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Proposal for a

**COUNCIL DECISION**

**on the adoption of the 2016-2019 High Flux Reactor supplementary research programme to be implemented by the Joint Research Centre for the European Atomic Energy Community**

## EXPLANATORY MEMORANDUM

### 1. CONTEXT OF THE PROPOSAL

#### **Reasons for and objectives of the proposal**

The HFR is used by the Commission in accordance with the agreement between Euratom and The Netherlands of 25 July 1961. This agreement was signed for a period of 99 years. In order to execute it, the two parties concluded a long lease for 99 years conferring a right *in rem* ("bail emphytéotique") on 31 October 1962.

HFR plays an important role in the European Union. The main goal of the supplementary research programme of the HFR is to provide a steady and reliable neutron flux for experimental purposes. The investigated domains are: nuclear materials and fuel science with the aim to improve the safety of nuclear reactors (both fission and fusion), investigations on reactor ageing and life management, research on advanced fuel cycles and waste management. The HFR acts also as a training facility hosting doctoral and post-doctoral fellows which perform their research activities through national or European Programmes.

The reactor is also used for the commercial production of radio-isotopes which cover more than 60% of all the 10 million medical diagnoses executed each year in Europe. It is a fundamental supplier for European radiopharmaceutical companies in this field. Moreover, through its location in Europe, the production of the reactor is rapidly directed to the European medical centres. This is essential for the most currently used short-life isotopes.

The operation of the Community's High Flux Reactor (HFR) has been supported by a series of supplementary research programmes.

On 13 November 2012, the Council adopted a four-year (2012-2015) supplementary research programme (Council Decision 2012/709/Euratom - OJ L321/59, 20.11.2012) to be implemented by the Joint Research Centre (JRC) for the European Atomic Energy Community on the operation of the reactor located at the JRC site in Petten, The Netherlands. The contribution for the 2012-2015 supplementary research programme came from three participating Member States: The Netherlands, France and Belgium with a total budget of EUR 31.4 million in the four-year period. This amount included the provisions for the annual contributions to the decommissioning fund of the reactor. The current supplementary research programme has expired on the 31 December 2015.

This proposal for a Council Decision concerns a new four-year programme for the HFR operation (2016-2019) based on research activities of the Nuclear Research and consultancy Group – NRG (The Netherlands) and the Commissariat à l'énergie atomique et aux énergies alternatives - CEA (France). The contribution for the 2016-2019 supplementary research programme will be EUR 30.2 million in the four-year period, provided that the HFR will continue to be in regular operation and maintenance. This amount will include the provisions for the annual contributions to the decommissioning fund of the reactor. If during the period 2016-2019, an official notification of definitive shutdown is issued by the operator NRG to the national safety authorities prior to the declaration of safe conservation state, the payments that remain to be effected as well as the calls for funds by the Commission will be suspended.

- **Consistency with existing policy provisions in the policy area**

N.A

- **Consistency with other Union policies**

N.A

## **2. LEGAL BASIS, SUBSIDIARITY AND PROPORTIONALITY**

- **Legal basis**

The proposal is based on Article 7 of the Euratom Treaty.

- **Subsidiarity (for non-exclusive competence)**

N.A

- **Proportionality**

N.A.

- **Choice of the instrument**

N.A

## **3. RESULTS OF EX-POST EVALUATIONS, STAKEHOLDER CONSULTATIONS AND IMPACT ASSESSMENTS**

- **Ex-post evaluations/fitness checks of existing legislation**

N.A

- **Stakeholder consultations**

Among the Member States consulted in view of their research activities in the nuclear field, two Member States (The Netherlands and France) agreed to contribute to the financing of the HFR.

- **Collection and use of expertise**

N.A

- **Impact assessment**

N.A

- **Regulatory fitness and simplification**

N.A

- **Fundamental rights**

N.A

## **4. BUDGETARY IMPLICATIONS**

In its financial statement, this new supplementary programme shows the contribution to come from two participating Member States, namely The Netherlands and France. The contributions from these two Member States amount to EUR 30.2 million for the period 2016-2019. These amounts plus the expected level of commercial income ensure a sufficient operational budget in order to balance the forecasted costs of the reactor on the period 2016-2019. It should be noted that the budget includes provisions for the decommissioning of the reactor, as well as costs linked to general support HFR, utilities, insurances and spent fuel management.

