

# Open Call for Fusion Technology Transfer Demonstrator Proposals

## General information and instructions

### October 2022

As part of the efforts to facilitate the use of fusion technologies and know-how, Fusion for Energy with the support of In Extenso Innovation Croissance launches an Open Call for Fusion Technology Transfer Demonstrator Proposals to support the integration of fusion solutions in non-fusion applications. This document describes the general information and rules of participation.

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# Summary

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# Introduction

Fusion for Energy (F4E) is the European Union organisation managing Europe's contribution to ITER— the biggest scientific experiment on the path to fusion energy. F4E's mission is to bring fusion, the energy of the Sun and the stars, to Earth. To do so, F4E is working closely with industry and research organisations to provide the infrastructure and the components of the biggest fusion device in the world.

- F4E's Technology Transfer Programme has established initiatives for fusion technologies and skills to be identified and adapted for non-fusion use that result in commercially viable products. It aims to identify the business potential of fusion technologies, facilitate their commercial use and promote their transfer within the European industry.
- The Technology Transfer Programme is open to all companies looking for new business opportunities based and to entrepreneurs, scientists and businesses willing to integrate fusion technologies and skills in the development of non-fusion products or services.
- As part of the efforts to promote the use of fusion technologies and skills, F4E with the support of In Extenso Innovation is launching an Open Call for Technology Transfer Demonstrator Proposals.

Through this Call, In Extenso Innovation and the F4E Technology Transfer Programme invite Applicants to submit proposals for demonstrators regarding the further use or adaptation of a fusion-based technology and skill into a new product or service in non-fusion applications. The Call allows entities from the fusion sector (F4E's Industrial Partners) and the non-fusion sectors to submit proposals. Projects where the technology transfer case occurs between different business lines of a company are also eligible for this Open Call for proposals.

# 1. Information about the Call

A proposal for a Technology Transfer Demonstrator project (Demonstrator Proposal) shall present a workplan showing how the candidate intends to tackle the challenges of further using a technology, know-how, or skill developed within the fusion field under F4E activities to non-fusion applications, where there is a strong commercial or societal benefit and there is a clear technical risk that can be eliminated. The Demonstrator Proposal may refer to the development and testing of new hardware, manufacturing processes, software, technical solutions related to an F4E project (the ITER project and the Broader Approach project) and with the objective of being effectively used outside the fusion field.

Priority is given to projects where there is a clear non-fusion commercial application with a customer group with defined needs, and for whom the demonstrator may be used to gain commercial traction. The amount of funding available for the technology transfer demonstrator project means that it must be efficiently managed with a clear definition of the technical risk to be tackled. *NOTE: "Technology transfer" encompasses the further use of a fusion technology (know-how, manufacturing processes, methodologies, software, systems, etc.) for which a non-fusion application is proposed.*

**The application period runs between 5th of October 2022 and 17<sup>th</sup> of February 2023.**

**The Evaluation Panel of the call for proposals will select one project to be funded with 35.000 EURO**

**Willing to know if a fusion solution can answer your needs? Potential Applicants are invited to visit the [F4E Technology Portfolio](#) to have more information regarding the technologies and express their interest.**

## 2. Formal requirements, evaluation process and criteria

*This section is meant to inform Applicants of the selection process and evaluation criteria*

### 2.1. Formal requirements

The call is open to European companies and organisations presenting a project where a technology or know-how developed under an F4E project (ITER project or Broader Approach project) is proposed to be used in a non-fusion environment.

The non-fusion application foreseen shall not promote activities, or be related to the military, alcohol, tobacco, religion, politics, intolerance, violence, firearms, pornography, obscenity, gambling or illegal drugs.

The Applicant shall be able to communicate fluently in the English language.

The Applicant must be an entity registered in an F4E Member State.

The Applicant is invited to present the planning limited to 8 months starting on the Technology Transfer Demonstrator Project contract signature date.

### 2.2. Evaluation process

Applicants are invited to submit their proposals to this Call any time before the deadline specified in the present document.

