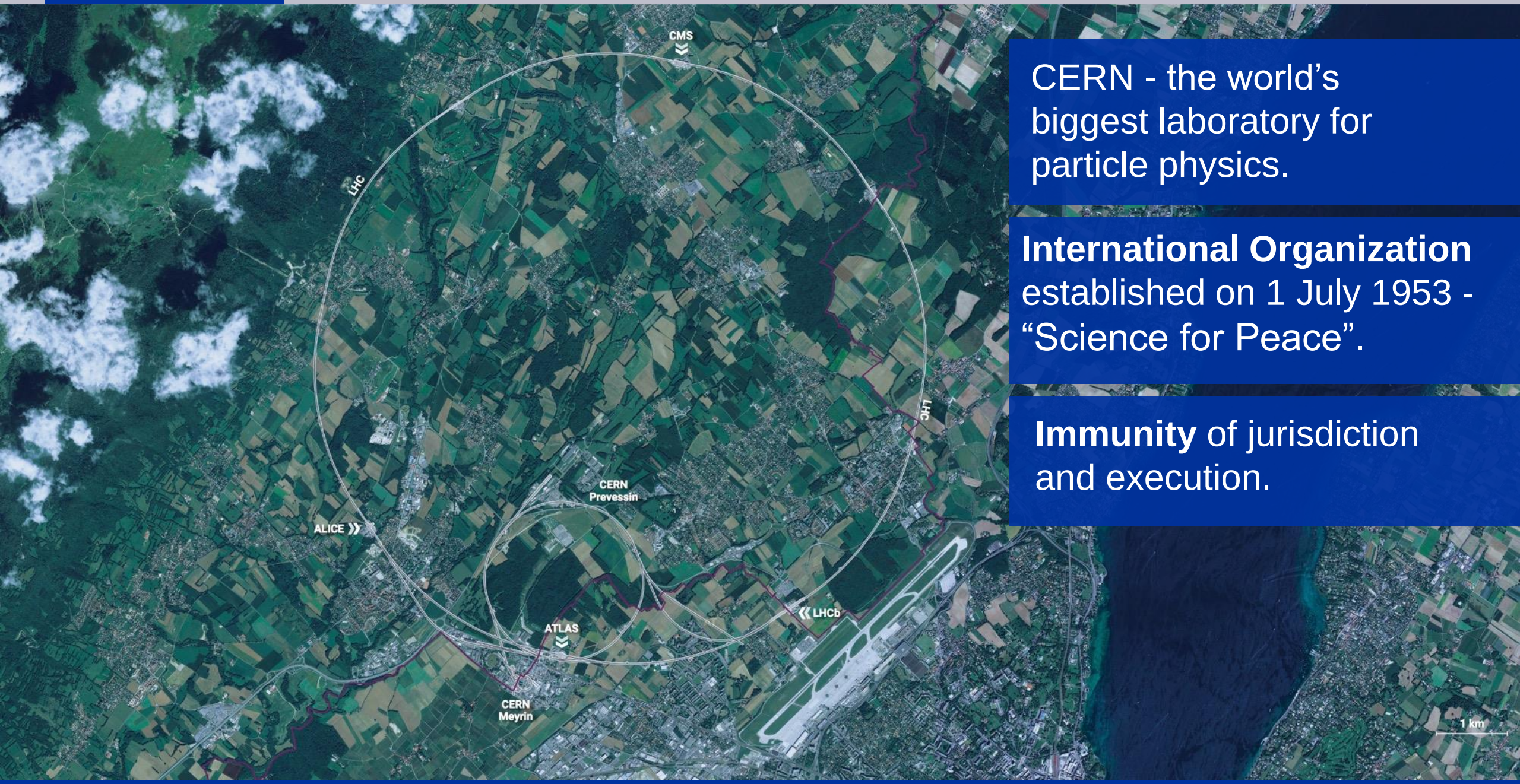
Doing Business with CERN

Ivo Lobmaier – Procurement Service/IPT department

29/11/2022

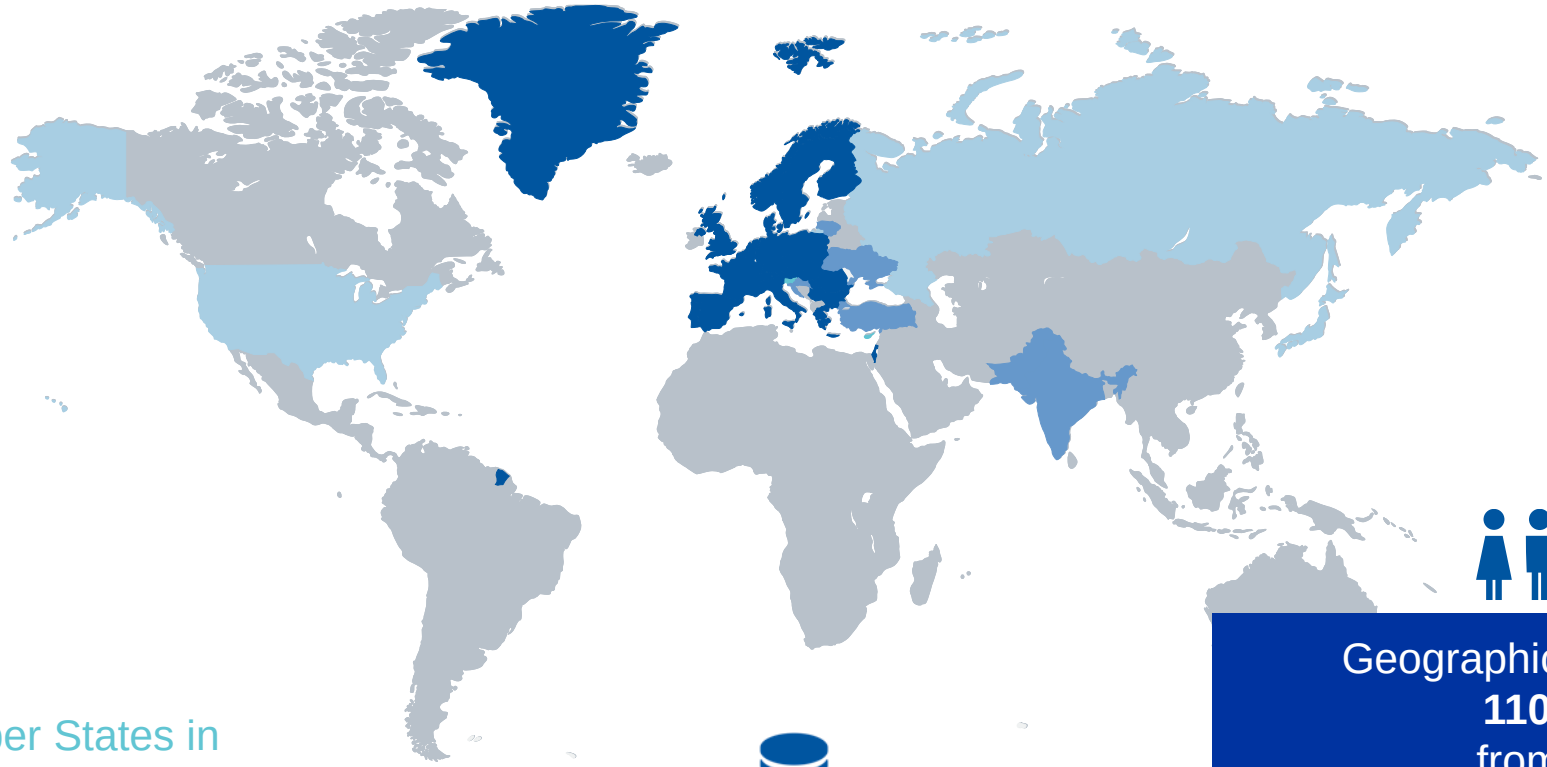


CERN - the world's biggest laboratory for particle physics.

