

Measures taken in the light of the observations accompanying the European Parliament's discharge decision

Article 107 of the F4E Financial Regulation

7 July 2020

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Preamble

Fusion is the process that powers the sun and other stars; this makes life on Earth possible. The merits of using fusion as a future source of energy on earth include the abundance of its basic fuels, the absence of greenhouse gas emissions, a very low impact on the environment with no long-lasting radioactive waste and finally the inherent safety of fusion reactors, where no meltdown or runaway reactions are possible.

Harnessing fusion to produce energy on earth is a scientific and technological challenge. Europe has been at the forefront of fusion research with support from the Euratom programme. JET and other European experiments have made excellent progress. ITER, a much larger research machine that can contain a 'burning plasma' is the next step. Its plasma produces more energy than put in to ignite it. Mastering such a "burning plasma" is a key capability needed to design a future fusion power station.

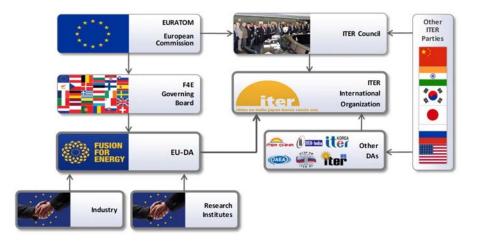
In 2006 seven Parties (Europe, China, Japan, Korea, India, Russia and the United States) agreed to set up the ITER International Organization with the objective of building and operating ITER – the largest fusion experiment in the world. Europe is the host of the ITER Project, which is under construction in Cadarache, France.

Unlike most comparable projects, the Parties decided to share responsibility for providing most of the components of ITER between themselves. Europe, as host, is providing components (including all buildings) representing 45 % of ITER's nominal value; European industries manufacture and provide them to the ITER Project as 'in kind' contributions. Each Party has set-up a 'Domestic Agency' (DA) to provide in-kind contributions to ITER. Europe's DA is 'Fusion for Energy' (F4E).

F4E receives, completes and negotiates technical specifications for the components with the ITER Organization, then places contracts and supervises the work with industries and research organisations. F4E then delivers the components to the ITER Organization, which assembles them with F4E support, together with the components provided by the other Domestic Agencies, to construct ITER.

An important feature of the ITER project is that while the ITER Organization is responsible for the specifications and, in many cases, design of the components, the Domestic Agencies are responsible for the cost of those components. This has been one of the major challenges, since those who cause extra cost have often not been liable to pay for it. ITER is also a nuclear installation under French law, which means that strict safety and quality requirements are obligatory. These have increased significantly following the 2011 Fukushima Daiichi fission reactor accident.

The schematic below shows the governance of ITER and F4E. The European Commission has a key role as it sits on F4E's Governing Board and represents Euratom in the highest authority of the ITER Organization, the ITER Council. All seven ITER Parties have seats in the ITER Council, which approves the ITER Organization's annual budget. Europe provides 45% of this via its 'in-cash' contribution to the ITER Organization, which is included in F4E's budget. F4E is responsible and accountable for its budget expenditure to its Governing Board, to the Council of European Union, as well as to the European Parliament.



Aside from the in-kind contributions to ITER, F4E is also responsible for managing Europe's contribution to three fusion projects in Japan under the "Broader Approach" agreement. In the longer term, F4E will use the knowledge and expertise gained from its work on ITER and the Broader Approach to prepare for the construction of industrial fusion reactors.

1. Introduction

Article 107 of the F4E Financial Regulation foresees the following:

- The Director shall take all appropriate steps to act on the observations accompanying the European Parliament's discharge decision and on the comments accompanying the recommendation for discharge adopted by the Council.
- 2. At the request of the European Parliament or the Council, the Director shall report on the measures taken in the light of those observations and comments. The Director shall send a copy thereof to the Commission and the Court of Auditors.

