外部委託業者の募集

References: IO/26/OT/70001497/LLU

“Supply Framework Contract for Diagnostic Mechanical Component Manufacturing"

（計測機械構成部品製造に関する供給枠組み契約）

IO 締め切り 2026 年 6 月 26(金)

〇はじめに

本事前情報通知（PIN）は、作業契約の入札授与および実行につながる公開入札調達プロセスの最初のステップです。

本文書の目的は作業範囲と入札プロセスに関する技術的な内容の基本的な要約を提供することです。

〇背景

ITER は平和利用の核融合発電の科学的および技術的な実現可能性の実証を目的とした、国際共同研究開発プロジェクトです。ITER 機構の 7 つのメンバーは、;欧州連合（EURATOM が代表）、日本、中華人民共和国、インド、大韓民国、ロシア連邦、および米国です。

ITER の敷地はフランス南東部のブーシュデュローヌ地区にあり、ITER 本社（HQ）もあるフランス CEA サン・ポール・レ・デュランス に近いところに位置しています。詳細については、ITER のウェブサイト http://www.iter.org を参照して下さい。

〇作業範囲

技術仕様書の付属書 1 G45RFL_v1.2を参照下さい。

〇調達プロセスと目的

目的は、競争入札プロセスを通じて供給契約を落札することです。

この入札のために選択された調達手続きは公開入札手続きと呼ばれます。

オープン入札手順は、次の 4 つの主要なステップで構成されています。

- ステップ 1-事前情報通知（PIN）

  事前情報通知は公開入札プロセスの第一段階です。IO は、関心のある候補企業に対し、以下の概略日程に示された期日までに担当調達担当官に添付の関心表明フォームで以下の情報を提出し、競争プロセスへの関心を示すよう正式に要請します。

  特に注意:

  関心のある候補企業は、IO Ariba の電子調達ツール 「IPROC」 に登録してください（まだ登録していない場合）。手順については、

  https://www.iter.org/fr/proc/overview

  を参照してください。

Ariba (IPROC) に登録する際には、お取引先様に最低 1 名の担当者の登録をお願いします。**関心表明書において特定された担当者は、IPROC に登録されている必要があります。**

- ステップ 2-入札への招待
  PIN の発行から 10 作業日経過後、提案依頼書 (RFP) を 「IPROC」 に掲載します。この段階では、担当の調達担当者に関心を示し、かつ IPROC に登録している関心のある候補企業は、RFP が公表された旨の通知を受けることができます。その後、RFP に詳述されている入札説明書に従って提案書を作成し、提出します。

  このツールに登録されている企業のみが入札に招待されます。

- ステップ 3-入札評価プロセス
  入札者の提案は、IO の公平な評価委員会によって評価されます。入札者は、技術的範囲に沿って、かつ、RFP に記載された特定の基準に従って作業を実施するために、技術的遵守を証明する詳細を提供しなければなりません。

- ステップ 4-落札
  認定は、公開されている RFP に記載されている、コストに見合った最適な価格または技術的に準拠した最低価格に基づいて行われます。

〇概略日程

概略日程は以下の通りです：

マイルストーン	暫定日程
事前指示書 (PIN) の発行	2026 年 6 月中旬
関心表明フォームの提出	2026 年 1 月 PIN 発行の 10 暦日以内　6/26
iPROC での入札への招待の発行	2026 年 7 月初旬
入札提出	2026 年 9 月初旬
契約評価と授与	2026 年 10 月末

〇契約期間と実行

ITER機構は206年のQ4ごろ供給契約を授与する予定です。予想される契約期間は４年の固定期間に加えて、1つのオプションの延長期間2年です。

〇経験

候補者は以下の経験と能力を有している必要があります。

・圧力容器または原子力関連の規格および基準に関する経験

・溶接および非破壊検査（NDT）について、社内実施または下請業者の管理に関する経験
・EN10204 に準拠した 3.1 および／または 3.2 の材質証明書に関する経験
・ステンレス鋼コンポーネントの製作に関する経験
・計装機器の組立およびコンポーネント統合に関する経験
・原子力安全関連業務に関する経験および知識

〇候補

参加は、個人またはグループ/コンソーシアムに参加するすべての法人に開放されます。法人とは、法的権利及び義務を有し、ITER 加盟国内に設立された個人、企業又は機構をいいます。ITER 加盟国は欧州連合(EURATOM メンバー)、日本、中華人民共和国、インド共和国、大韓民国、ロシア連邦、アメリカ合衆国です。

法人は、単独で、またはコンソーシアムパートナーとして、同じ契約の複数の申請または入札に参加することはできません。共同事業体は、恒久的な、法的に確立されたグループ又は特定の入札手続のために非公式に構成されたグループとすることができます。

コンソーシアムのすべての構成員(すなわち、リーダーと他のすべてのメンバー)は、ITER 機構に対して連帯して責任を負います。

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どのコンソーシアムメンバーも IPROC に登録する必要があります。

【※　詳しくは添付の英語版技術仕様書「Supply Framework Contract Diagnostic Mechanical Component Manufacturing」をご参照ください。】

ITER 公式ウェブ　http://www.iter.org/org/team/adm/proc/overview からもアクセスが可能です。

「核融合エネルギー研究開発部門」の HP：　http://www.fusion.qst.go.jp/ITER/index.html では ITER 機構からの各募集（IO 職員募集、IO 外部委託、IO エキスパート募集）を逐次更新しています。ぜひご確認ください。

イーター国際核融合エネルギー機構からの外部委託
に関心ある企業及び研究機関の募集について

＜ITER 機構から参加極へのレター＞

以下に、外部委託の概要と要求事項が示されています。参加極には、提案された業務に要求される能力を有し、入札すべきと考える企業及び研究機関の連絡先の情報を ITER 機構へ伝えることが求められています。このため、本研究・業務に関心を持たれる企業及び研究機関におかれましては、応募書類の提出要領にしたがって連絡先情報をご提出下さい。

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PRIOR INFORMATION NOTICE (PIN)

IO/26/OT/70001497/LLU

Supply Framework Contract

Diagnostic Mechanical Component Manufacturing

Prior Indicative Notice annexes:

- Annex I: Technical Specification G45RFL_v1.2
- Annex II: Expression of Interest

Abstract.

