

# **Upcoming Tenders at CERN**

7 Feb 2024

### 60-wire planetary cabling machine

Procurement Code: 02 25 05 03

Cost Range: 750 kCHF ⇔ 5 MCHF

Planning: MS: sent (MS-4905)

IT: Q4 2023

#### **Description & Specific Condition:**

Planetary cabling machine for manufacture of cables of up to 60 superconducting or copper wires and round cables

Contact: Thierry.Boutboul@cern.ch





# Metal precision cleaning machine for Ultra-High Vacuum (UHV) and particle physics applications

**Procurement Code:** 09 02 02 00

Cost Range: ≤ 750 k CHF

Planning: MS: Q4 2023

IT: Q1 2024

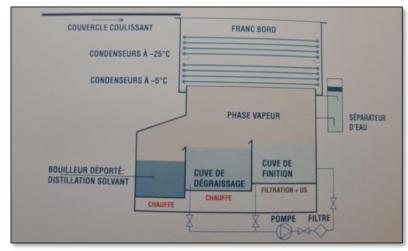
#### **Description & Specific Condition:**

Cleanliness level compatible with UHV both with hydrocarbon and silicon-based contaminants, useful cleaning capacity of 550 mm x 300 mm x 300 mm, used on a variety of metals.

Seeking firms with a similar machine pre-existing in its catalogue

Contact: Leonel.Ferreira@cern.ch







## **Assembly of DAQ (Data Acquisition System) Electronic Cards**

#### **Description & Specific Condition:**

Assembly and testing of PCBs of three different types with a maximum size of 322.25 mm x 280 mm, double-sided with up to 22 layers.

The contractor shall assemble a wide mix of components onto the PCBs.

The quantity will be approximately 900 units and deliveries are expected over a duration of 12 months from the date of Contract notification.

Procurement code: 03 03 01 00

Cost Range: 750 k CHF ⇔ 5 M CHF

**Planning:** MS: Q4-2023 - IT: Q1-2024

Contact: Christoph.Schwick@cern.ch







## **Assembly of Hexaboards Electronic Cards**

#### **Description & Specific Condition:**

Assembly and testing of around 22 000 rigid PCBs for the CMS High-Granularity Calorimeter.

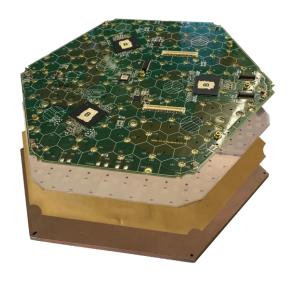
The PCBs have 8 layers, are mostly hexagonal with lateral dimensions of 20 cm × 20 cm and are approximately 1.3 mm thick.

Procurement code: 03 03 02 00

Cost Range: 750 k CHF ⇔ 5 M CHF

**Planning:** MS: Q4-2023 - IT: Q1-2024

Contact: David.Barney@cern.ch



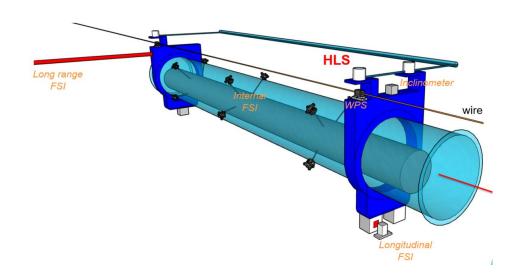


## **Sensors for alignment**

#### **Description & Specific Condition:**

Alignment system includes the following sensors:

- Wire Positioning Sensors (WPS): MS Q1 2024, IT Q2 2024
- Hydrostatic Levelling Sensors (HLS): DO Q2 2024



Cost Range: ≤ 750 k CHF

**Planning:** see left

Contact: Helene.Mainaud.Durand@cern.ch

#### Capacitive WPS sensor

- X-Y measurement w.r.t. stretched conductive wire
- Accuracy < 5μm, Resolution < 1μm</li>
- Limited cable length (max. 30 .. 50 m)
- Conditioning electronics need to be RAD-TOL





## Screwed and welded aluminium support structures for ATLAS

#### **Description & Specific Condition:**

Supply of aluminium support structures to house different chambers.

