



Doing Business with CERN

India@CERN

Anders Unnervik

13 September 2021



What do we buy?

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



What do we buy?

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



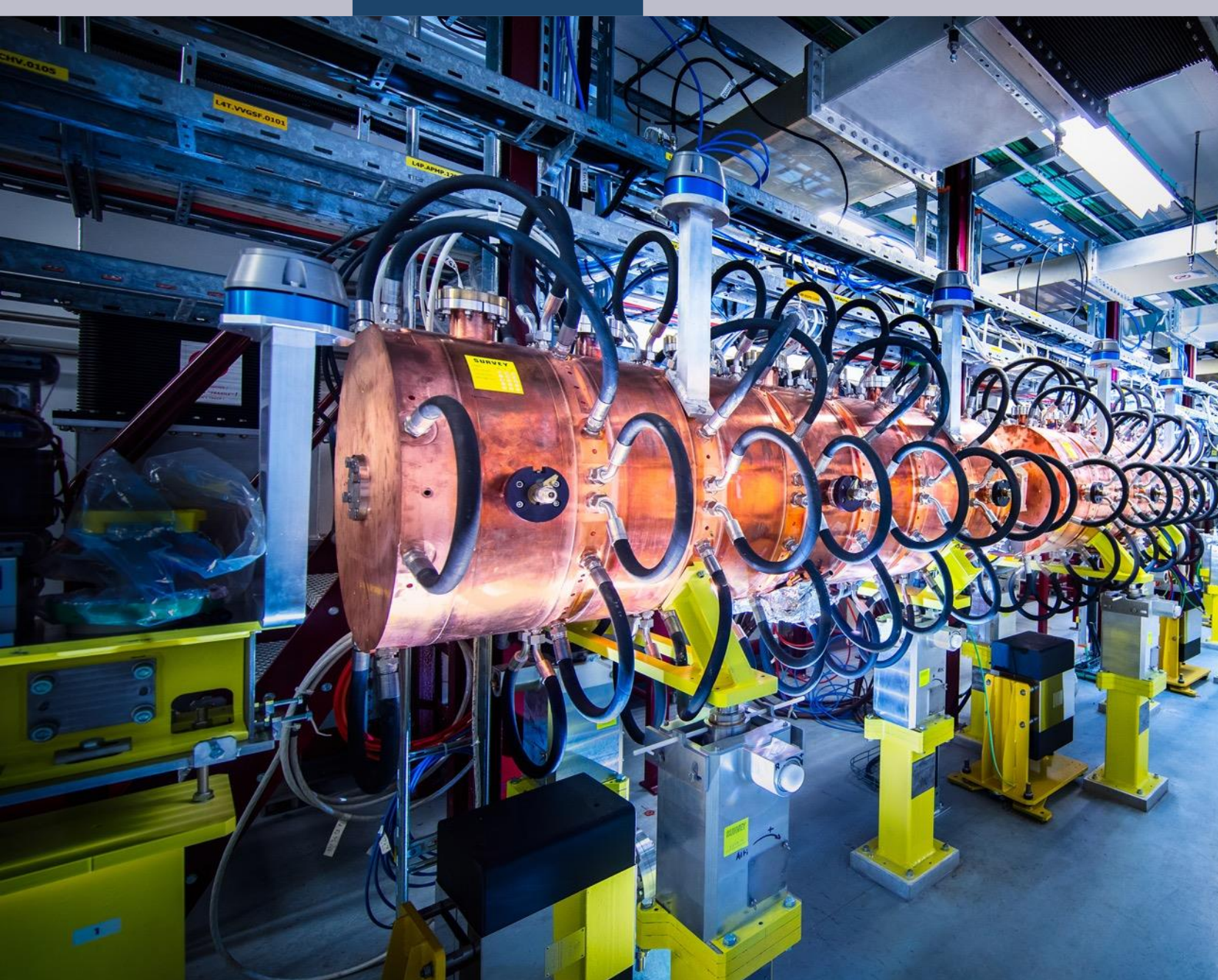
What do we buy:

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



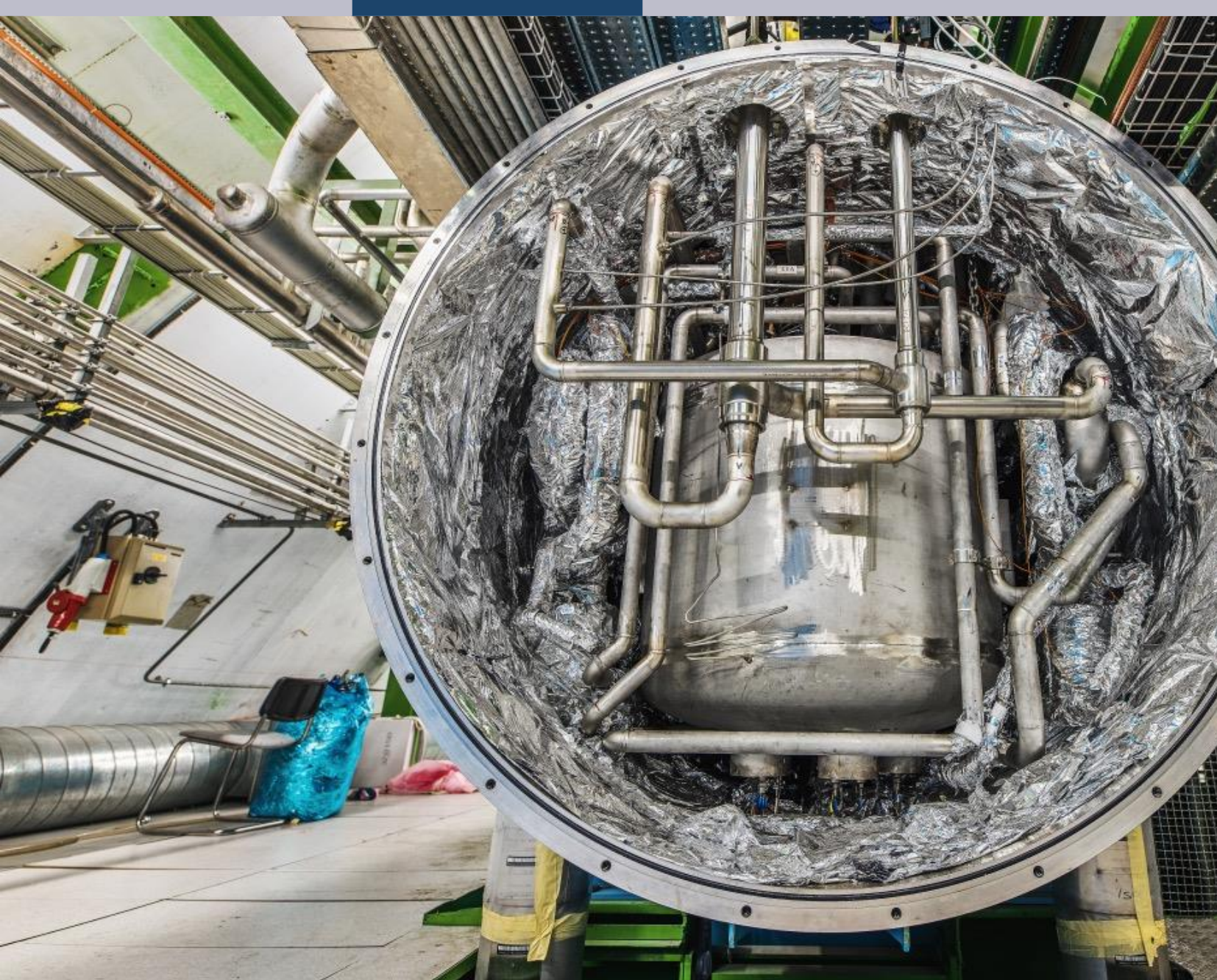
What do we buy?

- **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

Current project - upgrade of the LHC to High Luminosity



Hi-Lumi will provide greater precision and discovery potential

Hi-Lumi will start operating in 2026, and run until 2035

CERN is already looking beyond 2035, with several projects in R&D or study stages

Possible projects for the future of particle physics



Compact Linear Collider (CLIC)

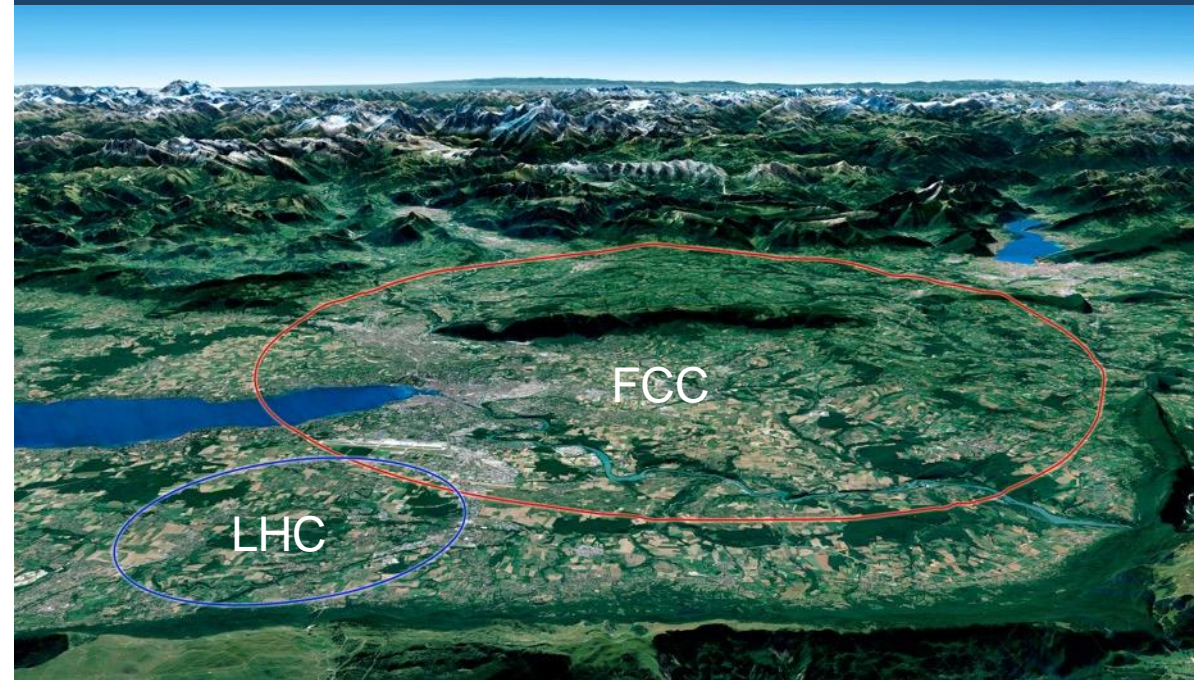
- Linear e^+e^- collider \sqrt{s} up to 3 TeV