The purpose of this summary is to provide prior notification of the IO's intention to launch a competitive Open Tender process in the coming weeks. This summary provides some basic information about the ITER Organisation (the "IO"), the technical scope for this tender, and details of the tender process.

1 Introduction

This Prior Information Notice (PIN) is the first step of an Open Tender Procurement Process leading to the award and execution of a Supply Contract.

The purpose of this document is to provide a basic summary of the technical content in terms of the scope of work, and the tendering process.

The Domestic Agencies are invited to publish this information in advance of the forth-coming tender giving companies, institutions or other entities that are capable of providing these services the prior notice of the tender details.

2 Background

The ITER project is an international research and development project jointly funded by its seven Members being, the European Union (represented by EURATOM), Japan, the People's Republic of China, India, the Republic of Korea, the Russian Federation and the USA. ITER is being constructed in Europe at St. Paul–Lez-Durance in southern France, which is also the location of the headquarters (HQ) of the ITER Organization (IO).

For a complete description of the ITER Project, covering both organizational and technical aspects of the Project, visit www.iter.org.

3 Scope of the Package

Please refer to Annex 1 of Technical Specification G45RFL_v1.2

4 Procurement Objective & Process

The objective is to award a Supply Contract through a competitive bidding process.

The Procurement Procedure selected for this tender is called the **Open Tender** procedure.

The Open Tender procedure is comprised of the following four main steps:

- Step 1- Prior Information Notice (PIN) - publication on IO web procurement page

  The Prior Information Notice is the first stage of the process. The IO formally invites interested candidate companies to indicate their interest in the competitive process, within **10 calendar days**, by returning to the Procurement officer:
  - Name of candidate company
  - Country of registration
  - Point of contact name, email, title, and phone number.

  Interested tenderers are kindly requested to return the expression of interest form (Annex II) by e-mail by the date indicated in the procurement time table below.

  Special attention:

  Interested candidate companies are kindly requested to promptly register in the IO Ariba e-procurement tool called "IPROC", if not so done yet. The process on how to do is described at the following link: https://www.iter.org/fr/proc/overview.

  When registering in Ariba (IPROC), suppliers are kindly requested to register at least the contact person. This contact person will be receiving the notification of publication of the Request for Proposal and will then be able to forward the tender documents to colleagues if deemed necessary. **Therefore, the person identified in the Expression of Interest must be registered in IPROC.**

- Step 2 - Invitation to Tender

  After the full registration of interested candidate companies, the Request for Proposals (RFP) will be published in "IPROC". This stage allows interested candidate companies

who have indicated their interest to the Procurement Officer in charge AND who have registered in IPROC to receive the notification that the RFP is published. They will then prepare and submit their proposals in accordance with the tender instructions detailed in the RFP.
Only companies registered in this tool will be invited to the tender and registered company can only submit a proposal in their name.

- Step 3 – Tender Evaluation Process

  Tenderers proposals will be evaluated by an impartial evaluation committee of the IO. Tenderers must provide details demonstrating their technical compliance to perform the work in line with the technical scope and in accordance with the particular criteria listed in the RFP.

- Step 4 – Contract Award

  The award will be done on the basis of best value for money or lowest price technically compliant offer as described in the published RFP.

5 Procurement Timetable

The tentative timetable is as follows:

Milestone	Date
Publication of the Prior Information Notice (PIN)	Mid of Jun 2026
Submission of expression of interest form	Within 10 calendar days of publication of PIN
Tender Launch	Beginning of July 2026
Tender Submission	Beginning of September 2026
Tender Evaluation & Contract Award	End of October 2026

6 Experience Requirements

The candidates shall have the following experience and competences:

- Experience of Pressure Vessel or Nuclear Related Codes and Standards.
- Experience in In-House or in Managing Subcontractors on Welding and NDT.
- Experience on 3.1 and/or 3.2 material certificates as per EN10204
- Experience on Stainless Steel Component Fabrication
- Experience of Instrument Assembly and Component Integration
- Experience and Knowledge of Nuclear Safety Related Works

7 Quality Assurance Requirements

Prior to commencement of any work under this Contract, a “Quality Plan” shall be produced by the Contractor and submitted to the IO for approval, describing how they will implement the ITER Procurement Quality Requirements.

8 Contract Duration and Execution

The ITER Organization will award the Contract in Q4 2026. The estimated contract duration is with an initial firm period of 4 years and an optional extension of 2 years.

9 Candidature

Participation is open to all legal entities participating either individually or in a grouping/consortium. A legal entity is an individual, company, or organization that has legal rights and obligations and is established within an ITER Member State.

Legal entities cannot participate individually or as a consortium partner in more than one application or tender of the same contract. A consortium may be a permanent, legally established grouping, or a grouping which has been constituted informally for a specific tender procedure.

All members of a consortium (i.e. the leader and all other members) are jointly and severally liable to the ITER Organization.

In order for a consortium to be acceptable, the individual legal entities included therein shall have nominated a leader with authority to bind each member of the consortium, and this leader shall be authorised to incur liabilities and receive instructions for and on behalf of each member of the consortium.

It is expected that the designated consortium leader will explain the composition of the consortium members in a covering letter at the tendering stage (the Invitation to Tender). Following this, the Candidate's composition must not be modified without notifying the ITER Organization of any changes. Evidence of any such authorisation shall be submitted to the IO in due course in the form of a power of attorney signed by legally authorised signatories of all the consortium members.

