDA, but stem from the individual DIS. As there is no harmonisation of data collection across the Article 185 initiatives, some definitions of the indicators might differ.

Comparing the project data from Article 185 initiatives with direct Research and Innovation Actions (RIAs) from Horizon 2020 provides some insight into the nature of the transnational projects, either directly funded under Horizon 2020 or indirectly cofunded by Horizon 2020 through Article 185 initiatives. Preliminary analysis by Commission services suggests that projects funded through the two described channels are rather complementary than overlapping, with RIAs addressing larger consortia with larger budgets and Article 185 projects addressing smaller consortia with smaller budgets.

The meta-evaluation looked at additional efficiency dimensions, notably the harmonisation of national funding rules that would increase efficiency of the implementation (at least in the decentralised Article 185 initiatives), and at sustainability issues. The main findings are that there is a lack of flexibility or harmonisation of national funding rules and that more reflection is needed for an eventual closure of Article 185 initiatives once their objectives have been achieved or when it is considered that the use of Article 185 is no longer required.



Stakeholder Box: What do stakeholders think?

- ❖ Stakeholders perceive the application for projects under Article 185 initiatives as more burdensome than for national R&I programmes but less burdensome than for Horizon 2020 actions;
- ❖ The majority of replies believe that Article 185 initiatives are straightforward in their preparation and implementation;
- ❖ Respondents agree mainly (58%) that Article 185 initiatives provide an appropriate level of administrative burden.

7.3 How effective have the Article 185 initiatives been so far?

This question aims to provide an insight, whether the Article 185 initiatives are on track to meet their objectives with regard to the intended outcome and expected impact. Due to the diversity of the individual Article 185 initiatives, this section includes a synthetic overview of the overall progress according to the key expected impacts, notably scientific, innovation/economic impact and societal impact.



Summary box: key findings on effectiveness

- ❖ All individual evaluations find a high probability that the Article 185 initiatives will meet their objectives effectively; and are contributing to integration across Europe, in particular towards scientific integration but substantially less towards financial integration;
- ❖ The contribution to the alignment of national R&D programmes towards the SRAs of Article 185 initiatives and their impact on sectorial policy making is less evident;
- ❖ The design of Article 185 initiatives, based mainly on the implementation of joint calls for transnational R&D projects, appears to have clear limits towards the achievement of broader policy objectives;
- ❖ The evaluations of AAL2, EMRP/EMPIR and EUROSTARS2 make reference to clear positive economic impacts of the respective predecessor initiatives, with the AAL2 evaluation seeing a risk for AAL2 to achieve as positive as its predecessor;
- ❖ All evaluations refer positively to scientific impacts of the current Article 185 initiatives and their predecessors;

❖ Positive societal impacts have been in particular identified for EDCTP2 and are likely for BONUS.

7.3.1 Are the Article 185 initiatives achieving their objectives effectively?

All evaluations confirm the overall effectiveness of the programmes, notably with respect to the progress achieved towards the objectives of the individual initiatives. More precisely, all Article 185 initiatives and their corresponding activities, notably the transnational R&D projects as main output, contribute to meeting national R&I priorities, ERA and Horizon 2020 objectives as well as broader EU policy objectives.

The enhanced cross-border R&I cooperation through Article 185 initiatives, the corresponding transnational cooperation networks and the associated human capital development are clear achievements, as highlighted by the individual assessments.

Also the replies for the public consultation highlighted that **Article 185 initiatives are particular effective in fostering cross-country cooperation that would not be able under national programmes or Horizon 2020.** Stakeholders also agree that Article 185 initiatives are effective in fostering programme integration across Europe, with being particularly effective in fostering scientific integration.

The commitment of Member States for integration at scientific, managerial and financial levels is one of the key prerequisites for the Union to participate in Article 185 initiatives. Along with other conditions (see chapter 2), this prerequisite is mentioned in Article 26 of the Horizon 2020 regulation. Integration is measured as part of national (competitive) R&I investments in a specific field that is committed to an Article 185 initiative. Obviously, depending on the national R&I system and on the nature of specific field, this measurement can be more or less robust.

All evaluations analysed the level of achieved integration, though at least partly based on the achievements of the predecessor initiatives. Overall, there is widespread agreement that substantive contributions to scientific integration have been achieved, while notably the financial integration is clearly less developed, except for EMPIR with its fully centralised management model.

Findings from the meta-evaluation suggest that Member States are in general satisfied with the achieved levels of integration and do not see the need for further integration, notably not towards financial integration.

Again, the picture is mixed, when looking at the individual Article 185 initiatives, as in particular the achieved integration for AAL2, EDCTP2 or Eurostars2 is less clear. This can be at least partly explained by the specific nature of the initiatives, being it either of a horizontal nature (Eurostars2) or covering a broad and rather new field in the case of AAL2. The specific implementation model of EDCTP2, with separate national and EU funding streams represents a particular challenge for further integration, a finding supported by the interim evaluation.

On the other hand, EDCTP2 was successful in integrating third party funding from non-participating countries and/or charities in the implementation of the programme.

The measurement of integration is comparably robust in the case of EMRP/EMPIR, because most Member States established dedicated governmental agencies on metrology (so called National Metrology Institutes (NMIs)) and the research field (metrology) is relatively small and similar across Member States. The EMRP/EMPIR evaluations find that

the structure of EMRP helped to ensure that 50% of dedicated NMI budgets were integrated within the SRA of EMRP. The programme eventually exceeded the target of 200 M€ by about 10% through additional national institutional funding.

For the successor programme EMPIR, both the EU and Participating States increased their contributions to 300 M€. For 2015, the 28 Participating States assessed their joint national metrology research investments as 166 M€, with an annual value of EMPIR projects of nearly 70 M€, being close to the envisaged 50% of joint funding. With about 50% of financial integration and a strong managerial and scientific integration due to the funding model of EMPIR, a high compliance with Article 26 criteria can be concluded.

The central evaluation system that has been established by Eurostars2 is widely recognised as very positive and can be seen as a main element of achieved managerial integration. The evaluation estimates that the programme was able to contribute to financial integration when comparing the national contributions to the programme and the Business expenditures on R&D (BERD) in the respective countries.

The BONUS evaluation used a different methodology to assess the integration effects. The argument here is that a significant integration and cooperation impact of BONUS has been achieved as no participating Member State runs a national/regional Baltic Sea R&D programme in parallel to BONUS. More concretely, the final evaluation estimates that about 14% of all Baltic Sea related R&D is integrated in the programme (scientific integration).

The stakeholder consultation results show a somewhat more positive view on the achieved level of integration than the evaluations, as stakeholders think that the Article 185 initiatives contribute to integration at scientific, managerial and financial levels. The contributions to scientific integration is with over 90% mostly acknowledged, while still, the majority of the replies (58-67%) perceive also contributions to managerial and financial integration.

7.3.2 What progress has been made towards the completion of the ERA and broader EU policy objectives?

Article 185 initiatives contribute the further completion of the ERA, notably by overcoming the insufficient cross-border cooperation in Europe and thus contributing to a more optimal level of transnational cooperation through the funding of cross-border projects and associated more qualitative impacts. With a nearly doubling of national contributions for Article 185 initiatives from FP7 to Horizon 2020, substantially more cross-border cooperation was enabled by the Article 185 initiatives.

While the national contributions to P2Ps, including Article 185 initiatives, display one of the highest growth rates in the recently published ERA progress report 2016, the **effectiveness of the Article 185 initiatives in contributing to the reduction of R&I fragmentation and to the overall alignment of national programmes with their Strategic Research Agendas (SRAs) is less evident in the different evaluations, with the exception of EMRP/EMPIR.** Also the BONUS evaluation looked specifically at the achievements of BONUS to overcome fragmentation and to create critical mass on Baltic Sea related R&D. Here, the assessment confirmed the positive contribution of BONUS to reduce fragmentation and to a more coherent R&D strategy across the Baltic Sea.

A similar finding can be found with respect to the effectiveness of the Article 185 initiatives to address broader policy objectives, notably to impact sectorial policy making. The meta-evaluation specifically analysed the effectiveness towards broader policy objectives, in particular **the general objectives of the individual initiatives and**

finds that the current design of Article 185 initiatives, based mainly on the implementation of joint calls for transnational R&D projects, appears to have clear limits towards the achievement of broader policy objectives. More concretely, policy impacts from research projects funded through the joint calls do not automatically emerge, but need a more elaborated planning and outreach framework, which is currently not available within the different Article 185 initiatives. The meta-evaluation concludes here that the potential of Article 185 use for tackling cross-policy challenges is not fully used.

In the same vein, the assessments note that the DIS do not have the mandate nor the resources to actively engage in strategic activities, in order to improve their contributions towards broader policy objectives. The role of the Commission here is as well limited, as it is formally not involved in the strategy development of Article 185 initiatives and focus rather on an operational, controlling function, notably to ensure that the financial interests of the Commission are respected.

7.3.3 What progress has been made towards achieving scientific impacts?

As no project stemming from a Horizon 2020 funded Article 185 initiative has been finished yet, the individual evaluations make reference to the achievements of the predecessor initiatives, except for the still active BONUS initiative.

The scientific quality of BONUS projects is clearly higher than of non-BONUS projects as measured through the bibliometric analysis of BONUS related publications. EMRP projects have reported 1432 peer-reviewed publications, 1135 inputs to standards committees, 4915 conference presentations and posters and 1020 training activities. Completed projects have made contributions to the sustainability of Europe's energy supplies by enabling measurements that allow biofuels to be used alongside more traditional fuels, make power plants more efficient, modernise the electricity grids, and give consumers confidence in new lighting sources. They have also addressed high priority environmental and industrial needs.

EDCTP1 has produced more than 700 peer-reviewed publications, many of which are highly cited and in leading journals, indicating at high scientific relevance and impact.⁵⁰

Bibliometric analysis has not been undertaken for AAL2 and EUROSTARS2, as they are mainly focused on economic impacts.

7.3.4 What progress has been made towards achieving economic impacts?

Three of the five currently active Article 185 initiatives are clearly oriented towards the achievement of economic impacts, notably AAL2, Eurostars2 and EMPIR. While it is too early to report on economic impacts of the current initiatives, the assessments make references to the achievements of the predecessor initiatives and conclude that based on the earlier achievements, it is highly likely that also the currently active Article 185 initiatives will reach their objectives with respect to economic impacts.

The analysis of Eurostars projects reveals that by mid-January 2017, 77% of the products, processes and services have been brought already to the market and the median time to market for commercialisation being 1,2 years.

The interim evaluation of Eurostars2 also highlights the effectiveness of the programme in mobilising national funding, even though major differences exist between the participating countries. The assessment finds that from a market perspective the programme addresses successfully different technological areas and markets.

