



# Doing Business with CERN Baltics@CERN

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12 September 2022





# AGENDA

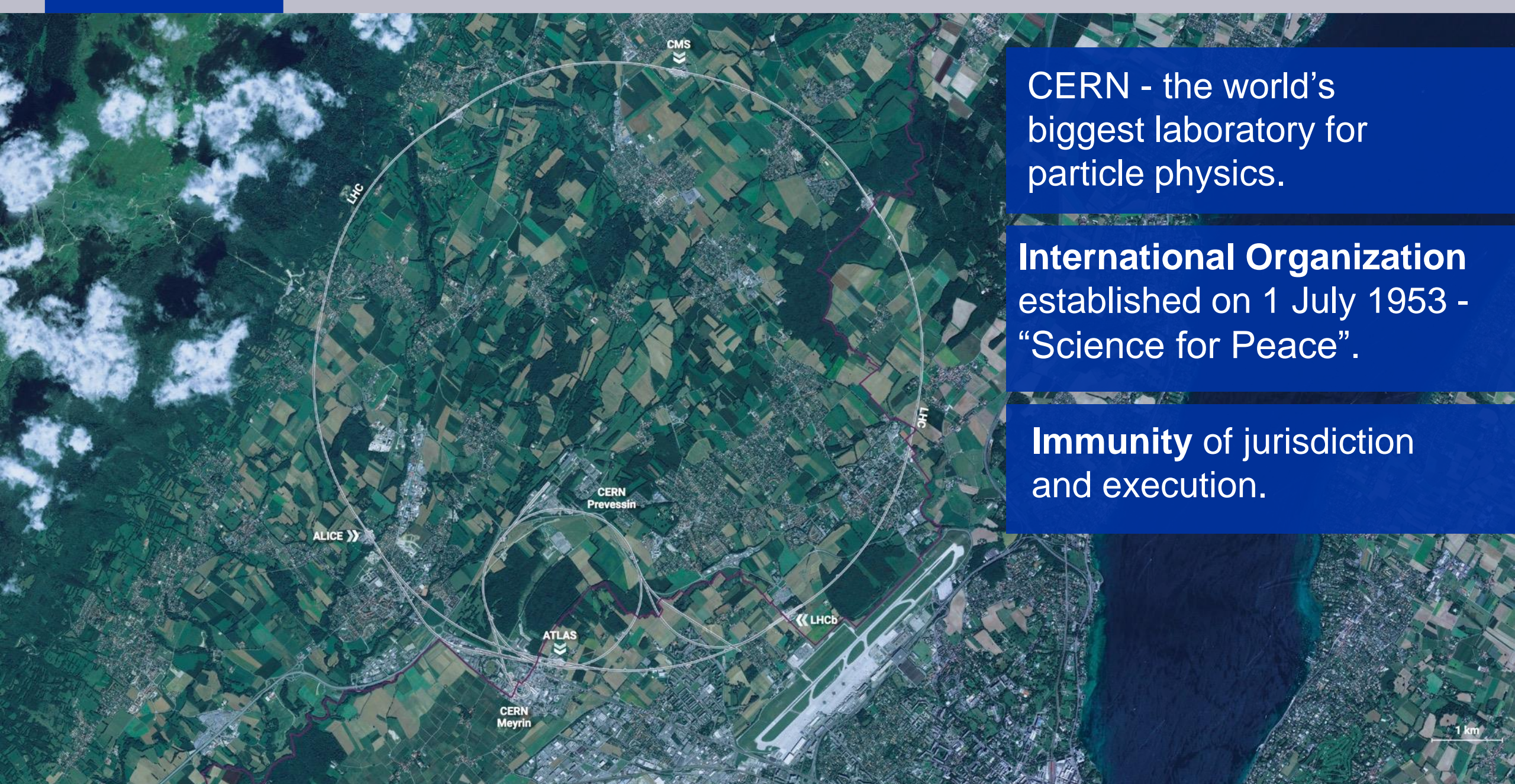
- Introduction
- Key figures
- Procurement @ CERN - the rules
- Impact of Doing business with CERN
- Procurement website





