



# Doing Business with CERN

## 1st CERN Baltic Conference (CBC 2021)

Anders Unnervik

28 June 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



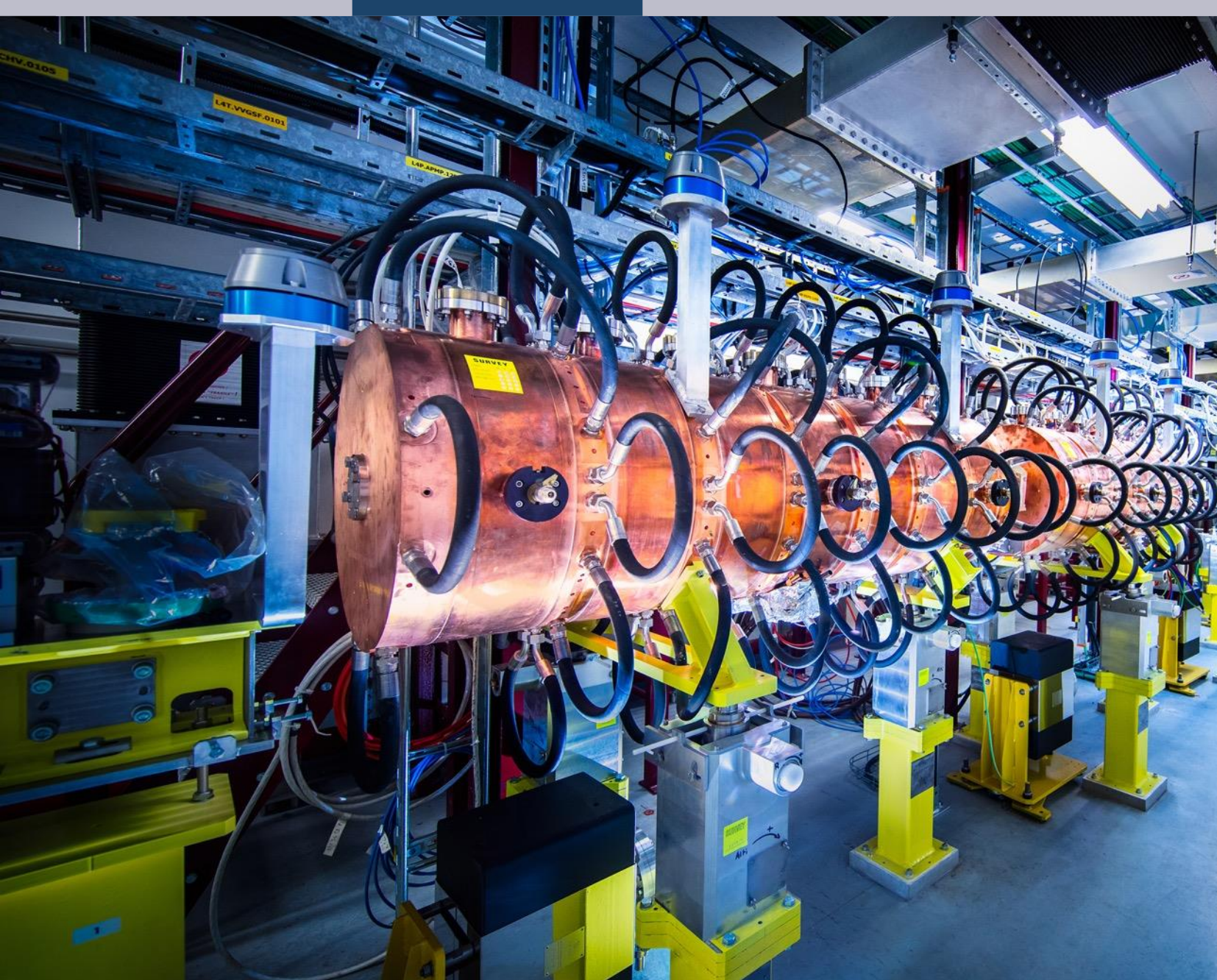
# What do we buy:

