



## **FUSION FOR ENERGY**

The European Joint Undertaking for ITER and the Development of Fusion Energy

**THE GOVERNING BOARD**

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### **DECISION OF THE GOVERNING BOARD ADOPTING THE 2014 EDITION OF THE RESOURCE ESTIMATES PLAN OF FUSION FOR ENERGY**

Having regard to the Statutes annexed to the Council Decision (Euratom) No 198/2007 of 27 March 2007 establishing the European Joint Undertaking for ITER and the Development of Fusion Energy (hereinafter "Fusion for Energy") and conferring advantages upon it<sup>1</sup> (hereinafter "the Statutes") and in particular Article 6(3)(d) and Article 11 thereof,

Having regard to the Council Decision no. 791/2013 of 13 December 2013 amending decision 2007/198/EURATOM establishing the European Joint Undertaking for ITER and the Development of Fusion Energy and conferring advantages upon it<sup>2</sup>;

Having regard to the Financial Regulation of the Joint Undertaking<sup>3</sup> adopted by the Governing Board on 22 October 2007 (hereinafter "the Financial Regulation"), last amended on 25 November 2011<sup>4</sup> and in particular Article 30 thereof;

Having regard to the comments and recommendations of Administration and Finance Committee, the Executive Committee and the Bureau on the proposal for the resource estimates plan,

Whereas:

- (1) The Director should, in accordance with Article 8(4)(e) of the Statutes, draw up the resource estimates plan for a period of five years;
- (2) The Administration and Finance Committee should, in accordance with its mandate laid down in its Rules of Procedure<sup>5</sup>, comment on and make recommendations to the Governing Board on the proposal for the resource estimates plan drawn up by the Director;
- (3) The Executive Committee should, in accordance with Article 7(3)(b) of the Statutes, comment on and make recommendations to the Governing Board on the proposal for the resource estimates plan drawn up by the Director;
- (4) The Governing Board should adopt the resource estimates plan.

The Governing Board of Fusion for Energy has adopted this decision:

#### *Article 1*

The 2014 Edition of the Resource Estimates Plan of Fusion for Energy annexed to this Decision is hereby adopted.

#### *Article 2*

This Decision shall have immediate effect.

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<sup>1</sup> OJ L 90, 30/03/2007, p. 58.

<sup>2</sup> OJ L 349, 21/12/2013 p.100-102

<sup>3</sup> F4E(07)-GB03-11 Adopted 22/10/2007

<sup>4</sup> F4E(11)-GB21-10c Adopted 25/11/2011

<sup>5</sup> F4E(11)-GB20-07f Adopted 01/06/2011

Done at Barcelona, 3 December 2014

For the Governing Board

A handwritten signature in black ink, appearing to read 'Stuart Ward', with a horizontal line underneath the name.

**Stuart Ward**

Chair of the Governing Board

For the Secretariat

**Raymond Monk**

Secretary of the Governing Board

**ANNEX****2014 EDITION OF THE RESOURCE ESTIMATES PLAN  
OF FUSION FOR ENERGY****1. INTRODUCTION**

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In accordance with Article 30 of the F4E Financial Regulation, the Resource Estimates Plan (REP) sets out the indicative resources deemed necessary for the implementation of the Project Plan and shall include:

- Overall cost estimates for the entire duration of the projects of the Joint Undertaking (Chapter 4.1);
- Forecast of annual expenditure of the Joint Undertaking for the following five financial years. To better reflect the budgetary status of the project, the five year expenditure forecast is completed with the forecast of revenue and extended to the entire Multi-annual Financial Framework (MFF) of the European Budget (2014-2020), also corresponding to the current reference period of the ITER construction (Chapter 4.2 , tables 1,2 and 3);
- Estimates of income, expenditure and staffing of the Joint Undertaking for the following two financial years (2015-2016) (Chapter 4.3, tables 5 and 6).

**2. ASSUMPTIONS**

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The information presented in this 2014 Edition of the REP is based upon the assumptions and descriptions detailed in the 2014 Edition of the Project Plan<sup>6</sup> for both ITER and Broader Approach Activities.

