



DG RTD ANNUAL REPORT ON PROGRAMME EVALUATION ACTIVITIES - 2013

September 2014

*Research and
Innovation*

TABLE OF CONTENTS

0.	EXECUTIVE SUMMARY	6
1.	INTRODUCTION AND CONTEXT	7
	1.1. Scope of the Report	7
	1.2. The Evaluation System at DG Research and Innovation	8
2.	ACTIVITY REPORT	9
	2.1. Key Features	9
	2.2. FP7 Coverage	9
	<i>Chart 1. Mapping of FP7 coverage</i>	<i>9</i>
	<i>Table 1. List of evaluation studies completed in 2013</i>	<i>10</i>
	<i>Table 2. List of reports with evaluative information completed in 2013</i>	<i>11</i>
	2.3. Background	12
	<i>Table 3. Background</i>	<i>13</i>
3.	IMPLEMENTATION	14
	3.1. Key Features	14
	<i>Chart 2. Distribution of costs (in €)</i>	<i>14</i>
	3.2. Methodology	15
	3.3. Quality Assessment	16
	<i>Chart 3. Quality Assessment of Evaluation Studies</i>	<i>17</i>
4.	KEY FINDINGS	18
	4.1. Supporting Scientific Excellence	18
	<i>Table 4. Publications reported in FP7 projects by Priority Area</i>	<i>19</i>
	4.2. Shaping and Strengthening European Research and Innovation Capacity	20
	4.3. Fostering Innovation Process and Increasing Market Uptake	22
	<i>Table 5. Intellectual Property Rights reported in FP7 projects by Priority Area</i>	<i>23</i>
	4.4. Addressing Societal Challenges	23
	4.5. Supporting European Industrial Base and Competitiveness	24
	4.6. Strengthening S&T Cooperation at the International Level	25
5.	MONITORING TRENDS	28
	5.1. Key Patterns of Participation in FP7	28
	<i>Table 6. Numbers of signed grant agreements, participants and EU contribution (in € million) for FP7 calls concluded during the period 2007-2012 by Specific Programme (as of February 2013)</i>	<i>28</i>
	<i>Chart 4. EU financial contribution (in € million) in the signed grant agreements for FP7 calls concluded in 2007 - 2012 by type of organisation</i>	<i>29</i>
	5.2. Increasing Participation of SMEs	29
	<i>Chart 5. Comparison of the share of the EU contribution going to SMEs, for each Theme within the Cooperation Specific Programme, before and after 2011</i>	<i>30</i>
	5.3. Gender Equality	30
6.	FOLLOW UP, DISSEMINATION AND USE OF RESULTS	32
	6.1. Follow up and Dissemination	32
	<i>Table 7. Online publishing</i>	<i>33</i>
	6.2. Use of Results	33
7.	OUTLOOK	35

<i>Chart 6. Distribution of evaluation studies (completion date) over the year 2014</i>	35
ANNEXES	36
ANNEX 1. FICHES	37
Innovation - How to Convert Research into Commercial Success Story? Part 1: Analysis of EU-funded Research Projects in the Field of Industrial Technologies.....	37
Innovation - How to Convert Research into Commercial Success Story? Part 2: Analysis of Innovation Successes in the Field of Industrial Technologies	38
Final Assessment of the Research PPPs in the European Economic Recovery Plan: Factories of the Future; Energy-efficient Buildings; European Green Cars Initiative	39
Second Interim Evaluation of the Fuel Cells and Hydrogen Joint Undertaking (FCH JU).....	40
Second Interim Evaluation of the Innovative Medicines Initiative Joint Undertaking (IMI JU).....	41
Second Interim Evaluation of the Clean Sky Joint Undertaking	42
Outriders for European Competitiveness: European Innovation Partnerships (EIPs) as a Tool for Systemic Change	43
Second Interim Evaluation of the Risk-Sharing Financial Facility (RSFF).....	44
External Evaluation of the Research Executive Agency (REA) and the European Research Council Executive Agency (ERCEA).....	45
Review of Public Health Research Projects Financed under the Commission's Framework Programmes for Health Research.....	47
Small and Medium-sized Enterprises - Participation in FP7 Projects in the Biotechnologies Activity	48
Assessing the Projects on the ESFRI (European Strategy Forum for Research Infrastructures) Roadmap.....	49
Knowledge Transfer Study 2010-2012	50
Evaluation of the EURAXESS Project (2008-2012).....	51
Evaluation of the "Coherent Development of Research Policies" Programme.....	52
Review of the Science and Technological (S&T) Cooperation between the European Union and the USA.....	53
Review of the Science and Technological (S&T) Cooperation Agreement between the European Union and Russia	54
Review of the Science and Technological (S&T) Cooperation Agreement between the European Union and South Africa.....	55
Review of the Science and Technological (S&T) Cooperation between the European Union and New Zealand	56
Sixth FP7 Monitoring Report - Monitoring Report 2012.....	57
Analysis of the ERA State-of-Play in Member States and Associated Countries: Focus on Priority Areas.....	58
Tenth Progress Report on SMEs Participation in the 7th R&D Framework Programme - June 2013	59
Comparative Scoreboard and Performance Indicators in NMP (Nanotechnology and nanosciences, knowledge-based multifunctional Materials, and new Production processes and devices) Research Activities between EU and Third Countries.....	60
Support for Continued Data Collection and Analysis Concerning Mobility Patterns and Career Paths of Researchers - MORE 2.....	61
She Figures 2012 - Gender in Research and Innovation - Statistics and Indicators	62

Assessment of Impacts of NMP Technologies and Changing Industrial Patterns on Skills and Human Resources	63
The Role of Clusters in Smart Specialisation Strategies	64
Assessing Environmental Impacts of Research and Innovation Policy	65
Powering European Public Sector Innovation: Towards a New Architecture	66
Report of the Independent Expert Group on the Future of European Public Health Research.....	67
NMP Research and the Ageing Challenge	68
Monitoring European Trends in Social Sciences and Humanities	69
ANNEX 2. METHODOLOGY OF EVALUATION STUDIES AND REPORTS WITH EVALUATIVE INFORMATION	70
ANNEX 3. METHODOLOGY OF THE REPORT	72
ANNEX 4. LIST OF ACRONYMS.....	77

0. EXECUTIVE SUMMARY

- This is the third Annual Report on Programme Evaluation Activities in the Directorate-General for Research and Innovation (DG RTD) developed as part of a process of annual reporting about programme evaluation activities.
- In the context of the strong emphasis placed on evaluation by the European Commission, this report aims to:
 - communicate about evaluation activities at DG RTD and promote their outcomes;
 - share good practice on how to implement and manage an evaluation study;
 - follow up on the evaluations' results and their recommendations.
- Nineteen evaluation studies and thirteen reports with evaluative information were completed by DG RTD in 2013.
- Almost two thirds of these nineteen studies were ex-post evaluations, as the Seventh Framework Programme ran its final year, and were carried out to provide robust evidence to the FP7 ex-post evaluation which will be completed in 2015.
- A majority of these studies and reports covered thematic activities and initiatives funded under the "Cooperation" Specific Programme and topics related to the implementation of the European Research Area under both the "Capacities" and the "People" Specific Programmes.
- Eighteen evaluation studies were carried out by external contractors, for a total amount of € 2,990,695.
- Online publishing - on DG RTD's website - was the privileged means to communicate about the outcomes of the studies.
- Full details of the studies are available in the fiches presented in Annex 1, including weblinks to all the evaluation reports and studies presented in this report.
- Further information and reports can also be found on [DG RTD Evaluation website](#).
- Feedback from readers is most welcome as it will help to improve the next reports. Please send comments to:
European Commission
DG Research & Innovation
Unit A.5 Evaluation
Seán O'Reagain
ORBN 01/120
B - 1049 Brussels
Sean.O'Reagain@ec.europa.eu

1. INTRODUCTION AND CONTEXT

This is the third Annual Report on Programme Evaluation Activities in the Directorate-General for Research and Innovation (DG RTD). This initiative aims to communicate about the numerous evaluation activities and highlight their main findings and outcomes, contributing to increasing the visibility of evaluations. Likewise, it aims to share good practice on how to implement and manage evaluation studies, as well as on how to follow up on their recommendations. In a longer-term perspective, these reports may also be used as a tool to monitor the use of evaluation results.

DG RTD's Annual Report on Programme Evaluation Activities should be seen in the context of the strong emphasis placed on evaluation by the European Commission. The working methods of the Commission entail that an evaluation of the existing policy framework be carried out for all significant new initiatives and that all corresponding proposals for a revision or for a new measure should be based on evaluation which forms the basis for the impact assessment. The "evaluate first" principle was established by the Communication of 2 October 2013 on "Strengthening the foundations of Smart Regulation - improving evaluation"¹, which underlines the role of evaluation as a key Smart Regulation tool, helping the Commission to assess whether EU actions are "actually delivering the expected results and ultimately improving conditions for European citizens and businesses and contributing to the EU's global role".

1.1. Scope of the Report

This Report provides a comprehensive overview of the evaluation studies completed in the year 2013 by DG RTD. In addition to the core analytical text, a summary of findings of each evaluation study is presented in Annex 1.

This report is focused on *programme evaluation*, which describes the activities used to assess a programme, including typically its rationale, implementation and achievements. Programme evaluation involves a judgement on the performance and utility of a programme, according to its results, impacts and needs it aims to satisfy. This is often described as "public intervention".

This report also presents the outcomes of assessment, review and monitoring studies.

Terms such as *assessment* and *review* are widely used to refer to ex-post programme evaluation. While there is no hard and fast rule on when to use these terms, reviews are often considered to be "softer" types of exercise, usually with less use of sophisticated data gathering, and lighter processes. This should not be confused with the term "programme review", which can be described as an

¹ COM(2013) 686 final available at:
<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013DC0686>

adjustment (notably budgetary) of the intervention, often as a consequence of the evaluation.

Typically, *monitoring* is carried out during the lifetime of a programme or intervention, with the aim of providing information to the programme manager. Unlike evaluation, monitoring does not deal with impacts. The linkage between monitoring and evaluation is very important since monitoring can be a source of systematic evidence to support ex-post evaluation.

This report therefore includes different types of evaluation studies, which nonetheless share common features in that they are based on judgement and they are not a single act, but rather an accumulation of evidence *via* a process.

1.2. The Evaluation System at DG Research and Innovation

The European Commission has implemented a decentralised evaluation system, with each Directorate-General being responsible for the regular evaluation of its activities². The evaluation functions of all Directorates-General come together in the Commission's Evaluation Network, run by the Secretariat General, which is responsible for supporting measures, including the provision of guidelines, and for ensuring that the evaluation standards³ are respected.

Within DG Research and Innovation, the Evaluation Unit ensures the central programme evaluation function. The Unit leads the process of ex-ante impact assessments and interim and ex-post evaluations of the DG's main strategic initiatives, notably Horizon 2020. It reports on its implementation through annual monitoring reports. It also reports on Key Performance Indicators (KPIs) and cross-cutting issues for Horizon 2020 (in line with the legal text) based on the input from the DG's Directorates, as well as from the Research and Innovation DGs family. It investigates new methodologies and provides methodological guidance to thematic Directorates on ex-ante impact assessment and ex-post evaluation.

Evaluation activities are included in the Strategic Planning and Programming cycle. A multi-annual evaluation plan and an annual evaluation plan are attached to each DG's annual Management Plan.

This report was produced by the DG RTD Evaluation Unit in cooperation with the Interservice RTD Evaluation Network, and based on data provided by the operational Units of DG RTD. The methodology is described in Annex 3.

² Evaluation started to be introduced in the European Commission practices in the 1980ies. Its development has accelerated since the adoption of the Communication "Focus on Results: Strengthening Evaluation of Commission activities" by the Commission in 2000. The Communication "[Responding to Strategic Needs: Reinforcing the use of evaluation](#)" (2007) highlighted the need for further using the results of evaluation, thus better linking evaluation to policy-making.

³ http://ec.europa.eu/smart-regulation/evaluation/docs/standards_c_2002_5267_final_en.pdf

2. ACTIVITY REPORT

This section provides an overview of the evaluation studies and the reports with evaluative information which were completed by DG Research and Innovation in 2013⁴.

2.1. Key Features

In 2013, nineteen evaluation studies and thirteen reports with evaluative information were completed by DG RTD⁵. The evaluation studies include seven interim evaluation and twelve ex-post evaluations. *Please see lists in Tables 1 and 2.*

2.2. FP7 Coverage

A majority of these studies and reports cover thematic activities and initiatives funded under the "Cooperation" Specific Programme and topics related to the implementation of the European Research Area under both the "Capacities" and the "People" Specific Programmes.

Policy Strategy and Coordination 1			
Nanosciences, Nanotechnologies, Materials and New Production Technologies 6			
Environment (including Climate Change) 1	Regions of Knowledge 1		
Energy 1	Research for the Benefit of SMEs 1		
Food, Agriculture and Fisheries, and Biotechnology 1	Research Infrastructures 1		
Transport (including Aeronautics) 1	Support for the Coherent Development of Research Policies 6		
Socio-economic Sciences and the Humanities 1	Science in Society 1		
Health 3	International Cooperation 4	ERCEA+REA 1	
Cooperation 15	Capacities 14	Ideas + Cooperation/ Capacities/ People 1	People 2

Chart 1. Mapping of FP7 coverage

⁴ Final report adopted in 2013.

⁵ Building on the DG RTD's Evaluation Plan, this report differentiates between an "evaluation study", which aims to assess the effectiveness and impact of a programme and provides evidence and guidance to make sound decisions, and a "report with evaluative information" which primarily aims to enhance understanding and knowledge, and is not tied to the Strategic Planning and Programming cycle.

Nr	Title of the evaluation study	Abbreviated title	Type of evaluation	Service
1	Innovation - How to Convert Research into Commercial Success Story? Part 1 : Analysis of EU-funded Research Projects in the Field of Industrial Technologies	EU Projects - Industrial Technologies	Ex-post	Unit D.1
2	Innovation - How to Convert Research into Commercial Success Story? Part 2 : Analysis of Innovation Successes in the Field of Industrial Technologies	Innovation - Industrial Technologies	Ex-post	Unit D.1
3	Final Assessment of the Research PPPs in the European Economic Recovery Plan: Factories of the Future; Energy-efficient Buildings; European Green Cars Initiative	Research PPPs	Ex-post	Unit D.2
4	Second Interim Evaluation of the Fuel Cells and Hydrogen Joint Undertaking (FCH JU)	FCH JU	Interim	Unit G.1
5	Second Interim Evaluation of the Innovative Medicines Initiative Joint Undertaking (IMI JU)	IMI JU	Interim	Unit E.2
6	Second Interim Evaluation of the Clean Sky Joint Undertaking	Clean Sky JU	Interim	Unit H.3
7	Outriders for European Competitiveness: European Innovation Partnerships (EIPs) as a Tool for Systemic Change	European Innovation Partnerships	Interim	Unit B.1
8	Second Interim Evaluation of the Risk-Sharing Financial Facility (RSFF)	Risk-Sharing Financial Facility	Interim	Unit B.3
9	External Evaluation of the Research Executive Agency (REA) and the European Research Council Executive Agency (ERCEA)	Evaluation of REA and ERCEA	Interim	Unit R.4
10	Review of Public Health Research Projects Financed under the Commission's Framework Programmes for Health Research	Public Health Research	Ex-post	Unit E.3
11	Small and Medium-sized Enterprises - Participation in FP7 Projects in the Biotechnologies Activity	SME - Biotechnology	Ex-post	Unit F.2
12	Assessing the Projects on the ESFRI (European Strategy Forum for Research Infrastructures) Roadmap	European Research Infrastructures	Interim	Unit B.4
13	Knowledge Transfer Study 2010-2012	Knowledge Transfer	Ex-post	Unit B.1
14	Evaluation of the EURAXESS Project (2008-2012)	EURAXESS	Ex-post	Unit B.2
15	Evaluation of the "Coherent Development of Research Policies" Programme	Coherent Development of Research Policies	Ex-post	Unit B.8
16	Review of S&T Cooperation between the European Union and the USA	S&T Cooperation EU-USA	Ex-post	Unit C.2
17	Review of the S&T Cooperation Agreement between the European Union and Russia	S&T Cooperation EU-Russia	Ex-post	Unit C.1
18	Review of the S&T Cooperation Agreement between the European Union and South Africa	S&T Cooperation EU-South Africa	Ex-post	Unit C.3
19	Review of S&T Cooperation between the European Union and New Zealand	S&T Cooperation EU-New Zealand	Ex-post	Unit C.1

Table 1. List of evaluation studies completed in 2013

Nr	Title of the report with evaluative information	Abbreviated title	Service
20	Sixth FP7 Monitoring Report	Monitoring Report 2012	Unit A.5
21	Analysis of the ERA State-of-Play in Member States and Associated Countries: Focus on Priority Areas	ERA Priority Areas Monitoring	Unit B.2
22	Tenth Progress Report on SMEs Participation in the 7th R&D Framework Programme	SME report - June 2013	Unit B.3
23	Comparative Scoreboard and Performance Indicators in NMP - Research Activities between EU and Third Countries	NMP Comparative Scoreboard	Unit D.1
24	Support for Continued Data Collection and Analysis Concerning Mobility Patterns and Career Paths of Researchers – MORE 2	MORE 2	Unit B.2
25	She Figures 2012 - Gender in Research and Innovation - Statistics and Indicators	She Figures 2012	Unit B.7
26	Assessment of Impacts of NMP Technologies and Changing Industrial Patterns on Skills and Human Resources	NMP - Skills and Human Resources	Unit D.1
27	The Role of Clusters in Smart Specialisation Strategies	Clusters in S3s	Unit B.5
28	Assessing Environmental Impacts of Research and Innovation Policy	Environmental Impacts of R&I Policy	Unit I.1
29	Powering European Public Sector Innovation: Towards a New Architecture	Public Sector Innovation	Unit B.1
30	Report of the Independent Expert Group on the Future of European Public Health Research	Future of European Public Health Research	Unit E.3
31	NMP Research and the Ageing Challenge	NMP Research and the Ageing Challenge	Unit D.1
32	Monitoring European Trends in Social Sciences and Humanities	METRIS III	Unit B.6

Table 2. List of reports with evaluative information completed in 2013

2.3. Background

The evaluation studies and reports with evaluative information completed in 2013 were motivated by six main reasons, as described in Table 3.

Overall, these studies and reports present three main features.

Firstly, a majority of studies include forward-looking exercises in order to contribute to the design of future programme Horizon 2020, as the Seventh Framework Programme ran its final year.

Likewise, two reports with evaluative information (28, 32) aim at developing and building up a new methodology or system to support data mining, information and reporting in the future programme.

Secondly, a number of studies were launched to assess the impact of projects and initiatives against policy objectives.

For example, the EURAXESS evaluation study (14) analyses the impact of the functioning of EURAXESS against the objectives set out in the Communication "Better careers and More Mobility for Researchers" and in the Innovation Union Flagship Initiative.

