The Governing Board,

Having regard to the Statutes annexed to the Council Decision (Euratom) No 198/2007 of 27th March 2007 establishing the European Joint Undertaking for ITER and the Development of Fusion Energy (hereinafter "Fusion for Energy") and conferring advantages upon it, and in particular Articles 6(3)(d) and 11 thereof;

Having regard to the Financial Regulation of Fusion for Energy adopted by the Governing Board on 22 October 2007, last amended on 25 November 2011 (hereinafter "the Financial Regulation"), and in particular Title III thereof;

Having regard to the Implementing Rules of the Financial Regulation adopted by the Governing Board on 22 October 2007, last amended on 11 December 2013 (hereinafter "the Implementing Rules"), and in particular Title III thereof;

Having regard to the 2014 Budget adopted by the Governing Board on 11 December 2013;

Having regard to the comments and recommendations of the Administration and Finance Committee, Executive Committee, Technical Advisory Panel and the Bureau;

Whereas:

The Director should, in accordance with Article 8(4)(c), draw up an annual work programme;

The Governing Board should adopt the work programme.

Has adopted this decision:

Article 1

The 2014 Work Programme of Fusion for Energy annexed to this Decision is hereby adopted.

Article 2

This Decision shall have immediate effect.

1 O.J. L 90, 30.03.2007, p. 58.
2 F4E(07)-GB03-11 Adopted 22/10/2007
3 F4E(11)-GB21-10c Adopted 25/11/2011
4 F4E(07)-GB03-12 Adopted 22/10/2007
5 F4E(13)-GB28-14.2 Adopted 11/12/2013
6 F4E(13)-GB28-11.2.2 Adopted 27/10/2013

Adopted 10/12/2013
Done at Barcelona, 11 December 2013

For the Governing Board

[Signature]

Stuart Ward
Chair of the Governing Board

For the Secretariat

Digitally signed by (SIGN)
RAYMOND MONK
DN: c=ES, o=FUSION FOR ENERGY, EUROPEAN AGENCY FOR ITER
PROJECT, cn=(SIGN)
RAYMOND MONK
Date: 2013.12.19 14:42:31 +01'00'

Raymond Monk
Secretary of the Governing Board
FUSION FOR ENERGY 2014 WORK PROGRAMME

TABLE OF CONTENTS

1 Introduction to the Annual Work Programme .............................................................. 4

2 Contractual commitments in the year ................................................................. 5
   2.1 Assumptions and Objectives ............................................................. 5
      2.1.1 Assumptions ................................................................. 5
      2.1.2 ITER Credits for Preparatory Activities .............................. 6
      2.1.3 Main Objectives ............................................................ 6
   2.2 Definitions ......................................................................................... 7
   2.3 List of contractual commitments in the year ............................................. 9
      2.3.1 ITER Programme .......................................................... 9
      2.3.2 Broader Approach ......................................................... 53
      2.3.3 Other expenditures ........................................................... 57
      2.3.4 Complementary expenditures for the contracts under Global Commitment 2013 ...... 57
      2.3.5 Science and technology support for ITER and BA ...................... 59

3 Annexes ........................................................................................................ 60
   3.1 Summary of the 2014 Work Programme ..................................................... 60
   3.2 Annex II: Summary of the Budgets for Grants ........................................... 63
   3.3 Annex III: Essential Selection and Award Criteria for Grants ...................... 64
   3.4 Annex IV: Maximum Reimbursement Rates for Grants ............................. 64
   3.5 Annex V: Abbreviation list ....................................................................... 65
   3.6 Annex VI List of Framework Contracts and partnership agreements foreseen to be ongoing at the end of 2013 ................................................................. 67
   3.7 Annex VII: Mapping of Organizational breakdown structure (OBS- F4E units level) and Work Breakdown Structure (WBS level 3) ........................................................................ 70
   3.8 Annex VIII Summary of Justifications for the use of the Grant Unique Beneficiary ...... Error! Bookmark not defined.
1 Introduction to the Annual Work Programme

The European Joint Undertaking for ITER and the Development of Fusion Energy or 'Fusion for Energy' (F4E) was created under the Euratom Treaty by a decision of the Council of the European Union.

F4E was established for a period of 35 years from 19th April 2007 and its main offices are located in Barcelona, Spain. The objectives of F4E are three fold:

- Providing Europe’s contribution to the ITER International Fusion Energy Organisation (IO) as the designated EU Domestic Agency (DA) for Euratom;
- Implementing the Broader Approach Agreement between Euratom and Japan as the designated Implementing Agency for Euratom;
- Preparing in the longer term for the construction of demonstration fusion reactors (DEMO).

In accordance with the Financial Regulation of F4E and its Implementing Rules, this document lays down a detailed programme of activities that are foreseen to be implemented and financed under the budgetary appropriation for 2014. This information is complemented by the Budget 2014.

The implementation of the activities in this section strictly corresponds to the implementation of the Budget in commitment appropriation, based in particular on the Articles 64 to 67 of the F4E Financial Regulation.
2 Contractual commitments in the year

2.1 Assumptions and Objectives

2.1.1 Assumptions

Following assumptions shall be considered at the basis of the Work Programme 2014:

- At the 9th ITER Council (IC-9) in November 2011 the latest developments of the ITER schedule were presented and it was noted that the estimated first plasma (FP) date of November 2020 is within the baseline approved in July 2010.

- The F4E schedule used for the preparation of this document is as of end of October 2013. This schedule has been recently revised following the F4E corporate objectives to have a realistic Work Programme 2014. A further revision is in progress in order to implement modifications to reach a realistic schedule for the whole construction also taking into account the resources availability. This work is done in parallel at F4E as well in ITER IO and the other Domestic Agencies (DA) and an integrated realistic schedule is expected to be available (for the short term) only at the end of 2013. The exercise currently in progress in F4E to update the schedule to make it more realistic takes into account:
  - the latest input and developments of the schedules from the F4E suppliers;
  - the most realistic assumption of PA signature dates based on the current status of the design of components and on the forecasted dates of the required design reviews prior to the PA signature;
  - the available manpower in F4E to take into account bottlenecks in specific areas where staffing is not sufficient to grant a prompt process of the work;
  - the available yearly budget for the work on the EU in-kind procurements;
  - the most realistic assumptions on the data availability from ITER IO to take into account the existing delays and the agreed dates of data delivery;
  - the information provided by the other DAs through their monthly Detailed Work Schedule (DWS) to take into account any possible delay in the delivery of items to F4E that can cause delays to the EU in-kind procurements;

- Actions delayed from previous years and foreseen to be implemented with budget 2014 have been integrated in this document and accounts for about 30% of the total actions under 2014 budget.

- In order to achieve an improvement of the quality of the PAs that are signed, an effort is in progress in F4E to better identify the requirements that are linked to each specific procurement. ITER IO has also been called to contribute to this effort by propagating the requirements from the project level down to the level of the PA, where they interface with the DAs. Then F4E will take over for the propagation of the PA requirements down into the different procurement contracts.

- The schedules from the F4E suppliers, taking into account the agreed fabrication routes and showing the real development of the work, are being reviewed every month and the main data, once analysed, integrated into the overall F4E schedule in Primavera.

- At the moment, due to the delays declared by F4E and by the other DAs, there is a consistent misalignment between milestones as declared in the DWS vs the dates included in the current Strategic Management Plan (SMP). Following the scheduling work in progress to achieve a more realistic planning, it is assumed that the ITER Council will have to take a decision in June 2014 (or in 2015 as recommended by MAC during its last October meeting-MAC16) to revise the date of First Plasma accordingly.

- Technically and commercially complex procurements will be implemented whenever appropriate through the competitive dialogue procedure or through the negotiated procedure, in order to improve the alignment of supply chain response to F4E needs and to proactively adopt cost containment measures. This will be done in compliance with F4E Implementing Rules.
Grants related to recurring and sequential R&D activities, with a well-defined development path eventually leading to an EU procurement package, will be implemented whenever appropriate through the Framework Partnership Agreement (FPA) procedure, in order to streamline and channel R&D funding, improve its effectiveness and reduce administrative burden to beneficiaries and F4E alike.

Procurements which encompass scope within the domain of both F4E and contracting authorities, or for which a very close coordination between F4E and other entities is needed, will be implemented whenever appropriate through the Joint Procurement procedure.

F4E endorsement of the Japanese Procurement Arrangement that foresees an EU financial contribution will be preceded by a budgetary commitment for the entire amount of the F4E contribution.

Regarding the WP2014 for Broader Approach, the main assumptions are that this is to be coherent with the individual BA Projects’ Work Programmes and Project Plans as approved by the Broader Approach Steering Committee.

2.1.2 ITER Credits for Preparatory Activities

This WP2014 includes a programme of R&D and preparatory activities that have to be carried out prior to signing the Procurement Arrangement for the Procurement Packages agreed to be at Build-to-Print level. Recognizing that F4E is carrying out work that should have been completed by IO, additional credit from IO is being requested by F4E through ITER Task Agreements (ITAs). The activities indicated in this 2014 Annual Work Programme as receiving additional (ITA) credits may be cancelled in the event that IO would not make the requested credits available.

Similarly, F4E participates to the call for proposals launched by ITER IO on a competitive basis for activities such as plasma engineering and safety. Activities to answer to forecasted calls in 2014 are also included in this document.

2.1.3 Main Objectives

With respect to activities related to ITER, the main objectives are:

- The negotiation and signature of the ITER Procurement Arrangements, proposed by the ITER Organisation (IO), according to the present F4E schedule.
- The signature of procurement contracts for those components on the critical path and for those foreseen in the current F4E schedule.
- The continuation of design and R&D activities in areas including Remote Handling, Heating and Current Drive, Vacuum System, Tritium System, Diagnostics and Test Blanket Modules.
- The continuation of implementation of building construction contracts.
- The continuation of the preparation of safety and licensing documentation for ITER in Cadarache and related safety studies.
- The investigation of manufacturing methods and non-destructive tests of critical components from the technical point of view with the objective of minimising the cost and risk of not meeting the technical requirements (divertor, blanket and first wall).
- The preparation of new facilities to test prototypes and components during the qualification process and construction respectively.
- The most significant procurements to be either initiated or signed within 2014 are related to:
  - Magnets with a new framework for the testing and characterization of PF strands and PF coils contracts will be signed according to the newly approved procurement strategy;
• Vacuum Vessel, for which additional stages and options will be released according to the progress in manufacturing;
• Neutral Beam system and Electro Cyclotron Power Sources and Supplies, for which procurement contracts contract for High Voltage Deck and Bushing and procurement contract of Main and Body HV power supplies for the EC ITER system BPS & MHVPS will be signed in 2014;
• Site and Buildings and Power Supplies for which TB06 contract will be signed in 2014 partially under Global commitment 2013.

With respect to the Broader Approach (BA), the general scope of the activities is detailed in the Annexes to the BA Agreement signed between EURATOM and the Government of Japan in 2007. For the three BA Projects (STP IFMIF/EVEDA and IFERC Projects), F4E is acting as EU Implementing Agency in close collaboration with JAEA (the JA Implementing Agency).

The scope of activities for BA is subdivided in a number of Procurement Arrangements (PA), signed by F4E and JAEA, covering part of the activities/deliverables. The procurement sharing, within EU commitment, is approved by the EU BA Contact Persons representing EURATOM and all EU VCs. In general, to each PA corresponds an Agreement of Collaboration (AoC) in which the PA commitments are transferred to one or more of the VC Designated Institutions, in line with the agreed sharing.

The vast majority of the EU procurements and contributions are provided by Belgium, France, Germany, Italy, Spain and Switzerland, the EU Voluntary Contributors (EU VCs), which have designated major national research institutions for the practical implementation (VC Designated Institutions).

In the sharing F4E retains some of the hardware procurements (in particular in JT-60SA) and all the transports from the fabrication places in Europe to the designated Ports of Entry in Japan.

The F4E Broader Approach activities for 2014 are expected to proceed according to the BA 2014 Work Programmes which are expected to be endorsed by the 13th BA Steering Committee of 17th December 2013.

2.2 Definitions
The list of the financing decisions at the basis of the implementation of the 2014 commitments is available in the section 2.3.

The following definitions and assumptions shall be taken into account for the implementation and follow-up of the Work Programme:

• All the activities in the list can be financed with budget 2014 based on the current F4E rules and based on the reference schedule as at the end of October 2013.
• Certain activities have been moved from previous years into WP2014 due to changes in the overall planning and priorities: these items are identified by a WP ref field showing a WPxx tag different from WP14 (e.g. WP11/..). It is understood that the inclusion of these items in WP2014 is cancelling and superseding any corresponding item in a previous year’s WP, unless otherwise specified in this document for specific and motivated reasons.
• During the implementation of the work programme activities, F4E may group more activities in a single call or split one activity in more calls. This will in any case be performed preserving the scope and objective presented in WP2014.
• The foreseen time of publication of calls, invitations and legal commitments/contract signature dates are indicative only and based on the present understanding of the project development. For expenditure performed through framework contracts and framework partnership agreements, release of the contractual options, amendments to ongoing contracts or use of Joint
Procurements the foreseen time of publication of calls is not included (N/A in the Work Programme) as no formal publication will take place.

- Publication of the call for tender is intended as the date of publication on the Industry Portal (for open procedures/call for proposals) and the date of the Invitation letter to be sent out to the Suppliers (for negotiated procedures). For restricted procedures and competitive dialogues this milestones refers to the date of the call for tender/dialogue (second phase of the procedure).
- The use of the Grant Unique Beneficiary instrument will be fully justified and summary of justifications are available in 1.1.
- In the following, the activities of Fusion for Energy related to ITER and the BA are described according to the F4E Work Breakdown Structure. The tables provided in the text use the following abbreviations:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>WP ref</td>
<td>Work programme reference, univocally identifying WP items</td>
</tr>
<tr>
<td>G</td>
<td>Grant</td>
</tr>
<tr>
<td>SG</td>
<td>Specific Grant based on a Framework Partnership Agreement</td>
</tr>
<tr>
<td>SC</td>
<td>Specific Contracts based on a Framework Contracts</td>
</tr>
<tr>
<td>FPA</td>
<td>Framework Partnership Agreement</td>
</tr>
<tr>
<td>FWC</td>
<td>Framework Procurement Contract</td>
</tr>
<tr>
<td>P</td>
<td>Procurement (&quot;PServ&quot; for service, &quot;PSupply&quot; supply or &quot;Pwork&quot; works)</td>
</tr>
<tr>
<td>Y(ITA)</td>
<td>Credited by ITER IO through ITA</td>
</tr>
<tr>
<td>Y(BA)</td>
<td>Credited under BA Agreement</td>
</tr>
<tr>
<td>N</td>
<td>Non credited</td>
</tr>
<tr>
<td>MULTIPLE</td>
<td>Commitments will be implemented through multiple WBS</td>
</tr>
</tbody>
</table>

- WP items indicated as Framework Partnership Agreements (FPA) or Framework Procurement Contracts (FWC) are included in the year of signature for clarification purposes only and do not constitute a financing decision: the implementing financing decisions within such frameworks is indicated as appropriate by separate WP items (as either SG or Pserv/SC). The list of the framework contracts and partnership agreements that will be ongoing at the end of 2013 is available in Annex VIII.
- WP2014 introduces the categorization of the work programme activities intended as a measure of confidence of implementation of the milestones foreseen in 2014 based on the current schedule:
  - **Category A:** are the WP activities with legal commitment by the end of September 2014;
  - **Category B:** are the WP activities with legal commitment in the last quarter of 2014 or later;
  - **Category C:** are the activities that F4E considers unlikely to implement with the budget 2014;
- Equivalence F4E OBS to F4E WBS level 3 is available in section 3.6.
2.3 **List of contractual commitments in the year**