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



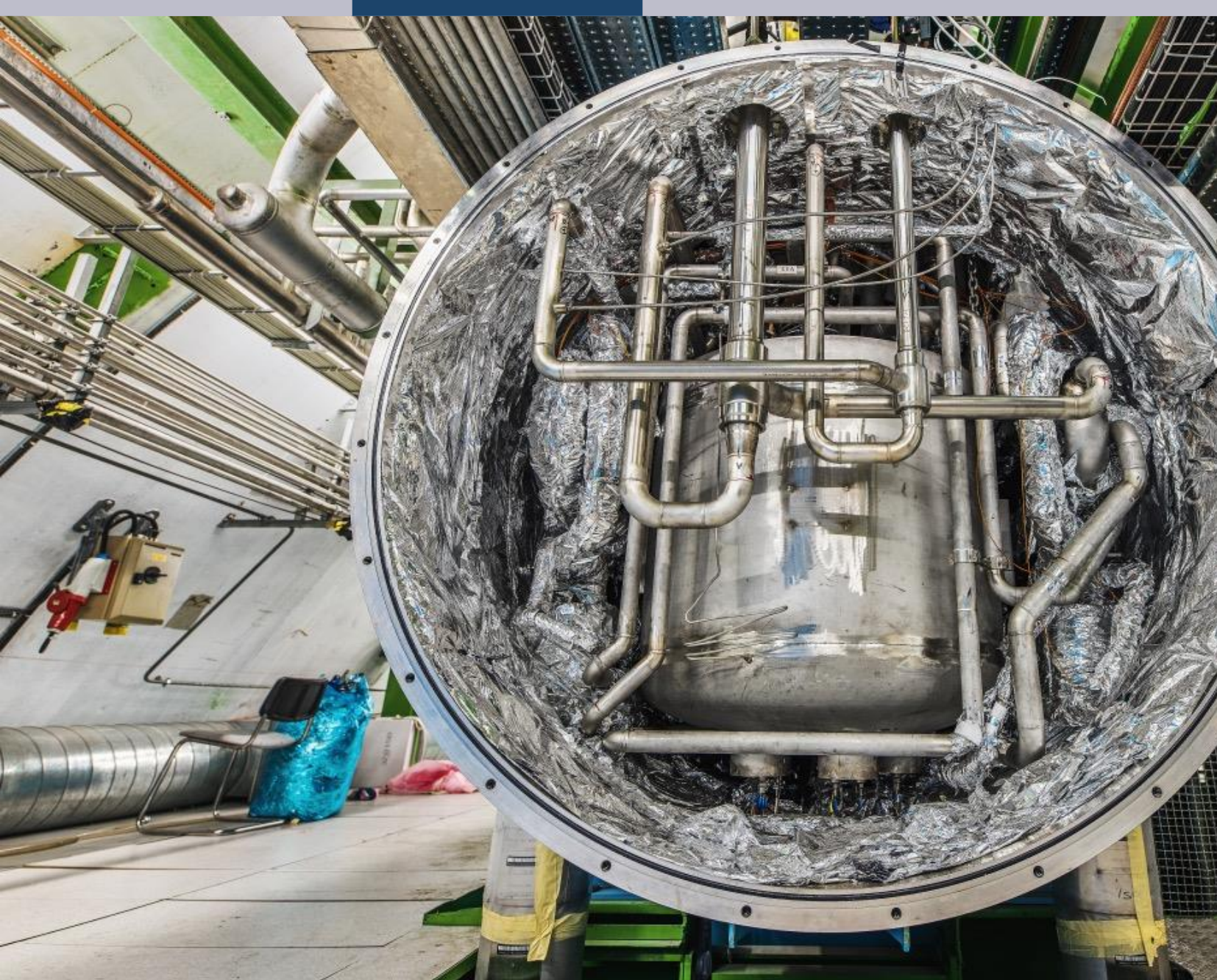
# What do we buy?

- **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)