10 Sub-contracting Rules

All sub-contractors who will be taken on by the Contractor shall be declared with the tender submission. Each sub-contractor will be required to complete and sign forms including technical and administrative information which shall be submitted to the IO by the tenderer as part of its tender.

The IO reserves the right to approve (or disapprove) any sub-contractor which was not notified in the tender and request a copy of the sub-contracting agreement between the tenderer and its subcontractor(s). Sub-contracting is allowed but is limited to 40% of the total Contract value. Rules on subcontracting in details will be indicated in the RFP itself.

IDM UID
G45RFL
VERSION CREATED ON / VERSION / STATUS
11 Jun 2026 / 1.2 / Approved
EXTERNAL REFERENCE / VERSION

Technical Specifications (In-Cash Procurement)

Technical Specification for the FWC on Diagnostic Mechanical Component Manufacturing

Technical specification document for the framework contract on diagnostic mechanical component manufacturing

SUPPLY

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SUPPLY

SUPPLY

1 Preamble

ITER Tokamak machine requires many diagnostics systems for machine protection, plasma control and physics exploitation. Some of these diagnostics systems are under responsibility of ITER Diagnostics Program. Each system consists of many mechanical, optical & electrical components installed inside and/or outside the vacuum vessel. These systems are at various level of maturity & will be released for manufacturing in phased manner. To align with release of manufacturing in phased manner, framework contract will be signed which will cover generic & common requirements. Task orders will be signed for each system / component as soon as reaches maturity for manufacturing with specific & applicable requirements applicable to relevant system / component. This framework contract is for manufacturing of mechanical components. This Technical Specification is to be read in combination with the General Management Specification for Service and Supply (GM3S) – Ref [1] that constitutes a full part of the technical requirements.

In case of conflict, the content of the Technical Specification supersedes the content of Ref [1].

2 Purpose

The main purpose of this framework contract is to define scope & requirements for supply of mechanical components & assemblies for the ITER Diagnostics Program. A non-exhaustive description of typical components is given in Ref [7]. This document outlines generic & common requirements for supply of mechanical components & sub-assemblies.

Under the umbrella of this framework contract, task orders will be issued for supply of specific components & assemblies to complement this document. Each task order will have specific task order specification.

This document will have common requirement applicable to all task orders & generic requirements are optional. Task order specification will specify applicable generic requirement to specific component / subassembly and will have additional or detailed requirements.

The scope of work is detailed in Section 5 below and requirements are detailed in subsequent sections.

3 Acronyms & Definitions

3.1 Acronyms

The following acronyms are the main one relevant to this document.

Abbreviation	Description
MTO	Material Take Off
CRO	Contract Responsible Officer
GM3S	General Management Specification for Service and Supply
IO	ITER Organization
PRO	Procurement Responsible Officer
NANDO	New Approach Notified and Designated Organisations
COTS Item	Commercial off the shelf items
CSFI	Counterfeit, Suspect & Fraudulent Items
FME	Foreign Material Exclusion
NDE	Non Destructive Examination
FAT	Factory Acceptance Test

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SQEP	Skilled, Qualified & Experience Persons
CRN	Contractor Release Note
ANB	Agreed Notified Body
DCIF	Design Collaboration Implementation Form
MDB	Manufacturing Data Base
NCR	NonConformity Report

3.2 Definitions

The terms defined in Section 2.1 of GM3S – Ref [1] are applicable to this framework contract also. Some of the terms are given below & might be duplicating from GM3S – Ref [1].
Client: ITER Organization, referred to as IO in the rest of the document.
The Supplier: shall mean an economic operator who have signed the Contract in which this document is referenced. In this document as well as in the mandatory Appendixes and Annexures referred here, the names Contractor and Supplier are used interchangeably.
In-Vessel Components: This term is used in this specification for indicating all the components, sub-assemblies and provision for services (electrical) that are located inside the ITER Vacuum Vessel (attached to the Diagnostic Port Plug Assembly).
Ex-Vessel Components: This term is used in this specification for indicating all the components, sub-assemblies and provision for services (electrical, compressed air) that are located outside of the ITER Vacuum Vessel (attached to the Interspace Support Structures and Port Cell Support Structure Assemblies).
Machine: The term "Machine" is used to describe the ITER Tokamak Machine where the final installation of these deliverables will be done.
Assembly: The term "Assembly" is used to describe the assembly activities of the components (mainly mechanical) of the deliverables planned by the Contractor. This activity is expected to be at their manufacturing facility.
Free issue items: These are the items that are supplied by IO as Free Issue and procurement is not in the scope of the present contract.
IDM ID: This is the referred IDM document number.

4 Applicable Documents & Codes and standards

Following documents, codes and standards shall be applicable to this framework contract.

4.1 Applicable Documents

This is the responsibility of the Contractor to identify and request for any documents that would not have been transmitted by IO, including the below list of reference documents.

This Technical Specification takes precedence over the referenced documents. In case of conflicting information, this is the responsibility of the Contractor to seek clarification from IO.

Upon notification of any revision of the applicable document transmitted officially to the Contractor, the Contractor shall advise within 4 weeks of any impact on the execution of the contract. Without any response after this period, no impact will be considered.

In addition to documents listed in below table, applicable documents listed in GM3S [Ref 1] & detailing requirements of GM3S shall also be considered as applicable documents.

Ref	Title	IDM Doc ID	Version
1	General Management Specification for Service and Supply (GM3S)	82MXQK	v1.4

2	Provisions for Implementation of the Generic Safety Requirements by the External Actors/Interveners	SBSTBM	v2.3
3	Protection Important Activities and Defined Requirements for All ITER Mechanical PIC Equipment	338G4B	v5.0
4	ITER Vacuum Handbook	2EZ9UM	v2.5
5	Quality Requirements for IO Performers	22MFG4	v6.4
6	ITER Dimensional Metrology Handbook	46FN9B	v2.1
7	General Description of Mechanical Components to be Manufactured	G9MYPA	v1.1
8	Radioprotection guide for ESPN application	2LTQ96	v2.5

4.2 Applicable Codes and Standards

This is the responsibility of the Contractor to procure the relevant Codes and Standards applicable to that scope of work.