2.3.1 **ITER Programme**

2.3.1.1 **Magnets**

<table>
<thead>
<tr>
<th>WP Cat</th>
<th>WP Ref</th>
<th>F4E WBS</th>
<th>Activity Type</th>
<th>Activity Title</th>
<th>Activity Description</th>
<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal commitment (year/quarter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>WP13/11/04</td>
<td>EU.01.11.04</td>
<td>FWC</td>
<td>Testing and characterization of PF strand</td>
<td>Service contract to carry out independent verification tests of the PF strand manufactured by RFDA, as required by the PA</td>
<td>Y</td>
<td>13Q3</td>
<td>14Q1</td>
</tr>
<tr>
<td>B</td>
<td>WP13/11/05</td>
<td>EU.01.11.04</td>
<td>PServ</td>
<td>Characterization of PF conductor strands</td>
<td>Task Orders for Characterization of PF conductor strands. Mainly to be implemented as specific contracts under the framework contract OPE-405 (WP13/11/04)</td>
<td>Y</td>
<td>N/A</td>
<td>2014</td>
</tr>
<tr>
<td>B</td>
<td>WP13/11/13</td>
<td>EU.01.11.03</td>
<td>PSupply</td>
<td>Impregnation Tooling Provision (TI)</td>
<td>Impregnation tooling for PF2-PF6 coils</td>
<td>Y</td>
<td>14Q2</td>
<td>14Q4</td>
</tr>
<tr>
<td>B</td>
<td>WP13/11/14</td>
<td>EU.01.11.03</td>
<td>PSupply</td>
<td>Qualification and Handling tooling for PF Coils (TA)</td>
<td>Tooling needed for PF manufacturing operation (i.e. joggle preparation, He inlet/exit preparation, etc). Not includes tooling for winding and impregnation</td>
<td>Y</td>
<td>14Q2</td>
<td>14Q4</td>
</tr>
<tr>
<td>A</td>
<td>WP13/11/15</td>
<td>EU.01.11.03</td>
<td>PServ</td>
<td>PF Coils Manufacturing and Cold Test (MFR)</td>
<td>PF Coils Manufacturing and Cold Test (MFR)</td>
<td>Y</td>
<td>14Q1</td>
<td>14Q3</td>
</tr>
<tr>
<td>WP Cat</td>
<td>WP Ref</td>
<td>F4E WBS</td>
<td>Activity Type</td>
<td>Activity Title</td>
<td>Activity Description</td>
<td>Credit Status</td>
<td>Time of Call</td>
<td>Legal commitment (year/quarter)</td>
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</tr>
<tr>
<td>B</td>
<td>WP13/11/16</td>
<td>EU.01.11.03</td>
<td>PServ</td>
<td>Site &amp; Infrastructure (S&amp;I)</td>
<td>Site &amp; infrastructure support contract for on-site managements of the PF facility</td>
<td>Y</td>
<td>14Q1</td>
<td>14Q4</td>
</tr>
<tr>
<td>A</td>
<td>WP14/11/01</td>
<td>EU.01.11.01</td>
<td>PSupply</td>
<td>Assembly of TFWP into Coil Cases</td>
<td>Complementary expenditure for the contract Insertion of the Winding Pack into Coil Cases (WP11/11/07)</td>
<td>Y</td>
<td>NA</td>
<td>14Q1</td>
</tr>
<tr>
<td>B</td>
<td>WP14/11/02</td>
<td>EU.01.11.04</td>
<td>PServ</td>
<td>Testing of TF Nb3Sn Strands</td>
<td>Task Orders for Testing of TF Nb3Sn Strands. Mainly to be implemented through the Framework contract OPE-145</td>
<td>Y</td>
<td>N/A</td>
<td>2014</td>
</tr>
<tr>
<td>B</td>
<td>WP14/11/03</td>
<td>EU.01.11.05</td>
<td>PServ</td>
<td>Inspectors for Poloidal Fields Coil no 6 (PF06) in China</td>
<td>Provision for mechanical, UT, welds, geometrical inspection, additional inspecting tools for PF06 manufacturing contract in China. Mainly to be performed through the Framework Contract WP14/PO/07</td>
<td>Y</td>
<td>N/A</td>
<td>2014</td>
</tr>
<tr>
<td>A</td>
<td>WP14/11/04</td>
<td>EU.01.11.01</td>
<td>PServ</td>
<td>Insurance brokerage</td>
<td>Brokerage for the of the Winding Pack Insurance Mainly to be performed through specific contracts under ongoing framework contracts</td>
<td>Y</td>
<td>N/A</td>
<td>14Q2</td>
</tr>
<tr>
<td>B</td>
<td>WP14/11/05</td>
<td>EU.01.11.05</td>
<td>PServ</td>
<td>Transportation</td>
<td>Transportation related contracts and Task Orders for all Magnet components including transportation of components to manufacture PF06 in China</td>
<td>Y</td>
<td>N/A</td>
<td>2014</td>
</tr>
<tr>
<td>WP Cat</td>
<td>WP Ref</td>
<td>F4E WBS</td>
<td>Activity Type</td>
<td>Activity Title</td>
<td>Activity Description</td>
<td>Credit Status</td>
<td>Time of Call</td>
<td>Legal commitment (year/quarter)</td>
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</tr>
<tr>
<td>B</td>
<td>WP14/11/06</td>
<td>EU.01.11.01</td>
<td>PServ</td>
<td>Radial plate option</td>
<td>Provisions for late delivery of pre-defined models to Radial Plate supplier as stated in the Contract</td>
<td>Y</td>
<td>N/A</td>
<td>2014</td>
</tr>
<tr>
<td>B</td>
<td>WP14/11/07</td>
<td>EU.01.11.01</td>
<td>PServ</td>
<td>Winding Pack Insurance</td>
<td>Insurance of the Winding Pack during insertion process</td>
<td>Y</td>
<td>15Q1</td>
<td>15Q3</td>
</tr>
<tr>
<td>B</td>
<td>WP14/11/08</td>
<td>EU.01.11.03</td>
<td>PSupply</td>
<td>PF Cold Test (CTF)</td>
<td>Cold Test Engineering Study and Facility Construction</td>
<td>Y</td>
<td>14Q3</td>
<td>15Q1</td>
</tr>
<tr>
<td>A</td>
<td>WP14/11/09</td>
<td>EU.01.11.03</td>
<td>Pserv/P supply</td>
<td>Storage for PF coils conductors</td>
<td>Provisions for storage for the Chinese conductors before the assembly into PF coils on ITER site.</td>
<td>Y</td>
<td>N/A</td>
<td>14Q3</td>
</tr>
</tbody>
</table>

**2.3.1.2 Vacuum Vessel**

<table>
<thead>
<tr>
<th>WP Cat</th>
<th>WP Ref</th>
<th>F4E WBS</th>
<th>Activity Type</th>
<th>Activity Title</th>
<th>Activity Description</th>
<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal commitment (year/quarter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>WP14/15/01</td>
<td>EU.01.15.01</td>
<td>P Supply</td>
<td>Procurement of Main Vessel (phase 5)</td>
<td>Implementation of Fabrication stages for sectors 2,7,8 and 9 and options (including Fabrication and installation for ELM-VS coil, Fabrication and installation for intermediate manifold supports) of the VV contract according to the developing of the manufacturing. It also includes: Finishing for Stages 2, 3, 4 and 5, Machining and forming of Splice plates.</td>
<td>Y</td>
<td>N/A</td>
<td>14Q2-14Q3</td>
</tr>
<tr>
<td>WP Cat</td>
<td>WP Ref</td>
<td>F4E WBS</td>
<td>Activity Type</td>
<td>Activity Title</td>
<td>Activity Description</td>
<td>Credit Status</td>
<td>Time of Call</td>
<td>Legal commitment (year/quarter)</td>
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</tr>
<tr>
<td>A</td>
<td>WP14/15/02</td>
<td>EU.01.15.01</td>
<td>PSupply</td>
<td>Procurement of Main Vessel - Additional Activities</td>
<td>Additional activities to be performed by the supplier for the management of the change orders to the VV contract; complementary expenditure for supplier’s claims.</td>
<td>Y</td>
<td>N/A</td>
<td>14Q1-14Q3</td>
</tr>
<tr>
<td>B</td>
<td>WP14/15/03</td>
<td>EU.01.15.01</td>
<td>PServ</td>
<td>Engineering support for VV construction</td>
<td>Material characterization, irradiation tests, engineering and finite-element analysis to support the VV sectors contract activities. These analyses include thermal, structural, electromagnetic and seismic. Also CAD tasks to support, validate and/or integrate IO input data and activities to quickly answer to ANB requests to speed design approval. Mainly to be performed through specific contracts under ongoing frameworks under Technical Support Services area.</td>
<td>Y</td>
<td>N/A</td>
<td>2014</td>
</tr>
<tr>
<td>A</td>
<td>WP14/15/04</td>
<td>EU.01.15.01</td>
<td>PServ</td>
<td>Procurement of Inspections</td>
<td>QA inspection activities for the follow-up of the Vacuum vessel contract, including site inspections activities related to NDT, welding, quality assurance, etc. in several supplier manufacturing sites. Mainly to be performed through specific contracts under framework WP11/PO/12 and WP14/15/05.</td>
<td>Y</td>
<td>N/A</td>
<td>14Q3</td>
</tr>
<tr>
<td>A</td>
<td>WP14/15/05</td>
<td>EU.01.15.01</td>
<td>FWC</td>
<td>Procurement of Inspections</td>
<td>Framework contract for the QA inspection activities for the follow-up of the Vacuum vessel contract.</td>
<td>N/A</td>
<td>13Q4</td>
<td>14Q2</td>
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</tbody>
</table>
### 2.3.1.3 In vessel

#### 2.3.1.3.1 Manifolds

<table>
<thead>
<tr>
<th>WP Cat</th>
<th>WP Ref</th>
<th>F4E WBS</th>
<th>Activity Type</th>
<th>Activity Title</th>
<th>Activity Description</th>
<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal commitment (year/quarter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>WP14/16/01</td>
<td>EU.01.15.02</td>
<td>PServ</td>
<td>Manufacturing of manifold supports to validate their feasibility.</td>
<td>Manufacturing of prototypes of representative manifold support types. This task aims at verifying the feasibility of the supports and optimizing their manufacturing route. The brazing process and the application of surface coatings will be implemented</td>
<td>Y(ITA)</td>
<td>14Q1</td>
<td>14Q2</td>
</tr>
</tbody>
</table>

#### 2.3.1.3.2 Blanket First Wall

<table>
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<tr>
<th>WP Cat</th>
<th>WP Ref</th>
<th>F4E WBS</th>
<th>Activity Type</th>
<th>Activity Title</th>
<th>Activity Description</th>
<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal commitment (year/quarter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>WP13/16/03</td>
<td>EU.01.16.01</td>
<td>PServ</td>
<td>First wall panel manufacturing development</td>
<td>First wall panel manufacturing development: support in the specification and fabrication of the FSP, focused on material and HIP technologies</td>
<td>Y</td>
<td>14Q1</td>
<td>14Q2</td>
</tr>
<tr>
<td>A</td>
<td>WP13/16/07</td>
<td>EU.01.16.01</td>
<td>PSupply</td>
<td>Manufacture of FW full scale prototypes</td>
<td>Manufacture of First Wall full scale prototypes and related manufacturing studies</td>
<td>Y</td>
<td>13Q3</td>
<td>14Q2</td>
</tr>
<tr>
<td>WP Cat</td>
<td>WP Ref</td>
<td>F4E WBS</td>
<td>Activity Type</td>
<td>Activity Title</td>
<td>Activity Description</td>
<td>Credit Status</td>
<td>Time of Call</td>
<td>Legal commitment (year/quarter)</td>
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<tr>
<td>B</td>
<td>WP13/16/11</td>
<td>EU.01.06.01</td>
<td>PSupply</td>
<td>Industrial development of laser/EB sintering for the fabrication of the FW panel supporting beam</td>
<td>Industrial development of laser/EB sintering for the fabrication of the FW panel supporting beam</td>
<td>Y</td>
<td>14Q2</td>
<td>14Q4</td>
</tr>
<tr>
<td>A</td>
<td>WP14/16/02</td>
<td>EU.01.16.01</td>
<td>PServ</td>
<td>Follow-up of the First Wall supply contract</td>
<td>Service of expediters to verify the progress of the contract at suppliers' workshop.</td>
<td>Y</td>
<td>14Q2</td>
<td>14Q3</td>
</tr>
<tr>
<td>A</td>
<td>WP14/16/03</td>
<td>EU.01.16.01</td>
<td>Pserv</td>
<td>Quality control external support</td>
<td>Support of external inspectors to fulfil quality control activities on contracts together with or on behalf of F4E personnel. Mainly to be implemented through the framework contract for support inspectors WP11/PO/12</td>
<td>Y</td>
<td>N/A</td>
<td>14Q3</td>
</tr>
<tr>
<td>A</td>
<td>WP14/16/04</td>
<td>EU.01.16.01</td>
<td>G7</td>
<td>Irradiation &amp; post –irradiation mechanical Characterization of CuCrZr alloy &amp; CuCrZr / 316L Stainless Steel Joints</td>
<td>Extraction and machining of new samples from mock-ups; higher rates of hot cells; substitution of thermocouples in test apparatus Additional activities for the F4E -GRT-043</td>
<td>Y</td>
<td>NA</td>
<td>14Q1</td>
</tr>
</tbody>
</table>

7 Unique Beneficiary: Nuclear Research and Consultancy Group (NRG), technical competence
<table>
<thead>
<tr>
<th>WP Cat</th>
<th>WP Ref</th>
<th>F4E WBS</th>
<th>Activity Type</th>
<th>Activity Title</th>
<th>Activity Description</th>
<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal commitment (year/quarter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>WP14/16/05</td>
<td>EU.01.16.01</td>
<td>Pserv</td>
<td>Storage and recycling of Beryllium coated components</td>
<td>Further to extensive R&amp;D programme performed so far under the Blanket FW, a lot of HHF tested mock-ups are stored in different locations. These mock ups need to be processed for recycling of Beryllium and final depository</td>
<td>Y</td>
<td>14Q2</td>
<td>14Q4</td>
</tr>
<tr>
<td>A</td>
<td>WP14/16/06</td>
<td>EU.01.16.01</td>
<td>PServ</td>
<td>Options of the High Heat Flux testing contract</td>
<td>Release of the contractual options as following contracts:</td>
<td>Y</td>
<td>NA</td>
<td>14Q2-14Q3</td>
</tr>
<tr>
<td>A</td>
<td>WP14/16/07</td>
<td>EU.01.16.01</td>
<td>PSupply</td>
<td>Fabrication of CuCrZr plates for ITER FW RSP</td>
<td>Procurement of CuCrZr plates to enable fast start of fabrication of RSP (first item of full-scale prototype contract)</td>
<td>Y</td>
<td>13Q4</td>
<td>14Q1</td>
</tr>
</tbody>
</table>
2.3.1.3.3 Divertor

<table>
<thead>
<tr>
<th>WP Cat</th>
<th>WP Ref</th>
<th>F4E WBS</th>
<th>Activity Type</th>
<th>Activity Title</th>
<th>Activity Description</th>
<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal commitment (year/quarter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>WP13/17/02</td>
<td>EU.01.17.02</td>
<td>PServ</td>
<td>Monitoring of Inner Vertical Target prototype</td>
<td>Follow up and inspection of Inner Vertical Target prototype manufacturing. Mainly to be performed through the FW WP11/PO/12 and WP14/PO/07</td>
<td>Y</td>
<td>N/A</td>
<td>14Q3</td>
</tr>
<tr>
<td>A</td>
<td>WP14/17/01</td>
<td>EU.01.17.02</td>
<td>PSupply</td>
<td>Optimization of Divertor full W Components</td>
<td>This activity is aimed at optimizing the fabrication of Plasma Facing Units in accordance with latest study/results.</td>
<td>Y</td>
<td>14Q1</td>
<td>14Q2</td>
</tr>
<tr>
<td>A</td>
<td>WP14/17/02</td>
<td>EU.01.17.02</td>
<td>G8</td>
<td>Optimization of Divertor full W Components</td>
<td>This activity is aimed at optimizing the fabrication of Plasma Facing Units in accordance with latest study/results.</td>
<td>Y</td>
<td>14Q1</td>
<td>14Q3</td>
</tr>
<tr>
<td>A</td>
<td>WP14/17/03</td>
<td>EU.01.17.02</td>
<td>G8</td>
<td>Characterization of Alternative Divertor Material</td>
<td>The activity is aimed to perform destructive examination of full tungsten and alternative carbon fibre composite mock ups tested to high heat flux thermal fatigue.</td>
<td>Y</td>
<td>NA</td>
<td>14Q1</td>
</tr>
</tbody>
</table>

8 Unique Beneficiary: Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile (ENEA), unique technical competence
9 Unique Beneficiary: Forschungszentrum Jülich GmbH (JÜLICH), technical competence
### 2.3.1.4 Remote Handling