Those assumptions might change with the evolution of the ITER schedule to a realistic approach, impacting the expenditure profiles until 2020.

**3. DEFINITIONS**

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**3.1. The Budget**

The budget is the sole instrument establishing the annual revenue and expenditure considered necessary for F4E, including staffing.

Each annual budget refers to the multi-annual program developed in the present REP and in the Project Plan.

**3.2. The Revenue**

F4E revenue is made up of the Euratom contribution, the ITER Host State contribution, the annual membership contributions from members other than Euratom, and miscellaneous revenue.

**3.2.1. The Euratom contribution (European Union)**

The contribution from Euratom constitutes the main source of revenue for F4E.

This contribution is foreseen at the Article 16 of the EU MFF for the period 2014-2020<sup>7</sup> as contribution to the financing of large scale projects. An Amount of EUR 2 707 million in 2011 value is reserved for the ITER project.

The contribution is detailed in the Council decision 2013/791/Euratom<sup>8</sup> amending the Decision 2007/198/Euratom establishing Fusion for Energy (F4E), for the period 2014-2020. The amount of EUR 2 915.015 Million is set up in current values for the period of reference and the annual breakdown is provided in its accompanying legal financial statement.

The annual contribution is determined in the European Union General Budget in Commitment and in Payment appropriation, as well as the F4E establishment plan.

The revenue received from Euratom is earmarked for operational expenditure and for administrative expenditure (running costs).

**3.2.2. The ITER Host State Contribution (France)**

The contribution from the ITER Host State constitutes the second source of revenue for F4E. It corresponds to the commitment from the Host State to cover 9.09% of the total costs of the ITER construction phase, excluding expenditure related to Transportation, Test Blanket Modules and administrative expenditure.

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<sup>6</sup> F4E(14)-GB30-09.5 Project Plan.

<sup>7</sup> Council regulation (EU, Euratom no 1311/2013) laying down the multiannual financial framework for the years 2014-2020 (2 December 2013).

<sup>8</sup> Council decision (2013/791/Euratom) amending Decision 2007/198/Euratom establishing the European Joint Undertaking for ITER and the Development of Fusion Energy and conferring advantages upon it (13 December 2013).

The precise scope, conditions and the global amount of the French contribution for the ITER construction phase have been established in a formal exchange of letters between France and the European Commission in 2011<sup>9</sup>.

The revenue received from France is earmarked to ITER construction.

### 3.2.3. *The Membership Contributions (F4E Members except Euratom)*

The Annual Membership Contribution is established and adopted annually within the budget. It corresponds to 10% of the administrative budget calculated at the time of the adoption of the previous edition of the REP.

The individual contribution of each member is composed of:

- (a) A minimum contribution of 0.1% of the total amount of annual membership contributions and,
- (b) An additional contribution calculated in proportion to the Euratom financial participation (excluding JET) in the Member's expenditure in the framework of the Community Fusion research programme in the year before last.

The revenue from the Membership contributions is not earmarked.

## 3.3. **The Expenditure**

The F4E expenditure is divided in operational and administrative expenditure, for projects and running cost respectively.

### 3.3.1. *The Operational Expenditure*

The operational expenditure corresponds to F4E tasks discharging Euratom obligations regarding:

- the contribution of Euratom to the ITER International Fusion Energy Organisation, in accordance with the ITER Agreement;
- the contribution of Euratom to the Broader Approach activities, in accordance with the Broader Approach Agreement with Japan;
- the preparation and coordination of a programme of activities in preparation for the construction of a demonstration fusion reactor (DEMO).

F4E's activities are grouped under two headings:

The ITER project represents the core activity of F4E and consists of:

- The tasks related to the ITER construction phase according to the Procurement Arrangements and Task Agreements signed with ITER Organisation;
- The ITER site support activities.