Thirdly, the year 2013 saw the completion of the second interim evaluations of new instruments set up by FP7 such as the Joint Undertakings (4, 5 and 6) and the Risk-Sharing Financial Facility (RSFF) (8). These studies therefore built up on findings and recommendations from the first set of evaluations completed in 2010 and 2011.

Reports launched on the basis of legal requirement	<ul style="list-style-type: none"> 4 - FCH JU 5 - IMI JU 6 - Clean Sky JU 9 - Evaluation of REA and ERCEA 20 - Monitoring Report 2012
Studies focusing on programme cycle in hand to possibly adjust it to meet its goals in the future initiatives and preparing for the next generation of the programme	<ul style="list-style-type: none"> 1 - EU Projects - Industrial Technologies 2 - Innovation - Industrial Technologies 3 - Research PPPs 7 - European Innovation Partnerships 8 - Risk-Sharing Financial Facility 10 - Public Health Research 12 - European Research Infrastructures 13 - Knowledge Transfer 14 - EURAXESS 15 - Coherent Development of Research Policies
Studies assessing the impact of a completed programme and preparing for the next generation of the programme	<ul style="list-style-type: none"> 16 - S&T Cooperation EU-USA 17 - S&T Cooperation EU-Russia 18 - S&T Cooperation EU-South Africa 19 - S&T Cooperation EU-New Zealand
Monitoring reports aiming to assess progress against policy objectives of the programme	<ul style="list-style-type: none"> 11 - SME - Biotechnology 21 - ERA Priority Areas Monitoring 22 - SME report - June 2013 25 - She Figures 2012
Data mining or impact assessment exercise aiming to develop further the system of collection of information, analysing, reporting and dissemination	<ul style="list-style-type: none"> 24 - MORE 2 28 - Environmental Impacts of R&I Policy 32 - METRIS III
Reports to support the preparation of future activities or the discussion on future options	<ul style="list-style-type: none"> 23 - NMP Comparative Scoreboard 26 - NMP - Skills and Human Resources 27 - Clusters in S3s 29 - Public Sector Innovation 30 - Future of European Public Health Research 31 - NMP Research and the Ageing Challenge

Table 3. Background

3. IMPLEMENTATION

This section provides facts and figures about the implementation of the evaluation studies and reports with evaluative information.

3.1. Key Features

With different objectives, scopes and methodologies, the evaluation studies and reports show wide diversity of duration and cost.

a) Duration

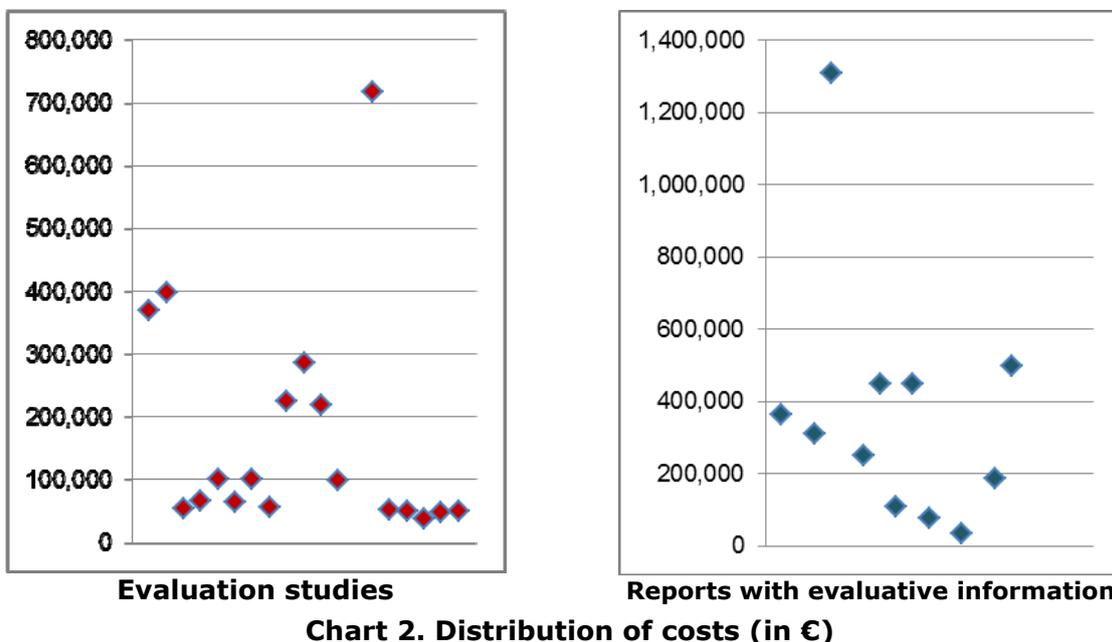
In 2013, it took from four to thirty-one months to produce a study (i.e. interval between the contract is signed and the final report is approved), and from six months to two years for a report with evaluative information. The average duration to complete an evaluation study is nine months, and it reaches almost one year for a report.

b) Cost

DG RTD spent € 7,037,270 on the thirty-two evaluation studies and reports with evaluative information completed in 2013.

The eighteen out-sourced⁶ evaluation studies amounted to € 2,990,695 with cost spreading from € 37,456 to € 717,513.

The total amount spent on the eleven out-sourced⁷ reports with evaluative information is € 4,046,575 with cost ranging from € 36,810 to € 1,310,930.



⁶ The study on SME-Biotechnology (11) was carried out by Unit F.2 at DG RTD.

⁷ The Annual FP7 Monitoring Report is coordinated by Unit A.5 at DG RTD, with contributions from the DGs and Executive Agencies in charge of implementing FP7 activities. The SME report was coordinated by Unit B.3 at DG RTD, with the support of the Interservice Taskforce in SMEs in FP7.

3.2. Methodology

The methodology used for these studies and reports relies on a combination of techniques, coupling on average three techniques, with desk research (literature review or project database) as a starting point of all activities.

Amongst the nineteen evaluation studies, seventeen relied on interviews; ten, on case studies; and eight, on a survey. Bibliometric and network were respectively performed in five and three evaluation studies. *Please find a detailed overview about methodological tools in Annex 2.*

Four main features in the methodology can be highlighted.

Firstly, none of these studies and reports used any modelling and simulation techniques, which involve a reduced representation of observable socio-economic phenomena through empirical (statistical), analytical or computational models. In contrast, a large majority of these studies and reports is based on techniques related to observational⁸ and opinion-based⁹ investigation modes, which have observation and description of facts in common. The second interim evaluation of the Clean Sky JU (6) is an exception in this regard, as it included visits on site as part of observational techniques.

Secondly, the combination of techniques is revealing about their effective complementarity. Case studies, field studies, descriptive statistics and meta-evaluations are examples of the observational mode, whereas questionnaire-based (opinion) surveys, structured interviews, expert panels, are frequently used in the opinion-based mode. As illustrated in Annex 2, studies and reports generally resort to techniques from both modes.

Thirdly, most studies involved workshops or other forms of consultations of stakeholders or external experts. This happens at two different and complementary stages, at the start of the study in order to gather inputs, and before the submission of the final report to the European Commission, in order to validate their preliminary results and recommendations.

Finally, there is no correlation between the cost of the study and the number of methodological tools implemented.

In addition, three aspects can be noticed, as main trends in the methodology of studies and reports completed in 2013.

First, these studies have devised and implemented new approaches to analyse the innovation process. For example, the study on EU projects - Industrial

⁸ A group of quantitative, quasi-quantitative or qualitative methods by which the investigator simply records in a consistent way the "state of the world" related to the issue under study without interfering with it, often in the form of detailed narratives or summaries of quantitative data.

⁹ A group of predominantly qualitative or quasi-quantitative methods which record and measure the opinion on specific issues of targeted populations, samples of targeted populations or targeted individuals, usually experts or stakeholders.

technologies (1), designed an analysis in terms of innovation pathways, which results in identifying 50 impact factors which affect the success of market-oriented exploitation processes. As a counter fact, the study on Innovation - Industrial Technologies (2) implements a different methodology which, the other way round, starts from innovation successes and analyses the upstream research activity which contributed to produce these technologies.

Then, the issues of assessment and attribution of impact have been explored and addressed in a number of studies. For instance, in the study on Public Health Research (10), the impact of a sample of completed FP5, FP6 and FP7 projects was analysed against their respective objectives set out in their Descriptions of Work (Annex I to the Grant Agreement), as a baseline.

Finally, efforts have been made to ensure comparability of data and results between the studies either by developing consistent approaches between studies, or by designing common matrices for data analysis.

For instance, similar analytical frameworks have been elaborated in the interim evaluations of the three Joint Undertakings (4, 5, 6). Furthermore, one expert took part in the three panels in order to ensure coherence and effective coordination.

In the study on European Research Infrastructures (12), the expert group created an assessment matrix as a common grid to analyse the 35 different types of infrastructures under review. Built on the UK OGC Gateway Review for programmes and projects, the matrix comprises six modules developed along three phases of maturity to analyse the development of a project.

3.3. Quality Assessment

The quality of evaluation studies is mainly reported as “very good”¹⁰ for each of the five criteria assessed: 1. relevance of the approach and results, 2. reliability of findings and conclusions, 3. usefulness of recommendations, 4. fulfilment of contractual obligations and 5. usefulness of results as inputs for future management and policies.

¹⁰ Based on data received from seventeen evaluation studies. The internal-run study on SME-Biotechnology (11) is not taken into account here. One study did not reply to these questions.

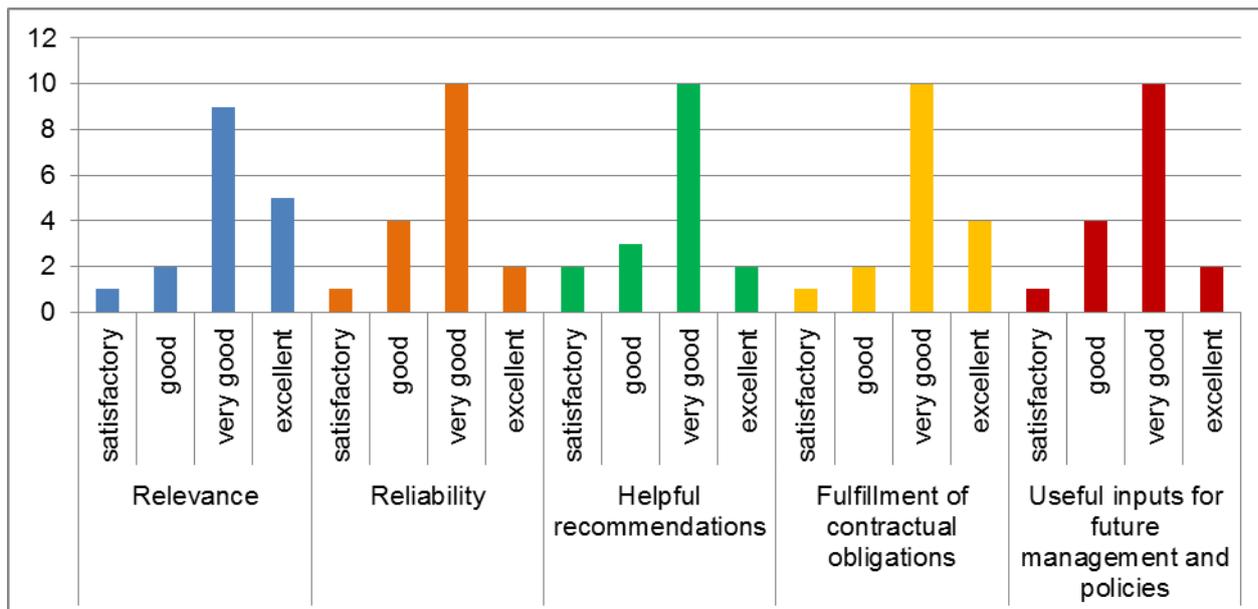


Chart 3. Quality Assessment of Evaluation Studies

4. KEY FINDINGS

This section picks out a number of findings from the evaluation studies and reports. The list presented hereafter is not exhaustive; further information and weblinks to final reports can be found in Annex 1.

4.1. Supporting Scientific Excellence

Evaluation studies show that the Framework Programmes have been successful in involving Europe's best researchers and institutes, picking up emerging fields of science, and setting common research agendas.

- The external evaluation of the research executive agencies (9) points out that ERCEA has been successful in supporting investigator-driven frontier research across all fields, on the basis of scientific excellence.
- Outcomes from the second interim evaluation on the Innovative Medicines Initiative Joint Undertaking (IMI JU) (5) underline the JU's achievements in providing call topics, and subsequently projects, that address major bottlenecks in pharmaceutical R&D and which cover a wide range of research fields, notably non-competitive research that would otherwise not have been undertaken.

Bibliometrics analysis highlights the high quality of scientific output generated by EU-funded projects, not only in terms of volume of publications and citations, but also in terms of impact in their respective scientific fields.

- The study on the Innovative Medicines Initiative JU (5) finds out that IMI projects have produced over 320 publications in more than 150 peer-reviewed journals including high impact factor journals such as *Nature* and *Science*.
Since the launch of the IMI JU, the quality of IMI project research (as indexed by citation impact) has increased while output has grown. Over one-tenth of papers from IMI projects are "highly-cited", meaning that they belong to the world's top ten per cent of papers in that journal category and year of publication, when ranked by number of citations received. The average citation impact of IMI funded research is well above world and European averages and over twice the world average for specific research fields. The long list of high quality scientific publications from IMI consortia demonstrates a significant contribution to health related research.
- The study on Public Health Research (10) reveals that for the sample of 70 public health projects carried out under FP5, FP6 and FP7 which final reports have been approved (n=70), a large number of peer-reviewed articles (n=275) has been published.

- The Monitoring Report 2012 (20), based on results from the new Research Performance and Impact Reporting tool (RESPIR), displays scientific outcomes from projects administered by DG RTD and the Research Executive Agency (REA).

As of 15 May 2013, 16,709 publications were reported by the 3,220 projects for which the final reports have been processed. Almost half of these reported publications were publications in high impact peer reviewed journals¹¹.

The highest average number of publications per completed project was recorded for the "Research Infrastructures" area (29.7), followed by the "Health" (23.4) and "Environment" (13) Themes.

	Priority Area	Nr of final reports	Publications in High Impact Peer Reviewed Journals	Average Publications per Project
COOPERATION	Health	206	2728	23.4
	KBBE	52	248	11.2
	NMP	119	763	12.3
	Energy	36	75	5
	ENV	92	494	13
	Transport (incl. Aeronautics)	98	21	0.8
	SSH	70	79	4.5
	Space	26	65	4.4
	Security	26	6	1.8
	General Activities	6	57	42
	Total: COOPERATION	731	4536	12.4
	Marie Curie Actions	2065	2632	2.7
	Total: PEOPLE	2065	2632	2.7
CAPACITIES	Research Infrastructures	38	435	29.7
	Research for the Benefit of SMEs	215	55	0.9
	Regions of Knowledge	27	1	0.3
	Research Potential	56	193	11.5
	Science in Society	52	20	1.5
	Support for the Coherent Development of Research Policies	13	2	0.8
	International Cooperation	11	-	-
	Total: CAPACITIES	412	706	5
	Nuclear Fission and Radiation protection – Fission	12	14	3.7
	Total: EURATOM	12	14	3.7
	TOTAL	3220	7888	5.2

Table 4. Publications reported in FP7 projects by Priority Area

¹¹ High impact journals are defined to be the top 10% (in terms of SJR index) of all journals within a given scientific category. For a complete list of scientific categories please visit the [SCImago website](#).

4.2. Shaping and Strengthening European Research and Innovation Capacity

The Framework Programmes have played a critical role in shaping and strengthening European research and innovation capacity, notably by helping grow European-wide public-private partnerships and by leveraging private funding.

The Seventh Framework Programme has initiated and fostered strong and stable cooperation between public research organisations, universities and industry, including SMEs, within the European Research Area. The evaluations of the Joint Undertakings, of the research Public-Private Partnerships (PPPs) and of the European Innovation Partnerships (EIPs) provide valuable evidence about strengthened and efficient partnership between public and private sectors.

- The Fuel Cells and Hydrogen JU (4) has stimulated the creation of new networks including trans-national linkages between the public and the private sectors within EU Member States that would have been difficult to achieve in any other research programme. These formerly dispersed actors have been brought together to formulate collectively a joint position on future research in FCH.
- The Innovative Medicines Initiative JU (5) has successfully demonstrated the feasibility of large and multi-stakeholder public-private partnerships for research and development in biomedicine. Since its inception, the IMI JU has brought together over 350 EFPIA¹² research teams, approximately 600 academic scientific teams and more than 100 SMEs. Over 40 public-private consortia have been established.
- Likewise, the Clean Sky JU (6) has proved the viability of public-private partnerships for research in aeronautics, and has led to new collaborations within public and private stakeholders. It is noteworthy that a good fraction of stakeholders involved in the JU are coming from other domains than aeronautics. Participation of these new organisations has enhanced European integration.
- Projects launched under the research PPPs "Factories of the Future", "Energy-efficient Buildings" and "European Green Cars Initiative" (3) have gathered over 700 companies, public research organisations, industry associations and other actors such as business angels, in numerous fields of activity across Europe, along the value chain. While many actors have had links with each other before and were organised into structures (RTO organisations, industry associations), the PPPs have stimulated these actors to work with each other in a structured way and with a longer time horizon.

¹² European Federation of Pharmaceutical Industries and Associations.

Strengthened cooperation between public and private sectors has also been achieved through FP7-funded projects.

- For example, SME project partners interviewed in the study on SME - Biotechnology (11) identified the opportunity to forge new contacts and cooperation with both public and private sectors as one of the main benefits from participating in FP7 projects.

The Seventh Framework Programme has also been successful in leveraging private funding, generating billion of euros of new investment in research and innovation.

- The study on the Risk-Sharing Financial Facility (8) shows that the RSFF has proved to be attractive to RDI companies and has met or exceeded its loan volume targets. At the end of 2012, the EIB Group loans and guarantees amounted to € 11.747 billion (against € 10 billion expected), with additional private investment in research and innovation (i.e. multiplier effect) of € 34.102 billion (against € 30 billion expected). This new financial instrument launched under FP7 has helped foster private investment in research and innovation, and successfully contributed to add value in areas where the market could not provide the required funding.
- The evaluations of the research PPPs (3) and of the Joint Undertakings (4, 5, 6) also point out that these partnerships have strong potential for a good overall leverage effect for private investment.

By pooling and increasing resources, the Framework Programmes have significantly contributed to building a critical mass for European research and innovation activities at the global level.

- The study on the European Research Infrastructures (12) shows that, among the majority of infrastructures which are progressing towards their maturity stage, eight of them are likely to be ready for implementation by 2015. These include world-leading infrastructures, such as the European Spallation Source (ESS), designed to be the world's most intense source of pulsed neutrons, or the Pan-European Infrastructure for Clinical trials and Biotherapy (ECRIN), which will help to shape scientific communities and build a critical mass at the global level.
- The study on the Fuel Cells and Hydrogen JU (4) reports that, by representing about 20% of the research expenditure in the FCH field in Europe and by supporting research and technology development, the JU has contributed to placing Europe at the forefront of fuel cell and hydrogen technologies worldwide.
Critical mass has already been reached for the automotive application area. One of the main achievements is the coordinated deployment of vehicles and infrastructure, which has placed Europe in a leading position in fuel-cell technology for the automotive industry.