2. Replies by F4E to the European Parliament observations

Please find the F4E reply to each observation of the European Parliament, reporting on the measures taken in the light of these observations and the corresponding status.

| # | Observation of the Discharge Authority | Response and measures taken by Fusion for Energy (F4E) | Status |
|---|---|--|--------|
| 1 | Notes that the report of the Court of Auditors (the 'Court') on the Joint Undertaking's annual accounts for the financial year 2018 (the 'Court's report') finds the annual accounts to be presented fairly, in all material respects, with regard to the Joint Undertaking's financial position on 31 December 2018 and the results of its operations, its cash flows and the changes in its net assets for the year then ended, in accordance with its financial regulation and with the accounting rules adopted by the Commission's accounting officer; | F4E agrees, no measures required | |
| 2 | Acknowledges the fact that the transactions underlying the annual accounts of the Joint Undertaking for the financial year 2018 are, in all material respects, legal and regular; | F4E agrees, no measures required | |
| 3 | Highlights the fact that the Joint Undertaking recalculated its contribution to the project construction phase EUR 12 000 000 000, up from the EUR 6 600 000 000 approved by the Council in 2010; notes that figure does not include contingencies, even though the Commission suggested that a contingency of up to 24 months in terms of schedule and 10 to 20 % in terms of budget would be appropriate; | F4E agrees, no measures required | |
| 4 | Notes that in November 2016, the ITER Organization Council (ITER Council) approved a new ITER project baseline; notes that the new ITER baseline estimates the achievement of 'first plasma' and the start of the operational phase in 2025 with the completion of the construction phase in 2035, but observes that the previous 2010 baseline estimated the completion of the construction phase in 2020; however, notes that the new baseline is considered to be the earliest possible technically achievable date; | F4E agrees, no measures required | |

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|---|---|--|--------|
| 5 | Notes that in March 2017, the United Kingdom notified the Council of its decision to withdraw from the Union and from Euratom; notes with concern that this may have effects on the post-2020 activities of the Joint Undertaking and the ITER project; | F4E agrees, no measures required | |
| 6 | Welcomes the fact that in April 2018 the Council mandated the Commission to approve the new ITER baseline on behalf of Euratom and reaffirmed the commitment to make resources available within the limits of the next Multiannual Financial Framework (MFF) without prejudice to any subsequent MFF negotiations, which will determine the details of the future funding ¹ ; | F4E agrees, no measures required | |
| 7 | Highlights the fact that in addition to the construction phase, the Joint Undertaking will have to contribute to the ITER operational phase after 2035 and to the subsequent ITER deactivation and decommissioning phases; takes note of the fact that the contribution to the deactivation and the decommissioning phases were estimated to be EUR 95 540 000 and EUR 180 200 000 respectively; notes that the ITER project will continue to operate until the expiry of the ITER Agreement in 2042 and that the Union will continue to contribute to the ITER costs until then; notes that these additional costs comprise the final year of cash contributions towards the operations and decommissioning phases and the full costs of the deactivation phase; | F4E agrees, no measures required | |

 $^{^{\}rm 1}$ Council of the European Union 7881/18 adopted on 12 April 2018

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|---|---|---|-----------|
| 8 | Notes that there remains a risk of further cost increases and delays in project implementation compared to the current approved baseline although positive steps have been taken to improve management and control of the Joint Undertaking's contribution to the project construction phase; calls on the Joint Undertaking not to exceed the current approved baseline for total costs of the project; | Considering the period until the end of the current MFF, i.e. end 2020, F4E has successfully managed the various activities, and until approx. March/April 2020 was able to maintain the various component delivery dates in line with the schedule to First Plasma at end 2025. Some delays have occurred, but these have been mitigated either by agreeing schedule relaxations with IO, or by recovery action with the supplier. The covid19 crisis started to impact Europe around March 2020, and this has caused some additional schedule risks. These are under analysis. It is unclear if they can be sufficiently mitigated to maintain the schedule to First Plasma. Looking further ahead for the next MFF period and through to completion of ITER, there remain risks of further cost increases and delays, as noted by the ECA. This challenge is aggravated by the currently (May 20) proposed 7.5% budget cut for MFF2021-27. The F4E approach is unchanged – to continue to focus on schedule adherence while applying the measures outlined in the Cost Containment Policy. | Ongoing |
| 9 | Notes that effective communication is an essential component of successful Union financed projects; considers it to be important to increase the visibility of the achievements of the Joint Undertaking and to disseminate information on their added value; calls on the Joint Undertaking to pursue a proactive communication policy by disseminating the results of its research to the public, such as by means of social media or other media outlets, thus raising public awareness of the impact of Union support, with particular regard to market uptake; | F4E agrees on the importance of effective communications. It has a clearly-defined external communication policy, setting out key priorities, objectives and expected outcomes; the main target audiences and stakeholders; the key messages, challenges and opportunities, and finally provides a set of indicators to monitor the impact of the activities. The objectives for the period 2020-2024 are to raise the visibility and credibility of F4E, fusion energy, ITER and BA projects; to engage with the media; to enhance the reputation of F4E as a world-leading player in the development of fusion energy; to promote the development of fusion energy as a future element of the energy mix by providing sustainable, safe and abundant energy at industrial level. F4E implements the policy through a number of communication tools, including the F4E external website; publications; F4E participation at conferences and events; Organization of specific events, including visits to the ITER site and other places of interest; Social media: YouTube, Twitter, Linked In, Flickr, Facebook; F4E press releases/ memos and media campaigns; F4E media trips (arranged in Cadarache/ other locations in Europe, not Japan). In terms of output during the year 2019: External web site: more than 100 articles published reporting on fusion, achievements, added value, etc. These stories and relevant images were also echoed on our social media. F4E has completely modernised the web site in April 2020, please see www.f4e.europa.eu . | Completed |