Ref	Title	Doc Ref.	Version
CS1	RCC-MR	---	2007
CS2	EN, ISO and ASTM Standards[1]	---	

5 Scope of Work

This section defines the specific scope of work, in addition to the contract execution requirement as defined in Ref [1] and subsequent Sections. Technical information are available in Ref [7].

5.1 IO's Scope of Work

[FWC_5.1_REQ-01] IO's scope of work & supply is limited to performing activities & supply of items listed below. Supply of documents, 3D models & Free Issue materials listed in Section 9 of this document. Review & approval of document deliverables are listed in Section 10 of this document. It is highlighted here that it is responsibility of the Supplier to ensure & comply with all the requirements of this framework contract & task order including their applicable documents, codes & standards. Review of documents & deliverables by IO doesn't relieve Supplier from this contractual responsibility.

[FWC_5.1_REQ-02] Surveillance during manufacturing of components, assemblies and raw material, mainly for SIC / PIC, at premises of suppliers and its Sub-Suppliers & Sub-contractors involved with manufacturing & services for this framework contract. IO may perform surveillance on its own or appoint any competent third-party agency for the same at IO's cost. Surveillance by IO or appointed agency doesn't absolve contractual responsibility of Supplier to ensure & comply with all the requirements of this framework contract & task order including their applicable documents, codes & standards.

[FWC_5.1_REQ-03] IO will act as manufacturer for ESPN components & assemblies and liaise with ANB for conformity assessment. Cost of appointing ANB will be borne by Participation during FAT at Supplier's place before supply of components & assemblies.

[FWC_5.1_REQ-04] Performing Receipt Inspection after receipt of components & assemblies at ITER site.

[FWC_5.1_REQ-05] Audit of the Supplier and its sub-Suppliers & Sub-contractors involved with manufacturing & services for this framework contract.

[1] All the relevant standards applicable as per [CS1]

5.2 Supplier's Scope of Work

Supplier's scope is to manufacture components & assemblies as requirements defined in Framework contract & Task order and supply to IO Site. Technical information are given in Ref [7].

Supplier is responsible for arranging all the materials, consumables, resources, equipment, machines, etc. and performing all the activities which are not in scope of IO but deemed necessary by Supplier for the manufacture & supply of components & assemblies to ITER site. The Supplier shall be responsible for FAT and will have opportunity for the Supplier to witness receipt inspection at ITER site. Participation in receipt inspection shall be part of Task order for specific component & subassembly. If customized tool is required for final handling & transportation of components & assemblies, the same shall be delivered to ITER site along with components & assemblies. Handling scheme shall be proposed & justified by the Supplier and submitted for approval to IO.

6 Important stages of manufacture & supply of components & assemblies

IO has identified certain important stages for manufacture & supply of components & assemblies together with requirements applicable to these stages. IO identified broad level & important stages and Supplier is responsible for defining detailed stages and steps for manufacture of components & assembly which are extension of important stages listed below.

6.1 Manufacturing design & design analysis

Following requirements are applicable to manufacturing design stage and shall be taken into account by the Supplier.

[FWC_6.1-REQ-01] The Supplier shall study 3D CATIA models supplied by IO for components & subassemblies and prepare manufacturing drawings.

[FWC_6.1-REQ-02] As a result of manufacturing design minor design changes might be necessary to optimize manufacturing process. The Supplier shall highlight those changes to IO & take approval of IO for the same. The Supplier shall update 3D CATIA model if IO 3D model is affected.

[FWC_6.1-REQ-03] he Structural verification analyses or stress analyses shall be performed for components & assemblies to justify acceptance of deviation requests and non-conformances in accordance with code of construction, this specification, Task order specification & classification defined in Task order specification.

[FWC_6.1-REQ-04] The design and stress analysis of handling and transportation within the factory or during the delivery to ITER site for any part for component or assembly of final component or assembly including tools required for the purpose shall be as per this specification & Task order specification.

[FWC_6.1-REQ-05] The Supplier shall carry out stress analysis of components & assemblies for test conditions (e.g. pressure test, HLT, etc.) if specified in Task order. Design of blanks necessary for testing of components & assemblies must be done by the Supplier.

6.2 Material procurement

Following requirements are applicable to material procurement stage and shall be taken into consideration by the Supplier.

[FWC_6.2_REQ 01] Contractor is free to decide product form (e.g. forging, plate, pipe, etc.) for each part in compliance with construction code specified in Task order of the

component & assembly together with applicable requirement coming out from this specification & task order specification.

[FWC_6.2_REQ 02] Welding, coating & brazing consumables required for welding of parts for components & assemblies shall be in accordance with code of construction and this specification & classification defined in task order specification. The Supplier shall take approval from IO for type of welding, coating & brazing consumables being planned for welding of parts for components & assemblies.

[FWC_6.2_REQ 03] If any particular additional technical requirement is applicable to material, welding, coating & brazing consumables for parts of specific component & assembly, in addition to code of construction and this specification & classification defined in ask order specification, the same shall be specified in task order specification and the Supplier shall comply with them also.

[FWC_6.2_REQ 04] All the material becoming part of components & assemblies shall have certification in accordance with EN 10204 chapter 3.1 or 3.2.

[FWC_6.2_REQ 05] Inspection certificate type 3.1 for material of components & assemblies classified as ESPN shall be accepted only from material Suppliers having quality assurance system certified by competent body established within the European Community and having undergone a specific acceptance for materials. Alternatively, inspection certificate type 3.2 under recognized third-party organization approved & available on NANDO website of European Community shall be accepted.

