**Thales Alenia Space**

**Cislunar Gateway – International Habitat (I-HAB) Phases B2/C/D/E1**

**Notice to all potential subcontractors**

1. **INTRODUCTION**

The Cislunar Gateway- International Habitat (I-HAB) is ESA’s contribution of an infrastructure element supporting the Gateway with full crew habitability and utilization requirements from early 2026. The I-HAB includes contributions from USA, Japan and Canada Space Agencies. The Cislunar Gateway is a multi-element infrastructure designed to support both robotic and human exploration of cis-lunar space and act as “basecamp” for sustained lunar exploration.

Thales Alenia Space Italia (TAS-Italia) identified as Prime Contractor for the International Habitat (I-HAB) Module, procurement convenes the

**I-HAB Industry Day**

to present to the Industrial Community the procurement activities anticipated as part of the future Implementation phases to establish an industrial organisation meeting all programme requirements, including ESA Industrial Policy requirements and other procurement targets

The Industry Day will take place on

**Wednesday 20th May 2020 from 10:00 CET**

It will consist of an internet live streaming presentation of the mission in the morning followed by a series of bi-lateral meetings hosted via WebEx between Thales Alenia Space and interested potential subcontractors.

The bi-lateral meetings will be conducted in the afternoon at pre-booked timeslots via WebEx or equivalent once interest in the Industry Day has been registered.

Registration for the Industry Day

<https://www.cosmos.esa.int/web/i-hab-industry-day/home>

Completion of the Expression of Interest (EOI) Form (attached) and general enquires for the Industry Day can be made by email through the following mail address:

[IHAB.IndustryDay@thalesaleniaspace.com](mailto:IHAB.IndustryDay@thalesaleniaspace.com)

Please note that the registration and completion of the EOI is **MANDATORY** for attending the event.

Should an economic operator within the ESA Members, Cooperating and Associated States wish to:

* **follow the event**, it should contact TAS-Italia in the first instance at the contact e-mail address identified in this document within 10 working days of this publication by populating and submitting the on-line Registration form and emailing the completed Expression of Interest (EOI) to the address above (with ESA in copy-see section 4 below)
* **be considered for a bi-lateral meeting** on any of the equipment or items in the table above listed, please specify in the EOI the motivation for your request .

TAS-Italy will evaluate all requests and, should there be no time to accommodate all requests, will give priority to the not yet known economic operators and the Small and Medium Enterprises.

The preliminary Agenda for the Industry Day is also provided on the website.

1. **PROCUREMENT PROCESS**

As Prime Contractor for the implementation phase of I-HAB, once authorised to proceed with the full Implementation Phase by the Agency TAS-Italy is planning to release several Invitation To Tender (ITT) to complete its Industrial Consortium constitution on EMITS – EXTERNAL ENTITIES - Thales Alenia Space Italia SPA:

• EMITS 🡪 ENTITIES





Intended Invitations to Tender (IITT) and Invitation to Tender (ITT) packages will be published by TAS-Italia on EMITS by copying and pasting this link:

<http://emits.sso.esa.int/emits/owa/emits.main?p_entity=ALENIA&ul>=

TAS-Italia invites all potential subcontractors interested to participate to the I-HAB mission B2/C/D/E1 implementation phase to the Industry Day.

All restricted and open competition ITTs will be published on EMITS – EXTERNAL ENTITIES - Thales Alenia Space Italia SPA.

The selection will be run according to ESA Best Practices for the selection of subcontractors by prime contractors in the frame of ESA’s major procurements, ESA/IPC(2012)65,rev.2.

It is foreseen to release the ITTs/RFPs within 2020 and to complete the selection of the I-HAB industrial consortium within the next 12 months.

Procurement items will be open to competition to ESA participating states to the European Exploration Envelope Programme (“E3P”). Unless specifically mentioned in the invitation letters to the corresponding ITTs, all items listed are potentially intended to be procured in open competition.