| # | Observation of the Discharge Authority | Response and measures taken by Fusion for Energy (F4E) | Status |
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| | | Publications: F4E News (quarterly paper and electronic newsletter, achievements and events), F4E Highlights, F4E Annual Activity Report, Policy leaflet and other specific leaflets. | |
| | | Events/conferences: 12 number of events organized by F4E, of which a number of VIP visits; 19 events/conferences with direct participation with a total audience of more than 50,000. | |
| | | Media-related projects: more than ten media-related projects including reporting, filming, interviews, visits on sites/facilities and pitching the story to editors; two specific media trips were organised bringing on-site and more than 25 journalists from all over Europe. Collaboration with French, Swedish, Russian and Spanish media (The Times, Daily Telegraph, BFM, Les Echos, FR3, New Delhi TV etc.) to report on the progress of the project. Two special spin-off articles were produced (GENROBOT- GTD, IFMIF/EVEDA 7Sols) to explain the value of transfer of knowledge, with media coverage in Spain. Similarly, the delivery of the first EC units by Ampegon was reported in Swiss media. We helped with the planning, visit, footage, script and interview for the Movistar Plus programme "Cuando yo no esté". We experienced an increase compared to last year with a total of 131 articles published in European media referring explicitly to F4E and 2514 references in social media. Meanwhile, we recorded 1023 media references to ITER and 198 203 on social media (partly generated by F4E). Finally, we collaborated with IO on the Euronews clip potentially reaching 430 million households (including 170 million European households) in 166 countries, and also managed to publish an article on the EU Observer on the special edition ahead of the European elections. | |
| 10 | Asks the Court to assess the soundness and reliability of the methodology for calculating and valuing in-kind contributions; | F4E agrees, no measures required | |
| 1 | Notes that the final 2018 budget available for implementation included commitment appropriations of EUR 706 230 231 and payment appropriations of EUR 847 366 988; notes that the utilisation rates for commitment and payment appropriations were 98,4 % and 96,1 % respectively (compared to 99,9 % and 96,3% in 2017); | F4E agrees, no measures required | |

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| 12 | Notes that, due to shortcomings in the budget planning process in 2017, the payment appropriations needed in 2017 and 2018 exceeded the payment appropriations of the initial budget; observes that the additional payment appropriations needed by the Joint Undertaking amounted to EUR 160 700 000, 25 % above the initial budget; takes note of the Joint Undertaking's reply which states that the Joint Undertaking is grateful to Euratom for the additional contribution to the 2018 budget and that the Joint Undertaking would like to report that the lack of payment appropriations would have had no impact or risk, as EUR 137 000 000 were paid to the ITER Organization as advance on the 2019 in cash contribution; notes that the payment forecasting system has been totally redesigned and integrated in the new financial management tool, and that this, together with the new organisational structure, ensures that correct budgetary planning is in place and has already been used to determine the revenue of the 2019 budget; | F4E agrees, no measures required | |
| 13 | Welcomes the fact that out of EUR 706 200 000 available for commitment appropriations, 98,4 % was implemented through direct individual commitments (compared to 96,5 % in 2017); | F4E agrees, no measures required | |
| 14 | Notes that in 2018 the balance of the budget outturn amounted to EUR 1 316 734 (compared to EUR 17 236 192 in 2017); | F4E agrees, no measures required | |