[FWC_6.2_REQ 06] In case of small quantity, including COTS items, where the Supplier face the difficulties in sourcing of material, the Supplier can procure material from stock. However, the Supplier shall take complete responsibility of material, enforce CSFI controls and demonstrate compliance with requirements of code of construction, this specification, Task order specification & applicable component classification. In case of doubt or unavailability of certificates, compliance shall be demonstrated by retesting the material. In any case these exceptions will not apply to component & assembly classified as ESPN or for material where product qualification is required as per code of construction.

[FWC_6.2_REQ 07] Traceability of material shall be maintained by the Supplier. The requirement of traceability shall be applicable to subcontractors & sub Suppliers by the Supplier. The Supplier shall include this requirement in technical documents for subcontractors & sub Suppliers.

[FWC_6.2_REQ 08] The Supplier can select material & welding consumables required for fixtures & tools as per its choice to comply with requirements of design analysis for fixtures & tools and need not be approved by IO. Material for interfacing surfaces of fixtures & tools with components & assemblies shall require approval by IO.

[FWC_6.2_REQ 09] Raw material, welding consumable & other material for mock-up shall be arranged by the Supplier as per its choice in compliance with purpose of mock-up.

[FWC_6.2_REQ 10] Material & consumables which are not becoming part of components & assemblies but required from raw material stage to delivery of components & assemblies like jigs & fixtures, machining tools & inserts, machining coolant, NDE consumables (e.g. dye penetrant, UT couplant, etc.), packing material, blanks for testing (e.g. pressure test, HLT, etc.), temporary attachments, etc. shall be procured by the Supplier complying with requirements of code of construction, this specification, Task order specification & classification defined in task order specification.

6.3 Manufacturing & assembly

Following requirements are applicable to manufacturing & assembly stage of the components & assemblies described in Ref [7]:

[FWC_6.3_REQ 01] Manufacturing planning shall be integral part of manufacturing design stage and definition of part geometry, decision on manufacturing allowances, selection of manufacturing processes (e.g. forming, machining, welding, brazing, coating, etc.), sequence of manufacturing processes, etc. shall be chosen by Supplier in a manner that it meets all requirements of applicable 3D models, drawings, tolerance sheets, code of construction, this specification, Task order specification & applicable component classification.

[FWC_6.3_REQ 02] Contractor shall ensure during manufacturing design (which includes manufacturing planning) that manufacturing processes and its sequence don't hinder access for meaningful NDE, testing & inspection required by code of construction, this specification, Task order specification & applicable component classification.

[FWC_6.3_REQ 03] he Supplier is free to select any the manufacturing processes (unless mandated by IO drawings & documents) as long as it is in accordance with above criteria and shall perform manufacturing operations (cutting, forming, welding, coating, brazing machining, etc.) in manner complying with requirements of code of construction, this specification, Task order specification & applicable component classification and comply with their requirement.

[FWC_6.3_REQ 04] In case of bolted assembly, the Supplier shall tighten fasters with required tightening torque or defined pretension load whichever is specified in drawings. For torque tightening, lubricant complying with requirements of code of construction, this specification, Task order specification & applicable component classification shall be used to achieve required friction co-efficient.

[FWC_6.3_REQ 05] The Supplier can, at his own choice & cost, manufacture mock-ups & perform trials to ensure that its manufacturing design & manufacturing planning will result in component & assembly compliant with requirements of code of construction, this specification, Task order specification & applicable component classification.

[FWC_6.3_REQ 06] The choice of manufacturing methods & processes for manufacturing of parts which are not permanent member of components & assemblies (like jigs & fixtures, drawing) are left to the discretion of the Supplier.

[FWC_6.3_REQ 07] All qualifications shall be according to code of construction, this specification, Task order specification & applicable component classification except following cases of special qualifications for non-conventional welding method & Deep Hole Drilling process.

- For special non-conventional welding method; the preparation, execution and testing of test coupons supporting the Procedure Qualification Record (PQR) shall take into account actual product constraints such as assembly geometry, welding position, access for gas protection, execution and testing of production welds. Particular situations involving more than one single welding procedure like Electron Beam Welds overlapping plug welds shall be qualified taking into account equivalent conditions as those present in production welds.
- Deep Hole Drilling process shall be qualified simulating actual product conditions using tools & machines which are intended to be used for drilling parts of component & assembly.
- Personnel for non-conventional welding method & Deep Hole Drilling shall also be qualified before they start work on parts of components & assemblies.

SUPPLY

[FWC_6.3_REQ 08] All the work related to supply of components & assembly (starting from raw material receipt to delivery at ITER site) under this framework contract shall be performed by SQEP personnel in accordance with code of construction, this specification, Task order specification & applicable component classification.

6.4 NDE, Testing, Inspection & FAT

Following requirements are applicable to NDE, testing, inspection & FAT.

[FWC_6.4_REQ 01] NDE shall be conducted in accordance with requirements of code of construction, this specification, Task order specification & applicable component classification. In case of conflicting requirements, the Supplier shall take clarification from IO. IO decision shall be final & binding.

[FWC_6.4_REQ 02] Destructive testing, if applicable as per code of construction, this specification, Task order specification & applicable component classification, shall be in accordance with requirements specified there.

[FWC_6.4_REQ 03] Type of testing to be done is determined by code of construction, classification & configuration of component & assembly. Following type of testing is expected to be done on components and assemblies. The same shall be indicated in task order specification for relevant component & assembly:

- Pressure test
- Helium Leak Test

[FWC_6.4_REQ 04] Dimension Inspection & metrology shall follow requirements from Metrology Handbook [Ref. 6] based on Alignment & Metrology classification defined in Task order specification. Measurement method & instruments shall be selected based on dimensions & tolerances to be measured.

[FWC_6.4_REQ 05] Tests to be done as part of FAT shall be specified in Task order specification of component & assembly.

6.5 Cleanliness, Cleaning, Packing & Delivery

Following requirements are applicable to Cleanliness, Cleaning, Packing & Delivery.

