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2018/0235 (NLE)

Proposal for a

**COUNCIL DECISION**

**amending Decision 2007/198/Euratom establishing the European Joint Undertaking for  
ITER and the Development of Fusion Energy and conferring advantages upon it**

{SWD(2018) 325 final} - {SWD(2018) 326 final}

## **EXPLANATORY MEMORANDUM**

### **1. CONTEXT OF THE PROPOSAL**

This proposal provides for a date of application as of 1 January 2021 and is presented for a Union of 27 Member States, in line with the notification by the United Kingdom of its intention to withdraw from the European Union and Euratom based on Article 50 of the Treaty on European Union received by the European Council on 29 March 2017.

Fusion is expected to play an important role in Europe's future energy landscape as a virtually inexhaustible climate-friendly energy source. This proposal for a Council Decision seeks to secure funding for continued European participation in the ITER project aiming at key scientific breakthroughs in the development of fusion. It is particularly important following the 2015 Paris Agreement on climate change and the EU commitment to lead the way in decarbonising the economy and tackling climate change in a cost effective manner.

European participation in ITER is based on the ITER Agreement signed in November 2006 between seven global partners, Euratom, the United States, the Russian Federation, Japan, China, South Korea and India. ITER represents a unique first-of-a-kind project developed through international scientific collaboration which allows for the synergies and mobilisation of financial resources that would not be possible for a single state.

As the Host Party of the project according to the ITER Agreement, Europe has a stronger legal commitment under the ITER Agreement and accordingly has taken the lead in this project with a 45% share of the construction costs<sup>1</sup> (the other ITER Members' shares are around 9% each) to ensure timely completion of the construction. This proposal for a Council Decision amends the Council Decision (2007/198/Euratom) of 27 March 2007 establishing the European Joint Undertaking for ITER and the Development of Fusion Energy and conferring advantages upon it to provide the basis for the financing of the activities of this Joint Undertaking (hereinafter "Fusion for Energy") for the period 2021-2027 under the Euratom Treaty.

The 2007 Council Decision had already been amended by the Council Decision 2013/791/Euratom of 13 December 2013 to allow a financing of the Fusion for Energy activities. This proposal, which follows the same logic, is based on Article 47 of the Euratom Treaty and refers to the participation of Euratom in the financing of the Joint Undertaking during the Multi-annual Financial Framework 2021-2027.

The presently proposed amendment allows securing the financing of the project for the next Multiannual Financial Framework while it does not prevent voluntary contributions from Members of the Joint Undertaking other than Euratom as provided for in Article 12(1)(c) of the Statutes of that Undertaking.

The ITER Council endorsed in 2016 an updated schedule and associated cost estimates for the completion of the ITER construction. The new schedule targets the achievement of First Plasma in December 2025, as the earliest technically achievable date for the ITER construction, with the full performance operation, using deuterium-tritium fuel (the so-called Deuterium-Tritium phase) estimated in 2035. This schedule, together with the associated

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<sup>1</sup> As per the Cost sharing for all Phases of the ITER Project agreed in 2006 between the ITER Parties. This cost distribution will change in the operation phase, with Europe providing 34%.

revised costs<sup>2</sup>, form the basis of the new baseline of the ITER project; it does not include contingencies and therefore assumes that all major risks can be mitigated.

In its Communication to the European Parliament and the Council of the EU “EU contribution to a reformed ITER Project”<sup>3</sup> of 14 June 2017 and its accompanying Staff Working Document the Commission presented estimates of cost for the construction phase (for Europe only). For the period 2021-2027 the amount from EU budget<sup>4</sup>, including the Commission’s administrative expenditure related to the Fusion for Energy tasks and any other relevant activities, was<sup>5</sup> estimated at about EUR 6.1 billion (in current value)<sup>6</sup>.

On 12 April 2018 the Council of the EU drew conclusions on the basis of the Communication from the Commission and reaffirmed the continued commitment of Euratom to the successful completion of the ITER project. The Council declared that it will endeavour to make available the resources for the Fusion for Energy activities within the limits of the Multiannual Financial Framework for the period 2021-2027. On this basis the Council mandated the Commission to approve the new ITER project baseline (scope, schedule and costs) on behalf of Euratom at an ITER Council meeting at Ministerial level.

The transfer of funds will be aligned with the period covered by the Multiannual Financial Framework and run for seven years. According to the ITER Agreement, the ITER project will have an initial duration of 35 years (i.e. until 2042); thus, subsequent Council decisions will be needed to continue to fund the Euratom contribution to this project.

The successful construction and operation of ITER is on the critical path of the European fusion roadmap which represents a comprehensive goal-oriented path to fusion electricity and has been endorsed by all fusion research stakeholders in Europe<sup>7</sup>. This Decision will accordingly facilitate synergies and complementarities with fusion research activities funded under the Euratom Research and Training Programme 2021-2025<sup>8</sup>. This Decision will also allow completing the activities carried out in the frame of the Broader Approach Agreement concluded between Euratom and Japan and complementing the international collaboration in the framework of the ITER Agreement.

The proposal has been prepared in order to ensure close interactions with other programmes, namely the EU FP9 and the Euratom FP9 proposals. The rationale is quite clear as ITER is a first of a kind innovative project in the energy area that needs close support from the research and innovation side, conducted in particular through Euratom research programmes, but also through the EU research programmes. In this respect the texts of both programmes (Euratom and EU FP9) under the next MFF have been reinforced to ensure that the necessary interactions related to ITER are clearly stated.

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<sup>2</sup> The revised cost estimates were approved by the ITER Council *ad referendum*, pending the decisions by the budgetary authorities of the ITER Parties.

<sup>3</sup> COM(2017) 319 of 14.06.2017 and accompanying SWD(2017)232

<sup>4</sup> In addition to the funding from EU budget, France as Host State of the project contributes at present directly to F4E budget in about 20% of the Euratom contribution. Furthermore, each year F4E Members pay a membership contribution to the Joint Undertaking.

<sup>5</sup> SWD(2017)232, Table 4, p.24

<sup>6</sup> This estimation does not include the contingencies on schedule and cost.