The applications will be evaluated after the closing date of the application period. Applicants may be contacted by IEIC within the application period and within weeks after the closing date to confirm/clarify information.

An Evaluation Board consisting of F4E, European Commission, EUROfusion, and In Extenso Innovation Croissance members will check the exclusion criteria and evaluate the proposal towards the award criteria.

IEIC may contact the applicant to get more information after the submission date and before the awarding.

Upon receipt of all proposals, the evaluation and the selection will be completed within two months. The funded demonstrator project will be published on F4E Marketplace <https://techtransfer.fusionforenergy.europa.eu/> and communicated to the winner.

Upon receiving notice that the application has been unsuccessful the Applicant may request In Extenso Innovation Croissance to advise them orally of the reasons why the application was unsuccessful. The decision on the result of the application will be without appeal, and In Extenso Innovation Croissance will not enter into correspondence on the reasons for the decision.

## 2.3. Evaluation criteria

The proposal shall be evaluated against the criteria and weighting factors, below:

Evaluation criteria	Note	Comment
<b>Feasibility</b>	30%	The Project Management Plan shall establish how the demonstrator project is feasible in budget and schedule and how it overcomes the barriers that hamper the commercial use of a fusion technology in a specific non-fusion application.
<b>Innovation potential</b>	40%	<p>The innovative nature of the technologies, products or services to be offered and the soundness of the technical approach of the technology transfer demonstrator project to reach the non-fusion application.</p> <p>The potential market. Expected time to market of the product/service.</p> <p>The potential of the proposal to increase the Technology Readiness Level, by adapting the technology to the new application and proving that it works.</p> <p>To which extent will the proposal facilitate the commercial use of the technology in the specific non-fusion application.</p>
<b>Socio-economic impact</b>	30%	Potential socio-economic impact of the use of the technology in the non-fusion application. Potential benefits for society, potential job creation, potential advantages, such as faster production, cost reduction, better product, higher safety or comfort of the operations, energy savings, technical improvements in the non-fusion market.

## 3. Instruction for Proposals

*This section is meant to inform Applicants of the required length and content of their Technology Transfer Demonstrator project Proposal. Applicants shall follow the proposal template provided in Annex 1 and 2.*

### 3.1. Length and language of proposals

The proposal shall be submitted in English

The Executive Summary shall be maximum one page.

The application form shall be based on the document 'Proposal template' and shall not be longer than ten (10) pages. Annexes proving the information stated in the application form are allowed.

### 3.2. Submission of the proposals

Applicants will be requested to submit their proposals in English by email to Nicolas LOUEE – Technology Transfer Broker (Nicolas.louee@inextenso-innovation.fr)

### 3.3. Content of proposals

#### **Cover Letter (see Annex 1)**

- The Applicant is asked to introduce the application with a cover letter.
- The cover letter shall include a statement that the proposal is valid for a minimum period of 6 months from the date of its submission
- The cover letter shall be referenced and dated;
- It shall provide the name, address, fax- and telephone number of the Applicant to whom all communications relating to the Call for proposal shall be addressed;
- It shall provide a clear statement of compliance with the requirements set out in this Call;
- It shall provide a clear statement that the draft Contract has been read, understood and accepted;
- It shall provide the total cost for the execution of the proposed activity;
- It shall provide the details of the contract with the subcontractors if any
- The cover letter shall be signed by the legal representative
- The project shall not last more than 8 (eight) months starting at contract signature date.