<table>
<thead>
<tr>
<th>WP Cat</th>
<th>WP Ref</th>
<th>F4E WBS</th>
<th>Activity Type</th>
<th>Activity Title</th>
<th>Activity Description</th>
<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal commitment (year/quarter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>WP11/23/02</td>
<td>EU.01.23.02</td>
<td>FWC</td>
<td>DIV RH framework contract</td>
<td>Procurement activities related to DIV RH (design, manufacturing and installation)</td>
<td>Y</td>
<td>12Q4</td>
<td>14Q1</td>
</tr>
<tr>
<td>B</td>
<td>WP11/23/04</td>
<td>EU.01.23.03</td>
<td>FWC</td>
<td>Transfer Cask RH framework contract</td>
<td>Procurement activities related to cask RH (design, manufacturing and installation)</td>
<td>Y</td>
<td>13Q4</td>
<td>15Q1</td>
</tr>
<tr>
<td>A</td>
<td>WP11/23/05</td>
<td>EU.01.23.03</td>
<td>PServ</td>
<td>Transfer Cask RH tendering studies</td>
<td>Provisions for cask RH framework contract (WP11/23/04) tendering</td>
<td>Y</td>
<td>N/A</td>
<td>14Q1</td>
</tr>
<tr>
<td>B</td>
<td>WP11/23/06</td>
<td>EU.01.23.05</td>
<td>FWC</td>
<td>NB RH framework contract</td>
<td>Procurement activities related to NB RH (design, manufacturing and installation)</td>
<td>Y</td>
<td>13Q4</td>
<td>15Q1</td>
</tr>
<tr>
<td>A</td>
<td>WP11/23/09</td>
<td>EU.01.23.04</td>
<td>Pserv</td>
<td>IVVS tendering studies</td>
<td>Provisions for In-Vessel Viewing System framework contract (WP11/23/08) tendering</td>
<td>Y</td>
<td>NA</td>
<td>14Q2</td>
</tr>
<tr>
<td>A/B</td>
<td>WP12/23/04</td>
<td>EU.01.23.02</td>
<td>SC</td>
<td>Divertor Remote Handling Procurement</td>
<td>Design and manufacturing activities related to the DIV RH procurement package (mainly focused on preliminary design and support validation activities like R&amp;D and tests where needed).Mainly performed through WP11/23/02</td>
<td>Y</td>
<td>N/A</td>
<td>14Q2 – 14Q4</td>
</tr>
<tr>
<td>WP Cat</td>
<td>WP Ref</td>
<td>F4E WBS</td>
<td>Activity Type</td>
<td>Activity Title</td>
<td>Activity Description</td>
<td>Credit Status</td>
<td>Time of Call</td>
<td>Legal commitment (year/quarter)</td>
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</tr>
<tr>
<td>A</td>
<td>WP14/23/01</td>
<td>EU.01.23.05</td>
<td>G</td>
<td>R&amp;D for Caesium oven tooling</td>
<td>R&amp;D activity to demonstrate feasibility of the current Cs oven maintenance strategy and development of bespoke RH tools</td>
<td>Y</td>
<td>14Q1</td>
<td>14Q3</td>
</tr>
<tr>
<td>A/B</td>
<td>WP14/23/02</td>
<td>EU.01.23.01</td>
<td>P serv</td>
<td>Engineering Support for Remote Handling</td>
<td>Support activities (procurement follow up; control system, rad-hard technologies; follow up of the IVVS, TCS and NBRH tender; preparation of the other PA for TCS and IVVS; etc… ) mainly performed through specific contracts within framework WP 11/ES/06</td>
<td>Y,Y ITA</td>
<td>N/A</td>
<td>2014</td>
</tr>
<tr>
<td>A</td>
<td>WP14/23/04</td>
<td>EU.01.23.02</td>
<td>G10</td>
<td>Divertor RH Design Support</td>
<td>DTP2 tests and R&amp;D in support of the DIV RH design</td>
<td>Y</td>
<td>14Q2</td>
<td>14Q3</td>
</tr>
</tbody>
</table>

10 Unique Beneficiary VTT Technical Research Centre of Finland and TUT Foundation (trading as Tampere University of Technology): Unique experimental Facility
### 2.3.1.5 Cryoplant and Fuel Cycle

#### 2.3.1.5.1 Vacuum Pumping and Fuelling

<table>
<thead>
<tr>
<th>WP Cat</th>
<th>WP Ref</th>
<th>F4E WBS</th>
<th>Activity Type</th>
<th>Activity Title</th>
<th>Activity Description</th>
<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal commitment (year/quarter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>WP12/31/01</td>
<td>EU.01.31.01</td>
<td>PSupply</td>
<td>Procurement of the MITICA Cryopump</td>
<td>Procurement of the MITICA Cryopump, including instrumentation and follow-up</td>
<td>Y</td>
<td>14Q2 - 15Q3</td>
<td>14Q4-15Q4</td>
</tr>
<tr>
<td>B</td>
<td>WP14/31/02</td>
<td>EU.01.31.02</td>
<td>PServ</td>
<td>Technical assessment and cost estimation for Leak Detection and Localization</td>
<td>Procurement of technical assessment and cost estimation for Leak Detection and Localization</td>
<td>Y</td>
<td>14Q4</td>
<td>15Q1</td>
</tr>
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</table>

#### 2.3.1.5.2 Tritium Plant

<table>
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<th>WP Cat</th>
<th>WP Ref</th>
<th>F4E WBS</th>
<th>Activity Type</th>
<th>Activity Title</th>
<th>Activity Description</th>
<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal commitment (year/quarter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>WP14/32/01</td>
<td>EU.01.32.02</td>
<td>SC</td>
<td>Procurement for Quality Control for Manufacture. of WDS Tanks</td>
<td>Quality Control for Manuf. of WDS Tanks. Mainly to be performed through the framework contract WP11/PO/12 and WP14/PO/07</td>
<td>Y</td>
<td>N/A</td>
<td>14Q1</td>
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</table>
### 2.3.1.5.3 Radiological Protection & Environmental Monitoring System

<table>
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<tr>
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<th>WP Ref</th>
<th>F4E WBS</th>
<th>Activity Type</th>
<th>Activity Title</th>
<th>Activity Description</th>
<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal commitment (year/quarter)</th>
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<tr>
<td>A</td>
<td>WP14/64/01</td>
<td>EU.01.64.01</td>
<td>PServ</td>
<td>REMS: preliminary design</td>
<td>REMS Preliminary Design HCC Mainly to be performed through the framework F4E-OMF-298 lot 2</td>
<td>Y</td>
<td>N/A</td>
<td>14Q3</td>
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### 2.3.1.5.4 Waste Treatment

<table>
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<th>F4E WBS</th>
<th>Activity Type</th>
<th>Activity Title</th>
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<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal commitment (year/quarter)</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>WP14/66/01</td>
<td>EU.01.66.01</td>
<td>SC</td>
<td>Procurement of Technical and cost assessment for Waste package</td>
<td>Technical assessment of Conceptual Design and cost assessment for Waste package. Mainly to be performed through the framework F4E-OMF-298 lot 1</td>
<td>Y</td>
<td>N/A</td>
<td>14Q2</td>
</tr>
</tbody>
</table>
### 2.3.1.6 Antennas and Plasma Engineering

#### 2.3.1.6.1 Ion Cyclotron Heating (ICH) and Current Drive Antenna

<table>
<thead>
<tr>
<th>WP Cat</th>
<th>WP Ref</th>
<th>F4E WBS</th>
<th>Activity Type</th>
<th>Activity Title</th>
<th>Activity Descriptionyer</th>
<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal commitment (year/quarter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/B</td>
<td>WP14/51/01</td>
<td>EU.01.51.01</td>
<td>Pserv</td>
<td>Design and analysis and technical coordination</td>
<td>Specific contracts 2014 for the Built to Print design of the antenna</td>
<td>Y(ITA)</td>
<td>N/A</td>
<td>14Q1-14Q4</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Mainly to be implemented through the framework contract WP11/51/02 for the analysis for Built to Print design</td>
<td></td>
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</tr>
<tr>
<td>B</td>
<td>WP14/51/02</td>
<td>EU.01.51.01</td>
<td>Pserv</td>
<td>Engineering support (antenna design and analysis)</td>
<td>General analyses in support of the antenna design, such as, but not limited to, mechanical analyses, disruption analysis and seismic/vibration.</td>
<td>Y(ITA)</td>
<td>N/A</td>
<td>2014</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Mainly to be implemented through specific contracts under the Technical Support Services</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>A</td>
<td>WP14/51/03</td>
<td>EU.01.51.01</td>
<td>Pserv</td>
<td>Faraday Screen design qualification</td>
<td>Execution of options of the Contract for testing and manufacturing of Faraday Screen Bar WP11/16/01.</td>
<td>Y(ITA)</td>
<td>N/A</td>
<td>14Q1</td>
</tr>
<tr>
<td>A</td>
<td>WP14/51/04</td>
<td>EU.01.51.01</td>
<td>Pserv</td>
<td>Vacuum window design qualification</td>
<td>Contracts for the qualification of the RF window design, such as for material procurement, irradiation, measurements of Alumina grades properties before and after irradiation at high temperature.</td>
<td>Y(ITA)</td>
<td>14Q1</td>
<td>14Q2</td>
</tr>
</tbody>
</table>
### 2.3.1.6.2 Electron Cyclotron (EC) Heating and Current Drive Systems

<table>
<thead>
<tr>
<th>WP Cat</th>
<th>WP Ref</th>
<th>F4E WBS</th>
<th>Activity Type</th>
<th>Activity Title</th>
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<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal commitment (year/quarter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>WP14/52/01</td>
<td>EU.01.52.01</td>
<td>G&lt;sup&gt;11&lt;/sup&gt;</td>
<td>EC UL design (phase II)</td>
<td>Amendment of grant (WP09/52/07) for design, analysis and documentation for EC-UL Final Design.</td>
<td>Y(ITA)</td>
<td>N/A</td>
<td>14Q3</td>
</tr>
<tr>
<td>A/B</td>
<td>WP14/52/02</td>
<td>EU.01.52.01</td>
<td>PSupply</td>
<td>EC UL prototypes</td>
<td>Prototypes and mock-up fabrication for the EC launcher, including mechanical prototypes, isolation valves and mm-wave components.</td>
<td>Y(ITA)</td>
<td>14Q1-14Q3</td>
<td>14Q2-14Q4</td>
</tr>
<tr>
<td>A/B</td>
<td>WP14/52/03</td>
<td>EU.01.52.01</td>
<td>Pserv</td>
<td>Support to prototype procurement and testing</td>
<td>Expert support during manufacture and testing of prototypes.</td>
<td>Y(ITA)</td>
<td>14Q1-14Q4</td>
<td>14Q2-14Q4</td>
</tr>
<tr>
<td>B</td>
<td>WP14/52/09</td>
<td>EU.01.52.01</td>
<td>FWC</td>
<td>Engineering Analysis and Support</td>
<td>Framework contract for the Engineering Support Independent Verification and Analysis.</td>
<td>N/A</td>
<td>14Q2</td>
<td>14Q4</td>
</tr>
<tr>
<td>A/B</td>
<td>WP14/52/04</td>
<td>EU.01.52.01</td>
<td>P serv</td>
<td>Engineering analysis and support</td>
<td>Task Orders and contracts for Engineering support for Launcher analysis. Mainly to be performed through task orders under the FWC WP14/52/05. 2014 activities will be focused on the independent verification of the EC UL and cooling system design.</td>
<td>Y,Y(ITA)</td>
<td>N/A</td>
<td>14Q2-14Q4</td>
</tr>
</tbody>
</table>

<sup>11</sup> Unique Beneficiary ECHUL-CA, Technical Competence
### 2.3.1.6.3 Plasma Engineering

<table>
<thead>
<tr>
<th>WP Cat</th>
<th>WP Ref</th>
<th>F4E WBS</th>
<th>Activity Type</th>
<th>Activity Title</th>
<th>Activity Description</th>
<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal commitment (year/quarter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>WP13/PE/09</td>
<td>EU.01.PE.01</td>
<td>FWC</td>
<td>System and control engineering</td>
<td>Activities and analyses related to the ITER control system</td>
<td>N/A</td>
<td>13Q4</td>
<td>14Q2</td>
</tr>
<tr>
<td>B</td>
<td>WP14/PE/01</td>
<td>EU.01.PE.01</td>
<td>G</td>
<td>ITER scenario and plasma performance analysis</td>
<td>Analysis and optimisation of the nominal ITER scenarios, including abnormal scenarios such as fast pulse termination</td>
<td>Y(ITA)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>B</td>
<td>WP14/PE/02</td>
<td>EU.01.PE.01</td>
<td>G</td>
<td>Plasma Wall interaction and First Wall and divertor engineering studies</td>
<td>Analyses of the plasma wall interaction, computation of heat loads and engineering studies of the First Wall and divertor</td>
<td>Y(ITA)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>B</td>
<td>WP14/PE/03</td>
<td>EU.01.PE.01</td>
<td>G</td>
<td>Disruption Modelling and simulation</td>
<td>Modelling and simulation of plasma disruptions. Computation of the loads on the machine structures</td>
<td>Y(ITA)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

12 Most of the activities in the area of Plasma Engineering are going to be implemented on the basis of competitive ITAs for which no planning is available from ITER IO; therefore no time of call or contract signature date is given for these activities.
<table>
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<tr>
<th>WP Cat</th>
<th>WP Ref</th>
<th>F4E WBS</th>
<th>Activity Type</th>
<th>Activity Title</th>
<th>Activity Description</th>
<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal commitment (year/quarter)</th>
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<tr>
<td>A/B</td>
<td>WP14/PE/04</td>
<td>EU.01.PE</td>
<td>Pserv</td>
<td>Engineering Support and analysis for plasma control disruptions and scenarios</td>
<td>Activities and analyses in support of the study of the plasma control system or the optimisation of the ITER scenarios</td>
<td>Y,Y (ITA)</td>
<td>N/A</td>
<td>14Q2-14Q4</td>
</tr>
<tr>
<td>B</td>
<td>WP14/PE/05</td>
<td>EU.01.PE.01</td>
<td>G</td>
<td>Additional heating systems analysis</td>
<td>Analysis of the additional plasma heating: definition of requirements, performance analysis and definition of interfaces (in particular with plasma control)</td>
<td>Y(ITA)</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>B</td>
<td>WP14/PE/06</td>
<td>EU.01.PE.01</td>
<td>P serv</td>
<td>Engineering Support and analysis for antennas</td>
<td>Activities and analyses in support of the study of the antennas.</td>
<td>Y,Y (ITA)</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>A</td>
<td>WP14/52/05</td>
<td>EU.01.PE.01</td>
<td>Pserv</td>
<td>EC control system analysis</td>
<td>Analysis of EC control system; development of preliminary architecture.</td>
<td>Y,Y (ITA)</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>B</td>
<td>WP14/PE/07</td>
<td>EU.01.PE.01</td>
<td>G</td>
<td>Plasma Engineering analysis</td>
<td>Analysis of plasma operations, plasma-machine interfaces and actuators</td>
<td>N</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>A/B</td>
<td>WP14/PE/08</td>
<td>EU.01.PE.01</td>
<td>Pserv</td>
<td>Plasma Engineering studies</td>
<td>Engineering studies of plasma systems, controls and design verification. Mainly to be performed as specific contracts under the Framework Contract WP13/PE/09</td>
<td>N</td>
<td>N/A</td>
<td>14Q2-14Q4</td>
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<tr>
<td>WP Cat</td>
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<td>Activity Type</td>
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<tr>
<td>B</td>
<td>WP14/PE/09</td>
<td>EU.01.PE.02</td>
<td>G</td>
<td>Physics and engineering modelling for plasma control and scenarios</td>
<td>Development of physics plasma models and engineering models in support to the study of the plasma control system and scenario optimisation (i.e. plasma breakdown, transient events)</td>
<td>Y(ITA)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>A</td>
<td>WP14/PE/10</td>
<td>EU.01.PE.02</td>
<td>PServ</td>
<td>Plasma control system design</td>
<td>Design of the Plasma Control System: collection and synthesis of requirements, development and test of the architecture.</td>
<td>Y(ITA)</td>
<td>N/A</td>
<td>14Q2-14Q3</td>
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### 2.3.1.7 Neutral Beam and Electron Cyclotron Power Sources and Supplies