The ESA Participating States to the second period of E3P are: Austria, Belgium, Czech Republic, Denmark, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, The Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden, Switzerland, United Kingdom, Slovenia and Canada.

The Geographical distribution percentages applicable to the I-HAB programme are provided for your information:

|  |  |  |
| --- | --- | --- |
| **Country** | **Min** | **Max** |
| Italy | 35% | 40% |
| France | 30% | 35% |
| Germany | 5% | 10% |
| Belgium | 5% | 10% |
| Spain | 5% | 10% |
| Switzerland | 5% | 8% |
| Denmark - Norway - United Kingdom | 3% | 10% |
| Romania | >0% | 5% |
| Hungary | >0% | 5% |
| Others | >0% | 5% |

In agreement with ESA, preference clauses, or restrictions, may be defined on a case-by-case basis in order to fulfil the programme’s overall Geographical Distribution and Small-and-Medium-Enterprises participation. As a target, 5% minimum of the overall industrial implementation would be allocated to Small and Medium Enterprises.

1. **ANTICIPATED LIST OF ITEMS TO BE PROCURED**

The anticipated list of the equipment to be procured reported hereafter:

**Avionics Equipment**

* Flight Computer Module and Remote Interface Unit (FCM and RIU)
* Critical Mass memory (CMM)
* Non critical mass memory (NCMM)
* Time Triggered Equipment Switch Unit (TTESU)

**Mechanical Equipment**

* Launch Vehicle Adapter (LVA)
* External Secondary Structures (ESS)
* Meteorite Protection Structure (MPS)

**Active Thermal Control Subsystem (ATCS)**

* TCS Pump Package Assembly Controller (PPAC)
* TCS Delta Pressure Sensors and Pressure sensors (DPS/TPS)
* TCS Filters
* TCS Three Way Mixing Valve and LOOV (TWMV/LOOV)
* TCS GAS Trap
* TCS Regenerative Heater Exchanger and Interloop Heat Exchanger (RHE and IHE)
* TCS Diverter and Check Valves (DV and CV)

**Passive Thermal Control Subsystem (PTCS)**

* Passive Thermal Control Subsystem \_(heaters, Thermistors, Thermostats) (PTCS)

**Environmental Control & Life Support Sstem(ECLSS)**

* ECLSS Positive Pressure Relief Assy (PPRA)
* ECLSS Intermodule Ventilation Valve (IMV)
* ECLSS Manual Pressure Equalization Valve (MPEV)
* ECLSS Venting and Shut/Off valves for CO2-H2O -H2/CH4 (SOVs)
* ECLSS Pressure Control Assembly (PCA) which includes:
  + Venting valve for vestibule press/depress,
  + Remote Control Vestibule Depres valve,
  + Remote Control Vestibule press valve

**Harness**

* Harness (HRNSS)

**Crew Systems**

* Intra-Vehicular Robotics (IVR)

**Software**

* Application Software (ASW)
* Independent Software Verification & Validation (ISVV)

**FGSE**

* Nitrogen/Heliun Pressurization system
* External Radiators circuit filling, conditioning & circulation system
* Water/Clycol Internal circuit filling, conditioning & circulation system

**EGSE**

* EPS Power SCOE – EPS SCOE Load Simulator -
* CCS
* DH SCOE (1553+SPW+RS4322) +I/O SCOE
* TCS SCOE
* ECLSS SCOE

**MGSE Batch 1**

* Module (SM side) Handling/Integration Lower Main Ring (HMR)
* Module Handling/Integration Intermediate Ring (HIR)
* Handling/Integration Upper Ring (HUR)
* Top Cone Handling/Integration Lifting Device (CHD)
* LOP-G Vertical/Horizontal Lifting Brackets (VHLB)
* LOP-G Vertical Lifting Device (LVLD)
* LOP-G Horizontal Lifting Device (LHLD)
* Internal Movable Access Plate (IAP)
* Hatches opening kit (one for each radial and axial)(HOK)
* Access/working platform (AP)
* Integration & Rotating Stand (IRS)
* 1 g floor (1GF)