[FWC_6.5_REQ 01] Cleanliness shall be maintained throughout the process of manufacturing and supply (i.e. receipt of raw material & COTS items to delivery to ITER site) in compliance with requirements of code of construction, this specification, Task order specification & applicable component classification.

[FWC_6.5_REQ 02] Cleaning & cleanliness check shall be done, at appropriate stage, during manufacturing to ensure that components & assemblies delivered to ITER site are clean. Area which would become inaccessible later shall be cleaned & checked for cleanliness just before closure of this area and FME controls shall be put in place. Cleaning shall be done in compliance with requirements of code of construction, this specification, Task order specification & applicable component classification.

[FWC_6.5_REQ 03] Cleaning procedure has to be established to ensure needed cleanliness requirements, especially in locations where accessibility is difficult and a possibility for local spots having unacceptable surface finish requirements (e.g. deep holes) exists. Surface finish shall meet requirement of ITER Vacuum Handbook applicable as per applicable classification.

[FWC_6.5_REQ 04] When required by Task order specification, baking shall be carried out on component & assemblies in line with requirements of code of construction, this specification, Task order specification & applicable component classification.

[FWC_6.5_REQ 05] Packing of components & assemblies for despatch shall be such that it avoids any deterioration or damage to component & assemblies and preserve

cleanliness of components & assemblies where applicable and shall comply with requirements of this specification, Task order specification & applicable component classification. Packing shall provide protection against weather conditions and stresses due to transportation & handling during delivery phase from manufacturing location to ITER site.

[FWC_6.5_REQ 06] Calibrated shock trackers (if specified in Task order specification) shall be attached with packages prior to despatch to ITER site. Shock tracker data shall be analysed, after receipt of delivery at ITER site, to determine if any incident happened during the transportation & handling. Moisture absorbers which are complying with requirements of this specification, Task order specification & applicable component classification shall be kept inside packing.

[FWC_6.5_REQ 07] Non-standard handling tools which are supplied along with components & assemblies to ITER Site shall be CE marked by the Supplier.

[FWC_6.5_REQ 08] The Supplier shall clear the Delivery Readiness Review (DRR) gate and take approval of IO before delivery.

[FWC_6.5_REQ 09] Components shall be delivered to IO Port Integration Site following DAP Incoterms.

[FWC_6.5_REQ 10] IO shall issue final acceptance certificate for components & assemblies after receipt inspection at ITER site within 30 calendar days of receipt of component at ITER site.

6.6 Documentation & data management

Following requirements are applicable to documentation & data management.

[FWC_6.6_REQ 01] Manufacturing drawings and 3D models shall be managed through CATIA, ENOVIA & SMDD which are applicable at ITER Site and interface or data exchange shall be manged between IO & the Supplier through DCIF.

[FWC_6.6_REQ 02] All documents other than manufacturing drawing & 3D models shall be managed through IDM. IO MDB shall be used for MIP management & documentation and NCR DB shall be used for NCR management.

[FWC_6.6_REQ 03] The Supplier shall prepare technical specifications for raw materials, welding consumables & COTS items complying with requirements code of construction, this specification, Task order specification & applicable component classification.

[FWC_6.6_REQ 04] All the steps in detail, starting from material receipt to delivery of components & assemblies, covering complete manufacturing & supply shall be part of MAIT (overall manufacturing, assembly & intermediate testing document) with proper sequence.

[FWC_6.6_REQ 05] Major steps of manufacturing & supply shall be part of MIP. MIP can be one single MIP can be prepared for one component & assembly or multiple MIPs for one component & assembly can be prepared by the Supplier as per its choice & convenience.

[FWC_6.6_REQ 06] Procedures & documents shall be prepared by the Supplier for relevant steps of MIP as well as certain generic activities to ensure compliance of entire spectrum of manufacturing & supply of components & assemblies with code of construction, this specification, Task order specification & applicable component classification. Tentative list of procedures & documents is given in Section 10.

[FWC_6.6_REQ 07] The requirements specified in applicable reference documents listed in this specification & Task order specification shall be considered as requirements of these specifications and shall be followed as applicable according to applicable classifications of components & assemblies in above documents.

SUPPLY

[FWC_6.6_REQ 08] Various gates as defined in Section 13.1 are applicable during manufacturing & supply of component & assembly. Documents applicable for various gates shall be prepared & approval to proceed further shall be obtained at these gates. Further work shall start only after approval of the respective gate by IO.

[FWC_6.6_REQ 09] The Supplier shall prepare & submit delivery documents (like CRN, Delivery Report, Packing List, Preservation Plan, etc.) in predefined formats as required by GM3S [Ref 1] for approval of IO.

6.7 Interface requirements

The components & assemblies will be installed & integrated with Diagnostics or other systems at ITER site and it will have various interfaces with other installation at ITER site. To avoid difficulties in installation & integration of components & assembly and make this process smother, it is essential that interfaces are managed efficiently. To match the interfaces, one of following approach shall be followed and it will be concluded at task order stage.

[FWC_6.7_REQ 01] Dimensions of interfaces with tolerances or allowances on components & assemblies shall be provided by IO which shall be strictly followed by the Supplier.

[FWC_6.7_REQ 02] Template / fixture to match both the interfaces shall be prepared by the Supplier and interface shall comply with templates after manufacturing interfacing of components, assemblies or systems.

6.8 Performance requirements & guarantees

[FWC_6.8_REQ 01] The Supplier shall provide performance guarantee against manufacturing defects, workmanship and unapproved deviation from requirements of contract requirements.

[FWC_6.8_REQ 02] The Supplier shall be responsible, at his own cost & expenses, for any repair or replacement of component & assembly in case any manufacturing defect or poor workmanship or unapproved deviation from contract requirement detected after receipt at ITER site.