The Commission confirms the declaration recorded in the minutes of the Council meeting of 27 June 1996, by which it stated that "the HFR can contribute, on the basis of adequate

financing, to the execution of Community programmes, whether or not in the context of the Framework Programmes. This participation will take place either on a competitive basis or by means of irradiation services to JRC Institutes during the implementation of their respective activities". This means that the Commission will not contribute to the operational cost of the HFR with funds from its institutional budget, including any cost for maintenance or repair of the reactor.

## **5. OTHER ELEMENTS**

- **Implementation plans and monitoring, evaluation and reporting arrangements**

N.A

- **Detailed explanation of the specific provisions of the proposal**

N.A

Proposal for a

## COUNCIL DECISION

**on the adoption of the 2016-2019 High Flux Reactor supplementary research programme to be implemented by the Joint Research Centre for the European Atomic Energy Community**

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Atomic Energy Community, and in particular Article 7 thereof,

Having regard to the proposal from the European Commission,

After consultation of the Scientific and Technical Committee<sup>1</sup>,

Whereas:

- (1) Within the framework of the European Research Area, the high flux reactor at Petten (hereinafter 'HFR') has been, and continues to be for some time, an important means available to the Community to contribute to materials sciences and testing, to nuclear medicine and to reactor safety research in the field of nuclear energy.
- (2) The operation of the HFR has been supported by a series of supplementary research programmes the last of which, Council Decision 2012/709/Euratom of 13 November 2012 on the adoption of the 2012-2015 High Flux Reactor supplementary research programme to be implemented by the Joint Research Centre for the European Atomic Energy Community<sup>2</sup>, has expired on 31 December 2015.
- (3) The operation of the HFR continued throughout 2016 without a supplementary research programme, pending negotiations between the entities mandated by the financing Member States. Since those efforts have resulted in the agreement between the two national entities mentioned in whereas 6), it is necessary to provide for continued financial support under a new supplementary research programme.
- (4) In order to ensure a continuity between the supplementary research programmes and a smooth operation of the 2016-2019 HFR supplementary research programme, this Decision should apply from 1 January 2016. Part of the contributions under the present supplementary programme should also cover expenditure made during the year 2016.
- (5) Given the continued need for the HFR as an irreplaceable infrastructure for Community research in the fields of improvement of safety of nuclear reactors, health including the development of medical isotopes to answer questions of medical research, nuclear fusion, fundamental research, training and waste management including the possibility to study the safety behaviour of nuclear fuels for reactor systems of interest to Europe, its operation should continue under this supplementary research programme until the end of 2019.

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<sup>1</sup> Minutes of the Scientific and Technical Committee Meeting held on 13-15 June 2016

<sup>2</sup> OJ L 321, 20.11.2012, p.59

- (6) Due to their special interest in the irradiation capabilities of the HFR, the Nuclear Research and consultancy Group – NRG (The Netherlands) and the Commissariat à l'énergie atomique et aux énergies alternatives - CEA (France) , have reached an agreement and will entirely finance this programme through contributions made to the general budget of the European Union by way of assigned revenue,
- (7) The contribution is aimed at financing the operation of the HFR in order to support the performance of a research programme; as such, it is based on the assumption of the regular operation and maintenance of the HFR. An official notification of definitive shutdown by the operator NRG to the national safety authorities prior to the declaration of safe conservation state will suspend the payments that remain to be effected and the calls for funds by the Commission,

HAS ADOPTED THIS DECISION:

#### *Article 1*

The supplementary research programme on the operation of the HFR, (hereinafter referred to as 'the programme'), the objectives of which are set out in Annex I, is adopted for a period of four years, starting on 1 January 2016.

#### *Article 2*

The costs for the execution of the programme, estimated at EUR 30.2 million, shall be financed entirely out of contributions from NRG (The Netherlands) and CEA (France). The breakdown of this amount is set out in Annex II. This contribution shall be considered as assigned revenue in accordance with Article 21(2) of Council Regulation (EC, Euratom) No 966/2012<sup>3</sup>.