**MGSE Batch 2**

* Spacecraft Transport Container (STC)
* EDU - Easy mover
* Movable Access Platform (MAP)
* LOP-G Tilting Trolley (LTT)

**Power Equipment**

• Secondary DC to DC Converter Unit (S-DDCU)

• Main Bus Switching Unit (MBSU)

• Power Distribution Unit (PDU)

• Portable Equipment Power Unit (PEP).

• Docking DC to DC Converter Unit (D-DDCU)

• Bidirectional DC to DC Converter Unit (B-DDCU)

• Battery Charge and Discharge Unit (BCDU)

The non-exhaustive list above includes the planned procurements; some items may be grouped or, conversely further broken-down, to better suit the project needs and/or help achieving the geographical return and other Industrial policy requirements.

1. **PERSONAL DATA PROTECTION**

With respect to the personal data collected for the purposes indicated under this document, please note that TAS-Italy and ESA will act as separate Data Controllers as follows:

For ESA:

ESA will retain the forms submitted for the registrations for the duration necessary to fulfil the objectives of this Expression of Interest and Industry days, as announced herein.

The personal data will be handled in accordance with the “ESA Personal Data Protection Framework” applicable to ESA and available on the ESA website at the URL: <http://www.esa.int/About_Us/Law_at_ESA/Highlights_of_ESA_rules_and_regulations>

For TAS:

TAS-Italy and TAS-France will collect the Expression of Interest Forms received at the email address- referenced above and retain and use them only for the purposes stated in this Notice. By submitting a form, consent is given to make the expression of interest publicly known, as stated on the Expression of Interest Form. ESA will be in copy of the correspondence (IHAB.Industry.Day@esa.int) and have visibility of the Expression of Interest Forms.

Please kindly indicate your consent to the above in the registration email.

1. **DISCLAIMER**

The publication of this Notice or invitation to the Industry Day shall not bind Thales Alenia Space Italia nor ESA to issue an invitation to tender / request for proposal / request for quotation, nor to place a contract for any of the procurements detailed herein.

The list of Procurement Items may be amended by Thales Alenia Space Italia in agreement with ESA.

**Thales Alenia Space**

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**Expression of Interest Form - I-HAB**

To: [**IHAB.IndustryDay@thalesaleniaspace.com**](mailto:IHAB.IndustryDay@thalesaleniaspace.com)

Cc: [**IHAB.Industry.Day@esa.int**](mailto:IHAB.Industry.Day@esa.int)

We consent to Thales Alenia Space - Italia making this interest publically known, and to the Personal Data Protection provisions described in Section 4 of this notice.

|  |  |
| --- | --- |
| IHAB Item(s) for which interest is expressed to Bid |  |
| Company Name |  |
| Company’s ESA Entity Code (ESA-P Vendor Code) |  |
| SME | *YES/NO* |
| Country of Registration |  |
| Company Address |  |
| Company Web Address |  |
| Parent company (if applicable) |  |
| Company's main business activities |  |
| Company’s specialist products or capabilities offered |  |
| Space project heritage (including TRL if not flown) |  |
| ***Industry Day Registration***  *Please tick this box if you have registered for the Industry Day for IHAB (via internet)*  *Bilateral meetings will be conducted 20th May (afternoon) in 30 minutes slots over web-ex.* | *YES/NO* |
| ***Industry Bilateral Request***  *Request bi-lateral meeting with Thales Alenia Space Italia* | *YES/NO* |
| ***Industry Bilateral Request Motivation***  *Please specify the motivation for your meeting request* |  |
| **Company’s Point of Contact** |  |
| Full Name |  |
| Position |  |
| E-mail |  |
| Telephone Number |  |
| Signature |  |