

Mission

The Construction Domain (CNST) shall support the Director-General (DG) of the ITER Organization (IO) to achieve the ITER Project's objectives, in the first place First Plasma 2025, with the assembly and installation of all the components and systems necessary to successfully achieve this critical milestone. In compliance with IO regulations and rules, this Domain which will gather the IO and DAs staff who contribute to the design, manufacturing and delivery of these components, as well as the specialists for construction, will be in charge of the comprehensive management of the associated contracts, budget management and planning, execution and completion of the erection activities on site, according to the agreed time schedule to achieve the required performance. It includes Assembly and Installation of the ITER Machine, Tokamak Complex and Plant facilities, leveraging the contract of Construction Management as Agent (CMA), in close cooperation with Engineering and Science & Operations Domains and Domestic Agencies, and supported by Corporate Domain.

Major Responsibilities

Responsibilities of "Construction Domain" are summarized hereafter:

- To develop the strategy for Assembly and Installation, in close collaboration with Office of the Director-General in accordance with Project Strategy.
- To ensure that the general site layout and configuration are managed as per the ITER Configuration Management Plan and as-built designs are recorded and maintained, in collaboration with Engineering Domain which validates the final design and manages the configuration;
- To advise the IO DG and provide recommendations on any opportunity, risk or issue the Construction Domain staff would consider as useful for him/her in order to optimize construction management in order to successfully achieve the milestone First Plasma 2025 and more broadly ensure the IO fulfils its mission and complies with its obligations in the best conditions;
- To follow up DAs' in kind procurement activities which are necessary for First Plasma configuration, excluding systems which are under Engineering Domain responsibility to follow up in kind procurement;
- To prepare and implement strategies, and update in real time installation plan according to the in kind contribution delivery dates , the development of processes, procedures and tools for efficient construction management as well as for achieving real time in field engineering support, in conjunction with Engineering Domain and DAs;
- To tender and manage contracts assuring the planned production at costs respecting the authorized MAC Contracts Values to execute the Machine Assembly and Plant Installation comprehensive of additional transversal support services such as control of workers in the work areas, scaffolding, barriers, lifting, storage and transportation;
- To ensure that all the Plant Installation activities as well as the Machine Assembly are carried out in accordance with the ITER Nuclear Safety ,the Environment Protection and the Occupational & Health Safety Standards;
- To assure on daily basis the control of the implementation of the Authorized Time Schedule reporting to DG and Corporate Domain any exception or deviations on weekly basis, and to proper perform surveillance on daily basis on Machine Assembly and Plant Installation activities with proper management of all complex interfaces with civil structures erection;
- To ensure constructability area by area of different configuration items (CIs), paying special attention on solutions generating unexpected costs for co-activities, management of interfaces with civil structures or affecting transversally other Contractors, in close collaboration with Engineering Domain and DAs;

- To assure configuration control on documentation certified “Bon pour la Construction” implementing numbered controlled copies, validated by Construction Director as professional engineer;
- To assure production of Engineering Work Packages (EWP) to develop Construction Work Packages (CWP) on time according to Machine Assembly and Plant Installation contractual time schedule, involving CMA for CWP production and Engineering Domain as Design Authority validation in the integration process;
- To establish and maintain a detailed construction baseline (scope, time schedule and cost as fixed through MAC approval) in accordance with Corporate Domain, assuring surveillance and management of the execution of works as well as control of the cost and quality, reporting systematically to Corporate Domain which will report to DG;
- To design and procure the necessary tools for Machine Assembly and Plant Installation beyond those provided as in-kind contribution by the DAs;
- To establish field quality control processes, carry out inspections, review plans, perform surveillance of quality control activities;
- To carry out in-field engineering design and in-field procurement in close coordination with Engineering Domain’s Design Authority and Finance and Procurement Department in Corporate Domain;
- To assure Machine Assembly and Plant Installation completion at the implementation, and delivery of certified validated performances of leak tests of different configuration items and Machine (pressure and vacuum test);
- To deliver Machine and Plant to Commissioning and Integrated Commissioning which is under the responsibility of Science and Operations Domain, following completion of leak tests, together with integrated Dossier of installation completion supported by all in field engineering dossier certifying resolution of in field Non-Conformities, in field deviation request as well as in field design changes, duly signed by Construction Director and approved by the Design Authority;
- To develop and implement the integrated global logistics plan according to in field daily necessities , including transportation to the ITER site, on-site logistics, management of materials comprehensive of procurement, materials receptions, inspections, storage and maintenance, issuance to the contractors;
- To provide in real time according to in field necessities the design, construction, operation and maintenance of temporary and permanent conventional facilities;
- To support, and contribute to the projects’ lifecycle cost saving / avoidance activities through its activities;

With Quality Management Division (QMD) support, CNST ensures that all its activities are in compliance with the requirements of the Management & Quality Program (MQP).

Interaction/Interface with other Domains/Departments/Offices

CNST shall guide, advise, and collaborate closely with all other domains, departments and units in carrying out its required responsibilities, as the primary domain to complete the construction, deliver the installation dossier integrating the as built configuration duly approved .