#### **Executive Summary (see Annex 2 Point 1)**

The Applicant is asked to produce an executive summary which may be published by In Extenso Innovation Croissance and F4E. The executive summary shall cover the following aspects, in maximum one page:

- Descriptive Title: *Provide an easily understandable title*

- The fusion origin/heritage of the technology that has been developed (please clarify if there is a link with ITER the Broader Approach)
- Non-fusion application: *Indicate which non-fusion market opportunity has been identified (including any potential customer relationships) and how the selected technology or know-how may provide significant advantage for this application.*
- Work Implementation: *Describe the technological steps to be made during the implementation of the Technology Transfer Demonstrator project and precise the material, financial, and human resources to be provided by the Applicant to support the implementation of the Technology Transfer Demonstrator and to achieve commercial use of the technology.*
- *Precise if there will be support or collaboration of a third party and, in that case, make sure a copy of the commitment to the demonstrator project and to the transfer of the technology to a non-fusion application is attached to the proposal (e.g. letter of intent, service contract).*

### **Full Proposal (see Annex 2 Point 2)**

The proposal shall cover the following aspects; it shall not be longer than 10 pages, excluding cover letter and annexes.

- Origin and description of the fusion technology,
  - *Indicate in which F4E activity the technology or know-how was initially developed or incorporated to.*
  - *Describe briefly the technology (mention if possible if the fusion development has generated or is covered by an Intellectual Property right)*
  - *Precise the Technology Readiness Level (TRL) reached for the fusion application.*
- Objective of the demonstrator.
  - *Which is the technical risk the demonstrator would mitigate, or which is the technical objective the demonstrator would achieve?*
  - *Explanation on how the demonstrator would support the transfer of the fusion technology to a non-fusion application.*
- Description of the use planned to be made of the fusion technology in the non-fusion market(s) and evaluation of the market potential.
  - *Precise the Technology Readiness Level for the non-fusion application(s) and any work already performed. Provide a copy of the report on any feasibility studies undertaken (if any)*
  - *Explain the non-fusion technology/market opportunity including any potential customer relationships and why the technology under development may provide significant advantage for this application*
  - *Socio-economic (potential) impact of the use of the technology in the non-fusion application.*
  - *Indicate if the Applicant has already received fundings to support the cost of the transfer of the technology to the market and from which organisation.*
- Details on the work to be undertaken for the Demonstrator



- *The technological step to be made during the implementation of the Technology Transfer Demonstrator project.*
- *The target Technology Readiness Level to be achieved through the Demonstrator.*
- *Provide a project plan including milestones and Gantt chart.*
- *Provide work-package descriptions with cost breakdown.*
- *Describe the key technical risk and the mitigation required.*
- *Provide details of the experience of key personnel within and out with your organization who will be undertaking this work.*
- *Resources to be provided by the Applicant to support a successful completion of the Demonstrator activity.*
- *Indication of the investment done/planned to be done by the Applicant and activities done and planned to be carried out to enable a successful completion of the Technology Transfer case and commercial use of the technology in a non-fusion application.*
- **Expected follow-up of the Transfer Demonstrator**
  - *Explanation of what are the pending technical challenges to tackle to bring the technology to market.*
  - *Explanation of what kind of industrial, marketing and financial actions is expected to be required to bring the technology to market.*

## 4. Draft Contract

Between

In Extenso Innovation Croissance with company number FR 55 439 690 991

(Hereinafter referred to as “IEIC”)

located at:

2000 route des Lucioles Les Algorithmes – Thalès B

Sophia Antipolis

06410 BIOT

FRANCE

Represented by Mrs Patricia BRAUN, President

And

[Name of the Entity] with company number [XXX]

(Hereinafter referred to as “the Contractor”)

Located at: [Adress]

Represented by [Title, First Name and Last Name], [Position]

(Together, hereinafter referred to as the “Parties” or individually as a “Party”)