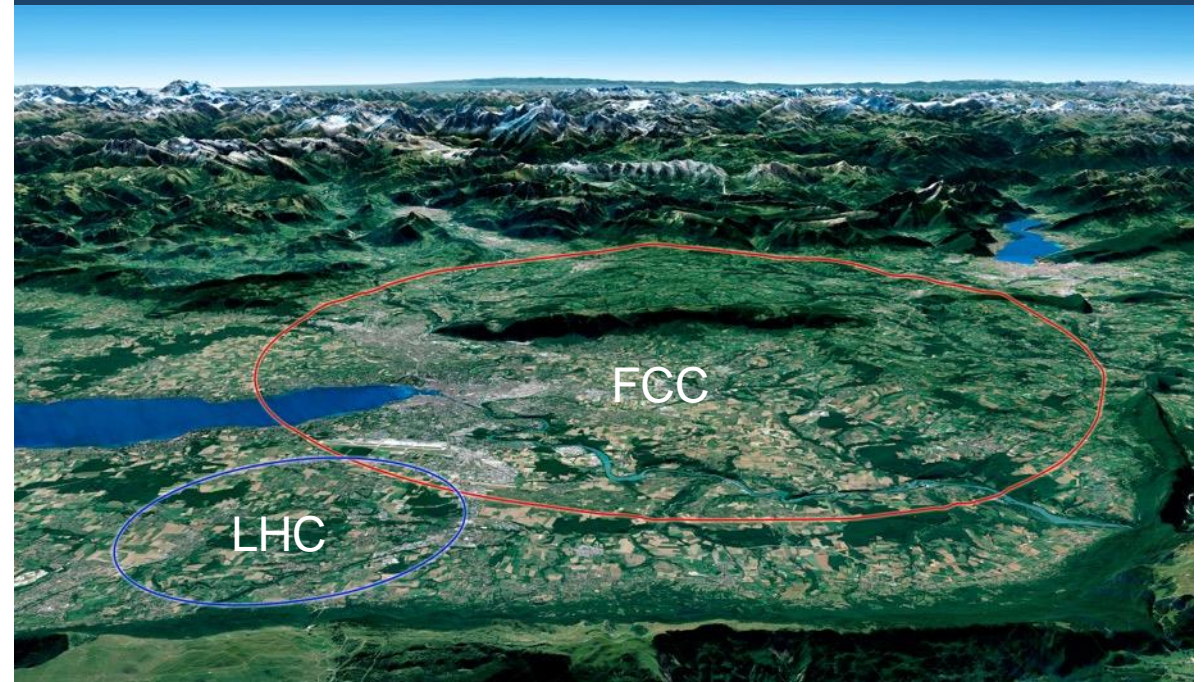


- Linear  $e^+e^-$  collider  $\sqrt{s}$  up to 3 TeV

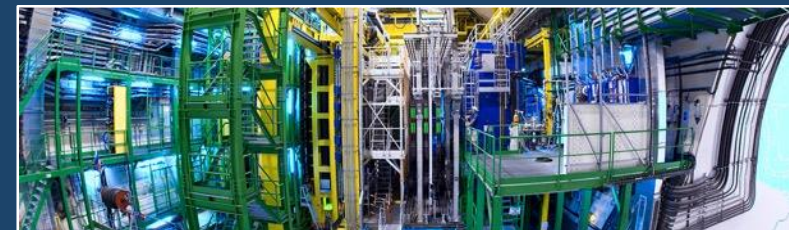
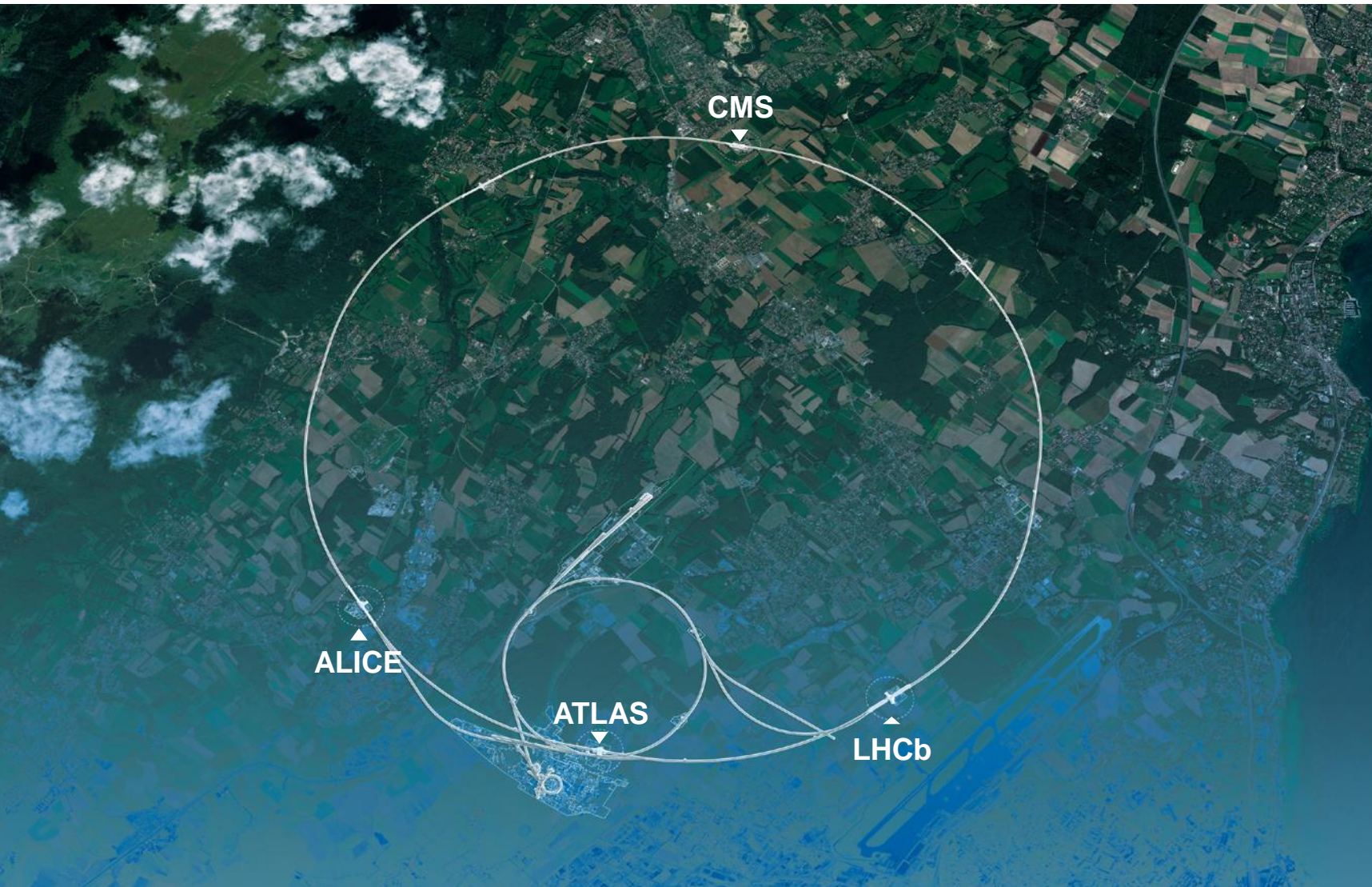
## Future Circular Collider (FCC)