- Screwed structures (210): made of aluminium frames, plates and covers. The general tolerances are 0,1 mm for parts and 1 mm for the assembly
- Welded structures (110): made of aluminium profiles, plates and covers. The general tolerances are 0,05 mm for parts and 0,5 mm for the assembly

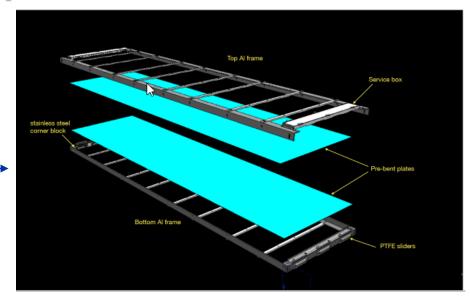
#### **Procurement code:**

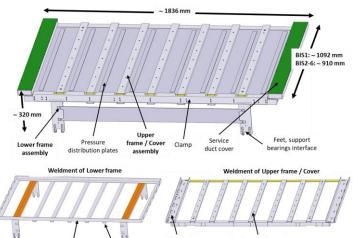
- 05010104: Aluminium, aluminium alloys
- 05040100: Machining of steels, stainless steels, aluminium alloys

Cost Range: 750 k CHF ⇔ 5 M CHF (case B)

**Planning:** MS-4900 (sent) - IT: Q1-2024

Contact: toni.baroncelli@cern.ch







#### **UPS 20-200 kVA**

#### **Description & Specific Condition:**

Supply of modular UPS in the range of 20 - 200 kVA, incl. design and supply

5 years Blanket contract

- 25 Units in 2025
- 15 additional Units in the next years of the Contract

Procurement Code: 02 30 40 00

Cost Range: < 750 k CHF

**Planning:** MS: Q2 2024, IT: Q4 2024

Contact: Joel.Lahaye@cern.ch





#### Power converters of ±600 A and ±10 V

#### **Description & Specific Condition :**

Supply of power converters of ±600 A and ±10 V for HL-LHC project

Build-to-print

• 21 Units



Procurement Code: 02 10 05 00

Cost Range: <750 k CHF

**Planning:** MS: Q1 2024 - IT Q2 2024

Contact: Vicente.Herrero@cern.ch



## 66 kV substation extension and upgrade

#### **Description & Specific Condition:**

Extension and upgrade of Two existing 66/18 kV Air Insulated Electrical Substations:

- revision of CERN's preliminary design
- mechanical and electrical detailed design for execution, calculation and technical notes, and civil engineering functional design drawings
- procurement, manufacturing, installation and commissioning of all new equipment
- energization support and maintenance

Design work during 2024-5, installation on-site during 2026.

**Procurement Code:** 02 02 01 00

Cost Range: 750 kCHF ⇔ 5 MCHF

Planning: IT: Q2 2024

Contact: Dimitrios.Katsanikos@cern.ch





## Major overhauling helium compressors at manufacturer's premises

Procurement Code: 06 02 04 00

**Cost Range:** 750 kCHF ⇔ 5 MCHF

**Planning:** MS: 2025

IT: 2025

#### **Description & Specific Condition:**

Specific experience in the overhaul of He

compressors

Contact: Steffen.juncker@cern.ch



## Non-magnetic diffusion pumps for ATLAS

#### **Description & Specific Condition:**

Supply of 17 non-magnetic diffusion pumps.

Main characteristics:

- Operational in high-intensity magnetic fields
- Pumping speed of 1 500 l/s
- Pressure working range: 10<sup>-2</sup> to 10<sup>-7</sup> mbar
- Height: 950 mm (or less) x Width: 600 mm (or less) x
  Depth: 600 mm (or less)
- No soft-welding nor brazing is permitted

**Procurement code**: 06010804: Diffusion pumps

<u>Cost Range</u>: < 750 k CHF (case D)

**Planning:** MS: Q4-2023 - IT: Q1-2024

Contact: xavier.pons@cern.ch









## **Heavy lifting of CMS calorimeters**

#### **Description & Specific Condition:**

Removal of 2 existing calorimeters and installation of a new one on the CMS site in Cessy, including:

- Design and supply of tooling for heavy lifting
- Heavy lifting and transportation on site in two phases during 2026/7

The new calorimeter will weight 230+ tons, with a value ~150 MCHF

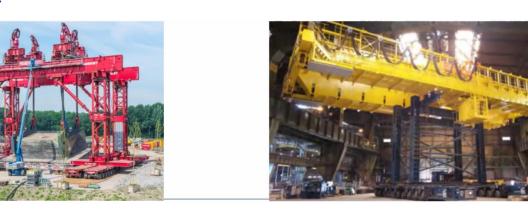
Contract adjudicated on a BVFM basis.

Procurement code: 13 11 03 00

Cost Range: 750 kCHF ⇔ 5 MCHF (case D)

**Planning:** MS: Q4 2023, IT: Q2 2024

Contact: tristan.loiseau@cern.ch





## **Construction of new Building 777**

#### **Description & Specific Condition:**

General contractor to construct new Building 777 on CERN's Prévessin site in France. Key characteristics include:

- Mass timber structural system
- Highly performing MEP and façade system to achieve recognised sustainability accreditation.







**Procurement code:** 01 02 01 00/ 01/ 02

Cost Range: > 10M CHF

**Planning:** MS Q1 2024 / IT Q3 2024

Contact: Pieter.mattelaer@cern.ch



## Thank you