## **PREAMBLE**

1. Fusion for Energy (F4E) is the European Union's Joint Undertaking for ITER and the Development of Fusion Energy. The organisation was created under the Euratom Treaty by the Council Decision 2007/198/Euratom of 27 March 2007 of the European Union and is placing contracts and working closely with industry to provide the infrastructure and the components of ITER.
2. Fusion for Energy (F4E) Technology Transfer Programme is promoting the transfer of fusion technologies to European industry. This initiative is led by F4E and managed in collaboration with In Extenso Innovation Croissance and is willing to identify their business potential of fusion technologies and facilitate their commercial use in new applications. This programme is open to all companies looking for new market opportunities and to entrepreneurs, scientists and businesses willing to integrate fusion technologies in the development of their products.
3. F4E has selected through an Invitation to Tender a consortium composed of a Prime contractor and 5 brokers who cover 5 Countries (France, Germany, Italy, Spain, Belgium).
4. In Extenso Innovation Croissance (hereinafter referred to as "IEIC") is a leading consulting company in innovation marketing and funding and has been selected and appointed by F4E to set-up, manage and coordinate the F4E Technology Transfer Programme.
5. IEIC leads a European Network of technology brokers for the exploitation of fusion related technologies in different branches.
6. As part of efforts to support and facilitate the use of fusion technologies and know-how in new applications, an Open Call for Technology Transfer Demonstrator. The main objective of this call is to financially support a project willing to validate the technical feasibility of a fusion based prototype in new application. In Extenso Innovation Croissance has been entrusted by F4E to set up, implement and manage this competition.

The following has been agreed.

## **DEFINITIONS, SCOPE, BASELINE AND FUNDING**

### **DEFINITIONS**

“ACTIVITY” shall mean carrying out the Demonstrator project based on the proposal submitted to IEIC

“F4E” shall mean Fusion for Energy

“CONFIDENTIAL INFORMATION” shall mean any proprietary information, documentation or data of personal or technical nature, including but not limited to any ideas, know-how, concept, designs, drawings and specifications, whether in written, electronic, photographic and/or other forms disclosed by the Disclosing Party to the Receiving Party, pursuant to this Agreement.

“CONTRACT” shall mean the present contract.

“CONTRACT TERM” shall be the period between the commencement date and the date of termination of the contract.

“DELIVERABLES” shall have the meaning of results of the project to be provided to IEIC as described in the Article Deliverables

“DISCLOSING PARTY” shall mean the Party disclosing Confidential Information.

“EXECUTIVE SUMMARY” shall concisely summarise the findings of the Demonstrator project. It shall not contain any Confidential Information. The Executive Summary shall not exceed one (1) page of text with coloured illustrations or photographs, if appropriate.

“INTELLECTUAL PROPERTY RIGHTS” shall mean all registered intellectual property rights and unregistered intellectual property rights granted by law including all patents, trademarks, copyrights, design rights, database rights, topography rights, know-how and trade secrets or equivalent rights or rights of action anywhere in the world.

“MIDTERM PROGRESS REPORT” shall mean a report detailing the work carried out by the Applicant as part of the Activity in the first half of the demonstrator.

“FINAL REPORT” shall mean a document describing the outcomes, activities and deliverables of the contract submitted once the work of the contract is complete

“OPEN CALL” or “THE CALL” shall mean the instrument by which proposals for technology transfer demonstrators are submitted to IEIC

“RECEIVING PARTY” shall mean the Party receiving Confidential Information.

“THIRD PARTY” shall mean any person or entity other than the Parties to this Contract or their personnel as well as F4E and the Originator.

“VAT” value added tax

## **SCOPE**

The scope of this Contract sets forth the terms and conditions governing the relationship and the undertakings of the Parties with regard to the Activity.

## **BASELINE**

The Parties shall perform their undertakings for the Activity in accordance with the following documents listed in order of precedence:

- The present Contract;
- The Applicant’s proposal *ref. [...] dated [...]*, attached
- The Minutes of Meeting with *ref: [...] dated [...]*, attached

## **PRICE**

### **PRICE OF THE CONTRACT**

The total price of this Contract amounts to:  
€ [...] in number ([...] EURO in text) excluding VAT

### **TYPE OF PRICE**

The price type of the present Contract is stated to be of a firm fixed type, i.e. it is not subject to any price adjustment or revision by reason of the actual costs incurred by the Applicant in the performance of the Contract.

### **PAYMENT PLAN**

IEIC may authorize the payment of an advance payment in connection with this Contract.

Advance payments are not final payments and shall be deducted from the sums due to the Applicant under this Contract.