4.3. Fostering Innovation Process and Increasing Market Uptake

Evaluation studies provide valuable evidence on the contribution of the Framework Programmes to fostering innovation, by developing innovative products, processes and services, and facilitating market uptake of research results.

- The study on the Innovative Medicines Initiative JU (5) finds out that synergies created by the JU have boosted pharmaceutical innovation in Europe.
Many projects have generated meaningful data in a much shorter time frame than would otherwise have been the case and have contributed to removing the bottlenecks currently limiting the efficiency, effectiveness and quality of the drug development activities needed to bring innovative medicines to the market. The IMI JU has also opened routes to commercialisation for SMEs.
- Between 2007 and 2013, more than 500 SMEs participated in EU-funded projects within the FP7 Activity "Biotechnologies". The study on SME - Biotechnology (11) demonstrates that these SMEs had a crucial role in promoting innovative solutions and facilitating the transition of bio-inventions from the research lab to the market. With close collaborative relationships with academia and research organisations, flexible business structures and direct contact with industry at large and the market, the SMEs are well-positioned to promote ready-made solutions on the market.
- Projects funded under the "Factories of the Future" and "Energy-efficient Buildings" Public-Private Partnerships (PPPs) (3) have already brought concrete results such as the development of demonstrators, pilot tests and production of product modules. As regards the "European Green Cars Initiative", the study shows that impacts might be achieved faster than the average seven to eight years that is typical for getting a new technology into the industry, particularly in the area of power electronics.

Besides, a large majority of stakeholders (Project coordinators and participants, industrial research organisations, members of Programme Committees, National Contact Points) who replied to a survey carried out in the study see research PPPs as an appropriate model for pursuing innovation actions, notably for demonstration instrument projects in FP7 and for larger demonstrations and pilot plants within Horizon 2020 (particularly with respect to the "European Green Cars Initiative").

- The Monitoring Report 2012 (20) presents an overview on patent applications stemming from projects administered by DG RTD and the Research Executive Agency (REA).
As of 15 May 2013, 3,220 projects reported 505 patent applications. The highest average number of IPR reported as patent application for completed projects was recorded for "Nanosciences, Nanotechnologies, Materials and new Production Technologies" (NMP) Theme (1,2 IPR per completed project), followed by "Energy" (0,8 IPR) and "Health" (0,7 IPR).

	Priority Area	Nr of final reports	Nr of reported IPR	IPR reported as Patent Application	
				Nr	%
COOPERATION	Health	206	151	135	89%
	KBBE	52	24	20	83%
	NMP	119	137	103	75%
	Energy	36	28	27	96%
	ENV	92	10	6	60%
	Transport (incl. Aeronautics)	98	27	20	74%
	SSH	70	0	-	-
	Space	26	1	-	-
	Security	26	5	4	80%
	General Activities	6	3	3	100%
Total: COOPERATION		731	386	318	82%
	Marie Curie Actions	2065	92	83	90%
Total: PEOPLE		2065	92	83	90%
CAPACITIES	Research Infrastructures	38	14	14	100%
	Research for the Benefit of SMEs	215	115	70	61%
	Regions of Knowledge	27	0	-	-
	Research Potential	56	21	19	90%
	Science in Society	52	0	-	-
	Support for the Coherent Development of Research Policies	13	0	-	-
	International Cooperation	11	0	-	-
Total: CAPACITIES		412	150	103	69%
	Nuclear Fission and Radiation protection – Fission	12	1	1	100%
Total: EURATOM		12	1	1	100%
TOTAL		3220	629	505	80%

Table 5. Intellectual Property Rights reported in FP7 projects by Priority Area

4.4. Addressing Societal Challenges

Evaluation studies give evidence of the contribution of the Framework Programmes to increasing European capacity to address more complex issues and societal challenges.

- In the field of health, the study on Innovative Medicines Initiative JU (5) shows that the pooling of resources achieved under the JU and the fast track created from the lab to the market have already had an impact on the effectiveness and efficiency of the R&D process. This is already being felt in the better design of clinical trials.

By supporting projects which, for most of those funded under IMI, could not have been attempted by a single company, SME or academic group, due to their complexity or size, the JU has proved its capacity in tackling big and complex issues in healthcare needs across the whole R&D cycle.

Achievements have already been seen in many phases of R&D such as new screening methodologies in diabetes and Alzheimer's disease and more rapid identification of new therapeutic targets in areas of unmet

need such autism and schizophrenia. This substantial progress will contribute to speed up the development of new medicines in Europe.

- In the field of climate action and energy, the Fuel Cells and Hydrogen JU and the Clean Sky JU have contributed to addressing European societal challenges identified in the energy, transport and climate change policies.

The second interim evaluation of the Fuel Cells and Hydrogen JU (4) shows that projects funded by the JU have already resulted in developing demonstrators vehicles and that they tackle major research issues such as the performance of materials and hydrogen storage, which will have an effect on improving energy efficiency, security of supply and reducing pollution.

The second interim evaluation of the Clean Sky JU (6) notes that JU has fostered remarkable expertise to tackle the most complex problems of aeronautics along the entire R&D cycle.

In addition, overall, the Joint Undertaking has successfully been stimulating developments towards the environmental targets for reducing emissions and noise in air transport in Europe defined by the Advisory Council for Aeronautics Research in Europe (ACARE) in Vision 2020s.

For instance, technologies developed within the Green RotorCraft demonstrator (integration of technologies and demonstration on rotorcraft platforms - helicopters, tilt-rotor aircraft) have resulted in a reduction of 30% for CO₂ and 47% for noise compared to the targets of -25% CO₂ and -50% noise respectively.

4.5. Supporting European Industrial Base and Competitiveness

Evaluation studies stress the fact that the Framework Programmes have had an effective role in supporting the European industrial base and in underpinning Europe's competitiveness in the context of the economic crisis.

- The study on SME in Biotechnology (11) shows that participation in FP projects have had a very positive impact on many areas of business for SMEs. SMEs gained know-how and expertise, access to advanced tools, opportunities to perform demonstration activities, new customers, and Intellectual Property Right guarantees. The projects also benefitted from the SMEs' close relationships with academia and industry, and their understanding of customer requirements.
- A survey of stakeholders involved in the Fuel Cells and Hydrogen JU (4) reveals strong positive impacts on investment, jobs and turnover. In total, it is estimated that:
 - the number of patents granted in the EU to European companies for FCH showed a 16% annual increase compared to the average annual growth for all EU industries of 1.5%
 - annual turnover increased by 10% per year, R&D expenditures by 8% and market deployment expenditures by 6% since 2007

- the number of jobs had been increasing by about 6% per year since 2007, to around 4,000 full-time equivalents in 2013.

Views on the future conveyed by respondents in the survey are also positive: it is expected that turnover would increase on average by 35% per year and research expenditures by 12% per year towards 2020.

Being the expression of a long-term political commitment by EU institutions coupled with stable funding, FP7 has supported investment in research and innovation through the economic crisis.

- The study on the Fuel Cells and Hydrogen JU (4) points out that the JU has been an important support for research in FCH throughout the economic crisis. Whereas the crisis saw a general tendency for research institutes and industry to withdraw from radical innovation and to focus on core business and incremental technology progress, the FCH JU has helped countering this tendency, both by virtue of its stable funding and through the expression of a long-term political commitment by the EU institutions that has given confidence to industry.
- Likewise, the expert panel in the study on IMI JU (5) comes to the conclusion that the IMI contributed to halting the decline private sector investment in European biopharmaceutical R&D and has even led to its increase over the past two years. Its role in times of economic difficulties is seen as well timed and crucial. Figures show that the percentage of investigator sites in Marketing Authorisation Application submissions remained at a steady 35% in 2005 and 2011, whereas the percentages for the USA fell from 54% in 2005 to 37% in 2011.

This will, in turn, support highly skilled jobs within research, innovation as well as downstream manufacturing jobs. IMI has already generated twice as many jobs per euro spent compared to FP7 projects. Projects funded by IMI have contributed to creating approximately 1,500 new direct jobs so far, with an average cost per job of € 200,000 compared to € 400,000 per job in FP7 projects.

Overall, the study shows that IMI has played a major role in consolidating the European pharmaceutical research base by acting as a "one stop shop" for biomedical research and development in Europe. This has contributed to reinforcing Europe's attractiveness for pharmaceutical R&D, stemming the flow of investment away from Europe to the USA and Asia.

4.6. Strengthening S&T Cooperation at the International Level

The evaluation studies carried out in the field of international S&T cooperation demonstrate that the new approach towards international cooperation developed under FP7¹³ paid off as they have reinforced international research collaboration throughout the Framework Programme.

¹³ SEC(2007)47 "A New Approach to International S&T Cooperation in the EU's 7th Framework Programme (2007-2013)".

Evaluation studies of S&T Cooperation Agreements between the European Union and, respectively, the USA, Russia, South Africa and New Zealand, show that cooperation has been growing stronger over the last five years. These Agreements provided a basis not only for joint participation in the Framework Programme, but also for broader and more intense collaboration with EU Member States.

- The study on S&T cooperation between the EU and the USA (16) provides an assessment of the intensity of science cooperation against few indicators.

While over the recent years, the USA has increased the number of co-publications with Asian countries to the detriment of the EU, which suggests a progressive shift of American interest towards cooperation with research entities located in the Pacific Rim, industrial cooperation with European research entities has developed. Based on overseas R&D expenditure of American firms as a proxy of the industrial cooperation, the study finds out that the European market is still very attractive for American high-tech products and services and so is the American market for European companies.

The study stresses the fact that FP7 has been a very important tool to facilitate (or to consolidate if they existed before) strong relationships between entities from both regions regardless of the financial support received or obtained as a consequence of this joint participation.

- The study on S&T cooperation between the EU and South Africa (18) brings evidence of the impressive progress which has been made in cooperation in Science and Technology between South Africa and the European Union since the two parties entered into the Agreement of 1997. South African researchers have increased their involvement in FP7 to the extent that the country stands fifth for the level of participation by Third Countries (156 signed grant agreements, and a total EU contribution of € 28 million).

A main result of the Agreement is the participation of South African researchers and students in the various networks and projects of the EU. This has led to knowledge exchange and technology transfer, mutual learning and stronger international visibility for South African researchers. In some cases, capacity in new domains has been developed.

- The first five years of S&T cooperation between the EU and New Zealand have been fruitful for both sides, as analysed in the evaluation study (19). New Zealand is full partner of the EU in 33 consortia agreements (as of March 2013), with the most active areas being the Marie Curie Actions and the "Food, Agriculture and Fisheries and Biotechnology" Theme.

Furthermore, international cooperation activities have reinforced the external dimension of the European Research Area.

- The study on EURAXESS (14) highlights the fact that the EURAXESS Links Initiative has been efficient in maintaining the link with European researchers abroad to keep them updated on research policy, funding and

cooperation opportunities in Europe, while reinforcing their role as catalysts to boost cooperation with their host countries (USA, Japan, China).

5. MONITORING TRENDS

This section presents key outcomes in monitoring activities of the implementation of FP7.

5.1. Key Patterns of Participation in FP7

The magnitude of FP7 is illustrated by the impressive participation figures highlighted in the Sixth FP7 Monitoring Report (Monitoring Report 2012) (20):

- The aggregate figures for the period 2007-2012 show that for a total of 379 concluded calls, 113,508 proposals were submitted out of which 103,894 were included, and 20,190 – involving 105,909 applicants – were retained for negotiations. The average success rate for the five-year period was 19% in terms of proposals and 22% in terms of applicants.

For the concluded calls with closure dates in 2007-2012, and as of February 2013, 18,394 grant agreements have been signed, which involve 99,346 participants and will be funded by the EU with an amount of € 32.5 billion.

Specific Programme	Signed Grant Agreements	Participants	EU Contribution (€ M)
COOPERATION	5,606	64,410	20,567
IDEAS	3,297	3,776	5,289
PEOPLE	7,801	14,500	3,371
CAPACITIES	1,577	15,071	3,002
EURATOM	113	1,589	293
TOTAL	18,394	99,346	32,522

Table 6. Numbers of signed grant agreements, participants and EU contribution (in € million) for FP7 calls concluded during the period 2007-2012 by Specific Programme (as of February 2013)

- In terms of participation patterns, higher and secondary education organisations (HES) have been the main beneficiaries of FP7, both in number of applicants and requested EU funding. It is also noteworthy that participation of industry, notably SMEs, has regularly increased since the launch of FP7.

As illustrated in Chart 4, all types of organisations (but "Other") have recorded a steady growth in FP7 financial contribution over the years of FP7 implementation, along the increasing amount of FP7 financial contribution. While higher and secondary education organisations (HES) have recorded a higher growth than other types of organisations, all of them show a similar trend of more than € 100 million increase in FP7 financial contribution per year.

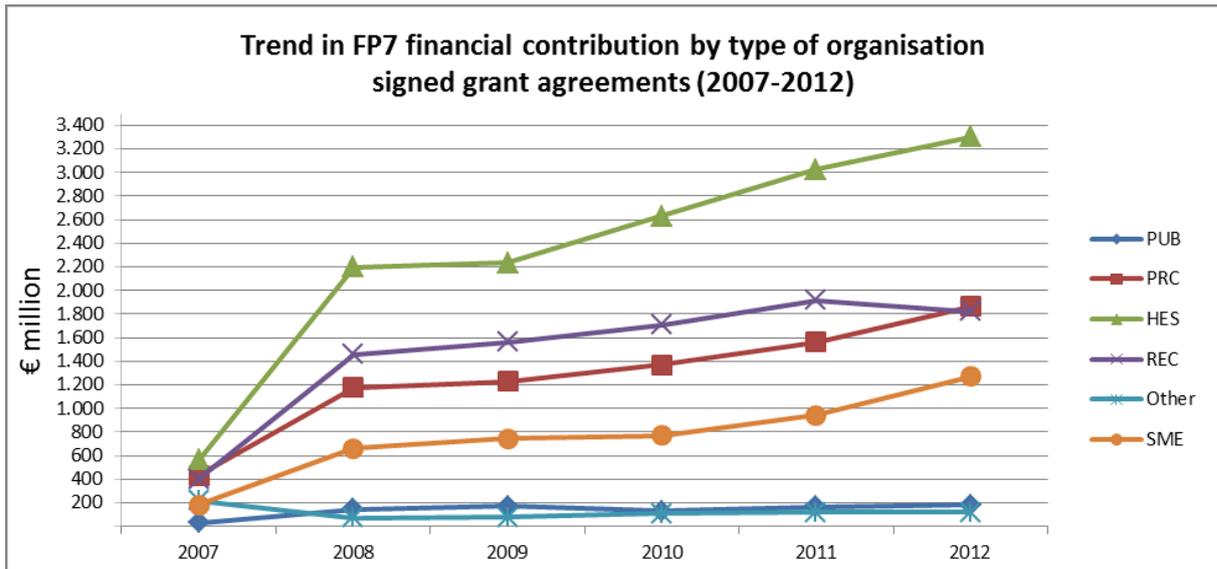


Chart 4. EU financial contribution (in € million) in the signed grant agreements for FP7 calls concluded in 2007 - 2012 by type of organisation

- The significant international dimension of FP7 is illustrated by the fact that from 2007 to 2012, the Framework Programme has funded projects with participant organisations from 170 countries. Over this period, Switzerland, Norway and Israel have ranked in the top three positions within the group of Candidate and Associated Countries for the number of applicants and for the requested EU contribution.
- As regards the gender dimension of FP7 participation, it is estimated that 21,1% of contact persons for scientific aspects in FP7-funded projects are female. A more detailed analysis shows significant variations among the different thematic areas of FP7, as well as among the EU Member States.

5.2. Increasing Participation of SMEs

The tenth Progress Report on SMEs Participation in FP7¹⁴ (22) highlights the increasing participation of micro, small and medium-sized enterprises in FP7 since the launch of the Programme. As of June 2013, SMEs made up 19,1% of all participations in the Cooperation Specific Programme, overstepping the target of at least 15% of the funding available under "Cooperation" being allocated to SMEs¹⁵ which had been set by the legislator.

Furthermore, as regards the composition of project consortia, 74,6% of the grant agreements in the thematic priorities of the Cooperation Specific Programme involve at least one SME. More than 10% of the project consortia are led by a coordinator from an SME.

¹⁴ The Tenth SME report analyses SME participation in Grant Agreements in FP7 that were signed up to 20 June 2013.

¹⁵ Decision no 1982/2006/EC of the European Parliament and of the Council of 18 December 2006 concerning the Seventh Framework Programme of the European Community for Research, Technological Development and Demonstration activities (2007-2013)" – Annex 1, I. Cooperation.

The increasing participation of SMEs has accelerated since the implementation of the Work Programmes 2011, in all thematic fields of the Cooperation Specific Programme (see Chart 5). Significant increase has been achieved in the "Health", "Food, Agriculture and Fisheries, Biotechnology" (KBBE) and "Environment" Themes.

This achievement results from the implementation of specific measures to engage SMEs into FP7, ranging from the selection of topics of particular relevance to SMEs to calls ring-fencing specific SME budgets, which have proved their effectiveness.