#### *Article 3*

1. The Commission shall be in charge of the management of the programme. To this end, it shall call upon the services of the Joint Research Centre.
2. The Board of Governors of the Joint Research Centre shall be kept informed of the implementation of the programme.

#### *Article 4*

An official notification of definitive shutdown to the national safety authorities (prior to the declaration of safe conservation state) will suspend the payments that remain to be effected and the calls for funds by the Commission.

#### *Article 5*

The Commission shall submit to the European Parliament and to the Council, a final report on the implementation of this Decision.

#### *Article 6*

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<sup>3</sup> OJ L 298, 26.10.2012, p. 1.

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

It shall apply from 1 January 2016.

*Article 6*

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 in the ABM/ABB structure
- 1.3. Nature of the proposal/initiative
- 1.4. Objective(s)
- 1.5. Grounds for the proposal/initiative
- 1.6. Duration and financial impact
- 1.7. Management mode(s) planned

### **2. MANAGEMENT MEASURES**

- 2.1. Monitoring and reporting rules
- 2.2. Management and control system
- 2.3. Measures to prevent fraud and irregularities

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

- 3.1. Heading(s) of the multiannual financial framework and expenditure budget line(s) affected
- 3.2. Estimated impact on expenditure
  - 3.2.1. *Summary of estimated impact on expenditure*
  - 3.2.2. *Estimated impact on operational appropriations*
  - 3.2.3. *Estimated impact on appropriations of an administrative nature*
  - 3.2.4. *Compatibility with the current multiannual financial framework*
  - 3.2.5. *Third-party contributions*
- 3.3. Estimated impact on revenue

## LEGISLATIVE FINANCIAL STATEMENT FOR PROPOSALS

### FRAMEWORK OF THE PROPOSAL/INITIATIVE

#### Title of the proposal/initiative

The 2016-2019 High Flux Reactor supplementary research programme to be implemented by the Joint Research Centre for the European Atomic Energy Community

#### Policy area(s) concerned in the ABM/ABB structure

Title 10: Direct Research Activity  
Chapter 10 04: Other activities of the Joint Research Centre  
Article 10 04 04: Operation of the high-flux reactor (HFR)

#### Nature of the proposal/initiative

- The proposal/initiative relates to **a new action**
- The proposal/initiative relates to **a new action following a pilot project/preparatory action**
- The proposal/initiative relates to **the extension of an existing action**
- The proposal/initiative relates to **an action redirected towards a new action**

#### Objectives

*The Commission's multiannual strategic objective(s) targeted by the proposal/initiative*

The High-Flux-Reactor (HFR) plays an important role in the European Union in support to medical radioisotope production, safe nuclear technologies, in the research fields of nuclear plants ageing and life extension, transmutation of long-lived actinides in view of a better safety of waste storage, improvement of the fuel safety, and fuel safety studies for the new safer reactors.

Moreover, fundamental research makes use of neutron beams for the study of the structure of materials. This activity is under permanent development and contributes to the understanding of degradation mechanisms and their mitigation relevant to the safety of existing plants. In the framework of the thermonuclear fusion, several projects are implemented to test structural and breeding materials for future fusion reactors.

*Specific objective(s) and ABM/ABB activity(ies) concerned*

The main objective of the HFR Supplementary Programme is the safe and reliable operation of the HFR. This activity involves the normal use of the installation for a maximum operational period, and the delivery of a neutron flux for experiments and medical isotope production

*Expected result(s) and impact*

Irradiation data and results in a broad range of disciplines such as: improvement of safety of nuclear reactors, the development of medical isotopes to answer the questions and needs of medical research, research on fusion reactor materials, fundamental nuclear research and training, waste management issues and nuclear fuels for new safer generation of reactor systems.

### *Indicators of results and impact*

The obligations of the Commission consist in managing the supplementary research programme and consequently in reporting on the technical status of the reactor operation, its scientific use, and its budgetary situation. A final report will be prepared by JRC and will cover the following items:

- technical reporting providing the HFR operational data;
- summary description of the main scientific achievements;
- status of the maintenance and repair activities;
- budgetary status as far as the income from Member States and the use of the supplementary research programme budget is concerned (including provisions for decommissioning, management costs, payment to the operator, etc.).