# INTRODUCTION





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

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

**Immunity of jurisdiction and execution.**



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

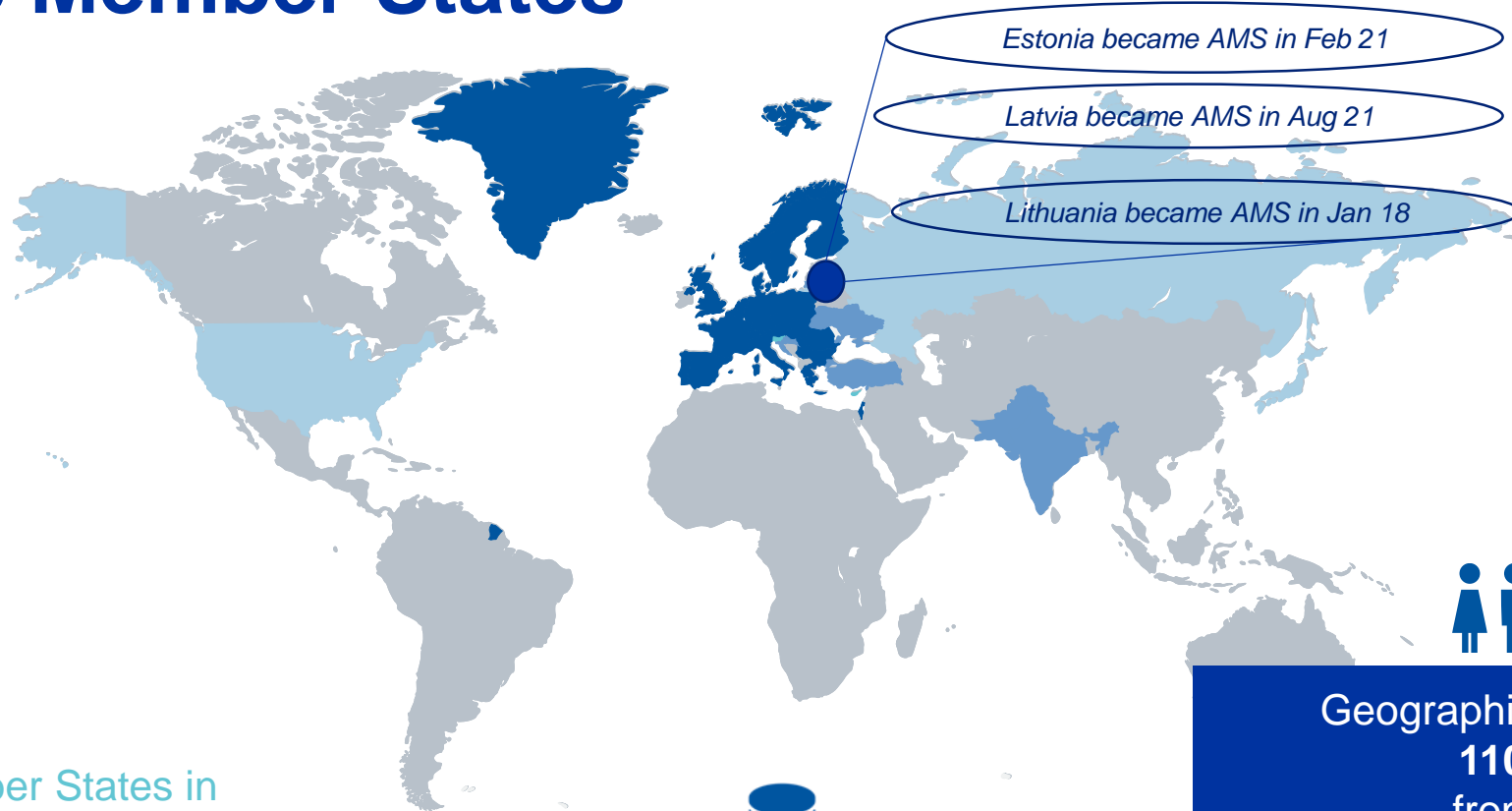


Procurement Rules

Safety Rules

Staff Regulation of its own  
personnel

# In 1954 CERN had 12 Member States Today: 23 Member States



**23** Member States

**3** Associate Member States in the pre-stage to membership

**7** Associate Member States

**6** Observers



**Yearly budget ~ 1200 MCHF**



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

**~ 2500** Staff members  
**~ 2000** contractors' employees  
**~ 13000** physicists /users

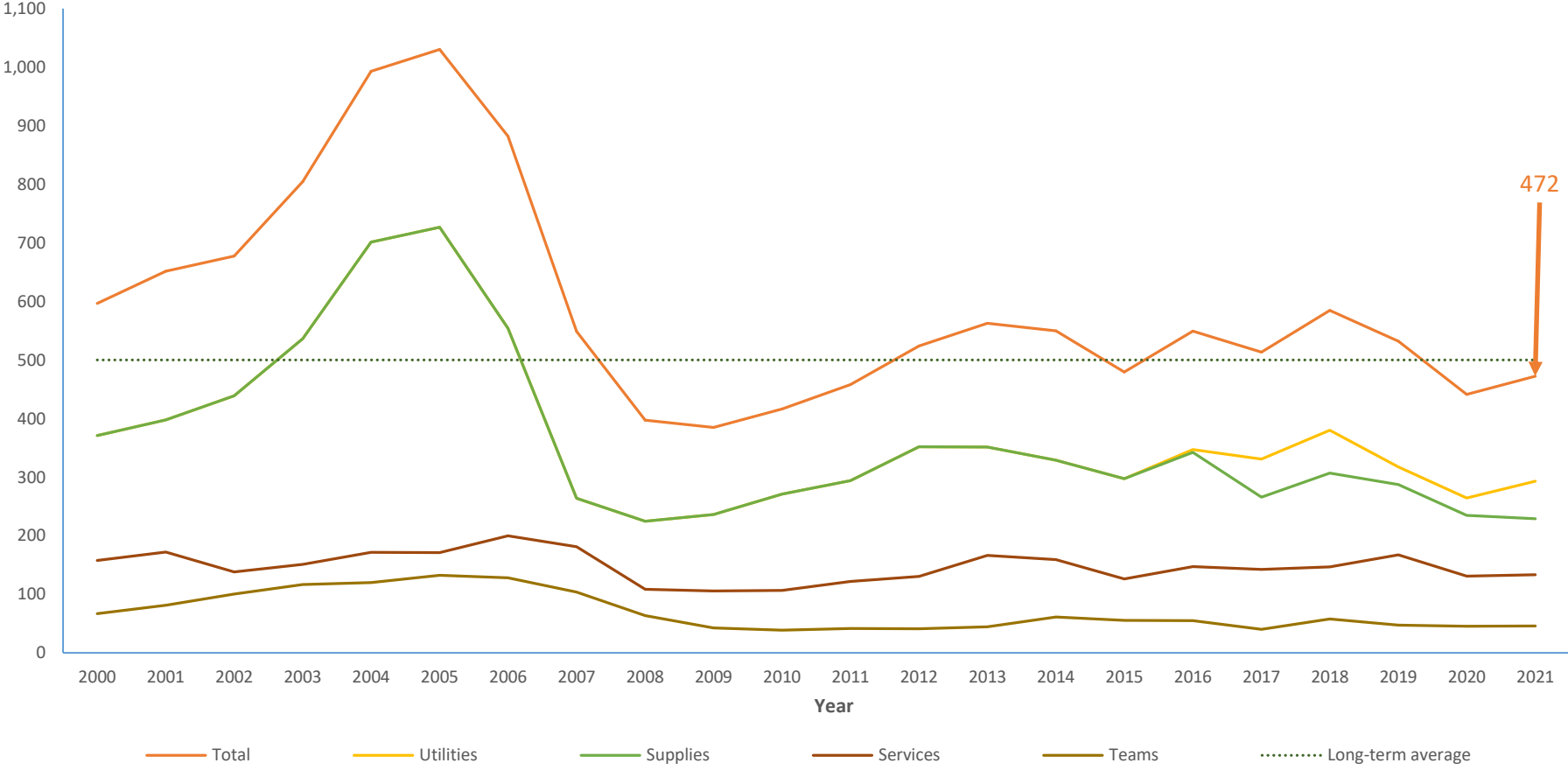
# Key Figures

# Yearly Budget (contributions 2022)

Country	Percentage of Total	Amount (CHF)	Country	Percentage of Total	Amount (CHF)
 Germany	20.32%	245 017 700	 Czech Republic	1.10%	13 220 000