International Organization established on 1 July 1953 - "Science for Peace".

Immunity of jurisdiction and execution.

In 1954 CERN had 12 Member States
Today CERN has 23 Member States



23 Member States

3 Associate Member States in the pre-stage to membership

7 Associate Member States

6 Observers

Yearly budget ~ 1347 MCHF

Geographical & cultural diversity
110 nationalities,
from **77** countries

~ **2676** Staff members
~ **2000** contractors' employees
~ **13000** physicists /users

Yearly Budget (contributions 2022)

Country	Percentage of Total	Amount (CHF)
Germany	20.32%	245 017 700
United Kingdom	14.20%	171 219 200
France	13.42%	161 894 900
Italy	10.10%	121 766 050
Spain	7.25%	87 403 500
Netherlands	4.63%	55 847 250
Switzerland	3.84%	46 281 900
Poland	2.88%	34 787 950
Belgium	2.71%	32 668 100
Sweden	2.49%	30 045 050
Norway	2.21%	26 636 300
Austria	2.15%	25 937 750
Israel	1.95%	23 501 450
Denmark	1.77%	21 381 600
India*	1.40%	16 838 200
Finland	1.30%	15 708 050
Romania	1.20%	14 424 700

Country	Percentage of Total	Amount (CHF)
Czech Republic	1.10%	13 220 000
Portugal	1.09%	13 148 350
Greece	0.99%	11 894 950
Hungary	0.71%	8 580 300
Slovakia	0.51%	6 151 800
Turkey*	0.41%	4 961 450
Bulgaria	0.33%	3 977 800
Serbia	0.25%	3 002 950
Pakistan*	0.15%	1 843 950
Slovenia**	0.12%	1 484 800
Estonia**	0.11%	1 310 850
Cyprus**	0.09%	1 025 350
Latvia*	0.09%	1 024 850
Croatia*	0.08%	1 000 000
Lithuania*	0.08%	1 000 000
Ukraine*	0.08%	1 000 000
Total	**100%**	**1 205 987 050**

What do we buy?

- **Civil engineering:**
  - Construction
  - Renovation of buildings
  - Metallic structures
  - Earthworks
  - Roads
- **Cooling and ventilation equipment**

What do we buy?

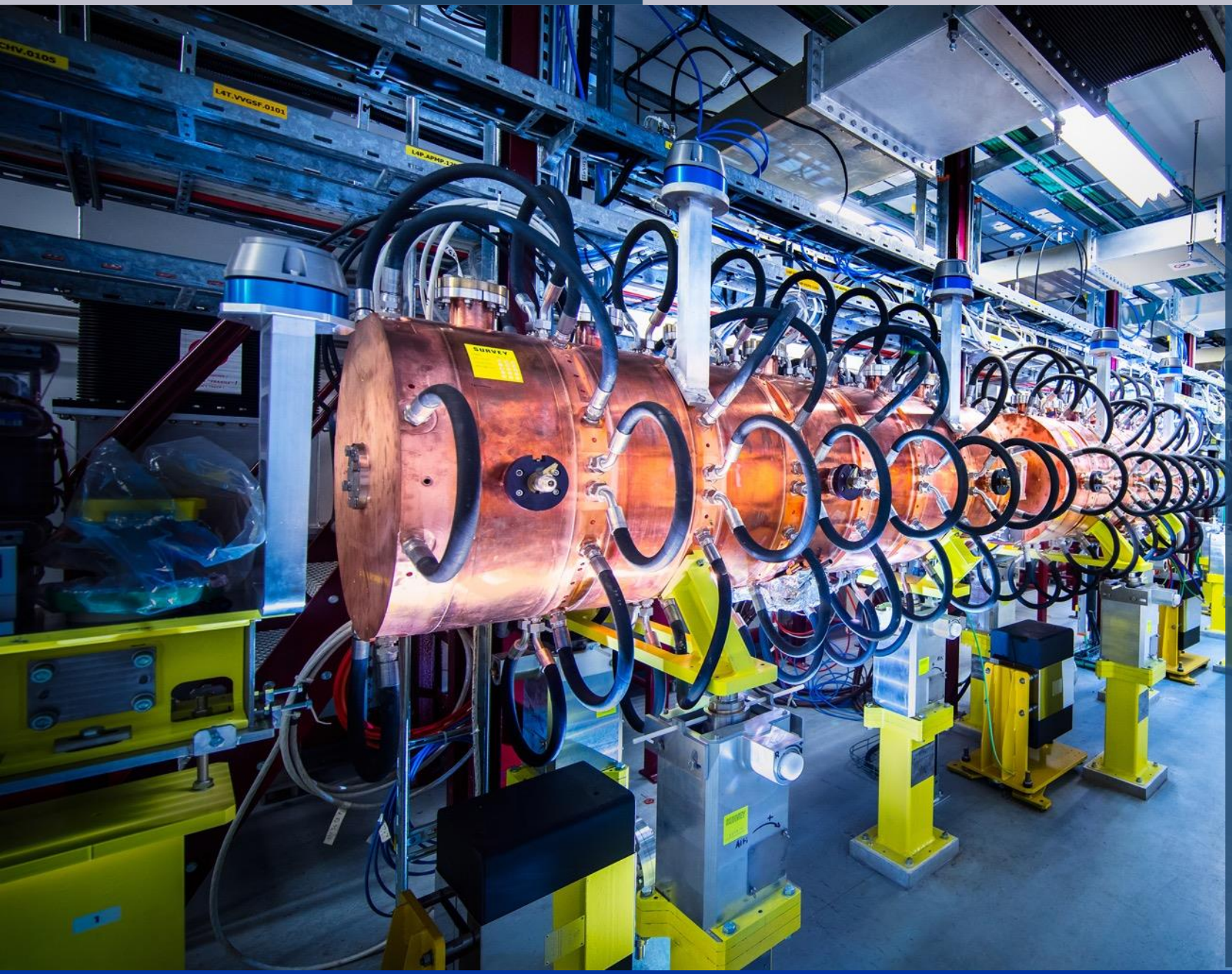
- **Electical engineering and magnets**
  - Transformers
  - Switchboards and switchgear
  - Cables
  - Automation
  - Power supplies
  - Magnets

What do we buy:

- **Information Technology**
  - Computing systems
  - Servers
  - Software
  - Network equipment
  - Personal computer equipment