### **Grounds for the proposal/initiative**

#### *Requirement(s) to be met in the short or long term*

The HFR aims to support research and development activities of the participant Member States in the fields of: safety of nuclear installations and fuel cycle, waste management, thermonuclear fusion, fundamental research and training capabilities.

The HFR remains active in improving safety of reactors. The co-ordination of efforts, dissemination of results and support to harmonisation are carried out through European networks.

The HFR also aims to provide medical radioisotopes

#### *Added value of EU involvement*

The added value of HFR research activities is linked to cross border effects, economies of scale, contributing to the reduction of national investments in research. Intervention at European level is justified in the nuclear field.

The reactor is also used for the commercial production of radio-isotopes for more than 60% of the 10 million medical diagnoses executed each year in Europe. It is a very important facility for the European Medical Sector (hospitals, clinics, doctors...) as the radio-isotopes are used in various medical fields but mostly for the prevention and treatment of cancer. There are very few alternatives, as it produces the most currently used short-life isotopes. Through its location in Europe, the production of the reactor is rapidly directed to the European medical centres.

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

The current Technetium Tc-99m supply for medical purposes relies on an unsustainably low number of production reactors among which the HFR. As those reactors were constructed in the 1950s and 1960s, they are approaching the end of their lifespan, which causes an increasing need for planned maintenance shutdowns and a growing frequency of unplanned production interruptions. In mid-May 2009, the Canadian NRU Reactor (a medical isotope producer) went out of operation and remained unavailable for the rest of 2009, triggering a continuous worldwide medical isotope shortage. In 2010, the HFR was shutdown for a repair to the Bottom Plug Liner and its disruption influenced the supply of medical isotopes.

### *Compatibility and possible synergy with other relevant instruments*

The proposed Supplementary Research Programme will address different scientific and technological challenges in order to meet short and long term goals of the Strategic Energy Technology Plan (SET-Plan), the Strategic Nuclear Energy Technology Platform (SNE-TP). It will also have activities closely linked to Horizon 2020 Euratom (2014-2018) and its 2 year extension (2019-2020).

#### **Duration and financial impact**

- Proposal/initiative of **limited duration**
- Proposal/initiative in effect from 01/01/2016 to 31/12/2019
- Financial impact from 2016 to 2019

#### **Management mode(s) envisaged**

- Centralised direct management** by the Commission

#### Comments

The Commission is the owner of the HFR in accordance with the agreement between Euratom and The Netherlands of 25 July 1961 (lease of 99 years). The operation of the HFR lies under the responsibility of the operation licence holder NRG (NL) which allows an operation/exploitation based on an independent and sustainable legal regime. The supplementary research programme, managed by the JRC, provides extra income dedicated to research for the financing Member States.

### **MANAGEMENT MEASURES**

#### **Monitoring and reporting rules**

The obligations of the Commission consist in managing the supplementary research programme and consequently in reporting on:

- (i) the technical status of the reactor operation,
- (ii) its scientific use,
- (iii) its budgetary situation as regard the financial income from Member States and
- (iv) the payments made.

The programme is included in the ABM planning cycle of the JRC and in the Annual Management Plan. As a consequence the monitoring of stated objectives will be included in the JRC Annual Activity Report.

In addition an final report will be prepared by JRC. It will be dedicated to the management of the supplementary research programme, and will cover the following items:

- technical reporting providing the HFR operational data;
- summary description of the main scientific achievements;
- status of the maintenance activities;
- budgetary status as far as the income from Member States and the use of the supplementary research programme budget is concerned (including provisions for decommissioning, management costs, etc.).

## Management and control system

### *Risk(s) identified*

This program is the continuation of a previous supplementary research programme. The preparation of it was the subject of an internal assessment by the participant Member States who evaluated the risks to participate in it.

### *Information concerning the internal control system set up*

The reporting will be dedicated to the management of the supplementary research programme, and will cover the technical, scientific and budgetary issues (including provisions for decommissioning, etc.).

