

## 外部委託業者の募集

References: IO/24/OT/10028972/VML

### "Identification and Control of Items"

(品目の識別と管理)

IO 締め切り 2024 年 7 月 12 日(金)

#### ○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。

#### ○背景

ITER は平和利用の核融合発電の科学的小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。

#### ○作業範囲

現在の入札プロセスは、ITER の「アイテムの識別と管理」手順および関連する作業手順 (ITER 番号システム、BOM 管理、アイテムのカタログ作成など) の流れを支援するためのサービス契約を設立することを目指しています。作業範囲およびすべての要件は、技術仕様書「ITER\_D\_B8EWKJ v1.1」(この PIN に添付されています) で定義されています。

#### ○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。

- 会社名
- 登録の国名
- 担当者名、email アドレス、肩書および電話番号

**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。この連絡担当者は、提案依頼書の発行通知を受け取り、必要と思われる場合は入札書類を同僚に転送することができます。

➤ 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。

**○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	2024 年 6 月 28 日
関心表明フォームの提出	2024 年 7 月 12 日
iPROC での入札への招待 (ITT) の発行	2024 年 7 月 22 日
明確化のための質問の締め切り	2024 年 8 月 30 日
明確化のための質問への回答締め切り	2024 年 9 月 13 日
入札提出	2024 年 10 月 18 日
契約授与	2024 年 11 月 15 日
契約調印	2025 年 1 月 1 日

## ○契約期間と実行

ITER機構は2024年の11月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36か月の予定です。

## ○経験

契約者は、IO の規則と安全性の要求に十分に準拠する能力と経験を持っていることを示す必要があります。

ITER での作業に使われる言語は英語です。プロレベルの流暢さが求められます（話す、書く両方）。

## ○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。

コンソーシアムとして許可されるために、その点で含まれる法人はコンソーシアムの各メンバーをまとめる権限をもつリーダーをもたなければなりません。このリーダーはコンソーシアムの各目メンバーのために責任を負わなければなりません。

指名されたコンソーシアムのリーダーは、入札段階で、コンソーシアムのメンバーの構成を説明する予定です。その後、候補者の構成は、いかなる変更も ITER 機構に通知することなく変更してはなりません。かかる認可の証拠は、すべてのコンソーシアムメンバーの法的に授権された署名者が署名した委任状の形式で、しかるべき時期に IO に提出しなければなりません。

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「**Identification and Control of Items**」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。



china eu india japan korea russia usa

Route de Vinon-sur-Verdon - CS 90 046 - 13067 St Paul Lez Durance Cedex - France

# **PRIOR INDICATIVE NOTICE (PIN)**

## **OPEN TENDER SUMMARY**

for

OT 10028972 - Identification and Control - VML

**“Identification and Control of Items”**

### **Abstract**

The purpose of this summary is to provide prior notification of the IOs intention to launch a competitive Open Tender process in the coming weeks. This summary provides some basic information about the ITER Organisation, the technical scope for this tender, and details of the tender process for the provision of Technical Support Services for Equipment Qualification to the ITER Organization.

## **1 Introduction**

This Prior Indicative Notice (PIN) is the first step of an Open Tender Procurement Process leading to the award and execution of a Service 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 forthcoming tender giving companies, institutions or other entities that are capable of providing these services 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](http://www.iter.org).

### 3 Scope of Work

The present tender process is aiming to set up a Service Contract for aiding the cascading of the ITER 'Identification and Control of Items' procedure and the associated working instructions such as the ITER Numbering System, BOM management and the cataloguing of items.

The scope of work and all requirements are defined in the technical specifications ref. ITER\_D\_B8EWKJ v1.1 (attached to this PIN).

### 4 Procurement Process & Objective

The objective is to award a Service 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 Indicative Notice (PIN):**  
The Prior Indicative Notice is the first stage of the Open Tender process. The IO formally invites the Domestic Agencies to publish information about the forthcoming tender in order to alert companies, institutions or other entities about the tender opportunity in advance. **Interested tenderers are kindly requested to return the expression of interest form (Annex I) by e-mail by the date indicated in the procurement timetable below.**
- **Step 2 - Invitation to Tender (ITT):**  
Within 14 days of the publication of the Prior Indicative Notice (PIN), the Invitation to Tender (ITT) will be advertised. This stage allows interested bidders, who have seen the PIN, to obtain the tender documents and to prepare and submit their proposals in accordance with the tender instructions.
- **Step 3 – Tender Evaluation Process:**  
Tenderers' proposals will be evaluated by an impartial, professionally competent technical evaluation committee of the ITER Organization. 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 invitation to tender (ITT).
- **Step 4 – Contract award:**  
A service contract will be awarded on the basis of best value for money according to the evaluation criteria and methodology described in the Invitation to tender (ITT).