#### 2.3.1.7.1 Electron Cyclotron Power Sources and Supplies

<table>
<thead>
<tr>
<th>WP Cat</th>
<th>WP Ref</th>
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<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal commitment (year/quarter)</th>
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<tbody>
<tr>
<td>A</td>
<td>WP11/52/03</td>
<td>EU.01.52.02</td>
<td>PSupply</td>
<td>Procurement of He-free Magnet</td>
<td>Supply of a superconducting magnet system for the European Gyrotron</td>
<td>Y</td>
<td>13Q3</td>
<td>14Q1</td>
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<tr>
<td>WP Cat</td>
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<tr>
<td>A</td>
<td>WP11/52/05</td>
<td>EU.01.52.02</td>
<td>PSupply</td>
<td>Procurement of 2nd Prototype</td>
<td>Procurement of 2nd EU Gyrotron Prototype</td>
<td>Y(ITA)</td>
<td>13Q2</td>
<td>13Q4</td>
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<tr>
<td>A</td>
<td>WP14/52/06</td>
<td>EU.01.52.02</td>
<td>G</td>
<td>Grant for Design &amp; Development of EU Gyrotron - 2nd phase</td>
<td>Grant for Design &amp; Development of EU Gyrotron - 2nd phase / part 2. New R&amp;D activities for the validation of the EU Gyrotron for ITER and tests with the Gyrotron prototypes</td>
<td>Y(ITA)</td>
<td>14Q1</td>
<td>14Q2</td>
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<tr>
<td>A/B</td>
<td>WP14/52/07</td>
<td>EU.01.52.02</td>
<td>PSupply</td>
<td>Release of Option for the Contracts in the Electron Cyclotron and Power Sources and Supply area</td>
<td>Release of Options for the contract for Procurement of the Short Pulse Gyrotron (WP11/52/05), the 2nd EU Gyrotron Prototype (WP11/52/05) and Body PS &amp; Main High Voltage PS (WP12/52/02)</td>
<td>Y</td>
<td>N/A</td>
<td>2014</td>
</tr>
<tr>
<td>B</td>
<td>WP14/52/08</td>
<td>EU.01.52.03</td>
<td>FWC</td>
<td>Follow-up of the procurement of Body PS &amp; Main HV PS</td>
<td>Framework Contract for the technical follow-up of the procurement of Body PS &amp; Main HV PS</td>
<td>Y</td>
<td>14Q3</td>
<td>14Q4</td>
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</tbody>
</table>

13 Current planned signature for the procurement of the 2nd Prototype is December 2013 using budget from Global Commitment 2012. To mitigate the risk the contract signature is not achieved by the end of 2013 F4E has duplicated the financing decision in WP 2014. The duplication of the financing decision for the WP11/52/05 will not therefore imply the cancellation of the financing decision in WP2012

14 Unique Beneficiary EGYC Consortium (KIT, CRPP, HELLAS, CNR): technical competencies
### 2.3.1.7.2 Neutral Beam

<table>
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<tr>
<th>WP Cat</th>
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<th>Legal commitment (year/quarter)</th>
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<tbody>
<tr>
<td>A</td>
<td>WP11/53/08</td>
<td>EU.01.53.07</td>
<td>FWC</td>
<td>Infrastructures of the Neutral Beam Test Facility - Instrumentation &amp; Control System</td>
<td>Framework contract for the procurement of instrumentation and control systems related to SPIDER and PRIMA experiments. Will be implemented by means of specific financing decisions.</td>
<td>Y</td>
<td>11Q1</td>
<td>14Q1</td>
</tr>
<tr>
<td>A</td>
<td>WP11/53/09</td>
<td>EU.01.53.07</td>
<td>FWC</td>
<td>Neutral Beam Test Facility - NBTF Diagnostics</td>
<td>Framework contract for the procurement of the diagnostics for the NB Test Facility. It will be implemented by means of specific financing decisions</td>
<td>Y</td>
<td>14Q1</td>
<td>14Q3</td>
</tr>
<tr>
<td>A</td>
<td>WP13/53/01</td>
<td>EU.01.53.07</td>
<td>PSupply</td>
<td>Infrastructures of the Neutral Beam Test Facility - Instrumentation &amp; Control System</td>
<td>Specific Contract Spider Control 1 (FWC NBTF Instrumentation &amp; Control System WP11/53/08)</td>
<td>Y</td>
<td>N/A</td>
<td>14Q2</td>
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<tr>
<td>B</td>
<td>WP13/53/04</td>
<td>EU.01.53.07</td>
<td>PSupply</td>
<td>Neutral Beam Test Facility - Procurement for MITICA Vessel</td>
<td>Supply contract for the procurement of the vacuum vessel of the MITICA experiment</td>
<td>Y</td>
<td>14Q2</td>
<td>14Q4</td>
</tr>
<tr>
<td>B</td>
<td>WP14/53/01</td>
<td>EU.01.53.07</td>
<td>PSupply</td>
<td>Infrastructures of the Neutral Beam Test Facility - Cryogenic system</td>
<td>Procurement for Cryogenic Plant for MITICA</td>
<td>Y</td>
<td>14Q2</td>
<td>14Q4</td>
</tr>
<tr>
<td>WP Cat</td>
<td>WP Ref</td>
<td>F4E WBS</td>
<td>Activity Type</td>
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<td>Activity Description</td>
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</table>
| A      | WP14/53/03| EU.01.53| P supply      | Release of contractual options for the Neutral Beam contracts                    | • Release of options for contracts:  
  • Contract for Consultancy Service for health & Safety and Work Site Coordination (WP13/53/08)  
  • Vacuum and Gas Injection Plant (WP10/53/07)  
  • Beam Source Measurement (WP10/53/07)  
  • ISEPS: Temporary storage until Shipping of the power supplies (WP10/53/15)  
  • HV Deck and Transmission Line (WP09/53/06)                                                                                           | Y             | N/A          | 14Q1-14Q3                                      |
| A      | WP14/53/04| EU.01.53.08| P serv     | Contract for health & Safety and Work Site Coordination Phase 1                  | Services for NBTF site: contract for health & Safety and Work Site Coordination                                                                                                                                                         | Y             | 14Q1         | 14Q2                            |
### 2.3.1.8 Diagnostics

<table>
<thead>
<tr>
<th>WP Cat</th>
<th>WP Ref</th>
<th>F4E WBS</th>
<th>Activity Type</th>
<th>Activity Title</th>
<th>Activity Description</th>
<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal commitment (year/quarter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>WP11/55/02</td>
<td>EU.01.55.08</td>
<td>G</td>
<td>Development and Design of High Resolution Neutron Spectrometer</td>
<td>Grant for the completion of system-level design and final definition of interfaces for High Resolution Neutron Spectrometer</td>
<td>Y</td>
<td>13Q3</td>
<td>14Q2</td>
</tr>
<tr>
<td>A</td>
<td>WP11/55/03</td>
<td>EU.01.55.12</td>
<td>G</td>
<td>Development and Design of High Resolution Neutron Spectrometer</td>
<td>Development and design of H-phase Hard X-ray Monitor to final design review level</td>
<td>Y</td>
<td>14Q2</td>
<td>14Q3</td>
</tr>
<tr>
<td>A/B</td>
<td>WP12/55/01</td>
<td>EU.01.55.06</td>
<td>SC</td>
<td>Irradiation and post-irradiation testing of diagnostic components and assemblies</td>
<td>Irradiation and post-irradiation testing services for prototype components and assemblies. Mainly performed through specific contracts within framework contract WP11/55/10.</td>
<td>Y, Y(ITA)</td>
<td>N/A</td>
<td>14Q1 – 14Q4</td>
</tr>
<tr>
<td>A</td>
<td>WP12/55/07</td>
<td>EU.01.55.01</td>
<td>Pserv</td>
<td>Design and Prototyping of Electronics for Real-Time Applications</td>
<td>R&amp;D/Design from Functional Specification to Final Design level, of bespoke electronics for inductive sensors in the magnetics diagnostic. The principal component is a long-pulse integrator. Additional components include amplifiers and the interface between the analog front-end and digital back-end</td>
<td>Y</td>
<td>14Q1</td>
<td>14Q3</td>
</tr>
<tr>
<td>WP Cat</td>
<td>WP Ref</td>
<td>F4E WBS</td>
<td>Activity Type</td>
<td>Activity Title</td>
<td>Activity Description</td>
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<tr>
<td>A</td>
<td>WP12/55/11</td>
<td>EU.01.55.14</td>
<td>FWC</td>
<td>Integration design of diagnostics into ITER ports - Framework Contract</td>
<td>Framework contract covering provision of design and engineering analysis services for coordination of diagnostic integration into upper, equatorial and lower ports; design and planning of associated radiation shielding modules and adaptation of port plug structures; definition and management of design interfaces; integration of baseline diagnostic designs and engineering analysis of integrated structures.</td>
<td>Y</td>
<td>12Q4</td>
<td>14Q1</td>
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<tr>
<td>A</td>
<td>WP13/55/04</td>
<td>EU.01.55.14</td>
<td>P supply</td>
<td>Magnetics diagnostic: Procurement of the continuous external Rogowski coil</td>
<td>Contract for the procurement and delivery of the continuous external Rogowski coil</td>
<td>Y</td>
<td>14Q2</td>
<td>14Q3</td>
</tr>
<tr>
<td>A</td>
<td>WP13/55/09</td>
<td>EU.01.55.14</td>
<td>SC</td>
<td>Integration design of diagnostics into ITER ports</td>
<td>Specific contracts under FWC WP12/55/11</td>
<td>Y</td>
<td>N/A</td>
<td>14Q2</td>
</tr>
<tr>
<td>B</td>
<td>WP13/55/14</td>
<td>EU.01.55.15</td>
<td>G</td>
<td>Mirror lifetime optimization</td>
<td>Grant covering research and development for mirror lifetime optimization</td>
<td>Y</td>
<td>14Q3</td>
<td>14Q4</td>
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<tr>
<td>A/B</td>
<td>WP14/55/01</td>
<td>EU.01.55</td>
<td>P supply</td>
<td>Prototypes &amp; Test Equipment</td>
<td>2014 activities will include the manufacturing of prototypes for irradiation and conventional tests for different Diagnostics components</td>
<td>Y</td>
<td>14Q1-14Q3</td>
<td>14Q2 – 14Q4</td>
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<tr>
<td>WP Cat</td>
<td>WP Ref</td>
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<td>Activity Type</td>
<td>Activity Title</td>
<td>Activity Description</td>
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<td>Time of Call</td>
<td>Legal commitment (year/quarter)</td>
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<td>A</td>
<td>WP14/55/02</td>
<td>EU.01.55.02</td>
<td>SG</td>
<td>Design and R&amp;D for Bolometers</td>
<td>Specific Grants under the FPA for the Design of Bolometers Diagnostic (WP13/55/01)</td>
<td>Y</td>
<td>N/A</td>
<td>14Q1 – 14Q2</td>
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<tr>
<td>A</td>
<td>WP14/55/03</td>
<td>EU.01.55.03</td>
<td>SG</td>
<td>Design and R&amp;D of Plasma Position Reflectometry</td>
<td>Specific Grants under the FPA for the Design of the Plasma Position Reflectometry (WP11/55/01)</td>
<td>Y</td>
<td>N/A</td>
<td>14Q1 – 14Q3</td>
</tr>
<tr>
<td>B</td>
<td>WP14/55/04</td>
<td>EU.01.55.05</td>
<td>G</td>
<td>Development and Design of Inner-Target Thermocouples</td>
<td>Integrated development and design activities of the inner target thermocouples, including design and prototyping of bonding to CFC/W as appropriate, modelling of target temperature derivation and support for divertor cable layout</td>
<td>Y</td>
<td>12Q4</td>
<td>14Q4</td>
</tr>
<tr>
<td>A/B</td>
<td>WP14/55/05</td>
<td>EU.01.55</td>
<td>FPA</td>
<td>Diagnostic Development &amp; Design: Partnership agreement</td>
<td>Framework Partnership Agreements covering integrated development and design activities of the following diagnostic systems: - Core-plasma Thomson Scattering - CXRS</td>
<td>Y</td>
<td>13Q3/13Q4</td>
<td>14Q1-14Q4</td>
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<tr>
<td>A</td>
<td>WP14/55/06</td>
<td>EU.01.55.06</td>
<td>SG</td>
<td>Design and R&amp;D for Tokamak Services</td>
<td>Specific Grants under the FPA for the Design of the Tokamak Services (WP11/55/01)</td>
<td>Y</td>
<td>N/A</td>
<td>14Q1 – 14Q2</td>
</tr>
<tr>
<td>B</td>
<td>WP14/55/09</td>
<td>EU.01.55.09</td>
<td>SG</td>
<td>Design and R&amp;D for Core-plasma Thomson Scattering</td>
<td>Grant for the development and design of the Core-plasma Thomson Scattering</td>
<td>Y</td>
<td>N/A</td>
<td>14Q4</td>
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<tr>
<td>WP Cat</td>
<td>WP Ref</td>
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<td>A/B</td>
<td>WP14/55/10</td>
<td>EU.01.55.10</td>
<td>SG</td>
<td>Design &amp; R&amp;D for the Low Field Side Collective Thomson Scattering</td>
<td>Specific Grants under the FPA for the design of the Low Field Side Collective Thomson Scattering (WP13/55/01)</td>
<td>Y</td>
<td>N/A</td>
<td>14Q1 – 14Q4</td>
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<tr>
<td>A</td>
<td>WP14/55/11</td>
<td>EU.01.55.11</td>
<td>SG</td>
<td>Design and R&amp;D for Core-Plasma Charge Exchange Recombination Spectrometry</td>
<td>Specific Grants under the FPA for the design of the Core-Plasma Charge Exchange Recombination Spectrometry (WP14/55/05)</td>
<td>Y</td>
<td>N/A</td>
<td>14Q2 - 14Q3</td>
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<tr>
<td>A/B</td>
<td>WP14/55/13</td>
<td>EU.01.55.13</td>
<td>SG</td>
<td>Design and R&amp;D for Equatorial visible - IR wide angle viewing system</td>
<td>Specific Grants under the FPA for the design of the Equatorial visible -IR wide angle viewing system (WP13/55/01)</td>
<td>Y</td>
<td>N/A</td>
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<tr>
<td>A</td>
<td>WP14/55/14</td>
<td>EU.01.55.04</td>
<td>SG</td>
<td>Design and R&amp;D of Diagnostic Pressure Gauges</td>
<td>Specific Grants under the FPA for the design of the Diagnostics Pressure Gauges (WP11/55/01)</td>
<td>Y</td>
<td>N/A</td>
<td>14Q1</td>
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<tr>
<td>A</td>
<td>WP14/55/15</td>
<td>EU.01.55.07</td>
<td>SG</td>
<td>Design and R&amp;D for Radial Neutron Camera and enabling of the Gamma Spectrometer</td>
<td>Specific Grants under the FPA for the design of the Radial Neutron Camera and enabling of the Gamma Spectrometer (WP11/55/01)</td>
<td>Y</td>
<td>N/A</td>
<td>14Q1 – 14Q2</td>
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<tr>
<td>B</td>
<td>WP14/55/16</td>
<td>EU.01.55.01</td>
<td>P supply</td>
<td>Procurement of Inner-Vessel and Outer-Vessel Flux Loops</td>
<td>Contract for Procurement and Delivery of Inner-Vessel and Outer-Vessel Flux Loops</td>
<td>Y</td>
<td>14Q1</td>
<td>14Q4</td>
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<tr>
<td>A</td>
<td>WP14/55/17</td>
<td>EU.01.55.01</td>
<td>SC</td>
<td>Development of CODAC and Software Support</td>
<td>Specific Contracts under FWC F4E- OFC-361(WP12/45/02): Provision of Instrumentation and Control integration services</td>
<td>Y</td>
<td>N/A</td>
<td>14Q1</td>
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2.3.1.9 Site, Buildings and Power Supplies

2.3.1.9.1 Power Supplies

<table>
<thead>
<tr>
<th>WP Cat</th>
<th>WP Ref</th>
<th>F4E WBS</th>
<th>Activity Type</th>
<th>Activity Title</th>
<th>Activity Description</th>
<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal commitment (year/quarter)</th>
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</thead>
</table>
| A      | WP13/41/01 | EU.01.41.01 | PSupply       | TB06 Contract for Procurement, Installation and Commissioning PPEN/SSEN Equipments & Cables (Additional Activities) | Complementary expenditure for the Electrical Power Distribution TB06 Contract (WP13/41/01)  
Electrical Power Distribution TB06 Contract covers: procurement of PBS 43 equipment including cables and non-safety Relevant, and installation of PBS 41-PP and PBS 43 equipment | Y             | N/A          | 14Q2                        |
### 2.3.1.9.2 Site and Buildings

