



# **Management Plan 2014**

**Joint Research Centre (JRC)**

**- public version -**



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## 1. PART 1 – MISSION STATEMENT

"As the Commission's in-house science service, the Joint Research Centre's mission is to provide EU policies with independent, evidence-based scientific and technical support throughout the whole policy cycle. Working in close cooperation with policy Directorates-General, the JRC addresses key societal challenges while stimulating innovation through developing new methods, tools and standards, and sharing its know-how with the Member States (MSs), the scientific community and international partners. Key policy areas include: environment and climate change; energy and transport; agriculture and food security; health and consumer protection; information society and digital agenda; safety and security, including nuclear; all supported through a cross-cutting and multi-disciplinary approach".<sup>1</sup>

## 2. PART 2 – THIS YEAR'S CHALLENGES

In his State of the Union Speech President Barroso said that "2014 will be a year of delivery and implementation". This is reflected at all levels of the Commission Work Programme. This means that 2014 will also be a year that will see many changes and transitions: the start of Horizon 2020, the handover of tasks from the present Commission to the new Commission and the start of the Multi-annual Financial Framework (MFF). The JRC will be both impacted by these developments well as a major actor. Hence, the challenges the JRC will face in 2014 have to be seen in this context:

### 1. Start of Horizon 2020

- a. With the start of Horizon 2020, the JRC will implement the new structure of its scientific work programme. This change is characterised by a refined granularity of projects structured around key orientations (KOs). The KOs match the Commission's priorities and corresponding policy support needs on the one hand and the JRC's response on the other. The KOs are structured around the following six policy clusters:

- ✓ Economic and Monetary Union (EMU)
- ✓ Single market, growth, jobs and innovation
- ✓ Low-carbon economy and resource efficiency
- ✓ Agriculture and global food security
- ✓ Public health, safety and security
- ✓ Nuclear safety and security (EURATOM programme)

The KOs result from an elaborate consultation process with policy DGs and other stakeholders, an approach that maximises the transparency of JRC's scientific policy support, and which aims at further enhancing its utility and impact.

As a further novel element, the KOs are translated into a rolling multi-annual Work Programme with a 2-year time horizon. Exiting the current economic crisis and boosting Europe's competitiveness and job creation

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<sup>1</sup> The JRC mission is displayed on the JRC website: <http://ec.europa.eu/dgs/jrc/index.cfm>

are top priorities for the EU. Addressing these challenges is the leitmotif of the first Horizon 2020 Work Programme and the JRC Work Programme for 2014 - 2015.

A key challenge in this new set-up will be to ensure the integration of multi- and inter-disciplinary competences resulting in synergies across the JRC.

The MP's scientific / operational objectives are structured around the key orientations. Hence, the JRC Management Plan (MP) further repositions the JRC activities towards the core of the Commission's strategic policy priorities based on Europe 2020, its seven flagship initiatives and the priorities of the Commission Work Programme 2014 (see also point 2 below).

- b. As a logical continuation of and building on the JRC's past efforts to make available and transparent to the public the vast amount of knowledge produced through its scientific work, in 2014 the JRC will roll out its Open Access strategy for its publications. Open Access, meaning free Internet access to scientific publications, is an increasingly growing publication mode in the scientific community, yet it still remains a largely untrodden field for all its actors and hence, moving towards Open Access will represent a major challenge also to the JRC.

While the above mentioned JRC open access strategy applies to JRC scientific publications, open access to research data is also promoted in the context of Horizon 2020. The JRC will develop, starting in 2014, a strategy for open access to its data including cooperation with ongoing initiatives like the EU Open Data Portal (<http://open-data.europa.eu/en/data>) (see specific objective 1b, under "Digital Europe", Annex 1, page 55).

- c. In line with stipulations of FP7, the Evaluation Guidelines of the Commission as well as the Financial Regulation the JRC will prepare for the ex-post evaluation of its activities under Framework Programme 7. The major challenge here will be to collect and structure the vast amount of information related to the JRC's scientific policy support impact as well as mapping its scientific output and impact in order to identify its established strengths and the emerging new developments. In doing this the JRC will benefit from its previous efforts of evaluating internally its work programme annually, a process that is also firmly interlinked with the Commission's Strategic Planning and Programming cycle (SPP). Starting with this year, the annual JRC Productivity and Impact Report will present a focus on mapping of outputs and impacts (see specific objective 7, page 38).

## 2. International / stakeholder relations

Besides the EU added value, the JRC produces added value also at regional and national level, in the broader international context, as well as for international organizations. Moreover, the JRC also draws on the expertise of its partner organizations at these levels. Today, the JRC is already a highly networked organisation with an increasing number of top partners across the globe. Throughout 2014 JRC will continue to strengthen the profile of JRC key partners including in the Member States at the level of scientific associations, universities and industry, with a focus on high impact collaborations with significant and strategic EU added value (see specific objectives 9 and 10, pages 40 to 43).

## 3. Change of the Commission

In the context of the arrival of the new Commission, the JRC will prepare to deliver a briefing file for the new Commissioner, outlining the recent reorientations towards Europe 2020 as well as the structural positioning of the JRC in Horizon 2020.

## 4. Start of the Multi-Annual Financial Framework

In view of the upcoming adoption of the Multi-Annual Financial Framework, the JRC will review its final investment plan for infrastructure.

Parts 4 and 5 below describe in detail the activities foreseen by the JRC in 2014, in order to tackle the challenges presented here above.

## 3. PART 3 – GENERAL OBJECTIVES BY POLICY AREA

### 3.1. General objective (GO) 1<sup>2</sup>

The general objective of Horizon 2020 is:

**"To build an economy based on knowledge and innovation across the whole Union, while contributing to sustainable development"**

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<sup>2</sup> COM(2013) 450 – June 2013; Draft General Budget for the European Commission for the Financial Year 2014, Working Document Part I: "Programme Statements of operational expenditure". - See also the legal basis mentioned therein: COM(2011) 809 final, Proposal for a regulation establishing Horizon 2020 – The Framework Programme for Research and Innovation (2014-2020) COM(2011) 811 final, Proposal for a decision establishing the Specific Programme Implementing Horizon 2020 - The Framework Programme for Research and Innovation (2014-2020)

See further: COUNCIL DECISION of 3 December 2013 establishing the specific programme implementing Horizon 2020 - the Framework Programme for Research and Innovation (2014-2020).

With its mission (see Part 1 of the Management Plan) and as the European Commission's in-house science service, the JRC clearly contributes to this general objective.

Specific objective 14 of Horizon 2020 relates directly to the mission of the JRC:

**“Provide integrated and pro-active scientific and technical support  
to the European policy making process”**

For the purpose of the present Management Plan specific objective 14 is taken as the general objective for the JRC.

### **3.2. General objective (GO) 2<sup>3</sup>**

In the area of nuclear activities, the general objective of the Euratom Research and Training Programme represents the JRC's general objective:

**"Improve nuclear safety, security and radiation protection,  
and to contribute to the long-term decarbonisation of the energy system in a safe,  
efficient and secure way"<sup>4</sup>**

### **3.3. Indicators**

#### **JRC core indicators**

Based on the balanced scorecard concept the JRC's set of core indicators comprises indicators on impact, productivity and efficiency. These indicators serve mainly two main purposes:

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<sup>3</sup> COM(2013) 450 – June 2013; Draft General Budget for the European Commission for the Financial Year 2014, Working Document Part I: "Programme Statements of operational expenditure". See also the legal basis mentioned therein: COM(2011) 812 final, Proposal for a regulation on the Research and Training Programme of the European Atomic Energy Community (2014-2018) complementing the Horizon 2020 The Framework Programme for Research and Innovation

<sup>4</sup> Note: Since the Management Plan contains budgetary information for the year 2014, the formulation used in the Programme Statements for the year 2014 is used here: COM(2013) 450 – June 2013; Draft General Budget for the European Commission for the Financial Year 2014, Working Document Part I: "Programme Statements of operational expenditure".

The "COUNCIL REGULATION (EURATOM) No 1314/2013 of 16 December 2013 on the Research and Training Programme of the European Atomic Energy Community (2014-2018) complementing the Horizon 2020 Framework Programme for Research and Innovation shows the formulation: "To pursue nuclear research and training activities with an emphasis on continuous improvement of nuclear safety, security and radiation protection, notably to potentially contribute to the long-term decarbonisation of the energy system in a safe, efficient and secure way" for the general objective.

- they allow management to monitor the long-term evolution of the organisation along the three perspectives 'Outputs and Impacts', 'Organisational Efficiency' and 'Working Environment'.
- moreover, these core indicators are related to general objectives, specific objectives and specific horizontal objectives of the Management Plan (parts 3, 4 and 5, respectively of this document).

Based on a bi-monthly JRC dashboard monitoring system (Tableau de Bord) the JRC set of core indicators serves for checking if the organisation stays on course with respect to its priorities and in particular the implementation of its MP targets.

The MP 2014 core indicators are summarised in table 3.3-1 below; relations to the general and specific indicators are displayed in the table. Management Plan objectives may be supplemented by further indicators, generally referred to as auxiliary indicators.

The outputs described under specific objectives 1, 2 and 3 represent policy support deliverables<sup>5</sup>; they contribute to the JRC Policy Support Productivity indicator in Table 3.3-1.

The two core indicators "Policy-support impact" and "Peer-reviewed publications listed in ISI" play a special role. They are used in the Programme Statements at Programme level, i.e. Horizon 2020 and EURATOM Research & Training Programme, respectively, as well as throughout the JRC Management Plans and Annual Activity Reports and various evaluation reports. They have been designed in such a way that they can be broken down and aggregated in various ways. For the purpose of the present Management Plan they are presented e.g.:

- ✓ Aggregated for both, direct actions of the JRC under Horizon 2020 and the EURATOM Research & Training Programme, see Tables 3.3-1 and 3.3-2
- ✓ Broken down according to Key Orientations, i.e. the thematic structure of the JRC's Work Programme, see part 4.2 of this document.

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<sup>5</sup> A policy support deliverable is any piece of output of the following categories: Reference reports; Scientific and policy reports; Reference materials; Validated methods, reference methods and measurements; Technical systems; Training given; Scientific information systems and databases; JRC Technical Reports; Contributions to policy documents. A policy support deliverable represents a final product or a milestone product in support of a policy DG, Member State or Third Country authority, or international organization.

MP 2014 core indicators						
Management information need	Indicators	Definition	Latest value 2013: mid-December 2013 (in parentheses target for 2013)	Value 2012	2014 Target (unless otherwise specified)	Comments
<b>Perspective 1: Outputs &amp; impact</b>						
<b>Impact of policy support</b>						
<i>SPP Key performance indicator</i>	Policy support impact	"Proportion of actions with tangible specific impacts on European policies resulting from technical and scientific policy support provided by the JRC"	80% (PAR 2012) (90%)	86% (PAR 2011)	90% (PAR 2013)	see footnotes 6 and 7 for details (page 11)
		And "Number of occurrences of tangible specific impacts on European policies resulting from technical and scientific policy support provided by the JRC"	269 (PAR 2012) (280)	269 (PAR 2011)	273 Long-term: 288	
<b>Policy support productivity</b>						
<i>Specific objectives 1, 2 and 3</i>	Policy support deliverables	Number of policy support deliverables	560 (18 December 2013) 1108 (23 January 2014)	1213	1560 2014-2015: 3096	
<b>Scientific productivity</b>						
<i>SPP Key performance indicator Specific objective 4</i>	Peer-reviewed publications listed in ISI	Number of peer-reviewed publications listed in ISI	548 (18 December 2013) 607 (23 January 2014) (550)	623	620 Long-term: 655	
<b>Foresight and Horizon scanning</b>						
<i>Specific objectives</i>	Reports and identification of new research areas	Number of reports	1 Foresight study 3 Horizon Scanning Bulletins (3)	2 Foresight study 3 Horizon Scanning Bulletins	3 Foresight studies 4 Horizon Scanning Bulletins	
<b>Income from additional activities</b>						
<i>SPP Key performance indicator Specific objectives 4, 6 (SHO 5.2-3)</i>	Cashed competitive income	Annual cashed income from activities outside institutional budget	15.4% (15%)	16.5%	15% of institutional budget	
<b>Scientific collaboration and networking</b>						
<i>SPP Key performance indicator Specific objective 4</i>	Peer-reviewed publications co-authored with non-JRC authors	Proportion of peer-reviewed publications co-authored with non-JRC authors/total number of peer-reviewed publications	72% (75%)	74%	72±3%	
	International collaborations	Proportion of peer-reviewed publications co-authored with organisations from countries outside ERA/total number of peer-reviewed publications	21% (22%)	18%	21±3%	
<b>Public visibility</b>						
<i>General objectives</i>	Press coverage	Number of coverage pieces in top tier media	149 (150)	144	150	
	Access to JRC websites	Number of page views on the JRC website	1.83 million (1.35 mil)	1,3 million	2.45 million	change of website foreseen in 2014 => target might not be applicable in 2014
		Number of visits to the JRC website	745 K	na	1 million	



Management information need	Indicators proposed	Definition	Latest value 2013: mid-December 2013 (in parentheses target for 2013)	Value 2012	2014 Target (unless otherwise specified)	Target related comments
<b>Perspective 2: Organisational efficiency</b>						
<b>Staff structure</b>						
<i>Specific horizontal objective 5.2-1</i>	Proportion of local support staff	Ratio of local support and coordination staff with respect to overall JRC workforce	10.2% (30 September 2013) (9.2%)	9.3% (November 2012)	8.8%	Commission target
<b>Recruitment</b>						
<i>Specific horizontal objective 5.2-2</i>	Timeliness of recruitment of officials (internal/external procedure)	Average number of working days from the publication of the deadline of the vacancies until the date of distribution of relevant administrative act	Internal/External 59/170 (60/120)	Internal/External 47/155	≤60/≤120	
<b>Payments</b>						
<i>Specific horizontal objective 5.2-3</i>	Timeliness of payments	Proportion of payments done within legal time limits	92% (≥98%)	89.4%	≥95%	
<b>Procurement</b>						
<i>Specific horizontal objective 5.2-3</i>	Procurement management	Proportion of positive opinions of the Public Procurement Advisory Group (PPAG)	94% (≥95%)	92%	≥95%	
<b>Internal Control</b>						
<i>Specific horizontal objective 4</i>	Audit follow-up	% of accepted audit recommendations effectively implemented (data established following follow-up audit)	100% (>90% implemented)	79% (November 2012)	>90% implemented	
<b>Perspective 3: Working environment</b>						
<b>Staff satisfaction</b>						
<i>Specific horizontal objective 5.2-1</i>	Overall job satisfaction	Overall job satisfaction of JRC staff based on EC Staff Opinion Survey	69.3% (69%)	no survey	72.2%	Commission target
<b>Equal opportunities</b>						
<i>Specific horizontal objective 5.2-2</i>	Gender balance in AD-grade positions	Number of women/(Number of women + men) in senior management, middle management and AD-non-management, respectively positions"	18.2% senior management 18.8% (19.7%) middle management 23.8% AD-non-management  * In the same period, no women were recruited to senior management positions, 20% to middle management and 34% to non-management AD positions	15.4% senior management 19.4% middle management 22.4% AD-non-management	No specific target for JRC (senior management) 21.3% (middle management) No specific target for JRC (AD-non-management)	
<b>Staff development</b>						
<i>Specific horizontal objective 5.2-2</i>	Training evaluation	Average response of participants on how well learning objectives were met	82.5% (85%)	81.5%	85%	

Table 3.3-1 JRC core indicators

## Selected key performance indicators in the SPP context

In the context of the Commission's SPP reporting, the JRC has selected a series of dedicated key performance indicators (see table 3.3 - 2 below) from the set of JRC core indicators.

A fifth key performance indicator is linked to the achievement of the internal control objective.

The five indicators below cover both, the non-nuclear and nuclear direct actions of the JRC.