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



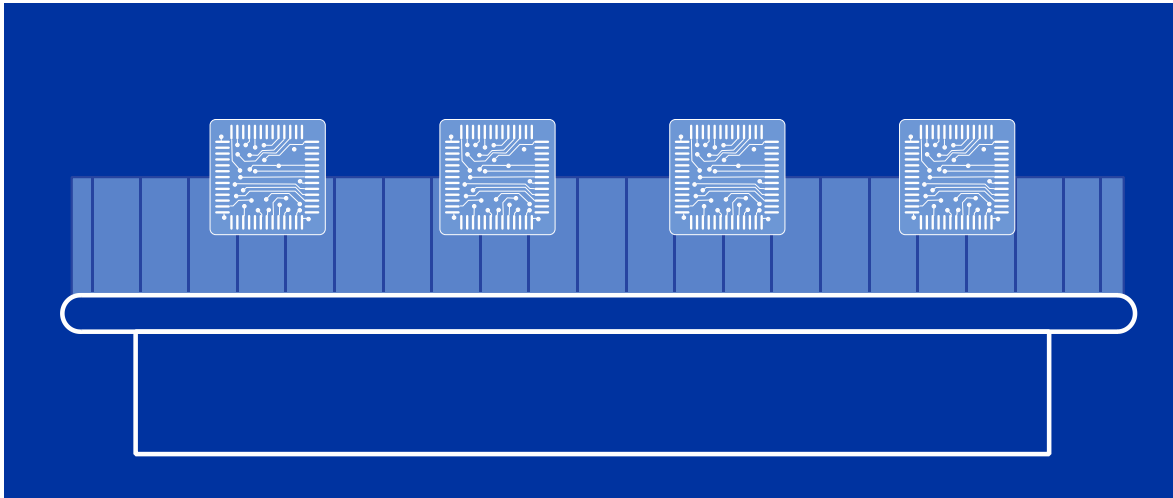
# We also buy for the LHC experiments



# 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.

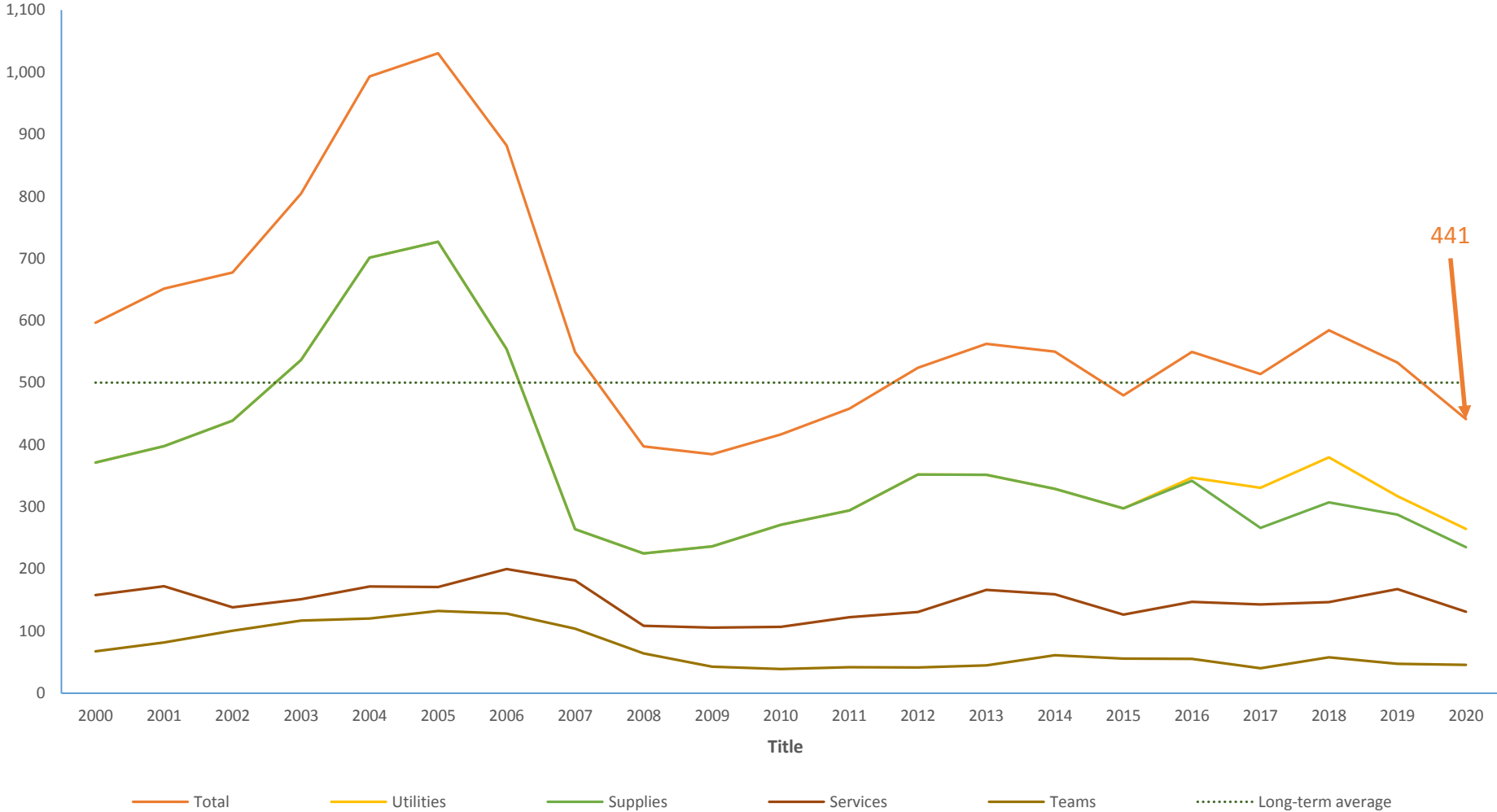


# Yearly Budget (contributions 2021)

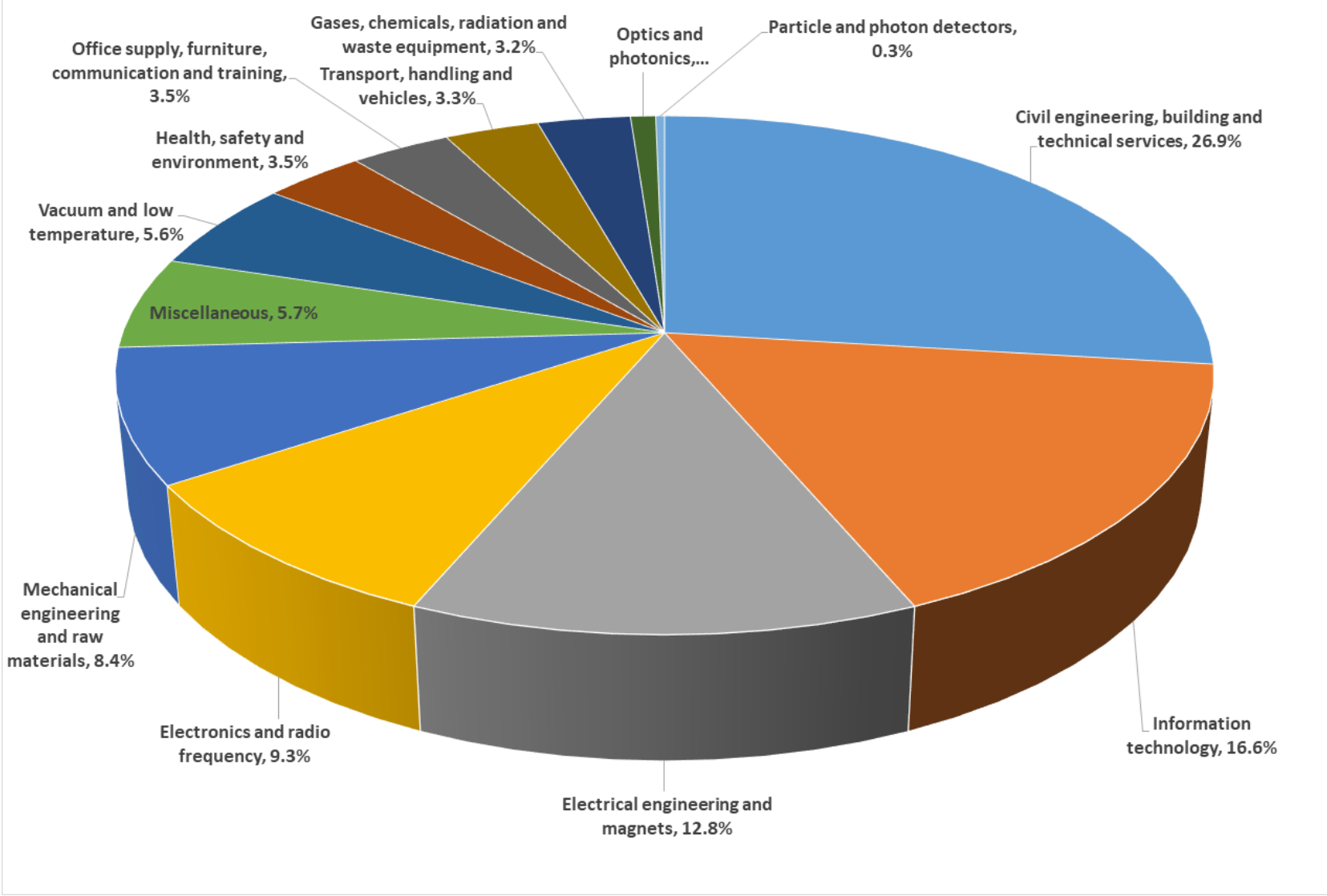
Country	In CHF, 2021 prices	%
Germany	243,978,500	20.4%
United Kingdom	173,742,400	14.5%
France	162,651,400	13.6%
Italy	122,471,350	10.2%
Spain	86,327,950	7.2%
Netherlands	54,493,050	4.5%