CNST shall closely interact with the Procurement and Contracts Division, Project Control Office, and Budget Office of Corporate Domain, and with the Safety and Quality Department to ensure the overall implementation of the OPC and OPS in compliance with the current baseline as approved by the ITER Council and the IO rules and regulations.

In formally issuing the final installation and Machine Assembly, CNST will work in efficient integration with Central Integration Office of Engineering Domain as well as with Safety and Quality Department to assure delivery of final Installation Dossier duly verified and certified by the Design Authority.

Delegated Authorities for the Construction Domain

CNST has the following delegated authority as defined in ITER Organization Delegation of Authority (4AFC6R) and Roles and Responsibilities of Line Manager (9FTXRG):

- Line management within CNST, including technical and managerial decisions on construction activities for First Plasma as described under its major responsibilities, within the boundary conditions defined in the Baseline.

Direct Supervisor

Reports to the DG as line manager.

Organization Structure of the Construction Domain

The CNST is composed of the following subordinate two Departments and one Office as Chart 1.

- *Machine Construction Department (MCD):*
 - To plan, prepare, and oversee or execute Pre-Assembly, Assembly, Installation and Construction Works of the ITER Machine in the Assembly Hall, Tokamak Bioshield Hall and Tokamak Complex Building with Plant Installation Engineering work packages, including Vacuum and Tokamak Cooling Water system, and in-field engineering service provided from Plant Construction Department (PLD) and with transversal co-ordination from Construction Management Office (CMO), including for the management of the IO contracts related to Construction Works of the ITER Tokamak Complex Building with the supports from Construction Management as Agent (CMA).
- *Plant Construction Department (PLD):*
 - To plan, prepare, and execute Construction (electrical, mechanical) Works of the ITER Plant with transversal co-ordination from CMO for Electrical system, Cryogenic system, Plant I&C infrastructures as well as to manage properly civil structures interfaces;
 - To provide field engineering service to MCD under transversal co-ordination from CMO;
 - To plan, prepare, oversee and manage the IO contracts related to Construction Works of the ITER Plant with transversal coordination from CMO including the supports from CMA in the Balance of Plant (BoP).
- *Construction Management Office (CMO):*
 - To manage and implement Project co-ordination and transversal support for Plant Installation and Machine assembly activities;
 - To manage the Construction-Management-as-Agent (CMA) contract effectively and efficiently, in line with the Contract specifications and Construction Works' needs;
 - To plan, prepare and oversee or execute Construction Works related to the building and civil works of the IO, as well as to coordinate and jointly manage with Buildings, Site Infrastructure & Power Distribution Project Team (BIPS PT) Construction Works of building and civil works on the ITER site.

- To ensure that all site construction works performed at the ITER Construction Worksite are in accordance with the Overall Project Schedule (OPS) (Baseline 2016 and Revised Construction Strategy) and Overall Project Cost (OPC), and that all transversal activities undertaken by the Construction Domain are fully consistent with IO practices and fully integrated into IO systems and procedures through close co-operation and interaction with Central Integration Office and Project Control Office.

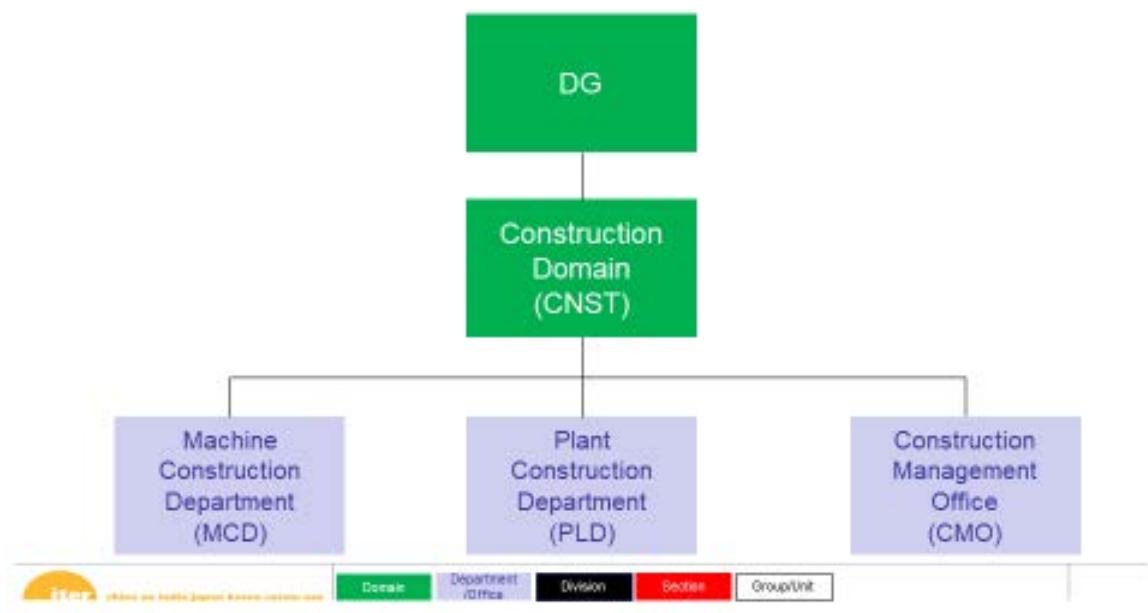


Chart 1: Organization Structure of the Construction Domain