#### Procurement Timetable

The tentative timetable is as follows:

Milestone	Date
Publication of the Prior Indicative Notice (PIN)	28 June 2024
Submission of expression of interest form	12 July 2024
Invitation to Tender (ITT) advertisement	22 July 2024
Clarification Questions (if any) and Answers deadline	2 October 2024
Tender Submission	16 October 2024
Tender Evaluation & Contract Award	15 November 2024
Contract Signature	30 November 2024
Contract Commencement	1 January 2025

## **5 Quality Assurance Requirements**

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

## **6 Contract Duration and Execution**

The ITER Organization shall award a Service Contract in November 2024. The resulting Contract will be for a period of 36.

The working language of ITER is English, and a fluent professional level is required (spoken and written).

## **7 Experience**

The tenderer shall form a team of the dedicated staff who shall have the required experience as detailed in the attached technical specifications in order to provide the required support service.

## **8 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 authorized to incur liabilities and receive instructions for and on behalf of each member of the consortium.

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

## **9 Sub-contracting Rules**

Sub-contracting is allowed under this Contract. The maximum percentage of sub-contracting is limited to 30% of the total contract value.

All sub-contractors who will be taken on by the Contractor shall be declared with the tender submission in iPROC. 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). Rules on sub-contracting are indicated in the RFP itself.

## EXPRESSION OF INTEREST & PIN ACKNOWLEDGEMENT

To be returned by e-mail to: [Virginie.Michel@iter.org](mailto:Virginie.Michel@iter.org) copy [Kathleen.Reich@iter.org](mailto:Kathleen.Reich@iter.org)

ITER Organization / ITER Headquarters  
Procurement Division, Building 81/140B  
Route de Vinon-sur-Verdon  
CS 90 046  
13067 St. Paul Lez Durance Cedex  
France

TENDER No. **OT 10028972 - Identification and Control - VML**

**DESIGNATION of SERVICES:** **Identification and Control of Items**

Officer in charge: **Virginie Michel & Kathleen Reich  
– Procurement Division, ITER Organization**

- ☐ WE ACKNOWLEDGE HAVING READ THE PIN NOTICE **FOR** THE ABOVE-MENTIONED TENDER
- ☐ WE INTEND TO SUBMIT A TENDER
- ☐ WE WILL NOT TENDER FOR THE FOLLOWING REASONS:

.....

COMPANY STAMP

Signature:

Name: .....

Position: .....

Tel: .....

E-mail.....

Date: .....

## Technical Specifications (In-Cash Procurement)

# Technical Specification for Identification and Control of Items

The CIT (Centralized Identification Team) is a transversal team coordinated by the Design Office and aims at aiding the cascading of the ITER 'Identification and Control of Items' procedure and the associated working instructions such as the ITER Numbering System, BOM management and the cataloguing of items.

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### 1 Preamble

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 CIT (Centralized Identification Team) is a transversal team coordinated by the Design Office and aims at aiding the cascading of the ITER ‘Identification and Control of Items’ procedure and the associated working instructions such as the ITER Numbering System, BOM management and the cataloguing of items.

This Specification describes the requirements for services to support the identification and cataloguing activities in the relevant applications of the ITER Project (CAD, Libraries, Material Management, etc...).