 United Kingdom	14.20%	171 219 200	 Portugal	1.09%	13 148 350
 France	13.42%	161 894 900	 Greece	0.99%	11 894 950
 Italy	10.10%	121 766 050	 Hungary	0.71%	8 580 300
 Spain	7.25%	87 403 500	 Slovakia	0.51%	6 151 800
 Netherlands	4.63%	55 847 250	 Turkey*	0.41%	4 961 450
 Switzerland	3.84%	46 281 900	 Bulgaria	0.33%	3 977 800
 Poland	2.88%	34 787 950	 Serbia	0.25%	3 002 950
 Belgium	2.71%	32 668 100	 Pakistan*	0.15%	1 843 950
 Sweden	2.49%	30 045 050	 Slovenia**	0.12%	1 484 800
 Norway	2.21%	26 636 300	 Estonia**	0.11%	1 310 850
 Austria	2.15%	25 937 750	 Cyprus**	0.09%	1 025 350
 Israel	1.95%	23 501 450	 Latvia*	0.09%	1 024 850
 Denmark	1.77%	21 381 600	 Croatia*	0.08%	1 000 000
 India*	1.40%	16 838 200	 Lithuania*	0.08%	1 000 000
 Finland	1.30%	15 708 050	 Ukraine*	0.08%	1 000 000
 Romania	1.20%	14 424 700	<b>Total</b>	<b>100%</b>	<b>1 205 987 050</b>

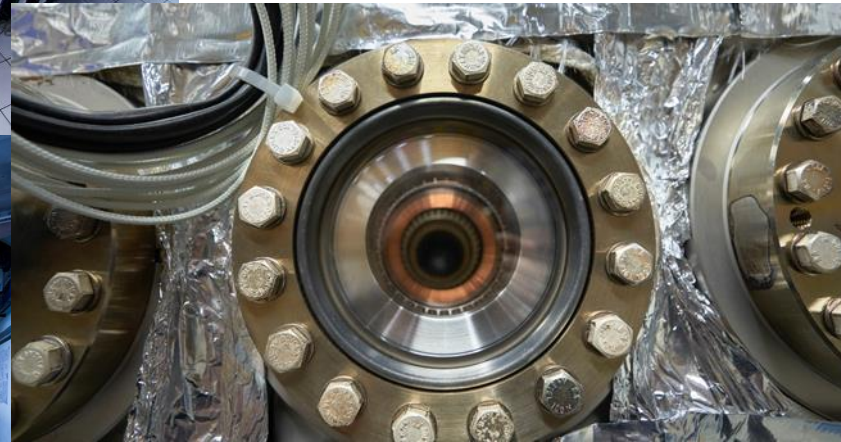
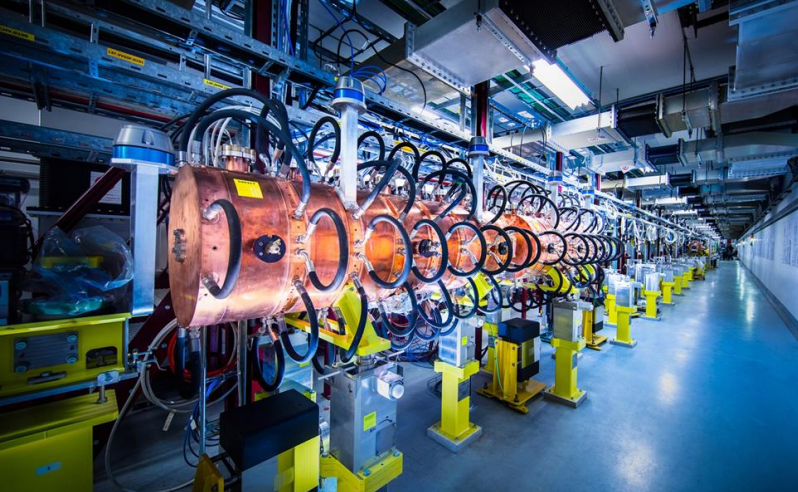