<sup>7</sup> <https://www.euro-fusion.org/eurofusion/roadmap/>

<sup>8</sup> See Commission proposal COM(2018)437

## **2. RESULTS OF CONSULTATIONS WITH THE INTERESTED PARTIES AND IMPACT ASSESSMENTS**

This proposal takes full account of the responses to the Multiannual Financial Framework open public consultation that was organised under the coordination of the Secretariat General of the European Commission and was launched on 10 January and run until 8 March 2018. Furthermore, the proposal takes full account of consultations with stakeholders undertaken in the course of the preparatory activities which included an ex-ante evaluation and stakeholder events and surveys. While the open public consultations did not raise particular issues regarding the continuation of ITER funding, focused stakeholder consultations have confirmed that the EU investment in the construction of ITER is bringing important benefits to European industry and the research community. This was reiterated during an industry event organised in December 2017 which demonstrated that fusion is already delivering concrete opportunities for industry and is having a positive effect on jobs, economic growth and innovation, with positive impact beyond the fusion and energy fields. Independent studies commissioned for the preparation of the ex-ante evaluation provided quantifications of jobs created and net value added generated by European participation in the ITER project.

Last but not least, taking into account the Council conclusions of April 2018, this proposal will provide continuity for the project, in particular vis-à-vis the international partners and secure the ITER funding for the whole duration of the next Multiannual Financial Framework.

A limited number of proposals have been identified that, due to their continuity in terms of content and structure and/or size of the budget, should have an ex-ante assessment in the form of a Staff Working Document instead of an impact assessment. ITER was indicated, alongside other programmes such as Fiscalis, Humanitarian Aid, Common Foreign and Security Policy, as not requiring an impact assessment but rather an ex ante evaluation in the form of a Staff Working Document, in line with the requirements of the EU Financial Regulation.

This proposal provides for a date of application as of 1 January 2021 and are presented for a Union of 27 Member States, in line with the notification by the United Kingdom of its intention to withdraw from the European Union and Euratom based on Article 50 of the Treaty on European Union received by the European Council on 29 March 2017.

## **3. LEGAL ELEMENTS OF THE PROPOSAL**

The legal basis for this Council Decision is provided for by Article 47 of the Euratom Treaty. This Decision shall constitute the basic act for the period covered by the next Multiannual Financial Framework and will be the basis for the adoption of the yearly financing decisions by the Commission. These decisions will allow the Commission to transfer the funds to Fusion for Energy during the period 2021-2027.

This Decision shall also covers the administrative expenditure of the Commission related to Fusion for Energy, the ITER Organization, the Broader Approach and any other relevant activities for the period 2021-2027.

## **4. BUDGETARY IMPLICATION**

The 'legislative financial statement' attached to this proposal for a Council Decision sets out the budgetary implications and the human and administrative resources needed for its implementation.

## **5. IMPLEMENTATION PLANS AND MONITORING AND EVALUATION AND REPORTING ARRANGEMENTS**

It is intended to continue implementing the budget for European participation in ITER through the use of a joint Undertaking. The establishment of a Joint Undertaking under Chapter 5 of the Euratom Treaty was considered in 2007 as the most appropriate solution to discharge the Euratom obligations towards the ITER Organization pursuant to the conclusion of the ITER Agreement by Euratom. This adequacy has been confirmed by several independent reviews and assessments since then.

Pursuant to Article 32 of its Financial Regulation the Joint Undertaking (F4E) draws up a programming document containing multi-annual and annual programming. The draft-programming document is sent to the F4E Governing Board, the Commission, the European Parliament and the Council no later than 31 January each year. The Commission sends the opinion of its relevant services on this document to F4E.

The overall planning and annual Work Programme of the Joint Undertaking (F4E) specify the timetable for the achievement of the milestones which cover the procurement activities during ITER construction. F4E regularly reports to its governance body (the Governing Board where Euratom is represented by the Commission) and to the Council of the EU on the project's progress.

A full series of key performance indicators dedicated to the specific monitoring of the schedule and cost performance have been introduced in 2017 to better monitor the progress and the efficiency of F4E in delivering the Euratom contribution to the ITER project. A dash board report based on these indicators is submitted regularly to the Governing Board. They include metrics based on an Earned Value Management system.

At the level of the overall ITER project, the ITER Organization reports to the ITER Council on a similar dashboard of performance indicators, including the percentage of the physical completion of the construction to First Plasma. In December 2017, this indicator reached 50% and should reach 100% at the achievement of First Plasma foreseen for December 2025.

In the context of the Commission's internal management planning and monitoring, it is proposed to use two indicators that should report on progress of the project towards the achievement of its general and specific objectives. The first indicator would be the “percentage of completion of ITER construction” and the second the “percentage of Euratom’s in kind obligations discharged by F4E”. Both indicators will be based on data reported by the ITER Organization.

The Commission proposal for the 2021-2027 Multiannual Financial Framework set a more ambitious goal for climate mainstreaming across all EU programmes, with an overall target of 25% of EU expenditure contributing to climate objectives. The contribution of this programme to the achievement of this overall target will be tracked through an EU climate marker system at an appropriate level of disaggregation, including the use of more precise methodologies where these are available. The Commission will continue to present the information annually in terms of commitment appropriations in the context of the annual draft budget.

To support the full utilisation of the potential of ITER to contribute to climate objectives, the Commission will seek to identify relevant actions throughout the expenditure preparation, implementation, review and evaluation processes.

The Commission will carry out interim and ex post evaluations and will communicate the conclusions to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. The evaluation will be carried out in line with paragraphs 22 and 23 of the Interinstitutional Agreement of 13 April 2016<sup>9</sup>, where the three institutions confirmed that evaluations of existing legislation and policy should provide the basis for impact assessments of options for further action. The evaluation will assess the effects of ITER based on the established indicators/targets and a detailed analysis of the degree to which the project has proven relevant, effective, efficient, provides enough EU added value and is coherent with other EU policies. The evaluation will include lessons learnt to identify any lacks/problems or any potential to further improve the actions or their results and to help maximise their exploitation/impact. If the ex post evaluation is carried out close to the interim evaluation of the following period, both evaluations can be combined in a single one that will cover a larger period.