### 3 Acronyms & Definitions

#### 3.1 Acronyms

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

Abbreviation	Description
CRO	Contract Responsible Officer
GM3S	General Management Specification for Service and Supply
IO	ITER Organization
PRO	Procurement Responsible Officer
CIT	Centralized Identification Team
ICP	ITER Collaborative Platform
EDB	ITER Engineering Database
FR	Functional Reference
MDE	Material Discipline Engineer
MRR	Manufacturing readiness review
PNI	Part Number of ITER
SN	Serial Number
SRD	SmartPlant Reference Data
SME	Standard Material Expert
TRO	Technical Responsible Officer
NCR	Non-Conformance Report
CAD	Computer Aided Design
TTT Code	Functional Designator of a Functional Reference
PBS	Plant Breakdown Structure
GBS	Geographical Breakdown Structure
SBS	System Breakdown Structure

For a complete list of ITER abbreviations see: [ITER Abbreviations \(ITER\\_D\\_2MU6W5\)](#).

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### 3.2 Definitions

**Contractor:** shall mean an economic operator who have signed the Contract in which this document is referenced.

**3-Ball Model:** data model aiming at identification and traceability of an item based on three key identifiers and their relationship, namely FR (Functional Reference), PNI (Part Number of ITER), SN (Serial Number).

**Functional Reference, FR:** The unique code identifying an ITER Component within the ITER PBS. FR is one of the 3 types of key identifiers of the 3-Ball Model, identifying an item “As-In the ITER System.”

**ITER Individually Distinguishable Item, IDI:** IDI is an item or a group of items of interest to IO Central Team, which constitutes the ITER System as a part/component. More specifically:

- Item of as-delivered situation to the site (or to another manufacturer’s premises, as necessary);
- Group of items to be site-assembled , e.g. kit of interface components;
- Items to be dismantled and re-assembled on site;
- Items subject to maintenance.

**Part Number of ITER, PNI:** The number identifying a given IDI-Type “As-Designed.” PNI is one of the three key identifier of the 3-Ball Model. IDI, or groups thereof, shall be tagged with PNI.

**Contract Responsible Officer (IO-CRO):** shall mean the IO staff person accountable for the full-cycle contract performance including initiating the procurement request according to the procurement plan(s), preparing the technical documentation, in collaboration with the Procurement Officer, supporting the tendering process, ensuring the overall quality of the input data prepared for the tender and for the contract, and being the IO’s single point of accountability for the overall performance of the contract once placed.

**Technical Responsible Officer (IO-TRO):** Any IO staff responsible to the technical definition and provision of input for any given Task Order. He/she is responsible to technically validate the deliverable outputs provided by the Contractor under an associated Task Order under his/her responsibility.

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## 4 Applicable Documents & Codes and standards

### 4.1 Applicable Documents

It 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.

Ref	Title	IDM Doc ID	Version
1	General Management Specification for Service and Supply (GM3S)	82MXQK	1.4
2	Procedure for Identification and Controls of Items	U344WG	2.2
3	ITER Numbering System for Components and Parts	28QDBS	5.0
4	ITER Function Category and Type for ITER Numbering System	2FJMPY	1.7
5	Work Instruction for Creation of Part Number of ITER, PNI and Cataloguing	UYGU3S	1.5
6	Equipment Major/Minor categorization guidelines	8QY3HN	2.0
7	How to Record FR-PNI Link in SPMAT	APPUZ3	1.1
8	Valve cataloguing procedure in SPRD	5T2VJD	1.0
9	Working Instruction MDE assistant guide	6ANY38	1.0
10	Strategy Cataloguing for Cubicles	8E3JX7	2.0
11	Cataloguing Recovery Process	2NGB5J	1.3
12	Fastener Standardization	8XW22M	1.0
13	Work Instruction for Management of TTT Code	7XUURX	1.2
14	Cataloguing Structure in SPMat	5CFZGZ	1.0
15	Cataloguing Structure Table in SPMat	5RXQHY	1.0
16	Cataloguing procedure for fittings with part number in SPRD	6PNK8R	1.0
17	Catalog Request_Sub-task Dispatching and Requirements	6HYT6L	1.0
18	How to Manage Datasheet related to Article/PNI	AKJT9T	1.1
19	How To Request PNI - Catalogue Part	2NGCBV	2.0
20	MDE assistant checklist	4LW4XZ	1.0

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### 4.2

### 4.3 Applicable Codes and Standards

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

Cataloguing relates strongly to standard elements. Therefore, the contractor shall have the capability to obtain / procure any standard required to properly record items into the Material Management System **if not provided by the IO.**

## 5 Scope of Work

This section defines the specific scope of work for the service, in addition to the contract execution requirement as defined in Ref [1].