### *Estimate of the costs and benefits of the controls and assessment of the expected level of*

Not applicable

## Measures to prevent fraud and irregularities

Audit and internal control of the reporting mentioned above are carried out by JRC officers, covering both the technical and budgetary aspects. Access to all audits and internal controls will be provided to the Court of Auditors.

Appropriate measures will continue to be taken to prevent irregularities and fraud and the necessary steps shall be taken to recover funds lost, wrongly paid or incorrectly used in accordance with Council Regulation (EC, EURATOM) No 1605/2002 of 25 June 2002 on the Financial Regulation applicable to the general budget of the European Communities, Commission Regulation (EC, EURATOM) No 2342/2002 of 23 December 2002 laying down detailed rules for implementation of the Financial Regulation, Council Regulations (EC, Euratom) No 2988/95 of 18 December 1995 on the protection of the European Communities financial interests<sup>4</sup>, (EC, Euratom) No 2185/96 of 11 November 1996 concerning on-the-spot checks and inspections carried out by the Commission in order to protect the European Communities' financial interests against fraud and other irregularities<sup>5</sup> and Regulation (EC) No 1073/1999 of the European Parliament and of the Council concerning investigations conducted by the European Anti-Fraud Office (OLAF)<sup>6</sup>.

Control of the circulation of fissile materials is covered by Euratom and the IAEA.

<sup>4</sup> OJ L 312, 23.12.1995, p. 1.

<sup>5</sup> OJ L 292, 15.11.1996, p. 2.

<sup>6</sup> OJ L 136, 31.5.1999, p. 1.

**ESTIMATED FINANCIAL IMPACT OF THE PROPOSAL/INITIATIVE**

**Heading(s) of the multiannual financial framework and expenditure budget line(s) affected**

Existing expenditure budget lines

In order of multiannual financial framework headings and budget lines.

Heading of multiannual financial framework	Budget line	Type of expenditure	Contribution			
	Number - Description.....	DA/NDA	from EFTA countries	from candidate countries	from third countries	within the meaning of Article 21(2)(b) of the Financial Regulation
1a	Article 10 04 04 - Operation of the high-flux reactor (HFR) Item 10 04 04 01 - Operation of the high-flux reactor (HFR) - Supplementary HFR programme	DA	NO	NO	NO	YES

New budget lines requested

Not applicable

## Estimated impact on expenditure

Summary of estimated impact on expenditure

EUR million (to 3 decimal places)

<b>Heading of multiannual financial framework:</b>	1a	<b>"Competitiveness for Growth and Employment"</b>						
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DG: JRC			Year 2016	Year 2017	Year 2018	Year 2019	Year ≥ 2019	TOTAL
Operational appropriations								
Number of budget line: 10 04 04 01	Commitments	(1)	p.m.	p.m.	p.m.	p.m.		p.m.
	Payments	(2)	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.
Appropriations of an administrative nature financed from the envelop of specific programs								
Number of budget line: Not applicable		(3)	p.m.	p.m.	p.m.	p.m.		p.m.
<b>TOTAL appropriations for DG JRC</b>	Commitments	=1 +3	p.m.	p.m.	p.m.	p.m.		p.m.
	Payments	=2 +3	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.

• TOTAL operational appropriations	Commitments	(4)	p.m.	p.m.	p.m.	p.m.		p.m.
	Payments	(5)	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.
• TOTAL appropriations of an administrative nature financed from the envelop of specific programs		(6)	p.m.	p.m.	p.m.	p.m.		p.m.
<b>TOTAL appropriations under HEADING 1a of the multiannual financial framework</b>	Commitments	=4+ 6	p.m.	p.m.	p.m.	p.m.		p.m.
	Payments	=5+ 6	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.

**If more than one heading is affected by the proposal / initiative:**

• TOTAL operational appropriations	Commitments	(4)	p.m.	p.m.	p.m.	p.m.		p.m.
	Payments	(5)	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.
• TOTAL appropriations of an administrative nature financed from the envelop of specific programs		(6)	p.m.	p.m.	p.m.	p.m.		p.m.
<b>TOTAL appropriations under HEADINGS 1 to 4</b> of the multiannual financial framework (Reference amount)	Commitments	=4+ 6	p.m.	p.m.	p.m.	p.m.		p.m.
	Payments	=5+ 6	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.