| ; | # | Observation of the Discharge Authority | Response and measures taken by Fusion for Energy (F4E) | Status |
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| 1 | 5 | Observes that in 2018 the Joint Undertaking made a regulation payment transferring EUR 1 000 000 of authorised and verified payments relating to staff duty travel costs from the administrative budget to the operational budget; notes, however, the budget principle of specification was not respected by the regularisation payment; takes note of the Joint Undertaking's reply which states that it considers that the payment of regularization implemented for a global amount and undifferentiated items was not the optimum tool for the assignment of expenditure due to its perceived lack of transparency; however, expects the improvements that were achieved by the Joint Undertaking's commercial department in the course of 2019 to be confirmed by the Court in its annual report for 2019; | F4E has implemented the remedial action to enhance the financial and controlling system aiming at improving the transparency and continuous improvement. The new system was assessed by the ECA in its audit process 2019 that confirmed that the new IT tool is now providing the assurance to manage the mission and assigned the cost of missions to the different budgetary chapters. | Completed |
| 1 | 6 | Notes that in 2018 the Joint Undertaking achieved six of the milestones established by the ITER Council and governing board for that year, with a scheduled performance index of 93 % (compared to 91 % in 2017, 70 % in 2016 and 75 % in 2015); notes also the announcement of the ITER Organization in December 2018 confirming that 60 % of total scheduled construction work for the 2025 first plasma (compared to 50 % in 2017) had been completed; | F4E agrees, no measures required | |

| # | Observation of the Discharge Authority | Response and measures taken by Fusion for Energy (F4E) | Status |
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| 1 | Notes from the Court's report that the director's decision to change the place of employment of a newly recruited senior manager from Barcelona to Cadarache was not supported by adequate documentation to justify the additional salary costs due to the different correction coefficient; welcomes the fact that the Joint Undertaking recognises in its reply that the change of the place of employment was not adequately documented, as it was within the power of the appointing authority; observes that the Joint Undertaking was facing some risks in the poloidal field (PF) coils project that required attention from a senior manager; notes that the director therefore decided to ask the candidate to start in Cadarache immediately in order to fully focus on the PF crisis; | F4E agrees, no measures required | |
| 1 | Notes with satisfaction that the Joint Undertaking has implemented the earned value management instead of the ITER credit system to monitor the project progress based on the ad-hoc group proposal, the results of which are now being routinely submitted; | F4E agrees, no measures required | |
| 1 | Notes the progress on the ITER construction regarding the completion of the huge bio-shield encircling the tokamak pit and the instalment of the first components in the tokamak complex; | F4E agrees, no measures required | |

| # | Observation of the Discharge Authority | Response and measures taken by Fusion for Energy (F4E) | Status |
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| 20 | Notes that in 2017 the Joint Undertaking's governing board continued implementing the public procurement part of the antifraud strategy; notes that the Joint Undertaking adopted a checklist based in its own set of procurement fraud risk indicators, namely, red flags, considered a prerequisite to the development of the anti-fraud IT tool, having developed them internally; acknowledges that the anti-fraud and ethics officer continued coordinating the implementation of Joint Undertaking's anti-fraud strategy in close cooperation with all respective units and notes with appreciation that a working group had continued to develop the anti-fraud Strategy at the end of 2018; | F4E agrees, no measures required | |
| 2 | Notes that significant shortcomings were found by the Court in relation to the recruitment of key management staff; takes note of the fact that in its reply, the Joint Undertaking's states that following the Court finding and using the six sigma methodology to analyse, identify and implement the enhancements, the Joint Undertaking enhanced the robustness of its selection process as well as the additional ongoing measures; asks the Joint Undertaking to avoid any future irregularities and shortcomings; | In order to avoid future irregularities and shortcomings, F4E has taken measures to improve staff selection procedures by enhancing compliance and quality of recruitments and reducing administrative burden and lead-time. Those measures include: • Standardized involvement of HR staff in all selection procedures from start to finish; • Systematic use of 'kick-off' meetings informing selection committees of all relevant regulatory, procedural and administrative requirements; • Introduction and reliance on compliance checklists; • Inclusion of trainings on selection bias into the F4E training offer. Those measures have been consolidated in the revised internal and external selections standard operating procedures adopted in January 2020. | Completed |