<b>Indicator 1: Policy support impact</b> Definition: Number of occurrences of tangible specific impacts <sup>6</sup> , on European policies resulting from technical and scientific policy support provided by the Joint Research Centre Source: Programme Statements Horizon 2020; EURATOM Research & Training Programme	
<b>Baseline</b> (2012 <sup>7</sup> ) 269	<b>Target</b> Long-term (2020): 288
<b>Indicator 2: Peer-reviewed publications listed in ISI</b> Definition: Number of peer-reviewed publications listed in ISI. Two types of articles are taken into consideration in this indicator: 1. Scientific articles published in journals or special issues of journals included in the ISI Science Citation Index Expanded (SCI-e) and/or Social Science Citation Index (SSCI). 2. Scientific articles published in conference proceedings published in a periodical listed in the ISI Science Citation Index Expanded and/or Social Science Citation Index. Source: Programme Statements Horizon 2020; EURATOM Research & Training Programme	

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<sup>6</sup> The term impact refers to counts of tangible instances of utility or added value of JRC's policy support work for a policy DG. The quantitative values are elaborated in the Periodic Action Review, JRC's annual internal evaluation exercise based on a set of impact categories ('Anticipation, conception, adoption of EU policy', 'Implementation, monitoring, evaluation of EU policy', 'Ad-hoc support (including crisis management)', 'EU and global standardisation and international harmonisation', 'Support to specific countries/regions and international bodies'. The tangibility of the occurrence of an added value is gauged against a set of detailed criteria.

<sup>7</sup> The indicator value presented here corresponds to the results of the PAR evaluation of impacts produced in 2012. This PAR 2012 evaluation was performed in the 1<sup>st</sup> quarter 2013. Impacts will be consultable in the JRC Scientific Knowledge Portal from February 2014: <http://skp.jrc.cec.eu.int/skp>

<p><b>Baseline</b></p> <p>2012 (Programme statements): 620</p> <p>December 2013: 548</p>	<p><b>Target</b></p> <p>Long-term (2020): 655</p>
<p><b>Indicator 3: International collaborations</b></p> <p>Definition: Proportion of peer-reviewed publications co-authored with organisations from countries outside ERA/total number of peer-reviewed publications</p> <p>Source: JRC internal indicator</p>	
<p><b>Baseline (2013)</b></p> <p>21%</p>	<p><b>Target (2014)</b></p> <p>21±3%</p>
<p><b>Indicator 4: Cashed competitive income</b></p> <p>Definition: Annual cashed income from activities outside Institutional budget (% of the Institutional budget)</p> <p>Source: JRC internal indicator</p>	
<p><b>Baseline (2013)</b></p> <p>15.4%</p>	<p><b>Target (2014)</b></p> <p>15%</p>
<p><b>Indicator 5: Implementation of Internal Control Standards in the JRC</b></p> <p>Definition: Average of scores (range between 1 ("Fully Disagree") and 5 ("Fully Agree")), obtained from the annual survey on the implementation of Internal Control Standards.</p> <p>Source: JRC internal indicator</p>	
<p><b>Baseline (2013)</b></p> <p>3.2</p>	<p><b>Target (2014)</b></p> <p>3.4</p>

Table 3.3-2 JRC selected SPP key performance indicators

#### 4. PART 4 – SPECIFIC OBJECTIVES (SO) FOR OPERATIONAL ABB ACTIVITIES

##### 4.1. ABB Activities

###### 4.1.1. Direct actions of the Joint Research Centre (JRC) in support of Union policies<sup>8</sup>

ABB activity: 10 02 - Horizon 2020 — Direct actions of the Joint Research Centre in support of Union policies					
Financial resources (€) in commitment appropriations			Human resources		
Operational expenditure	Administrative expenditure (managed by the service)	Total	Establishment plan posts	Estimates of external personnel (in FTEs)	Total
33,562,103	240,265,018	273,827,121	1357	520	1877

This table includes the administrative resources associated to the ABB activity

**EU added value:** Horizon 2020 has been designed to maximise Union added value and impact, focusing on Specific Objectives that can not be efficiently realised by Member States acting alone. The programme will strengthen the overall research and innovation framework, coordinate Member States' research efforts and implement cross-border research collaboration, thereby avoiding duplication, creating critical mass in key areas and ensuring public financing is used in an optimal way.

The direct actions of the Joint Research Centre ('JRC') provide added value because of their unique European dimension. The Joint Research Centre (JRC) provides independent customer driven scientific and technological support for the formulation, development, implementation and monitoring of Community policies in the areas of: 'Economic Monetary Union'; 'Single market, growth, jobs and innovation'; ' Low-carbon economy and resource efficiency '; ' Agriculture and global food security '; ' Public health, safety and security'. Besides the EU added value, the JRC produces added value also for international organizations, as well as in the broader international context.

**Contributions to the Europe 2020 strategy:** Horizon 2020 shall play a central role in the delivery of the Europe 2020 strategy for smart, sustainable and inclusive growth by providing a common strategic framework for the Union's research and innovation funding, thus acting as a vehicle for leveraging private investment, creating new job opportunities and ensuring Europe's long-term sustainable growth and competitiveness.

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<sup>8</sup> COM(2013) 450 – June 2013; Draft General Budget for the European Commission for the Financial Year 2014, Working Document Part I: "Programme Statements of operational expenditure"

Research and innovation are key factors for Innovation Union and other Europe 2020 flagship initiatives, notably for Resource efficient Europe, an Industrial policy for the globalisation era, and a Digital agenda for Europe.

**Use of evaluation results and/or impact assessments:** The preparation of Horizon 2020 has been based on the outcomes of a substantial impact assessment (SEC(2011)1427) and has taken full account of the conclusions drawn from the different evaluation exercises of the 7<sup>th</sup> Framework Programme (2007-2013), in particular its Interim Evaluation.

*4.1.2. Direct actions of the Joint Research Centre (JRC) in support of the Euratom Programme<sup>9</sup>*

<b>ABB activity: 10 03 - Euratom Programme — Direct actions</b>					
<b>Financial resources</b> (€) in commitment appropriations			<b>Human resources</b>		
Operational expenditure	Administrative expenditure (managed by the service)	Total	Establishment plan posts	Estimates of external personnel (in FTEs)	Total
10,455,000	80,994,690	91,449,690	463	49	512

This table includes the administrative resources associated to the ABB activity

**EU added value:** By exploiting synergies between research efforts of Member States and the private sector, the Euratom Programme contributes to the development of high and harmonised levels of nuclear safety in Europe, development of nuclear competences and sustainable solutions for the management of nuclear waste. It contributes to the effective implementation of nuclear safeguards, to the development of technologies and methodologies in the field of nuclear security mainly in the areas of detection and nuclear forensics. This is achieved mainly in coordination with Member States' research efforts, avoiding duplication, retaining critical mass in key areas and ensuring public financing is used in an optimal way.

The direct actions of the Joint Research Centre ('JRC') provide added value because of their unique European dimension. The Joint Research Centre (JRC) provides independent customer driven scientific and technological support for the formulation, development, implementation and monitoring of Community policies, in the field of nuclear safety and security research and training. Besides the EU added value, the JRC produces added value also for international organizations, as well as in the broader international context.

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<sup>9</sup> COM(2013) 450 – June 2013; Draft General Budget for the European Commission for the Financial Year 2014, Working Document Part I: "Programme Statements of operational expenditure"

**Contributions to the Europe 2020 strategy:** The Euratom Programme is clearly linked to the objectives of the Europe 2020 and Energy 2020 strategies. The programme will contribute to the ‘Innovation Union’ flagship initiative by supporting pre-commercial and policy-relevant research and facilitating technology transfer between academia and industry. By putting emphasis on training in all its activities, and boosting competitiveness in the existing nuclear industry the Euratom Programme will lead to growth and new jobs in a wide range of disciplines.

**Use of evaluation results and/or impact assessments:** The preparations of the Euratom Programme have been based on the outcomes of impact assessment (SEC(2011)1427) and have taken account of the conclusions drawn from the Interim Evaluation of the 7<sup>th</sup> Euratom Framework Programme (2007-2011).

*4.1.3. Historical liabilities resulting from nuclear activities carried out by the Joint Research Centre pursuant to the Euratom Treaty<sup>10</sup>*

<b>ABB activity: 10 05 - Historical liabilities resulting from nuclear activities carried out by the Joint Research Centre pursuant to the Euratom Treaty</b>					
<b>Financial resources</b> (€ in commitment appropriations)			<b>Human resources</b>		
Operational expenditure	Administrative expenditure (managed by the service)	Total	Establishment plan posts	Estimates of external personnel (in FTEs)	Total
26,999,000	9,249,662	36,248,662	77	6	83

This table includes the administrative resources associated to the ABB activity

An important long term objective of the JRC is related to the management of the historical liabilities resulting from nuclear activities carried out by the JRC pursuant to the Euratom Treaty; the activity is referred to as 'decommissioning' in what follows.

The decommissioning activity aims to progressively dismantle the JRC's nuclear installations, either already obsolete (with no foreseen further use) or “future liabilities” (still in use). It also intends to treat “historical” waste (waste accumulated in the past) and waste arising from the dismantling operations. In 1999, the Commission decided to launch a programme to meet this objective. By this choice, the Commission shifted to the practice adopted by most EU Member States, preferring to start the decommissioning immediately after shutdown of the installations rather than deferring decommissioning in the hope that decreasing radiological activity would reduce the financial burden. The programme started in 1999 and is based on the assumption, made for budgetary planning

<sup>10</sup> Draft General Budget 2014, <http://eur-lex.europa.eu/budget/www/index-fr.htm>

reasons, that the decommissioning of the last nuclear installation and the final disposal of historical wastes will be achieved around 2030.

#### 4.1.4. *Competitive and Enlargement & Integration activities*

<b>ABB activity: 10 04 -Competitive and Enlargement &amp; Integration activities</b>					
<b>Financial resources (€) in commitment appropriations</b>			<b>Human resources</b>		
Operational expenditure	Administrative expenditure (managed by the service)	Total	Establishment plan posts	Estimates of external personnel (in FTEs)	Total
n/a	n/a	n/a	0	525	525

This table includes the administrative resources associated to the ABB activity

## 4.2. Specific objectives<sup>11</sup>

<b>Relevant general objective(s):</b>			
<b>JRC General objective 1 :</b> Provide integrated and pro-active scientific and technical support to the European policy making process			
<b>Specific objective 1a (contributing to H2020 Specific Objective 14):</b>			
To provide customer-driven scientific and technical support to Union policies, while flexibly responding to new policy demands in the area of the ' <b>Economic Monetary Union</b> '			
Result indicator: JRC policy support – Number of occurrences of tangible specific impacts on European policies resulting from technical and scientific policy support provided by the Joint Research Centre			
Source: Programme Statements Horizon 2020			
Baseline	Milestone		Target
2012	2014	2017	2020
5	5	6	7

<sup>11</sup> According to the Standing Instructions, General and Specific Objectives in the Management Plans should reflect the information in the Programme Statements as published in the "Draft General Budget of the European Commission for the financial year 2014".

The direct actions of the JRC are covered by Specific Objective 14 in the Programme Statement of Horizon 2020 (General Budget for the European Commission for the Financial Year 2014, Working Document Part I: "Programme Statements") as well as by Specific Objectives 9-13 of the Programme Statement of the EURATOM Research & Training Programme (in the same document).

Following the final adoption of the Horizon 2020 legal basis by the legislative authority a modified content of Horizon 2020 became manifested (namely, three additional specific objectives have been included) which led to the situation in which JRC's direct actions under Horizon 2020 are now covered by Specific Objective 17.

As a consequence, the JRC's direct actions under Horizon 2020 are referred to under Specific Objective 14 in part 4.2 of the document in order to demonstrate alignment with the Programme Statements (for the financial year 2014), whereas Annex 5 on Monitoring and Evaluation, which should be representative of the whole period of the programme (and reflects the adopted legal basis of Horizon 2020) refers to the JRC's direct actions as covered by Specific Objective 17 under Horizon 2020. Please note that in the case of the Horizon 2020 Programme Statement for the financial year 2015, which is currently under drafting, the JRC's direct actions under Horizon 2020 will be also addressed in Specific Objective 17.



Result indicator: Peer-reviewed publications listed in ISI- Number of peer-reviewed publications listed in ISI			
Source: Programme Statements Horizon 2020			
Baseline	Milestone		Target
December 2013	2014	2017	2020
3	3	3	4
Main outputs in 2014			
		Indicator	target <sup>12</sup>
		Nr of policy support deliverables	33
<p>The JRC Work Programme lists several dozens of planned outputs in the area of the 'Economic Monetary Union'</p> <p>Therefore, only the main headlines of the key orientations in the area of the Economic Monetary Union' are mentioned here. A detailed description of the key orientations and the nature and context of the outputs can be found in Annex 1. The list of deliverables can be found at the following link: <a href="http://apps.jrc.cec.eu.int/jpbma">http://apps.jrc.cec.eu.int/jpbma</a></p> <ol style="list-style-type: none"> <li><b>1. Economic Governance</b></li> <li><b>2. Financial regulation and supervision</b></li> <li><b>3. Taxation policy</b></li> </ol>			

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<sup>12</sup> The target values represent the numbers of planned deliverables included in the JRC Work Programme 2014-2015

**Relevant general objective(s):****JRC General objective 1** : Provide integrated and pro-active scientific and technical support to the European policy making process**Specific objective 1b (contributing to H2020 Specific Objective 14):**"To provide customer-driven scientific and technical support to Union policies, while flexibly responding to new policy demands in the area of the '**Single market, growth, jobs and innovation**'"

Result indicator: Policy support impact- Number of occurrences of tangible specific impacts on European policies resulting from technical and scientific policy support provided by the Joint Research Centre

Source: Programme Statements Horizon 2020

Baseline 2012	Milestone		Target 2020
	2014	2017	
33	34	35	36

Result indicator: Peer-reviewed publications listed in ISI- Number of peer-reviewed publications listed in ISI

Source: Programme Statements Horizon 2020

Baseline December 2013	Milestone		Target 2020
	2014	2017	
36	42	43	45

Main outputs in 2014		
	Indicator	Target <sup>13</sup>
	Nr of policy support deliverables	493
<p>The JRC Work Programme lists several hundreds of planned outputs in the area of 'Single market, growth, jobs and innovation'</p> <p>Therefore, only the main headlines of the key orientations in the area of the 'Single market, growth, jobs and innovation' are mentioned here. A detailed description of the key orientations and the nature and context of the outputs can be found in Annex 1. The list of deliverables can be found at the following link: <a href="http://apps.jrc.cec.eu.int/jpbma">http://apps.jrc.cec.eu.int/jpbma</a></p> <ol style="list-style-type: none"> <li><b>1. Research and Innovation policy</b> <ol style="list-style-type: none"> <li>a) Framework conditions for research and innovation, including national policies</li> <li>b) Measuring progress towards EU Research and Innovation goals</li> </ol> </li> <li><b>2. Single Market policies</b></li> <li><b>3. Enterprise and industry policy</b></li> <li><b>4. Regional policy</b></li> <li><b>5. Employment and social affairs</b></li> <li><b>6. Education and Culture</b></li> <li><b>7. Digital Europe</b></li> <li><b>8. Consumer policy and consumer rights</b></li> <li><b>9. Trade policy</b></li> </ol>		

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<sup>13</sup> The target values represent the numbers of planned deliverables included in the JRC Work Programme 2014-2015

**Relevant general objective(s):**

**JRC General objective 1** : Provide integrated and pro-active scientific and technical support to the European policy making process

**Specific objective 1c (contributing to H2020 Specific Objective 14):**

To provide customer-driven scientific and technical support to Union policies, while flexibly responding to new policy demands in the area of the '**Low carbon economy and resource efficiency**'

Result indicator: Policy support impact - Number of occurrences of tangible specific impacts on European policies resulting from technical and scientific policy support provided by the Joint Research Centre