<b>Heading of multiannual financial framework:</b>	<b>5</b>	"Administrative expenditure"
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EUR million (to 3 decimal places)

DG: JRC		Year 2016	Year 2017	Year 2018	Year 2019	Year ≥ 2019	TOTAL
• Human resources		n/a	n/a	n/a	n/a	n/a	n/a
• Other administrative expenditure		n/a	n/a	n/a	n/a	n/a	n/a
<b>TOTAL DG JRC</b>	Appropriations	n/a	n/a	n/a	n/a	n/a	n/a

<b>TOTAL appropriations under HEADING 5</b> of the multiannual financial framework	(Total commitments = Total payments)	n/a	n/a	n/a	n/a	n/a	n/a
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EUR million (to 3 decimal places)

	Year 2016	Year 2017	Year 2018	Year 2019	Year ≥ 2019	TOTAL

<b>TOTAL appropriations under HEADINGS 1 to 5</b> of the multiannual financial framework	Commitments	p.m.	p.m.	p.m.	p.m.		p.m.
	Payments	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.

*Estimated impact on operational appropriations*

The proposal/initiative does not require the use of operational appropriations

The proposal/initiative requires the use of operational appropriations, as explained below:

Commitment appropriations in EUR million (to 3 decimal places)

Indicate objectives and outputs ↓			Year 2016	Year 2017	Year 2018	Year 2019	TOTAL					
	OUTPUTS											
	Type of output	Average cost of the output	Number of outputs	Cost	Number of outputs	Cost	Number of outputs	Cost	Number of outputs	Cost	Total number of outputs	Total cost
SPECIFIC OBJECTIVE: Safe and reliable operation of the HFR												
- Output	Full-power operation days	n/a	250	p.m.	250	p.m.	250	p.m.	250	p.m.	1 000	p.m.
Sub-total for specific objective			250	p.m.	250	p.m.	250	p.m.	250	p.m.	1 000	p.m.
<b>TOTAL COST</b>				p.m.		p.m.		p.m.		p.m.		p.m.

*Estimated impact on appropriations of an administrative nature*

Summary

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

EUR million (to 3 decimal places)

	Year 2016	Year 2017	Year 2018	Year 2019	Year ≥ 2019	TOTAL
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<b>HEADING 5 of the multiannual financial framework</b>						
Human resources						
Other administrative expenditure						
<b>Subtotal HEADING 5 of the multiannual financial framework</b>						

<b>Outside HEADING 5 of the multiannual financial framework</b>						
Human resources						
Other expenditure of an administrative nature						
<b>Subtotal outside HEADING 5 of the multiannual financial framework</b>						

<b>TOTAL</b>						
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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 amounts (or at most to one decimal place)*

	Year 2016	Year 2017	Year 2018	Year 2019
• Establishment plan posts (officials and temporary agents)				
XX 01 01 01 (Headquarters and Commission's Representation Offices)				
XX 01 01 02 (Delegations)				
XX 01 05 01 (Indirect research)				
10 01 05 01 (Direct research)				
• External personnel (in Full Time Equivalent unit: FTE)				
XX 01 02 01 (CA, INT, SNE from the "global envelope")				
XX 01 02 02 (CA, INT, JED, LA and SNE in the delegations)				
XX 01 04 yy	- at Headquarters			
	- in delegations			
XX 01 05 02 (CA, INT, SNE - Indirect research)				
10 01 05 02 (CA, INT, SNE - Direct research)				
Other budget lines (specify)				
<b>TOTAL</b>				

**XX** is the policy area or budget title concerned.

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.

Description of tasks to be carried out:

Officials and temporary agents	The only task performed by the JRC is the management of the Supplementary Programme. This is performed by means that are fully financed by assigned revenue coming from the Supplementary Research Programme
External personnel	Not applicable

*Compatibility with the current multiannual financial framework*

- Proposal/initiative is compatible the current multiannual financial framework.
- Proposal/initiative will entail reprogramming of the relevant heading in the multiannual financial framework.