In addition, pursuant to Article 14 of its statutes F4E drafts an annual report. This report records the implementation of the F4E work programme. It is prepared by the F4E Director, assessed by the Governing Board and sent by the Governing Board, together with its assessment, to the Members, the European Parliament, the Council and the Commission.

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<sup>9</sup> Interinstitutional Agreement between the European Parliament, the Council of the European Union and the European Commission on Better Law-Making of 13 April 2016; OJ L 123, 12.5.2016, p. 1–14

Proposal for a

## COUNCIL DECISION

### **amending Decision 2007/198/Euratom establishing the European Joint Undertaking for ITER and the Development of Fusion Energy and conferring advantages upon it**

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Atomic Energy Community, and in particular the third and fourth paragraphs of Article 47 and Article 48 thereof,

Having regard to the proposal from the European Commission,

Whereas:

- (1) The ITER Agreement<sup>10</sup> has been signed in November 2006 by Euratom, the United States, the Russian Federation, Japan, China, South Korea and India. Euratom, which is according to the ITER Agreement the Host Party, has taken the lead in this project.
- (2) Decision 2007/198/Euratom<sup>11</sup> established the European Joint Undertaking for ITER and the Development of Fusion Energy (hereinafter Joint Undertaking) to provide the contribution of Euratom to the ITER International Fusion Energy Organisation and the Broader Approach Activities with Japan as well as to prepare and coordinate a programme of activities in preparation for the construction of a demonstration fusion reactor and related facilities.
- (3) Decision 2007/198/Euratom provides in its Article 5 that the Joint Undertaking shall have a distinct financial regulation based on the principles of the Framework Financial Regulation<sup>12</sup> which may depart from the latter where the specific operating needs of the Joint Undertaking so require and subject to prior consultation with the Commission. Title IV of the financial regulation of the Joint undertaking regulates the implementation of the budget.
- (4) Decision 2007/198/Euratom provided a financial reference amount deemed necessary for the Joint Undertaking together with the indicative total contribution of Euratom towards such amount, which should be made available through the Community research and training programmes adopted pursuant to Article 7 of the Treaty or through any other decision adopted by the Council.

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<sup>10</sup> OJ L 358, 16.12.2006, p.62

<sup>11</sup> Council Decision of 27 March 2007 establishing the European Joint Undertaking for ITER and the Development of Fusion Energy and conferring advantages upon it (2007/198/Euratom) (OJ L 90, 30.03.2007, p. 58).

<sup>12</sup> Commission Delegated Regulation (EU) N° 1271/2013 of 30 September 2013 on the framework financial regulation for the bodies referred to in Article 208 of Regulation (EU, Euratom) N° 966/2012 of the European Parliament and of the Council (OJ L 328, 7.12.2013, p. 42)

- (5) Decision 2007/198/Euratom was amended by Decision 2013/791/Euratom<sup>13</sup> to allow a financing of the Fusion for Energy activities for the duration of the Multi-annual Financial Framework 2014-2020.
- (6) A new ITER project baseline, prepared as part of the improvements in the management of the project, gained the support of the ITER Council in 2016 and 2017 and was subsequently used for estimating the funding needs of the Joint Undertaking. The updated schedule of the new baseline foresees the achievement of First Plasma in December 2025 and full performance operation, using deuterium-tritium fuel, in 2035. This schedule does not include contingencies and therefore assumes that all major risks can be mitigated.
- (7) On 12 April 2018 the Council reaffirmed the continued commitment of Euratom to the successful completion of the ITER project and mandated the Commission to approve the new ITER project baseline on behalf of Euratom at an ITER Council meeting at Ministerial level.
- (8) This Decision will allow synergies and complementarities with fusion research activities funded through the Euratom Research and Training Programme. The successful construction and operation of ITER is on the critical path of the European fusion roadmap endorsed by all fusion research stakeholders in Europe.
- (9) The European Parliament and the Council set the maximum level of the Euratom commitments for ITER in the Multiannual Financial Framework for the period 2021-2027 at EUR 6.070.000.000 (in current values).
- (10) Reflecting the importance of tackling climate change in lines with EU's commitments to implement the Paris Agreement, and the commitment of the United Nations Sustainable Development Goals, this Decision will mainstream climate actions and lead to the achievement of an overall target of 25% of the EU budget expenditures contributing to climate objectives. Actions under this Decision are expected to contribute 100% of the overall financial envelope of this Decision to climate objectives. Relevant actions will be identified during the implementation of this Decision and reassessed in the context of its revision and the interim evaluation.
- (11) Pursuant to paragraph 22 and 23 of the Inter-institutional agreement for Better Law-Making of 13 April 2016, there is a need to evaluate ITER on the basis of information collected through specific monitoring requirements, while avoiding overregulation and administrative burdens. These requirements, where appropriate, can include measurable indicators, as a basis for evaluating the effects of ITER. The conclusions of the evaluations carried out by the Commission will be communicated to the European Parliament the Council, the European Economic and Social Committee and the Committee of the Regions. Should the timings of the ex post and interim evaluations be close to each other, both evaluations could be combined into a single one covering the combined period.
- (12) In accordance with the Financial Regulation, Regulation (EU, Euratom) No 883/2013 of the European Parliament and of the Council[1], Council Regulation (Euratom, EC) No 2988/95[2], Council Regulation (Euratom, EC) No 2185/96[3] and Council Regulation (EU) 2017/1939 [4], the financial interests of the Union are to be protected

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<sup>13</sup> Council Decision 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 (2013/791/Euratom) (OJ L349, 31.12.2013, p. 100).



through proportionate measures, including the prevention, detection, correction and investigation of irregularities and fraud, the recovery of funds lost, wrongly paid or incorrectly used and, where appropriate, the imposition of administrative sanctions. In particular, in accordance with Regulation (EU, Euratom) No 883/2013 and Regulation (Euratom, EC) No 2185/96 the European Anti-Fraud Office (OLAF) may carry out investigations, including on-the-spot checks and inspections, with a view to establishing whether there has been fraud, corruption or any other illegal activity affecting the financial interests of the Union. In accordance with Regulation (EU) 2017/1939, the European Public Prosecutor's Office (EPPO) may investigate and prosecute fraud and other illegal activities affecting the financial interests of the Union as provided for in Directive (EU) 2017/1371 of the European Parliament and of the Council<sup>[5]</sup>. In accordance with the Financial Regulation, any person or entity receiving Union funds is to fully cooperate in the protection of the Union's financial interests, to grant the necessary rights and access to the Commission, OLAF, the EPPO and the European Court of Auditors (ECA) and to ensure that any third parties involved in the implementation of Union funds grant equivalent rights.