| # | # Observation of the Discharge Authority | Response and measures taken by Fusion for Energy (F4E) | Status |
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| 2 | Notes that, at the end of 2018, the Joint Undertaking had 1 women and 284 men on its establishment plan, with m occupying the majority of posts in three out of the five st categories, while over 50 % of Union contract agents a officials in assistant posts are women; notes also that Member States were represented among the Joundertaking's staff, that most members of staff came from three Member States, and that four members of staff eacame from a further four Member States; urges the Joundertaking to seek a more balanced geographic representation, while acknowledging that this depends applicants for vacancies and those responding to requests expression of interest; | Germany are the 5 most represented countries in terms of nationality of the F4E staff members. The F4E senior management is aware of the unbalanced figures and is very committed to enhance diversity. In April 2020, F4E approved a strategy on Diversity, Equal opportunities and non-discrimination, which contains ambitious measures in particular in the fields of geographical balance and gender equality. Those include actions such as sending the F4E vacancies to the Industrial Liaison Officers for dissemination in their countries, F4E participation in events such as job fairs organised by the universities of the underrepresented countries in F4E or awareness-raising trainings on the business case for diversity targeting members of Selection Committees. | Ongoing |
| 2 | Notes that the Joint Undertaking has not consistently follow up on the declarations of interests from senior managements with appreciation that the Joint Undertaking helaborated and put in place some documents with regard to management of general declaration of interest of all management in accordance with Article 13 of the Joint Undertaking conflicts of interests rules; furthermore, observes that January 2019 the ethics officer gave a presentation session this topic to all managers; | nt; as ne rs F4E agrees, no measures required y's in | |

| # | Observation of the Discharge Authority | Response and measures taken by Fusion for Energy (F4E) | Status |
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| 24 | Observes that on 25 January 2018, the General Court delivered its judgement annulling the results of the selection procedure including the decisions to appoint successful candidates from the reserve lists of selection procedure; notes that although the Advocate General's opinion on 29 January 2019 supported the Joint Undertaking's appeal to the Court of Justice of the European Union (Court of Justice) in April 2018 and suggested that the Court of Justice overturn the General Court's judgement with regard to the annulment of decisions to appoint successful candidates but not the reserve list, the Court of Justice upheld the General Court's judgment ² ; asks the Joint Undertaking to comply with the rules of the selection procedure in order to avoid any future challenges and litigation; | In order to enhance compliance and avoid future challenges and litigation, F4E has taken measures to improve staff selection procedures by enhancing compliance and quality of recruitments. Those measures include: • Standardized involvement of HR staff in all selection procedures from start to finish; • Systematic use of 'kick-off' meetings informing selection committees of all relevant regulatory, procedural and administrative requirements; • Introduction and reliance on compliance checklist; • Inclusion of trainings on selection bias into the F4E training offer. Those measures have been consolidated in the revised internal and external selections standard operating procedures adopted in January 2020. | Completed |
| 25 | Notes that shortcomings in the internal communication strategies did not ensure the dissemination of appropriate information on the estimated costs of the decommissioning phase within the organisation and, therefore, the Joint Undertaking disclosed no provision for such liability in the accounts of the previous years, which have been estimated in EUR 85 200 000; however, welcomes the Joint Undertaking's reply that the shortcomings have been already addressed by two actions; that the senior management transmits to the accounting officer any relevant information and that the internal process 'PM-76 Annual Accounts-opening/closure of financial year' was updated in May 2019; | F4E agrees, no measures required | |
| 26 | Notes that during 2018, 55 operational procurement procedures were launched, and 69 operational procurement contracts were signed, while a total of one grant procedure was launched and two were signed. | F4E agrees, no measures required | |

² Judgment of the Court of Justice of 8 May 2019, European Joint Undertaking for ITER and the Development of Fusion Energy v Yosu Galocha, C-243/18 P ECLI:EU:C:2019:378.