However the achievement of the main objective (close-to the market innovations, leading to marketable innovations within two years after the end of the projects) is difficult to assess due to the mixed quality of the "Market Impact Reports" (MIRs) that are the main instrument to monitor the overall effectiveness of the projects.

The results of an impact assessment at project level of AAL are encouraging and show that results have market potential, notably as:

- Around 50% had collaborated with end-users after the end of the project;
- Around 45% had collaborated with enterprises and/or research organisations after the end of the project;
- 20% were involved in new value chain partnerships and 15% in existing value chains;

⁵⁰ Bibliometric analysis of European and African research output within the scope of EDCTP2, 24.8.2015: <http://www.edctp.org/publication/european-african-clinical-research-bibliometric-analysis-publications-within-scope-edctp2-2003-2011/>.

- 52% were involved in commercialisation of solutions and components; and around 30% had generated and/or expected to generate revenues from AAL solutions and components;
- 29% had secured follow-up investment from public third parties; and 22% from private third parties;
- 17% had protected IPR and 12% had created new companies.

**Example Box EMRP/EMPIR:
Economic impacts of metrology research**



- ❖ The first objective set in the legislation for EMPIR is "At least 400 M€ of European turnover from new or significantly improved products and services that can be attributed to the research activities of EMPIR and its predecessors".
- ❖ Assessing this type of achieved impact is perhaps the most difficult data to collect: From identifying stakeholders associated with funded projects, understanding who is using their outputs, to analysing and reporting back on the commercial outcomes.
- ❖ So far from the 25 EMRP projects selected in 2009 and 2010 the initiative has identified 109 M€ of European turnover from new or significantly improved products and services that can be attributed to the research activities, with a further projection of 463 M€ of total sales value, demonstrating that EMPIR is effective in reaching this objective.

The EMRP evaluations note that 36 patents have been granted and more than 2000 other dissemination activities have been implemented by EMRP projects.

The prospects for the achievement of its economic impacts are, however, not so clear in the case of AAL2. The objective of "critical mass of trans-European research and innovation" is assessed against the overall interest in the programme in terms of applicants and success rate. Here the interim evaluation concludes that the situation gives cause for concern as national commitments are decreasing as well as the number of participating countries. Also the number of applicants and funded projects is decreasing which undermines the overall critical mass of the programme. Concerning the third main objective, "leverage private investments and improve industrial growth potential", the evaluation finds still a lack of marketable results and a changing market environment that calls for renewed efforts to broaden the "supply side" of the programme.

7.3.5 What progress has been made towards achieving societal impacts?

Along the same lines as for scientific and economic impacts, the individual assessments made reference to the achievements of the predecessor initiatives, when analysing the societal impacts of the currently active Article 185 initiatives. As societal impacts, either science-based contributions to sectorial policy making or contributions to broader policy objectives outside the competitiveness topic are subsumed. As AAL2 and Eurostars2 are clearly designed for competitiveness improvements and EMRP/EMPIR addressing an enabling technology field (metrology) that only can have indirect impacts on societal issues, the following section focus on BONUS and EDCTP2.

An assessment of the performance and impact of the first EDCTP programme was published in September 2014⁵¹. The key findings underline the effectiveness of EDCTP, as:

⁵¹ Assessment of the performance and impact of the first EDCTP programme, 14.9.2014: http://www.edctp.org/web/app/uploads/2015/03/Assessment-of-the-performance-and-impact-of-the-first-EDCTP-Programme_Tecnopolis-Group_18SEP2014.pdf

- EDCTP supported 102 clinical trials and diagnostics studies through 74 collaborative grants for testing new and improved drugs for treatment and prevention, vaccines, diagnostics, microbicides against malaria (34), HIV/AIDS (30), TB (29) and HIV/TB co-infections (9);
- These clinical trials were conducted in 24 countries across sub-Saharan Africa involving more than 100,000 African patients;
- The trial results have influenced national and international policies and guidelines, as well as progressed products along the development pipeline and to regulatory approval, in particular for newborns, children and pregnant or breastfeeding women suffering from HIV/AIDS or malaria;
- Several new clinical trial sites were established or expanded their capacity to conduct trials (in Republic of Guinea, Guinea Bissau, Mozambique, Namibia, Senegal, Tanzania) through EDCTP funding;
- EDCTP triggered the establishment of the first four African clinical trials networks, one in each of the four sub-Saharan regions (Western, Eastern, Central, Southern).

With respect to early achievements of EDCTP2, the evaluations highlights that EDCTP2 expanded its portfolio of funding instruments in order to provide more tailor-made support to achieve broader socio-economic impacts, including regulatory impacts. In making calls for capacity building there has been opportunity for the development of centers of excellence which also provide opportunities for networking and development of collaborations- both North-South and South-South.

One principal achievement of EDCTP2 is the membership that has been established among partner countries. Having the African participating states at the decision-making table has galvanized interest and participation. EDCTP2 has successfully leveraged opportunities to collaborate with private/public institutions to increase investments.

These opportunities build on key areas of strategy that benefit EDCTP2 stakeholders. In the period under evaluation, these efforts have yielded in cash and in kind contributions to the EDCTP2 programme, including joint calls for both research innovation and training opportunities.

The socio-economic impact of EDCTP2 with regard to scientific, financial and managerial integration is exemplified by the response to the Ebola outbreak, which happened early in the implementation of EDCTP2. As indicated during the interviews: *"Much of what was accomplished would not have been accomplished [in reference to the Ebola response] without the concerted efforts of EDCTP2."* With regard to the Ebola response, EDCTP2 contributed directly to the goals of Horizon 2020 and EU policy by improving well-being/health and engaging in a collaborative European/African partnership.

The BONUS final evaluation analysed the impact of BONUS projects on environmental regulation for the area, as key desired societal impact, but could not identify direct and causal links so far. However, the close collaboration between BONUS and the existing intergovernmental structures for the management of the Baltic sea, notably HELCOM⁵² and CBSS⁵³, make future impacts from BONUS projects⁵⁴ on environmental regulation

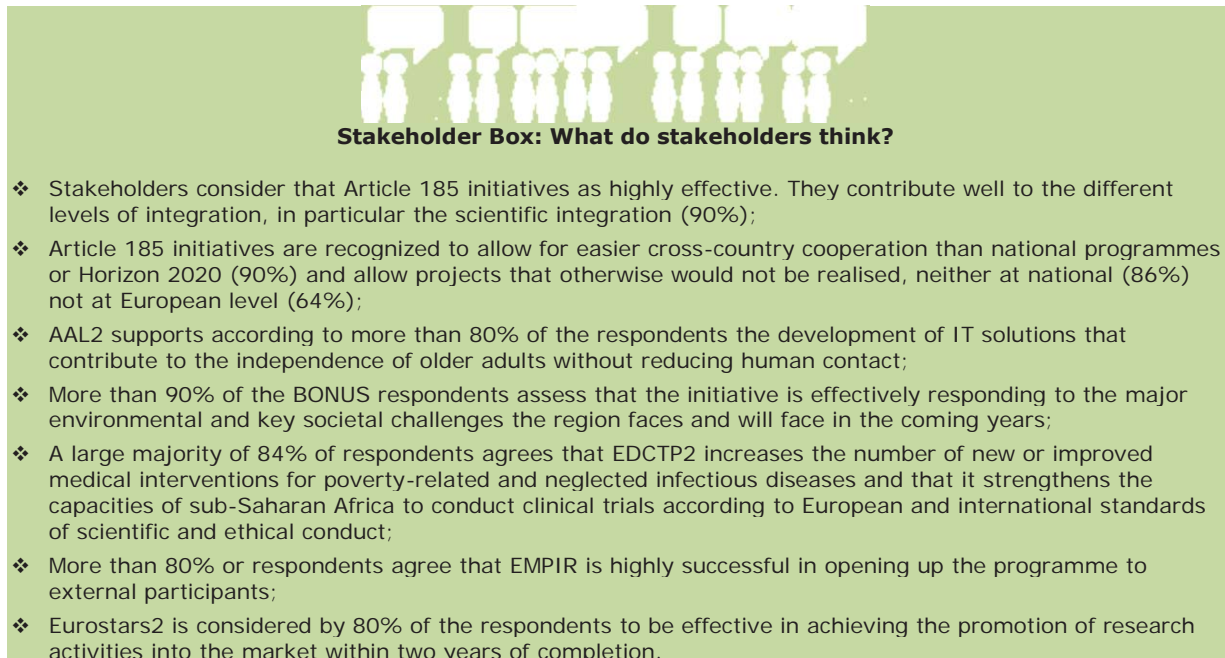
⁵² HELCOM: governing body for the Convention on the protection of the marine environment of the Baltic sea (Helsinki convention)

⁵³ CBSS: Council of the Baltic States

⁵⁴ By December 2016, only 20% of BONUS projects have been finished

likely.

Clearly, the SRA of BONUS is closely aligned with the policy priorities of the EUSBSR⁵⁵ and other policy documents, making impacts of BONUS projects again, likely.



Stakeholder Box: What do stakeholders think?

- ❖ Stakeholders consider that Article 185 initiatives as highly effective. They contribute well to the different levels of integration, in particular the scientific integration (90%);
- ❖ Article 185 initiatives are recognized to allow for easier cross-country cooperation than national programmes or Horizon 2020 (90%) and allow projects that otherwise would not be realised, neither at national (86%) not at European level (64%);
- ❖ AAL2 supports according to more than 80% of the respondents the development of IT solutions that contribute to the independence of older adults without reducing human contact;
- ❖ More than 90% of the BONUS respondents assess that the initiative is effectively responding to the major environmental and key societal challenges the region faces and will face in the coming years;
- ❖ A large majority of 84% of respondents agrees that EDCTP2 increases the number of new or improved medical interventions for poverty-related and neglected infectious diseases and that it strengthens the capacities of sub-Saharan Africa to conduct clinical trials according to European and international standards of scientific and ethical conduct;
- ❖ More than 80% of respondents agree that EMPIR is highly successful in opening up the programme to external participants;
- ❖ Eurostars2 is considered by 80% of the respondents to be effective in achieving the promotion of research activities into the market within two years of completion.

7.4 How coherent have Article 185 initiatives been with Horizon 2020, other EU policies and national policies so far?

This question involves looking at the extent to which the Article 185 initiatives complement Horizon 2020 actions and other EU policies within the addressed topics. In addition, the coherence with national policies is addressed as well.