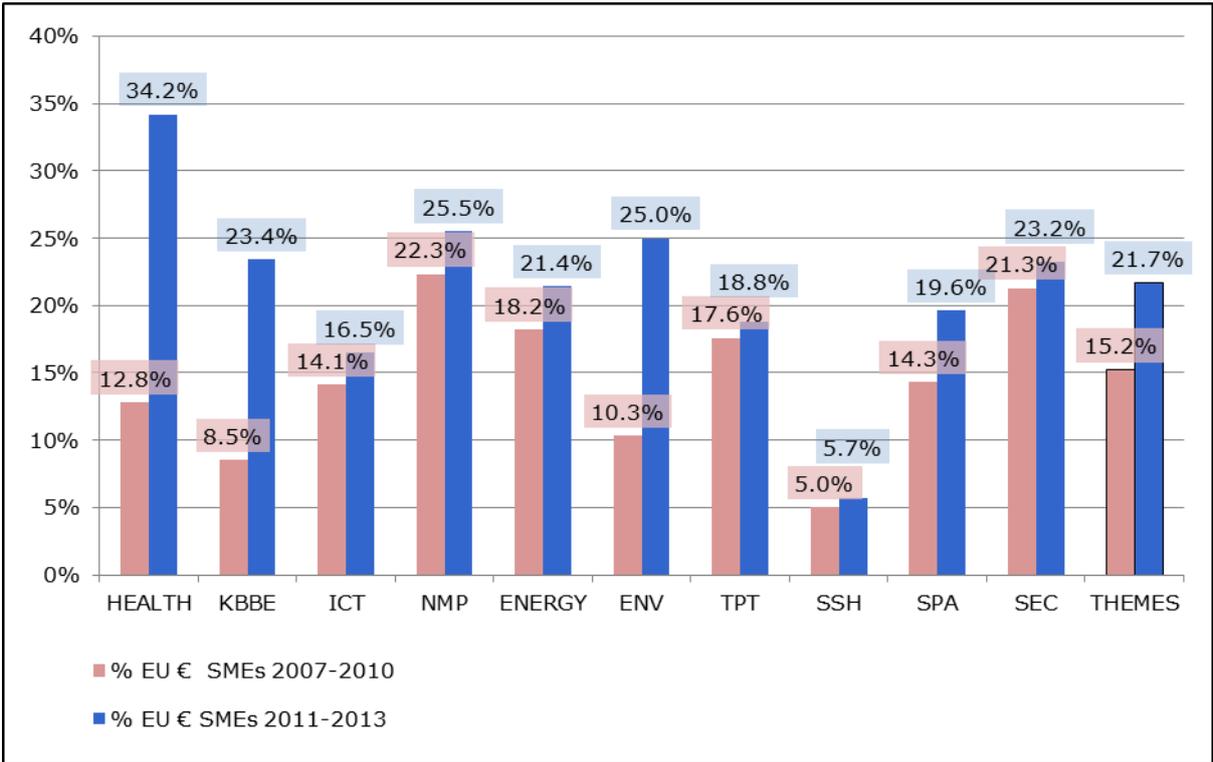


Chart 5. Comparison of the share of the EU contribution going to SMEs, for each Theme within the Cooperation Specific Programme, before and after 2011

5.3. Gender Equality

Promoting gender equality is one of the priorities set by the Commission for the achievement of the European Research Area. In this context, the main studies were:

- The study on Public Health Research (10) shows that the percentage of female coordinators in projects has increased over time since FP5, notably in the last years of FP7. While men accounted for 74% of coordinators in completed projects (82% in FP5, 67% in FP6, 76% in FP7), the percentage of female project coordinators was 55% in the 120 ongoing FP7 projects (as of 31 July 2012).

- The She Figures 2012 report (25) provides a comprehensive analysis of the role of women in research, science and technology in Europe. A main finding is the persistent under-representation of women in scientific disciplines and careers, while the proportion of female researchers in Europe is increasing. Women represent only 33% of European researchers and 20% of full professors. In terms of career development, the report identifies a glass ceiling effect, blocking women from top positions. Women are under-represented at the highest decision-making level. For instance, on average in EU-27¹⁶ 15,5 % of institutions in the Higher Education sector are headed by women and 10% of universities have a female rector.

¹⁶ The report was published before Croatia became the 28th EU Member State.

6. FOLLOW UP, DISSEMINATION AND USE OF RESULTS

This section gives insight into the use of evaluation results, through the follow up and dissemination of their outcomes and recommendations.

6.1. Follow up and Dissemination

Follow up actions include a wide diversity of tools.

- The interim evaluations of the Clean Sky, Fuel Cells and Hydrogen (FCH) and Innovative Medicine Initiative (IMI) Joint Undertakings, which were mandatory on the basis of legal requirements, were followed by a report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions¹⁷.
- Drawing up an action plan has been used in several studies, notably those related to management (Executive Agencies and Joint Undertakings) and international cooperation Agreements. These action plans have been elaborated either by a Task Force involving representatives of all stakeholders (Executive Agencies and Joint Undertakings), or by international partners (international cooperation Agreements).
- In terms of dissemination of the study's findings and recommendations, three main communication channels are used. At the internal level, it is common practice to send the final reports to colleagues within the DG and the research family DGs, and to prepare a note highlighting the outcomes of the study.

At the external level, studies' outcomes are generally presented to stakeholders at either established meetings (NCP, for example) or at events which are specially set up. For example, following the study on European Innovation Partnerships (7), a round table will be organised to gather stakeholders' inputs on public sector innovation.

Final reports of evaluations which were legally mandatory (JUs, ERCEA and REA) are sent to the European Parliament, the Council and the European Court of Auditors in accordance with the provisions of their respective regulations.

The majority of evaluation studies and reports have been published on the DG RTD's EUROPA website, usually twice, on the evaluation webpage and on the service's webpage. Furthermore, half of them are also accessible on the EU bookshop webpage.

¹⁷ Brussels, 8.5.2014, COM(2014) 252 final available at: <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1403794340571&uri=CELEX:52014DC0252>

Webpage	Reference number of the study (see Table 1)	Access
DG RTD's website	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 16, 17, 18, 19, 20, 22, 24, 25, 26, 27, 28, 29, 30, 32	Public access (Europa)
Internal communication platform	14	EURAXESS Extranet
EU bookshop only	23	
Not yet available but will be published on DG RTD's website	21, 31	-
Not published	9, 15	-

Table 7. Online publishing

(As of 18 August 2014)

6.2. Use of Results

In line with the motivations described in section 2.3, three main types of use of evaluation results can be identified, which are not exclusive.

a) Designing the future activities of the running programme

Results from the analysis of the effectiveness and impact of a running programme are used to identify desirable adjustments in the next phase of its implementation. The outcomes, in the form of recommendations and assessment of future options are taken into account when designing the next activities and initiatives.

- For example, the outcomes of the study on Coherent Development of Research Policies (15) will be taken into account when shaping the 2016-2017 Work Programme.
- The ESFRI Implementation Group will use the results of the study (12) and its assessment matrix to assess projects for the ESFRI 2016 Roadmap update.
- The findings and recommendations from the study on European Innovation Partnerships (7) are used by the services to strengthen the implementation of the five on-going EIPs.

b) Feeding into the decision-making process and helping define the next strategic and policy orientations

Evaluation studies provide evidence base and information to make sound decisions about the next strategic and policy orientations. A number of evaluation studies have notably been used as inputs to the ex-ante impact assessment of Horizon 2020.

- The recommendations from the study on RSFF (8) have contributed to designing the successor instrument in Horizon 2020, and provide input in the ex-ante evaluation of the same RFSS.
- The recommendations from the study on Research PPPs (3) were taken into account during the preparation phase of the new contractual PPPs in Horizon 2020.
- The study on European Innovation Partnerships (7) has raised the attention of the Competitiveness Council, and the findings and recommendations have informed current and future policy-making.
- Building on the recommendations from the Public Sector Innovation report (29), the Commission has stressed the importance of public sector innovation in the Communication "Research and Innovation as Sources of Renewed Growth" adopted on 10 June 2014.
- The results and recommendations of the study on the environmental Impacts of research and innovation policy (28) have inspired the work on Horizon 2020 indicators in the environmental field. The study also produced several case studies that have inspired the Strategic Programme 2016-2017.
- The recommendations from the international cooperation-related evaluation studies (16, 17, 18, 19) contributed to identify S&T areas and instruments for which there are promising prospects for developing the cooperation. These studies have provided a basis for sound decision about the renewal of the S&T Agreements for the next period.
For example, the study on S&T Cooperation between the EU and New Zealand (19) is a valuable input to prepare the future EU-NZ Joint Science and Technology Cooperation Committee plenary session in December 2014 and more largely to contribute to policy development of the bilateral relationship for S&T with New Zealand.

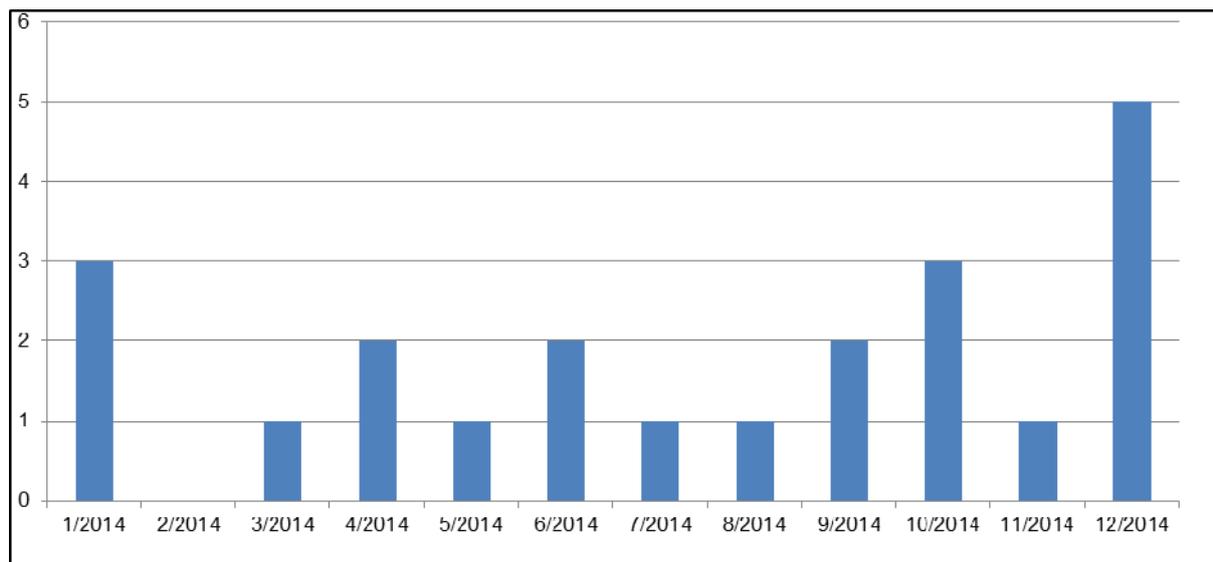
c) Results are used by expert groups as a basis for further discussion or in other fora

In most reports with evaluative information, the findings, which are primarily of exploratory nature, will feed in further work or discussion by expert panels.

- For example, the Commission has initiated an ambitious cooperation with the OECD in the framework of the Public Sector Innovation Observatory. The objective is to implement some of the more operational recommendations made by the Expert Group in the study on Public Sector Innovation (29), such as a network of national contact point for public sector innovation, a co-creation space, a dynamic innovation toolbox and even pilots for concrete capacity building in Internet-based courses on design of public procurement for innovation or smart regulation.

7. OUTLOOK

Based on the information provided by the services in the DG RTD Evaluation Plan as of 23 June 2014, twenty-two evaluation studies and six reports are planned to be completed in 2014 by DG RTD. Most of these evaluation studies are ex-post thematic evaluations and horizontal or cross-cutting impact studies, which will provide evidence for the ex-post evaluation of FP7, which will be carried out by an independent high-level Expert Group in 2015¹⁸.



1/2014	3/2014	4/2014	5/2014	6/2014	7/2014	8/2014	9/2014	10/2014	11/2014	12/2014
International cooperation (2) SMEs	PEOPLE	Regions of Knowledge Research Potential	Energy	Eurostars Research infrastructures	Transport	NMP	Environment Innovation	Horizontal studies (2) International cooperation	Euratom	KBBE Horizontal studies (2) International cooperation (2)

Chart 6. Distribution of evaluation studies (completion date) over the year 2014

¹⁸ Article 7 of the EC Decision No 1982/2006/EC concerning the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007-2013).

ANNEXES

Annex 1. Fiches

Annex 2. Methodology of the Evaluation Studies and Reports with Evaluative Information

Annex 3. Methodology of the Report

Annex 4. List of Acronyms

Annex 1. Fiches

Evaluation studies

Innovation - How to Convert Research into Commercial Success Story? Part 1: Analysis of EU-funded Research Projects in the Field of Industrial Technologies

1. Aims of the Evaluation Study

The subject of the contract, divided into two studies, was to identify how to bridge the gap between research outputs and the access to the market.

The first study aimed to identify the factors affecting either the nature and pattern of the research itself, or the process and steps following the completion of the research phase. It was based on a fieldwork analysis of the pathways, from completion of EU-funded research projects, leading or not to the market, and dissemination/exploitation of results generated by such research work.

2. Key Findings

- Two main types of innovation pathways were identified:
 - o For the majority of cases the organisations and individuals involved in the market-oriented exploitation process had to put additional effort into transforming their research outcome into a commercially relevant and available product or service. Thus, their pathways to market-oriented exploitation became rather non-linear and complex as they were affected by technological set-backs, feedback loops with other (parallel) innovation or R&D projects etc.
 - o For a few cases, a direct and almost linear conversion of research outcome into a commercial success was actually found. They managed to convert their research in a very direct, linear way into a product or service available to the market without including major additional development steps.
- 50 impact factors were identified as affecting the success of market-oriented exploitation processes ranging from the type of research conducted, the composition of the original research consortium, management and governance of research and exploitation processes to international competition, standardisation and regulation. The most effective of these impact factors is market pull.

Recommendations (extracts):

RDTI policies are increasingly using support “systems” instead of individual collateral funding schemes providing the chance to have one’s research idea or concept being supported all the way through the innovation cycle. There are modifications of existing RDTI policies that will help to increase the innovation potential:

- Funding organisations and programmes need more flexibility because projects and commercialisation pathways are not uniform.
- Management capacities and capabilities of consortiums and organisations need to be strengthened. To this end, requirements should be raised to develop management strategies and routines for day-to-day business as well as risks and emergencies.
- Funding additional activities should be implemented, from entrepreneurial training measures for researchers to evaluating the performance of project coordinators.

Authors: KMU Forschung Austria (Austrian Institute for SME Research) in cooperation with Oxford Research AS

Weblink to the study: http://ec.europa.eu/research/industrial_technologies/pdf/how-to-convert-research-into-commercial-story-part1_en.pdf

Innovation - How to Convert Research into Commercial Success Story?

Part 2: Analysis of Innovation Successes in the Field of Industrial Technologies

1. Aims of the Evaluation Study

This study started from a set of important new technologies which have been implemented in industry to the upstream research activity which has contributed to produce those technologies. This approach allowed identifying success factors and obstacles affecting either the nature and pattern of the research itself or the process following the completion of the research phase until take up by industry.

2. Key Findings

- The NMP market is not a single market but a series of enabling technologies that provide ground-breaking solutions to critical challenges in various industries. New Products and New Materials categories proved to have comparable innovation trajectories. In case of New Production, one has to deal with different types of activities, decisions and challenges when compared with New Products and New Materials, and these differences should be taken into consideration when developing effective policy measures.
- Rather than being a chain of subsequent steps, the NMP innovation trajectory represents a continuous process with close interrelations between various parallel activities. While from a strategic perspective, the objective of these activities remains the same all the time, the way these activities are performed operationally evolves over time.
- An activity playing a key role in the innovation trajectory refers to the interaction with users, designers and engineers, which, in case of successful innovations, happens throughout the whole innovation process.
- Successful NMP innovations result from a combination of both technology push and market pull, i.e., there needs to be a clear demand for the innovation, but at the same time, the technology should be at the level that is advanced enough to satisfy that demand and to create new markets.

Recommendations (extracts):

- Recommendations on the process improvement for FP7 - and future H2020-related actions from a project management perspective:
 - o Introducing evidence-based systematic framework for NMP project selection, monitoring and evaluation;
 - o Taking into account the continuous and evolutionary nature of innovation activities;
 - o Developing a standardised monitoring system.
- Recommendations on supporting technology push of NMP innovations:
 - o Funding innovation cycle in multiple phases;
 - o Extending funding towards closer-to-market activities;
 - o Supporting high-tech SMEs with a new SME Instrument.
- Recommendations on supporting market pull of NMP innovations:
 - o Encouraging interaction with end-users;
 - o Going beyond technological innovation;
 - o Stimulating (pre-commercial) public procurement;
 - o Enhancing the link between regulation and innovation.

Author: PricewaterhouseCoopers

Weblink to the study: http://ec.europa.eu/research/industrial_technologies/pdf/how-to-convert-research-into-commercial-story-part2_en.pdf

Final Assessment of the Research PPPs in the European Economic Recovery Plan: Factories of the Future; Energy-efficient Buildings; European Green Cars Initiative

1. Aims of the Evaluation Study

The study aimed to evaluate the contribution of the three research public-private partnerships (PPPs) launched in November 2008 as part of the European Economic Recovery Plan in their respective industrial areas, and to make recommendations regarding the implementation of research PPPs within Horizon 2020.

2. Key Findings

- The PPPs have proved useful in strengthening the European value chains and in particular in giving a role to SMEs.
- Research PPPs have strong potential for a good overall leverage effect for private investment, and have boosted industrial participation (57 % in PPPs vs 34 % in FP7 Cooperation).
- The stable funding of the research PPPs throughout their 4 years of implementation, as well as the competitive process of distributing the funding without the use of direct beneficiaries gives increased confidence to industry to invest in participating in these projects.
- Research PPPs have moved forward in the latest calls to enlarge their coverage of the innovation chain closer to the market.
- The PPPs have not achieved a regionally balanced engagement as it has been shown that sector specificities have a stronger role in defining funding opportunities than geographical parity.

Recommendations (extracts):

- The governance model of the research PPPs should be underpinned by a higher degree of formalisation, particularly with regard to the roles and duties of the private and public parties to the agreement.
- The research PPP model should be further used, developed and expanded in scope within Horizon 2020 and provided with sufficient funding to achieve a significant industrial effect.
- The PPPs should work under the Horizon 2020 common rules, but its procedures need to be further streamlined and simplified to increase ease of entry into PPP projects for industry, especially SMEs.
- In order to maximise the benefits and widen participation in the research PPP activities and results, awareness about the research PPPs needs to be strengthened, particularly among the often hard-to-reach SMEs.

Composition of the Expert Group:

- Elisa Robles (Chair), CDTI
- Geoff Pegman (Rapporteur), R U Robots Ltd
- Eberhard Bessey, Daimler AG
- Edward Chlebus, Wroclaw University of Technology
- Kim Davis, Research Council of Norway
- Gunnar Muent, European Investment Bank
- Henri Obara, Schneider Electric Industries SAS
- Pietro Perlo, IFEVS, Torino e district
- Leena Sarvaranta, VTT

Weblink to the study: <http://bookshop.europa.eu/en/final-assessment-of-the-research-ppps-in-the-european-economic-recovery-plan-pbKI0213270/>

Second Interim Evaluation of the Fuel Cells and Hydrogen Joint Undertaking (FCH JU)

1. Aims of the Evaluation Study

This second interim evaluation of the FCH JU is a requirement imposed by the establishing Regulation 521(2008) in its Article 11.2. The aim of this evaluation was to assess the quality and efficiency of the FCH Joint Undertaking and progress towards its objectives.

2. Key Findings

- The JU has successfully demonstrated the viability of the Public-Private Partnership (PPP) concept for research in FCH. It has realised an adequate governance structure, created an effective dialogue between industry and research around a common strategic agenda, and has successfully implemented that agenda.
- The expression of a long-term political commitment by EU institutions that is manifest in the FCH JU, coupled with stable funding, has given confidence to industry and helped the sector through difficult times.
- The FCH JU has helped to stimulate new relations including trans-national linkages between the public sectors and private sectors of different Member States and strong communities within the Industry Grouping and Research Grouping.
- The FCH JU continues to be relevant to the grand challenges facing Europe; in particular it supports the climate change objectives, helps improve energy security and contributes to the status of Europe as an international leader in technology upon which the future competitiveness and welfare of the Union will depend.