Source: Programme Statements Horizon 2020

Baseline 2012	Milestone		Target 2020
	2014	2017	
82	83	84	87

Result indicator: Peer-reviewed publications listed in ISI - Number of peer-reviewed publications listed in ISI

Source: Programme Statements Horizon 2020

Baseline December 2013	Milestone		Target 2020
	2014	2017	
195	227	232	244

**Main outputs in 2014**

	indicator	target <sup>14</sup>
	Nr of policy support deliverables	983

The JRC Work Programme lists several hundreds of planned outputs in the area of

'Low carbon economy and resource efficiency'

Therefore, only the main headlines of the key orientations in the area of the 'Low carbon economy and resource efficiency' are mentioned here. A detailed description of the key orientations and the nature and context of the outputs can be found in Annex 1. The list of deliverables can be found at the following link: <http://apps.jrc.cec.eu.int/jpbma>

<sup>14</sup> The target values represent the numbers of planned deliverables included in the JRC Work Programme 2014-2015

## 1. Environment

- a) Natural resources management
- b) A resource-efficient, green and competitive low-carbon economy
- c) Protection from environment-related risks to human health and wellbeing

## 2. Climate action

- a) Climate change impacts and climate policies
- b) Low carbon technologies

## 3. Energy

## 4. Mobility and transport

### Relevant general objective(s):

**JRC General objective 1** : Provide integrated and pro-active scientific and technical support to the European policy making process

### Specific objective 1d (contributing to H2020 Specific Objective 14):

To provide customer-driven scientific and technical support to Union policies, while flexibly responding to new policy demands in the area of the '**Agriculture and global food security**'

Result indicator: Policy support impact - Number of occurrences of tangible specific impacts on European policies resulting from technical and scientific policy support provided by the Joint Research Centre

Source: Programme Statements Horizon 2020

Baseline 2012	Milestone		Target 2020
	2014	2017	
19	20	21	23

Result indicator: Peer-reviewed publications listed in ISI - Number of peer-reviewed publications listed in ISI

Source: Programme Statements Horizon 2020

Baseline December 2013	Milestone		Target 2020
	2014	2017	
47	55	57	59

Main outputs in 2014		
	indicator	target <sup>15</sup>
	Nr of policy support deliverables	123
<p>The JRC Work Programme lists more than one hundred planned outputs in the area of 'Agriculture and global food security'</p> <p>Therefore, only the main headlines of the key orientations in the area of the 'Agriculture and global food security' are mentioned here. A detailed description of the key orientations and the nature and context of the outputs can be found in Annex 1. The list of deliverables can be found at the following link: <a href="http://apps.jrc.cec.eu.int/jpbma">http://apps.jrc.cec.eu.int/jpbma</a></p> <p><b>1. Agriculture and rural development</b></p> <p><b>2. Maritime affairs and fisheries</b></p>		

<b>Relevant general objective(s):</b>			
<b>JRC General objective 1 :</b> Provide integrated and pro-active scientific and technical support to the European policy making process			
<b>Specific objective 1e (contributing to H2020 Specific Objective 14):</b>			
To provide customer-driven scientific and technical support to Union policies, while flexibly responding to new policy demands in the area of the ' <b>Public health, safety and security</b> '			
Result indicator: Policy support impact - Number of occurrences of tangible specific impacts on European policies resulting from technical and scientific policy support provided by the Joint Research Centre			
Source: Programme Statements Horizon 2020			
Baseline	Milestone		Target
2012	2014	2017	2020
65	66	67	68

<sup>15</sup> The target values represent the numbers of planned deliverables included in the JRC Work Programme 2014-2015

Result indicator: Peer-reviewed publications listed in ISI - Number of peer-reviewed publications listed in ISI			
Source: Programme Statements Horizon 2020			
Baseline	Milestone		Target
December 2013	2014	2017	2020
115	133	139	144
Main outputs in 2014			
		indicator	target <sup>16</sup>
		Nr of policy support deliverables	636
<p>The JRC Work Programme lists several hundreds of planned outputs in the area of 'Public health, safety and security'</p> <p>Therefore, only the main headlines of the key orientations in the area of the 'Public health, safety and security' are mentioned here. A detailed description of the key orientations and the nature and context of the outputs can be found in Annex 1. The list of deliverables can be found at the following link: <a href="http://apps.jrc.ec.eu.int/jpbma">http://apps.jrc.ec.eu.int/jpbma</a></p> <ol style="list-style-type: none"> <li><b>1. Health</b></li> <li><b>2. Food, feed and product safety and quality policies</b></li> <li><b>3. Home affairs</b></li> <li><b>4. Justice</b></li> <li><b>5. Customs policy and fight against fraud</b></li> <li><b>6. Solidarity with developing countries</b> <ol style="list-style-type: none"> <li>a) Humanitarian, development and cooperation policies</li> <li>b) Climate change, environment, natural resources and water</li> <li>c) Rural development and food security</li> <li>d) Energy</li> </ol> </li> <li><b>7. Global Safety and Security policies</b></li> </ol>			

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<sup>16</sup> The target values represent the numbers of planned deliverables included in the JRC Work Programme 2014-2015

**Relevant general objective(s):**

**JRC General Objective 2:** To pursue nuclear research and training activities with an emphasis on continuous improvement of nuclear safety, security and radiation protection, notably to potentially contribute to the long-term decarbonisation of the energy system in a safe, efficient and secure way.

**Specific objective 2a (contributing to EURATOM Research & Training Programme Specific Objective 9):**

"To improve nuclear safety including, fuel and reactor safety, waste management and decommissioning, and emergency preparedness"

Result indicator: Policy support impact - Number of occurrences of tangible specific impacts on European policies resulting from technical and scientific policy support provided by the Joint Research Centre

Source: EURATOM Research & Training Programme

Baseline	Milestone	Target
2012	2015	2018
12	12	12

Result indicator: Peer-reviewed publications listed in ISI - Number of peer-reviewed publications listed in ISI

Source: EURATOM Research & Training Programme

Baseline	Milestone	Target
December 2013	2015	2018
68	>40	>40



Main outputs in 2014		
	Indicator	target <sup>17</sup>
	Nr of policy support deliverables	305
<p>The JRC Work Programme lists several hundreds of planned outputs in the area of "Nuclear safety including, fuel and reactor safety, waste management and decommissioning, and emergency preparedness"</p> <p>Therefore, only the main headlines of the key orientations in the area of the 'Nuclear safety including, fuel and reactor safety, waste management and decommissioning, environmental monitoring and emergency preparedness' are mentioned here. A detailed description of the key orientations and the nature and context of the outputs can be found in Annex 1. The list of deliverables can be found at the following link: <a href="http://apps.jrc.cec.eu.int/jpbma">http://apps.jrc.cec.eu.int/jpbma</a></p> <ol style="list-style-type: none"> <li><b>1. Nuclear reactor safety</b></li> <li><b>2. Nuclear decommissioning</b></li> <li><b>3. Nuclear Emergency Preparedness and Response (EP&amp;R), environmental monitoring and radiation protection</b></li> <li><b>4. Safety of nuclear fuels, fuel cycle safety and radioactive waste management</b></li> </ol>		

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<sup>17</sup> The target values represent the numbers of planned deliverables included in the JRC Work Programme 2014-2015

<b>Relevant general objective(s):</b>		
<b>JRC General Objective 2:</b> To pursue nuclear research and training activities with an emphasis on continuous improvement of nuclear safety, security and radiation protection, notably to potentially contribute to the long-term decarbonisation of the energy system in a safe, efficient and secure way.		
<b>Specific objective 2b (contributing to EURATOM Research &amp; Training Programme Specific Objective 10):</b>		
"To improve nuclear security including: nuclear safeguards, non-proliferation, combating illicit trafficking and nuclear forensics"		
Result indicator: Policy support impact - Number of occurrences of tangible specific impacts on European policies resulting from technical and scientific policy support provided by the Joint Research Centre		
Source: EURATOM Research & Training Programme		
Baseline	Milestone	Target
2012	2015	2018
14	14	14
Result indicator: Peer-reviewed publications listed in ISI - Number of peer-reviewed publications listed in ISI		
Source: EURATOM Research & Training Programme		
Baseline	Milestone	Target
December 2013	2015	2018
15	>45	>45
<b>Main outputs in 2014</b>		
	indicator	target <sup>18</sup>
	Nr of policy support deliverables	219
<p>The JRC Work Programme lists more than two hundred planned outputs in the area of 'Nuclear security including: nuclear safeguards, non-proliferation, combating illicit trafficking and nuclear forensics'</p> <p>Therefore, only the main headlines of the key orientations in the area of the 'Nuclear security including: nuclear safeguards, non-proliferation, combating illicit trafficking and nuclear forensics' are mentioned here. A detailed description of the key orientations and the nature and context of the outputs can be found in Annex 1. The list of deliverables can be found at the following link: <a href="http://apps.jrc.cec.eu.int/jpbma">http://apps.jrc.cec.eu.int/jpbma</a></p>		

<sup>18</sup> The target values represent the numbers of planned deliverables included in the JRC Work Programme 2014-2015

- 1. Nuclear safeguards**
- 2. Nuclear non-proliferation (cross-cutting with trade policy, customs policy and fight against fraud)**
- 3. Prevention and mitigation of chemical, biological, radiological and nuclear (CBRN) hazards with a focus on Radiological and Nuclear security**

<b>Relevant general objective(s):</b> <b>JRC General Objective 2:</b> To pursue nuclear research and training activities with an emphasis on continuous improvement of nuclear safety, security and radiation protection, notably to potentially contribute to the long-term decarbonisation of the energy system in a safe, efficient and secure way.		
<b>Specific objective 2c (contributing to EURATOM Research &amp; Training Programme Specific Objective 11):</b>  "To raise excellence in the nuclear science base for standardisation"		
Result indicator: Policy support impact - Number of occurrences of tangible specific impacts on European policies resulting from technical and scientific policy support provided by the Joint Research Centre Source: EURATOM Research & Training Programme		
Baseline 2012	Milestone 2015	Target 2018
14	14	14
Result indicator: Peer-reviewed publications listed in ISI - Number of peer-reviewed publications listed in ISI Source: EURATOM Research & Training Programme		
Baseline December 2013	Milestone 2015	Target 2018
56	>55	>55
<b>Main outputs in 2014</b>		
	indicator	target <sup>19</sup>
	Nr of policy support deliverables	85
The JRC Work Programme lists more than one hundred planned outputs in the area of 'Raise excellence in the nuclear science base for standardisation'  Therefore, only the main headlines of the key orientations in the area of the 'Raising excellence in the nuclear science base for standardisation' are mentioned here. A detailed description of the key orientations and the nature and context of the outputs can be found in Annex 1. The list of deliverables can be found at the following link:		

<sup>19</sup> The target values represent the numbers of planned deliverables included in the JRC Work Programme 2014-2015

<http://apps.jrc.cec.eu.int/jpbma>

- Research on fundamental properties and behaviour of innovative nuclear and structural materials;
- Providing state-of-the-art nuclear reference materials, measurements and data;
- Standardization and harmonisation related to waste management, decommissioning and environmental monitoring and remediation;
- Development of EU standards on security and EU standards on structural material properties;
- Development of non-nuclear energy applications of radionuclides and technologies

**Relevant general objective(s):**

**JRC General Objective 2:** To pursue nuclear research and training activities with an emphasis on continuous improvement of nuclear safety, security and radiation protection, notably to potentially contribute to the long-term decarbonisation of the energy system in a safe, efficient and secure way.

**Specific objective 2d (contributing to EURATOM Research & Training Programme Specific Objective 12):**

"To foster knowledge management, education and training"

Result indicator: Policy support impact - Number of occurrences of tangible specific impacts on European policies resulting from technical and scientific policy support provided by the Joint Research Centre

Source: EURATOM Research & Training Programme

Baseline	Milestone	Target
2012	2015	2018
12	12	12

Result indicator: Peer-reviewed publications listed in ISI - Number of peer-reviewed publications listed in ISI

Source: EURATOM Research & Training Programme

Baseline	Milestone	Target
December 2013	2015	2018
34	>15	>15

Main outputs in 2014		
	indicator	target <sup>20</sup>
	Nr of policy support deliverables	75
<p>The JRC Work Programme lists close to one hundred planned outputs in the area of 'Foster knowledge management, education and training'</p> <p>Therefore, only the main headlines of the key orientations in the area of 'Knowledge management, education and training' are mentioned here. A detailed description of the key orientations and the nature and context of the outputs can be found in Annex 1. The list of deliverables can be found at the following link: <a href="http://apps.jrc.cec.eu.int/jpbma">http://apps.jrc.cec.eu.int/jpbma</a></p> <ul style="list-style-type: none"> <li>- Monitoring EU trends in human resources in the nuclear energy field;</li> <li>- Review of tools for public participation in the nuclear energy field, and development of a knowledge centre for transparency governance;</li> <li>- Ensure the preservation, further build-up and dissemination of specific scientific and techno-political knowledge related to nuclear safety and security;</li> <li>- Enhancement of the access of researchers from the EU Member States and beyond to the JRC nuclear laboratories;</li> </ul> <p>International cooperation</p>		

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<sup>20</sup> The target values represent the numbers of planned deliverables included in the JRC Work Programme 2014-2015

<b>Relevant general objective(s):</b>		
<b>JRC General Objective 2:</b> To pursue nuclear research and training activities with an emphasis on continuous improvement of nuclear safety, security and radiation protection, notably to potentially contribute to the long-term decarbonisation of the energy system in a safe, efficient and secure way.		
<b>Specific objective 2e (contributing to EURATOM Research &amp; Training Programme Specific Objective 13):</b>		
"To support the policy of the Union on nuclear safety and security and the related evolving Union legislation"		
Result indicator (definition): JRC policy support – Number of occurrences of tangible specific impacts on European policies resulting from technical and scientific policy support provided by the Joint Research Centre Source: EURATOM Research & Training Programme		
Baseline	Milestone	Target
2012	2015	2018
6	6	6
Result indicator (definition): Peer-reviewed publications listed in ISI - Number of peer-reviewed publications listed in ISI Source: EURATOM Research & Training Programme		
Baseline	Milestone	Target
December 2013	2015	2018
Not applicable	Not applicable	Not applicable
<b>Main outputs in 2014</b>		
	Indicator:	target <sup>21</sup>
	Nr of policy support deliverables	101
<p>The JRC Work Programme lists close to one hundred planned outputs in the area of 'Support the policy of the Union on nuclear safety and security and the related evolving Union legislation'</p> <p>Therefore, only the main headlines of the key orientations in the area of 'Support the policy of the Union on nuclear safety and security' are mentioned here. A detailed description of the key orientations and the nature and context of the outputs can be found in Annex 1. The list of deliverables can be found at the following link: <a href="http://apps.jrc.cec.eu.int/jpbma">http://apps.jrc.cec.eu.int/jpbma</a></p>		

<sup>21</sup> The target values represent the numbers of planned deliverables included in the JRC Work Programme 2014-2015

- Technical and scientific assistance to the implementation of the EU nuclear safety Directive and EURATOM Treaty Art. 41 – 43;
- Technical assistance in the development, monitoring and evaluation of the implementation of different projects under the EU policy instruments promoting highest nuclear safety internationally;
- Providing integrated scientific support to the policy DGs for improved emergency preparedness at EU level;
- Technical assistance to the implementation of the EU Directive for the responsible and safe management of spent nuclear fuel and radioactive waste.
- Support to the policy DG for the preparation and implementation of EU activities in third countries;
- Development and implementation of JRC related technical and research programmes under international organisations initiatives and EURATOM agreements.

**Relevant general objective(s):**

**JRC General objective 1 :** Provide integrated and pro-active scientific and technical support to the European policy making process

**JRC General Objective 2:** To pursue nuclear research and training activities with an emphasis on continuous improvement of nuclear safety, security and radiation protection, notably to potentially contribute to the long-term decarbonisation of the energy system in a safe, efficient and secure way.