Switzerland	45,973,250	3.8%
Poland	33,135,900	2.8%
Belgium	32,398,200	2.7%
Sweden	30,272,750	2.5%
Norway	26,893,400	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%
<b>TOTAL</b>	<b>1,198,811,450</b>	<b>100.0%</b>

# 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:



Procurement Rules

Safety Rules

Staff Regulation of its own  
personnel

# 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

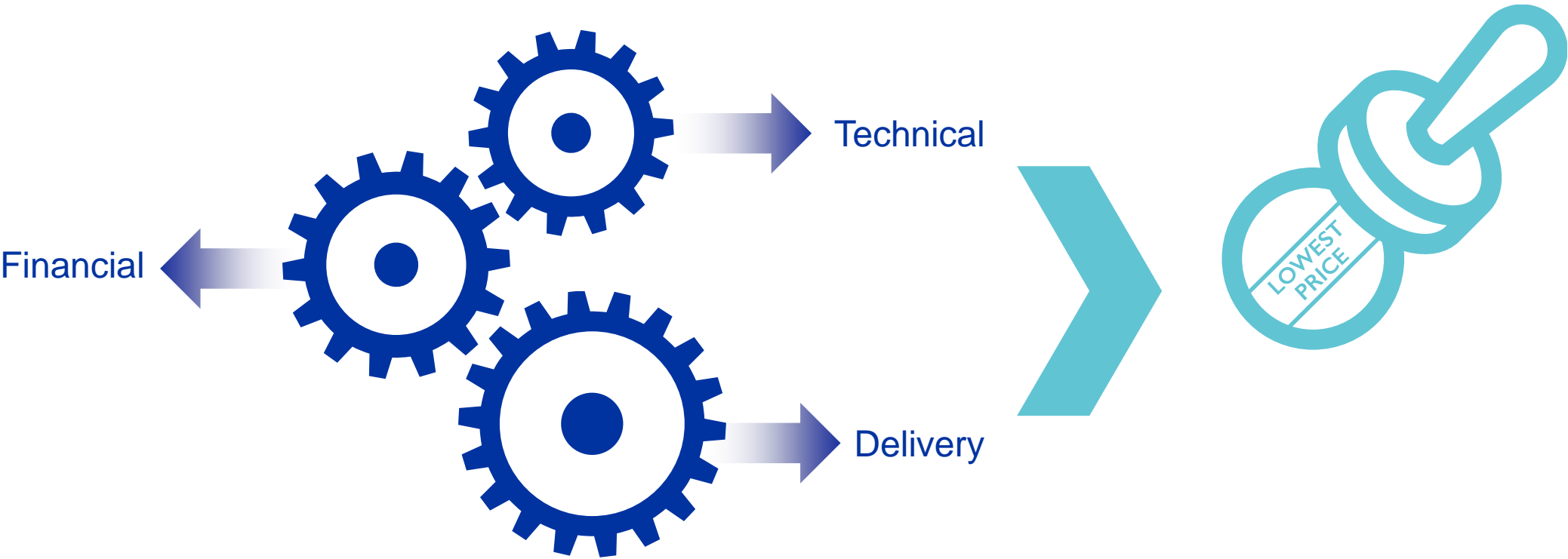
# Principles of the Procurement Rules (2/4)