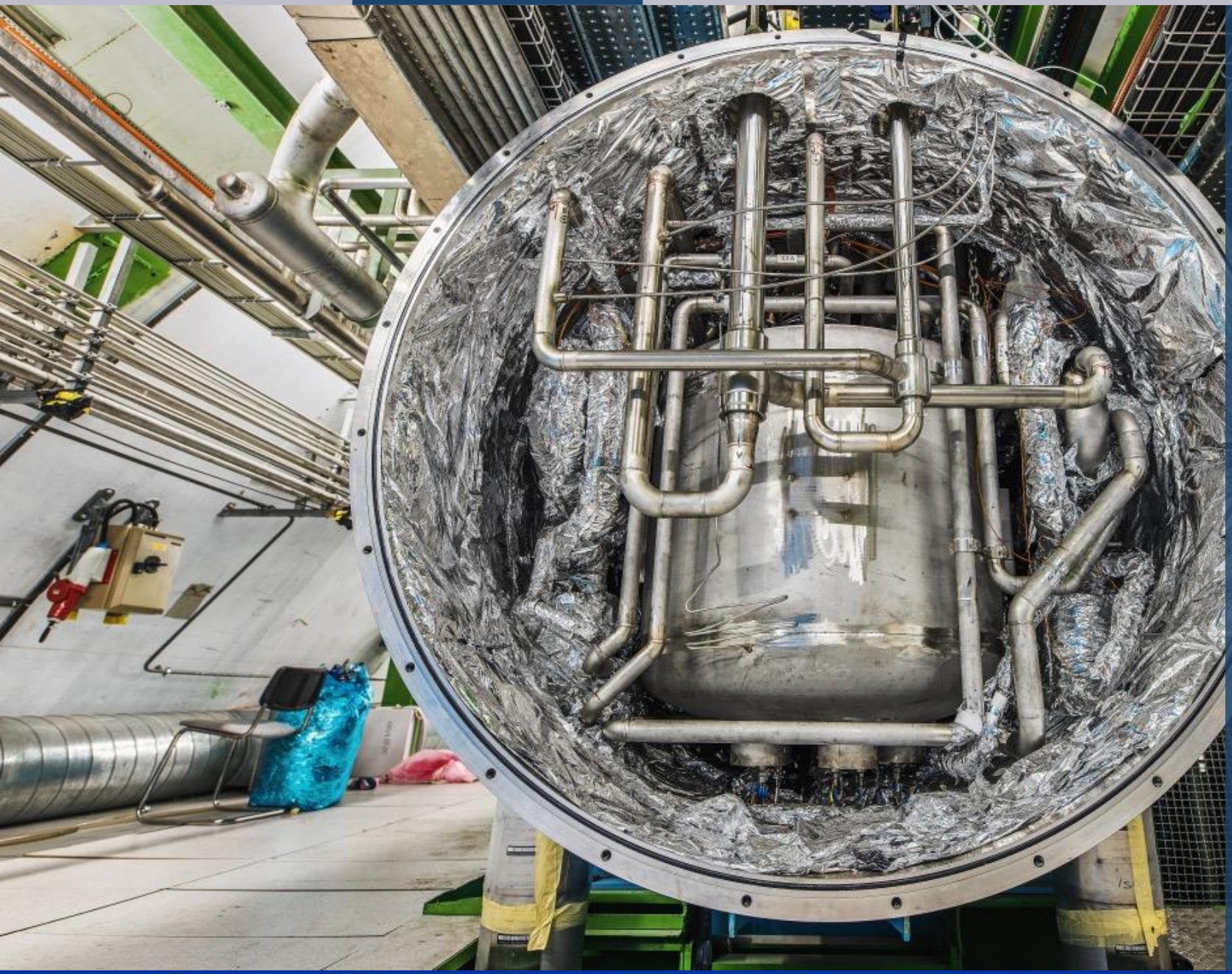
What do we buy?

- **Mechanical engineering and raw materials:**
  - Machining
  - Sheet metal work and arc welding
  - Special fabrication techniques
  - Raw materials, finished and semi-finished products (plates, pipes, etc.)
  - Offsite engineering and testing



What do we buy?

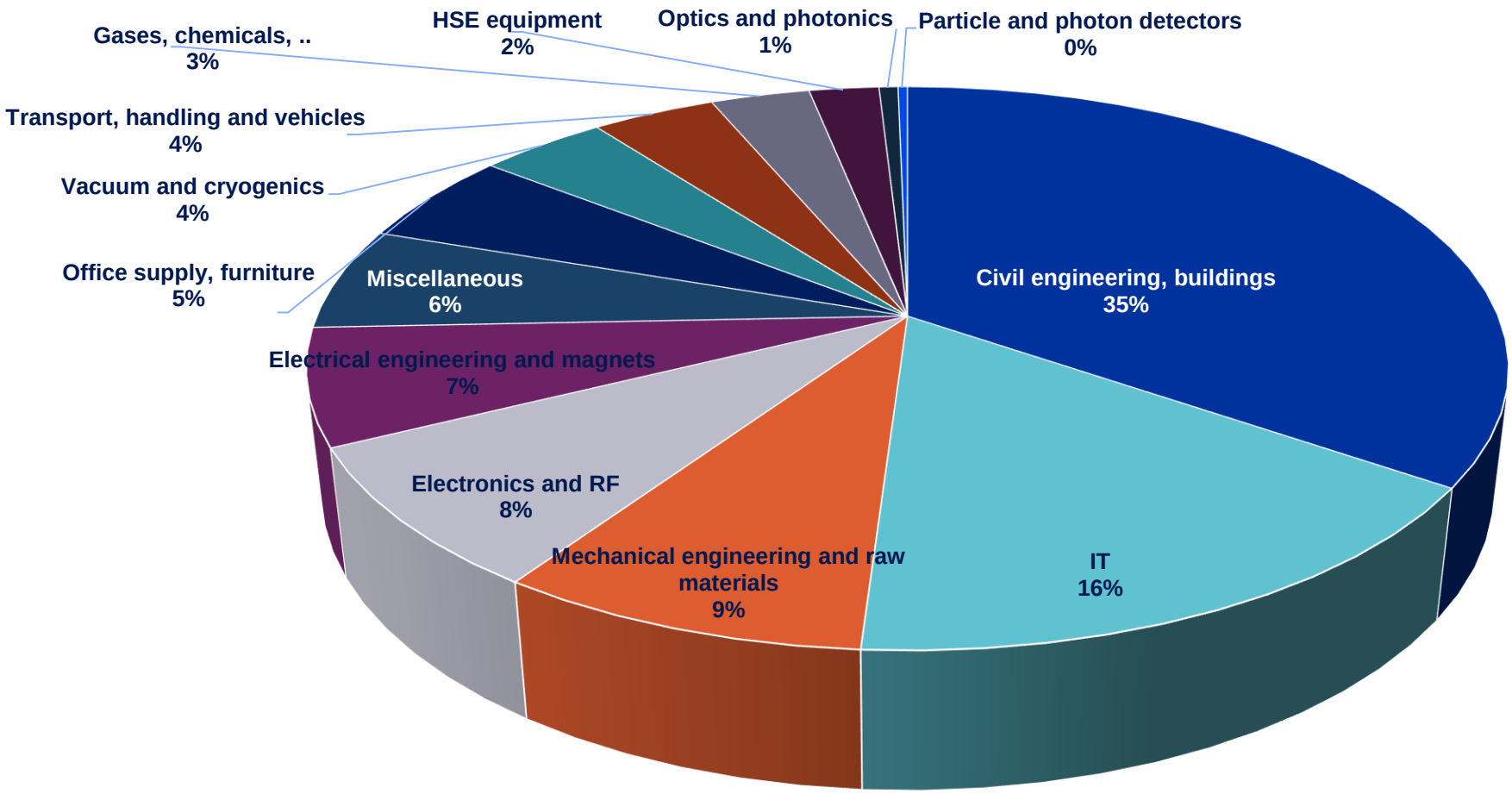
- **Electronics and radiofrequency:**
  - Electronic components (active, passive)
  - PCBs and assembled boards
  - LV and HV power supplies
  - Radiofrequency plants
  - Amplifiers