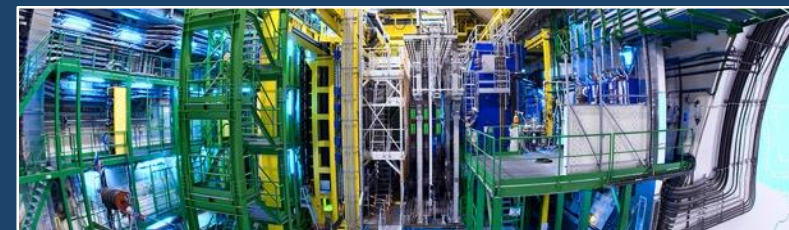
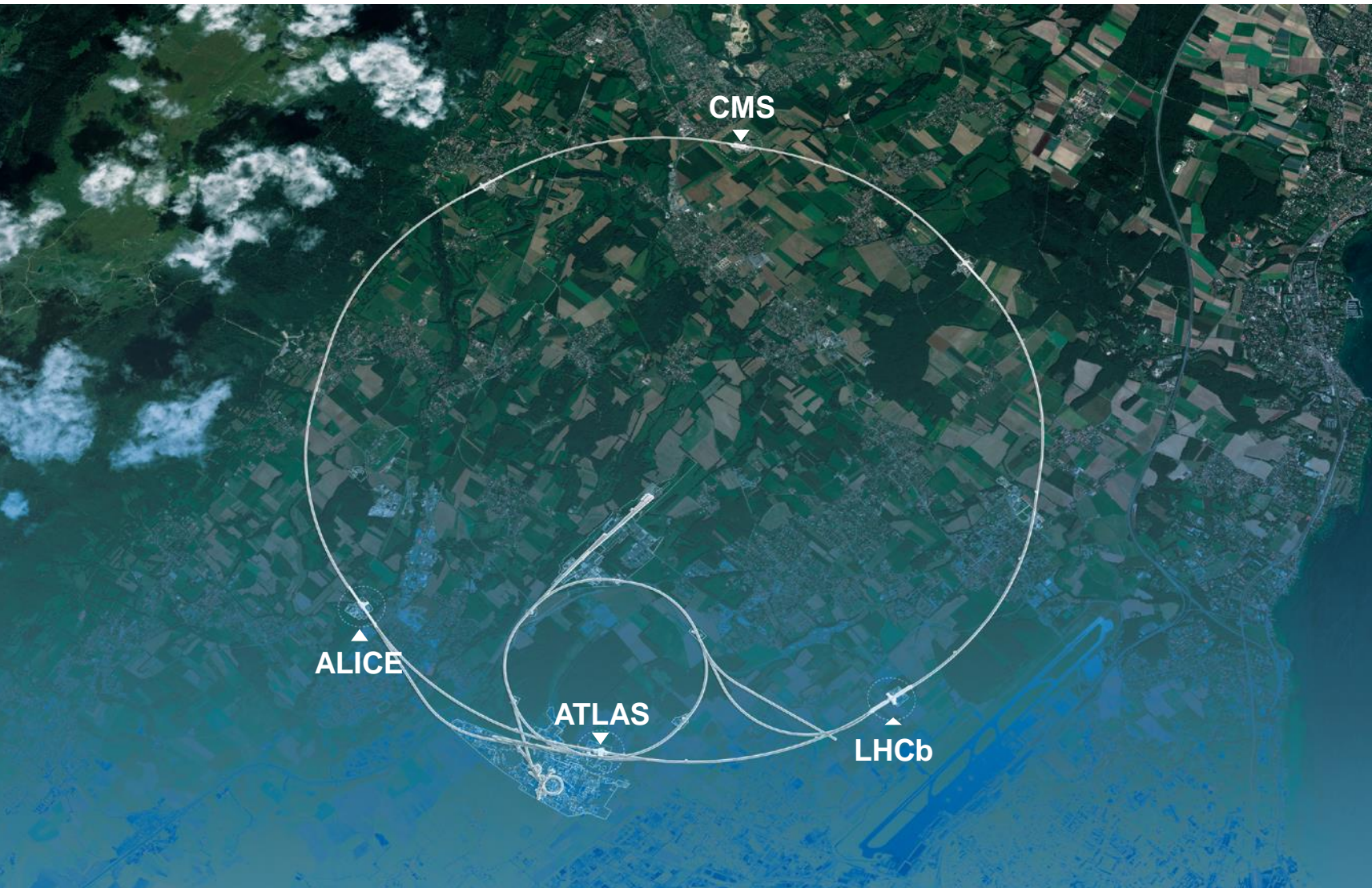
Future Circular Collider (FCC)



- New technology magnets \rightarrow 100 TeV pp collisions in 100km ring
- e^+e^- collider (FCC-ee) as 1st step?



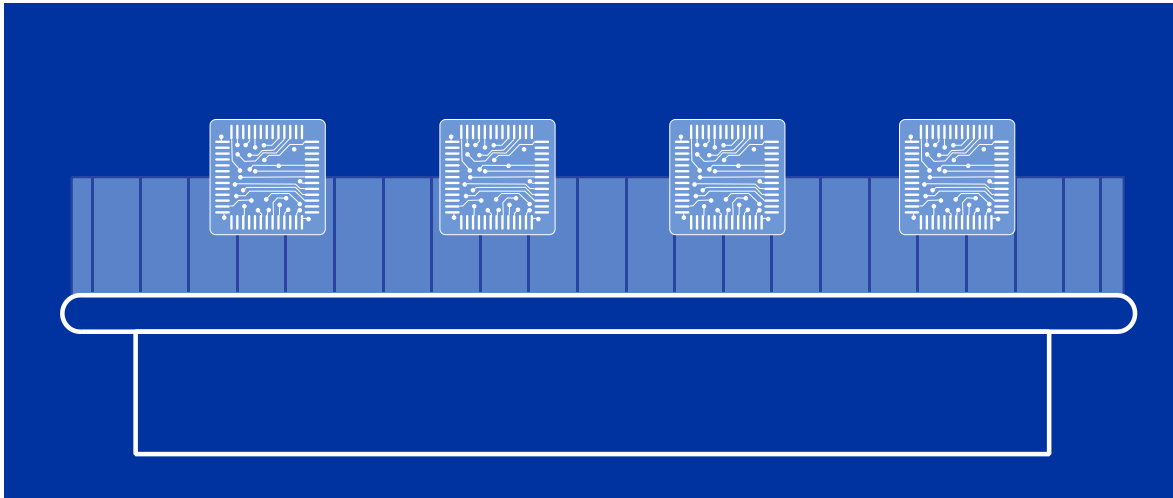
We also buy for the LHC experiments



What do we buy?