**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

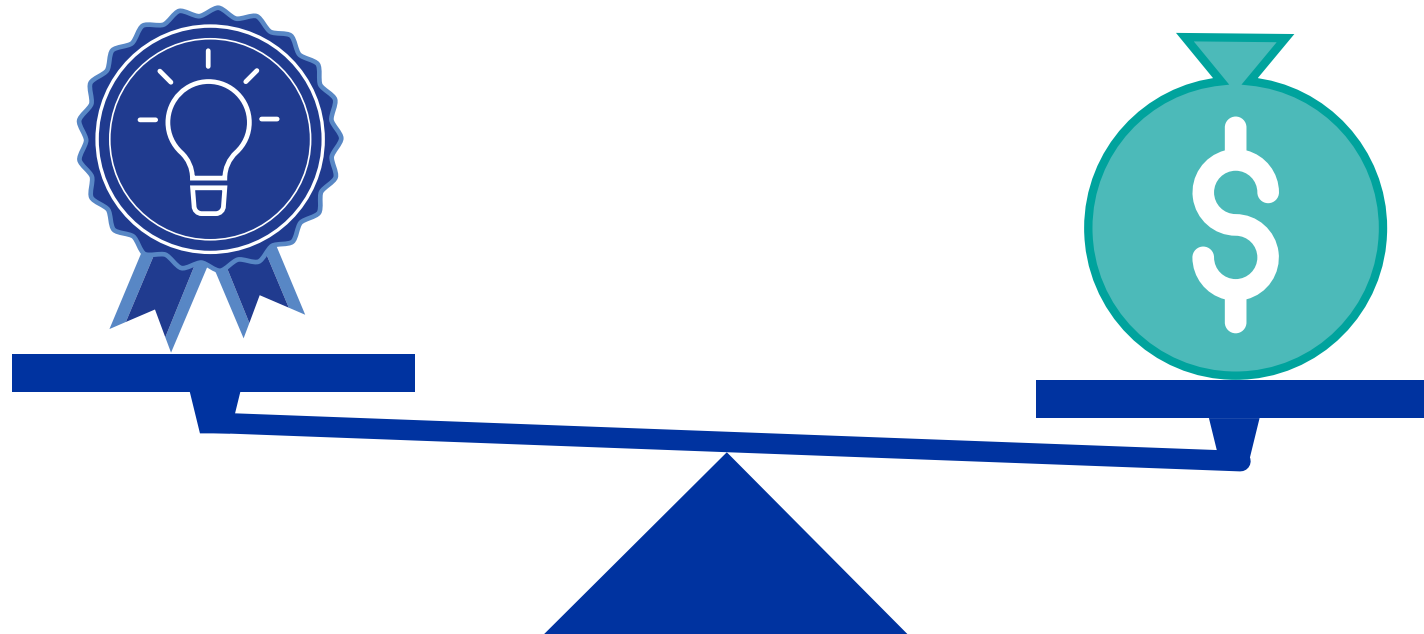
# Principles of the Procurement Rules (3/4)

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 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 1<sup>st</sup> 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 :  $< 0.40$