**Specific objective 3:**

Pursue the development of cross-cutting JRC activities

Result indicator: JRC policy support – Number of occurrences of tangible specific impacts on European policies resulting from technical and scientific policy support provided by the Joint Research Centre

Source: Programme Statements Horizon 2020; EURATOM Research & Training Programme

Baseline 2012	Milestone		Target 2020
	2014	2017	
7	7	7	9

Result indicator (definition): Peer-reviewed publications listed in ISI - Number of peer-reviewed publications listed in ISI

Source: Programme Statements Horizon 2020; EURATOM Research & Training Programme

Baseline December 2013	Milestone		Target 2020
	2014	2017	
4	5	6	7



Main outputs in 2014		
	Indicator:	target <sup>22</sup>
	Nr of policy support deliverables	43
<p>The JRC Work Programme lists several dozens of planned outputs in the area of 'Development of cross-cutting JRC activities'</p> <p>Therefore, only the main headlines of the key orientations in the area of 'Development of cross-cutting JRC activities' are mentioned here. A detailed description of the key orientations and the nature and context of the outputs can be found in Annex 1. The list of deliverables can be found at the following link: <a href="http://apps.jrc.cec.eu.int/jpbma">http://apps.jrc.cec.eu.int/jpbma</a></p> <ol style="list-style-type: none"> <li><b>1. Impact Assessments Audit</b></li> <li><b>2. Enlargement and neighbourhood policy</b></li> <li><b>3. Media Monitoring and analysis for policy purposes</b></li> <li><b>4. Intellectual Property Rights</b></li> </ol>		

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<sup>22</sup> The target values represent the numbers of planned deliverables included in the JRC Work Programme 2014-2015.

<b>Relevant general objective(s):</b>		
<b>JRC General objective 1 :</b> Provide integrated and pro-active scientific and technical support to the European policy making process		
<b>JRC General objective 2:</b> To pursue nuclear research and training activities with an emphasis on continuous improvement of nuclear safety, security and radiation protection, notably to potentially contribute to the long-term decarbonisation of the energy system in a safe, efficient and secure way		
<b>Specific objective 4:</b>		
Maintain scientific excellence in JRC core competences		
<b>Result indicator 1 :</b> Peer-reviewed publications listed in ISI - Number of peer-reviewed publications listed in ISI		
Source: Programme Statements Horizon 2020; EURATOM Research & Training Programme		
Baseline	Milestone	Target
2012 (Programme Statements) EC: 465 Euratom:155	EC: 2017: 480 Euratom: 2015: >155	EC: 2020: 500 Euratom: 2018: >155
December 2013 EC: 388 Euratom:163		
<b>Result indicator 2:</b> Peer-reviewed publications co-authored with non-JRC authors - Proportion of peer-reviewed publications co-authored with non-JRC authors/total number of peer-reviewed publications		
Source: JRC internal indicator		
Baseline (2013)	Milestone (2017)	Target (2020)
72%	(EC+Euratom) 72±3%	72±3%
<b>Result indicator 3:</b> International collaborations - Proportion of peer-reviewed publications co-authored with organisations from countries outside ERA/total number of peer-reviewed publications		
Source: JRC internal indicator		
Baseline (2013)	Milestone (2017)	Target (2020)
21%	(EC+Euratom) 21±3%	21±3%
<b>Result indicator 4:</b> Cashed competitive income - Annual cashed income from activities outside Institutional budget (% of the Institutional budget)		
Source: JRC internal indicator		
Baseline (2013)	Milestone (2017)	Target (2020)
15.4%	(EC+Euratom) 15%	15%
<b>Main outputs in 2014:</b>		
JRC publications can be consulted in the JRC Scientific Knowledge Portal <a href="http://skp.jrc.cec.eu.int/skp">http://skp.jrc.cec.eu.int/skp</a> and in the publications repository <a href="http://publications.jrc.ec.europa.eu/repository">http://publications.jrc.ec.europa.eu/repository</a>		

<b>Relevant general objective(s): N/A</b>		
<b>Specific objective 5:</b>		
Historical liabilities resulting from nuclear activities carried out by the JRC pursuant to the Euratom Treaty		
<ul style="list-style-type: none"> <li>➤ Implement the Decommissioning &amp; Waste Management Programme (see progress indicators)</li> </ul>		
This is a long term objective of the JRC, which is related to the management of the liabilities resulting from nuclear activities carried out by the JRC pursuant to the Euratom Treaty.		
Due to the status of their facilities and to their respective environment, the Ispra site (IT) is engaged in a wider range of activities than the three other sites Geel (BE), Karlsruhe (DE) and Petten (NL), where most facilities are still operational.		
Result indicator: <b>"Proportion of progress of decommissioning programme (in budget consumption)"</b>		
This indicator is presented broken down to the situation on the four relevant JRC sites Source: The values are obtained from the managers of the decommissioning process on the various sites.		
1. Decommissioning and waste management activities at <b>Ispra</b> ( <i>calculation of progress does not include final repository fees budget</i> )		
Baseline	Milestone 2014	Target (result at the end of the programme)
37%	42%	100% (in 2030)
2. Pre-decommissioning - waste management activities at <b>Karlsruhe</b>		
Baseline	Milestone 2014	Target (result at the end of the programme)
17%	18%	100% (date not defined)
3. Pre-decommissioning and waste management activities at <b>Geel</b>		
Baseline	Milestone 2014	Target (date not defined)
20%	20%	100% (in 2030)
4. Pre-decommissioning and waste management activities at <b>Petten</b>		
Baseline	Milestone 2014	Target (result at the end of the programme)
25%	25%	100% (date not defined)
Note: With respect of the evolution of the programme and in comparison with the previous annual management plan, new indicators have been defined which reflect better the progress of the main on-going projects and the respective expected outputs.		
<b>Main outputs in 2014</b>		
Main outputs in 2014 broken down according to the four relevant JRC sites can be found in Annex 2.	indicator	target

**Relevant general objective(s): N/A**

**Specific objective 6:** the specific objectives are as follows:

- 6a. Provision of services and work on behalf of outside bodies
- 6b. Scientific and technical support for Union policies on a competitive basis
- 6c. Operation of the high-flux reactor (HFR)

*Brief description:*

**Provision of services and work on behalf of outside bodies (10 04 02)**

This includes research and supply of services under contract to third parties, such as industry, national or regional authorities, as well as contracts in the context of Member States' research programmes. The main objective driving the participation of the JRC in competitive activities is the development of added value to its institutional programme (acquisition/development of knowledge, networking increase, benchmarking, etc.).

**Scientific and technical support for Union policies on a competitive basis (10 04 03)**

This addresses scientific support tasks performed by the JRC, – in addition to its Institutional Research Framework Programme – and carried out on a competitive basis in support of the European Union's policies (for instance support to Directorate General Energy for the On-Site Laboratories (OSL)).

**Operation of the high-flux reactor (HFR) (10 04 04)**

This covers the implementation of the **HFR Supplementary Research Programme 2012-2015 that has the following** scientific and technical objectives:

- to provide a safe, steady and reliable neutron flux for experimental purposes,
- to perform research and development on: material and fuel science for the improvement of the safety of existing nuclear and future reactors (both fission and fusion); radioisotopes for medical applications, reactor ageing and life management, and on waste management,
- to act as a training facility hosting doctoral and post-doctoral fellows in performing their research activities through national or European Programmes.

The reactor is also used for the commercial production of radio-isotopes totalling more than 60% of all the 10 million medical diagnoses executed each year in Europe. It is a fundamental supplier for European radiopharmaceutical companies in this field.

Chapter 10 04 04 is a budgetary structure intended to receive appropriations of earmarked nature from the Supplementary Research Programme of the HFR in Petten. This Supplementary Programme being fully covered by the financing given by the participating Member States (currently the Netherlands, Belgium and France); it requires a budgetary structure but does not require any financing in commitments or payments from the Commission Budget.

6a, 6b. Result indicator: Cashed competitive income - Annual cashed income from activities outside Institutional budget (% of the Institutional budget)		
Baseline	Milestone	Target
2013	2017	2020
15.4%	15%	15%
Main outputs in 2014		
Description	indicator	target
6c. HFR 1 Mid-term operation Report on the activity of the HFR in years 2012-2013	1 report	1 report

## 5. PART 5 – HORIZONTAL ACTIVITIES

This chapter groups specific objectives related to horizontal activities, i.e. the set of activities related to 'Policy strategy and coordination' (Part 5.1) and to 'Administrative support' (Part 5.2).

a) The 'Policy strategy and coordination' activity includes all functions aimed at steering or coordinating the policies for which the service is responsible. These functions (such as policy strategy definition and coordination, strategic planning and programming, internal and external communication, coordination of inter-institutional affairs, legal affairs, evaluation and impact assessment) contribute directly to the success of the DG's policies.

b) The 'Administrative support' activity includes functions that are necessary for running the organisation, such as financial management, HR, ICT, internal audit, internal control and risk management. These functions are indirectly linked to the policies for which the service is responsible.

### 5.1. Policy Strategy and Coordination

This specific objective includes all functions aimed at steering or coordinating the corporate level activities of the JRC.		
<b>Specific objective 7:</b>		
Coordinate the planning, reporting, monitoring and evaluation in the JRC.		
Main outputs in 2014		
Description	Indicator/Deliverable	target
1) Coordination of Work Programme Process	- 2-year rolling Work Programme - permanent update	Q4 Throughout the year
2) Strengthening of relations with policy DGs	Permanently updated Administrative Arrangements/MoUs  Up-to-date repository of AAs/MoUs	Throughout the year Throughout the year
3) Coordination of the Management Plan Process	JRC Management Plan 2015	Q4

4) Coordination of the Annual Activity Report Process	JRC Annual Activity Report 2013	Q1
5) Annual evaluation of the JRC Work Programme (Process of the Periodic Action Review, PAR)	Periodic Action review implemented  Mapping of the JRC outputs and impacts  JRC Productivity and Impact Report	Q1  Q2  Q2
6) Strengthening the integration of scientific advice into policy-making by providing additional inputs to the policy cycle		
6a) Modelling  Rolling review of JRC's contributions to impact assessments with a view to strengthening the JRC's role in future IAs.  Set up a quality assurance framework for JRC models	6a. Report of JRC's contribution to impact assessments in 2013; rolling inventory for 2014  Agreed guidelines for the quality assurance of JRC models and modelling	Q1 Throughout the year  Q4
6b) Behavioural Sciences  Management of the internal Behavioural Science Task Force	6b. Organization of meetings  Provision and archiving of documents	Throughout the year Throughout the year
6c) Training on policy support  Revised JRC strategy for science advice to policy  Guidelines for JRC scientists  Seminar on JRC science advice to policy DGs	6c. Note to Board of Governors  Vademecum document  Seminar event	Q1  Q1  Q2
6d) Fact & Figures service	6d. Methodological framework	Q2

**Specific objective 8:**

Develop and implement processes and infrastructure for JRC knowledge management and dissemination.

**Main outputs in 2014**

Description	Indicator/Deliverable	target
1) JRC open access policy implementation	All new JRC peer-reviewed publications open access	Throughout the year
2) upgraded action reporting, monitoring and evaluation modules;	Progress Monitoring report of WP deliverables	Throughout the year
3) completion of the JRC scientific knowledge portal	Federated search in publications, deliverables, models, highlights, domain expert	Throughout the year

**Specific objective 9:**

Support the implementation of the JRC International Relations strategy

Besides the EU added value, the JRC produces added value also for international organizations, as well as in the broader international context. On top of that, the JRC also draws on the expertise of its international partners.

For JRC it is therefore of key importance to enjoy relations and have co-operations with international partners. Supporting the implementation of JRC's international relations strategy is key in facilitating relations and co-operations with international partners, in particular at the level of scientific research in support of policy.

The JRC international relations strategy identifies three groups of co-operation partners:

- **Priority countries (USA, Brazil, China, India, Japan and Russia)**, in which overarching co-operation will be developed with key institutions in the areas of the JRC Key orientations.
- **All other countries except EU Member States, enlargement and neighbourhood countries):** operations may be developed with relevant partners in specific fields of mutual interest.
- **International Organisations:** (e.g. the United Nations Environment Programme-UNEP, World Health Organisation, the World Bank, IAEA etc) to which the JRC will provide its technical input on behalf of the Commission for activities of its competence.



Result indicator: Overarching cooperation with key partner countries and international organisations strategically conducted, regularly developed and updated.			
Baseline	Milestone		Target
N/A	N/A	N/A	N/A
Main outputs in 2014			
<p>Strengthened relations with:</p> <ul style="list-style-type: none"> <li>– US National Oceanic and Atmospheric Administration (NOAA);</li> <li>– Brazilian Ministry of Science and Technology (MCTI);</li> <li>– South African National Space Agency (SANSA);</li> <li>– US - National Institute of Standards and Technology (NIST).</li> </ul> <p>Through efforts provided for the following:</p>			target
<p>1) Implementation of overarching cooperation arrangements in Force</p> <p>1a) Coordination of Work programmes, agreed by Steering Groups composed of JRC and the cooperation partners.; organization of Steering Committees meetings</p> <p>1b) Coordination meetings, related to the Overarching Arrangements in force;</p> <p>Work programmes developed and updated</p> <p>1c) Issue of regular progress reports related to the implementation of Overarching Arrangements;</p> <p>Progress reports issued</p>			<p>1a SANSA - S1</p> <p>1a NIST - S2</p> <p>1b SANSA - S1</p> <p>1b NIST - S2</p> <p>1c SANSA - S1</p> <p>1c NIST - S2</p>

<p>2) Conclusion of new JRC Cooperation Arrangements with key partner countries and international organisations</p> <p>2a) Number of opinions on requests submitted by the institutes, related to cooperation with international organisations</p> <p>Overarching Arrangements concluded with:</p> <ol style="list-style-type: none"> <li>1. US Geological Survey;</li> <li>2. Food and Drug Administration;</li> <li>3. São Paulo Research Foundation – FAPESP;</li> <li>4. Chinese Ministry of Science and Technology;</li> <li>5. Chinese Academy of Sciences</li> <li>6. World Health Organisation</li> <li>7. United Nations Environment Programme</li> <li>8. World Bank</li> </ol> <p>2b) Number of new overarching arrangements with key partner countries and international organisations.</p> <p>Request screening completed within a target time-frame of 1 month following the receipt of the request for at least 10 arrangements with priority countries in the non-nuclear field expiring between end 2013 -2014.</p> <p>2c) Number of JRC/third partner cooperation Arrangements at Institute level coordinated by A2</p>	<p>target</p> <p>2a1. S1</p> <p>2a2. S2</p> <p>2a3. S1</p> <p>2a4. S1</p> <p>2a5. S1</p> <p>2a6. S1</p> <p>2a7. S1</p> <p>2a8. S2</p>
<p>3) Contribution to policy dialogues on R&amp;I, including Joint Steering Committees</p> <p>3a) Contribution to policy dialogues with key partner countries.</p> <p>3b) Number of EU-Third Country Joint Consultative Group.</p> <p>3c) Presentation of relevant JRC cooperation: EU-US Joint Consultative Group (1 semester);</p> <ol style="list-style-type: none"> <li>1. Joint Steering Committees with Japan, Russia, South Africa;</li> <li>2. Brazil, China, India</li> </ol>	<p>target</p> <p>3.1 S1</p> <p>3.2 S2</p>
<p>4) Coordination/ organisation of events related to the cooperation with the key partners.</p> <p>4a) Inauguration of the JRC Interoperability Centre at Ispra (1 trimester 2014);</p> <p>4b) High-Level Conference on "Oceans and Seas: protecting and enhancing the value of resources", planned in co-operation with NOAA and AAAS (2 trimester 2014).</p>	<p>target</p> <p>4a. Q1</p> <p>4b. Q2</p>

Besides the EU added value, the JRC produces added value also at regional, national and international level. On top of that, the JRC also draws on the expertise of its partner organizations at these levels.

**Specific objective 10:**

Address in an active and coordinated manner the JRC's visibility among the key stakeholders within the EU decision making bodies, EU Member States, Horizon 2020 Associated Countries, Candidate and potential candidate countries, scientific associations, business community as well as academia (including EASAC - European Academies Science Advisory Council).