Summary box: key findings on coherence

- ❖ All evaluations find a sufficient coherence between the objectives of the Article 185 initiatives and the corresponding Horizon 2020 objectives and actions;
- ❖ The evaluations underline the high coherence between the Article 185 initiatives and wider EU policies beyond Horizon 2020, including the ERA but also the EU's commitment to the United Nations' Sustainable Development Goals, the EU's competitiveness policies and others;
- ❖ The potential synergies between the Article 185 initiatives and the smart specialisation strategies funded under ESIF are under-developed
- ❖ Many Member States see the multitude of P2Ps as a barrier for effective participation in Article 185 initiatives;
- ❖ The coherence between the Article 185 initiatives and national R&I policies is ensured during the process of the SRA elaboration, but the diversity of national R&I systems impede a more thorough analysis of this particular dimension of coherence.

⁵⁵ EUSBSR: EU Strategy for the Baltic Sea region

7.4.1 Are Article 185 initiatives coherent with Horizon 2020 and wider EU objectives and actions?

All assessments identified a high level of coherence between the SRAs of the individual Article 185 initiatives and Horizon 2020 objectives. This overall finding is confirmed by stakeholders, as a majority of respondents (83%) see the Article 185 initiatives as coherent with Horizon 2020 policy objectives. The EMRP/EMPIR evaluations find that while the SRA priorities are coherent with Framework programme priorities, more efforts are needed to improve the coherence with the Horizon 2020 activities in the relevant parts of the Work Programmes. However, as mentioned in the relevance chapter (chapter 7.1), despite the coherence between the Article 185 initiatives and the Horizon 2020 objectives, the positioning of the Article 185 initiatives within the respective thematic strategies of Horizon 2020 is not always clear.

Due to their political dimension, the evaluations also looked at the coherence between the Article 185 initiatives and wider EU policy objectives. **The assessments find a high coherence between the general objectives of the Article 185 initiatives and wider EU policies**, notably the SDGs and competitiveness policy objectives of the EU. Depending on the topic of the Article 185 initiatives, more sectorial policies are addressed by the Article 185 initiatives as well, such as the maritime and environmental policies for BONUS or the health policies in the case of EDCTP2.

The coherence between the Article 185 initiatives and the ERA policy framework, in particular the priority on "optimal transnational cooperation", is very high. P2Ps, including Article 185 initiatives are considered as the main implementation modes for meeting the objectives of this particular ERA policy priority. While the European ERA Roadmap adopted in 2015 makes specific reference to the JPis as top action priority, Article 185 initiatives continue to be core building blocks of the further completion of the ERA.

Some assessments, including the meta-evaluation, find that potential synergies between the EU funding stemming from Horizon 2020 and the EU funding stemming from the European Structural and Investment Funds (ESIF) are not well exploited, thus limiting the potential of Article 185 initiatives to contribute better to capacity building in the less R&D intensive regions/countries. A better coherence between the two main EU funding schemes for R&I would exploit better potential synergies and eventually increase the relevance of Article 185 for capacity building. Synergies should be better exploited between Eurostar2 and the European Regional Development Fund (ERDF) on thematic objective (TO)1 on "Research and Innovation", TO2 on "ICT" and TO3 on "Competitiveness of SMEs" and with some of the activities of the Thematic Smart Specialisation Platforms⁵⁶. Finally, synergies could also be reinforced between BONUS and the INTERREG Baltic Sea programme⁵⁷.

7.4.2 To what extent are Article 185 initiatives coherent with other P2P instruments?

Many Member States see the need to improve the coherence between the different approaches and instruments available to support Joint Programming. The Member States survey identified the "multitude of P2P instruments" being a main barrier for national participation in Article 185 initiatives, especially for the smaller and less R&D intensive Member States. The Eurostars2 assessment notes that the programme covers a specific niche for SME support that other regional, national or EU interventions do not cover, so that coherence is mainly seen here as being complementary with other SME oriented public interventions. The AAL2 programme, on

⁵⁶ <http://s3platform.jrc.ec.europa.eu/s3-thematic-platforms>

⁵⁷ <https://www.interreg-baltic.eu>


the other hand, established strong links to related EU-level initiatives, including a number of related Joint Programming Initiatives (notably the health related ones) and the European Innovation Partnership on active and healthy ageing (EIP-AHA).

As stated earlier, the evolution of the ERA-NET instrument towards joint calls with EU cofunding increasingly blurred the differences between ERA-NETs and Article 185 initiatives, which are built as well around the implementation of joint calls. The evaluations note that while Article 185 initiatives are aiming towards more strategic policy objectives, their implementation is based on similar means than the ERA-NETs.

The meta-evaluation concludes while comparing Article 185 initiatives with other P2P instruments, notably ERA-NETS and JPIs, that Article 185 initiatives have some distinctive features and advantages over other partnering options, in particular their more stable financing and long-term perspective.

72% of stakeholders see Article 185 initiatives as coherent with other P2P instruments such as ERA-NET Cofund actions or Joint Programming Initiatives.

Example Box:
P2P cooperation in the field of demographic change - AAL2



- ❖ The Active and Assisted Living Programme is an applied research funding programme aiming to support projects developing ICT solutions for ageing well with a 2-3 years to market time horizon;
- ❖ The programme impacts on the national programmes through the organisation of the annual joint calls topics surrounding ICT and demographic change. It also impacts through supporting activities on other European initiatives. Programme representatives continue to contribute actively to the European Innovation Partnership on Active and Healthy Ageing (EIP-AHA), ensuring that the AAL programme is better known within the policy community and that its calls are broadly aligned with the EIP-AHA's strategic priorities. For example, the programme is providing support to the EIP-AHA in relation to standards and interoperability;
- ❖ Links with Joint Programming Initiatives have been strengthened, for example via collaboration on the definition of calls scopes or mobilisation of researcher communities in proposals submitted;
- ❖ The programme has contacts with some of the Knowledge and Innovation Communities (KICs) of the European Institute of Innovation and Technology (EIT), notably the EIT KICs Health & Ageing and ICT in relation to business deployment.

7.4.3 Are Article 185 initiatives coherent with Member States policy objectives?

The process of the elaboration of the SRAs which is mainly based on national policy priorities ensures a sufficient coherence between the SRAs and national policy objectives.

However, the coherence with national initiatives, being it R&D programmes and/or national policies in the concerned fields is difficult to assess empirically, as national practices and cultures for R&I priority setting differ considerably and consequently also the role of R&I competitive programming which forms the basis of the SRA.

The observed decreasing commitment from Participating States in some Article 185 initiatives suggests that the coherence between the SRAs of the Article 185 initiatives and national R&I priorities might need further attention.



Stakeholder Box: What do stakeholders think?

- ❖ 83% of respondents consider that Article 185 initiatives are in line with Horizon 2020 policy objectives;
- ❖ Article 185 initiatives are considered to be strongly (72%) in line with broader EU policy objectives beyond Horizon 2020;
- ❖ Only 28% of respondents think that Article 185 initiatives are mainly oriented towards national policy objectives.

7.5 What has been the European added value of the Article 185 initiatives so far?

This question aims to assess the value resulting from the Article 185 initiatives that is additional to the value that could result from which would be achieved by Member States at national and/or regional levels.



Summary box: key findings on EU added value

- ❖ The main added value of Article 185 use for Joint Programming stems from the fact that only Article 185 initiatives allow for a financially stable long-term joint programming with substantive EU cofunding;
- ❖ All individual evaluations find a high EU added value from the Article 185 initiatives, with a particularly strong ERA dimension as more than half of the public funding results from national sources;
- ❖ The assessments confirm that the legal framework from Article 185 ensures more stable and higher national funding for most Article 185 initiatives as compared to ERA-NET Cofunds or JPIs;
- ❖ Participating states see the main added value in leveraging additional EU-funding and in improving the overall quality of their national R&D investment through opening up their national R&I;
- ❖ The central evaluation systems established by all Article 185 initiatives represents a major EU added value towards better alignment and harmonisation of national R&I programming;
- ❖ Additional EU added value relates to the improved scientific quality of projects emanating from Article 185 initiatives and strong positive network effects across Europe;
- ❖ The limited participation pattern of the less R&D intensive regions/countries points towards a potential risk for the overall EU added value of Article 185;
- ❖ Stakeholders confirm strongly a broad range of dimensions of EU added value of Article 185 initiatives, both at project and at programme level.

7.5.1 What is the added value of Article 185 initiatives as compared to other P2P instruments?

From the results of the Member States survey that has been implemented by the meta-evaluation, it is clear that the **main added value of Article 185 use for Joint Programming stems from the fact that only Article 185 initiatives allow for a financially stable long-term Joint Programming with substantive EU cofunding**. While at the beginning of FP7, Article 185 use was the only opportunity for a joint programming with EU cofunding, this has changed considerably with the introduction of ERA-NET plus (FP7) and ERA-NET Cofund actions (Horizon 2020).

7.5.2 What is the EU added value of Article 185 initiatives?

As part of the ex-ante IAs of the individual Article 185 initiatives, the EU's right to act and the application of the subsidiarity principle is one of the key assessment criteria ("necessity test"). In the case of Article 185 initiatives, the main argument for EU action is the joint programming element of Article 185 initiatives, leading to a coordinated approach, a unified management structure (DIS) and pooling of resources.

All assessments find a high EU added value for the individual Article 185 initiatives, notably in contributing to the further completion of the ERA. This finding is strongly supported by the public consultation, where stakeholders perceive the European dimension as the main driver of Article 185 and less national policy objectives, despite the fact that at least 50% of the funding stems from national resources.

An important dimension of the EU added value in the evaluations of the Article 185 initiatives is "leveraging" national investments, whereby the national

contributions are under Article 185 initiatives not only more stable than without the Article 185 initiative but also higher when comparing with i.e. ERA-NET Cofunds or JPIs. The latter effect of higher national funding can be explained by the observation that many participating countries commit additional funding for project participants that are high on the ranking list. EMRP for example was able to leverage nearly 20% more national contributions as originally committed by Member States. Beside this quantitative leverage effect, the **Article 185 initiatives contribute also to more qualitative leverage effects**, including network effects, cooperation pattern and harmonisation of R&I programming practices.

Another recurring potential EU added value dimension concerns R&I capacity building in Europe, in particular for the less R&D intensive countries. Here the evaluations find a limited EU added value, as the participation pattern of Member States tends to be oriented towards the needs of rather R&D intensive Member States and less towards the needs of the less R&D intensive countries. Although notably BONUS and EMRP/EMPIR have specific activities devoted to the new EU Member States, the assessments find an uneven participation pattern. For example, the Eurostars2 assessment finds that while 34 countries participate in the programme, only 8 Member States contribute more than half of the national budget to the programme. In addition, the success rates of applicants in the case of Eurostars2 is also clearly associated with the overall R&D intensity of the country, posing a potential risk to the overall ERA related EU added value of the Article 185 initiatives.