# Procurement Expenditure (all MS and AMS)

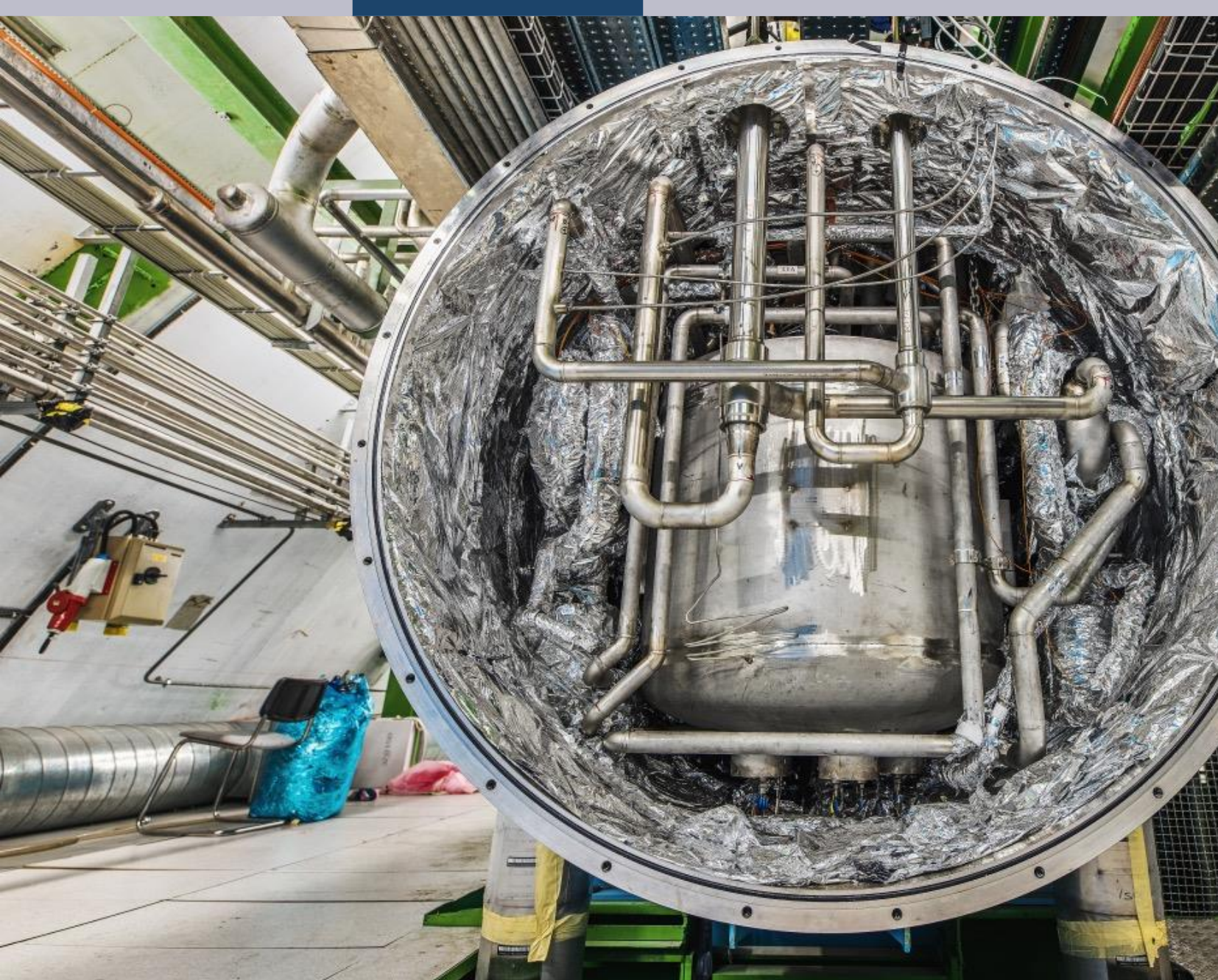


# What do we buy?

- **Supplies and Services**
- **12 categories (Procurement Codes) e.g.**
  - Civil engineering
  - Cooling and ventilation equipment
  - Electrical engineering and Magnets
  - Mechanical Engineering and Raw materials
  - Information Technology
  - Electronics and RF





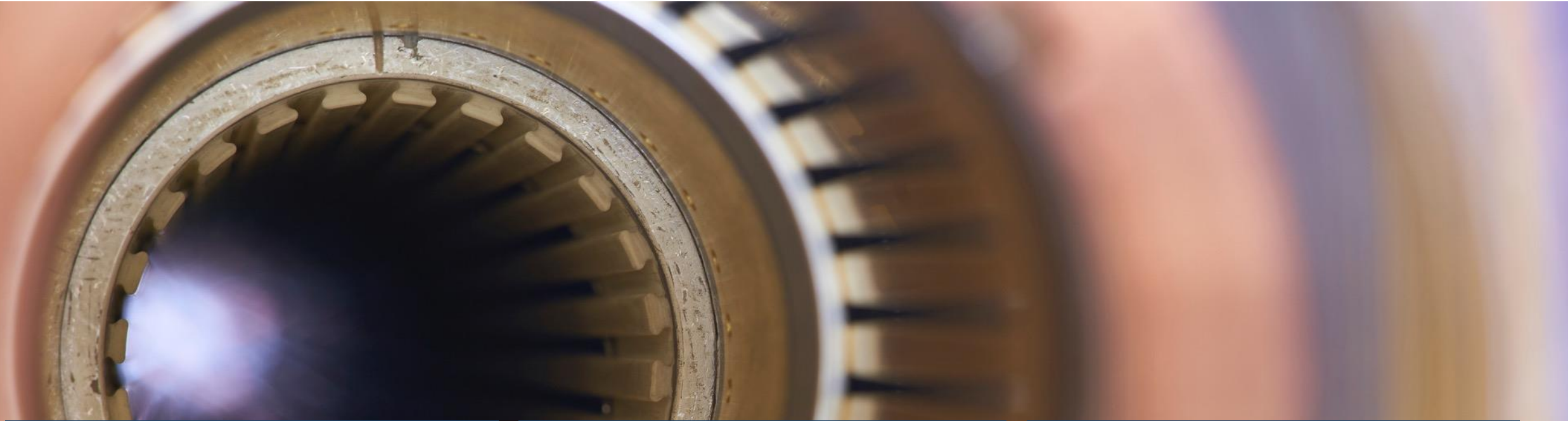


# What do we buy?

- **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 2029, and run until 2035