**Main outputs in 2014**

	target
Visits of the JRC Director General to Member States' capitals as well as high-level meetings/events with key stakeholders organized.	Q1-Q4
Organisation of the visits of the Members of the EP to the JRC Institutes (according to the demand and availability of MEPs during the election year 2014;	Q1-Q4
Organisation of the JRC - EP Interface Working Group (at least one high-level meeting on a topical issue);	Q2-Q3
Organisation of the STOA - JRC High-level meetings (at least one high-level meeting on a topical issue);	Q2-Q3
2 major Council Presidency events in 2014 co-organized and contributions to at least two other initiatives/conferences per Presidency	Q1-Q4
Organisation of the JCR – EASAC Steering Group meetings (twice a year)	Q2 + Q4
Organisation of two meetings of the JRC – EASAC Working Group on Marine Sustainability	Q2 + Q4
JRC – EASAC Joint Report on Energy Carriers for Transport:	2015
Invitations for the business community to relevant major JRC events (target: business involvement in at least 3 major JRC events);	Q1-Q4
Organisation of the meeting for the JRC NCPs in Horizon 2020	Q4
Organisation of the High level event on the Scientific Support to the Danube Strategy in Krems (Austria)	May 2014
Coordination of the implementation of the Danube flagship clusters.	Q1-Q4
Organisation of visits of the representatives of Enlargement countries to the JRC Institutes	Q1-Q4

**Specific objective 11:**

Support DG ENER in the preparation of the EURATOM report on the implementation of the obligations under the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.

**Main outputs in 2014**

Contribution (conceptual, drafting, proofreading, update of data,) to the relevant chapters of the EURATOM Joint Convention Report in a continuous and interactive process.	target
	Q4

## 5.2. Administrative Support

This chapter groups the objectives for all activities that aim at increasing the overall efficiency and quality of horizontal support functions and/or the overall effectiveness of the JRC. These fall into two categories: the specific objectives 5.2-1-4 address the continuous performance development of horizontal administrative functions, aimed at enhancing in particular:

- Corporate Governance
- Efficiency and effectiveness of resource management
- Customer oriented service delivery
- Compliance with legal / procedural requirements

The specific horizontal objective 5.2-5 describes initiatives for developing the JRC's IT infrastructures.

<p><b>Specific objective 12:</b></p> <p>To develop and coordinate core organisational functions, processes and systems, and to align them with the JRC business strategy, to improve operational efficiency of JRC administrative and support services, while reducing costs and risks, and to drive service excellence.</p>	
<p><b>Indicator 1:</b> Proportion of local support staff</p> <p>Definition: Number of intra muros jobs in support and coordination functions in a local role / Total number of intra muros jobs * 100%.</p> <p>Source: "HR Reporting" (Owner: DG HR).</p>	
<p><b>Baseline</b> (30/09/2013) 10.2%</p>	<p><b>Target</b> (2014) 8.8% (= Commission value for 2013)</p>
<p><b>Indicator 2:</b> JRC internal customer satisfaction index regarding the efficiency of JRC support services</p> <p>Definition: Average of scores "Satisfied" and "Somewhat Satisfied" over all services included in the questionnaire of the JRC internal customer satisfaction survey</p> <p>Source: JRC internal survey (Owner: JRC.B.1)</p>	
<p><b>Baseline</b> (31/12/2013) 70%</p>	<p><b>Target</b> Indicator will initially be used for monitoring only. Targets may be set after the piloting phase.</p>
<p><b>Indicator 3:</b> Overall job satisfaction of JRC staff</p>	

Definition: Average of scores "Very Satisfied" and "Satisfied" extracted from the EC Staff Satisfaction Survey and filtered for the JRC, concerning the question on "Your overall job satisfaction"

Source: "HR Reporting" (Owner: DG HR)

**Baseline** (31/12/2013)  
69.3%

**Target** (2014)  
72.2 (= Average value for all Commission staff in 2013)

**Main outputs for this specific objective**

- Completion of 85% of Integrated Management System (IMS) documentation, phase in of supporting software application and start of IMS implementation.
- Business Process Re-engineering launched for critical JRC support processes, starting with HR recruitment and selection process. Identification of internal controls embedded in processes together with improved consideration of risk management, business continuity and document management.
- Design and roll-out of a Document Management strategy and implementation of an action plan, in response to IAC recommendations, SG expectations and other inputs.
- Further integration of JRC administrative support planning, monitoring and reporting, with IMS processes, with a view to creating a uniform performance monitoring framework (e.g. MP, AAR, TdB, admin. work-programme) and related tools
- Review of Business Continuity Plans
- Full ICT security assessment of JRC scientific Active Directory domains
- At least 2 more JRC sites verified for EMAS registration (candidates: Geel, Karlsruhe and Seville)

<b>Specific objective 13:</b>	
Recruit, train, assess, motivate and retain highly qualified staff so that effective and efficient operation of the DG as well as promotion of equal opportunities within the DG are ensured.	
<b>Indicator 1:</b> Timeliness of recruitment of officials (internal/external procedure)	
Definition: Average number of working days from the publication of the deadline of the vacancies until the date of distribution of relevant administrative act.	
Source: JRC internal indicator (Owner: JRC.B.2).	
<b>Baseline</b> (31/12/2013) Internal: 59 working days External: 170 working days	<b>Target</b> (2014) Internal ≤60 working days External ≤120 working days
<b>Indicator 2:</b> Gender balance in AD-grade positions	
Definition: % of women/(Number of women + men) in senior management, middle management and AD-non-management, respectively positions	
Source: "HR reporting" (Owner: DG HR). NB: Officials only, excludes temporary agents	
<b>Baseline</b> (31/12/2013)* 18.2% (sen.mgmt) 18.8% (mid. mgmt) 23.8% (other ADs)	<b>Target</b> (2014) ≥21.3% (mid. mgmt)
* In the same period, there were no recruitments to senior management level, 20% of women were recruited to middle management and 34% to non-management AD positions	
<b>Indicator 3:</b> Training evaluation	
Definition: Average response of participants on how well learning objectives were met	
Source: JRC internal indicator (Owner: JRC.B.3).	
<b>Baseline</b> (12/12/2013) 82.5%	<b>Target</b> (2014) 85.0%
<b>Main outputs for this specific objective</b>	<ul style="list-style-type: none"> <li>• Full implementation of e-recruitment workflow for officials and fully adapted to JRC's double AIPN role</li> <li>• Rolling out of a HR management reporting system</li> <li>• Strengthening the HR operations in JRC HQ with enhanced coordination and resources</li> <li>• Development of HR Strategic Plan including development of a competency map and update of</li> </ul>

	<p>Multi-Annual Recruitment Plan</p> <ul style="list-style-type: none"> <li>JRC Learning and Development Framework 2014-2015 (Q2 2014)</li> </ul>
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<p><b>Specific objective 14:</b></p> <p>Plan, perform, monitor and report on the spending of financial resources so that sound financial management is ensured throughout the DG's activities</p>	
<p><b>Indicator 1:</b> Timeliness of payments</p> <p>Definition: Proportion of payments done within legal time limits</p> <p>Source: JRC internal indicator (Owner: JRC.B.5).</p>	
<p><b>Baseline</b> (31/12/2013)</p> <p>92%</p>	<p><b>Target</b></p> <p>Long-term: 100%</p> <p>2014: <math>\geq 95\%</math></p>
<p><b>Indicator 2:</b> Amount of potentially abnormal RAL</p> <p>Definition: 'Remaining to pay' of outstanding commitments</p> <p>Source: JRC internal indicator (Owner: JRC.B.4).</p>	
<p><b>Baseline</b> (15/12/2013)</p> <p>5.3%</p>	<p><b>Target</b> (2014)</p> <p>&lt;5% of the total RAL</p>
<p><b>Indicator 3:</b> Cashed competitive income</p> <p>Definition: Annual cashed income from activities outside Institutional budget (% of the Institutional budget)</p> <p>Source: JRC internal indicator (Owner: JRC.B.4).</p>	
<p><b>Baseline</b> (15/12/2013)</p> <p>15.4%</p>	<p><b>Target</b> (2014)</p> <p>15%</p>
<p><b>Indicator 4:</b> Accuracy of procurement estimation</p> <p>Definition: Average of (actual value of contract / estimated value of contract at the outset of the procedure)</p> <p>Source: JRC internal indicator (Owner: JRC.B.5).</p>	
<p><b>Baseline</b> (31/12/2013)</p> <p>Deviation of 28%</p>	<p><b>Target</b> (2014)</p> <p>Deviation of +/-15%</p>



**Indicator 5:** Quality of procurement procedures submitted to the PPAG

Definition: Proportion of positive opinions of the Public Procurement Advisory Group (PPAG)

Source: JRC internal indicator (Owner: JRC.B.6).

**Baseline** (31/12/2013)  
94%

**Target**  
≥95%

**Main outputs for this specific objective**

- Continue development and integration of PPMT taking into account its new corporate dimension at Commission level (Q4 2014)
- Procurement strategy for the JRC (Q3 2014)
- Introduction of a multi-annual procurement plan (Q1 2014)
- Application of green public procurement strategy across the JRC (Q4 2014)
- Introduction of an electronic system for payments of experts across the JRC
- In the context of e-procurement, minimize the use of paper based procurement files

**Specific objective 15:**

Implement, maintain and report on an effective and reliable internal control system, so that reasonable assurance can be given that resources assigned are used according to the principles of sound financial management; that risk of errors in operations is minimised and that the control procedures put in place give the necessary guarantees concerning the legality and the regularity of the underlying transactions. Assess the compliance, efficiency and effectiveness of the control system through internal audit. Ensure that controls in place adequately cover the risk of fraud and launch preventive measures in line with the JRC Anti-Fraud strategy.

**Indicator 1: Implementation of Internal Control Standards in the JRC**

Definition: Average of scores (range between 1 ("Fully Disagree") and 5 ("Fully Agree")), obtained from the annual survey on the implementation of Internal Control Standards.

Source: JRC internal indicator (Owner: JRC.B.1).

**Baseline** (31/12/2013)  
3.2

**Target** (2014)  
3.4

**Indicator 2: Proportion of exceptions**

Definition: % of transactions recorded in the JRC exception register (exceptions and non-compliance events) with deviations (or overriding) from established processes and procedures.

Source: JRC internal indicator (Owner: Advisor for Public Tendering and Compliance)

**Baseline** (18/12/2013)  
<0.1%

**Target** (2014)  
<1% (from MP 2013)

**Indicator 3: IAC recommendations overdue**

Definition: Number of critical and very important recommendations issued by the IAC overdue for more than six months

Source: JRC internal indicator (Owner: JRC.01. Reporting on indicator: JRC.B.1).

**Baseline** (17/12/2013)  
8

**Target** (2014)  
0

**Indicator 4: IAC recommendations implemented**

Definition: % of accepted audit recommendations effectively implemented (data established following follow-up audit)

Source: JRC internal indicator (Owner: JRC.01. Reporting on indicator: JRC.B.1).	
<b>Baseline</b> (17/12/2013) 100%	<b>Target</b> (2014) >90% implemented
<b>Main outputs for this specific objective</b>	<ul style="list-style-type: none"> <li>• Implementation of an Internal Control Standards awareness campaign (throughout 2014) by means of training courses, workshops and events.</li> <li>• Implementation of JRC anti-fraud action plan (2014-2015).</li> </ul>

<b>Specific objective 16:</b>	
Define, plan, set up, maintain and develop high quality Information and Communication Technology (ICT) infrastructures, tools and services so that the staff is adequately supported in their operation.	
<b>Indicator 1:</b> Network availability	
Definition: Availability of Internet (Geant) and Intra-site network connectivity averaged over one year and limited to the JRC Ispra site	
Source: JRC internal indicator (Owner: JRC.B.7).	
<b>Baseline</b> (31/12/2013) 99.512%	<b>Target</b> (2014) >99%
<b>Indicator 2:</b> Availability of servers	
Definition: Availability of critical servers, averaged over one year and limited to those covered by the "On Call" service	
Source: JRC internal indicator, as produced by Nagios monitoring software (Owner: JRC.B.7).	
<b>Baseline</b> (31/12/2013) 99.99%	<b>Target</b> (2014) >99.99%
<b>Indicator 3:</b> Timeliness and accuracy of helpdesk performance	
Definition:	
Timeliness: % of incidents that are resolved within the time allocated, depending on the type and severity of the incident, relative to all service requests received within the measurement period.	
Accuracy: Average computed from % of incidents that were resolved by the first-line and by the second-line, depending on the type of the incident, relative to all service requests received within the measurement period.	
Source: JRC internal indicator (Owner: JRC.B.7).	
<b>Baseline</b> (31/12/2013) Timeliness: 96.74% Accuracy: 62.78%	<b>Target</b> (2014) Timeliness: Incident resolution within target: >95% Accuracy: First and second line resolution rate: >60%
<b>Main outputs for this specific objective</b>	ICT Master Plan 2014, including: <ul style="list-style-type: none"> <li>Better alignment of ICT with Commission requirements, including rationalisation following the recommendations of the High Level Committee on</li> </ul>

	<p>IT</p> <ul style="list-style-type: none"> <li>• ICT governance structure upgraded to encompass all ICT at the JRC</li> </ul> <p>Exploitation of the new Data Centre at Ispra</p> <p>Gradual dismissal of the obsolete server rooms, transferring servers into the new highly efficient data centre (PUE &lt; 1.2): 10% by end 2014</p>
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**Specific objective 17:**

Infrastructure development: Develop and implement a detailed plan for the evolution of JRC infrastructures (physical infrastructure, laboratory facilities, information technology (IT) infrastructure)

This action aims at implementing the JRC Strategic Infrastructure Development Plan 2012-2020 for the development of the physical infrastructures at the sites of the JRC. Physical infrastructures are understood to encompass all buildings and facilities, including large-scale research installations, as well as utilities, traffic infrastructure and green areas under the responsibility of the JRC site management.

Main drivers for the strategy are recommendations from recent Framework Programme evaluations, the need for renewing the ageing infrastructures of the JRC sites in compliance with Europe's 20/20/20 energy objectives and requirements resulting from the scientific strategy of the JRC.

The JRC Strategic Infrastructure Development Plan 2012-2020 proposes for all JRC sites a number of structural improvements with a particular emphasis on improving the energy efficiency of buildings. New buildings should reach at least the energy efficiency class A; new buildings built after 2018 should be zero energy emission buildings; buildings refurbished should reach at least energy efficiency class C, or higher, if proved it is economically viable. In each case, full economic analysis should take place, considering all associated costs and side consequences to the construction activity. The JRC Strategic Infrastructure Development Plan 2012-2020 is accompanied by a Short Term Development plan that was submitted to the DG on 24.06.2013, which details the implementation of projects due to be started before 2016.

In parallel, the EMAS certification of all JRC sites will be achieved by 2015.

