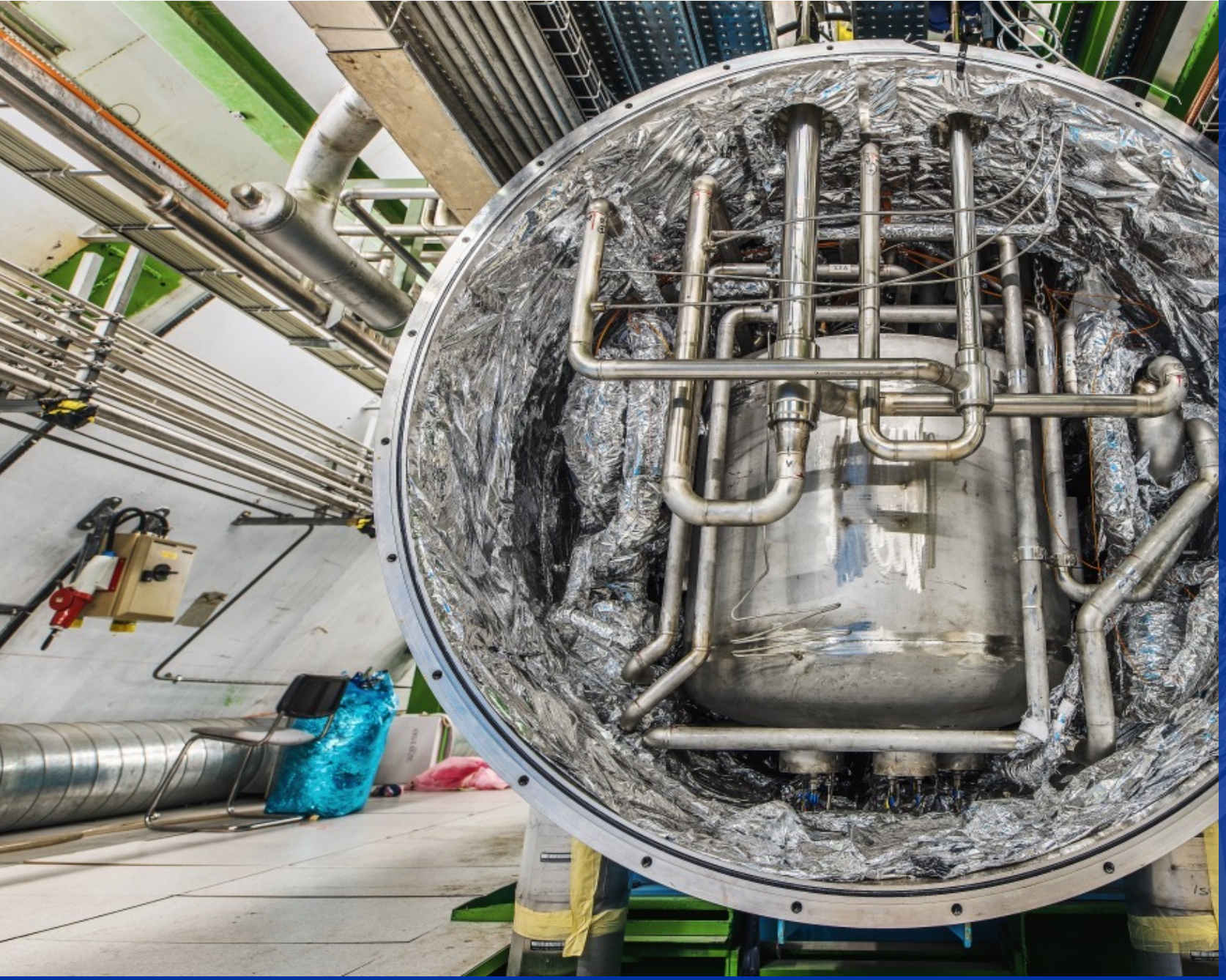
CERN update

Jan Visser 3 June 2025

Based on presentation of Joshua Davison *IPT-PI*



Cooling & Ventilation, Cryogenics

SRF/SA18 Cleanrooms construction

Description & Specific Condition :

Design, supply, construction, test and commissioning of all the cleanrooms and their associated HVAC systems in the new building SA18 at Point 1.8 of the LHC.