- (13) This Decision should ensure the visibility of the Community funding through coherent, effective and proportionate targeted information to multiple audiences, including the media and the public.
- (14) It is necessary to amend Decision 2007/198/Euratom to allow the financing of the activities of the Joint Undertaking and the related activities of the Commission for the period 2021-2027 from the general budget of the European Union.
- (15) Decision 2007/198/Euratom should therefore be amended accordingly,

HAS ADOPTED THIS DECISION:

#### *Article 1*

Decision 2007/198/Euratom is amended as follows:

- (1) In Article 4, paragraph 3 is replaced by the following:
  3. The indicative Euratom contribution to the Joint Undertaking for the period 2021-2027 and the related supporting expenditure for the same period as referred to in paragraph 4 are set at EUR 6.070.000.000 (in current values)<sup>14</sup>.
- (2) The following paragraph 4 is added:
  4. The amount referred to in paragraph 3 may also cover expenses for preparation, monitoring, control, audit, evaluation and other activities and expenditures necessary for managing and implementing this Decision, including administrative expenditure, as well as evaluating the achievement of its objectives. It may moreover cover expenses relating to the studies, meetings of experts, as well as expenses linked to information technology networks focusing on information processing and exchange, including corporate information technology tools and other technical and administrative assistance needed in connection with the management of this Decision.
- (3) Article 5b is deleted.

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<sup>14</sup> Considering the specificity of the activities of Fusion for Energy, Article 86.5 of the Regulation (EU, Euratom) N° 966/2012 of the European Parliament and of the Council of 25 October 2012 on the financial rules applicable to the general budget of the Union shall not apply.

(4) The following Article 5c is inserted:

*Article 5c*  
*Evaluation*

1. Evaluations shall be carried out in a timely manner to feed into the decision-making process.
2. An interim evaluation shall be performed once there is sufficient information available about the implementation of the Decision in the period 2021 - 2027, but no later than 2024.
3. At the end of the implementation of this Decision, but no later than four years after the end of the period specified in Article 4, a final evaluation of the Decision shall be carried out by the Commission.
4. The Commission shall communicate the conclusions of the evaluations accompanied by its observations, to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions.

(5) The following Article 5d is inserted:

*Article 5d*  
*Communication, visibility and publicity*

1. The recipients of Community funding shall acknowledge the origin and ensure the visibility of the Community funding (in particular when promoting the actions and their results) by providing coherent, effective and proportionate targeted information to multiple audiences, including the media and the public.
2. The Commission shall implement information and communication actions relating to this Decision, and its actions and results. Financial resources allocated to the implementation of this Decision shall also contribute to the corporate communication of the political priorities of the Union, as far as they are related to the objectives referred to in Article 1.

*Article 2*

This Decision shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

It shall apply from 1 January 2021.

This Decision is addressed to the Member States.

Done at Brussels,

*For the Council*  
*The President*

## **LEGISLATIVE FINANCIAL STATEMENT**

### **1. FRAMEWORK OF THE PROPOSAL/INITIATIVE**

- 1.1. Title of the proposal/initiative
- 1.2. Policy area(s) concerned (programme cluster)
- 1.3. Nature of the proposal/initiative
- 1.4. Grounds for the proposal/initiative
- 1.5. Duration and financial impact
- 1.6. Management mode(s) planned

### **2. MANAGEMENT MEASURES**

- 2.1. Monitoring and reporting rules
- 2.2. Management and control system
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- 3.1. Heading(s) of the multiannual financial framework and expenditure budget line(s) affected
- 3.2. Estimated impact on expenditure
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  - 3.2.2. Estimated impact on appropriations of an administrative nature
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## LEGISLATIVE FINANCIAL STATEMENT

### 1. FRAMEWORK OF THE PROPOSAL/INITIATIVE

#### 1.1. Title of the proposal/initiative

Council Decision amending Decision 2007/198/Euratom establishing the European Joint Undertaking for ITER and the Development of Fusion Energy and conferring advantages upon it.

#### 1.2. Policy area(s) concerned (*Programme cluster*)

1 – Research and Innovation

#### 1.3. The proposal/initiative relates to:

- a new action
- a new action following a pilot project/preparatory action<sup>15</sup>
- the extension of an existing action
- a merger or redirection of one or more actions towards another/a new action

#### 1.4. Grounds for the proposal/initiative

##### 1.4.1. Requirement(s) to be met in the short or long term including a detailed timeline for roll-out of the implementation of the initiative

This Council Decision will allow the contribution of funds to Fusion for Energy to carry out the tasks assigned to it. This Decision will result in Europe making its contributions to the construction of ITER during the period 2021-2027 where the ITER project will reach first plasma in 2025. Europe is making the largest contribution to the project (about 45% of the construction costs) and the impacts of this Decision will be greatest in Europe, both at near term (benefits to European industry) and at long term (a leading role in the commercial exploitation of fusion energy).

##### 1.4.2. Added value of Union involvement (it may result from different factors, e.g. coordination gains, legal certainty, greater effectiveness or complementarities). For the purposes of this point 'added value of Union involvement' is the value resulting from Union intervention which is additional to the value that would have been otherwise created by Member States alone.