The applicant shall be allowed to claim final settlement when all their obligations under this Contract have been fulfilled. The final payment is due by IEIC upon:

- receipt by IEIC of the relevant invoice(s) from the Applicant; and
- Certification by IEIC of the satisfactory completion of the Activity under this Contract

Unless otherwise provided for in this Contract, a period of 30 (thirty) days shall be granted to IEIC for the execution of the final payment.

IEIC shall make the following payments:

<b>MILESTONE DESCRIPTION</b>	<b>SCHEDULE DATES</b>	<b>AMOUNT EURO</b>	<b>IN</b>
ADVANCE: upon signature of this Contract by both Parties [max 50%]	<u>TBD</u>	<u>TBD</u>	
FINAL: upon acceptance by IEIC of all deliverable documentation under this Contract [min 50%]	<u>TBD</u>	<u>TBD</u>	

## **OBLIGATIONS AND DELIVERABLES OF THE APPLICANT**

### **OBLIGATIONS**

The Applicant shall carry out the Transfer Demonstrator project. The Transfer Demonstrator project shall cover at least all items exposed in the Applicant's proposal on the basis of which the applicant was selected through the Open Call.

### **DELIVERABLES**

The Applicant shall deliver the items mentioned below, as part of the Activity in accordance to the following provisions.

- Midterm progress report: At the halfway point through the contract term a midterm progress report shall be submitted electronically to IEIC. This will contain an overview of the technical progress made, as well as a cost report.
- Demonstrator final report and Executive Summary: A draft version of the Transfer Demonstrator and Executive Summary carried out under the Activity shall be submitted electronically to IEIC 15 (fifteen) days prior to the Contract Term. At the Contract Term, the Applicant shall deliver to IEIC the Transfer Demonstrator report as well as the Executive Summary in electronic version (.doc and .pdf)

### **MEETINGS**

The Applicant may be required to attend a Final Review meeting to be held at F4E or IEIC premises or by videoconference.

## **COMMUNICATIONS AND KEY PERSONNEL**

### **COMMUNICATIONS**

All correspondence affecting the terms and conditions of this Contract and concerning its execution shall be made or confirmed in writing. All communications or correspondence between the Parties shall be in English.

All correspondence for either Party shall be sent to the representative of each Party indicated herebelow

For the purpose of this Contract IEIC's representatives are:

- For technical matters:

[Insert name] E-mail:  
Tel.:  
Fax.

Or a person duly authorized by him/her.

- For administrative matters:

[Insert name] E-mail:  
Tel.:  
Fax.

Or a person duly authorized by him/her.

For the purpose of this Contract, the Applicant's representatives are:

- For technical matters:

[Insert name] E-mail:  
Tel.:  
Fax.

Or a person duly authorized by him/her.

- For administrative matters:

[Insert name] E-mail:  
Tel.:  
Fax.

Or a person duly authorized by him/her.

**KEY PERSONNEL**

The work shall be executed by the key personnel nominated in the Applicant's proposal, or any alternative who could be considered relevant to achieve the objective of the project.

Any replacement to other tasks of such key personnel, to the extent that they are not available as foreseen in the Applicant's proposal, requires the prior written approval of the IEIC representative as mentioned in here below.

## **LIABILITY**

### **LIMITATION OF LIABILITY**

If a party infringes any laws or bylaws in force in France or in any other country whatsoever, the other party shall not be held responsible for it.

Each Party shall indemnify the other Party from and against all claims, damages, costs and expenses arising out of any infringement of either Party's obligations under this Contract.

The liability of one Party towards the other under or in connection with this Contract whether arising from negligence, breach of contract or any other obligation or duty shall not exceed, an amount equivalent to the contract value, per event or series of connected events.

### **INDIRECT OR CONSEQUENTIAL DAMAGES**

The Parties shall in no circumstances be liable for indirect or consequential damages such as loss of use, loss of business, loss of data, loss of rights, loss of services, loss of goodwill, Third Party claims to the extent that they represent the indirect loss of a Third Party, loss of revenues or anticipated savings, or for any indirect financial loss or indirect economic loss or for any indirect or consequential loss or damage whatsoever suffered by the other Party.