The Technology project groups the R&D activities necessary for ITER and Broader Approach:

- Technology for ITER and DEMO, to allow extra R&D activities, in particular related to the completion of specification by ITER and the preparation of DEMO;
- Technology for Broader Approach corresponding to the Euratom contribution managed by F4E for IFMIF-EVEDA, the IFERC at Rokkasho and the JT60 Tokamak;
- Technology for IFMIF construction: p.m.

### 3.3.2. *The Administrative Expenditure*

Administrative expenditure related to the functioning and operating costs of F4E is mainly made up of the Euratom contribution.

## 4. **BUDGET FORECASTS AND CEILING**

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### 4.1. **Overall Estimates of Revenue and Expenditure (2007-2041)**

The total resources (2007-2041) necessary for F4E to carry out its tasks are divided into two periods:

- (1) The ITER construction phase and implementation of the BA activities;

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<sup>9</sup> Contribution financière française à la construction d'ITER - Letter from Mr Bigot to Ms Goeghegan-Quinn and Mr Oettinger on 08/09/2011 and reply on 17/11/2011

In its July 2010 conclusion the Council of the European Union fixed the overall budget to EUR 6.6 billion in 2008 value for the ITER construction period, until end of 2020 (including DEMO and Broader Approach).

- (2) The operation and decommissioning of ITER, the possible construction and operation of IFMIF and a programme of activities in preparation for DEMO.

The estimates based on the 2001 final design are 1278.4 kIUA<sup>10</sup> for the ITER operation phase and EUR 298.6 million (value 2005) for the decommissioning and de-activation phase.

#### 4.2. Estimates of Revenue and Expenditure for the Period 2007-2020

The estimates of revenue and expenditure are detailed in the three tables below:

- Table 1: Expenditure in commitment appropriations. This table provides the correspondence between the fixed 2008 value as adopted by the Council and the successive annual budgets. It reflects the amount of contracts placed or to be placed each year;
- Table 2: Expenditure in payment appropriations reflects the actual implementation of the projects through the execution or forecasts of payments to third parties. This table is provided in current values only;
- Table 3: Revenue in commitment and payment appropriations. Provided in current values only, this table details the yearly contributions from Euratom, France and the F4E Members.

##### 4.2.1. The estimate of revenue

###### *Euratom contribution:*

As mentioned above, the European Council has fixed the global amount deemed necessary for all F4E activities during the ITER construction phase to EUR 6.6 billion (2007-2020), expressed in 2008 value.

This envelope was defined in commitment appropriation and the corresponding yearly resources have been calculated from the 2008 value in current value. A fixed annual escalation rate of 2.0% was applied to the estimated cost of the contracts based on their average duration and payment scheme, as defined in the 2011 occurrence of the REP. The result is a 2.6% escalation rate applied to operational expenditure (except experts and legal support), while the administrative expenditure of annual nature is based on the standard 2% escalation rate.

The yearly breakdown of the Euratom contribution until 2020 is taken from the Legal Financial Statement accompanying the Council Decision (2013/791/Euratom).

###### *ITER Host State Contribution:*

Based on the Council conclusions mentioned above, the ITER Host State contribution is strictly earmarked to ITER Construction and represents EUR 1 168.0 million (2008 constant value) or 20% of the cost of ITER construction according to the perimeter of contribution already mentioned. This contribution could be adjusted with the agreement of French Authorities to the actual cost for the domain of participation of the ITER Host State.

###### *Membership Contribution:*

The annual calculation of this contribution is based on 10% of the administrative expenditure, as defined at the chapter 4.3 of the previous edition of the REP. This earlier stage reference avoids changes along the budgetary procedure, allowing the members to plan in advance their contribution.

To be noted, from 2016 onwards:

- Croatia will contribute to the Membership contribution.
- The breakdown by member will be established by Euratom on the basis of the figures provided by EUROfusion, in the respect of frame defined in F4E statutes.

<sup>10</sup> IUA (ITER Unit of Account with 1 IUA= 1.2889 kEUR (2001 Conversion rate)).