The initiative falls under the exclusive competence of the EU according to Article 101 of the Euratom Treaty. Therefore, the subsidiarity principle does not apply.

ITER is a unique, first-of-a-kind, long-term project which greatly contributes to the long-term EU strategy for clean energy, security of supply and competitiveness. As such, it cannot be executed through industry initiative at this stage of the technology development and public intervention is warranted. This investment offers European high-tech industries and small and medium enterprises (SMEs) a valuable opportunity to innovate and develop “spin off” products for exploitation outside fusion (such as the broader energy sector, aviation, medical, and hi-tech instruments).

<sup>15</sup> As referred to in Article 58(2)(a) or (b) of the Financial Regulation.

As ITER's legal basis is an international agreement to which Euratom is a Party, action at EU level is more effective (less fragmentation) and efficient (better value for money/economies of scale), and offers coordination of actions (e.g. in addressing externalities) for meeting EU obligations. Pooling of resources and expertise is paramount to the construction of ITER and EU action is particularly needed to achieve the critical mass of resources and knowledge across different fields, technologies, and research infrastructures and industries required for the construction of this first-of-a-kind project. This has also been recognized explicitly in the "Reflection Paper on the Future of EU Finances" of June 2017, which puts forward clear value added when action at European level goes further than national efforts could –this includes "big projects and key enabling technologies, such as [...] ITER (which) can only be financed by pooling resources at EU level because of their very high financing needs".

Accordingly, action at EU level delivers results that uncoordinated national spending could not achieve in terms of a number of strategic priorities: i.) security of supply; ii.) opportunities for long-term growth and development of European science, technology and industry, and structuring of the EU R&D fabric; iii.) improvements in quality and innovation through exposure to EU-wide and global competition, and iv.) mobilizing the EU potential/negotiating power at global level.

#### 1.4.3. *Lessons learned from similar experiences in the past*

The Joint European Torus (JET) project has demonstrated that building and operating a large fusion research infrastructure under the Euratom coordination is efficient and maximises the scientific and industrial benefits. However, the scale required for the ITER construction is unprecedented and requires a collaboration at global level for which there is no example to be found in the past.

#### 1.4.4. *Compatibility and possible synergy with other appropriate instruments*

This Decision will allow synergies and complementarities with fusion research activities with the Euratom research and training programme. The fusion activities under this framework will provide important scientific contribution to the construction and operation of ITER.

### 1.5. **Duration and financial impact**

limited duration

–  in effect from 01/01/2021 to 31/12/2027

–  Financial impact from 2021 to 2027

unlimited duration

– Implementation with a start-up period from YYYY to YYYY,

– followed by full-scale operation.

### 1.6. **Management mode(s) planned<sup>16</sup>**

**Direct management** by the Commission

<sup>16</sup> Details of management modes and references to the Financial Regulation may be found on the BudgWeb site:  
<https://myintracomm.ec.europa.eu/budgweb/EN/man/budgmanag/Pages/budgmanag.aspx>

- by its departments, including by its staff in the Union delegations;
- by the executive agencies
- Shared management** with the Member States
- Indirect management** by entrusting budget implementation tasks to:
  - third countries or the bodies they have designated;
  - international organisations and their agencies (to be specified);
  - the EIB and the European Investment Fund;
  - bodies referred to in Articles 70 and 71 of the Financial Regulation;
  - public law bodies;
  - bodies governed by private law with a public service mission to the extent that they provide adequate financial guarantees;
  - bodies governed by the private law of a Member State that are entrusted with the implementation of a public-private partnership and that provide adequate financial guarantees;
  - persons entrusted with the implementation of specific actions in the CFSP pursuant to Title V of the TEU, and identified in the relevant basic act.
  - If more than one management mode is indicated, please provide details in the ‘Comments’ section.

#### Comments

Management will be carried out by F4E under the supervision of the Commission . The Commission represents Euratom in the governing bodies of both the ITER Organization (IO) and F4E. While Euratom provides about 80% of the F4E budget it has under the current F4E Statutes 5 voting rights out of 72. F4E is a Joint Undertaking established according to Chapter 5 of the Euratom Treaty. Pursuant to its Statutes, F4E has its own budgetary discharge procedure by the European Parliament, following a recommendation of the Council of the EU.

## **2. MANAGEMENT MEASURES**

### **2.1. Monitoring and reporting rules**

*Specify frequency and conditions.*

This Decision will be implemented by the Commission and F4E, which channels the Euratom contribution to the ITER Project and to other activities related to ITER, such as the Broader Approach activities with Japan.

This Decision provides for an interim and final evaluation of its implementation. The conclusions of these evaluations and the observations of the Commission will be communicated to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. The Commission, on behalf of Euratom, participates in the decision-making bodies the ITER Organization and F4E: 1) The Commission participates in the the ITER Council, and in the Committees established by the Council; 2) as member of F4E, the Commission participates in the Governing Board and in Committees established by the Board. These governance structures are used for monitoring the progress of the project and the performance of its implementation, on the basis of reporting and disclosure from the ITER Organization and F4E, respectively.

In particular:

a) Pursuant to Article 6.d. of the F4E Statutes, the Governing Board of F4E adopts the project plan, the work programme, the resource estimates plan, the establishment plan and the staff policy plan. According to Article 6.e, the Governing Board adopts also the annual budget. It is to be noted that these documents are part of the programming document that, pursuant to Article 32 of its Financial Regulation, F4E draws up each year and has to submit a draft to the Governing Board, the Commission, the European Parliament and the Council no later than 31 January. The Commission is requested to issue an opinion on this draft that should be taken into account by F4E to produce the final version of the programming document.

b) Pursuant to Article 14 of its Statutes, the F4E Director prepares an annual report that records the implementation of the F4E work programme. This report is assessed by the Governing Board and sent by the Governing Board, together with its assessment, to the F4E Members, the European Parliament, the Council and the Commission. F4E reports also to the Council each year on the progress achieved in implementing the cost containment and saving plans as well as on the F4E performance and management and on the ITER project. F4E reports also once a year to the Council on the fulfilment of the scheduled activities within its annual budget.

c) In-between the formal reports, F4E provides in monthly intervals information on the implementation of its budget and on the progress on key milestones established to monitor the construction and procurement activities under F4E's responsibility.

d) At the level of the overall project monitoring, the Director-General of the ITER Organization presents twice a year to the ITER Council and its Management Advisory Committee a report on the progress of the project, its implementation and on the execution of his risk and cost management action plan. In-between these reports, the ITER Organization reports every two months through a set of dashboards monitoring budget implementation, risk management, procurement activities and progress on milestones for key components on the project's critical path.