The overall scope is about supporting the implementation of the identification process related to Functional References and Part Number of ITER. This includes:

- The specification and contribution to any development/improvement of applications supporting this process,
- The creation of data related to identification (CAD models, identifiers, documentation, etc...),
- The quality control of the proper execution of the procedure,
- The user support for any guidance, issue or request which could be raised.

The details are expressed in the following chapters divided by category of activity.

### 5.1 Scope of work #1 - Data Modelling

#### 5.1.1 Description

This scope of work called “Data Modelling” is about supporting the implementation of Engineering data & data development related to the process of Identification of item (FR, PNI, SN) in the relevant project applications such as ICP, CAD systems or any other.

It can be broken down into an operational part and a development part (contribution to the implementation of the systems).

1. The operational part is about supporting the implementation of component management in CAD. It covers the execution of all necessary actions required to ensure a proper implementation of the ITER Numbering System with a special emphasis placed on the declaration of Functional Reference, maintenance of Function Category Designators (TTT codes) and associated application administration tasks:
  - Administration of the Master TTT code list for the Numbering system. This task includes:
    - Continuous improvement of the definitions (descriptions) of the existing codes in order to avoid confusion and wrong tagging
    - Detection of potential conflicts, overlaps and inconsistencies in the existing code list
    - Enriching the current list with new codes according to agreed needs with PBSs

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- Removal of unused and/or redundant ones
  - For all functional items, define the related symbol in collaboration with the schematic team
  - Support on ITER numbering system application in CAD-tools. This task includes:
    - Assistance in the development and implementation of proper numbering logics for the different PBSs in support to the PBS RO/RE and DECO
    - Checking of the completeness of tags list available in design authoring tools and its compliance with ITER numbering system.
  - Project Change propagation i.e. ensuring official changes of Project Breakdown structures (PBS, GBS or SBS) are properly implemented into the CAD or downstream Applications.
    - The contractor will be in charge to ensure these propagations are correctly implemented by creating the necessary sub-tasks to the relevant application supports, and raise
2. The development part focuses on the implementation of the centralized component management system. It includes the following activities:
- Writing Business requirements and/or functional specifications expressing the needs and requirements, from user perspective, of what is expected from the system.
  - Define tests scripts and user acceptance scenario for new features and/or improvements supporting the identification process and related processes.
  - Execute unitary acceptance tests but also non regression tests which shall be duly recorded for traceability of the solutions developed.

### 5.1.2 *Service Duration*

The maximum expected duration for this activity is T0 + 36 months. T0 shall be after the signature of the Service Contract by both parties and no later than the Kick off Meeting (within 4 weeks of the signature of the Contract).

## 5.2 **Scope of work #2 - Component Management registration, correction and Cataloguing**

### 5.2.1 *Description*

#### Component Identification Quality control.

In order to maintain a sufficient level of quality of the component identification, a part of this scope is to monitor and support on tagging issues including the NCR follow-up and creation when appropriate.

Using relevant CAD/Project Applications and/or reports available

- Reporting and Quality control of ITER functional references application. Based on previous work packages tasks, a quality control has to be performed to identify, track and clean quality issues, such as redundancy, inconsistency, codes not used...
- Regular follow-up of the issues identified in the NCR and maintain its status in the related lists.
- Propose corrective actions
- Provide a quality assessment per PBS

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- Analyse the impacts on engineering and construction - Follow-up the data cleaning campaigns
- Report on a monthly basis on FR completeness for plant and mechanical design

When appropriate, and based on his experience, the quality control can be complemented by:

- Performing walk-downs (verify correctness of system configuration) with maintenance/operation team in order to identify the recurring issues and express recommendations. This can lead to engineering data/document update
- Reviewing production engineering documents/data, such as cabling and oneline diagrams, identifying issues and propose corrective actions if required

List is not exhaustive and additional tasks requiring expertise on engineering deliverables may be requested and shall be equivalent to the Work Unit detailed in Section 8.

### Article registration (PNI)

All items to be managed for Construction, Maintenance and/or Operation (IDI) have to be declared in the official ITER Material database and assigned with a PNI.

In the frame of this activity, the contractor will have to register in the cataloguing system all items, equipment, specifications, spare parts requested through the catalogue ticket System together with all the relevant technical information when applicable.