4.2.2. *The Estimate of expenditure*

*The operational expenditure for the ITER project:*

The graph next page provides a summary of the integrated duration of all activities in each system (WBS Level 3) leading to the delivery of the in-kind contributions to ITER IO in Cadarache. Each line shows the beginning of the activities related to the specific system and the date of completion according to the scope agreed in the Procurement Arrangements (status: 25 September 2014).

The integrated activities for each system and financed by the F4E operational budget with the profile indicated in this document aim at the achievement of the following targets.

### Magnets

- Ten toroidal field coils and 20% of the Nb<sub>3</sub>Sn conductor to be used in the toroidal field coils (89.74 kIUA);
- Five poloidal field coils and 11% of NbTi conductor for the poloidal field coils (40.86 kIUA);
- Nine fibreglass composite pre-compression rings (0.6 kIUA);
- Toroidal field conductor and poloidal field conductor (54.6188 kIUA).

### Vacuum Vessel

- Seven sectors of the vacuum vessel (92.19 kIUA)

### Blanket

- Blanket first wall: 48.4% of the first wall panels corresponding to the normal heat flux first wall (41.52 kIUA);
- Blanket cooling manifold (4.652 kIUA);

### Divertor

- Divertor inner vertical target (20.20 kIUA);
- Divertor cassette bodies and integration of plasma-facing components (11.20 kIUA);
- Divertor rails (2.38 kIUA).

### Remote Handling

- Divertor Remote Handling System DRHS (9.62 kIUA);
- Cask and Plug Remote Handling System CPRHS (17.31337 kIUA);
- In-Vessel Viewing System IVVS (6.8 kIUA);
- Neutral Beam Remote Handling System NBRHS (6.0 kIUA).

### Vacuum and Fuelling

- Warm regeneration lines front-end cryodistribution with cold valve boxes, torus and cryostat cryopumps, cryopumps for the neutral beam system and leak detection and localisation system (12.966 kIUA);

### Tritium System

- Tritium plant consisting of the water detritiation system (WDS) and the hydrogen isotope separation system (ISS) (6.3391 kIUA);
- Waste Management System (10.1 kIUA);

### Cryoplant

- Liquid nitrogen (LN<sub>2</sub>) plant and auxiliary systems, approximately one-half of the cryoplant (30.677 kIUA);

### Electrical Power Distribution

- Power Supplies — pulsed power and steady state power supplies (45.22284 kIUA).

### Ion Cyclotron Antenna

- Ion cyclotron resonance heating system (equatorial port plug incorporating one ion cyclotron antenna) (3.96 kIUA);

### Electron Cyclotron Upper launcher and Electron Cyclotron Power Sources and Power Supplies

- Electron cyclotron resonance heating system (four upper port plugs incorporating launchers as Primary Confinement System (10.8320) kIUA), 32% of the gyrotron sources and 67% of the power supplies (8.010kIUA and 11.628 kIUA respectively).

### Neutral Beam System

- Neutral beam assembly and testing (3.8 kIUA);
- Beam source and high voltage bushings (3.893 kIUA);
- Beam line components (3.9 kIUA);
- Pressure vessel and magnetic shielding (9.025 kIUA);
- Active corrections and compensation coils (4.4 kIUA);
- Neutral beam power supplies and related systems (31.382 kIUA);
- Neutral Beam Test Facility (27.0 kIUA)

#### Diagnostics

- 13 distinct diagnostics systems; tokamak services (cables, feed-throughs and connectors on the ITER vessel); and integration of diagnostics into seven ports housing 22 diagnostics systems from Europe, IO and five other Domestic Agencies;
- F4E is responsible of about one quarter of the ITER Diagnostics.

#### Site and Buildings

- Poloidal Field Coil Winding Facility (12.8 kIUA);
- Architecture engineering services (55.75430) kIUA);
- Tokamak excavation (31 kIUA);
- Supply of anti-seismic bearings for Tokamak Complex (6.2 kIUA);
- Building construction (343.81281 kIUA);
- Office buildings (13.85 kIUA);

#### Radiological Environmental Protection Systems (REMS)

- Radiological and Environmental Monitoring Systems (4.2 kIUA).