[FWC_6.8_REQ 03] If installation schedule of component & assembly is getting affected, IO reserves the right to get it repaired or replaced on its own and cost of the same shall be recovered from the Supplier.

[FWC_6.8_REQ 04] In any case, limit of liability on part of the Supplier shall not exceed the value of component & assembly being delivered to IO.

6.9 Classifications

There are several classifications applicable to components & assemblies to be supplied according to this specification. These classifications shall be defined for each component & subassembly in applicable Task order specifications. Relevant requirements as per these classifications shall be applicable during entire process of supply of components & assemblies.

[FWC_6.9_REQ 01] Nuclear Safety Classification (SIC / PIC)
If components & assemblies are identified as SIC / PIC, requirements of IO documents [IDM UIDs: SBSTBM & 338G4B] shall be applicable as per classification level.

[FWC_6.9_REQ 02] ESPN Classification (Level & Category – e.g. Level N2 & Category 0):
When components & assemblies are identified as ESPN, requirements of ESPN order shall be followed as per Section 12.

[FWC_6.9_REQ 03] Vacuum Quality Classification (VQC)
If components & assemblies are identified as VQC, requirements of IO document [IDM UIDs: 2EZ9UM] shall be applicable as per type of VQC classification.

[FWC_6.9_REQ 04] Classification as per code of construction (Component Class)

When relevant, requirements of code of construction related to component class shall be applicable.

[FWC_6.9_REQ 05] Quality classification (QC)
Applicable requirements of IO document [IDM UIDs: 22MFG4] shall be applicable as per quality classification (QC).

[FWC_6.9_REQ 06] Alignment & Metrology classification (A&M)
Applicable requirements of IO document [IDM UIDs: 46FN9B] shall be applicable as per A&M classification.

[FWC_6.9_REQ 07] Seismic Classification (SC)

[FWC_6.9_REQ 08] It is for information & mainly applicable for design & stress analysis of component & assemblies.Remote Handling Classification (RHC)
It is for information & mainly applicable for design & tolerance chain analysis.

To minimize variability in managing requirements of different classes, the Supplier may decide to comply with the requirements applicable to highest classification for all classes of components & assemblies. This option depends on the assessment & ease of the Supplier. However, requirements applicable to component & assembly classified as higher class shall never be reduced to lower class.

6.10 Spare Parts

[FWC_6.10_REQ 01] Spare parts for each component & assembly shall be listed in Task order specification if determined necessary by IO.

7 Duration

The duration of services under this Contract will be four (4) years fixed plus two (2) year optional. The maximum expected duration for this framework contract from the contract signature to the supply of components & assemblies shall be six (6) years.

8 Location for Scope of Work Execution

[FWC_8_REQ 01] The Supplier can perform the work at its own location or its subcontractor or its sub Supplier's place and the Supplier shall provide right of access to IO or agency appointed by IO for activities related to this framework contract.

[FWC_8_REQ 02] The Supplier shall appropriately provide all the applicable requirements of this specification & Task order specification to its subcontractors & its sub Suppliers. It is the responsibility of the Supplier to ensure that its subcontractors & its sub Suppliers comply with these requirements.

9 IO Documents & IO Free issue items

The deliverables to be supplied by IO are as follows.

9.1 IO Documents:

Under this scope of work, IO will deliver the following as defined in Task order specification:

Ref	Title
1	Design 3D models in ENOVIA
2	Design drawings (for most of the component & assembly)
3	Overall tolerance sheet for component & assembly (if only 3D model is provided or design drawing is not having sufficient tolerance)

SUPPLY

4	Input information necessary for COTS items
5	Design documentation package & native files (where relevant)
6	Task order specification with each Task Order

9.2 Free issue items:

Any part or equipment if IO wants to provide as free issue, the same shall be listed in Task order specification.

10 Deliverables and Schedule Milestones

10.1 Schedule for delivery

Schedule for delivery of each individual component & assembly shall be specified in Task order specification.

Brief information / details of component & assemblies to be supplied are provided in document G9MYPA Ref [7].

10.2 List of deliverable documentation

The Supplier shall provide IO with the documents and data required in the application of this technical specification, the GM3S Ref [1] and any other requirement derived from the application of the contract.

You can find here below a minimum list of documentation, but not limited to, which are to be submitted in expected timing given in Task order specification:

Contract Gate	Document Type	Document Description
MRR	3D model	Manufacturing 3D models
MRR	Drawing	Manufacturing drawings
MRR	Report	Design & Analysis Reports (if applicable)
MRR	Material	Material specifications
MRR	Material	Material compliance justification
MRR	Material	Welding consumable specification
MRR	Material	Material procurement drawings (if applicable)
MRR	Material	Specification for procurement of COTS items
MRR	QA	Quality Plan
MRR	QA	Nuclear safety control plan
MRR	QA	Manufacturing & Inspection Plan
MRR	Manufacture	Manufacturing, Assembly, Integration & Testing Document
MRR	Manufacture	Manufacturing Procedures (cutting, forming, machining, etc.)
MRR	Manufacture	Clean work plan (covering all aspect of manufacturing & supply including storage of material)
MRR	Manufacture	Cleaning procedure
MRR	Manufacture	Welding Documentation (Weld Maps, WPS, PQR, WQR, etc.)
MRR	Manufacture	Lifting & handling schemes / procedures
MRR	Quality	NDE procedures

SUPPLY

MRR	Quality	Inspection procedures
MRR	Quality	Testing procedures
TRR	FAT document	FAT procedure
TRR	Packing	Packing procedure
TRR	Packing	Handling procedure for component & assembly
DRR	EMR	Manufacturing History Docket / Data package including manufacturing records
DRR	List	List of DRs & NCRs for component & assembly
DRR	As-built	As-Built 3D model & manufacturing drawings
DRR	Delivery Documents	Delivery Documents for delivery to ITER site like Delivery Report, Packing List, Preservation Plan, CRN, etc.
DRR	CE Documentation	CE Documentation for handling tools for component & assembly (if applicable)

[FWC_9.2_REQ 01] The Supplier shall prepare their detailed list of documents & document schedule based on the above guideline and using the template available in the GM3S Ref [1] appendix II (click here to download).