Recommendations (extracts):

- Governance of the programme needs to ensure that decision-making is more prompt; that more resources are assigned to programme and knowledge management and that the private sector's commitment continues to be comparable to the EU's effort.
- SME participation should be further strengthened through a scheme of financial guarantees as in the Framework Programme and linkage between research projects and venture capital funding from the RSFF to generate new and innovative European companies and businesses.
- The research strategy for the continuation of the FCH JU should focus more sharply on three main principles: alignment on EU policies; areas where Europe has or can achieve leadership; adaptation to changing needs of the sector.
- Finance of future deployment and capacity build-up projects is vital and will require new financial arrangements. The Commission should investigate whether Hydrogen infrastructure can be made eligible for funding within the new National Strategic Reference Frameworks for Structural Funds.

Composition of the Expert Group

- Anneli Ojapalo (Chair), A.Ojapalo Consulting Oy
- Nigel Lucas (Rapporteur), Royal Academy of Engineering
- Helge Holm-Larsen, SME TEGnology
- Dirk De Keukeleere, Ennovation
- Maria Rosaria Di Nucci, Environmental Policy Research Centre of the Freie Universität Berlin

Weblink to the study:

<http://www.fch-ju.eu/sites/default/files/2nd%20interim%20evaluation.pdf>

Second Interim Evaluation of the Innovative Medicines Initiative Joint Undertaking (IMI JU)

1. Aims of the Evaluation Study

The objectives of this study were to assess the progress and achievements of the IMI JU against three criteria: the effectiveness, the efficiency and the quality of research, and to evaluate the progress of the IMI JU towards the objectives set and the level of implementation of recommendations from the first interim evaluation.

2. Key Findings

- IMI has demonstrated the feasibility of large, multi-stakeholder PPPs for research and development in biomedicine. It has become recognized as a world-leading PPP in healthcare.
- This unique model of funding and interaction between the pharmaceutical industry and other key stakeholders has proved to be effective and efficient in delivering projects of relevance to healthcare challenges and building trust between participants. Specifically:
 - o on-going IMI projects have already demonstrated scientific excellence;
 - o IMI-funded projects are effectively addressing key challenges and barriers in the field of biomedical research and development;
 - o IMI's operational implementation and efficiency has significantly improved over the past years.

Recommendations (extracts):

- IMI needs to finalise and implement an articulated communication strategy with clear and measurable goals and objectives, addressing both the key stakeholders and a wider audience.
- Alongside the existing KPIs, aggregated KPIs need to be developed and measured in order to quantitatively demonstrate the IMI impacts and socioeconomic benefits.
- IMI should make an additional effort to increase engagement from a wider range of industry stakeholders.
- The IMI Executive Office should seek further ways of reducing bureaucracy and ensure that it has the optimal organizational structure for the tasks ahead.
- IMI should seek to maximize the potential of its advisory bodies to gain support for the remaining calls and other activities at all levels.
- IMI needs to plan for and design new and more flexible funding mechanisms to ensure the sustainability of current and future projects, where appropriate.

The Panel also formulated recommendations for the future IMI2.

Composition of the Expert Group

- Jackie Hunter (Chair), OI Pharma Partners Ltd.
- Marcin Szumowski (Rapporteur), BTM Mazovia, OncoArendi Therapeutics
- Tom Andersen, European Investment Bank
- Maria Rosaria Di Nucci, Freie Universität Berlin
- Bart Wijnberg, formerly Ministry of Health, Welfare and Sport, Netherlands

Weblink to the study:

<http://www.imi.europa.eu/sites/default/files/uploads/documents/Governance/2ndInterimEvaluationIMI.pdf>

Second Interim Evaluation of the Clean Sky Joint Undertaking

1. Aims of the Evaluation Study

The objectives of this second interim evaluation were to assess the progress and achievements of the Clean Sky JU against three criteria: effectiveness, efficiency, research quality, and to evaluate the progress of the JU towards the objectives set and the level of implementation of recommendations from the first interim evaluation.

2. Key Findings

- The Clean Sky JU has successfully demonstrated the principle of Public-Private Partnership in aeronautics, and has become a central element of the European aeronautic landscape.
- The JU has marked satisfactory progress towards meeting the objectives set. Notably, the technical development of the demonstrators is making satisfactory progress. The Panel believes that by the end of Clean Sky, the demonstration programmes will allow to provide evidence of integration of several technologies and to indicate the potential benefits in a relevant operational environment.
- Overall, the large Clean Sky research and demonstrators portfolio is of high quality.
- While there is no doubt about the quality and the relevance of the technical activities carried out within Clean Sky, the problems of resource allocation together with "slipping" schedules may jeopardize this quality in some cases.
- The Clean Sky governance is efficient in the management of the programme and delivery of calls and projects. However, efforts for increasing the organisational efficiency, reducing the administrative burden and enhancing internal and external communication are still required.

Recommendations (extracts):

- Clean Sky has a lot of ground and flight demonstrations at programme end. Significant attention should be paid towards the most critical and success factors for the programme. Careful monitoring and prioritization of available resources vs. remaining work and vs. technology environmental benefit towards demonstration is recommended.
- Progress towards environmental targets The Panel recommends a more transparent traceability between the ACARE goals and the specific contributions from Clean Sky.
- It is recommended to deepen the existing relationship with both SESAR Joint Undertaking and ACARE aiming to reach a better view within the JU at large about the airlines, Air Navigation Service Providers and other stakeholder communities.
- The Panel notes that, in some cases, the inappropriate choice of subcontractors has led to poor results relative to the project they are related to. The Panel therefore recommends the JU to investigate possible ways of improving the selection process of subcontractors.

Composition of the Expert Group

- François Quentin (Chair), HUAWEI
- Jean-François Brouckaert (Rapporteur), von Karman Institute for Fluid Dynamics
- Enzo Bertolini, Fondation Clément Fillietroz
- Maria Rosaria Di Nucci, Freie Universität Berlin
- Ivonne Herrera, SINTEF Information and Communication Technology

Weblink to the study: http://www.cleansky.eu/sites/default/files/news/clean_sky_-_2nd_interim_assessment.pdf

Outriders for European Competitiveness: European Innovation Partnerships (EIPs) as a Tool for Systemic Change

1. Aims of the Evaluation Study

The study aimed to assess progress and evaluate the overall performance of the European Innovation Partnerships (EIPs), to assess ways to improve the functioning and potential impact of the ongoing EIPs and to identify criteria for future EIPs.

2. Key Findings

- The EIP is the right approach to help enable future European economic growth and welfare.
- The EIPs have been effective in integrating stakeholders, getting early activities on their way, serving as an EU-wide observatory of practice in innovation, and deepening the dialogue between policy-maker and innovator.
- The implementation of the EIPs promises to deliver significant outcomes, and there are sound reasons for the EU to continue promoting the EIP approach, provided that the EIPs target systemic innovation with a strong focus on diffusion of innovation.
- However, the group also expresses concerns that the process has suffered from a complex operational model, hampered by a lack of a dedicated EIP structure and divergence of views within the Commission, insufficient commitment from Member States and weakness to bring in new actors.

Recommendations (extracts):

- On-going EIPs should seek a stronger focus on demand side measures and innovation diffusion, e.g. public procurement, standard-setting, regulation, incentives for adoption, replication and scaling-up of innovative solutions, spreading of best practice.
- On-going EIPs should be more pro-active in bringing in new actors who may have significant relevance for the development of future ecosystems and markets
- On-going EIPs should intensify their ongoing work on indicators and monitoring and evaluation frameworks.
- Future EIPs should:
 - o Be launched only where there are clear needs for systemic change in areas with great innovation potential, societal need, business opportunity and need for partnering across Europe.
 - o Focus on mobilising demand, experimentation and diffusion; be proactive in bringing in new actors; and have clear indicators for success.
 - o Continue as a core element of EU innovation policy, with the Competitiveness Council being more involved and individual Commissioners continuing to chair each EIP.

Composition of the Expert Group

- Esko Aho (Chair), Harvard Kennedy School, Former Prime Minister of Finland
- Pawel Swieboda (Rapporteur), demosEUROPA – Centre for European Strategy
- Sylvia Schwaag Serger, VINNOVA
- Walter Mönig, Federal Ministry of Education and Research of Germany
- Petra Wilson, International Diabetes Federation
- Cristina Garmendia, Genetrix and SYGNIS AG
- Marco Steinberg, Snowcone & Haystack

Weblink to the study: http://ec.europa.eu/research/innovation-union/pdf/outriders_for_european_competitiveness_eip.pdf#view=fit&pagemode=none

Second Interim Evaluation of the Risk-Sharing Financial Facility (RSFF)

1. Aims of the Evaluation Study

The aim of this evaluation was to assess the implementation of the RSFF since its start in 2007 until the end of 2012 with a view to drawing lessons for the design of the proposed debt facility under Horizon 2020.

2. Key Findings

- The RSFF has proved to be attractive to RDI companies and has met or exceeded its loan volume targets (end of 2012 figures, 1 year before its term):
 - o EIB Group loans & guarantees: € 10 billion (expected) / € 11.747 billion (realised)
 - o Leverage effect on EU financial contribution : 10 (expected) / 11.6 (realised)
 - o Additional private investment in research and innovation (i.e. multiplier effect): € 30 billion (expected) / €34.102 (realised).
- Furthermore, the performance in achieving the targeted geographic, sector and beneficiary coverage has improved:
 - o RSFF operations have already been signed in 23 countries;
 - o Capital allocation across sectors with engineering (37%), life sciences and specialty chemicals (25%), ICT and energy (each 16%) represent a good distribution;
 - o There has been an acceleration in the origination of loans towards Research Infrastructures;
 - o The initial lack of outreach to SMEs is tied to the EIB's direct delivery mode which was addressed in good part by the RSI Facility.

Recommendations (extracts):

The experts supported the demand-driven approach taken in implementing the RSFF, and underlined the importance of the Commission's and EIB Group's ability to quickly adapt the design of the instrument to changing circumstances:

- Continue, strengthen and expand the current Partnership
- Provide a scalable Platform
- Complete the instrument and product mix, notably by better targeting of innovative midcaps with specific financing products, including higher-risk finance (such as mezzanine)
- Increase, roll-over and top-up budget resources for "RSFF-2"
- Strengthen the pilot advisory activity
- Address the main risks upfront in the design
- Strengthen the governance system
- Better defined objectives, impact measurement and evaluation
- Build and even more efficient organisation
- Raise pro-actively awareness and market demand

Composition of the Expert Group

- Edwige Avice (Chair), Ecole des Hautes Etudes Diplomatiques et Stratégiques
- William Stevens (Rapporteur), Europe Unlimited
- Erika Mann, Facebook
- Jose-Fernando Figueiredo, AECM, the European Mutual Guarantee Association
- Toivo Maimets, Laboratory of Molecular Biology in Tartu

Weblink to the study:

http://ec.europa.eu/research/evaluations/pdf/archive/other_reports_studies_and_documents/interim_evaluation_report_rsff.pdf#view=fit&pagemode=none

External Evaluation of the Research Executive Agency (REA) and the European Research Council Executive Agency (ERCEA)

1. Aims of the Evaluation Study

The aim of this evaluation study was to conduct an external evaluation of the first three years of operation of the REA (June 2009 – June 2012) and of the ERCEA (July 2009 – July 2012), as provided for in the Council Regulation (EC) No 58/2003 of 19 December 2002 laying down the statute for executive agencies to be entrusted with certain tasks in the management of Community programmes.

1. Key Findings

• Evaluation of the Research Executive Agency (REA)

- The REA is performing well on a wide range of activities. It has been efficient and effective in managing the SME-related actions under the FP7 Capacities Specific Programme (SP), the Marie Curie Actions under the FP7 People SP, the Space and Security research actions under the FP7 Cooperation SP and in providing administrative and logistical support services to all programme areas of the People, Capacities and Cooperation SPs.
- Feedback from key stakeholders and grant beneficiaries is generally positive with regard to the REA's performance.
- Delegating tasks to the REA has proved to be a fully relevant solution to improve cost-effectiveness, thereby enabling the Commission to manage a strongly increasing budget with a less than proportional increase in the overall number of staff. Separating the policy making tasks of the Commission from programme implementation tasks in the REA has enabled both parties to perform better on their core duties.
- The REA has managed its tasks according to initial plans although the full potential for an FP7 wide efficient evaluation support service could not be exploited due to limitations in its Establishment and Delegation acts.
- The REA invested constantly in simplifying its internal organisation.
- The overall performance of the REA and its staff, in particular with respect to time-to-grant (TTG) and time-to-pay (TTP), has gradually improved over time. NCPs are generally satisfied with the service level of the REA and there are some areas where there has been clear improvement (e.g. TTG). By streamlining its internal organisation, the REA has reached most of the performance targets set after three years of operation and overall it is perceived as providing a better service in terms of speed and quality to applicants/beneficiaries and other stakeholders (such as expert evaluators).

Recommendations (extracts):

- Update REA's mandate to improve efficiency of the FP7 administrative and logistical support services;
- Continue efforts to simplify procedures;
- Improve communication with stakeholders;
- Further improve efficiency of internal procedure and use of IT tools;
- Improve staff motivation and career prospects;
- Improve forecasting for the administrative budget;
- Define and monitor performance against a limited number of measurable key performance indicators;
- Enhance visibility of the programmes managed by the REA.

- **Evaluation of the European Research Council Executive Agency (ERCEA)**

- The performance of the ERCEA can be evaluated as very good. It has been efficient and effective in performing its specific tasks being solely the Dedicated Implementation Structure for the ERC, despite the fact that it was only established relatively recently.
- The ERCEA has achieved its objectives. There is a clear match between what the ERCEA was mandated to do and what it is doing.
- There are a number of mechanisms designed to ensure that there is effective coordination between the ERCEA and Commission services, and these mechanisms are working satisfactorily. Through these mechanisms, the Commission has been able to maintain a sufficient level of know-how in relation to the implementation of the FP7 Ideas Specific Programme.
- The ERCEA has made significant efforts to simplify its procedures and grant schemes in order to streamline the internal organisation and alleviate the administrative burden on its beneficiaries.
- Concerning the time-to grant (TTG) defined as the time from invitation to signature of the grants, the ERCEA ranks 1st compared to the other parts of FP7. However, when applying the general definition of TTG (i.e. as the time from call closure to signature of the grants) the ERCEA ranks above the FP7 average.
- Figures on time-to-pay (TTP) show not only compliance with the contractually defined payment time but even substantially better performance. Moreover, there is nearly perfect compliance level with the recovery targets and the ERCEA shows a positive learning curve.
- The ERCEA has succeeded in enhancing the proximity of outsourced activities to beneficiaries by increasing its responsiveness with regard to their questions and by adapting the lead times in the grant management system to the needs of the beneficiaries.
- The ERC as a whole has attained a significant reputation within the scientific community across Europe and worldwide, due also to a dedicated external communication strategy.

Author: Deloitte Consulting

Review of Public Health Research Projects Financed under the Commission's Framework Programmes for Health Research

1. Aims of the Evaluation Study

The objective of the report was to take stock of the impacts, challenges and limitations of EU-funded public health research under the current and previous research Framework Programmes by undertaking a review of completed public health projects carried out under FP5 (action 10), FP6 ("Policy- Oriented Research – Specific Support to Policies") and FP7 ("Optimising the delivery of health care to European citizens"). The review was extended to include descriptive data from on-going projects (n=120).

2. Key Findings

- Impact: There were many examples of well-conducted projects with valuable outputs and several projects achieved significant, additional unintended, beneficial impacts. The majority of projects (76%) planned actions to inform and engage policy makers; 61% of all completed projects provided outputs in the form of reports, models and predictive software; 26% of projects provided best practice recommendations and guidelines and a smaller number (13%) focused on producing outputs related to diagnostic tools.
- Knowledge transfer: There were many examples of well-conducted knowledge transfer with, for the 70 reviewed projects, large numbers of peer-reviewed articles (n=275), and other forms of publication and presentations at workshops and conferences.
For the completed projects, a total of 275 peer-reviewed publications were documented, with 605 more other publications and 1646 presentations at meetings and conferences.

Recommendations (extracts):

- Research on effect of economic policies on equity and inequalities in health, with specific reference to impact of changes in health and welfare provision and public health should be a priority.
- Public health research should be supported more strongly within the EU and nationally and must continue to be free of commercial conflicts.
- Priority setting must review and take into account the outcomes and recommendations of previous EU-funded public health research and focus, the European dimension of research as well as needs of Member States and global public health priorities.

Composition of the Expert Group

- Vincenzo Guardabasso, University of Catania
- Viktória Anna Kovács, National Institute of Food and Nutrition Science, Budapest
- Allyson Pollock, Queen Mary University of London
- Silvia Gabriela Scintee, National School of Public Health, Management and Professional Development, Bucharest
- Susan Southon, Retired
- Göran Tomson, Karolinska Institute

Weblink to the study: http://ec.europa.eu/research/health/pdf/review-of-public-health-research-projects-subgoup1_en.pdf

Small and Medium-sized Enterprises - Participation in FP7 Projects in the Biotechnologies Activity

1. Aims of the Evaluation Study

This report aimed to assess SMEs' performance within EU-funded research projects within the Activity "Biotechnologies" (Activity 2.3 of Theme KBBE) under FP7.

2. Key Findings

- A total of 1744 project partners (participation) were involved in 129 projects within the Activity "Biotechnologies" from 2007 to 2013. Projects had on an average of 13.5 partners, 5 from academia, 4 SMEs, 3 research organisations, 1.2 large enterprises and 0.3 public authorities from the Administration or other type of partners (non-research and education).
- The results in terms of participants, share of funding, added value for the projects and business benefits confirm that the European Commission' efforts to support SME participation in FP7 have paid off:
 - o SMEs received 25% of the EU contribution in. This is well above the EU target of 15%.
 - o SMEs were the best represented organisation type: about 38% of participants were SMEs (here each SME is counted only once, regardless of the number of projects in which they were involved).
 - o On average, 90% of EU-funded projects involved at least one SME.
- Participating SMEs were active in four key areas: Research and Development & Manufacturing (56%), consultancy and services (21%), basic R&D (18%), communication and ITC (5%).
- Role within the projects: Eight SMEs took the lead as project coordinators (out of 129 projects covered by the study) while around 130 led at least one work package – the majority of these (52%) were R&D work packages, followed by project management and service provision (41%).
- SME participation provided important added value for the project:
 - o Bringing research results close to the market: about 46% of the SMEs were involved in the commercial exploitation of results, knowledge transfer and intellectual property rights management.
 - o Promoting innovative solutions: about 71% of the research and technological tasks relied on SMEs specialist profiles, expertise and know-how. This capacity and flexibility to meet "customers' specific and unique needs" was crucial to fulfilling project requirements.
 - o Smooth coordination and management of projects: about 41% work packages on project management were led by SMEs. Tasks performed included: dissemination and communication of project results, preparation of intermediate and final reports, consultancy services (such as market analysis) and life cycle assessments.