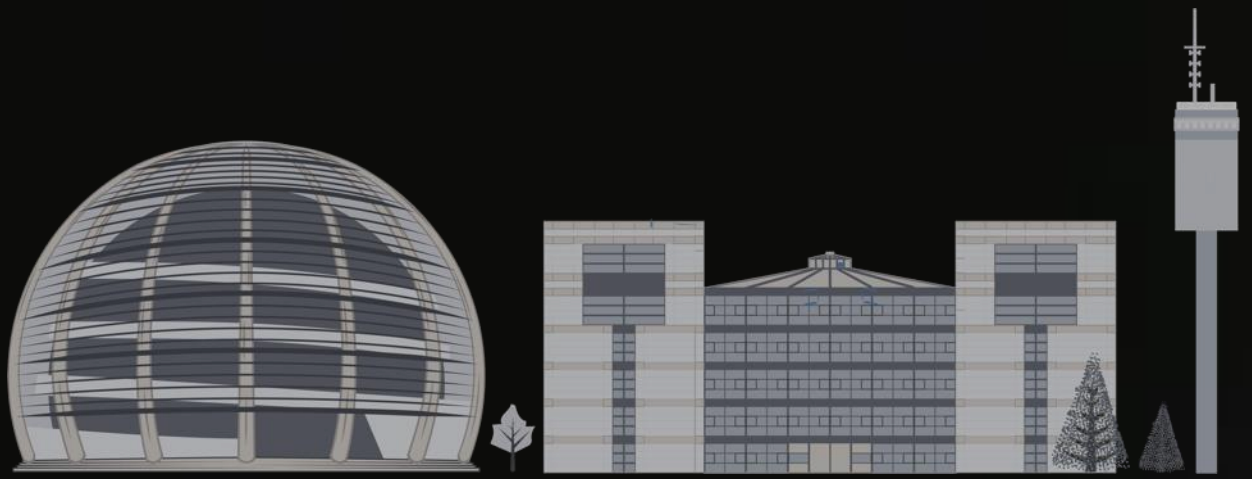


What do we buy?

- **As well as:**
  - Cryogenic and vacuum equipment
  - Optics and photonics
  - Particle and photon detectors
  - Health and safety equipment,
  - Transport and handling equipment
  - Office supply, furniture
  - Industrial services on the CERN site

Supplies (229MCHF spent in 2021 – CERN budget only)





PROCUREMENT @CERN the rules

The Procurement Service

Mission

The Procurement Service (PS) procures all supplies and services for CERN

Meeting the specified and contractual technical, delivery and performance requirements

At the lowest possible overall cost

While achieving balanced industrial return for CERN Member States

Respecting CERN Procurement Rules

Principles of the Procurement Rules (1/4)

1. **Transparency and Impartiality**

2. **Tenders open to Member States only**

3. **Objectivity and equal treatment:** tendering packages are objective and impartial

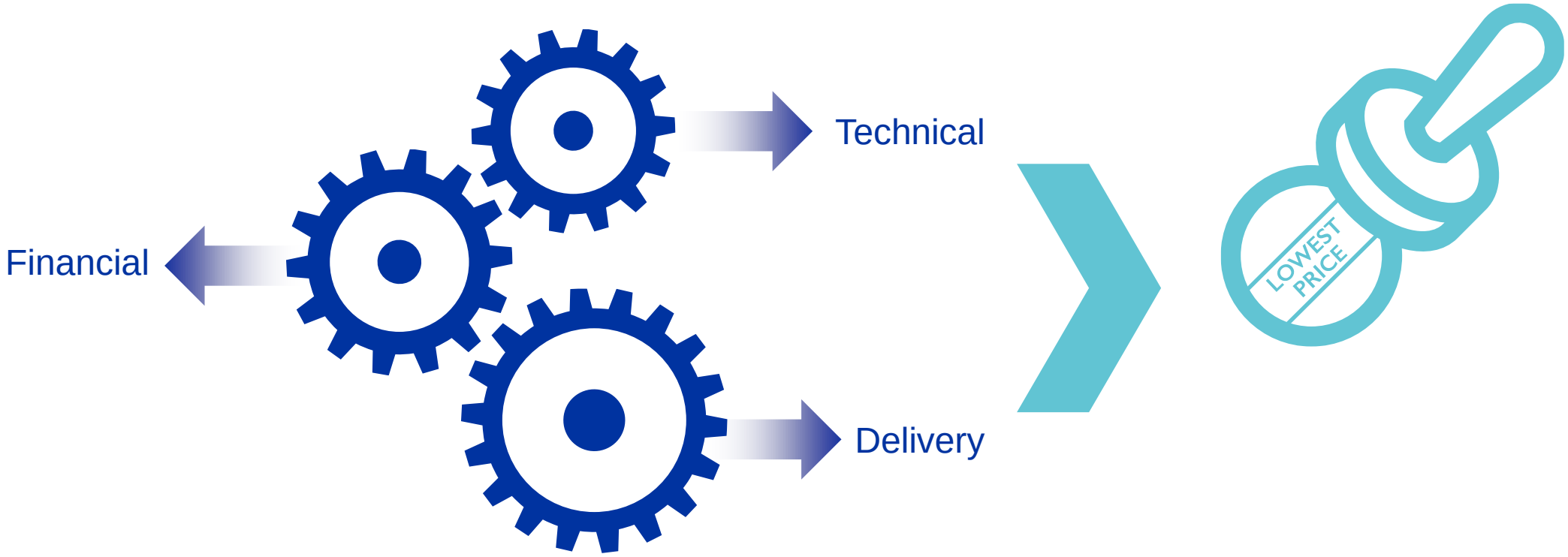
Principles of the Procurement Rules (2/4)

Selective tendering procedures: CERN's tendering procedures are not open to any interested firms

Confidentiality: Opening and evaluation of bids as well as negotiations are not public

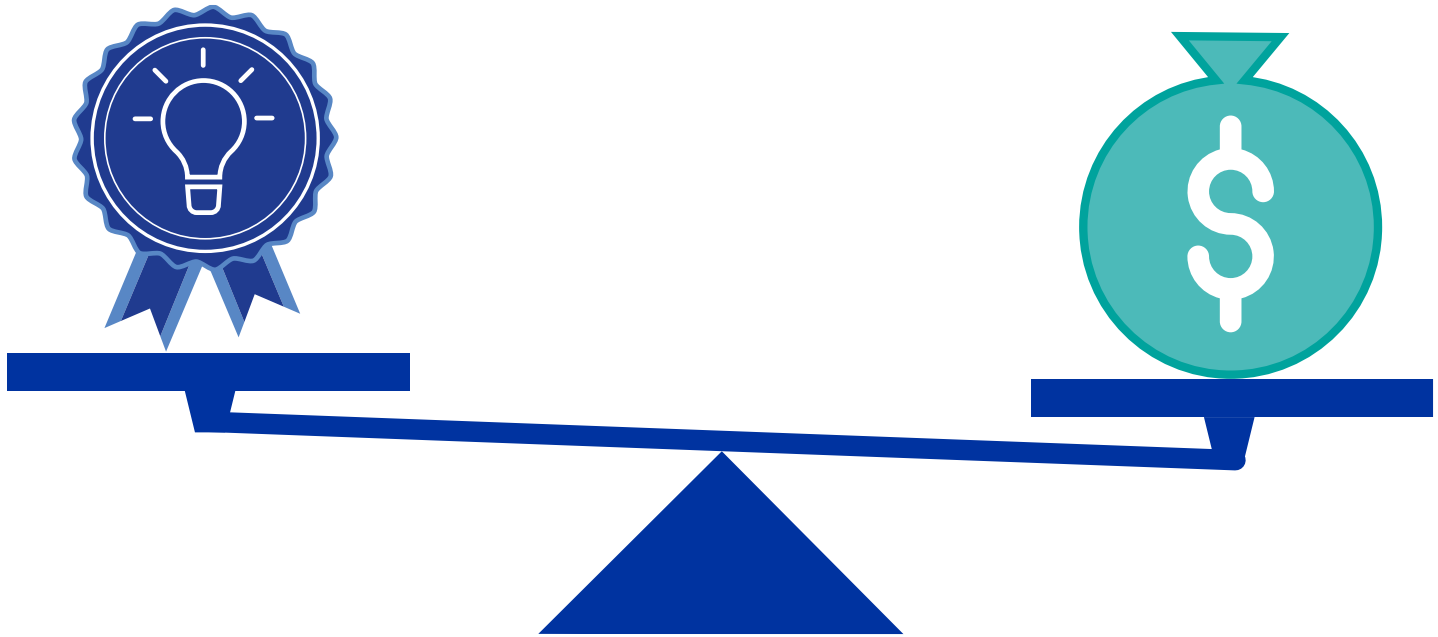
Principles of the Procurement Rules (3/4)