#### Waste Treatment and Storage

- Radwaste Building Process Equipment for Low and Intermediate level-short lived, solid and liquid radwaste
- Site Services Building Process Equipment, including equipment devoted to the treatment and storage of toxic and non-toxic-non-radioactive wastes.

#### Test Blanket Modules (non-credited)

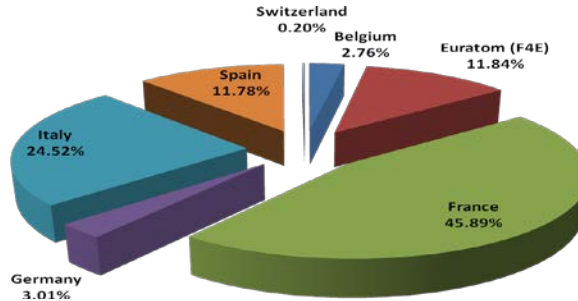
- First HCLL/HCPB TBM and its radiation shield;
- Full set of Ancillary Systems connected to a TBM, i.e for each TBM: Helium Cooling System, Tritium Extraction System, Coolant Purification System; and, specifically for the HCLL TBM, the PbLi loop;
- TBS Data Acquisition & Control Systems;
- Ancillary Equipment Units structures;
- Maintenance/inspection tools and equipment that are specific to only one TBS (non-standard for all TBS);
- Support to Assembly/installation of TBS in ITER;
- Shipping Cask for transport of irradiated TBMs (design only at this stage).



*The operational expenditure for the Broader Approach project:*

Under the Broader Approach Agreement, Euratom contributes a total of 500 kBAUA<sup>11</sup> of which 440 kBAUA are provided in kind by Voluntary Contributors as shown in the following figures. These revenue and expenditure are dealt with by each EU member state participating to this programme.

The remainder is provided by Euratom through F4E as Implementing Agency in the BA Agreement and are foreseen in the direct revenue.



**Chart 1: BA contribution by Members**

The expenditure is detailed in the BA work programme adopted by the BA Steering Committee.

*The administrative expenditure:*

This expenditure is recurrent and mainly based on the establishment plan (salaries).

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<sup>11</sup> BAUA (Broader Approach Units of Account with 1 BAUA = 678 € 2005 values)

**Table 1: F4E Detailed Expenditure in Commitment Appropriation for the ITER construction phase**

**Table 1: Expenditure in commitment appropriation**

F4E - Expenditure Commitment appropriation	< 2007 Preparation	2007-2011 FP VII	2012-2013 FP VII +2	2014-2020	TOTAL
Constant Value - MEUR <sub>(2008)</sub>	44.472	1 349.658	1 973.457	3 232.414	6 600.000
Current Value - MEUR	42.129	1 406.293	2 211.050	3 971.357	7 630.448

Constant Value MEUR <sub>(2008)</sub>	< 2007	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	>2020	TOTAL
	Executed	Executed	Executed	Executed	Executed	Executed	Executed	Executed	Available Budget	Budget	Indicative Forecast	Indicative Forecast	Indicative Forecast	Indicative Forecast	Indicative Forecast	Indicative Forecast	
ITER Construction	44.472	76.444	158.110	272.125	364.341	339.152	1 018.006	867.392	726.446	730.781	304.502	307.162	276.967	238.383	145.476	-	5 869.758
Technology	-	-	3.995	16.252	8.188	6.776	1.779	10.633	20.746	23.717	24.057	34.096	33.266	39.161	27.261	-	249.927
Technology for ITER	-	-	3.883	6.377	2.334	6.157	0.731	7.768	11.230	15.382	15.066	27.066	29.397	33.274	27.261	-	185.927
Technology for BA, DEMO & IFMIF	-	-	0.112	9.875	5.854	0.619	1.049	2.865	9.516	8.335	8.991	7.029	3.868	5.887	-	-	64.000
Other Expenditure	-	-	0.452	0.431	0.714	1.730	1.157	0.954	3.330	4.788	4.267	4.184	4.102	4.021	3.942	-	34.073
F4E Administration	-	1.135	13.884	23.783	28.285	33.859	36.441	37.095	38.326	39.262	39.261	39.327	39.295	38.283	38.005	-	446.242
F4E Total Budget	44.472	77.579	176.441	312.591	401.529	381.517	1 057.383	916.074	788.848	798.548	372.088	384.769	353.629	319.848	214.685	-	6 600.000