The contractor will be supported by the Standard Material expert when required.

*Note: The cataloguing system used currently at IO is Smart Plant Reference Data (SRD). In case of change of this system (fully or partially for specific scopes, e.g. use of SAP), the activity described hereafter remains applicable (with necessary adaptation wherever required) and shall be performed by the contractor in the appropriate system as per methodologies defined by the IO.*

As needed, the contractor shall complement the catalogue structure by creating the necessary object in the application such as:

- Group code (if not already existing)
- Part code (if not already existing)
- The identification of the key characteristics
- The creation of the Commodity Code and Ident Code (PNI) into the system, including table details and/or geometric tables if required
- The correct definition and configuration of description related objects such as CMS properties, class layout, CC and descriptions
- The release of these items by setting the correct status for its availability to project and its use in CAD Systems.

In some cases, the contractor will have to manage complex catalogue requests requiring the coordination of PBS engineers, CAD administrators and librarians to ensure a proper and coherent relationship between CAD tools and catalogue master system. It is in particular the case for components such as primary support, valves, or instrumentation.

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The cataloguing action is considered completed once the contractor has provided the list of created PNI to the requestor (with associated specification if applicable) and that information into the JIRA PNI Registration sub-task attributes (e.g. Number of PNI created) has been recorded.

When relevant i.e. for items subject to maintenance, the generation of the SAP Load file will have to be performed as well in order to propagate the information to the ITER Maintenance Management application. Templates and instructions will be provided at the Kick-off meeting by the IO.

Regularly, IO has to deal with materials to be delivered, maintained or operated without being properly registered in ITER Materials database during the engineering phase.

The processing of these items is called Legacy data management. It covers all request for PNI submitted after the fact because of deviation to the identification process, for example for Turn Key Contracts where the contract is to design, install and test a system. For this, the contractor will have to perform recovery actions, as defined below:

- Analyse input data such as Manufacturing dossier, Contract release note, datasheet, packing list, as built drawing...
- Extract the necessary and sufficient technical information to allow a characterization of items. This action shall be done jointly with the requester and the SME.
- Identification of the recommended spare parts as defined by the manufacturer/vendor.
- Participate to physical inspections on site to collect missing information when required.
- Confirm with Maintenance team that the correctness, completeness of collected information and proposed descriptions.
- Register all items in the system (including spares) accordingly.
- Associate the FR provided as input information to the PNI as per the methodology in place
- Prepare the SAP load file for maintenance activities.

In the frame of these recovery actions, a precise and close follow-up is required in order to monitor the progress with regards to the TOP (Turn Over Package) and associated deadlines.

### CATIA ITER Plant & Mechanical standard part catalogue

In order to support design activities, the CIT provides CATIA CAD Catalogues for standard and COTS items. These catalogue models can then be used across the project by any system.

Based on Tickets assigned, the activity consists in developing or modifying Native ITER Plant and Mechanical catalogue for CATIA application:

- Creation of Template part with user parameters if needed.
- For Plant design, association to the discipline dictionary (Typing) and definition of technical characteristics in the relevant properties
- When relevant (catalogue part with associated design table), generation of the resolved parts (one CAD Model generated per row of the design table)
- Test of the parts produced according to related design methodology to ensure the model behaves correctly.
- Deployment in Productive environment (model to be added in catalogue and store in ENOVIA Database)

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- Creation/update of the documentation associated which includes description sheet for each part family and catalogue browser for each discipline (ex: Piping Equipment Catalogue Browser (2EYYKE))

### AVEVA ITER Plant catalogue

The AVEVA CAD Catalogue activity is focussed on Plant design systems, especially but not limited to Piping, Structure, HVAC and Instrumentation. It covers the full cataloguing process from the gathering of technical information provided as input of the task, creation of 3D Models, associated documentation, Identification, testing and integration to IO CAD system.

The expected work is the creation/modification and integration of AVEVA CAD Catalogue models in compliance with the requests submitted. It includes:

- The production/update of the 3D model according to the information provided, in compliance with the standards if applicable.
- The production of geometrics table for parametric parts when relevant, in order to manage efficiently multiple sizes/configurations.
- Integration of the models into the testing environment/area
- Testing of the models in context, in coherency with the final use of the catalogue object into the IO. The test results (checklist) shall be delivered together with the CAD Models in order to ensure a proper traceability.
- Definition of the related documentation.
- Delivery of the CAD Models and related documentation produced and integration in the IO Environment (including the impact analysis in case of model update/modification)

A detailed follow-up of the activity with indicators is also expected to be delivered on a monthly basis.