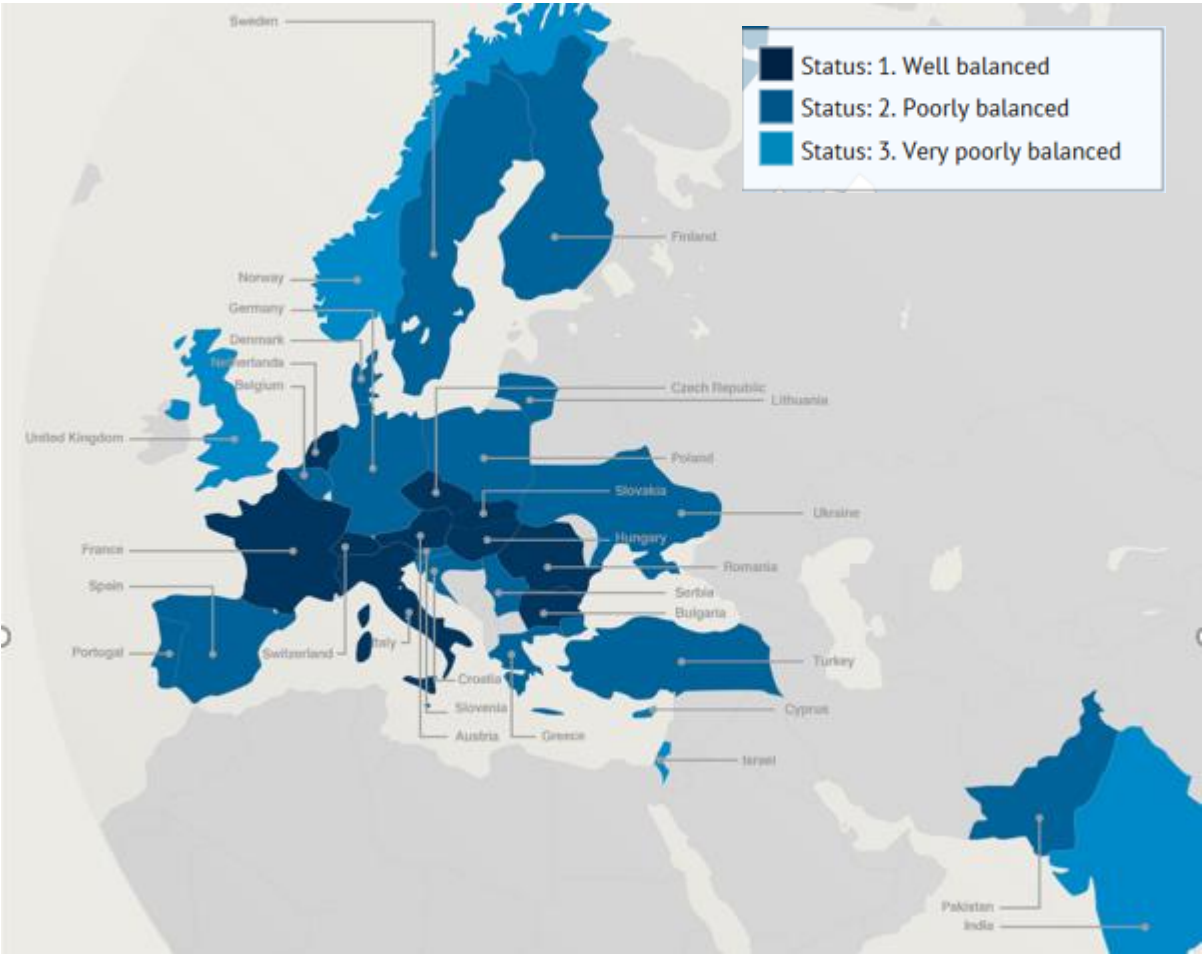
Poorly balanced (PB) :  $0.40 \geq x < 1$

Well balanced (WB):  $\geq 1$

## 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 Baltic suppliers 2021

Supplier Name	Town
MIP NORDIC	Tallinn
EUROPEAN FUND MANAGEMENT CONSULTING	Tallinn
BRANDNER PCB OU	Paide
MODULESTON OU	Aaviku
TIPSNANO OU	Tallinn

Supplier Name	Town
VILNIUS UNIVERSITY	Vilnius
DESIGN AND PUBLISHING JSC KOPA	Kauno Raj
UAB MGM BALTIC	Kaunas
STANDA	Vilnius
EKSMA OPTICS	Vilnius
ESEMDA	Vilnius
PRECIZIKA METAL UAB	Vilnius
ALTECHNA	Vilnius
EKSPLA	Vilnius



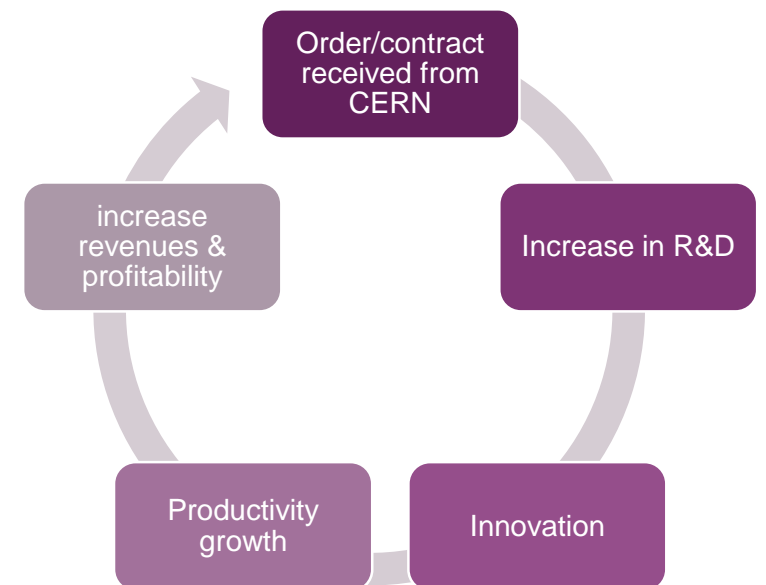
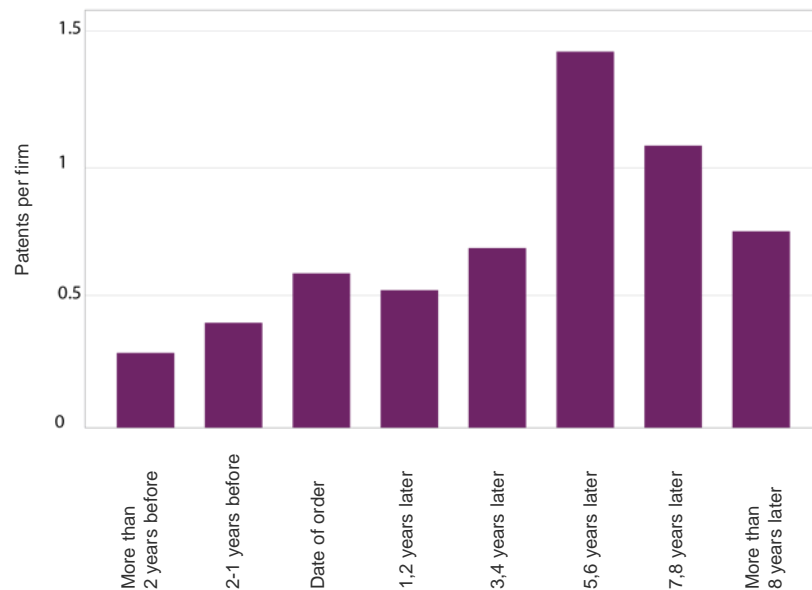
# Impact of Doing business with CERN