Off-the shelf or non-standard products which can be produced with existing manufacturing techniques or technologies:

- **Functional specification**



Non-standard products where industry has neither the required know-how nor the interest to develop and design the products:

- **Build-to-Print specification**

Prototypes and or Pre-series might be required.

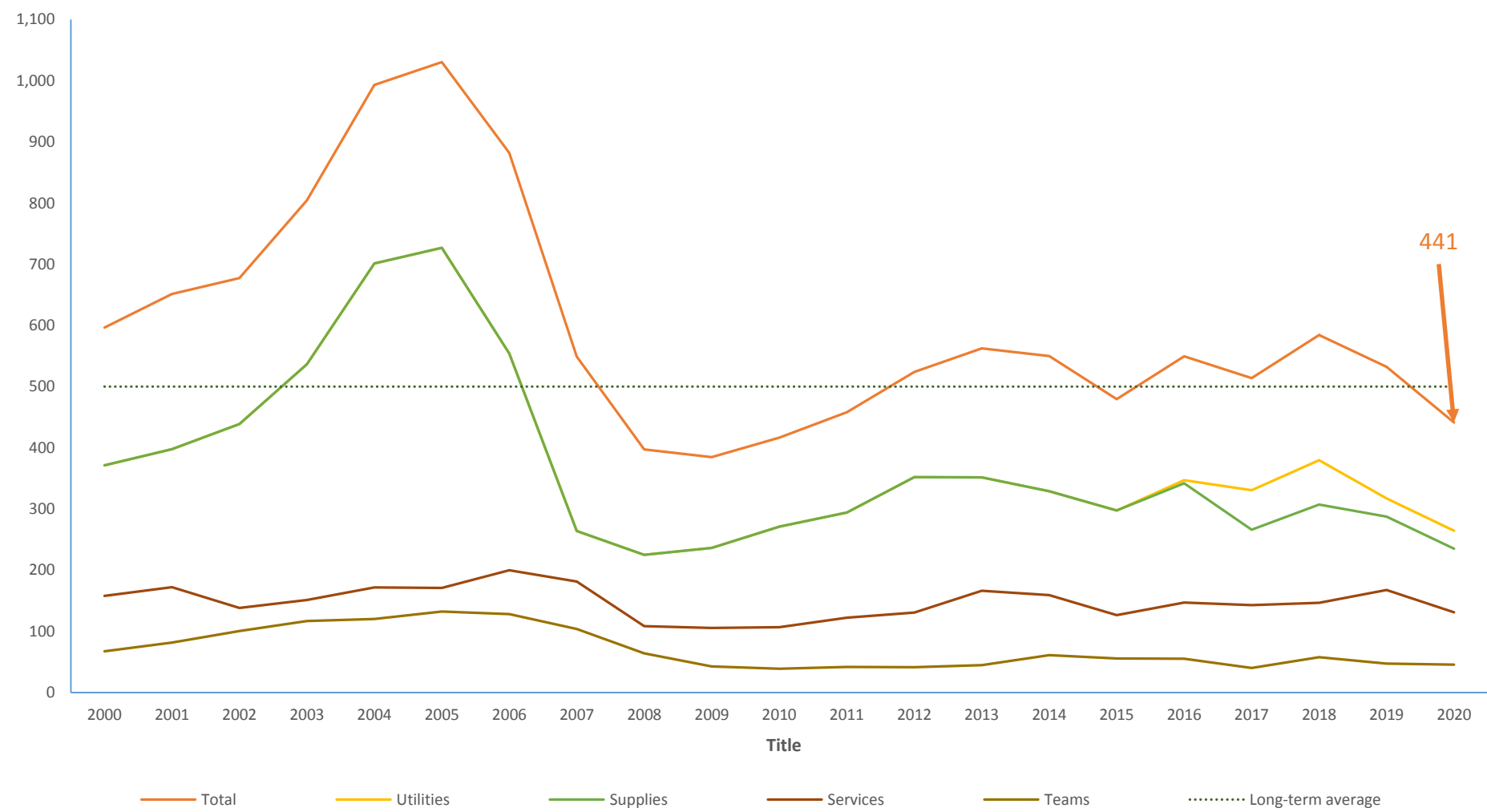


Yearly Budget (contributions 2021)