## 2.2. Management and control system(s)

### 2.2.1. *Justification of the management mode(s), the funding implementation mechanism(s), the payment modalities and the control strategy proposed*

The overall architecture of the ITER project calls for contracting parties to operate through Domestic Agencies.

The establishment of a Joint Undertaking under Chapter 5 of the Euratom Treaty was considered in 2007 as the most appropriate solution to operate this role of Domestic Agency and to discharge the Euratom obligations towards the ITER Organization pursuant to the conclusion of the ITER Agreement. This adequacy has been confirmed by several independent reviews and assessment since then.

On the basis of this Council Decision each year the Commission adopts a financing decision to transfer the funds of the year n+1 from the EU budget to F4E. F4E sends call for funds for its administrative and operational budgets. The Commission required justifications for each call for funds related to the operational budget, in particular a cash-flow forecast for running costs and operational costs, covering the period of the payment request and a situation of the Fusion for Energy Treasury, a reference to the commitment(s) in the budget to which the payment relates, a comprehensive planning for each project on which a payment is to be made and the relevant justification.

The Joint Undertaking has the necessary expertise, resources and experience to implement the required ex-ante checks and ex-post controls on procurements. Risks are assessed regularly and progress in the execution of work and the consumption of resources is monitored regularly, based on defined objectives and indicators.

A supervision strategy has been developed by the Commission over the F4E activities. As part of this strategy a new Administrative Agreement is being negotiated that will take into account the changes in the legal framework (F4E statutes were amended in 2015, a new F4E financial regulation was adopted; the responsibility for ITER, and therefore F4E, supervision was transferred from DG RTD to DG ENER.) These modifications in the F4E legal framework and in the division of responsibilities within the Commission entail changes in the modalities of F4E's interaction with the Commission as covered in the Administrative Agreement with F4E.

### 2.2.2. *Information concerning the risks identified and the internal control system(s) set up to mitigate them*

There are inherent financial and operational performance risks in F4E due to the nature of its activities (large and complex in-kind procurements with high technical risks) and to the nature and architecture of the underlying project (involvement of 7 contracting parties, development of the single largest energy experiment to date) . Measures to monitor and better control the functioning of F4E have been put in place to alleviate this situation. The Commission together with F4E will continue to identify the risks related to the implementation of this project, notably in terms of costs, and will take the most appropriate measures to manage and mitigate these risks.

DG ENER (D4) has developed a comprehensive risk assessment methodology with the creation of a risk register updated every 3 months and a risk management plan to monitor the key risks that can hamper the achievement of the First Plasma by 2025..



Such risk monitoring should prompt the Commission to react proactively to delays, cost overruns or other negative events that can delay the Euratom contribution.

F4E will revise in 2018 its internal control framework to take into account for the changes intervened at Commission level.

- 2.2.3. *Estimation and justification of the cost-effectiveness of the controls (ratio of "control costs ÷ value of the related funds managed"), and assessment of the expected levels of risk of error (at payment & at closure)*

At Commission level, the cost of control attached to the oversight of the ITER project and of the operations of F4E remains low compared to the value of the funds managed. This cost was estimated at 0,31% in 2016 and 0,28% in 2017, including the cost of maintaining a dedicated unit in DG ENER, management oversight, and the support received from horizontal functions. This cost may increase slightly in the coming years to reflect increased oversight, improved risk management and the evolution of the tasks as the project progress furthers. The risk of error associated to the administration of the EU contribution to the Joint Undertaking is minimal.

At delegated entity level, F4E has not yet developed a methodology to carry out the assessment of costs and benefits of controls or the expected level of error. Even though, it is worth to mention that the European Court of Auditors has always delivered unqualified opinion to F4E on the true and fair view of accounts and on the regularity of underlying transactions. When DG BUDG will deliver the newer methodology at the end of 2018, DG ENER will ensure that F4E carries out the necessary assessments.

### 2.3. **Measures to prevent fraud and irregularities**

*Specify existing or envisaged prevention and protection measures, e.g. from the Anti-Fraud Strategy.*

The Commission's Directorate General charged with the implementation of the ITER project and budget is committed to fight against fraud in line with the Commission Anti-fraud strategy COM(2011)376 of 24 June 2011 and with the forthcoming revision of this antifraud strategy

At Commission level, DG ENER develops and maintains its own antifraud strategy, based on a specific risk assessment process. The necessary measures are taken as regard awareness, risks assessment, information of staff, cooperation with entrusted entities and cooperation with OLAF. This strategy is revised every 2 to 3 years, the last time in December 2017.

The administrative monitoring of the contracts, grants and related payments is under the responsibility of F4E.

The Commission and F4E take into account the financial interests of the European Union notably in compliance with Council Regulation (EC, Euratom) No 2988/95 of 18 December 1995 on the protection of the European Communities' financial interests and Article 53(a) of the Financial Regulation.

F4E develops ex-post audit strategies to assess the legality and regularity of the underlying transactions.

The European Anti-Fraud Office (OLAF) enjoys the same powers with respect to F4E and its staff, as it enjoys in respect of Commission departments. It is worth to mention that among the measures to prevent fraud and irregularities:

- F4E has an internal auditor that reviews on a permanent basis different features of the internal control system;
- F4E internal control system is regularly reviewed by the Commission's Internal Audit Service;
- F4E is yearly subject to the European Court of Auditors audit on the true and fair view of accounts and legality and regularity of the underlying transactions (income and expenditure);
- F4E is yearly subject to the discharge procedures of the European Parliament and the Council of the EU.