Not applicable

- Proposal/initiative requires application of the flexibility instrument or revision of the multiannual financial framework.

Not applicable

*Third-party contributions*

- The proposal/initiative does not provide for co-financing by third parties
- The proposal/initiative provides for the co-financing estimated below:

Appropriations in EUR million (to 3 decimal places)

	Year 2016	Year 2017	Year 2018	Year 2019	Total
<i>The Netherlands</i>	<b>7,250</b>	<b>7,250</b>	<b>7,250</b>	<b>7,250</b>	<b>29,000</b>
<i>France</i>	<b>0,300</b>	<b>0,300</b>	<b>0,300</b>	<b>0,300</b>	<b>1,200</b>
TOTAL appropriations co-financed	<b>7,550</b>	<b>7,550</b>	<b>7,550</b>	<b>7,550</b>	<b>30,200</b>

The Supplementary Research Programme only requires a budgetary structure (p.m.) intended to receive appropriations of earmarked nature from the participants. The above amounts have been calculated by the concerned Member States in order to balance the forecasted costs of the reactor on the period 2016-2019 taking into account an expected level of commercial incomes. In no case will the Commission cover any operational deficit, including potential costs for maintenance or repair.

**Estimated impact on revenue**

- Proposal/initiative has no financial impact on revenue.
- Proposal/initiative has the following financial impact:
  - on own resources
  - on miscellaneous revenue

EUR million (to 3 decimal places)

Budget revenue line:	Appropriations available for the ongoing budget exercise	Impact of the proposal/initiative			
		Year 2016	Year 2017	Year 2018	Year 2019
Item 6 2 2 1		p.m.	p.m.	p.m.	p.m.

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

Item 6 2 2 1 - Revenue from the operation of the high-flux reactor (HFR) to be used to provide additional appropriations — Assigned revenue

Specify the method for calculating the impact on revenue.

The supplementary research programme is financed by contributions coming from the participant Member States, calculated on the basis of the budget in the period 2012-2015.

**ANNEX to**  
**the LEGISLATIVE FINANCIAL STATEMENT**

Name of the proposal/initiative:

The 2016-2019 High Flux Reactor supplementary research programme to be implemented by the Joint Research Centre for the European Atomic Energy Community

NUMBER and COST of HUMAN RESOURCES CONSIDERED NECESSARY

COST of OTHER EXPENDITURE of an ADMINISTRATIVE NATURE

METHODS used for the CALCULATION of COSTS

Relating to human resources

Relating to other administrative expenditure

*This annex will accompany the legislative financial statement during the inter-services consultation.*

*The tables included in the present serve to fill in the tables in the legislative financial statement.*

*The present annex is an internal document to be kept within Commission services.*

### Number and cost of human resources considered necessary

- The proposal/initiative does not require the use of human resources  
 The proposal/initiative requires the use of human resources, described as follows:

EUR million (to 3 decimal places)

HEADING 5 of the multiannual financial framework	Year 2016		Year 2017		Year 2018		Year 2019		TOTAL	
	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations
<b>• Establishment Plan Posts (officials and temporary agents)</b>										
XX 01 01 01 (at headquarters and in Commission representation offices in Member States)	AD									
	AST									
XX 01 01 02 (in delegations)	AD									
	AST									
<b>• External personnel</b>										
XX 01 02 01 (the global envelop)	CA									
	INT									
	SNE									
XX 01 02 02 (in delegations)	CA									
	INT									
	JED									
	LA									
	SNE									
Other budget line (please specify)										
<b>Sub-total – HEADING 5</b> of the multiannual financial framework										

XX is the policy area or budget title concerned

EUR million (to 3 decimal places)

Outside HEADING 5 of the multiannual financial framework		Year 2016		Year 2017		Year 2018		Year 2019		TOTAL	
		FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations
<b>• Establishment Plan Posts (officials and temporary agents)</b>											
XX 01 05 01 (indirect Research)	AD										
	AST										
10 01 05 01 (direct Research)	AD										
	AST										
<b>• External personnel</b>											
XX 01 04 yy Appropriations for external personnel authorised on former "BA" lines	At headquarters	CA									
		INT									
		SNE									
	In delegations	CA									
		INT									
		JED									
		LA									
		SNE									
XX 01 05 02 (Indirect research)	CA										
	INT										
	SNE										
10 01 05 02 (Direct research)	CA										
	INT										
	SNE										
Other budget line (please specify)											
<b>Sub-total – Outside HEADING 5</b>											

of the multiannual financial framework											
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<b>TOTAL HEADING 5 and Outside HEADING 5</b> of the multiannual financial framework											
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The JRC manages the HFR by means of 2 individuals that are fully financed by assigned revenue coming from the Supplementary Research Programme.