The EU added value of EDCTP2 is oriented towards a contribution to international policy commitments of the EU, notably the SDGs. The interim evaluation identifies here rather potential than achievements and describes a number of barriers that impede further progress. One area of particular concern is the still missing "alignment" effect between the EDCTP2 joint calls and the PSIA of the EU Member States which tend to continue to act in parallel instead of in an integrated manner.

Example Box:
Impacts of EMRP projects on implementation of EU regulation



- ❖ 42 out of 119 EMRP projects supported a number of specific European regulations in the grand challenges that formed a focus for the programme's research activities – energy, environment and health;
- ❖ Limiting emissions from vehicles is a key aspect of improving air quality. The next iteration of the regulation (Euro 6c), due to be implemented in the autumn of 2017, brings in new strict requirements: for the first time a test procedure to assess emissions under real driving conditions;
- ❖ EMRP research in advanced measurement techniques has resulted in an end-to-end traceability chain (from European National Measurement Institutes to end-users). This is enabling instrumentation manufacturers to verify the performance of the new highly sensitive equipment that vehicle manufacturers and testing authorities will use to demonstrate compliance with the new regulations;
- ❖ The new measurement capabilities ensure that emissions regulations can be enforced and emission reduction targets met, so improving air quality for European citizens.

7.5.3 What is the added value of Article 185 initiatives for participating states?

According to the assessments, **the participating states see the main added value stemming from their participation in Article 185 in leveraging additional EU-funding for shared national R&I priorities and in improving the overall quality of their national R&D investment through opening up their national R&I with the help of cross-border cooperation.**

More concretely and according to the individual assessments, **the central evaluation systems established by all programmes, following the principles of Horizon 2020, is a major achievement and has significant structural effects on the quality for R&D programming at national level beyond the currently active**

Article 185 initiatives. This finding was confirmed by the survey among EU Member States within the context of the meta-evaluation. In this respect, the Article 185 initiatives contribute significantly to the overall ERA policy objectives, notably the priorities on "optimal transnational cooperation" and "more effective national research systems", where the notion of competition-based funding plays a prominent role.

Additional added value can be found in the networking effects and in the scientific quality of the funded projects. The AAL2 interim evaluation underlines as additional EU and national added value the strong network effects, the seeding of communities and the catalytic effect on national initiatives and activities. Participation in a transnational joint programme of an Article 185 initiative allows especially the SMEs and users to engage with multi-stakeholder ecosystems for AAL innovations with a substantive potential of mutual learning in this rapidly evolving field.

This is particularly relevant for smaller and less advanced participating countries. The BONUS evaluation underlines the improved scientific quality through transnational cooperation and competition based on a bibliometric analysis.

**Example Box:
EDCTP2 and its potential for stronger alignment of
Participating States activities**



- ❖ EDCTP2 currently has 28 members: 14 European and 14 African countries;
- ❖ The general objective of the EDCTP2 programme is to contribute to the reduction of the social and economic burden of poverty-related diseases in developing countries, in particular in sub-Saharan Africa, by accelerating the clinical development of effective, safe, accessible, suitable and affordable medical interventions for these diseases, in partnership with sub-Saharan African countries;
- ❖ Apart from supporting clinical trials and strengthening the capacities in sub-Saharan Africa for conducting clinical trials in line with international standards, EDCTP2 also aims to establish cooperation and launch joint actions with other public and private funders. EDCTP2 succeeded both to establish joint calls with several other funders (UN Special Programme for Neglected Tropical Diseases Research, Africa Research Excellence Fund), to receive financial contributions from public and private funders (Calouste Gulbenkian Foundation, Leprosy Research Initiative, Foundation Mundo Sano) as well as to explore opportunities for strategic alignment (Bill and Melinda Gates Foundation, Wellcome Trust);
- ❖ Apart from strengthening the number and quality of cooperation within Europe and making related public R&I programming in the ERA more effective, EDCTP2 offers also the opportunity to support EU-Africa relations, linking ERA with sub-Saharan Africa and leverage co-investment from other public and private funders;
- ❖ Moreover, EDCTP's equal partnership approach may serve as role model for other international research partnerships and cooperation mechanisms to build on.
- ❖ EDCTP has great potential to add value by exploiting synergies across many national, European and international programmes and initiatives supporting the SDGs.

Stakeholders confirm strongly a broad range of dimensions of EU added value of Article 185 initiatives. They cover well the project level (high quality R&I projects not realisable at national level, supporting competitiveness) and in particular point towards programme level dimensions (higher impacts from transnational programmes, knowledge gains).

The finding suggest that the transnational projects stemming from Article 185 initiatives dispose specific characteristics that position them between national and purely EU funded projects.



Stakeholder Box: What do stakeholders think?

- ❖ 93% of respondents think that Article 185 initiatives fund high quality R&D projects that cannot be funded at national level alone;
- ❖ Also more than 90% think that Article 185 initiatives allow for national R&I capacity building and access to foreign knowledge;
- ❖ 90% consider that the initiatives provide knowledge gains with respect to programme development and implementation underling the positive "programme level" EU added value of Article 185 initiatives;
- ❖ More than 80% of respondents think that projects stemming from Article 185 initiatives produce higher impacts because they are embedded in a transnational programme.

8. CONCLUSIONS

The results of the individual assessments will help to improve the further implementation of the Article 185 initiatives that have been established under Horizon 2020. This section summarizes the key findings and outlines issues for future consideration. While the individual assessments from the independent expert groups include a number of recommendations specifically to the respective Article 185 initiatives, this SWD will focus on the identified strengths and weaknesses of their performance to date.

8.1 Strengths

Joint Programmes between EU Member States supported by the EU based on Article 185 TFEU represent the most ambitious and long-term oriented endeavour of P2Ps in Europe today. In this regard, the Article 185 initiatives contribute to a better coordinated and effective transnational R&I programme cooperation in Europe.

Consequently, the Article 185 initiatives are important cornerstones of an evolving R&I landscape in Europe that bridge the gap between national R&I and EU level policies. While they represent only a small part of national and EU level R&I funding, they raise both quality and quantity of transnationally coordinated competitive R&I programmes across Europe. They also provide a positive view on Europe by presenting a coherent and unified approach to Europe's commitments and challenges to the outside world.

Article 185 initiatives are of special **relevance** for achieving the ERA, in particular towards optimal transnational cooperation and towards the alignment of R&I programming practices across Europe. Despite the variety of implementation modes, the central evaluation system established by all Article 185 initiatives is a key achievement towards this alignment of R&I programming practices. As policy driven initiatives, the Article 185 initiatives contribute not only to the Horizon 2020 objectives, but in particular to wider EU policy objectives, notably with respect to the SDGs or international cooperation, sectorial policies such as the Blue Growth Strategy or the European Blueprint for Digital Innovation in Health and Care. The priority setting within the implementation of their SRAs provided sufficient flexibility to respond to emerging challenges or new policy developments.

The governance structures of the Article 185 initiatives are **efficient**, considering the challenge to accommodate the diversity of national R&I practices and cultures within one programme. The DIS are considered efficient, as they stay below the 4-6% limit for administrative expenditures with respect to the union contribution. As Article 185 initiatives are implemented through indirect management, the administrative expenditures calculated do not include efforts at national level and cannot be compared with administrative expenditures of Horizon 2020, which is centrally and directly managed.

The evaluations estimate that the Article 185 initiatives are on track to meet their efficiency related objectives until the end of the programmes.

The Article 185 initiatives are **coherent** with the Horizon 2020 objectives and actions. A particular strength of the Article 185 initiatives is the high coherence with wider EU policies beyond Horizon 2020, underling the policy dimension of the programmes.

Based on the achievements of predecessor initiatives and first results from the currently active initiatives, the Article 185 initiatives display a sufficient **effectiveness** to achieve their objectives. All initiatives have positive "integration" effects, with scientific integration being the strongest dimension. Stakeholders think that projects funder under Article 185 initiatives would not have been realised within national R&I programmes or under Horizon 2020, suggesting that indeed, Article 185 funded projects are complementary to national or fully EU funded projects. The Article 185 initiatives proved to have visible impacts, with AAL2, EMRP/EMPIR and Eurostars2 being oriented towards innovation/economic impacts, while BONUS and EDCTP2 are more oriented towards scientific and societal impacts.

The **EU added value** of the Article 185 initiatives comprises a variety of dimension, with the ERA added value being particularly strong. Stakeholders see a strong added value at project level (higher scientific quality) and programme level (dissemination of good practices on R&I programming across Europe and scientific capacity building). Initiatives have clear positive network effects and are visible "testimonials" for joint European action at global level.

8.2 Challenges

The following sections focus on overarching issues identified by the different evaluations, while the specific recommendations with regard to the individual Article 185 initiatives can be found in the respective expert group reports annexed to this SWD.

One challenge concerns the sustainability of the currently active Article 185 initiatives. Most evaluations (notably AAL2, BONUS, Eurostars2, and to a lesser extent EDCTP2) identified potential alternatives to the use of Article 185 for the desired sustainability of the underlying programme, which might allow for more flexibility and administrative simplification. While this fits well into national and EU policy objectives to provide the structures and "seed" for Europe-wide joint activities which eventually achieve a higher degree of self-sustainability, the transition requires care full planning and implementation.

Another overarching challenge is the positioning of Article 185 initiatives within the overall, rather complex R&I landscape at regional, national and EU level. The number of "partnership approaches" increased significantly over the last 10 years. This has led to proliferation of the landscape of Public-Public Partnerships (e.g. Article 185, ERA-NETs, Joint Programming Initiatives), Public-Private Partnerships (e.g. Article 187 initiatives, contractual Public Private Partnerships), broader governance and stakeholder platforms (European Innovation Platforms, European Technology Platforms and other related initiatives (European Institute of Technology and its KICS, FET Flagships). Against this background, most evaluations concluded that it is not always clear how the Article 185 initiatives are positioned within a broader context. Better connections to other R&I funds or strategies (ESI Funds, Smart Specialisation Strategies and platforms, COSME, etc.) should be found in the future. This refers to both national R&I policies and the EU R&I policy framework, currently Horizon 2020.

While the initiatives make clear contributions to the ERA and highlight the attractiveness of the variable geometry approach, allowing Member State to “cherry pick” their participation, they also underline that the participation of less R&D intensive countries was not sufficient, as there are *inter alia* only limited opportunities to use structural funds for their participation.

The final overarching concern that can be found across the different evaluations is a mismatch between the policy related objectives of Article 185 initiatives and the concrete activities implemented by the programmes. The elaboration of SRAs and the limitation to joint calls seem to miss opportunities to achieve broader policy impacts. More concretely, policy impacts from research projects funded through the joint calls do not automatically emerge, but need a more elaborated planning and outreach framework. As a consequence, the evaluations underline the need for future joint programmes based on Article 185 TFEU to establish a broader set of activities and to play a more visible role with R&I activities delivering on overarching policy agendas, including international policy agendas.