Result indicator: Delivery of the planned infrastructures

Baseline 2013	Milestone		Target 2016
	2014	2015	

<p>Current state of the infrastructures</p>	<p><b>Geel:</b> delivery of building 210 and bio-tech labs and organic labs</p> <p><b>Ispra:</b> Electromobilty laboratory (building 18 and 69c), Fire Brigade Station, Calibration laboratory (building 48)</p> <p><b>Karlsruhe:</b> Transit store Building (wing R), Guard Building (Wing S)</p>	<p><b>Geel:</b> delivery of building 222, Ice water installation, Refurbishment of Flight Path Cabins</p> <p><b>Ispra:</b> Air monitoring tower (building 77r), Electromobility laboratory (building 23b)</p> <p><b>Petten:</b> Renovation of building 310</p>	<p>Implementation of the Short Term Development Plan</p> <p><b>Geel:</b> Refurbishment of Mass Spectrometry Building</p> <p><b>Ispra:</b> Refurbishment of building 46, Multi-Sport Hall</p> <p><b>Karlsruhe:</b> Renovation of ventilation (Wings B, D, E, F) (2020)</p>
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## 6. ANNEX 1 – SPECIFIC OBJECTIVES – MAIN OUTPUTS IN 2014

<b>Relevant general objective(s):</b>		
<b>JRC General objective 1 :</b> Provide integrated and pro-active scientific and technical support to the European policy making process		
<b>Specific objective 1a (contributing to H2020 Specific Objective 14):</b>		
To provide customer-driven scientific and technical support to Union policies, while flexibly responding to new policy demands in the area of the ' <b>Economic Monetary Union</b> '		
Main outputs in 2014		
Key orientations in the area of the 'Economic Monetary Union'	Indicator:	target
	Nr of policy support deliverables	33
<p><b>1. Economic Governance</b></p> <ul style="list-style-type: none"> <li>- Modelling and socio-economic analysis for reinforced macroeconomic, budgetary, structural and financial surveillance in the EU; Analytical tools to enhance the quality and efficiency of the public sector by optimising public expenditure and redesigning regulation in a smart way.</li> </ul> <p><b>2. Financial regulation and supervision</b></p> <ul style="list-style-type: none"> <li>- Quantitative analysis for the development and implementation of a fully functioning EU Banking Union;</li> <li>- Assessment of structural banking reforms and their impacts; maintenance and further development of a data infrastructure for the EU financial sector analyses. Modelling and economic analysis to complement the evaluation of State Aid requests in the banking sector.</li> </ul> <p><b>3. Taxation policy</b></p> <ul style="list-style-type: none"> <li>- Modelling and economic analysis on tax policies, in particular aiming to shift taxes away from labour and towards consumption, environment-damaging activities and immovable property; examine the redistributive effect of taxation; broaden the tax base and review housing taxation; improve the efficiency of tax collection; tackle tax fraud and evasion; design innovative tax tools;</li> <li>- Measuring, with economic experiments, civic norms of cooperation across the European Union aiming at a better understanding of the behavioural underpinnings of different levels of tax compliance, analysing advantages and disadvantages of fiscal harmonisation. Support to Member States in testing new interventions aimed at increasing tax compliance.</li> </ul>		

**Relevant general objective(s):**

**JRC General objective 1 :** Provide integrated and pro-active scientific and technical support to the European policy making process

**Specific objective 1b (contributing to H2020 Specific Objective 14):** To provide customer-driven scientific and technical support to Union policies, while flexibly responding to new policy demands in the area of the 'Single market, growth, jobs and innovation'

Main outputs in 2014

Key orientations in the area of the 'Single market, growth, jobs and innovation'	indicator	target
	Nr of policy support deliverables	493

## 1. Research and Innovation policy

### a) Framework conditions for research and innovation, including national policies

- Modelling, monitoring and analysis of the drivers and socio-economic barriers to research and innovation. Analysis and ex-ante assessment of impact and effectiveness of policy instruments related to research and innovation at EU and Member State level, bearing in mind relevant Europe 2020 goals, such as the promotion of business innovation or the achievement of the European Research Area;
- Gathering, analysis and dissemination of economic data to further strengthen country-monitoring and the evidence base for EU recommendations in the framework of the European Semester and support to Commission policy assessments;
- Foresight for the identification of research and innovation priorities. Application of Horizon scanning techniques and dissemination of results;
- Promotion of EU cooperation in the field of IPR and collaboration in technology transfer through partnership with the major public producers of research-based IPR (including through the European Technology Transfer Office Circle).

### b) Measuring progress towards EU Research and Innovation goals

- Indicators, scoreboards, information systems and web platforms for monitoring and analysis of progress in the implementation of the Europe 2020 Research and Innovation objective and the Innovation Union, and related commitments, including to supersede legacy systems such as ERAWATCH;
- Development of a Research and Innovation Observatory: there is a need for a step change in our understanding of research and innovation to create decisional advantage for the EU and Member States. Moreover, there is a need to strengthen quality of data and information on Research & Innovation, as well as for the evidence base for the European semester. A new core activity of the JRC, the Research and Innovation Observatory (RIO) responds to both needs.



RIO builds on an advanced information system and in-house expertise, allowing for a novel approach to **data gathering** and **policy monitoring** in the field of Innovation and R&D, and it builds on the full competence of JRC in scientific and technical support to policy making.

RIO's mission is to produce timely data and analyses, in a way that contributes to a step change in the scope and depth and of our understanding of innovation and R&D activities and performance.

Geographically, RIO will be developed in three phases:

- In the short term, RIO's scope will comprise information from and reports/analyses on Member States and Associated Countries.
- In the medium term selected third countries, ie key partners will be added.
- And in the longer term, also regional level data and analyses in the EU will be developed.

For 2014, the RIO work programme foresees

- 1) RIO products: Country Fiches (*all MS, EU and some 3rd countries*)
- 2) RTD requests resulting from the Inter-service consultation on the JRC work programme:

- ERA Monitoring: contribution to the ERA Progress Report
- Innovation Union: analytical reports (e.g. open innovation, knowledge transfer, etc)
- European Semester: main trends on R&I policy developments
- R&I reforms, to feed into ERAC discussions

- Data collection, analysis, dissemination and modelling on the progress of the bioeconomy, through the Bioeconomy Observatory;

- Analysis of business innovation, including economic analysis of data relating to SMEs and moderate-size enterprises and methodologies relevant to targeted innovation.

## **2. Single Market policies**

- Studies and research to improve the evidence-base for the development of an efficient Digital Single Market policy framework; analysis of innovation and growth in the services sector

## **3. Enterprise and industry policy**

- Analysis of the determinants for a sustainable supply of raw materials and assessment of the efficiency of critical raw materials;

- Pre-normative research, reference measurements and materials; harmonised methodologies; contribution to EU standardisation in environmental assessment, biotechnologies, nanotechnologies, satellite-based positioning, advanced materials and characterisation of new products and technologies; implementation, harmonisation and

evolution of the Eurocodes;

- Analysis of the contribution of manufacturing industries and the associated service sectors to the EU's economy as well as of their role in global value chains, including identification of emerging techniques to strengthen the competitiveness and sustainability of EU heavy industries and policy fitness checks of specific industrial sectors;
- Empirical evidence and analysis on the dynamics and growth of industrial sectors and innovative companies, including Digital Entrepreneurship, SMEs and industrial R&D scoreboard companies;
- Promotion and analysis of Key Enabling Technologies (KETs) in regional smart specialisation to support the EU strategy on KETs;
- Development and evaluation of Earth observation applications and spatial information analysis tools to increase the value of the Copernicus programme to public sector users, assess the fitness-for-purpose of the Copernicus products and services to the European Commission users' needs, facilitate innovation by the private sector and support the EU's civil space dialogues;
- Assessment of the compatibility of Galileo signal structures and other Global Navigation Satellite Systems (GNSS) including in respect to Interference, jamming, spoofing and the impact of ionospheric scintillation on satellite navigation systems; analysis for the uptake of Galileo and the European Geostationary Navigation Overlay Service (EGNOS) applications to benefit the EU's economy and its citizens;
- Validation and dissemination of results from initiatives (e.g. Sustainable Industry Low Carbon (SILC)) supporting EU energy-intensive industries in achieving specific greenhouse gas emission intensity reductions to maintain their competitiveness on global markets;
- Development of a worldwide test procedure for light-duty and heavy duty vehicles and L-cat vehicles and assessment of innovative technologies; assessment of ultrafine particles from engine, tyre and brake wear; preparation and implementation of the emissions legislation for non-road mobile machinery; models, methods, tests and standards for electro-mobility;
- Provide a platform for a regular and structured dialogue between public institutions, private companies, the scientific community, European associations, industries and related networks in the framework of the European Forum for Science and Industry.

#### **4. Regional policy**

- Modelling, research, assessment, tools and methodologies for enhancing regional economic development and smart specialisation;
- Indexes and quantitative analysis measuring economic and social cohesion at regional level;
- Tools and methodologies, modelling, development of regional databases and indicators for the regional dimension of environmental sustainability; support in relation to major national disasters in the framework of the European Solidarity Fund (EUSF).

## **5. Employment and social affairs**

- Analysis of the determinants of employability and enhancement of the evidence base for assessment of employment policy interventions, with a focus on youth unemployment;
- Development of methodologies and tools, including macroeconomic level analysis, to assess the social return of investment approaches in social policy interventions (Social Investment Package); analysis and knowledge base on the contribution of ICTs to innovative approaches in pursuing active and enabling social policies oriented towards social investment;
- Centre for Research on Impact Evaluation (CRIE) to provide technical advice, methodological support, specialised training and exchange on counterfactual impact evaluations in the context of spending programmes (European Social Fund (ESF), EGF, Micro-Finance Facility, etc.) and other social policy programmes and initiatives. Modelling to assess the (ex-post) / simulating the (ex-ante) macroeconomic effects of the European Social Fund and its main priority themes/axes;
- Assessment studies, technical and scientific activities in the area of protection of workers health from possible risks arising from exposure to hazardous chemicals at the workplace.

## **6. Education and Culture**

- Monitoring of the Europe 2020 targets on education and the Strategic framework for European cooperation in Education and Training ("ET 2020") as well as education and training systems. Indicators for analysis of the framework conditions for key competences, skills and creativity relevant for a modern EU economy
- Research on the use and impact of ICT and Open Educational Resources (OER) and Practices (OEP) in modernising, innovating and opening up education and training as well as the contribution of digital technologies to the development and assessment of key competences;
- Measuring the contribution of cultural and creative sectors to growth and jobs in the EU; as well as the role of culture in the innovative ecosystems

## **7. Digital Europe**

- Analysis and development of policy options in support of cyber security; tools for analysis of cyber risks in critical infrastructures (Internet, built environment);
- Analysis of the drivers and consequences of innovation in the ICT sector and enabled by ICT as well as analysis of security and privacy issues in emerging smart technologies (e.g. home and mobile devices)
- Development of IT tools for the analysis of the radio spectrum inventory, and establish a radio spectrum laboratory for reference measurements and further develop technical expertise (in support of radio-spectrum policy);
- Development of tools and methodologies to support regions and Member States to develop improved digital growth strategies co-funded by EU Cohesion Policy.
- Empirical economic analysis of the impact of digital technology on growth, jobs and

consumer welfare in the EU, with a particular focus on policy priorities related to the EU Digital Single Market and the Digital Agenda for Europe: e-commerce, copyright in digital media and privacy regulation;

- Start of development for a strategy for open access to data including cooperation with ongoing initiatives like the EU Open Data Portal (<http://open-data.europa.eu/en/data/>)

- Enhancement of interoperability of e-infrastructures (in support of the digital European Research Area) for large-scale scientific collaboration and of open access to public sector information, scientific information and services (in support of digital science); exploitation of convergence of big data and online tools including social media applications affecting science-based decision making (in support of citizen science) including privacy considerations, and assessment of interoperability of energy services (in support of smart grids);

- Analysis of emerging digital technologies to enhance the trust, privacy and security of citizens in the digital market (e.g. e-identity such as the electronic Identity Authentication and Signature (eIDAS), e-government services and e-sealing);

- Assessment of ICT-based energy efficiency and emissions savings; analysis of the determinants for sustainable innovation towards a low carbon and resource efficient ICT sector; Monitoring of market deployment of solid state lighting (SSL) technologies (in support of ICT and environmental sustainability);

- Socio-economic analysis on policies promoting greater access to and use of ICT.

## **8. Consumer policy and consumer rights**

- Analysis of the role of information and communication technologies and behavioural determinants in empowering consumers.

## **9. Trade policy**

- Modelling and analysis of socio-economic and environmental implications of trade in relation to free trade agreements and changes in import tariffs and/or export subsidies as well as advice on standardisation aspects of Free Trade Agreements (FTA); analysis of the impact of the interaction between external trade and the functioning of the Internal Market on promoting employment

**Relevant general objective(s):**

**JRC General objective 1 :** Provide integrated and pro-active scientific and technical support to the European policy making process

**Specific objective 1c (contributing to H2020 Specific Objective 14):**

To provide customer-driven scientific and technical support to Union policies, while flexibly responding to new policy demands in the area of the '**Low carbon economy and resource efficiency**'

Main outputs in 2014

Key orientations in the area of 'Low carbon economy and resource efficiency'	indicator	target
	Nr of policy support deliverables	983

**1. Environment**

## a) Natural resources management

- Implementation of the Water Framework Directive and related directives, including monitoring and model-based assessment of water resources and demand in the EU and globally, chemical and microbiological monitoring, flood risk assessment, drought monitoring and forecasting, and information systems. Development of the knowledge base for assessment of oceans and coastal environments for marine policy, in particular the Marine Strategy Framework Directive. Contribution to initiatives for a water-efficient Europe in 2020, including an assessment of desalinisation potential;

- Measuring, modelling and monitoring land degradation and desertification in the EU and globally;

- Further development of information systems on soils. Analysis of soil resources and degradation at a global scale. Implementation of the EU Soil Thematic Strategy;

- Implementation of the EU 2020 Biodiversity Strategy including mapping and assessment of ecosystem services in the EU. Monitoring and modelling biodiversity in the EU and globally;

- Further development of information systems on forests and forest fires. Analysis and modelling of forests' resources to promote their sustainable management and uses. Implementation of the EU Forest Strategy;

- Analysis of low carbon agricultural practices, of nutrient cycles including nitrogen management, and of nitrate vulnerable zones. Support to sustainable management of agricultural resources taking into account demand for bioenergy;

- Integrated impact and sustainability assessment of EU policies based on land use modelling.

## b) A resource-efficient, green and competitive low-carbon economy

- Implementation of waste legislation including criteria for End-of-Waste and best

available techniques for waste management;

- Development of criteria for Ecolabel, Green Public Procurement and Energy label, and of implementing measures for Ecodesign through an integrated approach for EU product policy implementation, including the respective evidence base. Methodology development to support EU product policy including material efficiency assessment; further development of life-cycle and footprint methodologies and data to support the integration of resource efficiency aspects in Sustainable Consumption and Production policies;

- Implementation of the Eco-innovation Action Plan, in particular the Environmental Technology Verification Programme;

- Integrated resource analysis as input to the Green Economy (bio-economy, eco-innovation, sustainable food, and sustainable buildings). Analysis of resource efficiency and environment policies and of their impacts on industrial competitiveness. Analysis of changes in consumption, production and trade patterns and how they affect emissions and resource use within and outside the EU;

- Further development of environmental indicators, following the guideline from the Roadmap to a resource efficient Europe. Implementation of the Infrastructure for Spatial information in the EC (INSPIRE) and the Shared Environmental Information System in the EU.

c) Protection from environment-related risks to human health and wellbeing

- Monitoring and modelling of air quality, exposure, emissions, and assessment of impacts. Analysis of options following the review of air quality policy;

- Determination of best available techniques for the implementation of the Industrial Emissions Directive;

- Information systems and analysis of industrial accidents. Analysis and mapping of chemical accident risks;

- Assessment of the environmental impacts of shale gas exploitation and support to the development of a risk management framework. Risk assessment for offshore rigs and pipelines;

- Implementation of chemicals legislation and support to policy development in cross-cutting areas such as mixture toxicity and endocrine disruptors. Development of an information platform for chemical monitoring and of a toxicology knowledge base for risk assessment. Assessment of pressures on the environment and pollution levels. Development, validation and promotion of alternatives to animal testing;

- Development of harmonised methodologies and standards for the measurement and hazard assessment of nanomaterials and emerging pollutants. Development of a web platform.