Current Value MEUR	< 2007	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	>2020	TOTAL
	Executed	Executed	Executed	Executed	Executed	Executed	Executed	Executed	Available Budget	Budget	Indicative Forecast	Indicative Forecast	Indicative Forecast	Indicative Forecast	Indicative Forecast	Indicative Forecast	
ITER Construction	42.129	74.456	158.110	279.200	383.533	366.299	1 128.113	986.170	847.398	874.618	373.912	386.985	358.015	316.152	197.952	-	6 773.044
Technology	-	-	3.995	16.675	8.619	7.318	1.972	12.089	24.200	28.385	29.541	42.956	43.000	51.937	37.095	-	307.782
Technology for ITER	-	-	3.883	6.543	2.457	6.649	0.810	8.832	13.100	18.409	18.500	34.100	38.000	44.130	37.095	-	232.508
Technology for BA, DEMO & IFMIF	-	-	0.112	10.132	6.162	0.669	1.162	3.257	11.100	9.976	11.041	8.856	5.000	7.808	-	-	75.274
Other Expenditure	-	-	0.452	0.440	0.743	1.836	1.253	1.053	3.750	5.500	5.000	5.000	5.000	5.000	5.000	-	40.026
F4E Administration	-	1.113	13.884	24.258	29.428	35.932	39.445	40.956	43.161	45.100	46.000	47.000	47.900	47.600	48.200	-	509.977
F4E Total Commitment	42.129	75.569	176.441	320.573	422.324	411.385	1 170.782	1 040.269	918.509	953.604	454.453	481.941	453.915	420.689	288.246	-	7 630.448

(12)(13)

<sup>12</sup> Escalation for current/2008 values: A 2.6% escalation rate is applied to operational contracts, the standard 2.0% rate is kept for administrative expenditure and Other operational expenditure.

<sup>13</sup> From 2016 to 2020 the budget forecasts include commitments appropriation made available again from the cancelled appropriation in the implementation of the previous budgets.

**Table 2: F4E Detailed Expenditure in Payment Appropriation for the ITER construction phase****Table 2: Expenditure in Payment Appropriation**

F4E - Expenditure Payment appropriation	<2007	2007-2011 FP VII	2012-2013 FP VII +2	2014-2020	>2020	TOTAL
Current Value - MEUR	42.129	684.322	755.243	4 830.979	1 317.776	7 630.448

Current Value - MEUR		< 2007 Executed	2007 Executed	2008 Executed	2009 Executed	2010 Executed	2011 Executed	2012 Executed	2013 Executed	2014 Available Budget	2015 Budget	2016 Indicative Forecast	2017 Indicative Forecast	2018 Indicative Forecast	2019 Indicative Forecast	2020 Indicative Forecast	>2020 Indicative Forecast	TOTAL
Payment Appropriation	ITER Construction	42.129	2.998	83.822	109.138	157.077	209.784	314.272	344.170	507.743	573.495	568.800	633.900	690.290	628.360	626.920	1 280.147	6 773.044
	Technology	-	-	0.112	1.361	4.293	9.207	6.469	7.563	13.810	21.500	29.200	40.700	39.500	51.600	47.300	35.167	307.782
	Technology for ITER	-	-	-	1.229	4.027	4.282	3.415	2.279	9.000	12.000	20.000	28.000	33.000	45.000	40.000	30.276	232.508
	Technology for BA, DEMO & IFMIF	-	-	0.112	0.132	0.266	4.925	3.054	5.285	4.810	9.500	9.200	12.700	6.500	6.600	7.300	4.890	75.274
	Other Expenditure	-	-	0.085	0.539	0.645	0.647	1.118	1.249	2.900	5.000	5.000	5.000	5.000	5.000	5.000	2.843	40.026
	F4E Administration	-	1.113	13.884	24.258	29.428	35.932	39.445	40.956	43.161	45.100	46.000	47.000	47.900	47.600	48.200	-	509.977
	F4E Total Payment	42.129	4.110	97.903	135.296	191.443	255.570	361.304	393.939	567.614	645.095	649.000	726.600	782.690	732.560	727.420	1 317.776	7 630.448