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



# Two biggest projects for future of particle physics



## Compact Linear Collider (CLIC)

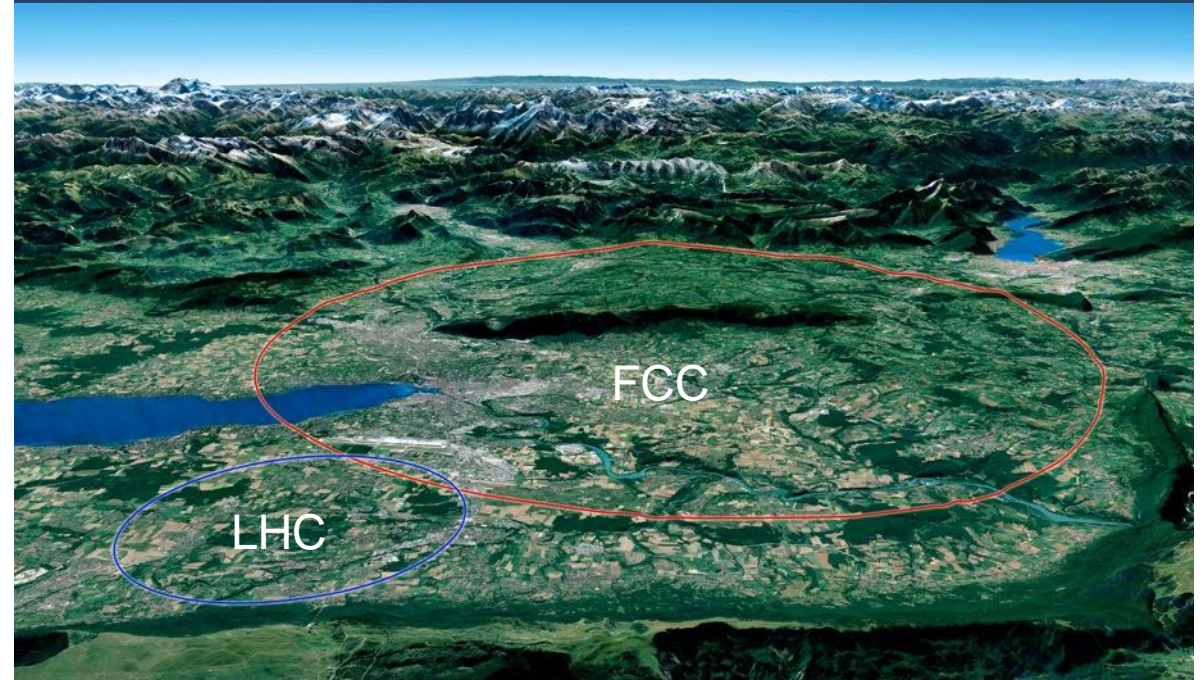


- Linear  $e^+e^-$  collider  $\sqrt{s}$  up to 3 TeV

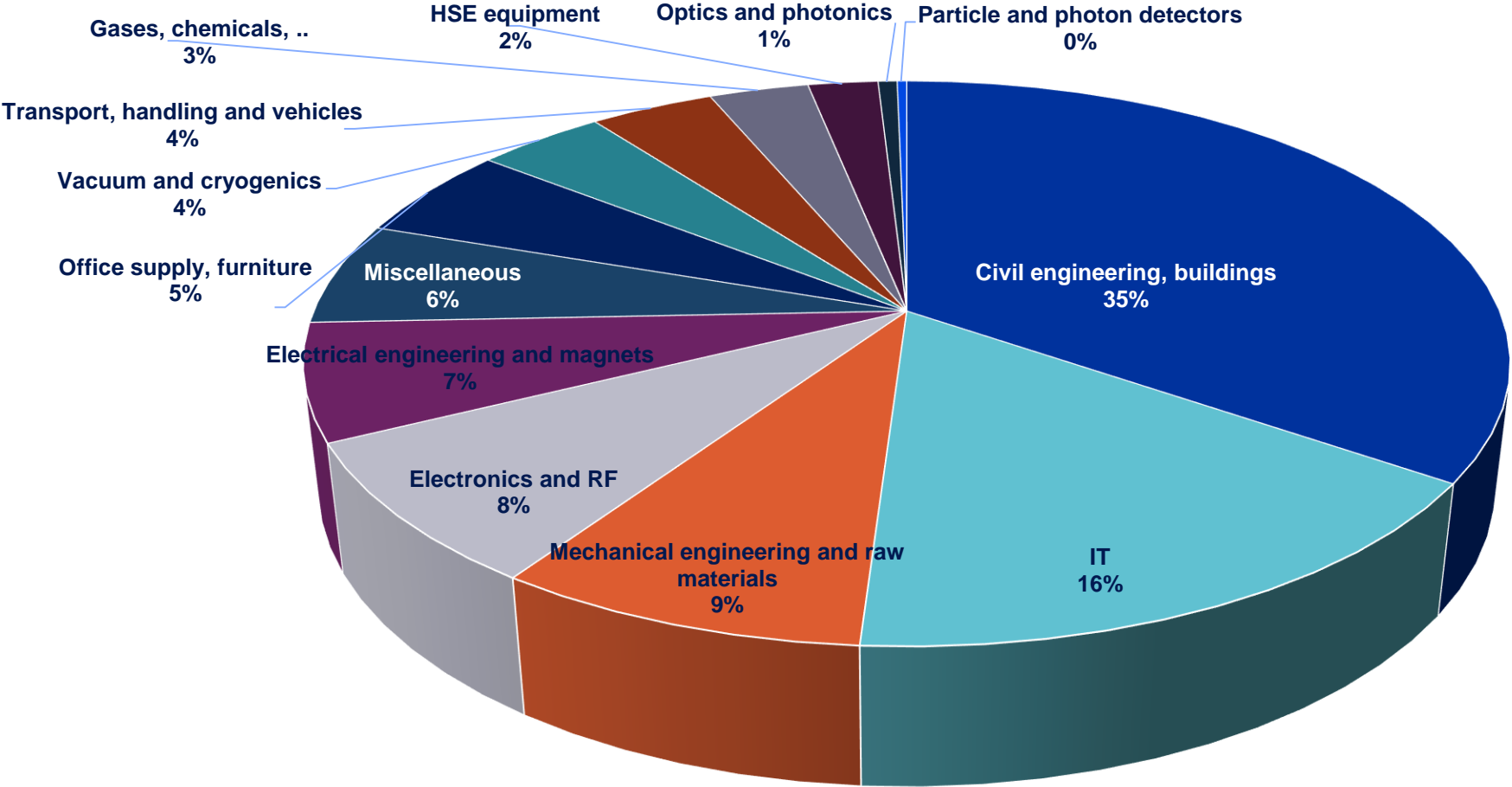
## Future Circular Collider (FCC)