Author: DG RTD, Unit F.2 BioBased Products and Processing

Weblink to the study:

http://ec.europa.eu/research/bioeconomy/pdf/small-and-medium-sized-enterprises_en.pdf

Assessing the Projects on the ESFRI (European Strategy Forum for Research Infrastructures) Roadmap

1. Aims of the Evaluation Study

The main objective of this study was to evaluate the financial and managerial maturity of 35 research infrastructure projects on the ESFRI Roadmap and to assess whether these projects are likely to be implemented by 2015 in order to fulfil the commitment of the Innovation Union Flagship Initiative that "by 2015, 60 % of the European Research Infrastructures identified by the European Strategy Forum for Research Infrastructures should have completed or launched."

2. Key Findings

Based on an Assessment Matrix, three categories of projects were identified against their level of maturity (*For full names of the projects, please see Annex 4*):

- 8 projects which meet the criteria to be ready for implementation by 2015: BBMRI, EISCAT-3D, ELIXIR, ESS, EURO-ARGO, IAGOS, INFRAFRONTIER and SKA.
- 11 research infrastructures which might be able to achieve maturity by 2015, if substantial actions are implemented to address the bottlenecks and weaknesses identified in terms of financial and managerial maturity: CLARIN, CTA, DARIAH, EATRIS, ECRIN, ELI, EMBRC, EPOS, ICOS, INSTRUCT, and LIFEWATCH.
- 16 research infrastructures that have minimal chances of achieving maturity by 2015. These sixteen research infrastructures include those proposals that recently entered the Preparatory Phase of FP7 (ANAEE, EU-SOLARIS, ISBE, MIRRI, and WINDSCANNER) or are still in the Preparatory Phase (ECCSEL, EU-OPENSOURCE, EURO-BIOIMAGING and SIOS). In other cases (ERINHA, EUROFEL, EMFL and EMSO, as well as COPAL, HiPER and KM3NeT), the research infrastructures have made little progress toward their stated target over the years.

A detailed analysis is presented for each Research Infrastructure.

Recommendations (extracts):

- Most research infrastructures on the ESFRI Roadmap need substantial support and guidance, both in terms of managerial and financial maturity but also regarding stakeholder engagement, project management, user strategy and risk evaluation.
- Ethical issues should not be underestimated.

Composition of the Expert Group:

- Antonella Calvia-Goetz (Chair), European Investment Bank
- Alfonso Franciosi, University of Trieste and Chief Executive Officer, Elettra-SincrotroneTrieste
- Sine Larsen, University of Copenhagen
- John Marks, former Deputy CEO, European Science Foundation
- Karl Tichmann, former Managing Director, Max Planck Institute for Plasma Physics
- Richard Wade, former Chief Operating Officer, Science and Technology Facilities Council
- Milena Zic Fuchs, University of Zagreb

Weblink to the study:

<http://ec.europa.eu/research/infrastructures/pdf/jd-final-aegreport-23sept13.pdf>

Knowledge Transfer Study 2010-2012

1. Aims of the Evaluation Study

The purpose of the Knowledge Transfer Study 2010-2012 was to help set up a monitoring and reporting system to follow up and promote implementation of the Commission's 2008 Recommendation on the management of intellectual property in knowledge transfer activities and Code of Practice for universities and other public research organisations (PROs).

2. Key Findings

- An important finding is that high Knowledge Transfer (KT) policy intensity was found to go together with high national innovativeness (as measured by the European Innovation Scoreboard) and competitiveness (as measured by the Global Competitive Index). However, no noteworthy correlation was found between KT policy intensity and the traditional KT performance indicators (e.g. patents, licenses, spin offs). This could indicate that other forms of knowledge sharing e.g. in the form of open innovation are gaining more ground in Europe.
- Taking all countries, all Recommendation themes and all related survey questions together, and considering also plans for future KT policies, the overall level of implementation in 2012 was found to be on average 53%. This means that the Recommendation's targets are currently reached approximately by half. "Implementation level" refers to fulfilling the Recommendation's single items, the "facilitating practices" mentioned in the Recommendation's annex, and a few further questions added by the study team. There are strong differences between European countries not only in the overall level of implementing the Recommendation but also in implementing the Recommendation's themes and items.
- Summarising the results on the implementation of the Code of Practice indicates that three of the principles are seemingly not widespread let alone generally accepted among PROs: the creation of coherent IP portfolios and patent/IP pools (CoP 5), the existence and publication of a licensing policy (CoP 11), and the publication of start-up policies (CoP 12). The other 15 principles are at least partially accepted and in the majority of surveyed institutions implemented. Universities, universities with hospitals and non-university institutions have specific transfer patterns. A general backlog in regard to the implementation of the CoP principles appears for small PROs and PROs with small transfer offices.

Recommendations (extracts):

- Supporting PROs' Knowledge Transfer (KT) strategy, policy and procedure development:
- Improving knowledge transfer capacities and skills
- Promoting broad dissemination of knowledge while protecting IP
- Facilitating cross-border research and Knowledge Transfer

Authors: Empirica in consortium with Fachhochschule Nordwestschweiz and Maastricht Economic Research Institute on Innovation and Technology

Weblink to the study: http://ec.europa.eu/research/innovation-union/pdf/knowledge_transfer_2010-2012_report.pdf

Evaluation of the EURAXESS Project (2008-2012)

1. Aims of the Evaluation Study

The aim of this study was to assess the overall progress achieved after the re-branding and regrouping of EURAXESS activities in 2008 and to evaluate the impact of the functioning of EURAXESS Links in the US, Japan and China on the networking of European researchers.

2. Key Findings

PART I – Assessment of the overall progress achieved after the re-branding and regrouping of EURAXESS activities (2008):

- The level of awareness of EURAXESS Services and Jobs among the researchers' community has slightly increased. Among the different branches, awareness is higher for the EURAXESS Jobs portal than EURAXESS Services.
- Coordination of Information and Communication activities within national EURAXESS networks and with the EC is considered to be effective.
- Training provided at European level within the current framework is considered of good quality and relevant but frequency should be increased. There is also a demand for covering topics not included so far (from issues linked directly to researchers' mobility to others more related to management of staff and use of communication tools).
- The main risk identified for the EURAXESS network is the sustainability of the network. Stronger political support at European and national level are considered crucial for ensuring the sustainability of the initiative.
- A stronger involvement of industry partners in EURAXESS Jobs was very much praised by the stakeholders encountered. In particular, allowing industry partners to publish their vacancies on the portal was deemed as a good way to increase opportunities for researchers and to strengthen cooperation with private sector.

PART II – Evaluation of the impact of EURAXESS Links in the USA, Japan and China on the networking of European researchers

- Evidence collected for the evaluation of EURAXESS links in the period 2008-2012 pointed out that EURAXESS Links responds to most of researchers' needs in the US, Japan and China.
- Many researchers expressed their problems in permeating the vast array of local institutions in the countries where they are based, due to intrinsic complexity, the multiplicity of actors and, in the case of China and Japan, the relevance of language skills that European researchers often lack.
- Awareness of EURAXESS Link is varied. It appears to be higher in Japan and China than in the US.
- Among good practices worth implementing across the EURAXESS Links network, it is worth considering the high level of collaboration between the IO and EU Delegation, especially in China and in Japan. Networking events in all three countries have also received nearly universal praise, as has the European Funding Guide, which has already been adopted elsewhere after initial success in Japan.

Authors: Deloitte Consulting and The Evaluation Partnership

Evaluation of the "Coherent Development of Research Policies" Programme

1. Aims of the Evaluation Study

The main objective of the study was to assess the results of the CDRP programme's implementation against the objectives of the programme and its rationale. The study contributes to the FP7 ex-post evaluation due in 2015 and it provides recommendations about future policy-making and improvement of programme management efficiency in the context of Horizon 2020.

2. Key Findings

- The CDRP programme has largely met the expectations regarding the building up of an evidence base for decision making. CDRP has been more a collector and synthesizer of existing knowledge rather than a producer of new knowledge. Part of CDRP's relative advantage comes from doing this well.
- One of the major strengths of CDRP has been its ability to recruit, as authors of the studies and analyses, competent experts from European administrations, consulting companies, research institutes and universities, even if the same names regularly re-occur.
- CDRP is not driven by an overarching strategic framework which would shape programme actions in a coherent and consistent way. It is demand-led.
- The programme shows some fragmentation: many actions are led, the scope is large.

Recommendations (extracts):

- Dissemination should be improved, with better involvement of Member States.
- More pro-activity regarding anticipation of future policy trends and needs should be developed. Policy research should be forward looking and not just reactive; space should be left for more innovative/experimental approaches.
- In the process of becoming policy-led (under Horizon2020), DG R&I needs to build up its own capabilities and smartly use the budget for appropriate outsourcing.

Composition of the Expert Group

- Helena Acheson (Chair), MFG Innovationsagentur für IT und Medien
- Rapporteur Tiia Raudma (Rapporteur), Ministry of Education and Research, Estonia
- Tarmo Lemola, Ramboll Management Consulting
- Teresa Patricio, ISCTE-Lisbon University Institute
- Christian Saublens, EURADA

Review of the Science and Technological (S&T) Cooperation between the European Union and the USA

1. Aims of the Evaluation Study

The study aimed to conduct a review of EU-US Agreement on S&T in the context of preparation for its renewal.

2. Key Findings

- From the indicators on science and technology, it is clear that the cooperation on science and technology between US and EU entities is very intense. The mobility of researchers, the number of co-publications or the technology balance demonstrates that both Parties mutually recognise themselves as key actors in knowledge generation. This situation is not new and even if it is challenged by the emergence of other partner countries, the absolute figures on S&T cooperation show a stable situation.
- The EU-US Agreement on science and technology provides not only for joint participation in the Framework Programme; it also provides a basis for broader or more intense collaboration of the US with EU Member States.
- The strong policy movement towards innovation support in close relationship with research in an open innovation context is still not yet well linked to the rest of activities supported by the agreement. Here, the policy fragmentation both on the US and in the EU/MS constitutes a barrier against a deeper relationship in the context of the knowledge triangle between research, innovation and higher education. A consistent effort to obtain better relationships among these elements is necessary.

Recommendations (extracts):

- The first subset of recommendations are mainly identified to reinforce the political dimension of the EU-US Agreement on S&T and the potential advantages of using it as a platform for more intense long-term, strategic bilateral cooperation:
 - o Commission and Member States should coordinate better their own S&T strategies with respect to the US in the framework of the new international strategy and HORIZON 2020 and to jointly present it to US authorities with a coordinated voice.
 - o It is necessary to better utilise the full potential and scope provided by the Agreement to support innovation policies and instruments.
- The second subset of recommendations were identified to facilitate the transfer of the policy goals to the implementation domain keeping in mind the need to increase the interest of public and private S&T entities in the EU and the US to cooperate:
 - o Both parties should enforce operational middle level agreements (at the level of programme managers or in specific programmes) as specific joint cooperation instruments.
 - o Better coordination and promotion of open access of researchers to research infrastructures and an increasing use of e-science should be necessary to optimize the scientific investments.

Composition of the Expert Group

- Helena Acheson, MFG Innovationsagentur für IT und Medien
- Gonzalo León, Universidad Politécnica de Madrid

Weblink to the study: <http://ec.europa.eu/research/iscp/pdf/publications/evaluation-eu-us-agreement-st.pdf#view=fit&pagemode=none>

Review of the Science and Technological (S&T) Cooperation Agreement between the European Union and Russia

1. Aims of the Evaluation Study

The study aimed to conduct a review of EU-Russia cooperation in the field of research over the period 2008-2013, assessing in particular the implementation and impact of the S&T Cooperation Agreement concluded between the European Community and the Russian Federation ("EU- Russia S&T Agreement").

2. Key Findings

- EU-Russia S&T cooperation was very intensive, mostly well balanced and efficient and successful.
- The existence of the S&T Agreement provides a balanced legal basis for the cooperation. The text of the current S&T Agreement provides a flexible framework for developing cooperation, including the area of research-based innovation.
- However, there still exist a number of administrative obstacles and fundamental barriers, which are hampering still more efficient cooperation.
- In addition, there are technical and administrative barriers such as customs and visa issues, and differences in administrative procedures of funding organizations, which complicate the S&T cooperation in practice.

Composition of the Expert Group

- Päivi Karhunen, Aalto University School of Business
- Uwe Meyer, Um-Russlandconsult
- Pavel Kadochnikov, Russian Academy of Foreign Trade
- Vladimir Popov, University of Greenwich

Weblink to the study: <http://ec.europa.eu/research/iscp/pdf/policy/eu-russia-st-report-080413.pdf#view=fit&pagemode=none>

Review of the Science and Technological (S&T) Cooperation Agreement between the European Union and South Africa

1. Aims of the Evaluation Study

The study aimed to conduct a review of EU-South-Africa cooperation in the field of research, assessing in particular the implementation and impact of the S&T Cooperation Agreement concluded between the European Community and South-Africa ("EU-South-Africa S&T Agreement").

2. Key Findings

- Impressive progress has been made in cooperation in Science and Technology between South Africa and the European Union since the two parties entered into the Agreement of 1997. Starting from a low base over the FP4 - FP6 period, South African researchers have increased their involvement in FP7 to the extent that in absolute terms the country stands fifth for the level of participation by third countries.
- For the EU, South Africa is an important collaborator and an interlocutor for relations with the rest of Africa; indeed it is a strategic partner.
- The impact of the cooperation on the SADC region has been limited while the Africa call has reinforced South Africa's leadership role on the continent. CAAST-Net has served to build the associated networks.
- South Africa's goal of increasing access to EU research networks and facilities has been realized, resulting in knowledge exchange, technology transfer and mutual learning.
- Key to South Africa's successes have been political commitment on both sides, the ESASTAP support mechanism, the proactive role of DST's Brussels office, and South Africa's comparative advantage in certain scientific fields (e.g. health, environment).
- Improved synergy of the bilateral agreements between South Africa and individual EMS is likely to increase the return on investment in FP type activities going forward.

Recommendations (extracts):

- Horizon2020, with its strong intent to draw in the business sector will present new challenges that must be prepared for. The promotion of public sector-private sector links to advance the commercialization of research is a goal common to the EU, EMS and South Africa. All efforts should be made to learn from good practice, especially in relation to managing the resulting intellectual property.
- There is a urgent need (on both sides) to develop a user-friendly information system that will capture the outputs of cooperative activities in a standard form that allows for analysis and subsequent evidence-based decision making.
- Though difficult to achieve in practice, consideration might be given to creating a forum of S&T counsellors in South Africa that could work together to ensure a harmonized approach to working with the SADC and African Union, and to find synergies to improve coordination between the EMS bilateral agreements with South Africa and the Framework Programme.

Composition of the Expert Group

- Inge Ruigrok, Universidade Nova de Lisboa
- Michael Kahn, Research & Innovation Associates

Weblink to the study:

http://ec.europa.eu/research/iscp/pdf/policy/LR_Review_of_the_S&T_cooperation_Agreement_between_EU_and_SA_B5_S&R_2.pdf

Review of the Science and Technological (S&T) Cooperation between the European Union and New Zealand

1. Aims of the Evaluation Study

The study aimed to assess the EU-New Zealand cooperation in the field of research, in particular the implementation and impact of the S&T Cooperation Agreement concluded between the European Community and New Zealand ("EU-New Zealand S&T Agreement").

2. Key Findings

- The independent review of our bilateral S&T EU-New Zealand agreement launched in March 2013 concluded in September 2013 to a positive assessment of our bilateral cooperation.
- In five years, New Zealand is already full partner of the EU in 33 consortia agreements to date.
- The review shows success stories in many fields: Resilient structures, Coordinating Action in Plant Sciences (ERA-CAPS), Bioengineering in medicine, University Reform, Globalization and Europeanization (URGE), Optimisation in industry and services (OptAli), Pacific European network (PACENET) and Antarctic Research. Solid areas of synergy include also research on health issues, land use, climate change, the Antarctic and resilient buildings.

Recommendations (extracts):

- As well as the areas above, many other areas where research cooperation is already and can in the future be fruitful for example, food security and safety, the modelling of agriculture systems, decision theory applied to agriculture, evolution theory, shellfish farming, medicinal chemistry, geothermal energy, early in-utero development and maternal impact, bone health and further cardiovascular research.
- Funding incentives to New Z researchers whose project proposals to the EU are successful
- Reducing bureaucratic procedures which discourage participation and increase cost
- More clarity and a wider circulation of the Road Map produced by the Joint Science & Technology Cooperation Committee (JSTCC)
- There is a need to increase uptake of the research results into industry and other ways to improve translation of research into innovation.

Composition of the Expert Group

- Chantal Khan-Malek, CNRS
- Malcolm Windsor, NASCO

Weblink to the study:

http://ec.europa.eu/research/iscp/pdf/policy/eu-nz_report2013.pdf

Reports with evaluative information

Sixth FP7 Monitoring Report - Monitoring Report 2012

1. Aims of the Report

The Commission has a legal obligation to continually and systematically monitor the implementation of the Seventh Framework Programme and its specific programmes and regularly report and disseminate the results of this monitoring (FP7 Decisions (EC and Euratom, Articles 7(1) and 6(1))). The main objective of the 2012 Monitoring Report was to comply with these requirements and to report about the implementation of FP7 in 2012.

2. Key Findings

- During six years of implementation (2007-2012) of FP7, 379 concluded calls received more than 113.000 proposals, out of which more than 103.000 – involving more than 485.000 applicant organisations and individuals – were included in the evaluation procedure, and more than 20.000 – involving more than 105.000 participants – were finally retained for negotiations, with a corresponding requested EU funding of € 32,8 billion. Proposals and applicants had an average success rate of 19% and 22% respectively.
- More than half of all recorded calls in 2012 were launched under the Specific Programme Cooperation. Higher and secondary education institutes (HES) remain in 2012 the main beneficiaries of FP7, both in terms of numbers of applicants and requested EU funding, with respectively 39% and 29% of the total in retained proposals.
- On the participation of Small and Medium Enterprises (SMEs), it is estimated that during the first six years of FP7 implementation, 17% of all participants in signed grant agreements were SMEs.
- On the gender dimension, it is estimated that 21,1% of contact persons for scientific aspects in FP7 funded projects are female.
- The significant international dimension of FP7 is illustrated by the fact that during six years it has funded projects with participant organisations from as many as 170 countries. Outside the group of EU and Associated Countries the biggest participants are the USA, Russia, China, Brazil, and India.
- On the redress and ethical review procedures, out of the 3.160 requests for redress received, only 72 led to a re-evaluation, whereas 1.766 ethical reviews were organised so far with no project having been stopped.
- The average Time-to-grant for the whole of FP7 is 320 days representing an improvement compared to previous years.
- By mid-May 2013, over 16.000 publications were reported by the 3.220 projects for which the final reports have been processed. Almost half of these reported publications were publications in High Impact Peer Reviewed Journals.
- Similarly, these projects reported 505 patent applications.