<table>
<thead>
<tr>
<th>WP Cat</th>
<th>WP Ref</th>
<th>F4E WBS</th>
<th>Activity Type</th>
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<th>Time of Call</th>
<th>Legal commitment (year/quarter)</th>
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<tr>
<td>A</td>
<td>WP12/62/07/EU.01.62.02</td>
<td>Pserv</td>
<td>Independent concrete testing</td>
<td>Independent concrete testing</td>
<td>Y</td>
<td>13Q4</td>
<td>14Q2</td>
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<tr>
<td>A</td>
<td>WP13/62/06/EU.01.62.02</td>
<td>Pserv</td>
<td>PF Coil HSPC Services</td>
<td>PF Coil HSPC Services during PF coil manufacturing</td>
<td>Y</td>
<td>14Q1</td>
<td>14Q3</td>
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<td>A</td>
<td>WP13/62/07/EU.01.62.02</td>
<td>SC</td>
<td>Contract for Site Security and Reception Services for the ITER Site</td>
<td>Provision of worksite access control and security -2014 activities – Jointly with IO</td>
<td>Y</td>
<td>N/A</td>
<td>14Q1</td>
<td></td>
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<tr>
<td>B</td>
<td>WP14/62/01/EU.01.62.02</td>
<td>Pserv</td>
<td>Engineering Support (Engineering counter-expertise for structural and geotechnical design and works execution)</td>
<td>Engineering counter-expertise for structural and geotechnical design and works execution, performed under the framework contract WP12/ES/01</td>
<td>Y</td>
<td>N/A</td>
<td>2014</td>
<td></td>
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<tr>
<td>B</td>
<td>WP14/62/02/EU.01.62.02</td>
<td>SC</td>
<td>Facility Management Services for the ITER Site 2014</td>
<td>Provision of worksite access control and security -2014 activities – Jointly with IO</td>
<td>Y</td>
<td>N/A</td>
<td>14Q4</td>
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<td>WP Cat</td>
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<td>A/C</td>
<td>WP14/62/03</td>
<td>EU.01.62.02</td>
<td>PSupply</td>
<td>Buildings Contract Amendments (PCRs cost impact) and alternative disputes settlements</td>
<td>Additional work linked to IO PCRs for the Construction contracts of ITER buildings. Additional expenditures related to alternative disputes settlements</td>
<td>Y</td>
<td>N/A</td>
<td>14Q1-14Q3</td>
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<tr>
<td>A</td>
<td>WP14/62/04</td>
<td>EU.01.62.02</td>
<td>P supply</td>
<td>Options for TB04 Contract</td>
<td>TB04 – Contract Options 17B, 18B, 15, 20, 24B, 22 &amp; Optional Incentive SchemeTB04 – Contract Options 17B (IO/F4E cable trays for Group 3B), 18B (F4E cables for group 3), 15 (Post Taking Over RFE Services), 20 (Additional SDB/SDPs), 24 (Aluminium cables for groups 3A/3B), 22 (Lighting for Galleries for groups 3A/3B) &amp; Optional Incentive Scheme</td>
<td>Y</td>
<td>N/A</td>
<td>14Q1</td>
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<tr>
<td>A</td>
<td>WP14/62/05</td>
<td>EU.01.62.02</td>
<td>P serv</td>
<td>Additional activities for Support to the Owner contract</td>
<td>Additional activities due to changes in AE contract</td>
<td>Y</td>
<td>N/A</td>
<td>14Q1</td>
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<td>A</td>
<td>WP14/62/06</td>
<td>EU.01.62.02</td>
<td>P serv</td>
<td>Options of Support to the Owner Contract</td>
<td>Extension of the duration of the Support to the Owner contract regarding the AE contract evolution</td>
<td>Y</td>
<td>N/A</td>
<td>14Q2</td>
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<tr>
<td>A</td>
<td>WP14/62/07</td>
<td>EU.01.62.02</td>
<td>P supply</td>
<td>Options to TB05 contract</td>
<td>TB05 – Contract Options 2 (Cable trays IO Process),6 (Operation and Maintenance) &amp; 9 (Integrated commissioning)</td>
<td>Y</td>
<td>N/A</td>
<td>14Q2</td>
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<td>A</td>
<td>WP14/62/08</td>
<td>EU.01.62.02</td>
<td>P serv</td>
<td>Additional activities - General Safety and Health Coordination Protection for ITER Building</td>
<td>Additional activities to the HSPC&amp;LI Services linked to IO PCRs</td>
<td>Y</td>
<td>N/A</td>
<td>14Q2</td>
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<td>A</td>
<td>WP14/62/09</td>
<td>EU.01.62.02</td>
<td>PSupply</td>
<td>TB02 – Contract Options</td>
<td>TB02 – Contract Options (One 50T crane weather proofing and erected, commissioned and tested directly in the Building 11)</td>
<td>Y</td>
<td>N/A</td>
<td>14Q2</td>
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<tr>
<td>A</td>
<td>WP14/62/10</td>
<td>EU.01.62.02</td>
<td>P serv</td>
<td>Architect Engineer Contract - option</td>
<td>Option for 20 additional months if Construction Supervision Activity</td>
<td>Y</td>
<td>N/A</td>
<td>14Q1</td>
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### 2.3.1.10 Test Blanket Modules and Material Development

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<th>WP Cat</th>
<th>WP Ref</th>
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<th>Activity Title</th>
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<tbody>
<tr>
<td>A</td>
<td>WP11/56/04</td>
<td>EU.01.56.02</td>
<td>PSupply</td>
<td>Procurement of EUROFER for TBM mock-ups</td>
<td>Procurement of EUROFER semi-finished products for TBM mock-ups.</td>
<td>N</td>
<td>14Q2</td>
<td>14Q4</td>
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<tr>
<td>WP cat</td>
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<td>Activity Type</td>
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<tr>
<td>A</td>
<td>WP12/56/07</td>
<td>EU.01.56.02</td>
<td>FPA</td>
<td>Framework Partnership Agreement for the development, benchmarking, validation of predictive tools in view of TBS final design and future ITER application</td>
<td>Framework Partnership Agreement for the development, benchmarking, validation of predictive tools.</td>
<td>N</td>
<td>13Q4</td>
<td>14Q2</td>
</tr>
<tr>
<td>A</td>
<td>WP12/MD/01</td>
<td>EU.01.56.02</td>
<td>FPA</td>
<td>Structural materials characterization and design rules- Characterization of materials and welds</td>
<td>Characterization and validation of TBM structural materials base material and welds.</td>
<td>N</td>
<td>13Q4</td>
<td>14Q2</td>
</tr>
<tr>
<td>A</td>
<td>WP12/MD/06</td>
<td>EU01.56.02</td>
<td>SC</td>
<td>Materials characterization, irradiation and post irradiation</td>
<td>Mainly service contract to be implemented under FWC WP12/MF/12, OFC -167 and OPE-149 (WP11/MF/04).</td>
<td>N</td>
<td>N/A</td>
<td>14Q1</td>
</tr>
<tr>
<td>A</td>
<td>WP13/MD/06</td>
<td>EU.01.56.02</td>
<td>FPA</td>
<td>Structural materials characterization and design rules – Design rules and methodologies</td>
<td>Development of specific design rules and design methodologies.</td>
<td>N</td>
<td>13Q4</td>
<td>14Q2</td>
</tr>
<tr>
<td>A</td>
<td>WP13/56/02</td>
<td>EU.01.56.01</td>
<td>FWC</td>
<td>ANB consulting activities</td>
<td>Framework contract for support to the definition on ESPN categorization, o/and related design.</td>
<td>N</td>
<td>13Q4</td>
<td>14Q2</td>
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<tr>
<td>WP cat</td>
<td>WP Ref</td>
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<tr>
<td>A/B</td>
<td>WP14/56/01</td>
<td>EU01.56.01</td>
<td>SG</td>
<td>Specific Grants for R&amp;D in support to the TBS design</td>
<td>Mainly specific grants to be implemented through the FPAs: WP12/MD/01, WP13/MD/06, WP12/56/07, WP11/56/03, WP11/56/07.</td>
<td>N</td>
<td>N/A</td>
<td>14Q1 – 14Q4</td>
</tr>
<tr>
<td>A/B</td>
<td>WP14/56/02</td>
<td>EU01.56.01</td>
<td>SC</td>
<td>Specific contracts in support to the TBSs Design Review (DR) preparation and outcomes implementation; related techno demonstration</td>
<td>TBS finalization of the CDR (chits resolution), preparation of PDR documentation, support to the PDR, resolution of PDR outcomes by design update and complementary analyses, complementary technological demonstration.</td>
<td>N</td>
<td>N/A</td>
<td>14Q2 – 14Q4</td>
</tr>
<tr>
<td>A</td>
<td>WP14/56/03</td>
<td>EU.01.56.01</td>
<td>PServ</td>
<td>Engineering services in support of TBM induced ripple analyses</td>
<td>Calculation of total perturbed field, including plasma screening.</td>
<td>N</td>
<td>13Q4</td>
<td>14Q2</td>
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### 2.3.1.11 Technical Support Service

#### 2.3.1.11.1 CODAC

<table>
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<tr>
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<th>F4E WBS</th>
<th>Activity Type</th>
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<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal commitment (year/quarter)</th>
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<tbody>
<tr>
<td>B</td>
<td>WP13/45/03</td>
<td>EU.01.ES.03</td>
<td>FWC</td>
<td>Supply of fully loaded cubicles service</td>
<td>Supply of fully mounted and loaded cubicles. Includes design, manufacturing, testing, and shipping of cubicles and supply of components used in the process.</td>
<td>N/A</td>
<td>14Q1</td>
<td>14Q4</td>
</tr>
<tr>
<td>A</td>
<td>WP14/IC/01</td>
<td>MULTIPLE</td>
<td>PServ</td>
<td>Support on I&amp;C design and implementation in the frame of EU PA's</td>
<td>Technical support to ICC (Instrumentation, Control &amp; CODAC). Provision of professional services in the field of instrumentation and Control System Engineering and aiming to support F4E with the preparation of technical specifications and the follow-up of in kind contributions to ITER. Mainly performed through specific contracts within framework WP11/45/02.</td>
<td>Y</td>
<td>N/A</td>
<td>14Q2</td>
</tr>
<tr>
<td>B</td>
<td>WP14/IC/02</td>
<td>MULTIPLE</td>
<td>PServ</td>
<td>Procurement for I&amp;C Integrator for all EU supplies</td>
<td>Preparation activities to start production of plant system interface to CODAC: training to IO standards and quality, efficiency improvements. Development of centralised control and monitoring for building construction. Integrate any available building to central monitoring. Mainly performed through specific contracts within framework WP12/45/02.</td>
<td>Y</td>
<td>N/A</td>
<td>2014</td>
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### 2.3.1.11.2 Nuclear Safety

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<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal commitment (year/quarter)</th>
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<tbody>
<tr>
<td>B</td>
<td>WP14/SF/01</td>
<td>EU.01.NS.01</td>
<td>G</td>
<td>Supporting safety analysis to follow up ITER design evaluation and licensing process</td>
<td>Grant for Supporting Safety Analysis to Follow-up ITER Design Evolution and Licensing Process (2013).</td>
<td>Y(ITA)</td>
<td>14Q3</td>
<td>14Q4</td>
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<tr>
<td>A/B</td>
<td>WP14/SF/02</td>
<td>MULTIPLE</td>
<td>PServ</td>
<td>Supporting safety analysis to follow up ITER design evaluation and licensing process</td>
<td>Supporting safety analysis to follow up ITER design evaluation and licensing process .Mainly to be implemented through the ongoing framework F4E – OMF- 298.</td>
<td>Y,Y ITA</td>
<td>N/A</td>
<td>14Q1-14Q4</td>
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### 2.3.1.11.3 Materials and Fabrication

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<th>Credit Status</th>
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<th>Legal commitment (year/quarter)</th>
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<tbody>
<tr>
<td>A</td>
<td>WP12/MF/12</td>
<td>EU.01.MF.01</td>
<td>FWC</td>
<td>Materials irradiation and post irradiation characterization</td>
<td>Provision of Irradiation and post –irradiation testing of materials for the ITER components.</td>
<td>N/A</td>
<td>13Q4</td>
<td>14Q1</td>
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<tr>
<td>WP Cat</td>
<td>WP Ref</td>
<td>F4E WBS</td>
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<td>A/B</td>
<td>WP12/MF/13</td>
<td>MULTIPLE</td>
<td>PServ</td>
<td>Materials irradiation and post irradiation characterization</td>
<td>Characterization of non-irradiated and irradiated XM19, SS660, NiAl Bronze, Inconel 718, XM19/316L(N)-IG welded joint and CuCrZr/316L(N)-IG explosion bonded joints. Mainly performed through specific contracts within framework WP12/MF/12.</td>
<td>Y, Y(ITA)</td>
<td>N/A</td>
<td>14Q2-14Q4</td>
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<tr>
<td>A</td>
<td>WP12/MF/14</td>
<td>EU.01.MF.01</td>
<td>FWC</td>
<td>ITER specific raw material</td>
<td>Provision of small quantities of ITER specific raw material</td>
<td>N/A</td>
<td>13Q3</td>
<td>14Q2</td>
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<tr>
<td>B</td>
<td>WP14/MF/01</td>
<td>MULTIPLE</td>
<td>PServ</td>
<td>Material characterization at cryogenic temperatures</td>
<td>On demand material characterisation at cryogenic temperatures in the frame of construction and R&amp;D of ITER components. Mainly performed through specific contracts within framework F4E OPE 084.</td>
<td>Y, Y(ITA)</td>
<td>N/A</td>
<td>2014</td>
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<tr>
<td>B</td>
<td>WP14/MF/02</td>
<td>MULTIPLE</td>
<td>PServ</td>
<td>Material characterization at room/elevated temperatures</td>
<td>On demand material characterisation in the frame of construction and R&amp;D of components for ITER. Mainly performed through specific contracts within framework F4E OFC 167.</td>
<td>Y, Y(ITA)</td>
<td>N/A</td>
<td>2014</td>
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<tr>
<td>A</td>
<td>WP14/MF/03</td>
<td>MULTIPLE</td>
<td>PServ</td>
<td>Characterization of materials and joinings</td>
<td>Assessment of corrosion parameters at nominal of plasma operational conditions.</td>
<td>Y, Y(ITA)</td>
<td>14Q2</td>
<td>14Q3</td>
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<tr>
<td>A</td>
<td>WP14/MF/04</td>
<td>EU.01.MF.01</td>
<td>G</td>
<td>Assessment Material Fabrication route</td>
<td>Feasibility study of new manufacturing technology electron beam, laser sintering for ITER component.</td>
<td>Y, Y(ITA)</td>
<td>14Q2</td>
<td>14Q3</td>
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<td>WP Cat</td>
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<td>A/B</td>
<td>WP14/MF/05</td>
<td>MULTIPLE</td>
<td>PServ</td>
<td>Joining technologies and non-destructive testing</td>
<td>On demand material and joining characterisation in the frame of construction and R&amp;D of ITER components. Mainly performed through specific contracts within framework F4E OPE 149.</td>
<td>Y, Y(ITA)</td>
<td>N/A</td>
<td>14Q1-14Q4</td>
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<td>B</td>
<td>WP14/MF/06</td>
<td>MULTIPLE</td>
<td>PServ</td>
<td>ITER specific raw material</td>
<td>Provision of small quantities of ITER specific raw material. Mainly to be performed through the Framework Contract WP12/MF/14.</td>
<td>N/A</td>
<td>N/A</td>
<td>2014</td>
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2.3.1.11.4 Engineering Analysis