Key conditions:

- Experience in the construction of laminar flow ISO Class 4 cleanrooms and mixed flow ISO 8 cleanrooms of similar size and complexity.
- Experience in the execution of similar projects in accordance with the applicable regulations.

Start of the Contract: Q3 2026

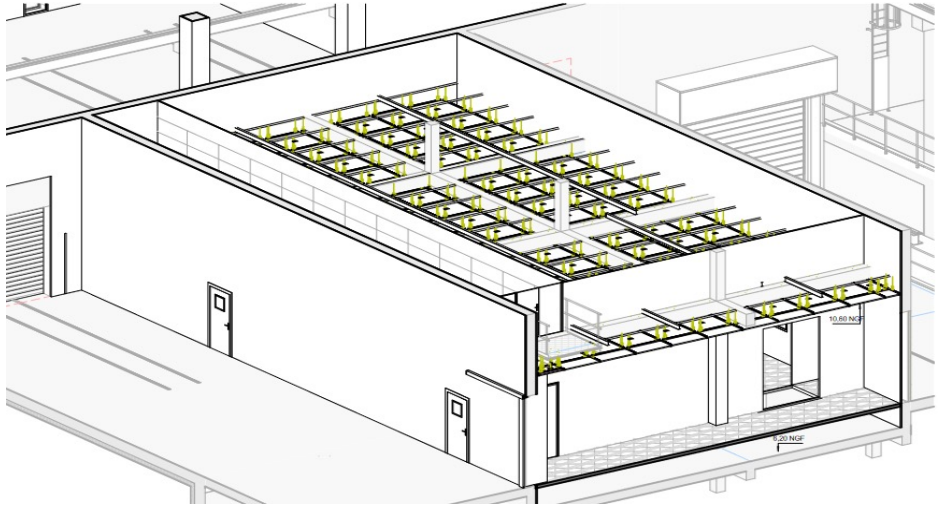
Procurement Code: 01 03 00 00

Cost Range : 5 MCHF ⇔ 10 MCHF

Planning: MS: Q2 2025

IT: Q1 2026

Contact: theodoros.aivaliotis@cern.ch



Electrical Engineering, Magnets

400 kV circuit breakers and 66 kV disconnector switches (MS-5038/EN)

Description & Specific Condition :

Supply of 5 Circuit Breakers 400 kV and 18 disconnector switches 66 kV.

One or two Supply Contracts.

Firms must have a proven experience and competence in the design and manufacturing of high voltage equipment.