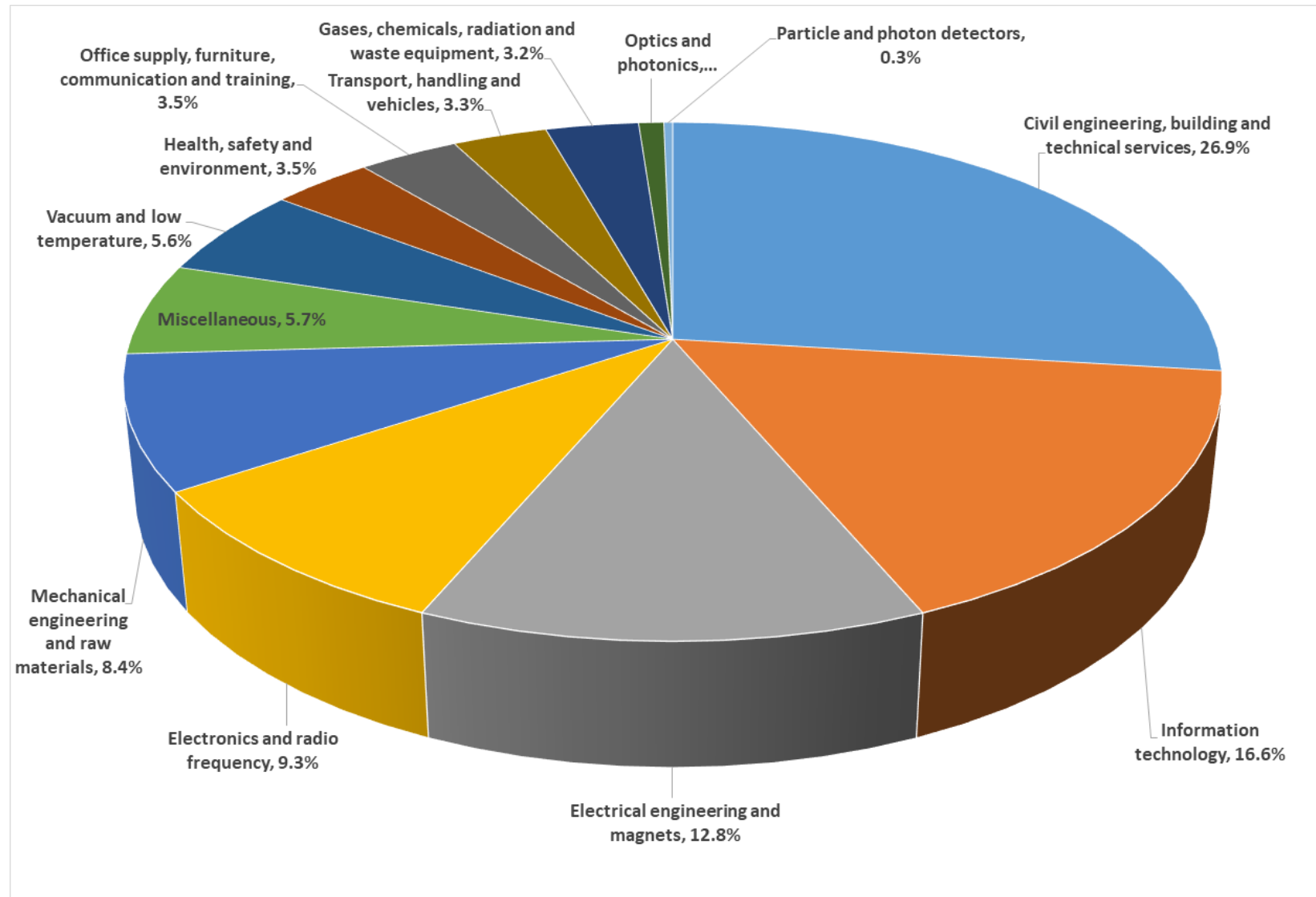
Country	In CHF, 2021 prices	%
Germany	243,978,500	20.4%
United Kingdom	173,742,400	14.5%
France	162,651,400	13.6%
Italy	122,471,350	10.2%
Spain	86,327,950	7.2%
Netherlands	54,493,050	4.5%
Switzerland	45,973,250	3.8%
Poland	33,135,900	2.8%
Belgium	32,398,200	2.7%
Sweden	30,272,750	2.5%
Norway	26,893,400	2.2%
Austria	25,773,200	2.1%
Israel	22,390,950	1.9%
Denmark	21,020,250	1.8%
India*	16,211,900	1.4%
Finland	15,669,300	1.3%
Romania	13,586,400	1.1%

Country	In CHF, 2021 prices	%
Portugal	12,942,750	1.1%
Czech Republic	12,274,400	1.0%
Greece	12,232,750	1.0%
Hungary	8,029,550	0.7%
Slovakia	6,010,500	0.5%
Turkey*	5,349,000	0.4%
Bulgaria	3,788,250	0.3%
Serbia	2,865,800	0.2%
Pakistan*	1,898,100	0.2%
Slovenia*	1,410,200	0.1%
Estonia*	1,020,000	0.1%
Cyprus*	1,000,000	0.1%
Croatia*	1,000,000	0.1%
Lithuania*	1,000,000	0.1%
Ukraine*	1,000,000	0.1%
TOTAL	1,198,811,450	100.0%

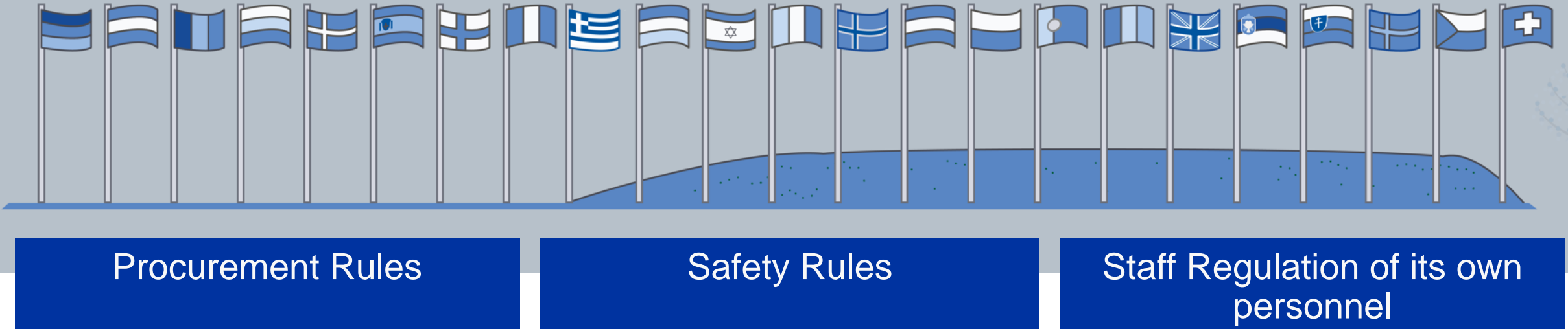
Procurement Expenditure



Supplies (235MCHF spent in 2020 – CERN budget only)