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<th>Legal commitment (year/quarter)</th>
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<tbody>
<tr>
<td>A</td>
<td>WP12/ES/01</td>
<td>EU.01.ES.02</td>
<td>FWC</td>
<td>Dynamic Analysis</td>
<td>Seismic and Dynamic analysis of ITER buildings and components.</td>
<td>Y, Y(ITA)</td>
<td>14Q1</td>
<td>14Q2</td>
</tr>
<tr>
<td>A</td>
<td>WP12/ES/08</td>
<td>EU.01.ES.02</td>
<td>FWC</td>
<td>Nuclear Analysis</td>
<td>Definition of ITER nuclear analysis validation and quality assurance criteria; standardization of ITER nuclear analysis methods and tools.</td>
<td>N/A</td>
<td>13Q2</td>
<td>14Q1</td>
</tr>
<tr>
<td>A</td>
<td>WP12/ES/12</td>
<td>EU.01.ES.01</td>
<td>FWC</td>
<td>Engineering Support – General Mechanic Plant System and Integration</td>
<td>Engineering support in the area of general mechanics plant system and integration.</td>
<td>N/A</td>
<td>13Q4</td>
<td>14Q2</td>
</tr>
<tr>
<td>WP Cat</td>
<td>WP Ref</td>
<td>F4E WBS</td>
<td>Activity Type</td>
<td>Activity Title</td>
<td>Activity Description</td>
<td>Credit Status</td>
<td>Time of Call</td>
<td>Legal commitment (year/quarter)</td>
</tr>
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</tr>
<tr>
<td>A</td>
<td>WP13/ES/01</td>
<td>EU.01.ES.02</td>
<td>FWC</td>
<td>Electromagnetics Analysis</td>
<td>Electromagnetic analyses of ITER components.</td>
<td>N/A</td>
<td>14Q3</td>
<td>14Q1</td>
</tr>
<tr>
<td>B</td>
<td>WP13/ES/19</td>
<td>MULTIPLE</td>
<td>PServ</td>
<td>Nuclear Analysis Validation, quality assurance and standards for ITER nuclear analyses</td>
<td>Definition of ITER nuclear analysis validation and quality assurance criteria; standardization of ITER nuclear analysis methods and tools.</td>
<td>Y,Y(ITA)</td>
<td>N/A</td>
<td>14Q4</td>
</tr>
<tr>
<td>A/B</td>
<td>WP14/ES/01</td>
<td>MULTIPLE</td>
<td>PServ</td>
<td>Engineering Support – General Mechanic Plant System and Integration</td>
<td>Engineering support in the area of general mechanics plant system and integration. Mainly to be implemented through specific contracts under F4E-OPE-017 and WP12/ES/12.</td>
<td>Y, Y(ITA)</td>
<td>N/A</td>
<td>14Q1-14Q4</td>
</tr>
<tr>
<td>B</td>
<td>WP14/ES/02</td>
<td>MULTIPLE</td>
<td>PServ</td>
<td>Codes and Standards</td>
<td>Codes assessment in support of the design of the ITER components.</td>
<td>Y,Y(ITA)</td>
<td>N/A</td>
<td>2014</td>
</tr>
<tr>
<td>A/B</td>
<td>WP14/ES/03</td>
<td>MULTIPLE</td>
<td>PServ</td>
<td>Engineering Support-CAD support</td>
<td>Support in CAD design CAD checking and CAD exchange. Mainly performed through specific contracts within framework WP11/ES/07.</td>
<td>Y,Y(ITA)</td>
<td>NA</td>
<td>14Q1-14Q4</td>
</tr>
<tr>
<td>B</td>
<td>WP14/ES/04</td>
<td>MULTIPLE</td>
<td>PServ</td>
<td>Mechanical analyses</td>
<td>Mechanical analyses in support of PAs and ITAs. Mainly performed through specific contracts within frameworks. WP 13/ES/02 and WP12/ES/05</td>
<td>Y,Y(ITA)</td>
<td>N/A</td>
<td>2014</td>
</tr>
<tr>
<td>WP Cat</td>
<td>WP Ref</td>
<td>Activity Type</td>
<td>Activity Title</td>
<td>Activity Description</td>
<td>Credit Status</td>
<td>Time of Call</td>
<td>Legal commitment (year/quarter)</td>
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</tr>
<tr>
<td>B</td>
<td>WP14/ES/05</td>
<td>MULTIPLE</td>
<td>PServ Dynamic Analysis</td>
<td>Seismic and Dynamic Analysis of ITER buildings and components. Mainly performed through specific contracts within framework contract WP12/ES/01.</td>
<td>Y, Y(ITA)</td>
<td>NA</td>
<td>2014</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>WP14/ES/06</td>
<td>MULTIPLE</td>
<td>PServ Electromagnetic analyses</td>
<td>Electromagnetic analyses in support of PAs and ITAs. Mainly performed through specific contracts within frameworks WP12/ES/03 and WP13/ES/01.</td>
<td>Y,Y(ITA)</td>
<td>N/A</td>
<td>2014</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>WP14/ES/07</td>
<td>MULTIPLE</td>
<td>PServ Nuclear analyses</td>
<td>Nuclear analyses in support of PAs. Mainly performed through specific contracts within framework F4E-2008-OPE-02 and WP12/ES/08.</td>
<td>Y,Y(ITA)</td>
<td>N/A</td>
<td>2014</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>WP14/ES/08</td>
<td>MULTIPLE</td>
<td>PServ Thermo-hydraulic Fluid Dynamic analyses</td>
<td>Fluid Dynamic analyses, including thermo hydraulics, in support of PAs and ITAs. Mainly performed through specific contracts within framework F4E-OPE-031.</td>
<td>Y,Y(ITA)</td>
<td>N/A</td>
<td>2014</td>
<td></td>
</tr>
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</table>
### 2.3.1.11.5 Nuclear Data

<table>
<thead>
<tr>
<th>WP Cat</th>
<th>WP Ref</th>
<th>F4E WBS</th>
<th>Activity Type</th>
<th>Activity Title</th>
<th>Activity Description</th>
<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal commitment (year/quarter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>WP13/ND/02</td>
<td>EU.01.ES.02</td>
<td>SG</td>
<td>Nuclear Data improvements and development of tools - Nuclear Data evaluation</td>
<td>Integrated R&amp;D for the improvement of Nuclear Data libraries and related computational processing. Mainly performed through specific grants under WP11/ND/01.</td>
<td>N</td>
<td>N/A</td>
<td>14Q1</td>
</tr>
</tbody>
</table>

- **B** WP14/ES/09 MULTIPLE PServ Metrology Support
  - Geometrical survey and data analysis for VV and Magnet component.
  - On demand metrology services in the frame of manufacturing and R&D of components for ITER. Performed through specific contracts within framework WP13/ES/03.
  - Credit Status: Y,Y(ITA)
  - Time of Call: N/A
  - Legal commitment: 2014
<table>
<thead>
<tr>
<th>WP Cat</th>
<th>WP Ref</th>
<th>F4E WBS</th>
<th>Activity Type</th>
<th>Activity Title</th>
<th>Activity Description</th>
<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal commitment (year/quarter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>WP13/ND/04</td>
<td>EU.01.ES.02</td>
<td>SG</td>
<td>Nuclear Data, and experimental activities</td>
<td>Definition of irradiation campaigns for fusion relevant materials and layouts. Improvement of nuclear instrumentation for the nuclear test programme in ITER. Mainly performed through specific grants under WP12/ND/01.</td>
<td>N</td>
<td>N/A</td>
<td>14Q1</td>
</tr>
<tr>
<td>B</td>
<td>WP14/ND/01</td>
<td>MULTIPLE</td>
<td>PServ</td>
<td>Nuclear Data, and experimental activities</td>
<td></td>
<td>N</td>
<td>N/A</td>
<td>2014</td>
</tr>
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</table>

### 2.3.1.12 Project Office

<table>
<thead>
<tr>
<th>WP Cat</th>
<th>WP Ref</th>
<th>F4E WBS</th>
<th>Activity Type</th>
<th>Activity Title</th>
<th>Activity Description</th>
<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal commitment (year/quarter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>WP13/PO/06</td>
<td>EU.01.PM.04</td>
<td>FWC</td>
<td>Support of Project Management – support for dual use</td>
<td>Framework Contract for project management services to support F4E dual use management activities. It will be implemented by means of specific contracts.</td>
<td>N/A</td>
<td>14Q1</td>
<td>14Q3</td>
</tr>
<tr>
<td>A/B</td>
<td>WP14/PO/01</td>
<td>EU.01.PM.03</td>
<td>P Serv</td>
<td>Support of Project Management</td>
<td>Outsourcing of planning activities on specific tasks. Mainly performed through specific contracts within framework WP11/PO/13.</td>
<td>Y, Y(ITA)</td>
<td>N/A</td>
<td>14Q1 – 14Q4</td>
</tr>
<tr>
<td>WP Cat</td>
<td>WP Ref</td>
<td>F4E WBS</td>
<td>Activity Type</td>
<td>Activity Title</td>
<td>Activity Description</td>
<td>Credit Status</td>
<td>Time of Call</td>
<td>Legal commitment (year/quarter)</td>
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</tr>
<tr>
<td>A</td>
<td>WP14/PO/02</td>
<td>EU.01.PM.04</td>
<td>Pserv</td>
<td>Support for Dual Use</td>
<td>Outsourcing of Dual Use Consultancy. Mainly performed through specific contracts within Framework contract WP13/PO/06.</td>
<td>Y, Y (ITA)</td>
<td>N/A</td>
<td>14Q3</td>
</tr>
<tr>
<td>B</td>
<td>WP14/PO/03</td>
<td>EU.01.PM.08</td>
<td>Pserv</td>
<td>Global transportation of ITER components</td>
<td>Global transportation of ITER components (HEL, CEL, CL) and related studies including management of transport-related topics (i.e. customs, handling, gendarmerie, conventions, insurance, etc.) and additional activities on Test Convoy.</td>
<td>Y</td>
<td>N/A</td>
<td>2014</td>
</tr>
<tr>
<td>A</td>
<td>WP14/PO/04</td>
<td>EU.01.PM.01</td>
<td>P serv</td>
<td>Service of inspectors and auditors for (Test Blanket Modules and Material development programme contracts) follow-up</td>
<td>Support to F4E for surveillance and auditing work at the manufacturers’ premises for running contracts. Mainly performed through specific contracts within frameworks WP11/PO/12 and WP14/PO/07.</td>
<td>N</td>
<td>N/A</td>
<td>14Q2</td>
</tr>
<tr>
<td>A/B</td>
<td>WP14/PO/05</td>
<td>MULTIPLE</td>
<td>P serv</td>
<td>Service of inspectors and auditors for ITER project contracts follow-up</td>
<td>Support to F4E for surveillance and auditing work at the manufacturers’ premises for running contracts. Mainly performed through specific contracts within frameworks WP11/PO/12 and WP14/PO/07.</td>
<td>Y, Y (ITA)</td>
<td>N/A</td>
<td>14Q1 – 14Q4</td>
</tr>
<tr>
<td>A/B</td>
<td>WP14/PO/06</td>
<td>EU.01.PM</td>
<td>SC</td>
<td>Support of Project Management</td>
<td>Outsourcing of Project Management activities. Mainly performed through specific contracts within frameworks WP13/PO/15, WP13/PO/16 and FWC WP14/PO/17.</td>
<td>Y</td>
<td>N/A</td>
<td>14Q1 – 14Q4</td>
</tr>
<tr>
<td>WP Cat</td>
<td>WP Ref</td>
<td>F4E WBS</td>
<td>Activity Type</td>
<td>Activity Title</td>
<td>Activity Description</td>
<td>Credit Status</td>
<td>Time of Call</td>
<td>Legal commitment (year/quarter)</td>
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</tr>
<tr>
<td>A</td>
<td>WP14/PO/07</td>
<td>EU.01.PM.01</td>
<td>FWC</td>
<td>Service of inspectors and auditors for ITER project contracts follow-up</td>
<td>Framework contract for support to F4E for surveillance and auditing work at the manufacturers' premises for running contracts. Will be implemented by means of specific financing decisions.</td>
<td>NA</td>
<td>14Q1</td>
<td>14Q2</td>
</tr>
<tr>
<td>B</td>
<td>WP14/PO/08</td>
<td>EU.01.PM.04</td>
<td>PServ</td>
<td>Support for Dual Use</td>
<td>Outsourcing of Dual Use Consultancy. Mainly performed through specific contracts within Framework contractWP13/PO/06</td>
<td>N</td>
<td>N/A</td>
<td>2014</td>
</tr>
<tr>
<td>A</td>
<td>WP14/PO/17</td>
<td>EU.01.PM.04</td>
<td>FWC</td>
<td>Supply of Project Management Services</td>
<td>Framework Contract for project management services to support F4E activities. It will be implemented by means of specific contracts. Cost management support and Risk Management.</td>
<td>N/A</td>
<td>2012</td>
<td>14Q1</td>
</tr>
<tr>
<td>A</td>
<td>WP14/PO/18</td>
<td>EU.01.PM.03</td>
<td>FWC</td>
<td>Support of Project Management on Planning and Scheduling</td>
<td>Framework contract for support to planning of EU in kind procurements.</td>
<td>N/A</td>
<td>14Q1</td>
<td>14Q2</td>
</tr>
<tr>
<td>A</td>
<td>WP14/PO/19</td>
<td>EU.01.PM.03</td>
<td>SC</td>
<td>Support of Project Management on Planning and Scheduling</td>
<td>Specific contract on planning activities performed through WP14/PO/18.</td>
<td>N/A</td>
<td>14Q2</td>
<td>14Q3</td>
</tr>
</tbody>
</table>
2.3.1.13 Budget allocation for Amendments, Price Indexation and alternative disputes settlements under ongoing contracts and grants

F4E may exercise contractual options, agree on alternative disputes settlements, may pay liquidated damages, late payment interests and other financial compensations that F4E may be obliged to pay under its contracts and amend grants and contracts covered by (a) financing decision(s) and without substantial change in such decision(s) under the following criteria:

- Total amendments to a contract or grant will not exceed 20% of the price of the initial contract or grant; and
- Aggregated value of the amendments will not exceed in 2014 3% of the 2014 ITER procurement/grant (Title III) budget.

Exercise of contractual options and amendments exceeding the thresholds under the above underlying criteria shall require a new prior financing decision. F4E may implement price indexation referred to in the signed contracts covered by (a) financing decision(s) and without substantial change in such decision(s) under the criteria that aggregated value of the indexation cost in 2014 will not exceed to 3% of the 2014 ITER procurement/grant (Title III) budget.

Implementation of indexation exceeding the threshold under the above underlying criteria shall require a new prior financing decision. Implementation of contract amendments or indexation that leads to a change in the contract value larger than EUR 10 million, independently of the above-mentioned percentages, shall require a new prior financing decision.

<table>
<thead>
<tr>
<th>WP ref</th>
<th>Activity Type</th>
<th>Activity Title</th>
<th>Activity Description</th>
<th>Duration (months)</th>
<th>Credit Status</th>
<th>Time of Call (year/quarter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WP14/PO/09</td>
<td>G</td>
<td>Amendments of ongoing Grants</td>
<td>Budget allocation for amendments of ongoing Grants</td>
<td>N/A</td>
<td>Y,Y(ITA)</td>
<td>N/A</td>
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<tr>
<td>WP14/PO/10</td>
<td>G</td>
<td>Amendments to ongoing Grants</td>
<td>Budget allocation for amendments on ongoing Grants</td>
<td>N/A</td>
<td>N</td>
<td>N/A</td>
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<tr>
<td>WP14/PO/11</td>
<td>P</td>
<td>Amendments and price indexation ongoing Procurements</td>
<td>Budget allocation for amendments and price indexation of ongoing procurement Contracts</td>
<td>N/A</td>
<td>Y,Y(ITA)</td>
<td>N/A</td>
</tr>
</tbody>
</table>
2.3.1.14 Urgent activities in support of cost and risk assessment

Some activities (corresponding to a total of about 5 man-years) may be necessary to be carried out in the estimation of costs and in the assessment of risk during the course of the year. Such activities could be either grants or procurements under the 3.1 and 3.2 budget lines.