Award for supplies (and services, exceptionally) based on:
Lowest compliant bid



Principles of the Procurement Rules (4/4)

Award for industrial services based on:
Best Value For Money



⚠ No alignment rule

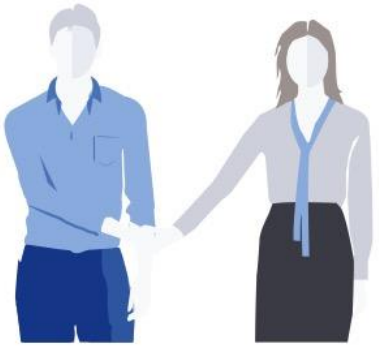
Enquiries between 10’000 and 200’000 CHF

“Price enquiry” (Demande d’Offre - DO)

- **Submission deadline: 4 weeks from date of dispatch;**
- **All price enquiries above 50’000 CHF are also sent to the Industrial Liaison Officers (ILOs) for information;**
- **Price enquiries consist of:**
  - Technical specification and annexes;
  - Tender form (and a technical annex - optional);
  - CERN’s General Conditions (contracts, invitations to tender, safety, etc.)

Enquiries exceeding 200’000 CHF (1/2)

“Market Survey” (MS)



- **Prior announcement in CERN’s procurement website, see “Business Opportunities”**
  - At this stage, interested firms are encouraged to contact CERN in order to have a clear understanding of the requirement, allowing them to begin their organization ahead of the tendering process.
- **Market surveys consist of:**
  - “Technical Description” and;
  - “Qualification Questionnaire” (financial and technical).
- **Submission deadline: 4 weeks, or more if the MS is still online.**

Enquiries exceeding 200’000 CHF (2/2)

“Invitation to tender” (IT)

- **Sent to qualified and selected firms only;**
- **Submission deadline: 4 weeks from date of dispatch (with a longer period for more complex requirements);**
- **Firms shall ask all necessary questions in writing to understand all requirements and prepare a bid that best matches CERN’s needs;**
- **All invitations to tender are sent to the Industrial Liaison Officers (ILOs) for information;**
- **Bids shall be submitted via CERN’s e-tendering application.**

Country of origin

“Country(ies) in which the bidder is established.”

If at least **40%** of the total amount of the bid comes from a poorly balanced MS, then the **whole bid** will be treated as that from a bidder in a poorly balanced MS.

*“Country(ies) where the **supplies** (including their components and sub-assemblies) are manufactured or undergo the last major transformation by the contractor or its sub-contractor”*

If at least **60%** of the total amount of the bid comes from a poorly balanced MS, then the **whole bid** will be treated as that from a bidder in a poorly balanced MS.

Alignment rule

Applicable for:

1. Contracts awarded on the lowest compliant basis (mainly supply contracts)

2. With a total amount exceeding 100’000 CHF.

RULE

Under certain conditions as defined in CERN Procurement Rules, a bidder offering goods originating* in poorly balanced Member States is allowed to align his price to that of the lowest bidder and thereby be awarded the contract.

* At least 60% for supply contracts or; at least 40% for service contracts awarded on the lowest compliant basis.

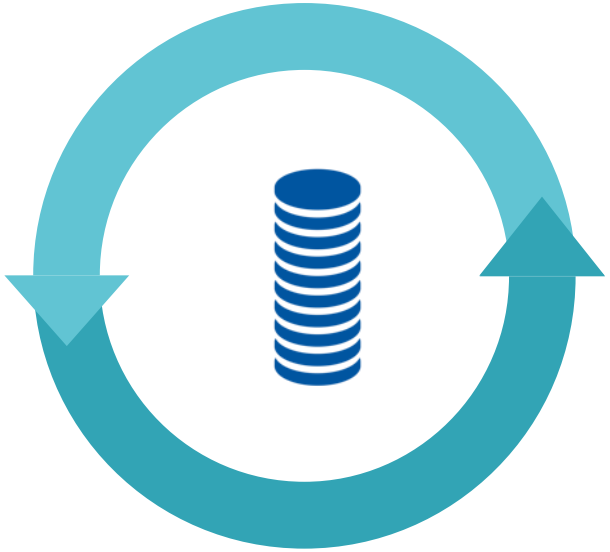
Industrial return coefficient

Industrial return coefficient

For Supply contracts and for a 12-month period starting on 1st March, defined as:

"The ratio between a Member State's percentage share of the value of all Supply contracts and that Member State's percentage contribution to the CERN Budget over the same period".

$$\text{Return Coef.} = \frac{\text{\% expenditure in the MS}}{\text{\% contribution to CERN budget for this MS}}$$



Over a 4-year period:

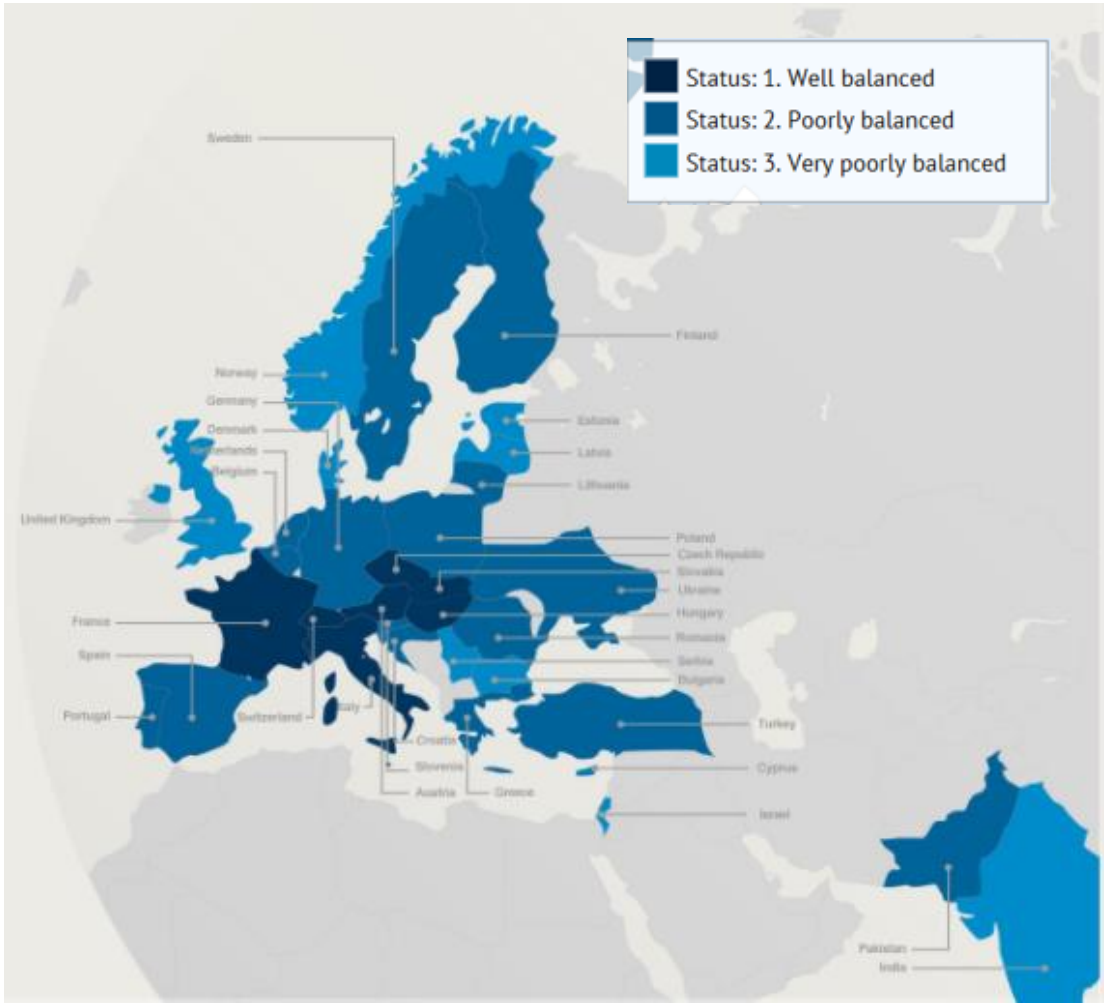
Very poorly balanced : < 0.40

Poorly balanced (PB) : 0.40 ≥ x < 1

Well balanced (WB): ≥ 1

Status definition

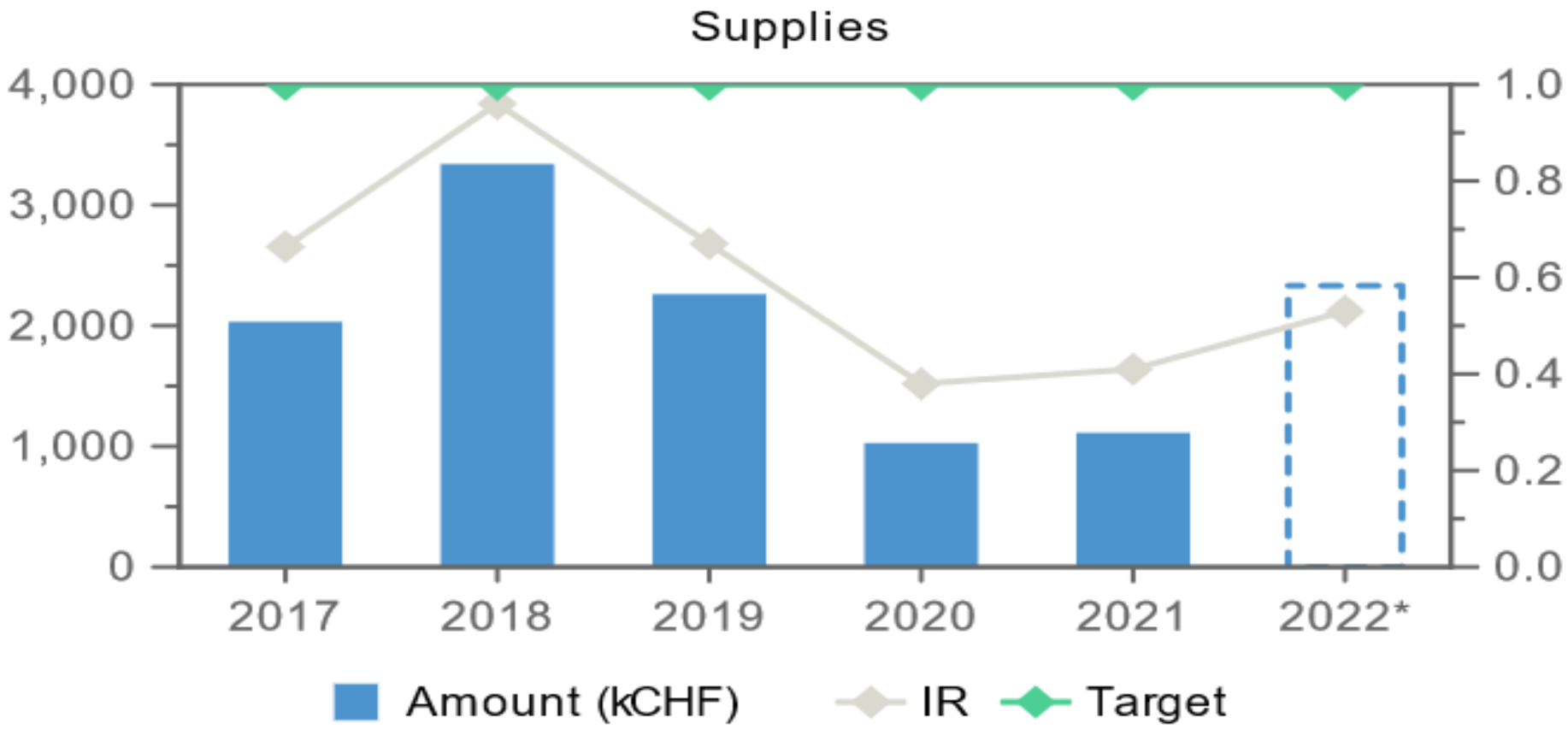
Poorly balanced Member States (Supplies)
(1st March 2022 – 28 February 2023, based on the previous 4 calendar years):



Well Balanced	Poorly Balanced	Very Poorly Balanced
Austria	Belgium	Bulgaria
Czech Republic	Croatia*	Denmark
France	Cyprus*	Estonia*
Hungary	Finland	India*
Italy	Germany	Israel
Slovakia	Greece	Latvia*
Switzerland	Lithuania*	Norway
	Netherlands	Serbia
	Pakistan*	United Kingdom
	Poland	
	Portugal	
	Romania	
	Slovenia*	
	Spain	
	Sweden	
	Turkey*	
	Ukraine*	

*Associate Member States

Industrial Return to Finland (supplies)



Limited tendering

« Limited tendering is foreseen by the CERN Procurement Rules to improve the industrial return of very poorly balanced Member States. »