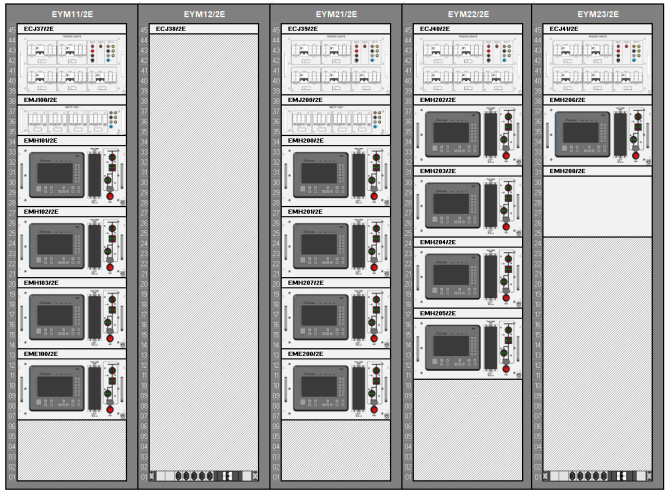
Delivery expected June 2026

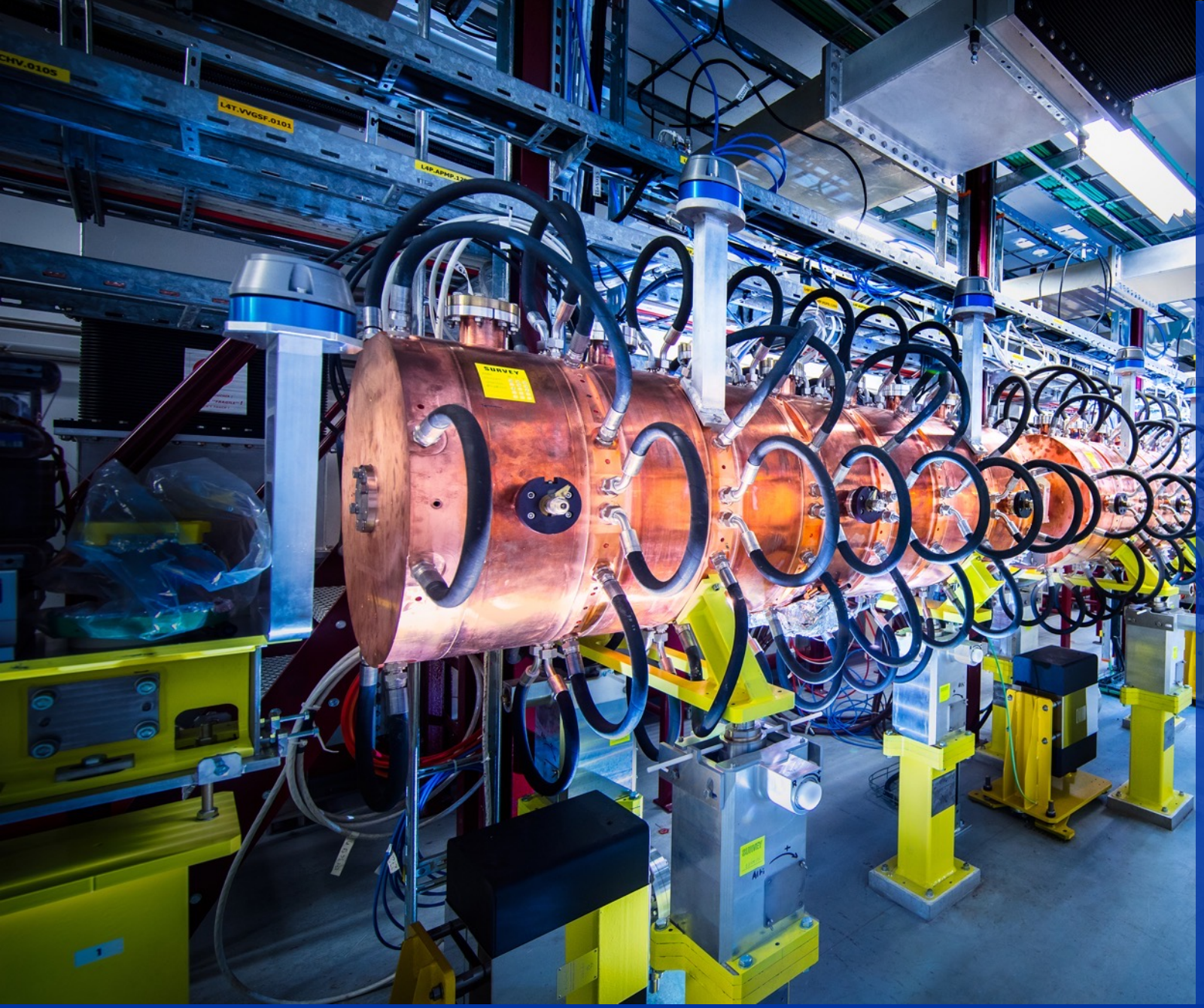
Procurement Code: 02 02 01 00

Cost Range : 400k - 1.5M CHF

Planning: MS: Q4 2024 IT: Q2 2025

Contact: George.Podoleanu@cern.ch





Electronics, Radiofrequency

Turnkey High-Power RF-Systems for AWAKE

Description & Specific Condition :

Supply, installation and maintenance of Turnkey High-Power RF Systems, including:

- Full turnkey 45MW S-band;
- Full turnkey 25MW X-band;
- Fully equipped equipped HV modulator capable of powering a 50 MW X-band klystron.

The installation is expected to take place during Summer 2027 (in France)

Key conditions: Experience and competence in designing and manufacturing Turnkey High-Power RF Systems.