The Commission will elaborate an action plan to address the identified challenges in view of improving the functioning of the Article 185 initiatives funded under Horizon 2020 and in view of potential new Article 185 initiatives.

ANNEX 1: Procedural Information

Lead DG: Directorate General Research and Innovation (RTD)

Agenda Planning number: 2016/RTD/010 SWD on Article 185 Evaluations (Horizon 2020).

The requirement for the interim and final evaluations of the Article 185 initiatives derives from the Decisions of the European Parliament and Council, establishing the different initiatives. They stipulate for the initiatives launched under Horizon 2020 that "By 30 June 2017, the Commission shall carry out, with the assistance of independent experts, an interim evaluation. The Commission shall prepare a report on that evaluation which includes the conclusions of the evaluation and observations by the Commission. The Commission shall send that report to the European Parliament and to the Council by 31 December 2017. The result of the interim evaluation shall be taken into account in the interim evaluation of Horizon 2020".

The interim and final evaluations of the different Article 185 initiatives started in 2016 and have been guided by Terms of Reference for the groups of independent experts.

An Inter-Service Group (ISG) gathering representatives of different Directorates-General (DG) of the Commission was set up in early 2016 and held 3 meetings prior to the launch of the Inter-Service Consultation on the Staff Working Document. For each of the individual evaluations an existing or newly established Inter-Service Group ensured the support and policy coordination with the relevant Commission services.

The evaluation package was coordinated by the Joint Programming sector of the Commission's Directorate-General for Research & Innovation (DG RTD) with inputs from several Commission services that, in turn, steered groups of independent experts. The evaluations are based on a wide range of sources described and identified throughout the Staff Working Document and its annexes.

A public stakeholder consultation on the Article 185 evaluations was launched on 27 January 2016 and closed on 30 April 2017. In addition, for EMRP/EMPIR and EDCTP2, dedicated public consultations have been conducted.

ANNEX 2: Public Consultation Synopsis

PUBLIC CONSULTATION ON THE EVALUATION OF ARTICLE 185 INITIATIVES - SYNOPSIS

1. INTRODUCTION

This document presents an overview of the outcomes of the Public Consultations related to the Evaluation of Article 185 initiatives. They cover notably two final evaluations of initiatives funded under Framework Programme 7 (the BONUS 'Joint Baltic Sea Research Programme' and the European Metrology Research Programme EMRP) and four interim-evaluations of initiatives funded under Horizon 2020 (the Active and Assisted Living R&D Programme (AAL2), the European and Developing Countries Clinical Trials Partnership 2 (EDCTP2), the European Metrology Programme for Research and Innovation (EMPIR) and Eurostars2 for R&D performing SMEs.

The main source is the online survey with a general part of Article 185 initiatives and specific sections on AAL2, Bonus and Eurostars (open for submission from 27 January – 30 April 2017)⁵⁸. The data for EMRP/EMPIR and EDCTP2 stem from dedicated public consultations. In total 727 replies have been submitted to the different public consultations covered by this report, 410 for the general consultation, 67 for EDCTP2 and 250 for EMRP/EMPIR.

2. PROFILE OF RESPONDENTS

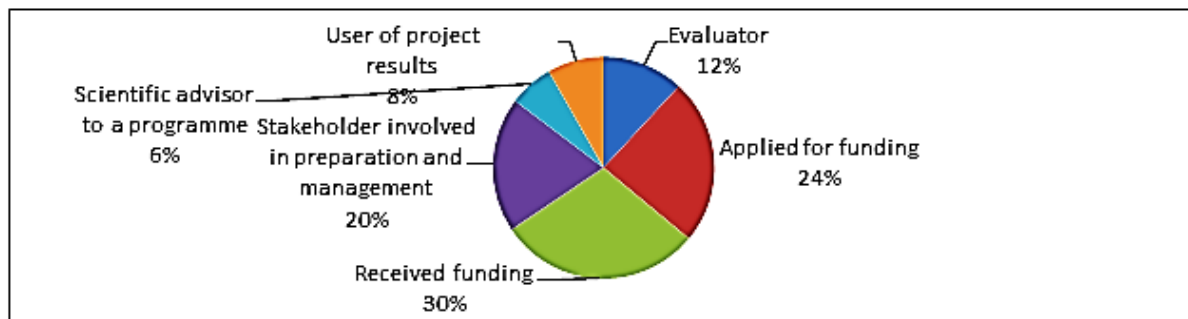
A total of 410 responses from the general consultation have been received, with a majority (54%) replying in their personal capacity as an individual and a great share (44%) replying on behalf of a single institution or company. A small amount of responses (2%) were received on behalf of an "umbrella" organisation of EU interest. The main contributions from organisations covering 85% of the replies were received with 35% from businesses (all but one of them being SMEs), 27% from public authorities and 23% from research organisations (23%). 33% of the organisations replying indicate that they are included in the Transparency Register.

Replies cover a large number of countries, mainly from the different EU Member States (85%). 12% of the replies come from countries associated to Horizon 2020, the remaining 3% from the following third countries (Australia, Belarus, Brazil, Russia, South Africa, South of Korea and United States). The largest contributions were from Spain, Germany, Denmark, Italy and the Netherlands. The majority of the respondents (58%) have received support from Horizon 2020, thus allowing them to directly compare implementation under Horizon 2020 with implementation under Article 185 initiatives. The majority of the respondents (62%) were involved in one or more Article 185 initiatives whereas 38% were not involved in any Article 185 initiatives.

Respondents were requested to indicate in which way they are involved with the Article 185 initiatives. The main involvement was (30%) having received funding, followed by those that had applied for funding (24%) and stakeholders involved in the preparation and management of the initiatives (20%). 12% of the respondents have participated as

⁵⁸ More details about the consultation can be found online:
http://ec.europa.eu/research/consultations/pp_partnerships_art185/consultation_en.htm

Evaluators, 6% as scientific advisors to a programme and 8% are users of project results.



3. SUMMARY OF THE RESULTS FOR QUESTIONS RELATED TO ALL ARTICLE 185 INITIATIVES

Following the principles of the Better Regulation "Toolbox", the public consultation assessed the view of participants on the following main evaluation criteria for Article 185 initiatives:

- EU Added Value
- Relevance (both at EU and National level)
- Coherence
- Effectiveness
- Efficiency

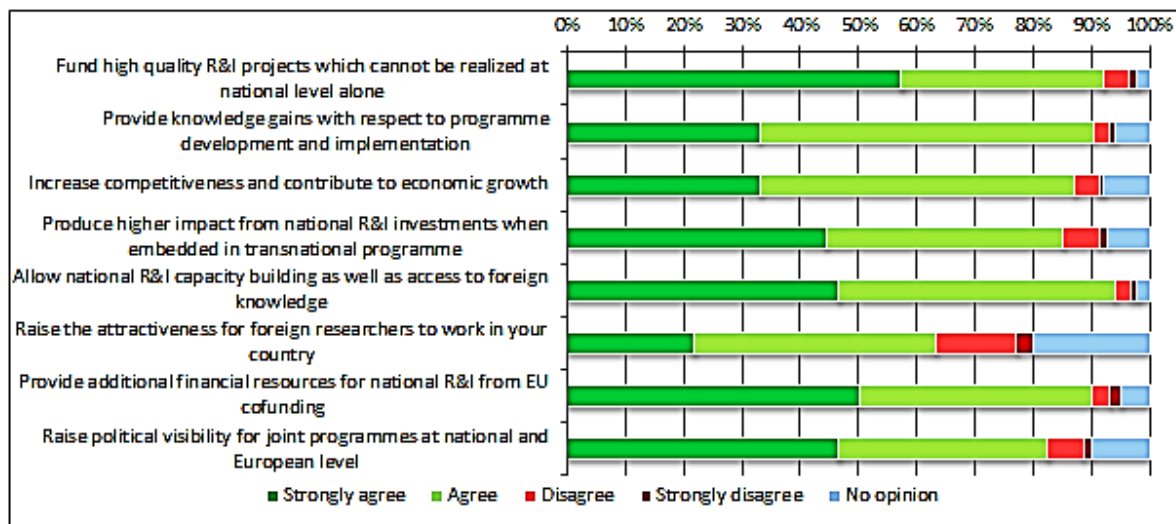
Furthermore, respondents could provide input on possible areas of improvement for the future design and implementation of Article 185 initiatives by identifying priority areas for recommendations.

3.1 EU Added Value

Participants were asked to assess several statements covering dimensions of EU added value of Article 185 initiatives, presented in the figure below. Overall there is a strong confirmation of respondents for the different dimensions of EU added value of Article 185 initiatives, with all but one statement receiving between 82% and 94% support (Strongly agree and agree replies). The three highest scoring statements are:

- Allow national R&I capacity building as well as access to foreign knowledge
- Fund high quality R&I projects which cannot be realized at national level alone
- Provide knowledge gains with respect to programme development and implementation

The comparatively lowest agreement with 64% is recorded for the question *Raising the attractiveness for foreign researchers to work in your country*.



3.2 Relevance

Respondents were asked to provide their views on statements that allow assessing the relevance of Article 185 initiatives for EU policy objectives. In general respondents confirm the relevance, all dimensions score with at least 50% agreement (and never more than 12% disagreeing). For around 1/3 of the statements a large share of respondents did not give an opinion.

The five policy areas perceived as most relevant with more than 85% agreeing or strongly agreeing are:

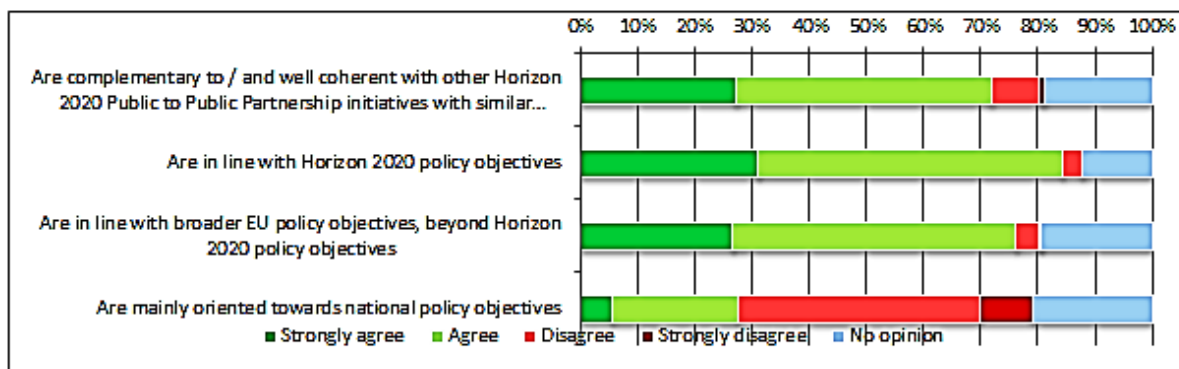
- Building a society and an economy based on knowledge and innovation;
- Supporting the development of the European Research Area, a unified area open to the world, in which scientific knowledge, technology and researchers circulate freely;
- Supporting science with and for society
- Spreading excellence and widening participation;
- Fostering excellent science;

Furthermore, participants were asked to assess the relevance of Article 185 initiatives in their specific thematic context for the country they are based in. The majority of respondents (65%) assessed the relevance of Article 185 initiatives in their specific thematic contexts for the country they are based in as high, with (20%) assessing it as low and 15.12% replying "Don't know".