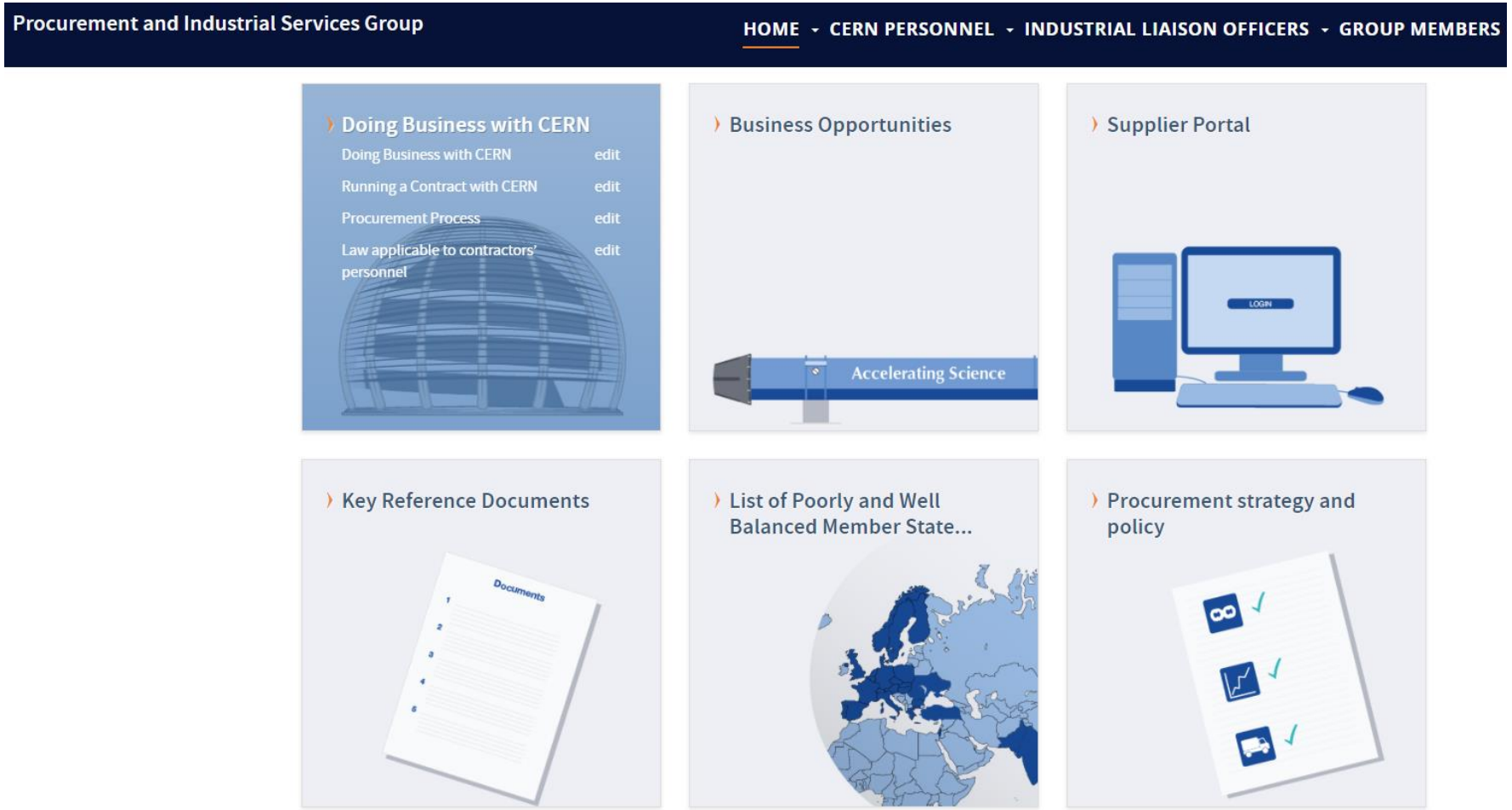
Conditions

Firms established in very poorly balanced Member States only (industrial return <0.4);	Used in case where there is sufficient competition;	ILO can ask to add firms, provided they are established in very poorly Member States.

Procurement website

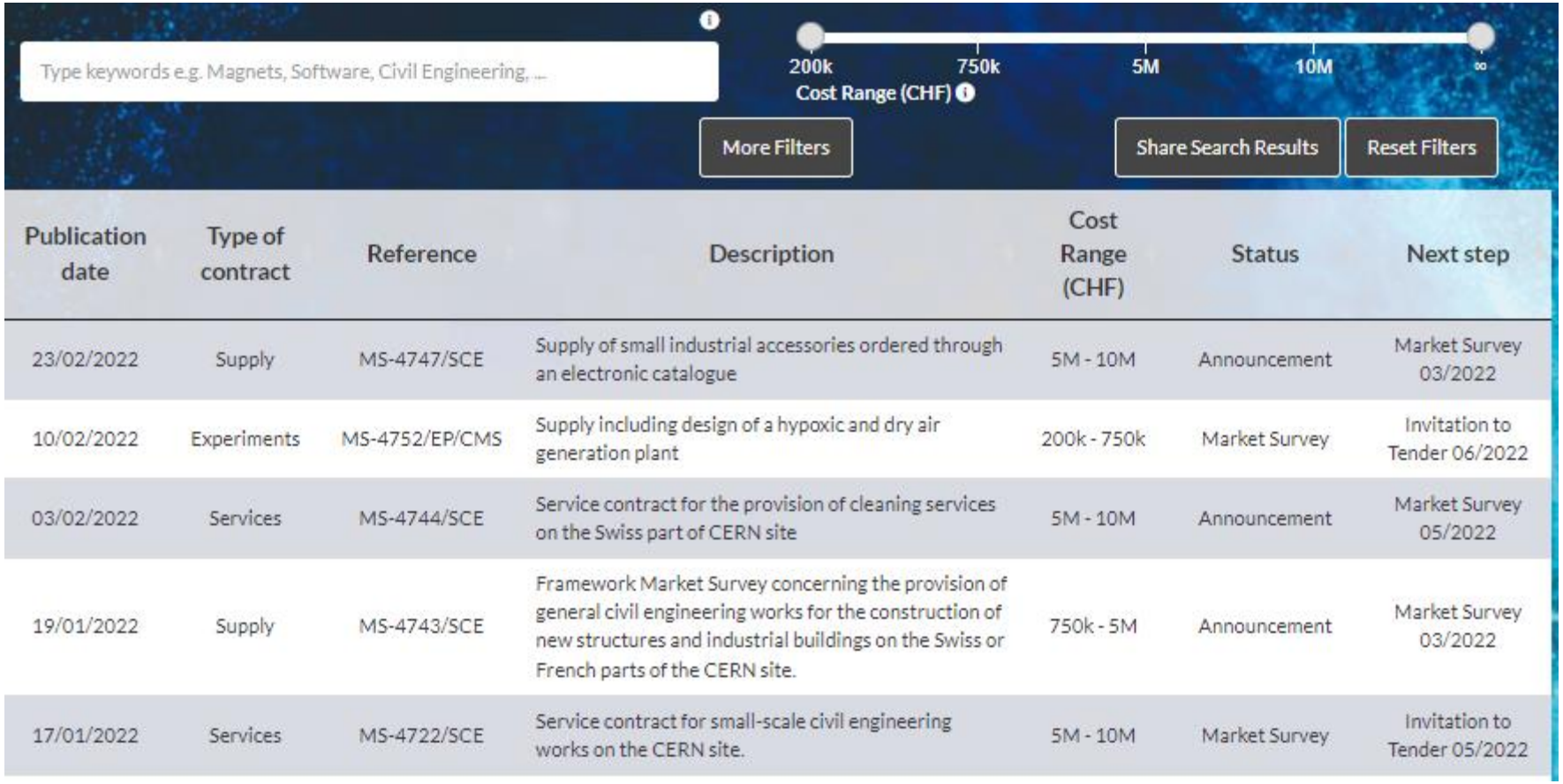
Website of the Procurement Service

http://procurement.web.cern.ch



CERN Shopping List

https://forthcoming-ms.app.cern.ch/#!/



Publication date	Type of contract	Reference	Description	Cost Range (CHF)	Status	Next step
23/02/2022	Supply	MS-4747/SCE	Supply of small industrial accessories ordered through an electronic catalogue	5M - 10M	Announcement	Market Survey 03/2022
10/02/2022	Experiments	MS-4752/EP/CMS	Supply including design of a hypoxic and dry air generation plant	200k - 750k	Market Survey	Invitation to Tender 06/2022
03/02/2022	Services	MS-4744/SCE	Service contract for the provision of cleaning services on the Swiss part of CERN site	5M - 10M	Announcement	Market Survey 05/2022
19/01/2022	Supply	MS-4743/SCE	Framework Market Survey concerning the provision of general civil engineering works for the construction of new structures and industrial buildings on the Swiss or French parts of the CERN site.	750k - 5M	Announcement	Market Survey 03/2022
17/01/2022	Services	MS-4722/SCE	Service contract for small-scale civil engineering works on the CERN site.	5M - 10M	Market Survey	Invitation to Tender 05/2022

HL-LHC Shopping list

https://project-hl-lhc-industry.web.cern.ch/wp/main-procurement-needs-hl-lhc

Main Procurement needs for HL-LHC

The Large Hadron Collider (LHC) is one of the largest scientific instruments ever built. To sustain and extend its discovery potential, the LHC will need a major upgrade in the 2020s. This will increase its luminosity (rate of collisions) by a factor of five beyond the original design value and the integrated luminosity (total collisions created) by a factor ten. The LHC is already a highly complex and exquisitely optimised machine so this upgrade must be carefully conceived and will require about ten years to implement. The new configuration, known as High Luminosity LHC (HL-LHC), will rely on a number of key innovations that push accelerator technology beyond its present limits.