**Table 3: F4E Detailed Revenue in Commitment and Payment Appropriation for the ITER construction phase****Table 3: Revenue in Commitment and Payment Appropriation (current value)**

F4E - Revenue - MEUR		<2007	2007-2011 FP VII			2012-2013 FP VII +2			2014-2020			>2020	TOTAL					
Commitment appropriation		42.129	1 545.163			2 266.377			3 776.779			0.000	7 630.448					
Payment appropriation		42.129	788.298			692.619			4 789.266			1 318.135	7 630.448					
Current Value MEUR		< 2007 Executed	2007 Executed	2008 Executed	2009 Executed	2010 Executed	2011 Executed	2012 Executed	2013 Executed	2014 Available Budget	2015 Budget	2016 Indicative Forecast	2017 Indicative Forecast	2018 Indicative Forecast	2019 Indicative Forecast	2020 Indicative Forecast	>2020 Indicative Forecast	TOTAL
Commitment Appropriation	Euratom Contribution	40.645	73.503	142.710	282.720	374.240	387.660	1 106.900	904.900	720.918	882.215	319.853	317.241	289.125	260.929	94.531	-	6 198.089
	France Contribution	1.484	2.658	48.945	61.200	66.500	90.700	141.200	105.000	170.000	64.000	130.000	145.000	145.000	140.000	65.297	-	1 376.983
	F4E Members contribution	-	-	2.683	2.890	3.400	3.835	3.900	4.300	4.400	4.390	4.600	4.700	4.790	4.760	4.820	-	53.468
	Internal revenue	-	-	0.978	0.252	0.105	0.186	0.069	0.109	0.210	-	-	-	-	-	-	-	1.907
	F4E Total Budget	42.129	76.160	195.315	347.062	444.245	482.381	1 252.069	1 014.309	895.528	950.605	454.453	466.941	438.915	405.689	164.648	-	7 630.448
Payment Appropriation	Euratom Contribution	40.645	1.453	123.500	131.450	207.600	226.166	261.240	245.002	421.101	507.895	524.400	596.900	647.900	597.800	597.600	1 067.438	6 198.089
	France Contribution	1.484	2.658	25.145	30.400	13.600	12.000	48.000	130.000	123.000	110.000	120.000	125.000	130.000	130.000	125.000	250.697	1 376.983
	F4E Members contribution	-	-	2.683	2.890	3.400	3.835	3.900	4.300	4.400	4.390	4.600	4.700	4.790	4.760	4.820	-	53.468
	Internal Revenue	-	-	0.865	0.364	0.105	0.186	0.069	0.109	0.210	-	-	-	-	-	-	-	1.907
	F4E Total Budget	42.129	4.110	152.193	165.104	224.705	242.187	313.208	379.411	548.711	622.285	649.000	726.600	782.690	732.560	727.420	1 318.135	7 630.448

### 4.3 Estimates of revenue, expenditure and staffing for 2015 and 2016 budgets

#### 4.3.1 The Revenue and Expenditure

The statements of revenue and expenditure for the 2014 and 2016 budgets are:

**Table 4: statement of revenue and expenditure for the 2015 and 2016 budgets**

(EUR)		2015 Budget		2016 Budget	
		Commitment Appropriations	Payment Appropriations	Commitment Appropriations	Payment Appropriations
Revenue	Euratom operational contribution	838 355 057.00	464 034 882.00	270 853 000.00	475 400 000.00
	Euratom administrative contribution	43 860 000.00	43 860 000.00	49 000 000.00	49 000 000.00
	ITER Host State contribution	64 000 000.00	110 000 000.00	130 000 000.00	120 000 000.00
	Membership contribution	4 390 000.00	4 390 000.00	4 600 000.00	4 600 000.00
	<b>Sub Total Yearly Contribution</b>	<b>950 605 057.00</b>	<b>622 284 882.00</b>	<b>454 453 000.00</b>	<b>649 000 000.00</b>
	Euratom operational contribution recovered from previous years	0.00	19 811 838.68	0.00	0.00
	Euratom administrative contribution recovered from previous years	2 998 461.14	2 998 461.14	0.00	0.00
	Other revenue	0.00	0.00	0.00	0.00
	<b>Total Revenue</b>	<b>953 603 518.14</b>	<b>645 095 181.82</b>	<b>454 453 000.00</b>	<b>649 000 000.00</b>
Expenditure	Administrative Expenditure Title 1, Staff	38 440 000.00	38 440 000.00	38 600 000.00	38 600 000.00
	Administrative Expenditure Title 2, Other	6 660 000.00	6 660 000.00	7 400 000.00	7 400 000.00
	Sub Total Administrative expenditure	45 100 000.00	45 100 000.00	46 000 000.00	46 000 000.00
	ITER Construction	874 618 418.14	573 495 181.82	373 912 000.00	568 800 000.00
	Technology for ITER	18 409 100.00	12 000 000.00	18 500 000.00	20 000 000.00
	Technology for BA and DEMO	9 976 000.00	9 500 000.00	11 041 000.00	9 200 000.00
	Other Expenditure	5 500 000.00	5 000 000.00	5 000 000.00	5 000 000.00
	<b>Total Expenditure</b>	<b>953 603 518.14</b>	<b>645 095 181.82</b>	<b>454 453 000.00</b>	<b>649 000 000.00</b>

Notes:

- The annual budgets do not take into consideration the appropriations carried over from the previous year, already adopted by the Governing Board with the previous budget.
- The detailed expenditure will be set out in the corresponding budgets and work programmes.
- The revenue and expenditure are unbalanced for administrative expenditure in 2016 due to the respect of the profile established with the Council decision (2013/791/Euratom). The difference, EUR 3.0 million, will be transferred to the operational expenditure with the adoption of the budget.
- A readjustment of the 2016 budget might be necessary when an agreement will be reached on the new realistic schedule with ITER Organization.

#### 4.3.2 The Establishment Plan

Following the request by the Governing Board for additional Staff<sup>14</sup>, the European Commission, via an exchange of letter addressed to the Chair of F4E Governing Board<sup>15</sup>, authorised 24 additional short-term positions of contractual agents which have been added to staff resources authorised for the 2015 budget.

The principle for the addition of 21 short-term temporary agents has also been acknowledged for the 2016 budgetary procedure on top of the indicative staffing foreseen in the Legal Financial Statement accompanying the Council Decision amending the Decision 2007/198/Euratom.

Furthermore, it is to be noted that F4E converted 3 Seconded National Experts into 3 contractual agents. This operation has no additional costs.

F4E staffing foreseen is therefore the following:

**Table 5: F4E Human Resources**

	<b>2014</b>	<b>2015</b>	<b>2016</b>
AD Officials	44	40	40
AD Temporary	174	180	201
AST Officials	18	16	16
AST Temporary	26	26	26
<b>Sub Total Establishment Plan</b>	<b>262</b>	<b>262</b>	<b>283</b>
Contractual Agent (CA)	153	180	180
Seconded National Experts (SNE)	7	4	4
<b>Total F4E Staff</b>	<b>422</b>	<b>446</b>	<b>467</b>

<sup>14</sup> F4E(12)-GB28-00 – Summary of the Decisions from the 28<sup>th</sup> F4E Governing Board Meeting.

<sup>15</sup> Letter from M. Oettinger and M. Dominik to M.Ward - Ref Ares(2014)/3517014 – 23/10/2014