3.3 Coherence

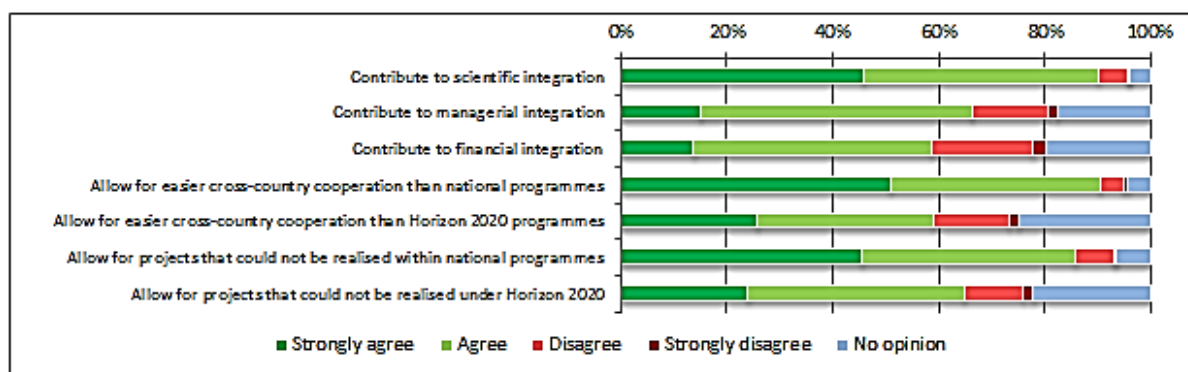
Participants in the survey were inquired about the coherence of Article 185 initiatives with other Horizon 2020 initiatives, EU policies in general as well as national policies. An overview of all replies to the questions is presented in the following figure.

Respondents agree to the overall coherence of Article 185 initiatives with the different dimensions of Horizon 2020 and EU policies. The question related to the orientation of Article 185 initiatives towards national policy objectives clearly stands out from all the others and shows that Article 185 initiatives are strongly perceived to be geared towards Horizon 2020 policy objectives rather than towards national policy objectives.



3.4 Effectiveness

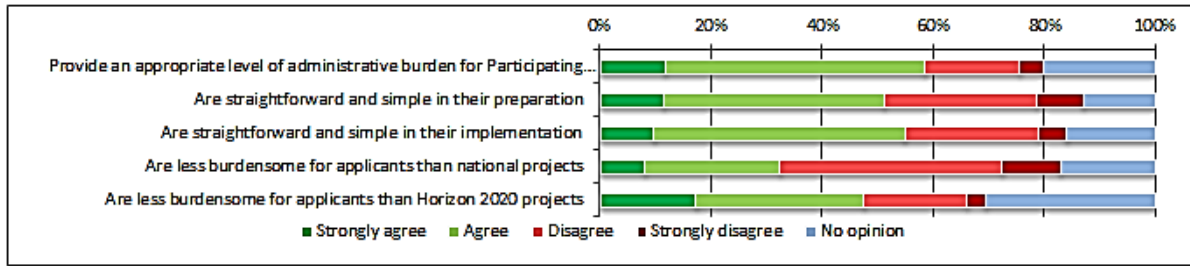
Participants in the survey were asked to provide their assessment on the effectiveness of Article 185 initiatives. An overview of all replies to the questions from this section is presented in the figure below. In general there is a strong overall agreement with the different statements covering effectiveness dimensions. Article 185 initiatives provide an easy access to cross border cooperation (91% agreement) and allow for projects that could neither be realised at national level (85%) nor under Horizon 2020 (64%). Only 15% of respondents disagree with the statement that they allow for easier cross border collaboration than Horizon 2020. They are considered to be effective in contributing to a better integration (minimum 58%), with scientific integration standing out with 90% agreement.



3.5 Efficiency

Participants in the survey were asked to assess the efficiency of Article 185 initiatives. An overview of all replies to the questions is presented in the figure below.

Overall respondents agree with the statements supporting the efficiency of Article 185 initiatives, but to a lesser extend then for the other evaluation criteria. The majority of the respondents agree (Agree and Strongly Agree responses) that Article 185 initiatives provide an appropriate level of administrative burden for Participating states, and are straightforward and simple in their implementation and preparation. The cross border dimension of project funded under Article 185 initiatives lead however to additional burden for applicants, compared to national projects, as confirmed by 50% of the responses. They are however considered to be less burdensome for applicants than Horizon 2020 projects.

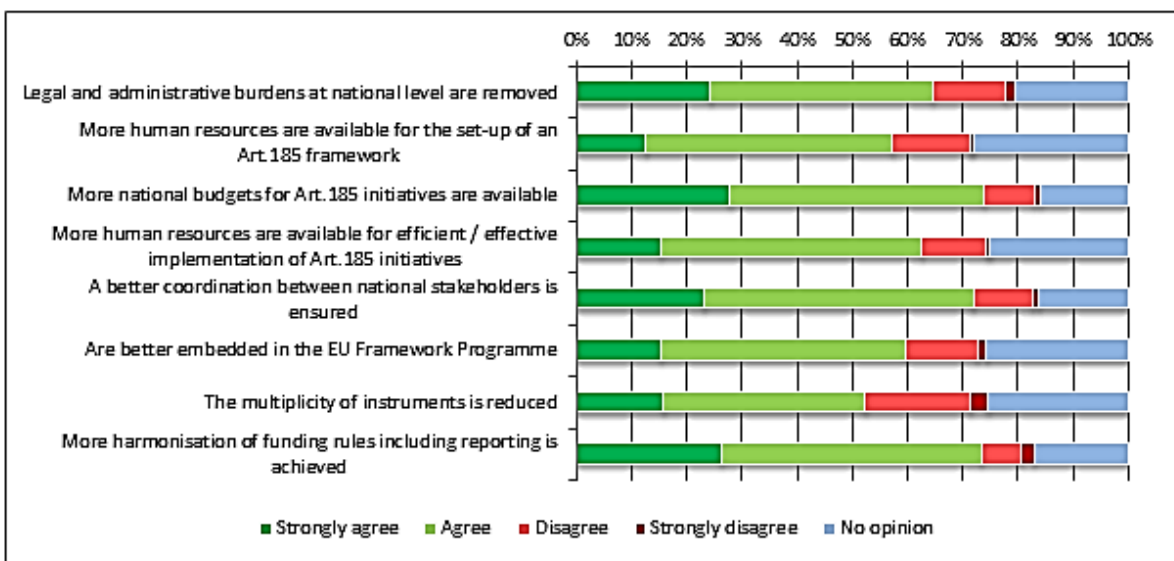


3.6 Future recommendations

Participants in the survey were asked to identify the areas for improvement for Article 185 initiatives. An overview of all replies to the questions is presented in the following figure. In general they agreed with the proposed areas for performance improvement. They call in particular for:

- Increased national budgets (74%);
- Better harmonisation of funding rules (73%);
- Better coordination between national stakeholders (72%).

The lowest agreement (52%) was recorded for reducing the multiplicity of instruments.



4. AAL2

The Active and Assistive Living (AAL) programme funds projects in the field of information and communication technology (ICT) for active and healthy ageing since 2008. The programme was renamed in 2014 after being renewed for a second phase (the first was from 2008 until 2013 and was named Ambient Assisted Living Joint Programme) and it is co-financed by the European Commission – under Horizon 2020– and 19 countries. Additional information can be found at: www.aal-europe.eu

The online public consultation was answered by 72 respondents, with the following profiles:

- 47% from individuals;

- 3% from representatives of "umbrella" organisations of EU interest; and
- 50% from representatives of a single institution or a company.

The largest proportion of the category of those who responded on behalf of a single institution / company were representatives of public authorities (42%). Furthermore, nine research organisations and eight businesses have answered (of which one third were SMEs). Answers came from EU countries and from Ukraine.

4.1 European Added Value

Respondents were asked to provide their views on the EU added value of the AAL2 Programme. The questions from the general part of the public consultation do not show significant differences for AAL2 respondents, confirming the EU added value of the programme at both project and programme level.

Participants were asked to assess the amount of EU financial contribution (maximum 175 million EUR) for the programme. 61% of respondents consider the EU financial contribution to the programme as "adequate", compared to 22% considering it "too small" and with 6% of the respondents considered it as too high.

4.2 Relevance

The questions from the general part of the public consultation do not show significant differences for AAL2 respondents. They confirm the relevance of the programme for building a society and economy based on knowledge and innovation, they support the European Research Area and society at large, are considered highly relevant in spreading excellence and widening participation and in general foster excellent science.

4.3 Coherence

The questions from the general part of the public consultation do not show significant differences for AAL2 respondents, confirming the coherence of the programme with other similar EU initiatives. Furthermore, the objectives of the programme are perceived to be more geared towards Horizon 2020 than national policy objectives. Respondents were asked to provide their views on the coherence with EU initiatives of similar objectives as the AAL2 Programme. 64% of the respondents consider the AAL2 programme as being coherent with other similar EU initiatives.

4.4 Effectiveness

The questions from the general part of the public consultation do not show significant differences for AAL2 respondents, confirming the effectiveness of the programme. The programme contributes to the different levels of integration, in particular scientific integration. Moreover, the initiative is recognized to allow for easier cross-country cooperation than national programmes or Horizon 2020 and allow projects that otherwise would not be realised.

In the AAL2 specific part of the survey, participants were inquired about the effectiveness of the Programme. Overall, the majority of the respondents consider the AAL2 programme effective in reaching its objectives. The majority of the respondents (60%) consider that there are insufficient budget contributions from Participating States to achieve the objectives of the programme. Finally, respondents were asked about the accessibility of the AAL2 Programme for its target group, in particular SMEs. 82% (*Yes* and *To a large extent* responses) of respondents consider the programme to be accessible.