Author: DG RTD, Unit A.5 Evaluation

Weblink to the report: http://ec.europa.eu/research/evaluations/index_en.cfm

Analysis of the ERA State-of-Play in Member States and Associated Countries: Focus on Priority Areas

1. Aims of the Report

The main objective of this study was to identify and analyse the current baseline situation in each Member State and a limited number of associated countries for each action defined in the ERA communication "A reinforced European Research Area partnership for excellence and growth" detailed in five priority areas: (1) more effective national research systems; (2) optimal transnational cooperation and competition; (3) an open labour market for researchers; (4) gender equality and gender mainstreaming in research; and (5) optimal circulation, access to and transfer of scientific knowledge.

2. Key Findings

- The analysis highlights that only half of the Member State indicators are implemented at least to a medium degree by a clear majority of countries. This rate is particularly low for priority area 4, "Gender equality and gender mainstreaming in research".
- In other priority areas this level was identified for the following indicators: joint research agenda initiatives subject to common ex post evaluation; policies and measures to ensure grant portability; harmonised access to public e-infrastructures and associated digital research services; and electronic identity for researchers.
- Certain fields well covered by measures and activities implemented by public authorities were identified, such as the application of peer-review standards, joint research agendas addressing grand challenges, development of Euraxess and knowledge-transfer strategies.
- It seems that the degree of development of policies is higher in Nordic and western European countries than in central and eastern European countries. The situation of southern countries varies from country to country. A distinction between Member States and associated countries did not appear to be relevant. Indeed, Norway and Switzerland show a high degree of development of policies compared to a majority of Member States.

Future options for monitoring of the European Research Area:

- A multidimensional approach should be developed, including the following.
 - o Public authorities: identification and characterisation of measures implementing the ERA communication.
 - o Stakeholders/implementers (including HEIs and PROs): assessment of the effectiveness of public measures relating to the ERA communication. A survey such as the one launched in 2012 by the Commission could be the means used to collect the information.
 - o Researchers: A survey of this community could provide a less institutional assessment of the real situation in each country and on the state of the mobility of researchers in Europe.
 - o Performance indicators: it is necessary to identify the needs and challenges of different countries and the gaps between the policies implemented and the results. Indicators based on results are more easily identifiable for certain aspects, such as on the proportion of females in research, but more difficult to define for other issues.
- It is necessary to plan stable and regular monitoring exercises, on a two-year basis, to allow the provision of comparable data over time.

Authors: INNOVA Europe, in consortium with Fundación Tecnalia Research & Innovation; Zentrum für Europäische Wirtschaftsforschung; Netherlands Organisation for Applied Scientific Research (TNO); VTT Technical Research Centre of Finland; and JOANNEUM Research Centre.

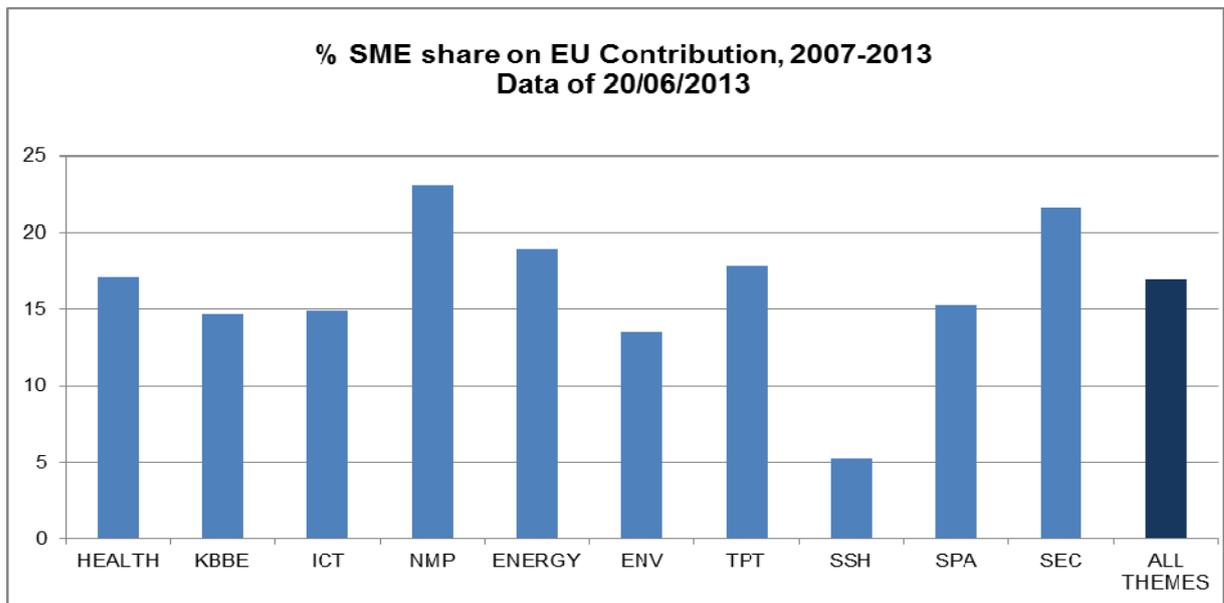
Tenth Progress Report on SMEs Participation in the 7th R&D Framework Programme - June 2013

1. Aims of the Report

The aim of the SME Progress Reports is to monitor the participation of SMEs in the Cooperation Programme within the Seventh Research Framework Programme (FP7). The tenth progress report analyses the SME participation in Grant Agreements signed by 20 June 2013.

2. Key Findings

- The previous issue of the SME Progress Report – published in October 2012 – highlighted that 16.3% of the total Cooperation Programme used budget went to SMEs. The tenth Progress Report shows that this figure has further progressed to 16.9% over the past nine months.



- By the end of June 2013, SMEs made up 19.1% of all participations in the Cooperation programme.
- This report also provides in-depth statistics about the composition of project consortia: 74.6% of all the grant agreements in the thematic priorities involve at least one SME and 11% of all the project consortia are led by an SME coordinator.
- On the basis of the latest figures, the average EU contribution going to SMEs participating in thematic research projects is at € 284,000 per project. This is about € 9,000 more or 3% higher than the figure reported in October of last year, in the ninth issue of this report.
- The total number of participations registered under FP7 – including Research for the Benefit of SMEs and the Marie-Curie Actions – is close to 106,000, and includes 19,300 SME participations, receiving an average EU contribution of € 253,000. The SME participations represent 11,260 unique SMEs, while 24,800 unique organisations have participated in FP7 so far. This means that about 45% of the organisations participating in FP7 are SMEs.

Author: DG RTD SME Unit, with the support of the Interservice Taskforce on SMEs in FP7

Weblink to the report: http://ec.europa.eu/research/sme-techweb/pdf/sme_participaton_in_fp7_june_2013.pdf#view=fit&pagemode=none

Comparative Scoreboard and Performance Indicators in NMP (Nanotechnology and nanosciences, knowledge-based multifunctional Materials, and new Production processes and devices) Research Activities between EU and Third Countries

1. Aims of the Report

The report aimed to compare, assess and monitor the progress of European NMP research vis-à-vis Third countries (Associated States and other Third countries), and establish the position of the EU in the international context, in the fields of NMP research and its industrial applications, to support policy-making.

2. Key Findings

- The term NMP is not widely used at a national level, and the scope of what are regarded as NMP activities differs between and within countries. However, nanotechnology, materials, and new production processes are clearly present, and have a significant role, in the R&D programmes of all of the selected countries.
- There are two main patterns viewed with transnational and international cooperation within the areas of NMP: First, the majority of national funding is only available for national entities, namely industry and academia. Second, there is evidence of extensive collaboration between countries in areas of common interest through bilateral programmes.
- The analyses support the view that the EU is doing well in terms of input factors: it leads the way in terms of graduate numbers, investment in the public sector and several Member States are performing well in terms of business investment and venture capital for NMP. In terms of output it continues to perform well for publications, however it lags behind Third countries with regards to patents (notably in nanoscience and nanotechnology).
- Mixed indicator analysis linking input (funding, R&D personnel, and tertiary education) with output (publications, and patents) for the EU and for selected Member States and Third countries revealed that the EU is not as efficient at either the Member States level or as a collective as the best Third country (South Korea).
- The EU as a whole has a lower patenting intensity than South Korea, Japan, and the United States; and a lower publication intensity than South Korea (it has a similar level to the United States for publication intensity). Interestingly, South Korea has a very high patent activity compared to its input factors (several times that of Japan, the next intensive).

Recommendations (extracts):

- Longer term funding strategies for industrial R&D, which take into account existing structures, and allow the organizations to be able to attract high levels of industry collaboration and distribute knowledge, to grow and deliver stronger impacts (resulting in more comprehensive support throughout the whole innovation cycle).
- Larger focus on supporting and measuring longer-term impacts within R&D programmes. This might include new funding models to improve support to demonstration and exploitation (for example working with Venture Capital and other types of private investment) and measurement of the growth and composition of important players.

Authors: Sociedade Portuguesa de Inovação in consortium with the Institute of Nanotechnology and UNU-MERIT.

Weblink to the report: <http://bookshop.europa.eu/fr/comparative-scoreboard-and-performance-indicators-in-nmp-pbKINA25845/>

Support for Continued Data Collection and Analysis Concerning Mobility Patterns and Career Paths of Researchers - MORE 2

1. Aims of the Report

The objective of the MORE2 study was to provide internationally comparable data, indicators and analysis in order to support further evidence-based policy development on the research profession at European and national level.

2. Key Findings

- Research paths are highly atypical, non-linear, involving both short-term and long-term contracts, linked with non-academia, dual positions, etc. we observe a major shift towards more "protean" types of careers involving more flexible and mobile patterns. Not only most of the R1 ("First Stage Researcher") and R2 ("Recognized Researcher") researchers are awarded temporary contracts (91% and 80%, respectively), but a non-negligible proportion of R3 ("Established Researcher") and R4 ("Leading Researcher") researchers are also awarded these type of contracts (33% and 16%, respectively).
- An important factor determining the motives for international mobility is the career stage of the researcher. The importance attached to varying motives during different career stages reveals changing priorities. R2 and R3 researchers primarily seek availability of funds and positions to increase job security. For R2 researchers, career progression and remuneration are also important motives for post-PhD mobility.
- MORE2 shows that main destination countries for EU researchers are the United States, the United Kingdom, Germany, France and Italy.
- International mobility is perceived as having positive impacts on researchers' productivity, both in terms of quantity and quality. the majority of the respondents saw an increase in the number of patents, an improvement in the quality of output e.g. publications, more citation impact of their publications, and in the number of co-authored publications as a result of their entire mobility experience.
- The study identifies the factor supporting attractiveness of EU research environment: comparing non-EU researchers who have been mobile to the EU with non-EU researchers who have only moved outside the EU shows that several effects were higher for the first type of experience (to the EU): a higher number of co-authored publications, more recognition in the research community and a better quality of life.

Conclusions (extracts):

- Intensifying tailored policy towards early stage researchers
- Continuation of efforts to create awareness for gender issues
- Encourage exposure to industry and transferable skills training
- Advertising of positions, guidance, close support and mobilisation of funding are essential to facilitate the return mobility to Europe for those interested.

Authors: IDEA Consult in consortium with Austrian Institute of Economic Research, WIFO; iFQ, Institute for Research Information and Quality Assurance; CHEPS, Center for Higher Education Policy Studies, University of Twente; LaSapienza - University of Rome; CFA, Danish Center for Research and Research Policy, Aarhus University.

Weblink to the report:

http://ec.europa.eu/euraxess/pdf/research_policies/more2/Final%20report.pdf

She Figures 2012 - Gender in Research and Innovation - Statistics and Indicators

1. Aims of the Report

This study concerns the continuation of the methodological development and the data gathering and processing that will yield the statistics and indicators necessary for monitoring the progress towards gender equality in science, research and innovation and provide necessary quantitative input for possible future policy actions.

2. Key Findings

- Compared to the situation examined in the previous study (*She Figures 2009*), the current one appears more favourable for the youngest generations of female academics in a subset of countries, although there is no evidence of spontaneous reduction of gender inequality over time.
- In 2009, women in scientific research accounted for 33 % of researchers in the EU. Their proportion since 2002 is growing faster than that of men (5.1 % annually, compared with 3.3 % for men). Over the same period a similar pattern is followed by the proportion of women among scientists and engineers (5.4 % annual increase, compared with 3.1 % for men).
- Over the period 2002–2009, female researchers were generally gaining ground in all fields of science in Higher Education, although at a very different pace in the different countries. In particular, the humanities as well as in engineering and technology; these fields were attracting more and more women.
- The work-life issue remain a key element in achieving gender equality. The fact that researchers are more likely to have children than the working population in general underscores the centrality of work-life balance issues for women and men scientists. There is not just a "glass ceiling" but also a "maternal wall" hindering the career of female researchers.
- Women's academic careers remained markedly characterised by strong vertical segregation in 2009: women represented only 44 % of grade C (the entry level of a typical academic career) academic staff, 37 % of grade B academic staff and 20 % of grade A academic staff (full professors). On average throughout the EU-27, in 2010, only 15.5 % of institutions in the higher education sector were headed by women and only 10 % of universities had a female rector. This under-representation of women is even more striking in specific fields, as for example the field of science and engineering.
- Unbalanced representation of women and men remains also in decision making bodies with on average only one woman for every two men on scientific and management boards across the EU.
- There is no evidence of spontaneous reduction of gender inequality over time and, proactive policies are therefore still needed to push forward a better equality of opportunities for women and men in scientific careers.

Author: SOGETI LUXEMBOURG s.a.

Weblink to the report:

http://ec.europa.eu/research/science-society/document_library/pdf_06/she-figures-2012_en.pdf

Assessment of Impacts of NMP Technologies and Changing Industrial Patterns on Skills and Human Resources

1. Aims of the Report

The goal of the study is to (i) identify the impact of NMP and new industrial patterns on current and future skills and competences needed at research, engineering and manufacturing levels, and (ii) to make recommendations on education, training and other measures to be implemented to fill potential skill gaps.

2. Key Findings

- Future shortages and skills gaps related to NMP are expected to increase. Notwithstanding differences between sectors (chemicals, automotive, textile, machinery and equipment, paper), the main messages on the impact of new developments in NMP on the current and future skills requirements in the sectors is more or less the same. These new technologies will impact mostly R&D functions, engineering and design.
- This shows that NMP mainly influences high-qualified job functions. This is very well in accordance with the current education in the field of NMP as these new technologies are mainly addressed at the MSc and PhD levels.
- However, skills in the field of new production techniques are taught less intensively than skills in nanotechnology and new materials.
- Employment increases related to technological developments are expected in companies involved in NMP. Expected growth is highest in companies that indicate that they are involved in a combination of N, M and/or P technologies, compared to companies involved in just one of these new technologies.
- There is a strong discrepancy in perception in the visions of industry and of HEI on mutual cooperation and alignment of demand and supply on the labour market. Educational institutes perceive that they are active in adjusting curricula to industry needs. Also a clear majority of education institutes perceive their contacts with companies as important or very important. However, the perception of companies is quite different: they perceive a much less intensive cooperation than the HEIs. Companies mention stronger cooperation with HEIs as the most important option for improvement of both the higher education system, as well as the VET system.

Recommendations (extracts):

- Monitoring of quantitative needs of industry concerning the pace and size of extra demands resulting from new developments in industrial technologies will help to increase a sense of urgency in education and training institutions and help them in adjusting their supply to industry needs.
- The increase in the required number of employees in high-level science and technology functions and the increasing skills shortages stress the increasing need for more S&T students.
- The industry and educational institutes should increase the intensity of their relationships to urge student choices in the direction of S&T and to ensure that skills developments meet industry requirements.
- With the increasing skills gaps and shortages to be expected in the near future and a further ageing of the workforce, more attention for lifelong learning is needed.

Authors: SEOR Erasmus School of Economics and Technopolis

Weblink to the report: http://ec.europa.eu/research/industrial_technologies/pdf/nmp-skills-report_en.pdf

The Role of Clusters in Smart Specialisation Strategies

1. Aims of the Report

This study investigates the potential contribution of clusters and cluster policies in the design and implementation of Smart Specialisation Strategies. In annex, it includes an analysis of the relevance of the FP7 Regions of Knowledge (RoK) Clusters Programme for the design and implementation of Smart Specialisation Strategies.

2. Key Findings

- Clusters and cluster policies are for many regions among the possible policy tools in a Smart Specialisation Strategies. However, cluster policies cannot be equated to Smart Specialisation Strategies, which have a broader remit.
- Clusters efforts need to be embedded into a broader economic strategy that develops the clusters portfolio over time, enhances the general business environment to benefit all firms, and integrates cluster-specific and cross-cutting activities into a coherent overall value proposition for the location.
- In cases where regions already use cluster policies, the move towards Smart Specialisation Strategies requires two tasks from policy-makers:
 - o Revise the focus areas: verify which clusters are to be retained (or developed) following the application of the principles of Smart Specialisation. The goal is to achieve a coverage of those domains that together represent a sufficient critical mass of growth- oriented activities, with the potential to drive the economy towards sustainable jobs and value-added in activities which are competitive on the international scale;
 - o Define an integrated strategy: complement the "vertical" policies (including cluster policies) towards the identified knowledge domains, with horizontal policies to ensure that good framework conditions and incentives are in place to help the domains Smart Specialisation Strategies thrive. The latter include elements of science and research policy, education, economic policy, entrepreneurship, etc.

Recommendations (extracts):

EU policies can support the effectiveness and the potential contribution of cluster organisations and cluster policies to Smart Specialisation Strategies:

- o Promote trans-regional learning on cluster policies: the benefits from programmes such as the Regions of Knowledge and efforts like TACTICS and the High Level Advisory Group on Cluster Policy should be further capitalised upon.
- o Continue and expand the development of a data infrastructure on clusters and cluster policies, with new emphasis on more advanced mapping indicators and on tools, methods and findings from evaluations of cluster policies.
- o Promote a better use of the Territorial Cooperation Programme for the development of cross-border cluster efforts.

Composition of the Expert Group

- Christian Ketels (Chair), Harvard Business School and Stockholm School of Economics
- Claire Nauwelaers (Rapporteur), independent expert
- Jennifer Cassingena Harper, Consultant, Malta Council for Science and Technology
- Göran Lindqvist, Stockholm School of Economics
- Beata Lubicka, Wroclaw Center for Technology Transfer
- Frank Peck, University of Cumbria

Weblink to the report:

http://ec.europa.eu/research/evaluations/pdf/archive/other_reports_studies_and_documents/clusters_smart_spec2013.pdf

Assessing Environmental Impacts of Research and Innovation Policy

1. Aims of the Report

The aim of the study was to develop a framework and methodological advice on how to identify, scope and assess the environmental pressures and impacts of research and innovation policy.