CERN is entitled to establish its own internal rules necessary for its proper functioning, including:



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

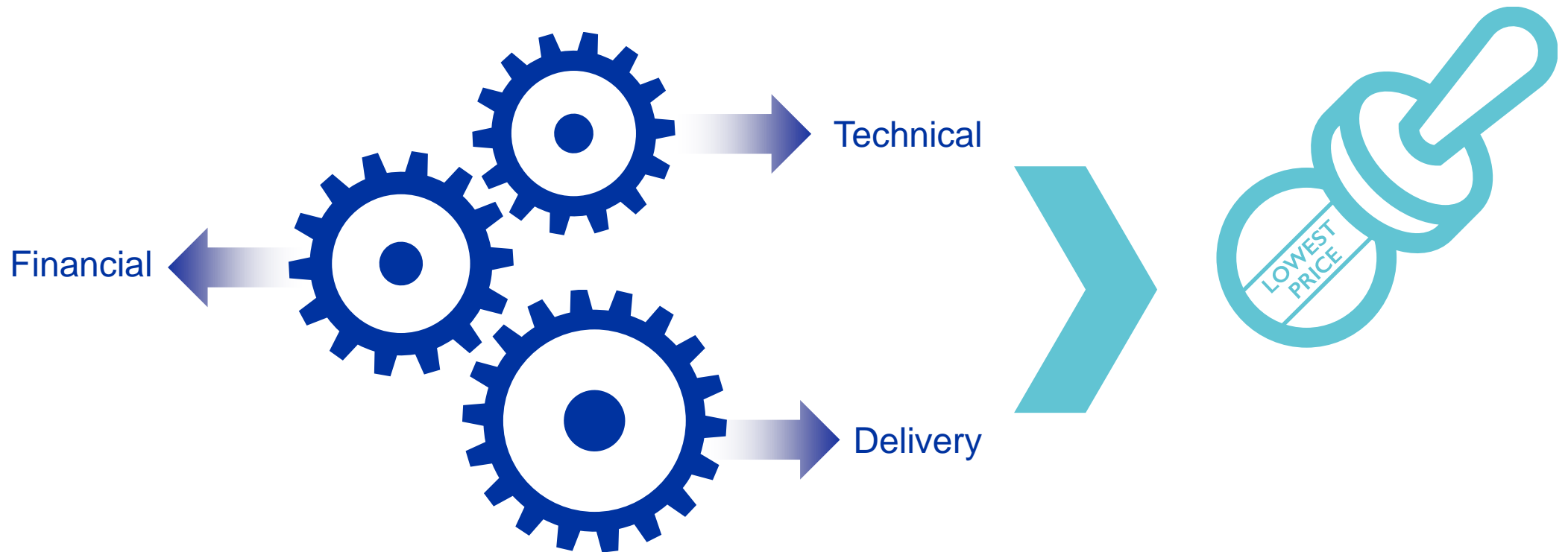
Principles of the Procurement Rules (2/4)

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

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

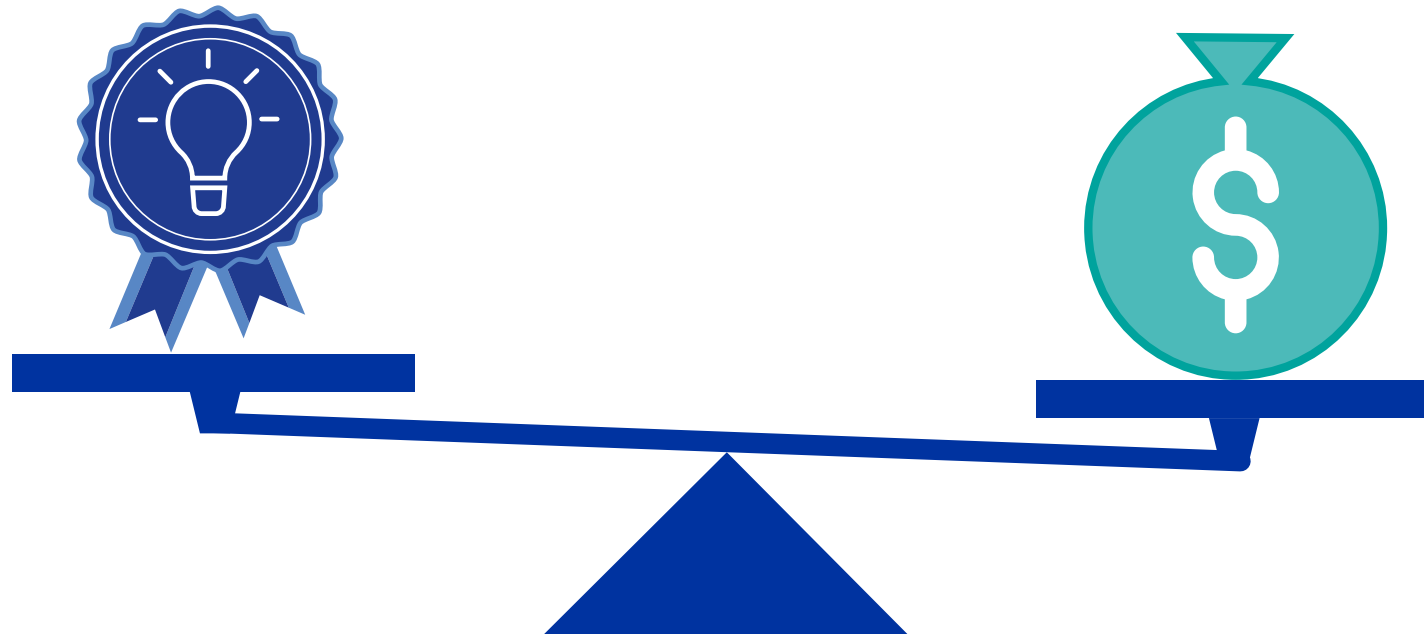
Principles of the Procurement Rules (3/4)

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

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 its 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.