4.5 Efficiency

The questions regarding the efficiency of Article 185 initiatives in general (Section 3.5) have been assessed for the subset of AAL2 respondents. The replies confirm the overall answers to those questions, with overall more positive replies. Respondents consider the initiatives provide an appropriate level of administrative burden and are relatively straightforward and simple in their implementation and preparation. In particular, the question on Article 185 projects being less burdensome than Horizon 2020 projects raised over two thirds of positive answers (compared with under 50% of positive replies for all Article 185 initiatives).

The specific part of the survey asked about the cost-effectiveness of the AAL2 programme so far. 61% of the respondents think the programme is cost-effective while 29% of the participants to the survey think AAL2 has not been cost-effective so far.

4.6 Future recommendations

Respondents were asked to give feedback for the future implementation and set-up of AAL2. When asked about measures to maximise future impact in the field of active and healthy ageing, the majority of the respondents (54%) responded that the programme should widen its scope, while 27% of respondents would like to keep the existing scope.

Furthermore, participants to the survey were asked about which form of public financing at European level should be used for funding of innovation and research in the area of the active and healthy ageing. 61% of the respondents consider that the funding of innovation and research in the area of the active and healthy ageing should continue with Public-Public Partnerships with Union participation whereas 25% of the respondents consider this should be done via Public-Private Partnerships. Finally, when asked if they would be in favour of a future AAL2 programme, a majority of 79% of the respondents agreed to the continuation of the joint programme with the participation of both the Participating States and the EU.

5. EUROSTARS2

This section presents an overview of the 93 replies to the Public Consultation related to Eurostars2 initiative. Eurostars2 supports international innovative projects led by research and development- performing small- and medium-sized enterprises (R&D-performing SMEs). With its bottom-up approach, Eurostars2 supports the development of rapidly marketable innovative products, processes and services that help improve the daily lives of people in Europe. Eurostars2 has been carefully developed to meet the specific needs of SMEs. It is a first step in international cooperation, enabling small businesses to combine and share expertise and benefit from working beyond national borders. Additional information can be found at www.eurostars-eureka.eu/about-eurostars

About two thirds of the respondents belong to a single institution or company, one third replied in their individual capacity. From the replies belonging to single institutions or companies, 58% of respondents were business organisations (among which two thirds SMEs), 22% public authorities and 15% universities. In terms of geographic coverage, nearly 50% of respondents are originating from 5 countries: Belgium (16%), Norway (10%), Spain, Greece (8%) and Italy (7%).

Respondents have a good level of familiarity with the Eurostars2 programme (81% having a *fair* or a *very good* knowledge with it), while only 3% of respondents consider it low. Moreover, 67% of respondents have already participated in a Eurostars (1 or 2) programme.

5.1 EU Added Value

The questions from the general part of the public consultation do not show significant differences for Eurostars2 respondents, confirming the EU added value of the programme at both project and programme level.

In the Eurostars2 specific part of the survey, respondents were asked to provide their views on the EU added value of the Programme. None of the respondents considered the amount of EU financial contribution (maximum 287 million EUR) too high, with 47% of respondents considering the EU financial contribution to the programme "adequate", compared to 40% considering it "too small". When asked whether the design and performance of Eurostars2 is in line with the spirit of Article 185 of TFEU in particular concerning financial, managerial and scientific integration, the majority of the respondents (60%) consider this to be the case with 13% of the respondents disagreeing.

5.2 Relevance

The questions from the general part of the public consultation do not show significant differences for Eurostars2 respondents. They confirm the relevance of the programme for building a society and economy based on knowledge and innovation, they support the European Research Area and society at large, are considered highly relevant in spreading excellence and widening participation and in general foster excellent science.

Furthermore, participants in the survey were inquired about the relevance of the Eurostars2 Joint Programme. 79% of the respondents consider that Eurostars2 contributes to the general objectives of Horizon 2020 to be more oriented towards innovation and economic impact. Furthermore, respondents perceive the design of Eurostars2 (79% agreement) as adequate.

5.3 Coherence

The questions from the general part of the public consultation do not show significant differences for Eurostars2 respondents, confirming the coherence of the programme with other similar EU initiatives. Furthermore, the objectives of the programme are perceived to be more geared towards Horizon 2020 rather than national policy objectives.

In the Eurostars2 specific section of the survey, respondents were asked to provide their views on the coherence with other EU initiatives of the Programme. The majority of the participants (59%) agree that Eurostars2 complements other instruments from H2020 or other EU programmes, realising synergies wherever is possible. Furthermore, 70% of the participants consider the resources mobilized by the Participating States and the European Union justified by the scale and scope of the initiative.

5.4 Effectiveness

The questions from the general part of the public consultation do not show significant differences for Eurostars-2 respondents, confirming the effectiveness of the programme. The programme contributes to the different levels of integration, in particular scientific integration. Moreover, the initiative is recognized to allow for easier cross-country cooperation than national programmes or Horizon 2020 and allow projects that otherwise would not be realised. In particular, Eurostars2 respondents showed 10% higher than average agreement on the statement that the programme allows for projects that could not be realized under Horizon 2020.

In the specific Eurostars2 section of the survey, participants were inquired about the effectiveness of the Joint Programme. Overall, the majority of the respondents consider

the Eurostars2 programme effective in reaching its objectives. With a 95% agreement the respondents consider in particular that Eurostars2 is effective in promoting research activities that are carried out by transnational collaboration of research and development performing SMEs. The participants to the survey were asked if the R&D performing SMEs would have undertaken their projects by their own or other means in the absence of a Eurostars2 grant. 83% of the respondents replied that the SMEs supported by Eurostars2 programme would not have undertaken their projects by their proper or other means (19% fully no, 63% to a large extent).

5.5 Efficiency

The questions regarding the efficiency of Article 185 initiatives in general (Section 3.5) have been assessed for the Eurostars2 respondents. Respondents consider the initiatives provide an appropriate level of administrative burden and are relatively straightforward and simple in their implementation and preparation. The replies confirm the overall answers to those questions, with overall more positive replies. In particular, over 60% of the Eurostar-2 respondents (compared with less than 50% when considering all responses) consider that Eurostars2 projects are less burdensome to applicants than Horizon 2020 projects.

5.6 Future recommendations

When asked if they would be in favour of a future Eurostars programme, a majority of 84% of the respondents agreed to the continuation of the joint programme with the participation of both the Participating States and the EU.

6. BONUS

BONUS, the joint Baltic Sea research and development programme for years 2010-2017, was started by the BONUS member states together with the EU and officially launched in September 2010 by a co-decision of the European Parliament and the European Council as a Treaty on the Functioning of the European Union (TFEU) Art.185 initiative. Additional information can be found at: <http://www.bonusportal.org/>. The online public consultation was answered by 45 respondents, with the following profiles:

- 60% from individuals;
- 2% from representatives of "umbrella" organisations of EU interest; and
- 38% from representatives of a single institution or a company.

The largest proportion of the category of those who responded on behalf of a single institution / company were representatives of public authorities (59%). Furthermore, three research organisations, two academic institutions and one business responded to the public consultation. Two answers were received from Funding Agencies. Most answers came from the countries from the Baltic Sea Region (Denmark, Estonia, Finland, Germany, Poland and Sweden).

6.1 EU Added Value

The questions from the general part of the public consultation do not show significant differences for BONUS respondents, confirming the EU added value of the programme at both project and programme level.

In the BONUS specific part of the consultation, respondents were asked to provide their views on the EU added value of the Programme. None of the respondents considered the amount of EU financial contribution too high, with 40% of respondents considering the

EU financial contribution to the programme "adequate", compared to 32% considering it "too small". Furthermore, participants were asked via an open text question about the additional value resulting from the EU intervention in the Programme compared to what could be achieved at national or regional level. The general perception is that the added value of EU intervention is the increased transnational cooperation between researchers and a resulting higher standard of the scientific output of researchers.

6.2 Relevance

The questions from the general part of the public consultation do not show significant differences for BONUS respondents. They confirm the relevance of the programme for building a society and economy based on knowledge and innovation, they support the European Research Area and society at large, are considered highly relevant in spreading excellence and widening participation and in general foster excellent science.

In the BONUS specific part of the survey, the respondents were asked about the relevance and usefulness of the joint programme. Almost all respondents agreed with the high relevance of the BONUS programme designed to enable the transnational cooperation in multidisciplinary research needed to help solve the Baltic Sea region environmental issues. The respondents considered that it increased the coordination between Baltic countries and within each country. However, as in many research fields, the respondents feel that more can be done in terms of actual use of results in public and private decision making.

6.3 Coherence

The questions from the general part of the public consultation do not show significant differences for BONUS respondents, confirming the coherence of the programme with other similar EU initiatives. Furthermore, the objectives of the programme are perceived to be more geared towards Horizon 2020 rather than national policy objectives. With 64% of approval, the respondents from the BONUS specific section of the consultation confirm the coherence of the programme.

6.4 Effectiveness

The questions from the general part of the public consultation do not show significant differences for BONUS respondents, confirming the effectiveness of the programme. The programme contributes to the different levels of integration, in particular scientific integration. Moreover, the initiative is recognized to allow for easier cross-country cooperation than national programmes or Horizon 2020 and allow projects that otherwise would not be realised. In the sample of BONUS respondents, high rates of *No opinion* answers were registered for questions relating to Horizon 2020, due most probably to the low levels of familiarity of respondents with the Programme.

In the BONUS specific part of the survey, participants in the survey were inquired about the effectiveness of the Programme. Overall, the majority of the respondents consider the BONUS programme effective in reaching its objectives. With over 90% agreement the respondents consider that BONUS is improving the efficiency and effectiveness of the Baltic Sea Region's fragmented environmental research programming by integrating the research activities in the Baltic Sea. Respondents were asked about the accessibility of BONUS Programme to its target group. 82% (*Yes* and *To a large extent* responses) of respondents consider the programme to be accessible. Finally, in an open text question, respondents were asked to assess the added value to participate in BONUS projects. Many replies indicate that it is mainly considered as an opportunity to collaborate with the best scientists and research resources from other countries and in transnational research projects as part of a visible programme.

6.5 Efficiency

The questions regarding the efficiency of Article 185 initiatives in general (Section 3.5) have been assessed for the subset of BONUS respondents. Respondents consider the initiatives provide an appropriate level of administrative burden and are relatively straightforward and simple in their implementation and preparation. The replies partly confirm the overall answers to those questions, with overall more negative replies. In particular, the question on Article 185 projects being less burdensome than national projects raised 18% of positive answers (compared with 32% of positive replies for all Article 185 initiatives). Of note is that a much higher percentage of respondents had no opinion.

Respondents were asked to assess the efficiency of BONUS in funding transnational research and innovation activities among the states around the Baltic Sea (open text question). The efficiency of the funding was praised by the respondents. They consider that the funding leveraged and secured national funds and boosted the transnational cooperation and the multidisciplinary research funding to address joint issues while building capacity.