## **2. Climate action**

a) Climate change impacts and climate policies

- Monitoring and modelling multiple climate change impacts, vulnerability and adaptation options in the EU and in sensitive areas worldwide, such as the Arctic. Further

development of the European Climate Adaptation Platform (CLIMATE-ADAPT);

- Integrated modelling capacity covering all relevant sectors and land use at global and Member State level for the analysis of climate mitigation and adaptation policies. Analysis of impacts of EU specific climate policy instruments and collaboration with international partners on climate policies and global scenarios;
- Contribution to the analysis of global scenarios within the Integrated Assessment Modelling Consortium;
- Monitoring and modelling anthropogenic greenhouse gas (GHG) emission trends to produce independent inventories for all world countries, with a focus on emissions from land use, land use change, forests and fossil fuels (excavation and use) for European and tropical countries;
- Monitoring and analysis of GHG concentrations and fluxes in support of integrated air pollution and climate policies. Monitoring of ozone-depleting substances (ODS).

b) Low carbon technologies

- Development of the GHG calculation methodology and sustainability criteria for alternative transport fuels, in particular bioenergy/biofuels;
- Support to the implementation of the Carbon Capture and Storage (CCS) Directive and analysis of CO<sub>2</sub> re-use. Assessment of low carbon energy technologies;
- Implementation of the NER 300 funding programme;
- Modelling and measurements of real world fuel consumption and CO<sub>2</sub> emissions of light and heavy duty road vehicles. Support to the assessment of eco-innovation CO<sub>2</sub> savings and derogations for small volume cars and vans manufacturers and niche car manufacturers.

### **3. Energy**

- Analysis, research and experimental activities for the development and deployment energy efficiency technologies, with a focus on buildings, equipment and smart cities, including support to standardisation. Technology innovation assessment in energy intensive industries and the analysis of the effectiveness of energy efficiency measures in energy supply;
- Techno-economic modelling and analysis of energy demand and consumption scenarios for the Energy and Climate packages;
- Analysis, techno-economic assessment and experimental activities for the development and deployment of renewable energy, including photovoltaic technologies, biomass, mini-hydro, offshore and onshore wind energy; assessment of the potential costs and benefits of energy storage systems;
- Techno-economic assessment of emerging low-carbon technologies, including marine energies (such as wave and tidal energy), pumped hydro storage, as well as geothermal

energy;

- Technology and innovation mapping and energy systems modelling, including energy storage valuation and other enabling technologies for system benefits for implementation of the European Strategic Energy Technology Plan (SET Plan), including further consolidation of its Information System (SETIS);
- Analysis of smart power grids, including their interoperability with ICT and transport system as well as smart-metering systems;
- Security, safety, risk and techno-economic assessment for EU energy supply from conventional (oil and natural gas, coal, electricity) and unconventional energy sources including shale gas; development of reporting systems, capacity building and mapping of offshore oil and gas safety technologies and practices for the implementation of the Directive on safety of offshore oil and gas installations;
- Analysis, simulation, assessment, and experimental research for the development of energy infrastructures in the EU and beyond (especially in Enlargement countries), such as super power grids, infrastructures for large scale deployment of renewable energy and gas infrastructures.

#### **4. Mobility and transport**

- Assessment of the market uptake of alternative fuels including infrastructure and electromobility modelling; research and testing on fuel cells, assessing safety and testing storage of hydrogen, also in the frame of the Fuel Cells and Hydrogen Joint Undertaking;;
- Development of a Transport Research and Innovation Monitoring and Information System (TRIMIS) and contributing to the elaboration of the Strategic Transport Technology Roadmaps, in implementing the Strategic Transport Technology Plan (STTP);
- Implementation of the Digital Tachograph; tools for crisis management; strengthening standardisation in critical infrastructure; developing an in-vehicle platform for Intelligent Transport Systems (ITS); testing and reporting on aviation security technologies, including specifications and standards for detection and screening airport equipment; harmonising transport data with spatial and environmental information; EU wide multimodal accident and incident data collection; methods to enhance vessel and cargo surveillance and reporting;
- Modelling impacts and effects of changes in e.g. economy, market conditions, land use and climate on the transport sector. Assessment of policy options.



<b>Relevant general objective(s):</b>		
<b>JRC General objective 1 :</b> Provide integrated and pro-active scientific and technical support to the European policy making process		
<b>Specific objective 1d (contributing to H2020 Specific Objective 14):</b>		
To provide customer-driven scientific and technical support to Union policies, while flexibly responding to new policy demands in the area of the ' <b>Agriculture and global food security</b> '		
Main outputs in 2014		
Key orientations in the area of the 'Agriculture and global food security'	indicator	target
	Nr of policy support deliverables	123
<p><b>1. Agriculture and rural development</b></p> <ul style="list-style-type: none"> <li>- Monitoring and economic analysis of agricultural resources and farm systems, including forward looking analysis of alternative scenarios and sustainable agriculture;</li> <li>- Economic analysis of the competitiveness of the European agro-food sector and the performance of European agro-food systems and their contribution to global food security;</li> <li>- Modelling soil, water and ecosystem dynamics in order to improve their sustainable management in agricultural systems;</li> <li>- Efficient and innovative tools for CAP implementation (including various greening instruments of the CAP);</li> <li>- Operation of the European Office for Wine, Alcohol and Spirit Drinks (BEVABS) and the Board of Experts in Monitoring Water Content in Poultry meat.</li> </ul> <p><b>2. Maritime affairs and fisheries</b></p> <ul style="list-style-type: none"> <li>- Exploration of genetic and genomic approaches for aquaculture management and tackling illegal fishing; analysis of the contribution of aquaculture and fisheries to the economy of coastal communities as well as to ecosystem-based marine and coastal spatial planning and management and to the transatlantic strategy; assessment of marine energies, (offshore wind energy, wave energy, marine algal fuel and tidal technologies); assessment of the economic potential of marine biotechnology and seabed mining;</li> <li>- Modelling, collection, dissemination, analysis of fishery data and provision of scientific advice for the sustainable exploitation of fish stocks, including development of indicators for evaluating the impact of for European Maritime and Fisheries Fund and of measures for monitoring amount and species composition of catch and discards;</li> <li>- Interoperability of the EU maritime surveillance system (Common information sharing environment).</li> </ul>		

<b>Relevant general objective(s):</b>		
<b>JRC General objective 1 :</b> Provide integrated and pro-active scientific and technical support to the European policy making process		
<b>Specific objective 1e (contributing to H2020 Specific Objective 14):</b>		
To provide customer-driven scientific and technical support to Union policies, while flexibly responding to new policy demands in the area of the ' <b>Public health, safety and security</b> '		
Main outputs in 2014		
Key orientations in the area of the 'Public health, safety and security'	indicator	target
	Nr of policy support deliverables	636
<p><b>1. Health</b></p> <ul style="list-style-type: none"> <li>- Monitoring, analysing and assessing the role of information and communication technologies for the sustainability of EU Health Care Systems;</li> <li>- Development and operation of the European health information systems for cancer and rare diseases as well as associated stakeholders coordinated activities. Harmonisation and development of quality healthcare management frameworks and tools, e.g. accreditation schemes, including voluntary accreditation schemes for breast cancer services;</li> <li>- Harmonised requirements, measurement systems and standards, scientific advice and logistics for the management of the future regulatory framework on medical devices, including in vitro diagnostics;</li> <li>- Research, analysis of nutrition and diets and behavioural sciences-related aspects in support to health policies (e.g. nutrition policy, healthy ageing and prevention of non-communicable diseases);</li> <li>- Analysis of emerging technologies and innovation in health care, including eHealth, nanomedicine, personalised medicine and early diagnosis;</li> <li>- Surveillance tools and methods for the detection of emerging cross-border health threats.</li> </ul> <p><b>2. Food, feed and product safety and quality policies</b></p> <ul style="list-style-type: none"> <li>- Socio-economic impact assessment of biotechnologies: indicators and methodologies to capture impacts ex post and ex ante, best practices for managing socio-economic risks (co-existence measures).</li> <li>- Certified reference materials and harmonised/validated methods for measurement, identification and quantification methods for chemicals and other contaminants, nanomaterials, pathogens and for GMOs in food, feed and consumer products (including</li> </ul>		

cosmetics);

- Operation of six EU Reference Laboratories on genetically modified food and feed, food contact materials, feed additives, and food contaminants (polycyclic aromatic hydrocarbons, heavy metals and mycotoxins); contribution to the development of EU standards in food safety and quality; analysis of reduction potentials of food waste and increased food security along the supply chain;
- Integrated testing strategies and state of the art tools for toxicological hazard assessment, including development, validation and promotion of alternative methods to animal tests;
- Exposure assessment methods and tools to underpin safety assessment of existing and future products.

### **3. Home affairs**

- Tools and methodologies (including biometrics) for enhancing the effectiveness and interoperability of technical systems aimed at monitoring, detecting, identifying, tracking, preventing and intercepting illegal border crossings, travel documents, detection of substances and objects to ensure border security, including EU maritime borders;
- Development of Open Source Intelligence (OSINT) tools and manuals, studies in the areas of law enforcement, fight against organised crime and against corruption; and capacity building for their use by Member States. Methodologies and/or adapted technological tools to efficiently detect violent radical content on the Internet;
- Analyses, preparedness exercises, information sharing platforms, risk and impact assessment aiming to enhance the security and resilience of infrastructures;
- Development of tools for information mining and analysis from open sources and of crisis management technologies for strengthening decision making, strategic analysis, risk assessment and response capability in case of crisis;
- Support to the implementation of biological, chemical and explosives actions of the CBRN-E Action Plans;
- Analysis and development of policy options in support of the fight against cybercrime; tools, modelling, simulation and response capabilities to prevent, detect and respond to cybercrime, including capacity building in digital forensics for collection of cybercrime evidence and prosecution of cybercriminals.

### **4. Justice**

- Implementing rules and complementary measures on data protection. Research on ethical issues arising from the development and deployment of information and communication technologies;
- Monitoring and identification of key challenges in the field of fundamental rights,

especially the rights of the child, gender equality, xenophobia and the independence, quality and efficiency of the judiciary;

- Detection and testing methods, as well as studies related to the fight against drug use and drug-related crime.

## **5. Customs policy and fight against fraud**

- Research on: (1) effective risk management systems (2) control, detection, identification and quantification methods including analytical tools, statistical data mining and exploiting of new data sources (3) development of new engineering materials, technologies, diagnostics systems to contribute to the fight against terrorist, criminal activity and fraud in the international supply chain (including financial valuation, duty and excise fraud as well as violation of trade quotas), illicit trafficking of drugs, counterfeiting of goods (e.g. food origin and authenticity, fake medicines, etc.), smuggling, diversion and fiscal abuse (in particular cigarettes and alcohol) and prohibited goods (e.g. GMO) for customs and antifraud applications;

- Capacity building activities and efficiency of customs authorities (including customs officers' skills and training, e.g. in analytical methods) through customs pilot programmes to support customs policy and facilitate information sharing and exchanges between custom authorities;

- Implementation, monitoring and analyses of major trends in trade of IPR infringing goods and throughout the international supply chain; analysis of dangers posed by international trade for customs.

## **6. Solidarity with developing countries**

### **a) Humanitarian, development and cooperation policies**

- Development of methodologies, indicators, ICT tools, and macro-economic analysis of development issues to support Agenda for Change, Policy Coherence for Development, aid effectiveness and transparency, with a focus on measuring the impact of EU aid and cooperation on poverty eradication;

### **b) Climate change, environment, natural resources and water**

- Analysis, capacity-building, provision of data, maps and methodologies on the extent, vulnerability to, and risk of current and future weather-driven disasters in developing countries, including guidance towards a more targeted allocation of climate finance, in particular in support of the Global Climate Change Alliance;

- Monitoring of natural resources, scientific advice, dissemination of information, and capacity-building of national scientific and government partners in developing countries, in particular in the field of natural resource management through applied space technologies, and with a focus on agriculture, climate change, forestry, biodiversity and ecosystem services, and water;

- Analysis, technical assistance, development of ICT tools, and organisation of

workshops to support related multilateral or bilateral agreements and cooperation initiatives, with a focus on climate change, forestry, biodiversity, water, coastal and marine environments.

c) Rural development and food security

- Monitoring of agricultural and natural resources, studies, assessments, macroeconomic and microeconomic analysis, and dissemination of information on food security, nutrition security, agriculture and rural development policies, with a focus on the African, Caribbean and Pacific region (ACP) and production/export potentials.

d) Energy

- Technical assistance, sharing of best practices and organisation of workshops in support of international, bilateral and regional energy cooperation initiatives, including in the frame of the Covenant of Mayors initiative;

- Mapping and monitoring activities, and capacity-building of national scientific institutions and governments in partner countries in the field of renewable energy, including in the frame of the UN Sustainable Energy for All initiative.

## **7. Global Safety and Security policies**

- Development of disaster detection and early warning systems as well as of scientific and analytical services to support the Emergency Response Centre (ERC);

- Analysis, development of warning systems, guidelines, indicators and standards supported by capacity-building activities for disaster risk reduction and mitigation, preparedness and response. Participation in international initiatives on coherent multi-hazard risk and impact assessment methodologies, and in cooperation partnerships and platforms for multi-disciplinary hazard information;

- Development of methodologies and guidelines, scientific advice and capacity building to enhance regional and national resilience and improve vulnerability assessments and risk mapping of partner countries;

- Development of analytical tools to support the monitoring of raw materials;

- Development of early warning systems for anticipation and prevention of conflicts and political instabilities globally, and especially in Africa, supported by capacity building activities of international and regional organisations;

- Analysis, provision of methods and tools, capacity-building of authorities in non-EU countries, and collaboration with international partners for counteracting global and trans-regional threats (piracy, terrorism, organised crime, etc.) and for maritime security and surveillance;

- Technical support to the implementation of biological and chemical projects within the framework of the CBRN Centres of Excellence Initiative.

<b>Relevant general objective(s):</b>		
<b>JRC General Objective 2:</b> To pursue nuclear research and training activities with an emphasis on continuous improvement of nuclear safety, security and radiation protection, notably to potentially contribute to the long-term decarbonisation of the energy system in a safe, efficient and secure way.		
<b>Specific objective 2a (contributing to EURATOM Research &amp; Training Programme Specific Objective 9):</b>		
"To improve nuclear safety including, fuel and reactor safety, waste management and decommissioning, and emergency preparedness"		
Main outputs in 2014		
Key orientations related to the area "Nuclear safety including, fuel and reactor safety, waste management and decommissioning, and emergency preparedness "	Indicator	target
	Nr of policy support deliverables	305
<p><b>1. Nuclear reactor safety</b></p> <ul style="list-style-type: none"> <li>- Collection, analysis, and assessment of nuclear power plants operational experience worldwide, and dissemination to the Member States' Regulatory Authorities.</li> <li>- Research in structural materials for analysis, and modelling of aging of components and structures in view of improving residual lifetime assessment techniques;</li> <li>- Development and application of tools and methodologies for safety assessments of innovative reactor designs in synergy with the GIF;</li> </ul> <p><b>2. Nuclear decommissioning</b></p> <ul style="list-style-type: none"> <li>- Development of a decommissioning knowledge management in the EU, by stimulating exchanges and dissemination of information on innovations, lessons learnt and best practices in the field;</li> <li>- Development and assessment of innovative technologies and techniques for radiological characterisation, decontamination, radiation surveillance, mapping, reconstruction technologies and free release measurements.</li> </ul> <p><b>3. Nuclear Emergency Preparedness and Response (EP&amp;R), environmental monitoring and radiation protection</b></p> <ul style="list-style-type: none"> <li>- Research in severe accident modelling, radiological source term evaluation and accident management of NPPs, in coordination with EU Member States activities;</li> <li>- Operation, development, and technical support of the EC tools for exchange of information in case of emergency (ECURIE) and for radiological monitoring (EURDEP) tuning of data streams between routine and emergency situations, including synergies and ensuring compatibility with cross-cutting initiatives in collaboration with key partner</li> </ul>		

countries and relevant international organizations (IAEA, OECD/NEA);

- Establishment and operation of a EU reference centre for radioactivity measurements in food air, water and soil;
- Scientific and technical support to assist Member States to implement Basic Safety Standards;

#### **4. Safety of nuclear fuels, fuel cycle safety and radioactive waste management**

- Generation of reference samples and scientific data on safety performance of both LWR reactor fuels (conventional and non-conventional) and of innovative nuclear fuel in operational, transient and accident conditions, including codes and modelling for safety assessment;
- Development of innovative techniques for spent fuel and nuclear waste characterisation, including in preparation of decommissioning or remediation of site accidents;
- Preparation of reference samples for the delivery of scientific data on the properties of spent fuel for reducing the radiological toxicity of wastes, closing the fuel cycle strategies and safety assessment of recycling technologies;
- Improve scientific understanding in physico-chemical mechanisms of the long-term behaviour of spent fuel and vitrified high level waste during long term storage and in disposal scenarios;

#### **Relevant general objective(s):**

**JRC General Objective 2:** To pursue nuclear research and training activities with an emphasis on continuous improvement of nuclear safety, security and radiation protection, notably to potentially contribute to the long-term decarbonisation of the energy system in a safe, efficient and secure way.