# 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



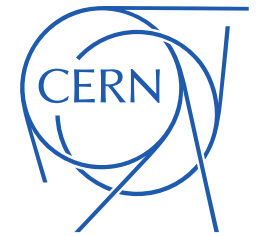
18%

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*



# 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



# CERN Shopping List

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

**IPT** Procurement and Industrial Services Group
[Print View](#)

## Forthcoming market surveys and calls for tenders

Advance information on forthcoming market surveys and calls for tenders expected to exceed 200,000 Swiss francs.

In the line entitled Cost Range, a very rough indication of the cost range of the product is given in the form of letters **A, B, C, D**.  
**A** represents items estimated at less than 750 kCHF, **B** represents items between 750 kCHF and 5 MCHF, **C** represents items between 5 MCHF and 10 MCHF and **D** represents items above 10 MCHF.

Firms may reply to the Market Survey published in the table below up to two weeks before the corresponding Invitation to Tender is sent out. Therefore, in case the deadline for replies indicated in the Market Survey cover letter is over, please send your reply to the Market Survey at the earliest possible date.

The countries of origin of supplies and services shall be [CERN Member States](#), except if provided otherwise in the table below.

References marked with "New" have been posted during the last 8 weeks.

Search Menu
Links Menu

Type of Contract: <input type="text" value="All"/>	Market Survey dispatched: <input type="text" value="All"/>
Reference: <input type="text"/>	Call for Tenders scheduled for dispatch: <input type="text" value="All"/>
Activity Code: <input type="text"/>	Description and/or Specific Condition: <input type="text"/>
Requirement: <input type="text"/>	Commercial contact: <input type="text" value="All"/>
Cost Range: <input type="text" value="All"/>	Publication Date: From <input type="text"/> To <input type="text"/> dd-mm-yyyy

Search
Reset

Publication Date	Type of Contract	Reference	Requirement (Activity Code)	Description/Specific Condition	Cost Range	Market Survey scheduled for dispatch	Contacts and Interest in being contacted / Market Survey Documents	Invitation to Tender scheduled to dispatch
03-10-2018	Supply	<span style="color: yellow;">New</span> <a href="#">MS-4489/SMB</a>	Civil-engineering works for the design and construction of new Building 937 situated on CERN's Preveessin site in France. (01020101, 01020102)	CERN intends to place a contract for the design and construction ... Interested firms shall have a proven experience and competence in design ... <a href="#">Read More</a>	B	Fourth quarter 2018	To express an interest please send an e-mail to <a href="mailto:procurement.service@cern.ch">procurement.service@cern.ch</a> Technically: <a href="#">S. Cahuet</a> Commercially: <a href="#">A. Horridge</a>	First quarter 2019
26-09-2018	Supply	<span style="color: yellow;">New</span> <a href="#">MS-4486/TE/HL-LHC</a>	Supply of 600 bellow expansion joints of 10 different types for HL-LHC (06010100)	CERN intends to place a contract for the supply of ... Interested firms shall have a proven experience and competence in the ... <a href="#">Read More</a>	A	Fourth quarter 2018	To express an interest please send an e-mail to <a href="mailto:procurement.service@cern.ch">procurement.service@cern.ch</a> Technically: <a href="#">Y. Lecerq</a> Commercially: <a href="#">J. Pierlot</a>	First quarter 2019
17-09-2018	Supply	<span style="color: yellow;">New</span> <a href="#">MS-4470/IT</a>	Framework Market Survey concerning the supply of Desktop PC, Mini-PC and Laptop (portable) PC office computers (04010500, 04010700)	CERN intends to place several contracts for the supply of PCs, ... Interested firms shall have a proven experience and competence in Intel ... <a href="#">Read More</a>	B	Third quarter 2018	To express an interest please send an e-mail to <a href="mailto:procurement.service@cern.ch">procurement.service@cern.ch</a> Technically: <a href="#">G. Metral</a> Commercially: <a href="#">H. Gerster</a>	Fourth quarter 2018
10-09-2018	Supply	<span style="color: yellow;">New</span> <a href="#">MS-4469/EN</a>	Supply of system interconnections and industrial wiring. (02070300, 03030100, 03030200, 13030500)	CERN intends to place a three years blanket contract for the ... Interested firms or group of firms shall have proven competence, experience ... <a href="#">Read More</a>	A	Third quarter 2018	To express an interest please send an e-mail to <a href="mailto:procurement.service@cern.ch">procurement.service@cern.ch</a> Technically: <a href="#">G. Canale</a> Commercially: <a href="#">N. Azizi</a>	Third quarter 2018



# 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](mailto: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 Mantas Vilys

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Thank you



[home.cern](http://home.cern)