## Cost of other expenditure of an administrative nature

- The proposal/initiative does not require the use of any appropriation of an administrative nature  
 The proposal/initiative requires the use of appropriations of an administrative nature, described as follows:

EUR million (to 3 decimal places)

	Year 2016	Year 2017	Year 2018	Year 2019	TOTAL
<b>HEADING 5</b> of the multiannual financial framework					
<b>At headquarters:</b>					
XX 01 02 11 01 - Missions and representation costs					
XX 01 02 11 02 - Conferences and meetings					
XX 01 02 11 03 - Meetings of Committees					
XX 01 02 11 04 - Studies and consultations					
XX 01 02 11 05 - Management & information IT systems					
XX 01 02 11 06 - Further training					
XX 01 03 01 03 - Equipment and furniture					
XX 01 03 01 04 - Services & other operating expenditure					
Other budget line <i>(please specify)</i>					
<b>In delegations:</b>					
XX 01 02 12 01 - Missions, conferences and representation costs					
XX 01 02 12 02 - Further training of staff					
XX 01 03 02 01 - Acquisition, renting and related expenditure					
XX 01 03 02 02 - Equipment, furniture, supplies and services					
<b>Sub-total HEADING 5</b> of the multiannual financial framework					

XX is the policy area or budget title concerned

EUR million (to 3 decimal places)

	Year 2016	Year 2017	Year 2018	Year 2019	TOTAL
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<b>Outside HEADING 5</b> of the multiannual financial framework					
<b>XX</b> 01 04 <b>yy</b> - Administrative and technical assistance ( <u>excluded</u> external personnel), financed by operational appropriations (former "BA" lines)					
- at Headquarters					
- in delegations					
<b>XX</b> 01 05 03 – other management expenditure for indirect research					
10 01 05 03 - other management expenditure for direct research					
Other budget line ( <i>please specify</i> )					
<b>Sub-total Outside HEADING 5</b> of the multiannual financial framework					

**XX** is the policy area or budget title concerned

<b>TOTAL</b> <b>HEADING 5 and Outside HEADING 5</b> of the multiannual financial framework					
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The administrative appropriations required will be met by the appropriations which are already assigned to management of the action and/or which have been redeployed, 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 existing budgetary constraints.



## Methods of calculation used to estimate costs

### Relating to human resources

*Give details of the method of calculation used for each category of staff (assumptions, average costs, etc.)*

<b>HEADING 5</b> of the multiannual financial framework
Reminder: Average costs for each category of staff are available on the BudgWeb site: <a href="http://www.cc.cec/budg/pre/legalbasis/pre-040-020_preparation_en.html#forms">http://www.cc.cec/budg/pre/legalbasis/pre-040-020_preparation_en.html#forms</a>
<ul style="list-style-type: none"><li>• relating to establishment plan posts (officials and temporary agents)</li></ul>
Not applicable
<ul style="list-style-type: none"><li>• relating to external personnel</li></ul>
Not applicable

<b>Outside HEADING 5</b> of the multiannual financial framework
<ul style="list-style-type: none"><li>• relating to establishment plan posts (Research officials and temporary agents)</li></ul>
Not applicable
<ul style="list-style-type: none"><li>• relating to external personnel</li></ul>
Not applicable

### Relating to expenditure of an administrative nature

*Give details of the method of calculation used for each budget line,  
underlying assumptions (e.g. number of meetings per year, average costs, etc.)*

<b>HEADING 5</b> of the multiannual financial framework
Not applicable

<b>Outside HEADING 5</b> of the multiannual financial framework
Not applicable