6.6 Strengths, Weaknesses and Future recommendations

Participants to the public consultation were asked to provide their feedback via open text boxes on the strengths and weaknesses of the BONUS programme. Respondents consider that BONUS is a highly relevant programme with high scientific quality and regional focus. The respondents also listed some of the weaknesses of the programme. Main amongst those was considered the complex funding structure, with inflexible rules to participation and funding with also often tedious process of decision on financing of projects at the national level which causes delays and risks.

When asked about future recommendations, respondents considered an important point reducing the load of reporting and harmonising EU and national funding and reporting. Finally, when asked if they would be in favour of a future BONUS programme, a majority of 92% of the respondents agreed to the continuation of the joint programme with the participation of both the Participating States and the EU.

7. EDCTP2

EDCTP2 is a strategic partnership between Europe and sub-Saharan Africa with the overall objective "to contribute to the reduction of the social and economic burden of poverty-related diseases in developing countries by accelerating the clinical development of effective, safe, accessible, suitable and affordable medical interventions for poverty-related and neglected diseases (PRNDs) in partnership with sub-Saharan Africa." Through a separate open public consultation, which took place from 29 June 2016 to 15 November 2016,⁵⁹ stakeholders were invited to provide their data, information and feedback on the implementation of the first three years (2014-2016) of EDCTP's second phase (2014-2024). 67 responses were received. In addition 32 respondents of the general public stakeholder consultation launched in January 2017 replied with respect to EDCTP2.

The majority of responses came from universities and research institutes (42%), followed by government administrations (19%), non-governmental organisations (15%), private non-profit organisations (15%), other for-profit organisations (4%), small or medium-sized enterprises (3%) and large pharmaceutical companies (2%). 76% of responses came from survey participants in Europe. 22% of responses came from survey participants in sub-Saharan Africa. 2% of responses came from other regions. Most

⁵⁹ http://ec.europa.eu/research/consultations/edctp-2-2014-2016/consultation_en.htm

respondents (75%) are directly involved with the EDCTP2 programme. The largest group of survey participants (44%) were stakeholders that have been funded by EDCTP1 or EDCTP2 in the past. Another 17% of respondents were either members of the EDCTP General Assembly or the EDCTP Scientific Advisory Committee.

7.1 EU Added Value

The replies from EDCTP2 stakeholders did not show any significant deviation from the overall reply pattern. Consequently the main EU added value stemming from EDCTP2 can be found in "fund high quality R&D projects"; "allow for national capacity building /access to foreign knowledge" and "provide additional financial resources".

7.2 Relevance

Within the general public consultation no major deviation from the overall findings was found, thus confirming the continued relevance of EDCTP2, notably with respect to the "achievement of the ERA", "spreading excellence and widen participation" and "foster excellence science".

The specific EDCTP2 public consultation looked at additional relevance dimensions of EDCTP2, notably with respect to foreign policy objectives and visibility of Europe as important health policy actor on global level.

A large majority of 73% agrees that EDCTP2's advocacy activities contributed to expand and strengthen relationships between countries in Europe and sub-Saharan Africa thus contributing to wider EU policy objectives. A large majority of participants (75%) agreed that the EDCTP2 programme is a relevant and visible initiative for the global health research community worldwide.

7.3 Coherence

The EDCTP2 related replies from the general public consultation confirm that EDCTP2 is coherent with Horizon 2020 policy objectives and wider EU policies, notably in health and foreign policy related issues.

The specific EDCTP2 consultation looked more specifically on the knowledge of stakeholders about EDCTP2 activities aiming a strengthening cooperation with related EU initiatives, including development assistance programmes. Here, the replies show that the majority of replies (63%) are not aware of the related activities of EDCTP2, suggesting that more communication is needed here.

7.4 Effectiveness

The EDCTP2 related replies from the general public consultation confirm that EDCTP2 is effective in funding projects that would have not been able to be realised within national programmes or under Horizon 2020.

In addition, respondents agree that EDCTP2 contributes to integration of national programmes, with a particular contribution to scientific integration. Compared with other Article 185 initiatives, the positive effect of EDCTP2 on integration is perceived as smaller.

This finding is supported by the results of the specific EDCTP2 consultation, where nearly half of the respondents were unable to assess the integration effects of EDCTP2. Stakeholders seem to be very confident that EDCTP2 is making progress towards its main policy objectives. 84 % of survey respondents perceive EDCTP2 to contribute to increasing the number of new or improved medical interventions for Poverty Related

Diseases. A very large majority of 84% of respondents agrees that EDCTP2 strengthens the capacity of countries in sub-Saharan Africa to conduct clinical trials. For other policy objectives, the specific consultation showed that many stakeholders are not aware of EDCTP2 activities aiming to attract and leverage additional financial investments from other public and private funders. Again, these activities and efforts by EDCTP2 seem not be well known among stakeholders as about half of the respondents are not aware of these activities.

7.5 Efficiency

Within the general public consultation no major deviation from the overall findings was found, thus confirming the efficiency of EDCTP2, notably that application for projects is less burdensome than for Horizon 2020 but more burdensome than for nation programmes.

The specific EDCTP2 consultation looked at additional efficiency dimensions, notably with respect to the funding mechanism, the priority setting process, conflict of interest prevention and issues related to the proposal and grant management systems. For all these dimensions except for proposal evaluation and selection, the majority of respondents see a positive efficiency.

7.6 Strengths, Weaknesses and Future recommendations

The questionnaire's final section consisted of three open questions concerning strengths, weaknesses and future recommendations. Of the 63% of respondents who provided their opinion on the strengths of the EDCTP2 programme, 24% mentioned capacity building activities could be singled out as main strength. As main weakness, the grant management and proposal submission processes of EDCTP2 could be identified. The latter finding confirms the findings under the efficiency criterion. Consequently this issue was most frequently mentioned for recommendations for the improvement of the EDCTP2 programme.

8. EMPIR

The European Metrology Research Programme (EMRP) and its successor, the European Metrology Programme for Innovation and Research (EMPIR) are the main programmes for addressing metrology research on a European level. It includes applications of metrology through thematic areas, called Grand Challenges, as well as support for the broadening of the International System of Units (SI), standardisation activities, and knowledge transfer and capacity building.

A separate open public consultation, specific to the metrology initiatives⁶⁰ EMRP and EMPIR was open between 1 July and 7 October 2016. 250 replies were received. Contributions were received from a wide range of countries, with a high number of replies from: Spain, Germany, Bosnia and Herzegovina, France, the United Kingdom and Finland. A few contributions were also received from Australia, Georgia, Kosovo, New Zealand, South Africa, Ukraine, and the United States. Most replies came from metrology institutes together with national administration entities closely linked to the metrology institutes. Moreover, more than a quarter of respondents represented private companies.

8.1 EU Added Value

The questions from the general part of the public consultation do not show significant differences for EMPIR / EMRP respondents, confirming the EU added value of the

⁶⁰ http://ec.europa.eu/research/consultations/joint_programming_metrology/consultation_en.htm

programme at both project and programme level. Respondents to the separate EMPIR / EMRP public consultation were asked about the added value of European metrology research. *Cooperation in Europe* and *Scientific outreach / excellence* are considered by the respondents to provide the highest added value in European metrology research.

8.2 Relevance

The questions from the general part of the public consultation do not show significant differences for EMPIR / EMRP respondents, confirming the relevance of the programme for building a society and economy based on knowledge and innovation, they support the European Research Area and society at large, are considered highly relevant in spreading excellence and widening participation and in general foster excellent science.

The first question from the separate EMPIR / EMRP public consultation asked about the relevance of European-wide joint programming (among national metrology institutions with EU co-funding) for strategic metrology research. A large majority of 93% of the respondents assessed European joint programming to be relevant for metrology research.

8.3 Coherence

The questions from the general part of the public consultation do not show significant differences for EMPIR / EMRP respondents, confirming the coherence of the programme with other similar EU initiatives. Furthermore, the objectives of the programme are perceived to be more geared towards Horizon 2020 rather than national policy objectives.

8.4 Effectiveness

The questions from the general part of the public consultation do not show significant differences for EMPIR / EMRP respondents, confirming the effectiveness of the programmes. The programmes contribute to the different levels of integration, in particular scientific integration. Moreover, the initiatives are recognized to allow for easier cross-country cooperation than national programmes or Horizon 2020 and allow projects that otherwise would not be realised.

Respondents to the separate EMPIR / EMRP public consultation have been asked to assess the effectiveness of each programme. For EMRP, the majority of respondents answered positively for all thematic areas which are directly linked to the specific objectives of the programme. Industry was the most positively perceived (74%), while the health theme received the least positive support (58%).

More than 80% of the respondents were in agreement that EMPIR contributes to the programme objectives by opening up the programme to external participants, other than those coming from EURAMET members. Moreover, 53% of respondents are in agreement that the EMPIR pre-and co-normative calls support standardisation activities effectively. As standardisation activities are central to about a quarter of the respondents, this explains the 41% of *no opinion* replies. Finally, the EMPIR capacity building actions (in particular within the Research Potential calls) were considered effective by 57% of the respondents. The research potential calls and related activities are intended to contribute to the EMPIR objective of developing scientific and technical capabilities in metrology research in countries with smaller, emerging National Metrology Institutes.

8.5 Efficiency

The questions from the general part of the public consultation do not show significant differences for EMPIR / EMRP respondents, confirming the efficiency of both programmes.

Respondents consider the initiatives provide an appropriate level of administrative burden and are relatively straightforward and simple in their implementation and preparation. Funded projects are considered to be more burdensome for applicants than national projects, however less burdensome than Horizon 2020 projects.

8.6 Future

The final question of the questionnaire was whether a successor initiative should be supported: 93.6% replied yes.

ANNEX 3: References to external Expert Group Reports

- Final evaluation of the European Metrology Research Programme (EMRP) and Interim evaluation of the European Metrology Programme for Innovation and Research (EMPIR) Expert Panel Report – ISBN 978-92-79-73174-7
- Interim Evaluation of the Eurostars-2 Joint Programme - ISBN 978-92-79-72152-6
- Interim Evaluation of the Active & Assisted Living Programme – ISBN 978-92-79-72277-6
- Joint Baltic Sea Research and Development Programme BONUS - Final Evaluation Report– ISBN 978-92-79-72255-4
- Report of the Expert Evaluation of the Second European and Developing Countries Clinical Trials Partnership Programme (EDCTP2) for the period June 2014 to December 2016– ISBN 978-92-79-72259-2
- Meta-Evaluation of Article 185 Initiatives, Report of the Expert group - ISBN 978-92-79-71486-3