F4E has developed an Anti-Fraud Strategy that was approved by its Governing Board in June 2015. The overall objective is to improve prevention, detection and the conditions for investigations of fraud, and to pursue adequate deterrence and reparation, with proportionate and dissuasive sanctions. The F4E Anti-Fraud Strategy reinforces the adopted measures preventing and managing conflicts of interests within F4E and is integrated into the broader legal framework of F4E protecting the financial interests of the EU and combating fraud, as stipulated in Articles 5a and 5aa of the Council Decision 2007/198/Euratom establishing F4E.

### 3. ESTIMATED FINANCIAL IMPACT OF THE PROPOSAL/INITIATIVE

#### 3.1. Heading of the multiannual financial framework and new expenditure budget line(s) proposed

Heading of multiannual financial framework	Budget line	Type of expenditure	Contribution			
	Number 1 Single Market, Innovation and Digital	Diff./Non-diff. <sup>17</sup>	from EFTA countries <sup>18</sup>	from candidate countries <sup>19</sup>	from third countries	within the meaning of Article [21(2)(b)] of the Financial Regulation
	<b>01 01 04</b> 01 01 04 01 Expenditure related to officials and temporary agents implementing ITER programme 01 01 04 02 External personnel implementing ITER programme 01 01 04 03 Other management expenditure ITER programme <b>01 04</b> 01 04 01 European Joint Undertaking for ITER – Fusion for Energy (F4E) – Expenditure on administrative management 01 04 02 European Joint Undertaking for ITER – Fusion for Energy (F4E) - Operational expenditure	Non-diff. Non-diff. Non-diff. Diff. Diff.	NO NO NO NO NO	NO NO NO NO NO	YES YES YES YES YES	YES YES YES YES YES

<sup>17</sup> Diff. = Differentiated appropriations / Non-diff. = Non-differentiated appropriations.

<sup>18</sup> EFTA: European Free Trade Association.

<sup>19</sup> Candidate countries and, where applicable, potential candidates from the Western Balkans.

### 3.2. Estimated impact on expenditure

#### 3.2.1. Summary of estimated impact on expenditure<sup>20</sup>

EUR million (to three decimal places)

Heading of multiannual financial framework <sup>21</sup>		1	Single Market, Innovation and Digital								
			2021	2022	2023	2024	2025	2026	2027	Post 2027	TOTAL
01 01 04 01 Expenditure related to officials and temporary agents implementing ITER programme	Commitments = Payments	(1)	9,257	9,442	9,631	9,824	10,020	10,220	10,425		<b>68,819</b>
01 01 04 02 External personnel implementing ITER programme	Commitments = Payments	(1)	0,314	0,320	0,327	0,333	0,340	0,347	0,354		<b>2,335</b>
01 01 04 03 Other management expenditure ITER programme	Commitments = Payments	(1)	1,500	1,530	1,560	1,592	1,624	1,656	1,689		<b>11,151</b>
01 04 01 European Joint Undertaking for ITER – Expenditure on administrative management	Commitments = Payments	(1)	65,000	66,000	67,000	69,000	70,000	71,000	73,000		<b>481,000</b>
01 04 02 European Joint Undertaking for ITER – Fusion for Energy (F4E) - Operational expenditure	Commitments	(2)	858,081	690,463	1,024,144	791,024	664,205	842,685	636,093		<b>5,506,695</b>
	Payments	(3)	209,304	520,061	538,856	647,466	697,841	800,512	811,667	1,280,987	<b>5,506,695</b>
<b>TOTAL appropriations for the envelop of the programme</b>	Commitments	=1+2	934,152	767,755	1 102,662	871,773	746,189	925,908	721,561		<b>6,070,000</b>
	Payments	=1+3	285,375	597,353	617,374	728,215	779,825	883,735	897,135	1,280,987	<b>6,070,000</b>

<sup>20</sup> Totals may not tally due to rounding

<sup>21</sup> Article 01 01 04 includes technical and/or administrative assistance and expenditure in support of the implementation of EU programmes and/or actions (former 'BA' lines), indirect research, direct research.

EUR million (to three decimal places)

<b>Heading of multiannual financial framework</b>	<b>7</b>	European Public Administration
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			2021	2022	2023	2024	2025	2026	2027	<i>Post 2027</i>	TOTAL
Operational appropriations (split according to the budget lines listed under 3.1)	Commitments	(1)									
	Payments	(2)									
Appropriations of an administrative nature financed from the envelope of the programme <sup>22</sup>	Commitments = Payments	(3)									
<b>TOTAL appropriations for the envelope of the programme</b>	Commitments	=1+3									
	Payments	=2+3									

<sup>22</sup> Technical and/or administrative assistance and expenditure in support of the implementation of EU programmes and/or actions (former ‘BA’ lines), indirect research, direct research.

<b>Heading of multiannual financial framework</b>	7	European Public Administration
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EUR million (to three decimal places)

		2021	2022	2023	2024	2025	2026	2027	<i>Post 2027</i>	TOTAL
Human resources										
Other administrative expenditure										
<b>TOTAL appropriations under HEADING 7 of the multiannual financial framework</b>	(Total commitments = Total payments)									

EUR million (to three decimal places)

		2021	2022	2023	2024	2025	2026	2027	<i>Post 2027</i>	TOTAL
<b>TOTAL appropriations across HEADINGS of the multiannual financial framework</b>	Commitments	934,152	767,755	1 102,662	871,773	746,189	925,908	721,561		<b>6,070,000</b>
	Payments	285,375	597,353	617,374	728,215	779,825	883,735	897,135	1,280,988	<b>6,070,000</b>

### 3.2.2. Summary of estimated impact on appropriations of an administrative nature

- The proposal/initiative does not require the use of appropriations of an administrative nature
- The proposal/initiative requires the use of appropriations of an administrative nature, as explained below:

EUR million (to three decimal places)