#### **Specific objective 2b (contributing to EURATOM Research & Training Programme Specific Objective 10):**

"To improve nuclear security including: nuclear safeguards, non-proliferation, combating illicit trafficking and nuclear forensics"

Main outputs in 2014

Key orientations related to the area "Nuclear security including: nuclear safeguards, non-proliferation, combating illicit trafficking and nuclear forensics"	indicator	target
	Nr of policy support deliverables	219

#### **1. Nuclear safeguards**

- Research and development for methods and standards to further improve the analysis of safeguards samples. Operational support to the Euratom inspection regime for the analysis of samples taken by inspectors for example in reprocessing plants, enrichment or fuel fabrication facilities, including on-site support and development and production of

reference materials;

- Development of innovative containment and surveillance techniques, including advanced sealing and verification technologies (i.e. laser technologies), to improve the quality of the continuity of knowledge, design information verification capabilities of the technical characteristics of nuclear power plants and fingerprinting and monitoring of nuclear material containers in enrichment plants and large storage
- Development of enhanced process monitoring and modelling, including advanced techniques for data authentication and remote control to allow a step change in the improvement of safeguarding complex, typically bulk-type, nuclear fuel cycle facilities, near-real time analysis of safeguards relevant data;
- Development of new methodological approaches to safeguards design, implementation, verification and paradigms, including safeguards by design and proliferation resistance evaluation methodologies are required to allow to optimise the monitoring of existing and future nuclear energy systems;
- Operational support for safeguarding complex nuclear facilities; including support to the implementation of the EURATOM and IAEA nuclear safeguards regime, by developing appropriate verification technologies for encapsulation plants and geological repositories.

## **2. Nuclear non-proliferation (cross-cutting with trade policy, customs policy and fight against fraud)**

- Development of innovative and in-field deployable tools for the so-called intelligent investigative inspector (uses self-localisation, ambient intelligence, augmented reality tools etc.) to enhance the capabilities for the verification of absence of undeclared activities and/or facilities;
- Development of highly sensitive trace and particle analysis (both inside facilities and through environmental monitoring, relying upon highly advanced equipment) to allow detection of abnormal operating conditions or verification of absence of undeclared/ clandestine activities;
- Deployment of advanced tools and methods of strategic export control and analysis (industry/technology provider, licensing authorities, enforcement and jurisdiction) to understand the access to sensitive items and knowledge (so-called dual-use technologies) and the threat of incomplete controls and/or operation of clandestine trading networks;
- Development of methodologies and tools for collection and analysis of strategic trade related data, news and open source information in support to global nuclear non-proliferation issues, including studies on proliferation relevant threats;
- Support to the development of technologies for verification and control of arms dismantlement (support to the implementation of the Non-proliferation Treaty Article 6 on disarmament).

## **3. Prevention and mitigation of chemical, biological, radiological and nuclear**



**(CBRN) hazards with a focus on Radiological and Nuclear security**

- Development, testing, validation and application of enhanced methods and technology for the detection of nuclear and radioactive materials outside regulatory control and operational support to Member States and international organisations;
- Development and qualification of nuclear forensics methods and techniques to fight against illicit trafficking and operational support to Member States and international organisations;
- Enhancement of preparedness for nuclear or radiological incidents (e.g. radioactive dispersion) including benchmarking of environmental dispersions models, enhancement of field-deployable measurement instruments;
- Support to the preparation and implementation of EU activities in third countries under the Instrument for Stability (IfS) with a specific focus on CBRN risk mitigation and combatting global threats.

**Relevant general objective(s):**

**JRC General Objective 2:** To pursue nuclear research and training activities with an emphasis on continuous improvement of nuclear safety, security and radiation protection, notably to potentially contribute to the long-term decarbonisation of the energy system in a safe, efficient and secure way.

**Specific objective 2c (contributing to EURATOM Research & Training Programme Specific Objective 11):**

"To raise excellence in the nuclear science base for standardisation"

**Main outputs in 2014**

Key orientations related to the area "Raise excellence in the nuclear science base for standardisation"	indicator	target
	Nr of policy support deliverables	85

- Research on fundamental properties and behaviour of innovative nuclear and structural materials as relevant for safety assessment and validation of models;
- Providing state-of-the-art nuclear reference materials, measurements and data; development and implementation of relevant test standards, databases and assessment tools, including the contribution to internationally recognised nuclear data bases (NEA/OECD, IAEA) and pre-normative research in support of European standardization activities;
- Standardization and harmonisation of the radiological characterisation and measurement methods in the EU for waste management, decommissioning and environmental monitoring and remediation;
- Development of EU standards on security and EU standards on structural material properties, in cooperation with European standards organizations CEN (European

Committee for Standardisation), and CENELEC (European Committee for Electrotechnical Standardisation).

- Development of non-nuclear energy applications of radionuclides and technologies: Research into further development of medical applications, namely new cancer and infectious disease therapies based on alpha irradiation.

**Relevant general objective(s):**

**JRC General Objective 2:** To pursue nuclear research and training activities with an emphasis on continuous improvement of nuclear safety, security and radiation protection, notably to potentially contribute to the long-term decarbonisation of the energy system in a safe, efficient and secure way.

**Specific objective 2d (contributing to EURATOM Research & Training Programme Specific Objective 12):**

"To foster knowledge management, education and training"

**Main outputs in 2014**

Key orientations related to the area "Foster knowledge management, education and training"	indicator	target
	Nr of policy support deliverables	75

- Monitoring EU trends in human resources in the nuclear energy field through the Nuclear Human Resources Observatory (EHRO-N). Development of tools for knowledge management and preservation of the EU competence, support to the implementation of the European Credit System for Vocational Education and Training (ECVET) initiative on mutual recognition of nuclear qualifications in Europe (Copenhagen 2002 process).

- Review of tools for public participation in the nuclear energy field, and development of a knowledge centre for transparency governance.

- Ensure the preservation, further build-up and dissemination of specific scientific and techno-political knowledge related to nuclear safety and security by establishment and management of the European Nuclear Safety and Security School, including the training of EURATOM and IAEA nuclear safeguards inspectors in the European Nuclear Security Training Centre (EUSECTRA);

- Enhancement of the access of researchers from the EU Member States and beyond to the JRC nuclear laboratories (e.g. GELINA, Van de Graaff accelerator, open access facilities at JRC sites, etc.).

**International cooperation**

Implementation of JRC Obligations on education and training under the Euratom treaty for International Cooperation.

**Relevant general objective(s):**

**JRC General Objective 2:** To pursue nuclear research and training activities with an emphasis on continuous improvement of nuclear safety, security and radiation protection, notably to potentially contribute to the long-term decarbonisation of the energy system in a safe, efficient and secure way.

**Specific objective 2e (contributing to EURATOM Research & Training Programme Specific Objective 13):**

"To support the policy of the Union on nuclear safety and security and the related evolving Union legislation"

## Main outputs in 2014

Key orientations related to the area "Support the policy of the Union on nuclear safety and security and the related evolving Union legislation"	Indicator:	target
	Nr of policy support deliverables	101

- Technical and scientific assistance to the implementation of the EU nuclear safety Directive and EURATOM Treaty Art. 41 – 43, contribution to the development of international standards, including IAEA safety standards and guidance documents;

- Technical assistance in the development, monitoring and evaluation of the implementation of different projects under the EU policy instruments promoting highest nuclear safety internationally: Instrument for Nuclear Safety Cooperation (INSC) and the nuclear safety part of the Instrument for Pre-accession Assistance (IPA).

- Providing integrated scientific support to the policy DGs for improved emergency preparedness at EU level, in particular monitoring strategies, sampling methods, reporting techniques and validation of measurements, and strengthening EU capacity of response by improvement of capabilities, and further developments in radioactivity dispersion in the environment, dose estimation, and alert systems in coordination with the NERIS platform;

- Technical assistance to the implementation of the EU Directive for the responsible and safe management of spent nuclear fuel and radioactive waste.

- Support to the policy DG for the preparation and implementation of EU activities in third countries under the Instrument for Stability (IfS) with a specific focus on CBRN risk mitigation and combatting global threats;

- Development and implementation of JRC related technical and research programmes under international organisations initiatives and EURATOM agreements (US DoE, China, Russia, Japan, Canada, ..., IAEA, OECD-NEA, GICNT, ...)

<b>Relevant general objective(s):</b>		
<b>JRC General objective 1 :</b> Provide integrated and pro-active scientific and technical support to the European policy making process		
<b>JRC General Objective 2:</b> To pursue nuclear research and training activities with an emphasis on continuous improvement of nuclear safety, security and radiation protection, notably to potentially contribute to the long-term decarbonisation of the energy system in a safe, efficient and secure way.		
<b>Specific objective 3:</b> Pursue the development of cross-cutting JRC activities		
Main outputs in 2014		
Key orientations related to the area "Pursue the development of cross-cutting JRC activities"	Indicator:	target
	Nr of policy support deliverables	43
<p><b>1. Impact Assessments Audit</b></p> <p>- Research and training related to sensitivity analysis method applicable in the construction and auditing of indicators. Analysis of the robustness of Impact Assessments accompanying major Commission initiatives.</p> <p><b>2. Enlargement and neighbourhood policy</b></p> <p>- Support to countries on the road towards EU membership, new Member States, Candidate Countries and Framework Programme (FP) Associated Countries for the transfer of the EU legal framework (acquis communautaire) to national legislation and for facilitating scientific and technical exchange.</p> <p><b>3. Media Monitoring and analysis for policy purposes</b></p> <p>- Advanced, state-of-the-art, multi-lingual information text mining and analysis tools and systems that exploit traditional online information sources as well as emerging information sources and social media.</p> <p><b>4. Intellectual Property Rights</b></p> <p>- Protection and enforcement of the Intellectual Property Rights (IPR) of the European Union and acting as the Intellectual Property Rights (IPR) office of the European Commission.</p>		

## 7. ANNEX 2 - INDICATORS AND OUTPUTS RELATED TO DECOMMISSIONING

<b>ACTIVITY 10 05</b>			
<b>SPECIFIC OBJECTIVE 13:</b>			
<b>Historical liabilities resulting from nuclear activities carried out by the JRC pursuant to the Euratom Treaty</b>			
<ul style="list-style-type: none"> <li>➤ <b>Implement the Decommissioning &amp; Waste Management Programme (see progress indicators)</b></li> </ul>			
<b><u>Brief description:</u></b>			
<p>The decommissioning activity aims to progressively dismantle the JRC's nuclear installations, either already obsolete (with no foreseen further use) or “future liabilities” (still in use). It also intends to treat “historical” waste (waste accumulated in the past) and waste arising from the dismantling operations. In 1999, the Commission decided to launch a programme to meet this objective. By this choice, the Commission shifted to the practice adopted by most EU Member States, preferring to start the decommissioning immediately after shutdown of the installations rather than deferring decommissioning in the hope that decreasing radiological activity would reduce the financial burden. The programme started in 1999 and is based on the assumption, made for budgetary planning reasons, that the decommissioning of the last nuclear installation and the final disposal of historical wastes will be achieved around 2030.</p> <p>Due to the status of their facilities and to their respective environment, the Ispra site (IT) is engaged in a wider range of activities than the three other sites Geel (BE), Karlsruhe (DE) and Petten (NL), where most facilities are still operational.</p>			
<b>Main outputs in 2014, expenditure-related</b>  (Budget line 10 05)	<b>Progress of the main on-going projects</b>		
	Latest known result	Intermediate target (end of 2014)	Final target (result)
1) Decommissioning and waste management activities at <b>Ispra</b> <ul style="list-style-type: none"> <li>▪ Construction of Interim Storage Facility (ISF)</li> <li>▪ Construction of waste treatment facility (grouting facility, GF)</li> <li>▪ Qualification of a final waste package (FWP)</li> <li>▪ Radioactive waste characterisation and supercompaction</li> </ul>	ISF for LLW storage ready for operation  GF project started (old cementation plant dismantled)  FWP qualification completed at 42%  Licensing File for characterisation and super-compaction ready	Launch feasibility studies for HLW and Nuclear Material storage  GF executive design of civil works performed  Qualification file FWP ready and sent to Safety Authorities  File ("Piano Operativo") for characterisation and super-compaction approved by Safety Authorities; 1 <sup>st</sup> 500 drums shipped	Storage of HLW ready (2020)  GF in operation (in 2016)  FWP ready for use (in 2015)  Waste characterised and treated by supercompaction in 2015, first of 5 campaigns

<ul style="list-style-type: none"> <li>▪ Evacuation of medium level waste from “LCSR”<sup>23</sup> facility (radioactive sources stored in pits)</li> <li>▪ Temporary storage area for nuclear materials (TSA)</li> <li>▪ Decommissioning of obsolete “FARO”<sup>24</sup> nuclear facility</li> <li>▪ Decommissioning of obsolete “STRRL”<sup>25</sup> nuclear facility (excluding the tank facility, TF)</li> </ul>	<p>100% medium level waste evacuated from LCSR activity completed at 75%</p> <p>Non-nuclear tests of the TSA completed</p> <p>FARO dismantling started and progress by 67%</p> <p>STRRL pre-decommissioning started and progress by 36% (Executive design completed. Incinerator tanks and "Vasca" dismantled)</p>	<p>100% medium level waste evacuated from LCSR</p> <p>Nuclear tests of the TSA authorised and performed</p> <p>FARO facility 100% dismantled</p> <p>STRRL license conversion obtained</p>	<p>100% medium level waste evacuated from LCSR (in 2014)</p> <p>TSA formally in operation (in 2015)</p> <p>FARO facility 100% dismantled (in 2014)</p> <p>STRRL facility (Phase 1 excl. Tank Farm) 100% decommissioned (in 2019)</p>
<p>2) Pre-decommissioning - waste management activities <b>Karlsruhe</b></p> <ul style="list-style-type: none"> <li>▪ Dismantling obsolete equipment (glove boxes)</li> <li>▪ Residual contribution to German waste repository (residual budget fixed by German Authorities in 2012)</li> </ul>	<p>66% (+12) glove boxes dismantled</p> <p>34% of budget committed</p>	<p>68% (+ 10) glove boxes dismantled</p> <p>41% of budget committed</p>	<p>100 % of legacy glove boxes dismantled (date not defined)</p> <p>100 % of the budget committed (in 2020)</p>
<p>3) Pre-decommissioning and waste management activities at <b>Geel</b></p> <ul style="list-style-type: none"> <li>▪ Evacuation of nuclear materials</li> </ul>	<p>Contract for evacuation signed</p>	<p>Material under contract evacuated</p>	<p>100 % materials evacuated</p>
<p>4) Pre-decommissioning - waste management activities at <b>Petten</b></p>	<p>No expenditure-related activity planned in 2014</p>		

<sup>23</sup> **LCSR**: “Laboratorio Caldo Studi e Ricerche” (former nuclear laboratories)

<sup>24</sup> **FARO**: “Fuel melting And Release Oven“ (former installation for the study of melting and release of nuclear fuel)

<sup>25</sup> **STRRL**: “Stazione Trattamento e Raccolta Rifiuti Liquidi” (former facility for the collection and treatment of liquid waste)