The Parties shall in no circumstances be liable for loss of profit, whether direct or indirect.

Neither Party excludes its liability to the other Party for:

- death or personal injury caused by its negligence or that of its employees or agents;
- fraud, including fraudulent misrepresentations; and
- Liability
- Gross-negligence, willful misconduct

## **CONFIDENTIALITY, USE OF INFORMATION AND PUBLICITY**

### **CONFIDENTIALITY AND USE OF INFORMATION**

The contents of this Contract constitute confidential information.

It is understood and fully agreed by the Parties that the use of any information provided by one Party to the other Party under this Contract is strictly limited to the scope and purpose of this Activity.



Upon the end of the Contract Term, or [earlier termination or cancellation] of this Contract, the receiving Party shall promptly return to the Disclosing Party or otherwise certify the destruction of all Confidential Information, including all Deliverables provided by the applicant to IEIC.

## **PUBLICITY**

For the purpose of this Contract, the applicant shall not produce or disseminate any form of communication material, press releases or other publicity documents, including the Applicant's advertising and news bulletins, which refer to the Activity under this Contract, IEIC or/and F4E or any aspect of their activities, or permit any Third Party to do so, without the prior written consent of IEIC or/and the F4E's contractual representative or their duly authorized representative.

The applicant shall not use the logo of IEIC or/and the official emblem of F4E or any other logo or trademark they may own without the prior written consent of IEIC or/and F4E's contractual representative or his duly authorized representative.

## **INTELLECTUAL PROPERTY**

### **OWNERSHIP**

The Contractor shall obtain full ownership of any new Intellectual Property Rights developed in execution of the Activity performed under this Contract as may be granted by law.

### **USE OF INTELLECTUAL PROPERTY RIGHTS BY F4E**

If any of the new Intellectual Property Rights is used in any of F4E activities, F4E shall be granted a worldwide, non-exclusive, irrevocable, royalty-free license with the right to further sub-license and use it royalty-free to carry out its tasks as established by Article 1.2 of Council Decision 2007/198/Euratom.

As a way of example, if any of the new Intellectual Property Rights is declared as Background Intellectual Property in any of F4E Grants or Contracts, the Contractor shall indicate in the Background declaration that Fusion for Energy obtains a worldwide, non-exclusive, irrevocable, royalty-free license to use the Intellectual Property right with the right to further sub-license and use it royalty-free to carry out its tasks as established by Article 1.2 of Council Decision 2007/198/Euratom.

Where the Contractor transfers ownership of the Intellectual Property rights created under this Contract, it shall pass on its obligations regarding that Intellectual Property right to the assignee including the obligation to pass those obligations on to any subsequent assignee.

## **APPLICABLE LAW AND DISPUTE SETTLEMENT**

### **APPLICABLE LAW**

This Contract shall be governed by the laws of France

### **ARBITRATION / DISPUTE SETTLEMENT**

The arbitration proceeding will take place in Nice.

**ENTRY INTO FORCE, TERMINATION AND MODIFICATIONS**

**ENTRY INTO FORCE**

This Contract shall enter into force upon signature by the legal representatives of both Parties and shall continue in force until [insert date] (“Contract Term”), unless it is cancelled or otherwise terminated in accordance.

**TERMINATION**

Each Party reserves the right to terminate this Contract, with immediate effect, in the event that the other Party fails to fulfil its undertakings under this Contract.

In no event shall termination of this Contract imply any payment or reimbursement of the cost incurred by either Party prior to termination, nor of any damages. Termination of this Contract shall not affect the Parties’ continuing rights and obligations under this Contract, (Confidentiality, Use of Information and Publicity) in particular.

**MODIFICATION**

At the request of either Party, the modalities outlined in this Contract may be modified in writing by mutual consent. Such modification shall enter into force and have immediate effect at the date of signature by the legal representatives

For:

For:

Name:

Name:

Date:

Date:

Signature:

Signature :

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