11 Quality Assurance requirements

The Quality class to be applied to component & assembly to be supplied to ITER site are specified in Task order specification.

[FWC_11_REQ 01] GM3S [Ref 1] Section 8 shall apply in line with the defined Quality Class in Task order specification.

12 Nuclear Safety & regulatory requirements

In accordance with Article 14 of Agreement on the Establishment of the ITER International Fusion Energy Organization for the Joint Implementation of the ITER Project, “the ITER Organization shall observe applicable national laws and regulations of the Host State in the fields of public and occupational health and safety, nuclear safety, radiation protection, licensing, nuclear substances, environmental protection and protection from acts of malevolence”.

In accordance with the Décret n° 2016-1925 du 28 décembre 2016 (section 9) and the Order dated 30 December 2015 on nuclear pressure equipment:

Some components & assemblies to be supplied are PE/ESP classified and they are identified in Task order specification.

[FWC_12_REQ 01] In the frame of that regulation, the conformity assessment of components & assemblies which are classified as ESP / ESPN in Task order specification shall be under IO responsibility. However, the Supplier shall provide all the information & documents requested by the ESPN order and provide opportunity to witness certain activities by IO & / or ANB.

The ITER Tokamak Nuclear Installation is classified as a Basic Nuclear Installation (INB- 174) and is subject to the associated regulation of work and quality under the jurisdiction of the French Nuclear Authority (Autorité de Sûreté Nucléaire et de Radioprotection, ASNR). In application of the article 2.2.1 of the INB Order, the document [ITER_D_SBSTBM] defines generic safety

requirements to be implemented by all external interveners in order to satisfy the requirements of the INB Order (French Order of 7 February 2012).

IO will identify components & assemblies to be supplied as PIC / SIC in Task order specification. Specific activities which part of manufacture & supply of components & assemblies are Protection Important Activities (PIAs) or affect nuclear safety in the context of INB Order.

[FWC_12_REQ 02] The Supplier shall identify PIAs and associated Technical Controls for each PIA in accordance with guidelines given in reference documents.

[FWC_12_REQ 03] These PIAs shall be managed through Technical and Management documentation.

13 Special Management requirements

Requirement for [Ref 1] GM3S section 6 applies & completed/amended with the below specific requirements.

13.1 Contract Gates

In addition to the contract gates as defined in GM3S [Ref 1] Section 6.1.5, the scope of work call for Contract gates Manufacturing Readiness Review [MRR], Testing Readiness Review [TRR] & Delivery Readiness Review [DRR].

[FWC_13.1_REQ-01] All the documents as identified for each gate in Section 10 shall be approved by IO.

[FWC_13.1_REQ-02] A meeting shall be arranged by the Supplier after approval of all the documents by IO to justify readiness and release of the contract gate to start work beyond contract gate till next contract gate.

13.2 Work Monitoring

Work monitoring shall be done in accordance with provisions of GM3S [Ref 1] and supplemented by following

[FWC_13.2_REQ-01] The Supplier shall submit over all schedule along with major milestones considering timeline given in Task order specification.

[FWC_13.2_REQ-02] The follow-up of the manufacturing progress shall be documented through regular monthly reports detailing manufacturing status with respect to milestones defined in contract. These reports shall be produced in accordance with the Management Specification of the Framework Contract. Any delays, manufacturing problems, recovery plans, etc. shall also be included in these reports.

[FWC_13.2_REQ-03] Design of the handling and transportation tools shall be justified with design reports and presentations in meetings before the start of manufacture. Their progress and completion shall be monitored through above monthly reports.

[FWC_13.2_REQ-04] All the contract gates shall be part of milestones in the overall schedule and progress monitoring shall be part of regular monthly reports.

13.3 Meeting Schedule

[FWC_13.3_REQ-01] Meeting shall be arranged by the Supplier as per provisions of GM3S [Ref 1] with frequency not less than once in a month.

[FWC_13.3_REQ-02] Meeting shall be arranged one week after submission of monthly report by the Supplier.

[FWC_13.3_REQ-03] In this meeting, the Supplier shall present main topics of regular monthly reports like manufacturing status update, milestone status, problems, recovery plan (in case of delay), etc. This frequency can be mutually agreed upon depending on need of contract

progress. In addition, technical meetings can be arranged for technical coordination based on mutual convenience.

[FWC_13.3_REQ-04] The Supplier shall prepare & send draft minutes of meetings for all meetings to IO for review through email.

[FWC_13.3_REQ-05] The Supplier shall submit them on IDM once it is agreed between the Supplier & IO.

ANNEX II
EXPRESSION OF INTEREST

To be returned by e-mail to: Lijun.Liu@iter.org in copy to Chloe.Perret@iter.org

Tender Ref.: **IO/26/OT/70001497/LLU**

Description: **Framework Supply Contract for Diagnostic Mechanical Component Manufacturing**

Procurement Officer: **Lijun LIU**

Company Name: .....

Country of Origin: .....

☐ WE ACKNOWLEDGE HAVING READ THE PIN NOTICE FOR THE ABOVE MENTIONED TENDER

☐ WE INTEND TO SUBMIT A TENDER

☐ WE ARE ALREADY REGISTERED IN IPROC

☐ WE INTEND TO REGISTER IN IPROC BEFORE THE TENDER LAUNCH DATE

The contact person for this tender process:

Name: Title:

Email: Telephone:

Ariba Network (IPROC) ID if already registered in IPROC:
Please list the users of ARIBA/IPROC that you wish to add as response team for this tender:

Name	E-mail
…	…

Signature: COMPANY STAMP

Name: .....
Position: .....

Date: .....