Main Domains of Activitiy - HL-LHC Project	Work Packages
Cryogenics systems	WP9
Magnets components and assemblies	WP3, WP11
Electrical equipment, electronics & instrumentation	WP4, WP5, WP6A, WP6B, WP7, WP13 ,WP18
Ultra High vacuum components and systems	WP12
Collimators and new material resistant to high temperatures	WP5, WP8, WP14
Cryostats and subcomponents for cryogenic equipment	WP3, WP4, WP6A, WP9, WP11
High precision assembling and manufacturing technologies	WP4, WP5, WP8, WP12, WP14

Project activities

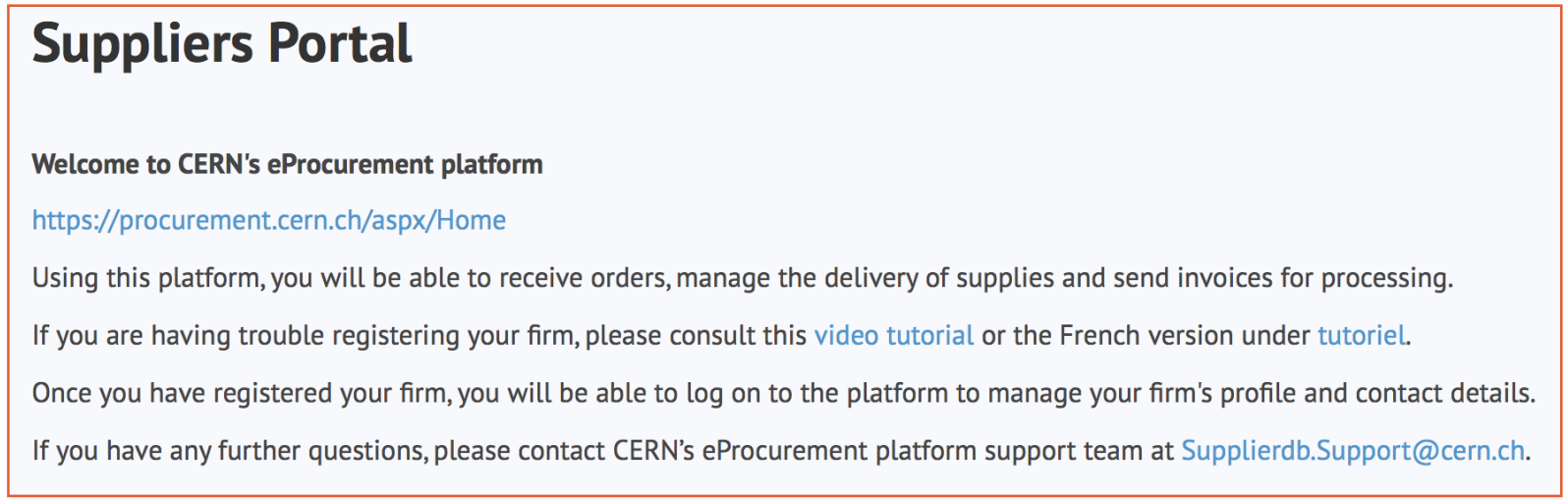
- Procurement Overview
- WP1: Project Management
- WP2: Accelerator Physics & Performance
- WP3: Insertion Regions Magnets
- WP4: Crab Cavities & RF
- WP5: Collimation
- WP6A: Cold Powering
- WP6B: Warm Powering
- WP7: Machine Protection
- WP8: Collider Experiment Interface
- WP9: Cryogenics
- WP10: Energy Deposition & Absorber Coordination
- WP11: 11 T Dipole
- WP12: Vacuum
- WP13: Beam Diagnostics
- WP14: Beam Transfer & Kickers
- WP15: Integration & (De-) Installation
- WP16: Hardware Commissioning
- WP17: Infrastructure, Logistics & Civil Engineering
- WP18: Controls Technologies

Register in the Suppliers Portal

MANDATORY

for all exchanges with CERN, in particular to:

- Be visible for future opportunities
  (with the procurement codes you have indicated),
- Receive and follow-up orders,
- Send invoices.



Suppliers Portal

Welcome to CERN's eProcurement platform

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

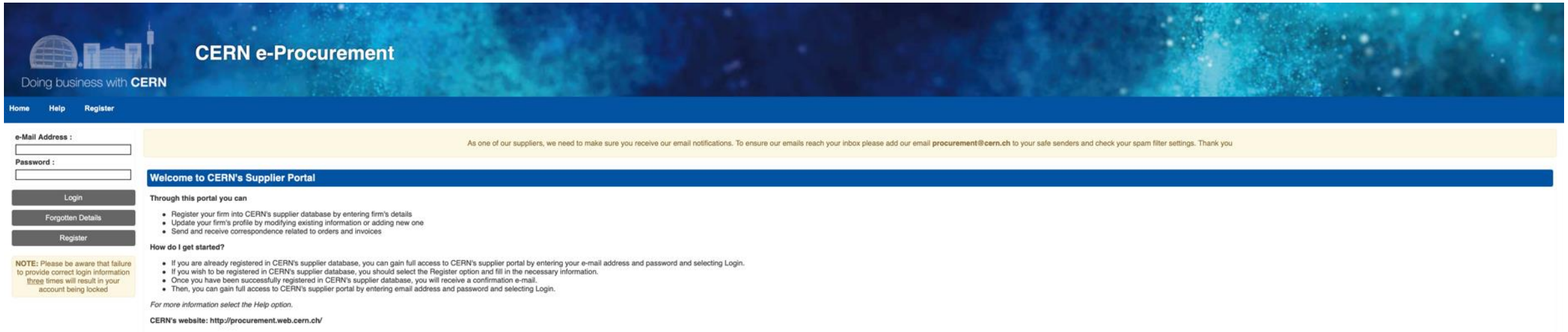
Using this platform, you will be able to receive orders, manage the delivery of supplies and send invoices for processing.

If you are having trouble registering your firm, please consult this video tutorial or the French version under tutoriel.

Once you have registered your firm, you will be able to log on to the platform to manage your firm's profile and contact details.

If you have any further questions, please contact CERN's eProcurement platform support team at Supplierdb.Support@cern.ch.

CERN e-Procurement



To ensure our emails reach your inbox please add our email **procurement@cern.ch** to your safe senders and check your spam filter settings.

Contact for Finland

ILO: Industrial Liaison Officer

- **Who to contact in your Country**

  Industrial Liaison Officers (ILO's) are appointed by CERN's Member States to facilitate the flow of communication between CERN and its suppliers. ILO's can provide advice on the opportunities available for doing business with CERN and the support available to firms in their local regions.

Finland

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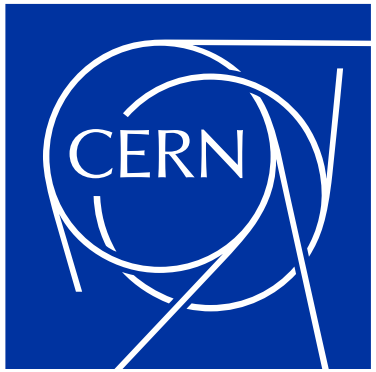
Contacts at CERN (Procurement and Technical)

Thank you



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