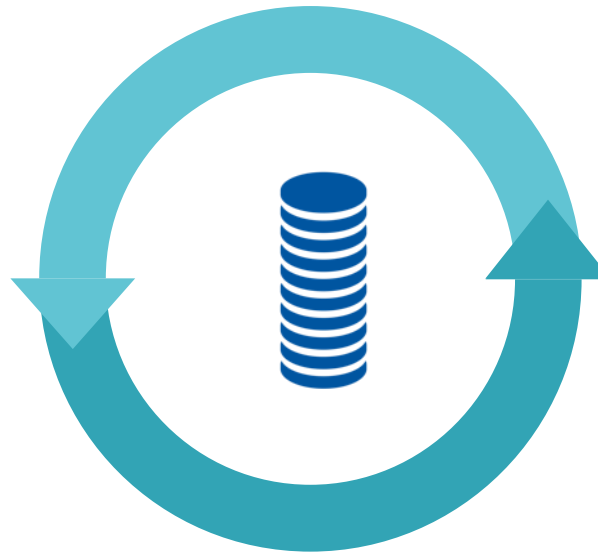
Industrial return coefficient

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

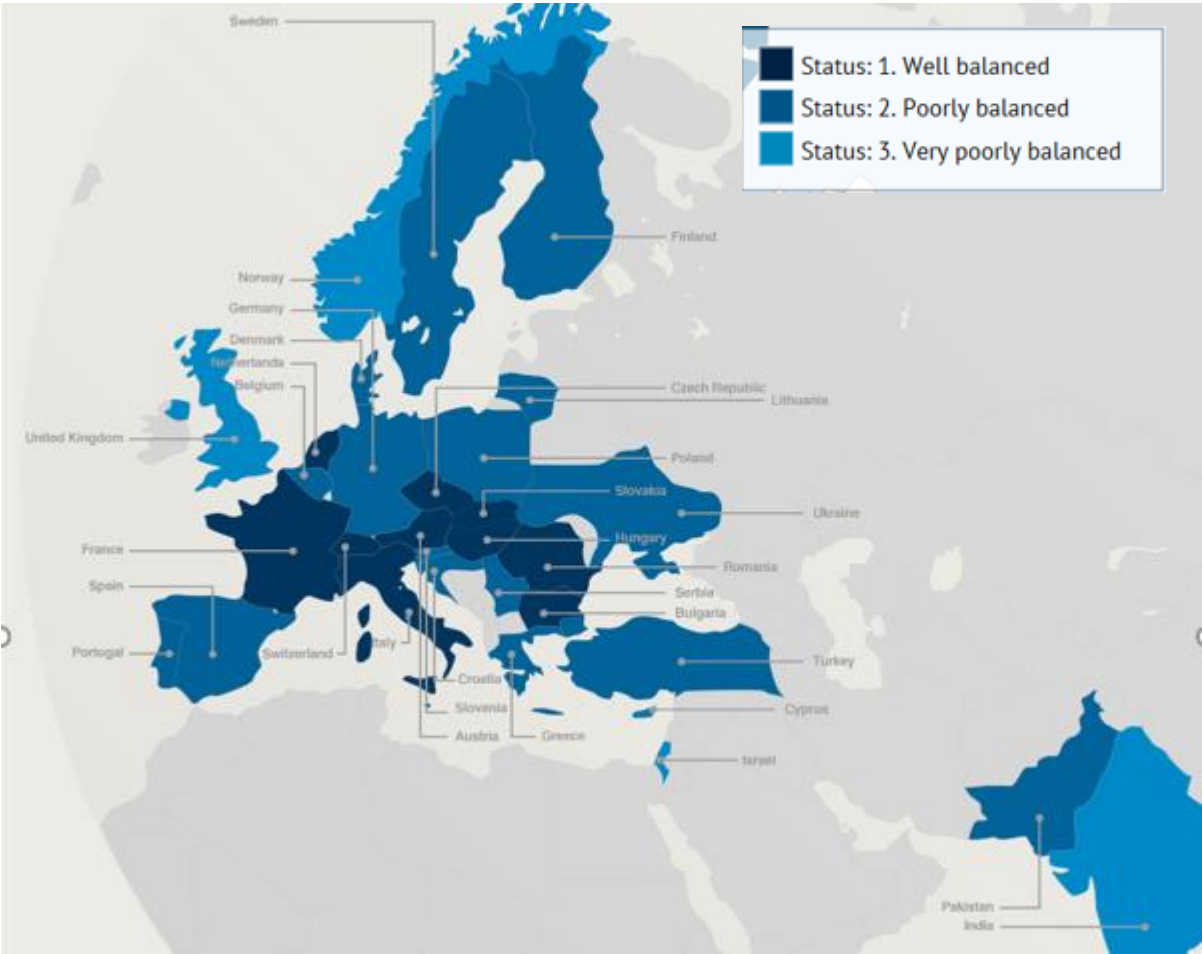
Poorly balanced (PB) : $0.40 \geq x < 1$

Well balanced (WB): ≥ 1

Status definition

Poorly balanced Member States (Supplies)

(1st March 2021 – 28 February 2022, based on the previous 4 calendar years):




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

*Associate Member States

Some Indian suppliers 2021

INOX INDIA PVT LTD	Vadodara,Gujara
METALLIC BELLOWS INDIA PRIVATE LIMITED	Tamil Nadu
GE TD INDIA	Hosur
DIGITRA SOLUTIONS PRIVATE LIMITED	New Delhi
POLYCAB INDIA LIMITED	Mumbai
MICROPACK LIMITED	Bangalore
DECO VINYL PRIVATE LIMITED	Haryana
PENINSULA ELECTRONICS	Bangalore
HARDCOATS INDIA PVT LTD	Miraroad
RITINOX OVERSEAS	Maharashtra

A close-up photograph of two people in business attire shaking hands. The person on the left is wearing a light-colored shirt, and the person on the right is wearing a dark suit. The background is blurred, showing other people in a professional setting.