Start of the Contract: September 2025

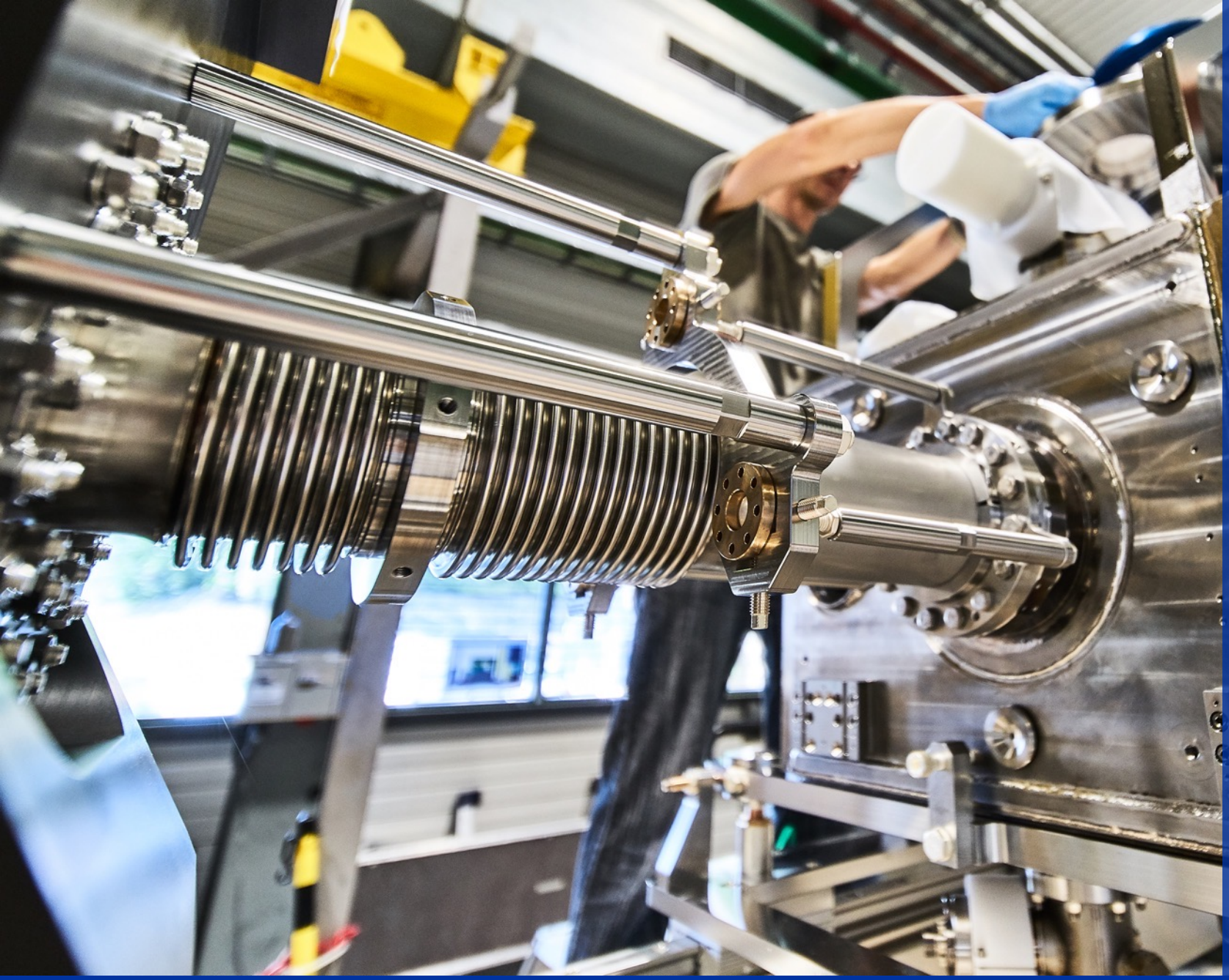
Procurement Code: 03 06 01 00

Cost Range : 1.5 MCHF ⇔ 5 MCHF

Planning: MS: Q2 2025

IT: Q2 2025

Contact: steffen.doebert@cern.ch



Mechanical Engineering, Raw Materials

CuCr1Zr blanks for XTAX (MS-5074/BE)

Procurement Code: 05 01 03 03 (Copper, copper alloys)