Years	2021	2022	2023	2024	2025	2026	2027	TOTAL
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<b>HEADING 7 of the multiannual financial framework</b>								
Human resources								
Other administrative expenditure								
<b>Subtotal HEADING 7 of the multiannual financial framework</b>								

<b>Outside HEADING 7<sup>23</sup> of the multiannual financial framework</b>								
Human resources	9,571	9,762	9,958	10,157	10,360	10,567	10,779	<b>71,154</b>
Other expenditure of an administrative nature	1,500	1,530	1,560	1,592	1,624	1,656	1,689	<b>11,151</b>
<b>Subtotal outside HEADING 7 of the multiannual financial framework</b>	<b>11,071</b>	<b>11,292</b>	<b>11,518</b>	<b>11,749</b>	<b>11,984</b>	<b>12,223</b>	<b>12,468</b>	<b>82,305</b>

<b>TOTAL</b>	<b>11,071</b>	<b>11,292</b>	<b>11,518</b>	<b>11,749</b>	<b>11,984</b>	<b>12,223</b>	<b>12,468</b>	<b>82,305</b>
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<sup>23</sup> Technical and/or administrative assistance and expenditure in support of the implementation of EU programmes and/or actions (former 'BA' lines), indirect research, direct research.

### 3.2.2.1. Estimated requirements of human resources

- The proposal/initiative does not require the use of human resources.
- The proposal/initiative requires the use of human resources, as explained below:

*Estimate to be expressed in full time equivalent units*

Years	2021	2022	2023	2024	2025	2026	2027
<b>• Establishment plan posts (officials and temporary staff)</b>							
Headquarters and Commission's Representation Offices							
Delegations							
Research	61	61	61	61	61	61	61
<b>• External staff (in Full Time Equivalent unit: FTE) - AC, AL, END, INT and JED<sup>24</sup></b>							
Heading 7							
Financed from HEADING 7 of the multiannual financial framework	- at Headquarters						
	- in Delegations						
Financed from the envelope of the programme <sup>25</sup>	- at Headquarters						
	- in Delegations						
Research	4	4	4	4	4	4	4
Other (specify)							
<b>TOTAL</b>							

The human resources required will be met by staff from the DG who are already assigned to management of the action and/or have been redeployed within the DG, together if necessary with any additional allocation which may be granted to the managing DG under the annual allocation procedure and in the light of budgetary constraints. Staff numbers required for F4E Joint undertaking including officials are presented under point 3.2.2.2

Description of tasks to be carried out:

Officials and temporary staff	Staff working in the headquarters are in charge of the definition and subsequent follow-up of the activities both from the domestic agency in Barcelona (F4E) and the ITER project where the Commission is a representative of the European partnership.
External staff	Staff working in the headquarters are in charge of the definition and subsequent follow-up of the activities both from the domestic agency in Barcelona (F4E) and the ITER project where the Commission is a representative of the European partnership

### 3.2.2.2. Estimated requirements of human resources in F4E

	2021	2022	2023	2024	2025	2026	2027
Permanent staff	51	51	51	51	51	51	51
Of which AD	40	40	40	40	40	40	40

<sup>24</sup> AC= Contract Staff; AL = Local Staff; END = Seconded National Expert; INT = agency staff; JPD= Junior Professionals in Delegations.

<sup>25</sup> Sub-ceiling for external staff covered by operational appropriations (former 'BA' lines).



Of which Ast	11	11	11	11	11	11	11
Of which Ast-sc							
Temporary Agents	229	229	229	221	213	211	211
Of which AD	202	202	202	194	186	184	184
Of which Ast	27	27	27	27	27	27	27
Of which Ast-sc							
Contract Agents	172	172	172	165	159	157	157
<b>Total</b>	<b>452</b>	<b>452</b>	<b>452</b>	<b>437</b>	<b>423</b>	<b>419</b>	<b>419</b>

### 3.2.2.3 – F4E JU – breakdown of function group of Contractual agents 2021-2027

Contract agents	2021	2022	2023	2024	2025	2026	2027
Function group IV	98	98	98	91	85	83	83
Function group III	55	55	55	55	55	55	55
Function group II	19	19	19	19	19	19	19
Function group I							
<b>Total</b>	<b>172</b>	<b>172</b>	<b>172</b>	<b>165</b>	<b>159</b>	<b>157</b>	<b>157</b>

### 3.2.3. Third-party contributions

The proposal/initiative:

- does not provide for co-financing by third parties
- provides for the co-financing by third parties estimated below:

Appropriations in EUR million (to three decimal places)

Years	2021	2022	2023	2024	2025	2026	2027	TOTAL
Specify the co-financing body <sup>26</sup>	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.
TOTAL appropriations co-financed	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.

### 3.3. Estimated impact on revenue

- The proposal/initiative has no financial impact on revenue.
- The proposal/initiative has the following financial impact:
  - on own resources
  - on other revenue

please indicate, if the revenue is assigned to expenditure lines

EUR million (to three decimal places)

Budget revenue line:	Impact of the proposal/initiative <sup>27</sup>						
	2021	2022	2023	2024	2025	2026	2027
Article 6XXX <sup>28</sup>	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.

For assigned revenue, specify the budget expenditure line(s) affected.

Budget lines 01 01 04, 01 04 01 and 01 04 02

Other remarks (e.g. method/formula used for calculating the impact on revenue or any other information).

Not yet known. It depends on a new agreement to be established with Switzerland for the period 2021-2027. In case Brexit gets confirmed and the United Kingdom will remain as a partner of the ITER programme, its eventual contribution should also be recorded as earmarked revenue (from third countries).

<sup>26</sup> In addition to the funding from EU budget, France as Host State of the project contributes at present directly to F4E budget in about 20% of the Euratom contribution. Furthermore, each year F4E Members pay a membership contribution to the Joint Undertaking. These co-financing revenues are recorded directly in F4E accounts and are not included in the EU budget revenue and expenditure.

<sup>27</sup> As regards traditional own resources (customs duties, sugar levies), the amounts indicated must be net amounts, i.e. gross amounts after deduction of 20 % for collection costs.

<sup>28</sup> Switzerland and eventually the United Kingdom.