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

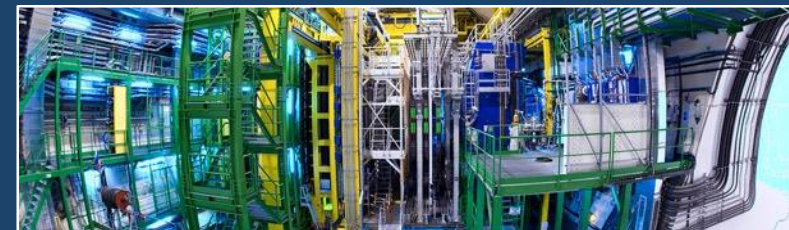
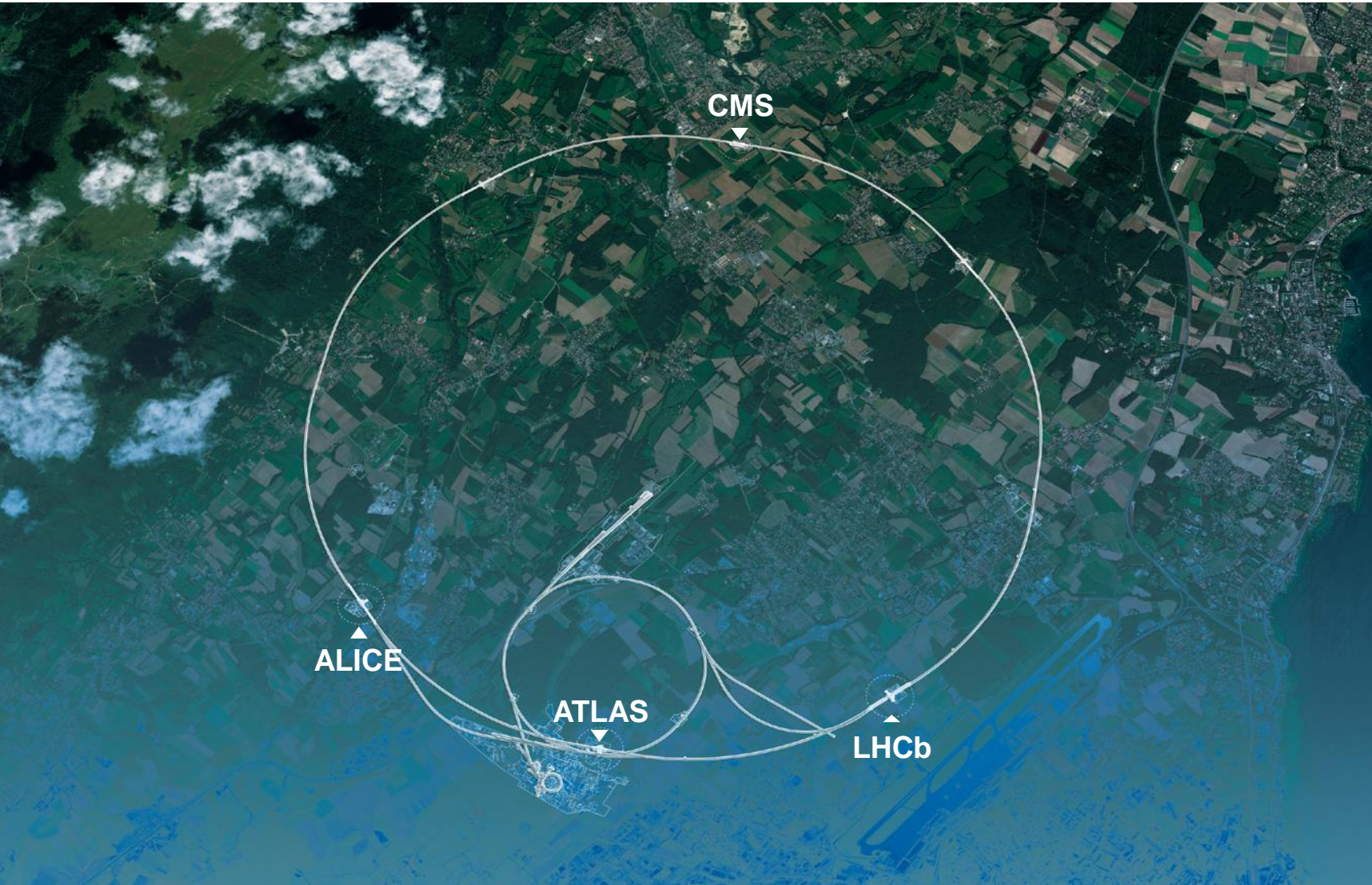