<table>
<thead>
<tr>
<th>WP ref</th>
<th>Activity Type</th>
<th>Activity Title</th>
<th>Activity Description</th>
<th>Duration of (months)</th>
<th>Credit Status</th>
<th>Time of Call (year/quarter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WP14/PO/13</td>
<td>G</td>
<td>Analysis for cost containment or risk assessment</td>
<td>On-demand, urgent analysis and engineering activities</td>
<td>N/A</td>
<td>Y,Y(ITA)</td>
<td>N/A</td>
</tr>
<tr>
<td>WP14/PO/14</td>
<td>G</td>
<td>Analysis for cost containment or risk assessment</td>
<td>On-demand, urgent R&amp;D activities</td>
<td>N/A</td>
<td>N</td>
<td>N/A</td>
</tr>
<tr>
<td>WP14/PO/15</td>
<td>P</td>
<td>Analysis for cost containment or risk assessment</td>
<td>On-demand, urgent analysis and engineering activities</td>
<td>N/A</td>
<td>Y,Y(ITA)</td>
<td>N/A</td>
</tr>
<tr>
<td>WP14/PO/16</td>
<td>P</td>
<td>Analysis for cost containment or risk assessment</td>
<td>On-demand, urgent R&amp;D activities</td>
<td>N/A</td>
<td>N</td>
<td>N/A</td>
</tr>
</tbody>
</table>

2.3.1.15 Contribution in Cash

2.3.1.15.1 Contribution to the ITER Organisation

This corresponds to the annual EU share of the contributions in cash to the ITER Organisation for its management, to be adopted at the ITER Council meetings in 2014. This contribution is for 2015. It will be committed in the last quarter of 2014 and will be paid to ITER IO in two payments in 2015.
2.3.1.15.2 Contribution to Japan

This cash contribution to Japan corresponds to the transfer of procurement responsibility from EURATOM to Japan under the supervision of the ITER Organisation. According to the request of the Court of Auditors, this line includes the total value of the cash contributions for all the signed JA procurements for which the procurement agreements to be signed in 2014. The conversion rate used for the calculation takes into account the forecasted rates for the years when the contribution will have to be paid. Adjustments may be required before the last payment to take into account any change in the conversion rate happened until that time. The 2014 Cash Contribution corresponds to the following Procurement Arrangements

<table>
<thead>
<tr>
<th>PA number</th>
<th>Procurement Arrangement Title</th>
<th>Amount (kIU) to be committed with budget 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1.P2A-B.JA.01</td>
<td>Toroidal Field Magnet Structures 2A(^{15})</td>
<td>46.260</td>
</tr>
<tr>
<td>PA 5.3.P6.JA.02</td>
<td>HNB Power Supply (NB #1 Cadarache)</td>
<td>20.296</td>
</tr>
</tbody>
</table>

2.3.1.15.3 NBTF Agreement

This cash contribution to the Consorzio RFX corresponds to the 2015 NBTF Work Programme and amendment of the 2014 NBTF WP implementing the agreement on the Neutral Beam Test Facility on credited and not-credited budget lines. The commitment for 2015 activities will be implemented after the F4E approval of the NBTF 2015 Work Programme and after the F4E approval of the 1\(^{st}\) amendment of the 2014 NBTF WP. The main activities that will be performed in 2015 are:

- SPIDER integration, commissioning;
- Design of MITICA components and systems and, as applicable, support in the preparation of technical specifications;

\(^{15}\) Current planned signature date for the 1.1.P2A-B.JA.01 PA is IO Council in November 2013 using the budget 2013. Nevertheless, given the external constraints not under F4E control, there is the risk the PA will not be signed by the end of 2013 and an implementation with the budget 2013 will not be possible in 2014 under the current rules. The duplication of this activity in WP2014 does not mean therefore the cancellation of the financing decision as foreseen in WP2013.
• R&D activities and procurements for demonstration activities finalised to the verification and optimization of NB components;
• Modelling and physics studies directly related to the development of the components for the NB system;
• Support to F4E in the follow-up of procurements contract;
• Participation to technical meetings including interface meeting with IO and other Domestic Agencies;
• Provision of NBTF Host services like: technical support during installation, construction supervision, licensing and safety, provision of site specific information to IO, F4E, other DAs and contractors, insurance and balance of plants;
• Provision of site facilities to Third Parties, as applicable.

2.3.1.15.4 Contribution in cash for Site cooperation agreement and host agreement of F4E Suppliers at Cadarache
The Agreement on ITER Site collaboration between the ITER Organization (IO) and Fusion for Energy (F4E) set out the terms and conditions under which F4E and IO may share certain goods and services available at the ITER Site (including electrical power and water) and the Host Agreement between the IO and F4E set out the terms and conditions under which IO provide support to F4E with equipment and/or IT, Mail & Landline services.

2.3.1.15.5 Cash transfer to ITER IO for the Design and Procurement of Test Blanket Systems Connection Pipes
According to the IC-12 decision, the design and procurement of the Test Blanket Systems Connection Pipes and the associated provision of financial resources are transferred from F4E to the IO for the HCLL and the HCPB TBM Systems. The budget transfer to IO shall be executed in its entirety at the latest by July 1, 2014.
### 2.3.2 Broader Approach

#### 2.3.2.1 JT-60SA

<table>
<thead>
<tr>
<th>WP Cat</th>
<th>WP Ref</th>
<th>F4E WBS</th>
<th>Activity Type</th>
<th>Activity Title</th>
<th>Activity Description</th>
<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal Commitment (year/quarter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>WP14/BA/01</td>
<td>EU.BA.02.03</td>
<td>PServ</td>
<td>Pre-Assembly of the JT-60SA TF Coils</td>
<td>Pre-Assembly of the JT-60SA TFC</td>
<td>Y (BA)</td>
<td>14Q2</td>
<td>14Q3</td>
</tr>
<tr>
<td>B</td>
<td>WP14/BA/02</td>
<td>EU.BA.01.01</td>
<td>PServ</td>
<td>Transportation to Japan PoE of the HTS Current Leads (TF)</td>
<td>Transportation from KIT (Karlsruhe) to JA PoE of the HTS Current Leads for the TF coils of JT-60SA</td>
<td>N</td>
<td>14Q4</td>
<td>15Q1</td>
</tr>
<tr>
<td>B</td>
<td>WP14/BA/04</td>
<td>EU.BA.01.01</td>
<td>PServ</td>
<td>Transportation to Japan PoE of the ALAT Cryoplant Components</td>
<td>Transportation to Japan PoE of the ALAT Cryoplant Components</td>
<td>N</td>
<td>14Q4</td>
<td>15Q1</td>
</tr>
<tr>
<td>A/B</td>
<td>WP14/BA/05</td>
<td>EU.BA.01.01</td>
<td>PServ</td>
<td>Transports on BA Framework Transport Contract</td>
<td>Transports for IFMIF/EVEDA, IFERC and STP contracted in the form of work order in the Framework contracts</td>
<td>N</td>
<td>14Q1/14Q4</td>
<td>14Q1-14Q4</td>
</tr>
<tr>
<td>A</td>
<td>WP14/BA/06</td>
<td>EU.BA.01.01</td>
<td>PServ</td>
<td>Transportation to Japan PoE of TF Coils</td>
<td>Transportation to Japan PoE of TF Coils</td>
<td>N</td>
<td>14Q2</td>
<td>14Q2</td>
</tr>
<tr>
<td>WP Cat</td>
<td>WP Ref</td>
<td>F4E WBS</td>
<td>Activity Type</td>
<td>Activity Title</td>
<td>Activity Description</td>
<td>Credit Status</td>
<td>Time of Call</td>
<td>Legal Commitment (year/quarter)</td>
</tr>
<tr>
<td>-------</td>
<td>-----------</td>
<td>---------</td>
<td>---------------</td>
<td>---------------------------------</td>
<td>---------------------------------------------------------------------------------------</td>
<td>--------------</td>
<td>--------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>A/B</td>
<td>WP14/BA/07</td>
<td>EU.BA.02.01</td>
<td>Pserv</td>
<td>Engineering Support Studies</td>
<td>Engineering Support Studies, Validation Tests and Measurements for JT-60SA</td>
<td>N</td>
<td>14Q1/14Q4</td>
<td>14Q1-14Q4</td>
</tr>
<tr>
<td>A</td>
<td>WP14/BA/08</td>
<td>EU.BA.02.06</td>
<td>P supply</td>
<td>Material for the TF coils casing</td>
<td>Material for the TF coils casing</td>
<td>Y (BA)</td>
<td>14Q1</td>
<td>14Q1</td>
</tr>
<tr>
<td>A</td>
<td>WP14/BA/14</td>
<td>EU.BA.02.04</td>
<td>P supply</td>
<td>ECH Power Supplies</td>
<td>ECH Power Supplies</td>
<td>Y (BA)</td>
<td>14Q1</td>
<td>14Q2</td>
</tr>
</tbody>
</table>

### 2.3.2.2 IFMIF

<table>
<thead>
<tr>
<th>WP Cat</th>
<th>WP Ref</th>
<th>F4E WBS</th>
<th>Activity Type</th>
<th>Activity Title</th>
<th>Activity Description</th>
<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal Commitment (year/quarter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>WP14/BA/10</td>
<td>EU.BA.01.01</td>
<td>PServ</td>
<td>Transportation to Rokkasho site of Cryoplant</td>
<td>Transportation to Rokkasho site of Cryoplant</td>
<td>N</td>
<td>14Q4</td>
<td>14Q4</td>
</tr>
</tbody>
</table>

16 need for this contract dependent on ongoing tests
### 2.3.2.3 IFERC

<table>
<thead>
<tr>
<th>WP Cat</th>
<th>WP Ref</th>
<th>F4E WBS</th>
<th>Activity Type</th>
<th>Activity Title</th>
<th>Activity Description</th>
<th>Credit Status</th>
<th>Time of Call</th>
<th>Legal Commitment (year/quarter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>WP14/BA/12</td>
<td>EU.BA.04.02</td>
<td>FWC</td>
<td>Framework contract for the implementation of Remote Experimentation Centre Activities.</td>
<td>Development of software for remote data access, analysis and simulation for REC/JT60-SA.</td>
<td>Y (BA)</td>
<td>14Q1</td>
<td>14Q3</td>
</tr>
</tbody>
</table>
| A      | WP14/BA/13 | EU.BA.04.02 | P serv       | Specific contract for the implementation of Remote Experimentation Centre Activities. | Development of software for remote data access, analysis and simulation for REC/JT60-SA.  
Mainly to be performed through specific contracts under the framework WP14/BA/12 | Y (BA)    | N/A          | 14Q3                            |

### 2.3.2.4 Cash Contribution

For IFMIF there is a two-component cash contribution to be considered for 2014, covering expenditure for Common Expenses for the PT, and a contribution to the Common Fund for Maintenance.
2.3.2.5 Budget allocation for Amendments and Price Indexation for ongoing contracts

F4E may exercise contractual options, may pay liquidated damages, late payment interests and other financial compensations that F4E may be obliged to pay under its contracts and amend grants and contracts covered by (a) financing decision(s) and without substantial change in such decision(s) under the following criteria:

• Total amendments to a contract or grant will not exceed 20% of the price of the initial contract or grant; and

• Aggregated value of the amendments will not exceed in 2014 2.0% of the sum of running contracts at the date of WP2014 first issue

Exercise of contractual options and amendments exceeding the thresholds under the above underlying criteria shall require a new prior financing decision. F4E may implement price indexation referred to in the signed contracts covered by (a) financing decision(s) and without substantial change in such decision(s) under the criteria that aggregated value of the indexation cost in 2014 will not exceed 3% of the 2014 BA Title III budget.

Implementation of indexation exceeding the threshold under the above underlying criteria shall require a new prior financing decision. Implementation of contract amendments or indexation that leads to a change in the contract value of EUR 10 million, independently of the above-mentioned percentages, shall require a new prior financing decision.
2.3.3 Other expenditures

2.3.3.1 Legal and Procurement support
In 2014 F4E will need specialist support from economic operators (by means of service contracts) for operational needs: this will include (where appropriate) legal and commercial services, including adjudicators of on-going contracts and provision to cover the Chairman and advisors fees in case of lost disputes in front of the adjudication Panel. Provision in this sense is included in the budget for 2014.

2.3.3.2 Experts with contract
F4E has issued calls for expressions of interest for individual experts to provide technical assistance in a number of specific areas related to ITER and the Broader Approach. Provision is included in the budget for a total of approximately 3400 expert man-days in 2014.

2.3.3.3 Consultancy services
A general provision is included in 2014 for the consultancy service for participation to specific ITER/F4E committees and support/advice to F4E Director.

2.3.3.4 Provisions for supply contracts for F4E staff
In view of the increasing demand of metrology services, analysis and surveys, it is foreseen to purchase a minimum set of tools to be used by F4E staff in the technical support services team to perform geometrical checks according component manufacturing schedule. Among the others it is worth to mention Vacuum vessel sector’s and part’s geometrical checks as well metrology driven assembly processes. Provisions for portable Metrology devices like laser trackers, laser tracker accessories and necessary tools to make surface scans and gap/step detection including all relevant software applications are included under the budget title 3.4.

2.3.4 Complementary expenditures for the contracts under Global Commitment 2013
F4E has foreseen that some activities under the Work Programme 2013 will be implemented under the Global Commitment scheme in 2014. Being the exact amount of the expenditure not known when the Global Commitment is made, provisions for a maximum of EUR 5 million, for complementary expenditures are made available in WP2014 to fulfill the needs as in the relevant award decisions.
<table>
<thead>
<tr>
<th>WP ref</th>
<th>Activity Type</th>
<th>Activity name</th>
<th>Credited type</th>
<th>Legal commitment date (year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WP14/PO/20</td>
<td>G</td>
<td>Complementary expenditure for Global Commitment 2013 activities for ITER project</td>
<td>N</td>
<td>2014</td>
</tr>
<tr>
<td>WP14/PO/21</td>
<td>G</td>
<td>Complementary expenditure for Global Commitment 2013 activities for ITER project</td>
<td>Y, Y(ITA)</td>
<td>2014</td>
</tr>
<tr>
<td>WP14/PO/22</td>
<td>P supply/serv</td>
<td>Complementary expenditure for Global Commitment 2013 activities for ITER project</td>
<td>Y, Y(ITA)</td>
<td>2014</td>
</tr>
<tr>
<td>WP14/PO/23</td>
<td>P supply/serv</td>
<td>Complementary expenditure for Global Commitment 2013 activities for ITER project</td>
<td>N</td>
<td>2014</td>
</tr>
<tr>
<td>WP14/BA/15</td>
<td>P supply/serv</td>
<td>Complementary expenditure for Global Commitment 2013 activities for Broader Approach</td>
<td>N/A</td>
<td>2014</td>
</tr>
</tbody>
</table>

The list of the procurement procedures for which the complementary expenditure might be needed is available below:

<table>
<thead>
<tr>
<th>WBS Code L5</th>
<th>F4E-WP Ref</th>
<th>F4E-CA Type Code</th>
<th>Activity Name</th>
<th>Credited type</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU.01.11.03.53.03</td>
<td>WP13/11/07</td>
<td>PSupply</td>
<td>Contract for Winding Tooling Provision (TW)</td>
<td>Y</td>
</tr>
<tr>
<td>EU.01.15.01.51.02</td>
<td>WP13/15/09</td>
<td>PServ</td>
<td>Procurement of F4E VV Representative Inspector</td>
<td>Y, Y(ITA)</td>
</tr>
<tr>
<td>EU.01.16.01.52.14</td>
<td>WP13/16/09</td>
<td>PServ</td>
<td>CuCrZr Plates for the ITER FW Panels HIP manufacturing route</td>
<td>Y</td>
</tr>
<tr>
<td>EU.01.16.01.52.25</td>
<td>WP13/16/06</td>
<td>G^17</td>
<td>CuCrZr material for HIP manufacturing route</td>
<td>Y</td>
</tr>
<tr>
<td>EU.01.16.01.52.35</td>
<td>WP13/16/08</td>
<td>PServ</td>
<td>Contract for Technical Support for fabrication and commissioning of a HHF Test Facility</td>
<td>Y</td>
</tr>
<tr>
<td>EU.01.16.01.52.17</td>
<td>WP13/MF/05</td>
<td>G^18</td>
<td>Characterization of materials and joinings</td>
<td>Y, Y(ITA)</td>
</tr>
</tbody>
</table>

\(^{17}\) Single beneficiary Stockholm University, Unique Facility

Adopted 10/12/2013
2.3.5 Science and technology support for ITER and BA

2.3.5.1 Science and technology support for ITER and BA
In the first quarter of 2014 F4E will launch the procedure to award a framework contract to procure broad range science and technology support for ITER and BA projects.