2. Key Findings

- R&I give rise to a range of effects in all three areas of sustainable development: the environmental, economic and social. The central assumption in the overall framework is that any integrated assessment seeking to identify and measure environmental impacts of R&I needs to be based on a robust understanding of the socioeconomic effects of public intervention.
- The central element of the study is the notion of impact pathways that allow for the scoping of challenging impact assessment (IA) assignments in which the link to the environment may seem remote at first sight. The study features an innovative IA tool - the IA canvas - used to visualise impact pathways.
- Impact assessment practice focused on sustainability should ensure access to diverse evidence, interdisciplinary expertise and sufficient time for reflection and exploration.
- As guidance to IAs including a significant environmental dimension it will be useful to bear in mind the following issues:
 - o Level of impact assessment: It is more straightforward to measure environmental pressures and impacts at the product, user or household level than to measure it at the industry or national level. The most meaningful, and at the same time the most challenging levels of impact assessment are the meso (e.g. product-service systems) or macro level (socio-technical system). Meso and macro level IA need to take account of more factors than the product level measures. This should be recognised when interpreting outcomes and impacts of public intervention.
 - o Level of uncertainty and risk: The estimates, notably performed in ex-ante IA, of meso and macro level pressures will be more uncertain. In this context, IAs should be based on a systemic qualitative reflection on probable impact pathways. Ex-post impact assessments will typically include further quantification. In general, the more "upstream" R&I policy measure is or the further it is removed from the market or final application, the more difficult it is to provide an exact estimate of its impact.
 - o Trade-offs between different impacts: Integrated impact assessments may point to possible rebound effects and trade-offs between the economic and environmental impacts.

Author: Technopolis Group

Weblink to the report:

http://ec.europa.eu/research/evaluations/pdf/archive/other_reports_studies_and_documents/envti0413167enn_002.pdf

Powering European Public Sector Innovation: Towards a New Architecture

1. Aims of the Report

The report aimed to provide a comprehensive and substantiated analysis of the key issues that hamper public sector innovation and to give clear recommendations for action at EU and at Member State level to foster more innovation in the public sector.

2. Key Findings

- Public sector innovation today mostly happens through uncoordinated initiatives rather than as a result of strategic efforts. The quest for more and better public sector innovation is hindered by several barriers, which fall into four major categories:
 - o Weak enabling factors or unfavourable framework conditions;
 - o Lack of innovation leadership at all levels;
 - o Limited knowledge and application of innovation processes and methods;
 - o Insufficiently precise and systematic use of measurement and data.
- The Expert Group has recognised the following four design principles that should be at the heart of the public sector:
 - o Co-design and co-creation of innovative solutions (with other Member States, other parts of government, businesses, the third sector and citizens);
 - o Adopting new and collaborative service delivery models (across public, private and non-governmental actors, both within and across national borders);
 - o Embracing creative disruption from technology (the pervasive use of social media, mobility, big data, cloud computing packaged in new digital government offerings);
 - o Adopting an attitude of experimentation and entrepreneurship (government itself needs to become bolder and more entrepreneurial).

Recommendations (extracts):

- Public Sector Innovation Platform should be set up to act as a coordinating body, ensuring maximum leverage of the resources and activities applied across the EU in order to drive strategic and systematic innovation within Member States and the EU institutions.
- A three-year Public Sector Innovation Mainstreaming Programme should be carried out a comprehensive review process of major EU initiatives.
- A New Public Sector Innovation Movement should be incited, starting with the launch of a series of small-scale, highly networked activities.

Composition of the Expert Group

- Christian Bason (Chair), MindLab
- Hugo Hollanders (Rapporteur), Maastricht University
- Consuelo Hidalgo Gomez, Spanish State Agency for the Evaluation of Public Policies and Quality of Services
- Rainer Kattel, Tallinn University of Technology
- Gina Korella, Ministry of Administrative Reform and e-Government
- Christine Leitner, Austrian Federal Ministry of Economy, Family and Youth
- Bernard Le Masson, Accenture
- Mariana Mazzucato, University of Sussex
- Alina Mungiu-Pippidi, Hertie School of Governance
- Marga Pröhl, European Institute for Public Administration
- Jan Oravec, Entrepreneurs Association of Slovakia

Weblink to the report: http://ec.europa.eu/research/innovation-union/pdf/PSI_EG.pdf

Report of the Independent Expert Group on the Future of European Public Health Research

1. Aims of the Report

This report aimed to identify priorities for future public health research under Horizon 2020.

2. Key Findings

- Public health research in Horizon 2020 should have at least three major goals:
 - o Help us understand the current and future impact on population health of major societal challenges;
 - o Allow us to evaluate the comparative effectiveness of different policy responses to these challenges;
 - o Make a contribution towards improving population health and reducing health inequalities through the development of innovative structures, processes and technologies both within and outside healthcare systems.

- The main funding priority for DG-RTD should be research which provides "EU added value". This means value over and above the base case of simply dividing the funding pro rata between Member States and having it managed by national research funding agencies or requiring multiple Member States to be represented in EU funded research projects.
Public health research should not be funded by DG-RTD if there is not a clear case for EU added value. Specifically the funding must be for projects that (i) demonstrate a potential for translation and policy uptake to benefit the health of EU citizens and (ii) would not necessarily be supported by national funding agencies.

- Stronger links and synergies should be developed between EU funded research and (i) national research activities (ii) EU policy agendas (iii) national policy agendas.

Composition of the Expert Group

- Thorkild I. A. Sørensen (Chair), University of Copenhagen
- John Patrick Browne (Rapporteur), University College Cork
- Maurizio Bonati, Mario Negri Institute (IRFMN)
- Nancy Edwards, University of Ottawa
- Louise Gunning-Schepers, University of Amsterdam
- Petra Keil, Novartis
- Karine Lamiraud, ESSEC Business School
- Peter Lange, (formerly) German Federal Ministry of Education and Research
- Anders Olauson, Agrenska Centre, Sweden, and President of the European Patients' Forum.
- Jørn Olsen, Aarhus University
- Susana Sans, Programme Director at the Institute for Health Studies of Barcelona.
- Fernand Sauer, (formerly) European Commission.
- Silvia Gabriela Scintee, National School of Public Health, Management and Professional Development, Bucharest
- Mirosław J. Wysocki, National Institute of Public Health-National Institute of Hygiene, Warsaw.

Weblink to the report:

http://ec.europa.eu/research/health/pdf/eu-h2020-subgroup2-report_en.pdf

NMP Research and the Ageing Challenge

1. Aims of the Report

The report aims to:

- Identify new or changing needs, working and consumption patterns, related to production and use of industrial goods
- Identify critical technologies, materials and production schemes and paradigms related to ageing population, strategic vision of the future on technological developments and their impact on the society
- Analyse current research portfolio, assessment of value provided as regards ageing population
- Draw recommendations for priority setting, target definition, monitoring and user engagement of future research and innovation activities geared to addressing globally ageing population.

2. Key Findings

- The study identifies four key needs areas when addressing the ageing challenge: health; employability and productivity; consumption patterns; independent living and autonomy, including transport and mobility.
- Within the current NMP (FP6 and FP7) project portfolio, a relatively small number of projects - 40 in total - were identified which are directly related to ageing. These projects do not cover the NMP field broadly, as they relate almost exclusively to materials and/or nano-science for health, and to a limited extent for mobility (regenerative medicine). The other identified ageing needs (i.e. do not appear to be addressed explicitly by the current portfolio. In particular, the link between new production technologies and ageing issues seems to be weak.
- Based on the analysis of annual work programmes, the ageing challenge does not appear to have been an explicit concern during most of the NMP FP6 and FP7 programmes, but this has changed somewhat in recent years. The ageing challenge is directly referred to in the NMP work programmes for 2011 and 2013. However, topics of relevance to ageing have consistently been present in the NMP theme throughout both FP6 and FP7.

Recommendations (extract):

- Integration of the "ageing worker" issue should be strengthened in future calls on future production technology and factories of the future.
- Steps should be taken to ensure comprehensive co-ordination between different EU research and innovation funding channels (including different parts of Horizon 2020), and to implement mechanisms for bringing together projects working in parallel on similar issues.
- Future research projects should explicitly consider user involvement wherever relevant, and user orientation in general (for instance, user-centred design thinking), in order to ensure that the needs of the elderly are taken adequately into consideration both when designing the research project and when the final products are being developed.
- Research on personalised medicine, self-medication, patient empowerment and other research from a user perspective should be encouraged.

Author: Danish Technological Institute (Teknologisk Institut) in consortium with Sociaal-Economisch Onderzoek Rotterdam B.V (SEOR)

Monitoring European Trends in Social Sciences and Humanities (METRIS III)

1. Aims of the exercise

METRIS III aimed to continue the development of a monitoring system, dedicated to Social Sciences and Humanities (SSH) in the European Research Area. METRIS is mainly a mapping exercise supplemented by a number of analyses of selected phenomena which aims to develop further the system of collection of information, structuring information, monitoring, analysing, reporting and dissemination, processing of information and managing knowledge in the field of SSH in Europe.

Its specific objectives are as follows:

- Identify and collect the country specific relevant information. A total of 42 European and important non-European countries are covered by the study;
- Include and update the information in form of national reports as well as in the online Template;
- Identifying future perspectives for research in the field of Social Sciences and Humanities in Europe until 2020;
- Keep updating the website (www.metrisnet.eu) on events on a monthly basis.

2. Key Findings

- In this third phase, the coverage of countries is maintained as under METRIS II.
- There are two new features under this contract, namely the development of a new interface at the METRIS website in form of a dashboard, and second, there will be four thematic reports. These make the main deliverables together with updated country reports and a further maintenance of the website.
- In addition to the annual country reports for 2012 for the 42 countries covered by the study, the following thematic reports have been produced:
 - o Thematic report on the development of interdisciplinarity and multidisciplinary in social science and humanities' research within the 42 countries covered by METRIS
 - o A performance analysis of the social sciences and humanities research
 - o An analysis of the funding mechanisms for social science and humanities' research within the 42 countries covered by METRIS.
 - o A Synthesis report for 2012 based on the comparative analysis of SSH systems in Europe (including the international comparison), identifying important features and elements.

Author: ERAWATCH NETWORK ASBL/Technopolis Consulting Group

Weblink to the METRIS system: www.metrisnet.eu

Annex 2. Methodology of Evaluation Studies and Reports with Evaluative Information

Nr	Title of the study or report	Survey	Interviews	Case studies	Desk research	Bibliometric analysis	Network analysis	Other
1	EU Projects - Industrial Technologies	X	X	X	X			Patent analysis
2	Innovation - Industrial Technologies		X	X	X			
3	Research PPPs	X	X		X	X		Workshops
4	FCH JU	X	X	X	X			SWOT analysis
5	IMI JU		X	X	X			SWOT analysis; comparative analysis; panel meetings
6	Clean Sky JU		X		X			SWOT analysis; comparative analysis; panel meetings; site visits
7	European Innovation Partnerships		X		X			Field visits
8	Risk-Sharing Financial Facility		X	X	X			Report by EIB Operations Evaluation, May 2013, Second Evaluation of the RSFF
9	Evaluation of REA and ERCEA		X		X			Focus group meetings with REA's/ERCEA's and Commission's staff and with external stakeholders
10	Public Health Research				X			
11	SME - Biotechnology	X	X	X	X	X		
12	European Research Infrastructures	X	X	X	X			Assessment Matrix
13	Knowledge Transfer							
14	EURAXESS	X	X	X	X		X	
15	Coherent Development of Research Policies	X	X		X	X		Experts' meetings with the EC
16	S&T Cooperation EU-USA		X	X	X			

Nr	Title of the study or report	Survey	Interviews	Case studies	Desk research	Bibliometric analysis	Network analysis	Other
17	S&T Cooperation EU-Russia		X	X	X		X	Cooperation with contemporaneous review by Russian experts
18	S&T Cooperation EU-South Africa		X		X	X		
19	S&T Cooperation EU-New Zealand	X	X		X	X	X	
20	Monitoring Report 2012	X			X			Statistical information
21	ERA Priority Areas Monitoring				X			Data collection and analysis
22	SME report - June 2013				X			Statistical information
23	NMP Comparative Scoreboard	X	X		X			Validation workshops
24	MORE 2	X	X		X			
25	She Figures 2012				X			Data collection (and validation) through a network of national correspondents and analyses of the above and other datasets
26	NMP – Skills and Human Resources	X	X	X	X			
27	Clusters in S3s	X		X	X	X		
28	Environmental Impacts of R&I Policy			X	X			
29	Public Sector Innovation			X	X			
30	Future of European Public Health Research				X			Meetings
31	NMP Research and the Ageing Challenge		X	X	X			Workshop
32	METRIS III	X				X		

Annex 3. Methodology of the Report

The list of studies and reports for this report was provided by the Inter-service RTD Evaluation Network for the Annual Evaluation Plan 2013-2014. In addition, questionnaires were filled in by Policy and Project Officers. Please find below a blank copy of a questionnaire. These questionnaires provided further and detailed information about the studies and reports.

Questionnaire:

- 1. Title of the evaluation study
- 2. Timing of the evaluation study

Start date: End date:.....

- 3. Cost of the study
- 4. Implementation of the evaluation study

Please indicate your answer by an X:

Internal exercise	
Expert group	
External contractor through open call	
External contractor through Framework Contract	
External contractor through negotiated procedure	
Other (please specify):	

- Name of the contractor (*if external contractor*):

- 5. Aim of the evaluation study
- 6. Key findings (*1 page max.*)
- 7. Weblink to the study

8. Methodology

Please indicate your answer by an X (several answers possible):

Survey	
Interviews	
Case studies	
Bibliometric analysis	
Network analysis	
Other (<i>please specify</i>):	

9. Quality Assessment (Please refer to your Quality Assessment Form)

Please indicate your answer either by an X or by adding appropriate text.

a) Relevance

Does the evaluation respond to information needs, as expressed in the tender specifications/terms of reference?

No	Yes - Satisfactory	Yes - Good	Yes - Very Good	Yes - Excellent

b) Reliability

Are the findings and conclusions reliable?

No	Yes - Satisfactory	Yes - Good	Yes - Very Good	Yes - Excellent

Are there any specific limitations to their validity and completeness?

YES	NO.....
-----------	---------

If YES, please specify:

c) Helpful recommendations

Are the suggested recommendations or options realistic?

No	Yes - Satisfactory	Yes - Good	Yes - Very Good	Yes - Excellent

Are the suggested recommendations or options useful?

No	Yes - Satisfactory	Yes - Good	Yes - Very Good	Yes - Excellent

d) Overall assessment

Does the evaluation fulfil contractual obligations?

No	Yes - Satisfactory	Yes - Good	Yes - Very Good	Yes - Excellent

Is the information in the report a useful input for designing intervention, setting priorities, allocations resources or improving interventions?

No	Yes - Satisfactory	Yes - Good	Yes - Very Good	Yes - Excellent

10. Dissemination of results

Please indicate your answer by an X and complete accordingly.

A. Internal Dissemination

	YES	NO	Comments
Have you done an internal workshop with your colleagues to present the results of the evaluation study? (at the end of the study, not a project meeting)			
Have you prepared a note presenting the key outcomes of the study to your colleagues?			

Did you discuss with your hierarchy about the results of the study?			
Has the study been published on the Intranet?			

At internal level, has any other initiative been carried out to support the dissemination of results of the evaluation study?

YES	NO

If YES, which one(s)?

B. External Dissemination

	YES	NO	Comments
Has the study been published on the Internet?			
Have you organised a workshop with external stakeholders to present/discuss about the results of the evaluation study? (i.e. at the end of the study, not a project meeting)			
Have the results of the study been presented to Programme Committee and/or Advisory Group?			

At external level, has any other initiative been carried out to support the dissemination of results of the evaluation study?

YES	NO

If YES, which one(s)?

C. Recommendations

a) Has a response to key recommendations been published?

YES	NO

If YES, please specify:

b) What are the envisaged -follow-up measures?

11. Experiences / Learning

What lessons can be learnt from this evaluation process?

Did you encounter any particular difficulty (delays, procedure, staffing...)?

12. Please add any other comments you may have on this evaluation study/process

Annex 4. List of Acronyms

Themes in the Cooperation Specific Programme of FP7:

HEALTH	Health
KBBE	Food, Agriculture, Fisheries and Biotechnology
ICT	Information and Communication Technologies
NMP	Nanosciences, Nanotechnologies, Materials and Production Technologies
ENERGY	Energy
ENV	Environment (including Climate Change)
TPT	Transport (including Aeronautics)
SSH	Socio-economic Sciences and Humanities
SPA	Space
SEC	Security
ERCEA	European Research Council Executive Agency
REA	Research Executive Agency
CLARIN	Research Infrastructure to Make Language Resources and Technology Available and Useful to Scholars of All Disciplines
DARIAH	Digital Infrastructure to Study Source Materials in Cultural Heritage Institutions
COPAL	Long Range Aircraft for Tropospheric Research
EISCAT_3D	Upgrade of the Eiscat Facility for Ionospheric and Space Weather Research
EMSO	Multidisciplinary Seafloor Observatory
EPOS	Infrastructure for the Study of Tectonics and Earth Surface Dynamics
EURO-ARGO	Ocean Observing Buoyssystem
IAGOS	Climate Change Observation from Commercial Aircraft
ICOS	Integrated Carbon Observation System
LIFEWATCH	Infrastructure for Research on the Protection, Management and Sustainable Use of Biodiversity
SIOS	Upgrade of the Svalbard Integrated Arctic Earth Observing System
ECCSEL	European Carbon Dioxide and Storage Laboratory Infrastructure
EU-SOLARIS	European Solar Research Infrastructure for Concentrating Solar Power
HiPER	High Power Long Pulse Laser for Fast Ignition Fusion

WINDSCANNER	European Windscanner Facility
ANAEE	Infrastructure for Analysis and Experimentation on Ecosystems
BBMRI	Bio-Banking and Biomolecular Resources Research Infrastructure
EATRIS	European Advanced Translational Research Infrastructure in Medicine
ECRIN	Pan-European Infrastructure for Clinical Trials and Biotherapy
ELIXIR	Upgrade of the European Life-Science Infrastructure for Biological Information
EMBRC	European Marine Biological Resource Centre
ERINHA	Upgrade of the High Security Laboratories for the Study of Level 4 Pathogens
EU-OPENSREEN	European Infrastructure of Open Screening Platforms for Chemical Biology
EURO-BIOIMAGING	Research Infrastructure for Imaging Technologies in Biological and Biomedical Sciences
INFRAFRONTIER	European Infrastructure for Phenotyping and Archiving of Model Mammalian Genomes
INSTRUCT	Integrated Structural Biology Infrastructure
ISBE	Infrastructure for Systems Biology – Europe
MIRRI	Microbial Resource Research Infrastructure
EMFL	European Magnetic Field Laboratory
ESS	European Spallation Source
EUROFEL	Complementary Free Electron Lasers in the Infrared to Soft X-Ray Range
CTA	Cherenkov Telescope Array for Gamma-Ray Astronomy
ELI	Extreme Light Intensity Short Pulse Laser
KM3NET	Kilometre Cube Neutrino Telescope
SKA	Square Kilometre Array for Radio-Astronomy