### Discipline Specification Management

Piping and structural specification management is key to support the usage of qualified/authorized material for a given system/area. It is also key for the association of PNI to CAD when one CAD Model can correspond to multiple PNI (same shape but different material/requirements).

In this context, the contractor will have to perform the following tasks:

- Create and maintain piping specifications or any other types of specification in SRD.
- Coordinate the cleaning campaigns specifications between CAD tools, SRD and approved paper specification.
- Support the coming implementation of SRD as master for Spec. management.
- Regularly publish specification reports in the document management system ensuring a traceability of the updates implemented through JIRA Catalog Request and consistency/propagation to the relevant CAD Systems.

### Schematic catalogue SEE Electrical Expert

The official CAD Application to produce detailed schematic on ITER is SEE Electrical Expert. It provides a catalogue of symbols to be used which is maintained directly by the editor. Therefore, when a symbol is not available, this library needs to be updated and a specific process shall be applied.

In this context, the contractor will be in charge of processing all SXP symbol request submitted in the catalogue request system by:

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- Ensuring the set of information provided in the ticket are sufficient for the creation of the symbol by the editor, in accordance with the SEE Electrical Expert Request methodology.
- Submitting the request for new symbol to the editor as per editor specific process
- Following-up the integration of the requested symbol into editor platform
- Deploying the new symbol into ITER Platform when available
- Checking the symbol is correctly behaving.

### PNI Mapping to CAD

When applicable, the mapping of the PNI created (cf. Article registration) into the relevant CAD Environment is required. In such case, and supported whenever possible by customized functions and developments, the contractor will have to:

- Import/define PNI references and associated properties in the CAD Environment according to the specific methodologies defined by Application and discipline.
- Associate PNI to the relevant CAD Representation
- Ensure the information is correctly reported in engineering deliverables such as Bill of Material and drawings.

The PNI mapping shall be performed as part of the CAD Cataloguing activity of the relevant application except if a specific task is defined in the catalogue request system.

### Catalogue Request Drumbeat

Also known as “MDE assistant”, the contractor will be the interface between the different librarians in charge of the item cataloguing and the PBSs, requesting a cataloguing task.

A unified process has been put in place covering registration of items in ITER standard material database (SRD) and the production of CAD representations (mainly CATIA, AVEVA, See Electrical Expert, Cadenas). Catalogue request are described in the following document: [How To Request PNI - Catalogue Part \(2NGCBV\)](#)

This process is supported by the Catalogue request system which requires a synchronization between the various actors. Depending on the request, the contractor will have to assign sub-task(s) to the relevant CIT members. Creating additional sub-tasks can also be required if the standard sub-tasks (automatically created) are not sufficient to execute the request properly.

The activity will be to:

- Consolidate the need with the requester by checking that all mandatory information have been provided and are correct, define/adjust request properties as PBS, Coming gate, Discipline...
- Analyse in detail the technical information requested for the items cataloguing thanks to a requisition form adapted to the item type.
- Ask the SME to confirm that the request is compliant with ITER standard and ITER catalogue.
- Assign the sub-task related to the catalogue creation/modification to the relevant person.
- Follow ticket progress and coordinate the sub-tasks to be performed by the librarians taking into account the priority of the requests.

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- Monitor the catalogue tickets and report to IO RO, in particular in case of any blocking situation.
- Once the cataloguing task have been completed by the librarians, the contractor has to check with the requestor that the delivery is matching to his expectation and close the ticket with his agreement.
- Issue weekly report on the catalogue production activity.

This key role in the cataloguing process requires a good technical knowledge (Mechanical, Electrical and/or Piping disciplines).

A cataloguing experience in a CAD Tool and/or SRD will be an added value.

Below an example of checklist to be followed by the contractor: [MDE assistant checklist \(4LW4XZ\)](#).