Cost Range : 400K – 1,5M CHF

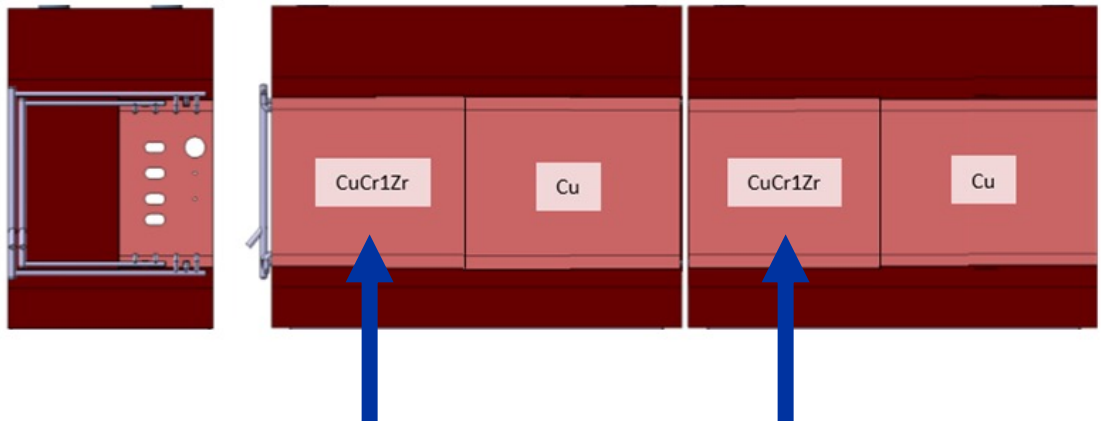
Planning: MS : Q2 2025
IT: Q3 2025
Contract start: Q4 2025

Scope:

- Supply of forged CuCr1Zr blanks in various shapes and sizes
- Material: CuCr1Zr CW106C according to EN 12420, multi-directional forged, solution annealed, and precipitation hardened. Delivered in temper H120 (according to EN 12167).
- Overall tolerances: ISO2768 – cL
- Delivery by July 2026

Eligible Firm Profile:

Interested firms shall have proven experience and competence in forging, machining, and material testing and certification.



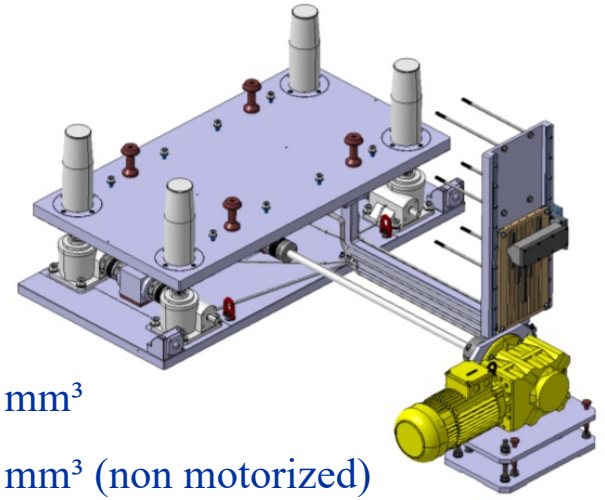
6x DIMENSIONS : 300x810x420 mm³

2x DIMENSIONS : 800x810x420mm³

1x DIMENSIONS : 300x800x170mm³

Contact: miguel.lino@cern.ch

Tables for XTAX (MS-5076/BE)



Procurement Code: 05 01 01 04 (Aluminium, aluminium alloys)
05 01 01 02 (Stainless steel)

Cost Range : 400K – 1,5M CHF

Planning: MS : Q1 2026
IT: Q2 2026
Contract start: Q3 2026, delivery by May 2027

QTY: 8; DIMENSIONS: 1616 x 780 x 832 mm³

QTY: 1; DIMENSIONS: 3200 x 780 x 832 mm³ (non motorized)

Scope:

- Supply of alignment tables which are a Z displacement (300 mm) device, designed to support and lift 15T of operational load with all controls and driving systems placed outside the table footprint.
- Stroke: +/-150 mm; Operational Load 12 T; Speed: 100 mm/min
- Each table is equipped with a manual alignment system on its base providing 5 DOF with the following specifications:
- Resolution: 0.1mm; Stroke: y: +/- 5 mm; Z: +/- 3mm; Rx: +/- 7 mrad; Ry: +/- 7 mrad; Rz: +/- 7 mrad
- Main materials: AL EN AW6082, Stainless Steel A4, Stainless Steel 304
- General machining tolerances ISO2768 – mk
- All commercial components must be radiation hard > 100kGy in 20 Yrs.