# Supplies (229MCHF spent in 2021 – CERN budget only)





# We also buy for the LHC experiments

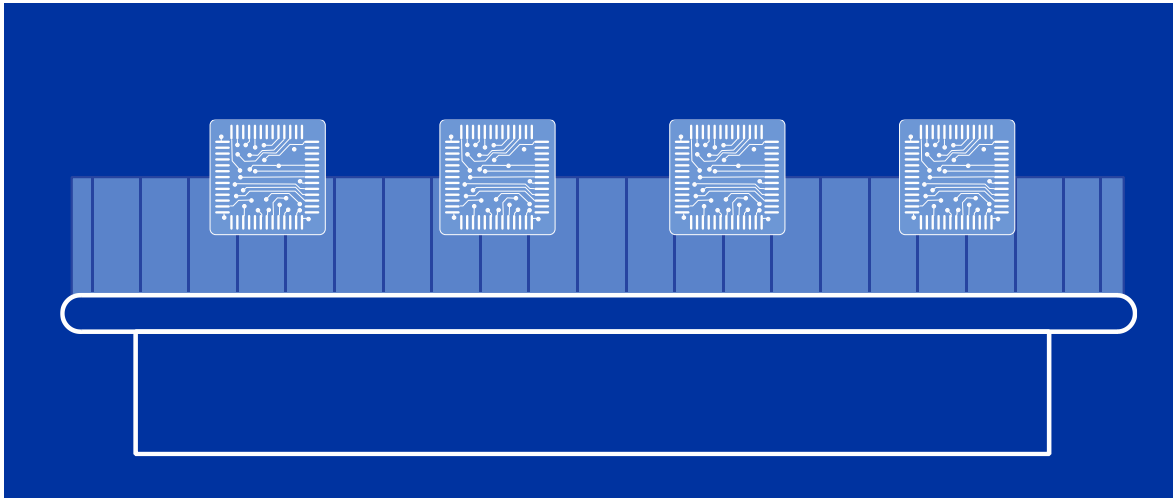




# How do we buy?

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

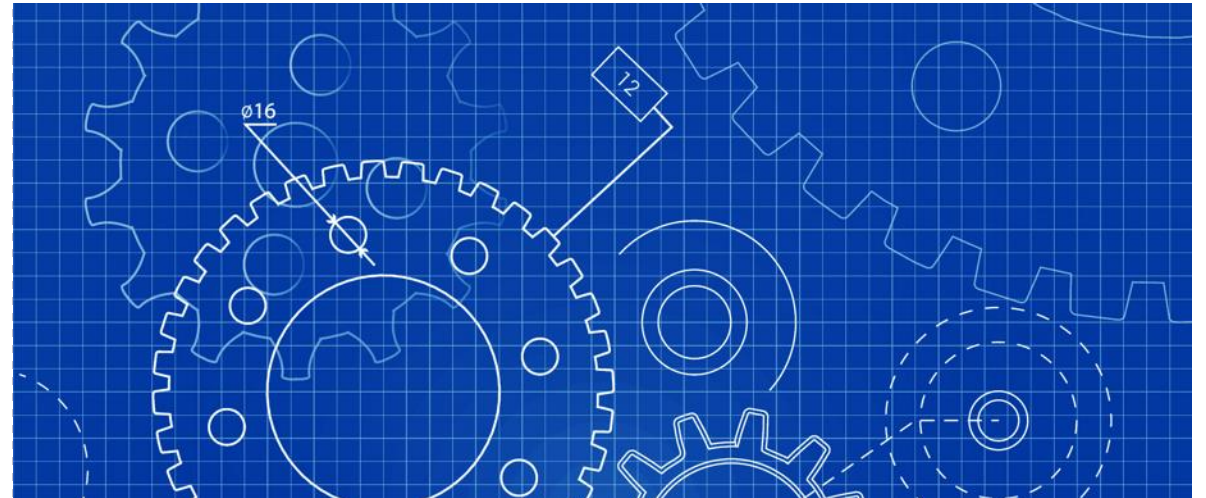
- **Functional specification**



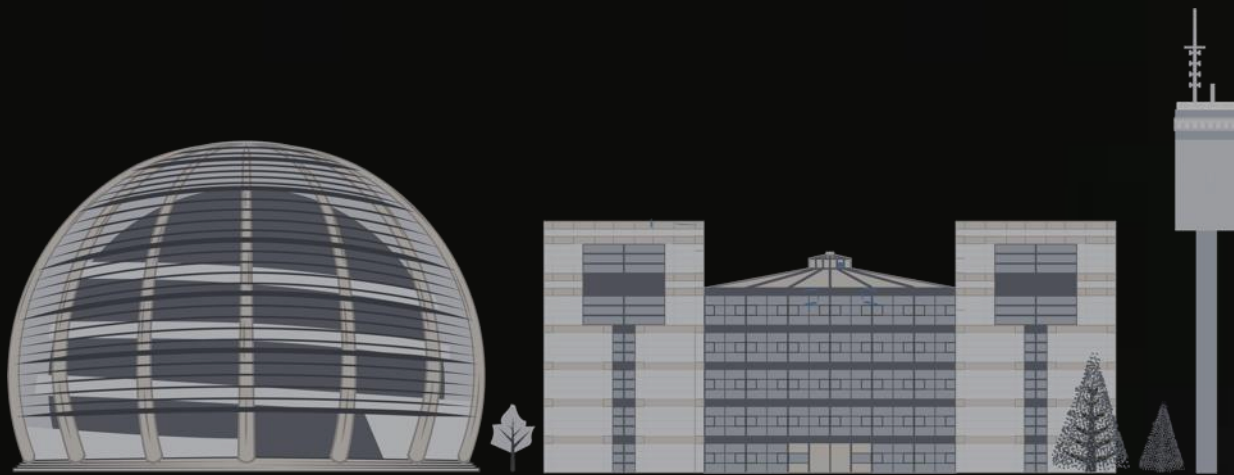
**Non-standard products where industry has neither the required know-how nor the interest to develop and design the products:**

- **Build-to-Print specification**

Prototypes and or Pre-series might be required.