### **5.2.2 Service Duration**

The maximum expected duration for this activity is T0 + 36 months. T0 shall be after the signature of the Service contract by both parties and no later than the Kick off Meeting (within 4 weeks of the signature of the Contract).

## **5.3 Scope of work #3 - CAD and ENG Methodology, Quality Assurance and Quality Documentation**

### **5.3.1 Description**

This scope of work covers specific tasks related to processes or methodologies of work, such as analysis or formalization into proper documentation. Based on the inputs provided, and using experience, expertise and industrial practices on the topics, the activities to be performed are:

- The analysis of the current situation (“as-is”) in order to get a proper understanding of the stakes and difficulties.
- The proposal of a target situation (“to-be”) including all relevant improvements that could improve efficiency, quality, etc...
- The evaluation of the current effort and expected benefits in order to quantify, in time or from a financial point of view, the added value provided.
- The formalization in a dedicated document with the appropriate format, duly explained and illustrated (examples, charts, etc...)
- The definition of methodologies in compliance with the design methodologies in place at the IO. Proposals of design methodologies could be provided to the CAD Application Representative when relevant.
- The establishment of rules and associated quality criteria if applicable.
- The definition of How to procedures for the administration tasks dealing with catalogue usage or maintenance.

### **5.3.2 Service Duration**

The maximum expected duration for this activity is T0 + 36 months. T0 shall be after the signature of the Service contract by both parties and no later than the Kick off Meeting (within 4 weeks of the signature of the Contract).

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### 5.4 Scope of work #4 - CAD and Engineering User support

#### 5.4.1 Description

This scope of work covers the activity of user support for all the functions/applications related to Identification of items. Based on the specific ticket DO Queue “ITER Numbering System”, the contractor shall provide support to users (IO and DA) in a timely manner:

- Support on component management in the centralized platform (ICP/EDB)
- Support on use and request of reports associated with identification process
- Maintain ticket statuses according to the internal procedures
- Add/update all necessary information to the ticket either in dedicated properties or through comments.

#### 5.4.2 Service Duration

The maximum expected duration for this activity is T0 + 36 months. T0 shall start with the Kick off Meeting which shall be held within 4 weeks of the signature of the Contract.

## 6 Location for Scope of Work Execution

Contractor can perform the work at their own location.

However, work at the ITER site may be required on occasions, such as co-ordination meetings, onsite verification of items, etc... and shall be organised accordingly as and when required either by the TRO or the contractor.

## 7 IO Documents

Under this scope of work, IO will deliver the following documents by the stated date:

Ref	Title	Doc ID	Expected date
1	Cataloguing Recovery Report Template	B5HJQ4	T0

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### 8 List of deliverables and due dates

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.

On a general matter, the deliverables shall be self-standing documents corresponding to the outputs defined and agreed at the start of the task (report of cleaning campaigns, functional specifications, etc...) and according to the template provided by the IO when applicable.

In case of intermediate deliveries, it shall be clearly stated that the revision is not the final delivery with details on what is and is not covered (e.g. percentage of completion of FR). The deliverable shall keep its initial reference and any additional delivery shall be a new version of it up to the final delivery.

For activities based on ticket system (catalogue request, user support), the standard deliverables are the tickets processed but shall be accompanied by a report listing the ticket processed on a monthly basis. To be noted that all information and data generated included in the ticket processing (as specified in the scope of work) are also considered part of the deliverable.

Any non-compliance will cause a rejection of the global deliverable and the rework shall be performed at the charge of the contractor.

The Estimated effort for completion of the ticket or work Unit is encoded as follows:

Size	Estimated effort ('hour)
XS	1
S	4
M	8
L	16
XL	40

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WU	WU Title	Estimated time of completion WU (hours)	Estimated quantities	Deliverable Description
<b>C1-XS</b>	IOCAD Ticket User support Extra Small	1	45	- Ticket resolved with relevant information filled and status correctly updated - when applicable, data/files correctly implemented in the system
<b>C1-S</b>	IOCAD Ticket User support Small	4	195	
<b>C1-M</b>	IOCAD Ticket User support Medium	8	135	
<b>C1-L</b>	IOCAD Ticket User support Large	16	90	
<b>C1-XL</b>	IOCAD Ticket User support Extra Large	40	15	
<b>L1-XS</b>	Cataloguing -New item(s) Extra Small	1	60	- Catalogue Models or data implemented in the appropriate IO software Environment with its related documentation - Ticket resolved with relevant information filled and status correctly updated
<b>L1-S</b>	Cataloguing -New item(s) Small	4	1500	
<b>L1-M</b>	Cataloguing -New item(s) Medium	8	750	
<b>L1-L</b>	Cataloguing -New item(s) Large	16	300	
<b>L1-XL</b>	Cataloguing -New item(s) Extra Large	40	30	
<b>L2-XS</b>	Cataloguing -New item(s) from existing catalog parts Extra Small	1	150	
<b>L2-S</b>	Cataloguing -New item(s) from existing catalog parts Small	4	1200	
<b>L2-M</b>	Cataloguing -New item(s) from existing catalog parts Medium	8	300	
<b>L2-L</b>	Cataloguing -New item(s) from existing catalog parts Large	16	75	
<b>L2-XL</b>	Cataloguing -New item(s) from existing catalog parts Extra Large	40	30	
<b>L3-XS</b>	Cataloguing-Modification Extra Small	1	450	
<b>L3-S</b>	Cataloguing-Modification Small	4	300	
<b>L3-M</b>	Cataloguing-Modification Medium	8	75	
<b>L3-L</b>	Cataloguing-Modification Large	16	15	
<b>L3-XL</b>	Cataloguing-Modification Extra Large	40	3	
<b>D1-S</b>	CAD user documentation (HowTo, CADManual, Methodology...) Small	4	45	- Document in native format (powerpoint or Word) according to IO Template when applicable
<b>D1-M</b>	CAD user documentation (HowTo, CADManual, Methodology...) Medium	8	75	
<b>D1-L</b>	CAD user documentation (HowTo, CADManual, Methodology...) Large	16	45	
<b>D1-XL</b>	CAD user documentation (HowTo, CADManual, Methodology...) Extra Large	40	6	
<b>D2-S</b>	Consulting, Engineering Expertise Small	4	75	-Detailed report in native format (word or powerpoint) presenting the analysis of the current situation, recommendations, implementation steps, proof of concept and conclusions
<b>D2-M</b>	Consulting, Engineering Expertise Medium	8	135	
<b>D2-L</b>	Consulting, Engineering Expertise Large	16	45	
<b>D2-XL</b>	Consulting, Engineering Expertise Extra Large	40	18	
<b>D3-S</b>	Reporting of activities Small	4	120	-Report as per template agreed at KOM
<b>D3-M</b>	Reporting of activities Medium	8	48	
<b>D3-L</b>	Reporting of activities Large	16	42	
<b>D4-S</b>	IT specification Small	4	66	- Document in native format (Word) expressing the

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<b>D4-M</b>	IT specification Medium	8	90	functional requirements ordered logically and associated to identifiers.
<b>D4-L</b>	IT specification Large	16	90	
<b>D4-XL</b>	IT specification Extra Large	40	60	- recapitulative table of the requirements in excel format attached to the published document
<b>D5-S</b>	Test report Small	4	90	- Test report in native format (excel) and according to the template provided when applicable.
<b>D5-M</b>	Test report Medium	8	105	
<b>D5-L</b>	Test report Large	16	42	
<b>D5-XL</b>	Test report Extra Large	40	18	

## 9 Quality Assurance requirements

The Quality class under this contract is Design control – Class 2 and [Ref 1] GM3S section 8 applies in line with the defined Quality Class.

The use of computer software to perform a safety basis task activity such as analysis and/or modelling, etc. shall be reviewed and approved by the IO prior to its use, in accordance with [ITER\\_D\\_258LKL - Working Instruction for the Qualification of ITER safety codes](#)).

## 10 Safety requirements

Not applicable.

### 10.1 Nuclear class Safety

Not applicable.

### 10.2 Seismic class

Not applicable.

## 11 Specific General Management requirements

Requirement for [Ref 1] GM3S section 6 applies in full.

### 11.1 Contract Gates

The contract gates are defined in [Ref 1] section 6.1.5, this scope of service call for the following technical gates: Contract Gates for Service

### 11.2 CAD design requirements

This contract requires for CAD activities, [Ref 1] GM3S section 6.2.2.2 applies.

## 12 Appendices

None