<table>
<thead>
<tr>
<th>Code</th>
<th>WP Code</th>
<th>Type</th>
<th>Description</th>
<th>A/B</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU.01.17.02.51.16</td>
<td>WP13/17/03</td>
<td>PSupply</td>
<td>Contract for Industrialization of the full W monoblock components</td>
<td>Y</td>
</tr>
<tr>
<td>EU.01.17.02.51.20</td>
<td>WP13/MF/04</td>
<td>G</td>
<td>Characterization of materials and joinings</td>
<td>Y, Y(ITA)</td>
</tr>
<tr>
<td>EU.01.23.01.91.08</td>
<td>WP12/23/02</td>
<td>G</td>
<td>Neutral Beam Remote Handling (NB RH) Design Follow-up Phase I</td>
<td>Y</td>
</tr>
<tr>
<td>EU.01.31.01.54.02</td>
<td>WP12/31/03</td>
<td>PServ</td>
<td>Procurement for final design and manufacturing of Warm Regeneration Lines</td>
<td>Y(ITA)</td>
</tr>
<tr>
<td>EU.01.52.03.51.02</td>
<td>WP12/52/02</td>
<td>PSupply</td>
<td>EC PS Main Contract (BPS &amp; MHVPS)</td>
<td>Y</td>
</tr>
<tr>
<td>EU.01.53.06.51.05</td>
<td>WP11/53/01</td>
<td>PSupply</td>
<td>Procurement for Neutral Beam High Voltage Deck and Bushing - MITICA</td>
<td>Y</td>
</tr>
<tr>
<td>EU.01.56.02.04.06</td>
<td>WP13/56/03</td>
<td>G</td>
<td>Complementary Analysis for Tritium Migration Modelling in TBM systems</td>
<td>N</td>
</tr>
<tr>
<td>EU.01.PE.01.77.02</td>
<td>WP13/PE/02</td>
<td>PServ</td>
<td>Plasma Engineering analysis</td>
<td>N</td>
</tr>
<tr>
<td>EU.01.PE.01.77.04</td>
<td>WP13/PE/03</td>
<td>PServ</td>
<td>Plasma Engineering studies</td>
<td>N</td>
</tr>
<tr>
<td>EU.01.PM.08.91.05</td>
<td>WP13/PO/19</td>
<td>PServ</td>
<td>Gendarmerie Services Test Convoy (TC3)</td>
<td>Y</td>
</tr>
<tr>
<td>EU.BA.02.01.03</td>
<td>WP12/BA/14</td>
<td>PServ</td>
<td>Hydraulic Measurements</td>
<td>N/A</td>
</tr>
<tr>
<td>EU.BA.02.05.01</td>
<td>WP13/BA/04</td>
<td>P supply</td>
<td>Cryoplant Storage Tanks</td>
<td>N/A</td>
</tr>
</tbody>
</table>

19 Unique Beneficiary Studsvik Nuclear, Unique Facility
### 3 Annexe

#### 3.1 Summary of the 2014 Work Programme

<table>
<thead>
<tr>
<th>Budget line</th>
<th>Title</th>
<th>2014 Budget (December 2013)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 1</td>
<td>ITER construction including site preparation</td>
<td>650,098,382.68</td>
</tr>
<tr>
<td>3 2</td>
<td>Technology for ITER</td>
<td>18,022,000.00</td>
</tr>
<tr>
<td>3 3</td>
<td>Technology for Broader Approach</td>
<td>11,870,000.00</td>
</tr>
<tr>
<td>3 4</td>
<td>Other expenditure</td>
<td>4,200,000.00</td>
</tr>
<tr>
<td>3 5</td>
<td>Appropriation from the ITER Host State contribution</td>
<td>170,000,000.00</td>
</tr>
<tr>
<td><strong>Total Title III of the Budget 2014</strong></td>
<td></td>
<td><strong>854,190,382.68</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Repartition of activities by categories</th>
<th>cat A</th>
<th>cat B</th>
<th>cat C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>674,127,653.70</td>
<td>160,872,346.30</td>
<td>19,190,382.68</td>
</tr>
<tr>
<td><strong>Total Title III of the Budget 2014</strong></td>
<td><strong>854,190,382.68</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Budget line</th>
<th>Title</th>
<th>2014 Work Programme (December 2013)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 1+3 5</td>
<td>Expenditure in support of ITER, credited by ITER IO through PA</td>
<td>17,671,000.00</td>
</tr>
<tr>
<td>3 1+3 5</td>
<td>Contribution in cash in support of ITER (paragraph 2.3.1.15)</td>
<td></td>
</tr>
<tr>
<td>3 1+3 5</td>
<td>Contribution in cash to Japan (paragraph 2.3.1.15)</td>
<td></td>
</tr>
<tr>
<td>3 1+3 5</td>
<td>Contribution for site agreement (paragraph 2.3.1.15)</td>
<td></td>
</tr>
<tr>
<td>3 1+3 5</td>
<td>Contribution in cash on NBTF Agreement (paragraph 2.3.1.15)</td>
<td></td>
</tr>
<tr>
<td>3 1+3 5</td>
<td>Design and R&amp;D in support of ITER, credited by ITER IO through ITA</td>
<td>7,605,000.00</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>3 1+3 5</td>
<td>Amendment, Price Indexation, Dispute, etc. (paragraph 2.3.1.13)</td>
<td>758,280.00</td>
</tr>
<tr>
<td><strong>Subtotals</strong></td>
<td>26,034,280.00</td>
<td>547,620,552.68</td>
</tr>
<tr>
<td>3 1+3 5</td>
<td>Total ITER Construction</td>
<td></td>
</tr>
<tr>
<td>3 2</td>
<td>Design and R&amp;D in support of ITER, not credited IO</td>
<td>4,053,000.00</td>
</tr>
<tr>
<td>3 2</td>
<td>Contribution in cash to IO for the Design and Procurement of Test Blanket Systems Connection Pipes (paragraph 2.3.1.15)</td>
<td></td>
</tr>
<tr>
<td>3 2</td>
<td>Contribution in cash on NBTF Agreement (paragraph 2.3.1.15)</td>
<td></td>
</tr>
<tr>
<td>3 2</td>
<td>Amendment, Price Indexation, Dispute, etc. (paragraph 2.3.1.13)</td>
<td>121,620.00</td>
</tr>
<tr>
<td><strong>Subtotals</strong></td>
<td>4,174,620.00</td>
<td>10,460,710.00</td>
</tr>
<tr>
<td>3 2</td>
<td>Total Technology for ITER</td>
<td></td>
</tr>
<tr>
<td>3 3</td>
<td>Expenditure in support of Broader Approach</td>
<td></td>
</tr>
<tr>
<td>3 3</td>
<td>Contribution in cash in support of IFMIF-EVEDA Project</td>
<td></td>
</tr>
<tr>
<td>3 3</td>
<td>Amendment, Price Indexation, etc. (paragraph 2.3.2.5)</td>
<td></td>
</tr>
<tr>
<td><strong>Subtotals</strong></td>
<td>0.00</td>
<td>11,666,320.00</td>
</tr>
<tr>
<td>3 3</td>
<td>Total Technology for Broader Approach and DEMO</td>
<td></td>
</tr>
<tr>
<td>3 4</td>
<td>Appointment of experts for technical assistance to F4E (paragraph 2.3.3.2)</td>
<td></td>
</tr>
<tr>
<td>3 4</td>
<td>Legal and commercial services for assistance to F4E and supply for F4E staff (paragraph 2.3.3.1, 2.3.3.3 and 2.3.3.4)</td>
<td></td>
</tr>
<tr>
<td><strong>Subtotals</strong></td>
<td>0.00</td>
<td>1,750,000.00</td>
</tr>
<tr>
<td>3 4</td>
<td>Total Other Expenditure</td>
<td></td>
</tr>
<tr>
<td><strong>Total expenditure by type</strong></td>
<td><strong>30,208,900.00</strong></td>
<td><strong>571,497,582.68</strong></td>
</tr>
<tr>
<td>3</td>
<td>Total Operational Expenditure</td>
<td></td>
</tr>
</tbody>
</table>

**Notes**

A table showing the indicative budget for grants to be awarded in this Work Programme, both credited and non-credited by ITER, is provided in 3.2.
- Figures corresponding to items to be credited by IO through ITA are provisional, and are based on the present understanding of the share of work to be assigned to F4E by IO with yearly planned ITAs (not competed) or through competitive procedures (competed ITAs).
- Following the evaluation of the proposals and updates on the cash contributions, the final budget repartition may vary by up to 10% of the specified budget figures in the table above, with the exception of the budget allocation.
## 3.2 Annex II: Summary of the Budgets for Grants

**Work Programme 2014 (December 2013)**

<table>
<thead>
<tr>
<th>Work Breakdown Structure</th>
<th>Credited  (EUR million)</th>
<th>Not Credited (EUR million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnets</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Vacuum Vessel</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>In Vessel</td>
<td>0.35</td>
<td>-</td>
</tr>
<tr>
<td>Remote Handling</td>
<td>0.8</td>
<td>-</td>
</tr>
<tr>
<td>Vacuum Pumping &amp; Fuelling</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tritium Plant</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cryoplant</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Power Supplies</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>I&amp;C and CODAC</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Heating &amp; Current Drive</td>
<td>4.56</td>
<td>-</td>
</tr>
<tr>
<td>Diagnostics</td>
<td>16.53</td>
<td>-</td>
</tr>
<tr>
<td>Buildings</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Test Blanket Modules and Material Development</td>
<td>2.96</td>
<td></td>
</tr>
<tr>
<td>Plasma Engineering</td>
<td>1.18</td>
<td>0.22</td>
</tr>
<tr>
<td>Technical Support Services</td>
<td>0.34</td>
<td>0.56</td>
</tr>
<tr>
<td>Analysis for cost containment and budget allocation (including complementary expenditures for Global Commitments 2013)</td>
<td>2.27</td>
<td>0.43</td>
</tr>
<tr>
<td>Broader Approach</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Sub-Total</strong></td>
<td><strong>26.03</strong></td>
<td><strong>4.17</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>30.20</strong></td>
<td></td>
</tr>
</tbody>
</table>

NB: Figures shown in this table are the currently estimated values. Modifications may occur within the budgetary constraints.
3.3 **Annex III: Essential Selection and Award Criteria for Grants**

With regard to grant actions referred to in this work programme, the essential selection and award criteria, in accordance with Articles 165 and 166 of the Implementing Rules of the Financial Regulation, are:

**Essential Selection Criteria**

- The applicants' technical and operational capacity: professional, scientific and/or technological competencies, qualifications and relevant experience required to complete the action.
- The applicants' financial capacity: stable and sufficient sources of funding in order to maintain the activity throughout the action.

**Essential Award Criteria**

- Relevance and quality of the proposal with regard to the objectives and priorities set out in this work programme and in the relevant call for proposals.
- Effectiveness of the implementation as well as of the management structure and procedures in relation to the proposed action.
- Cost-effectiveness and sound financial management, specifically with regard to F4E’s needs and objectives and the expected results.

With regard to the specific action, more details will be provided in the call for proposals. Thresholds and weighting for the essential and additional award criteria will also be given in the call for proposals.

A proposal which does not fulfil the conditions set out in the work programme or in the call for proposals shall not be selected. Such a proposal may be excluded from the evaluation procedure at any time.

The timetable and indicative aggregated amounts for the actions are defined in this Work Programme.

3.4 **Annex IV: Maximum Reimbursement Rates for Grants**

The upper limits for the reimbursement of eligible costs for grants are laid down in Article 153 of the Implementing Rules of the Financial Regulation of the Joint Undertaking and are summarised in the following table.

<table>
<thead>
<tr>
<th>Research, technological development and demonstration activities</th>
<th>40%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase of durable equipment or assets and of ancillary services approved by the Joint Undertaking as necessary to carry out such activities</td>
<td>70%</td>
</tr>
<tr>
<td>Coordination and support actions</td>
<td>100%</td>
</tr>
<tr>
<td>Management, audit certificates and other specific activities</td>
<td>100%</td>
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3.5 Annex V: Abbreviation list

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<tr>
<th>Abbreviation</th>
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<tbody>
<tr>
<td>A/E</td>
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<td>Cold Valve Boxes</td>
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<td>Core plasma charge-eXchange Recombination Spectroscopy</td>
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### 3.6 Annex VI List of Framework Contracts and partnership agreements foreseen to be ongoing at the end of 2013

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<td>Tokamak Services R&amp;D/Design</td>
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<td>Conceptual &amp; Preliminary Design of TBM sets and analyses</td>
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²⁰Work programme references are not available for the framework contracts signed before 2011
<p>| WP11/56/11 | WP11 | FwC | F4E-OMF-331 | EU.01.56.01.03.01.603 | Conceptual &amp; Preliminary design of TBS ancillary systems |
| WP11/56/11 | WP11 | FwC | F4E-OMF-331 | EU.01.56.01.05.01.603 | Conceptual &amp; Preliminary Design of Maintenance Equipments |
| WP11/56/11 | WP11 | FwC | F4E-OMF-331 | EU.01.56.01.06.04.603 | Test Blanket Systems safety analyses |
| WP11/56/11 | WP11 | FwC | F4E-OMF-331 | EU.01.56.02.03.02.603 | Preliminary Welding Procedure Specifications for TBM box |
| WP11/ES/06 | WP11 | FwC | F4E-OMF-272 | EU.01.ES.01.76.02.601 | Engineering Support - Remote Handling |
| WP11/MF/04 | WP11 | FwC | F4E-OPE-149 | EU.01.MF.01.76.22.603 | Engineering Support on Joining and Non-destructive tests for production of ITER Components |
| WP11/ND/01 | WP11 | FPA | F4E-GRT-168 | EU.01.ES.02.90.01.603 | Development of Nuclear Data Files |
| WP11/PO/12 | WP11 | FwC | F4E-OFC-137 | EU.01.PM.01.91.01.603 | Quality Assurance Audits |
| WP11/PO/13 | WP11 | FwC | F4E-OFC-252 | EU.01.PM.03.91.01.603 | Provision of Planning &amp; Scheduling Support Services |
| WP11/55/01 | WP12 | FPA | F4E-OFC-328 | EU.01.55.06.51.24.603 | Tokamak Services R&amp;D/Design |
| WP11/ES/07 | WP12 | FwC | F4E-OMF-357-01 | EU.01.ES.01.77.02.603 | CAD Design Support - General Mechanical Design |
| WP12/45/02 | WP12 | FwC | F4E-OFC-361 | EU.01.ES.03.91.04.603 | Provision of Instrumentation and Control Integration Services |
| WP12/ES/05 | WP12 | FwC | F4E-OMF-356 | EU.01.ES.02.76.11.603 | Engineering Support in the area of Mechanical Analysis for the Vacuum Vessel |
| WP12/ND/01 | WP12 | FPA | F4E-FPA-393 | EU.01.ES.02.90.02.603 | Nuclear Data Experiments and Measurement Techniques |
| WP11/51/02 | WP13 | FwC | F4E-OMF-457 | EU.01.51.01.02.02.603 | Development of Built to print design of the ICH Antenna |
| WP11/55/10 | WP13 | FwC | F4E-OFC-358 | EU.01.55.15.51.02.603 | Irradiation Testing - Lot #1 |
| WP11/55/10 | WP13 | FwC | F4E-OFC-358 | EU.01.55.15.51.02.604 | Irradiation Testing - Lot #2 |
| WP13/55/01 | WP13 | FPA | F4E-FPA-407 | EU.01.55.02.51.07.603 | Design and R&amp;D for Bolometers - Phase 1 |
| WP13/55/01 | WP13 | FPA | F4E-OMF-0457 | EU.01.55.10.51.04.603 | Design and R&amp;D for Low Field Side Collective Thomson Scattering |
| WP13/55/01 | WP13 | FPA | F4E-OMF-0468 | EU.01.55.13.51.10.603 | Equatorial Visible/IR Wide-Angle Viewing System |
| WP13/ES/02 | WP13 | FwC | F4E-OMF-457 | EU.01.ES.02.76.13.603 | Mechanical analyses of ITER components |
| WP13/ES/03 | WP13 | FwC | F4E-OMF-468 | EU.01.ES.01.78.02.603 | Metrological Support Services |
| WP13/PO/15 | WP13 | FwC | F4E-OMF-436 | EU.01.PM.04.91.01.604 | Project Management Services Lot 2 - Configuration Management &amp; System Engineering |</p>
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### 3.7 Annex VII: Mapping of Organizational breakdown structure (OBS- F4E units level) and Work Breakdown Structure (WBS level 3)

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