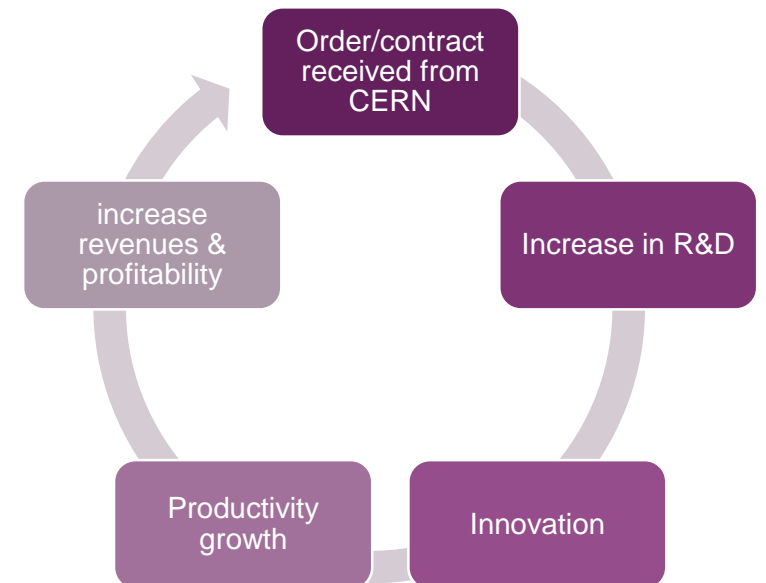
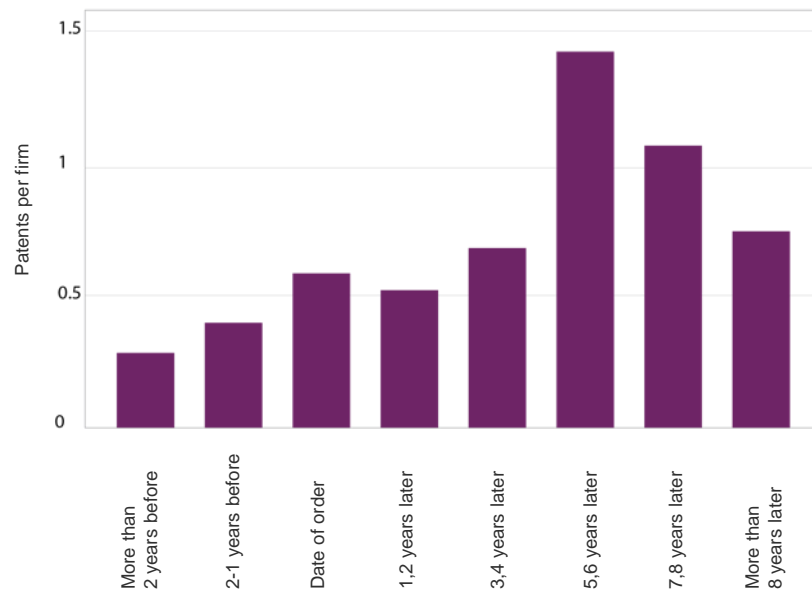
Impact of Doing business with CERN

The economical impact of CERN Procurement on supplier's performance (Castelnovo et al, 2018)

Empirical studies (by the analysis of financial data from 1995 to 2008 from 365 CERN suppliers for the LHC) show that after working with CERN on high-tech contracts, CERN suppliers out-perform their peers by:

Investing more in R&D and filing more patents

Higher productivity, revenue and profitability



Doing business with CERN: the facts

supplier survey (669 suppliers in 33 countries, 2017):

48%

improved products and services

42%

developed new products

55%

improved technical knowledge
in their field



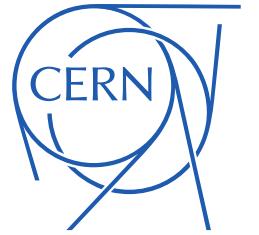
18%

found or opened a new market to
address

62%

used CERN as a marketing reference

Doing business with CERN: the facts



Using CERN as a marketing reference improve the reputation as suppliers

supplier



Successful Bidders & Contractors

- ✓ Often small – medium sized and flexible firms
- ✓ Ensure full understanding of specifications – exceeded specifications may be too expensive
- ✓ Communicate proactively and constructively (problems, issues, alternatives, etc.)
- ✓ Ensure good working relationship with partners and sub-contractors
- ✓ Consider test and documentation requirements
- ✓ Make best offer directly



Procurement website



Website of the Procurement Service

<http://procurement.web.cern.ch>

Procurement and Industrial Services Group

[HOME](#) - [CERN PERSONNEL](#) - [INDUSTRIAL LIAISON OFFICERS](#) - [GROUP MEMBERS](#)

› Doing Business with CERN

Doing Business with CERN [edit](#)
Running a Contract with CERN [edit](#)
Procurement Process [edit](#)
Law applicable to contractors' personnel [edit](#)



› Business Opportunities



› Supplier Portal



› Key Reference Documents



› List of Poorly and Well Balanced Member State...



› Procurement strategy and policy



<https://found.cern.ch/java-ext/found/CFTSearch.do>



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/asp/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.

Contact in your country

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.



Mr Suman
Sarkar

Role

Scientific Officer / G

Organization

Reactor Control Division, BARC

Address

LZ-304, RCnD, BARC
Trombay, Mumbai – 400085
India

Telephone

+91 22 25591958

Email

ssarkar@barc.gov.in

Thank you



home.cern