Eligible Firm Profile

Contact: miguel.lino@cern.ch

Interested firms shall have proven experience and competence in machining, precision assembly, and metrology and material testing and certification.

Information Technology

Supply and installation of audio-visual equipment

Procurement Code: 04040000

Cost Range : 1.5M – 5M CHF

Planning: MS : Q2 2025
IT: Q3 2025
Contract start: 1 January 2026

Scope:

- Supply and installation of equipment for around 75 conference rooms including three auditoriums
- Includes system schematics, rack layouts, cabling schedules, room layouts

Duration: 3 years, blanket purchase contract

Eligible Firm Profile:

- Interested firms shall have proven competence and experience in supplying AV and videoconferencing equipment

Contact: Olof.Barring@cern.ch

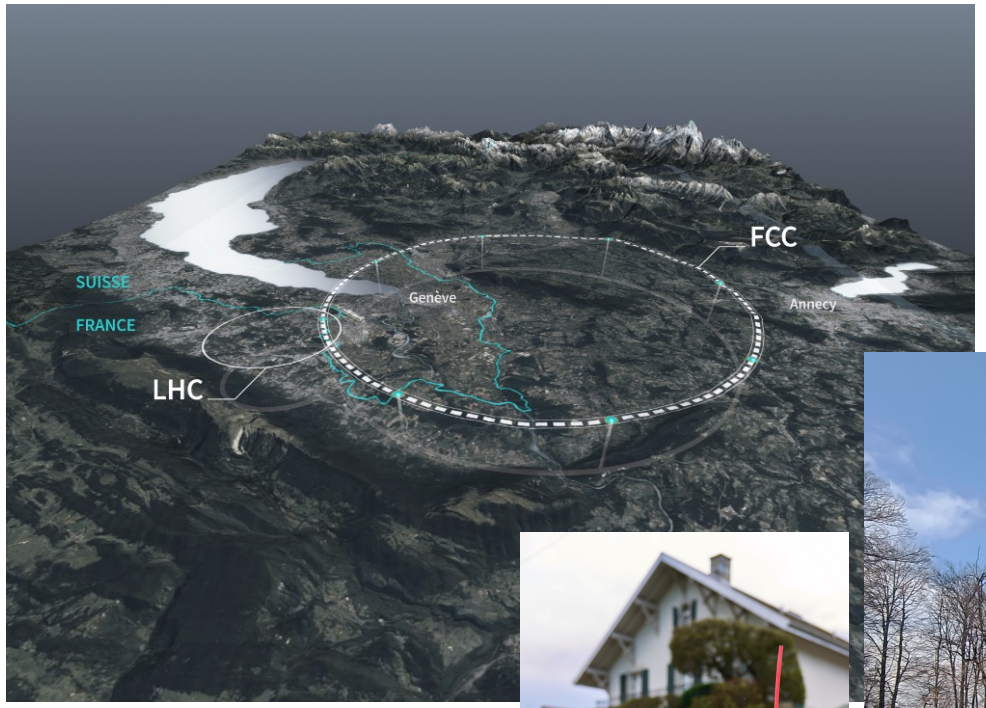
Construction, Onsite & Offsite Services

Consulting engineering services for FCC Site Investigations

Description & Specific Conditions :

Appointment of a consultant for the provision of engineering services to prepare design and specifications in readiness for the **potential second phase** of FCC site investigations

Scope of services includes geotechnical and civil engineering as well as environmental and permitting aspects and associated reporting



Procurement code: 01 01 01 00; 01 90 04 03; 01 90 01 02

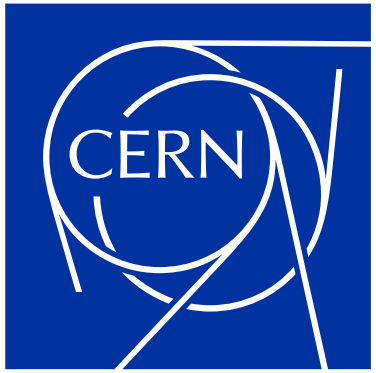
Cost Range : 5M – 10M CHF

Planning: MS Q2 2025 / IT Q3 2025

Contact: Roderick.cunnigham@cern.ch

https://procurement.cern.ch/aspx/Home

Thank you



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