# 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)

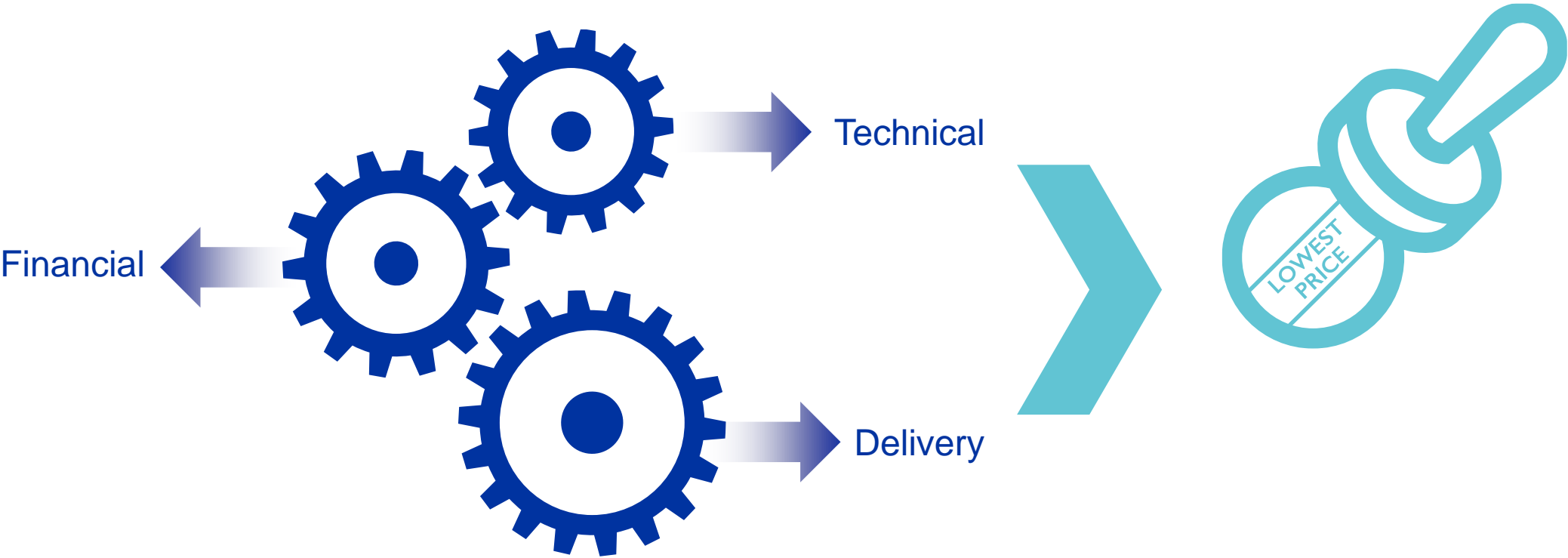
**Selective tendering procedures:**  
CERN's tendering procedures are not open to any interested firms

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



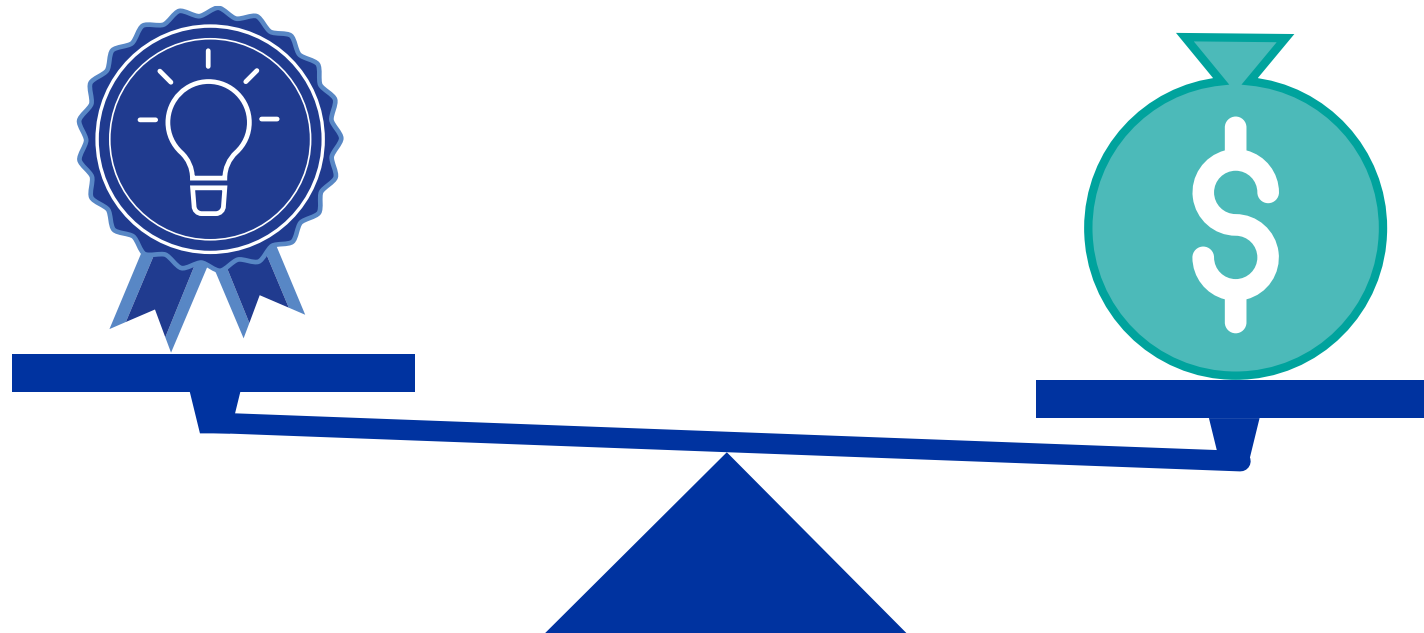
# Principles of the Procurement Rules (3/4)

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)

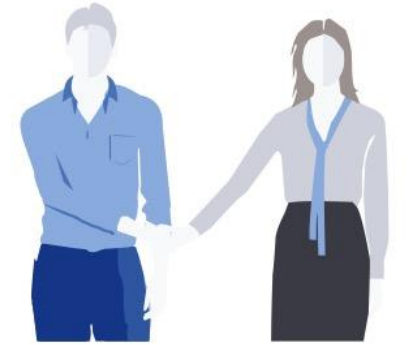
- **Submission deadline: 4 weeks from date of dispatch;**
- **All price enquiries above 50'000 CHF are also sent to the Industrial Liaison Officers (ILOs) for information;**
- **Price enquiries consist of:**
  - Technical specification and annexes;
  - Tender form (and a technical annex - optional);
  - 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)

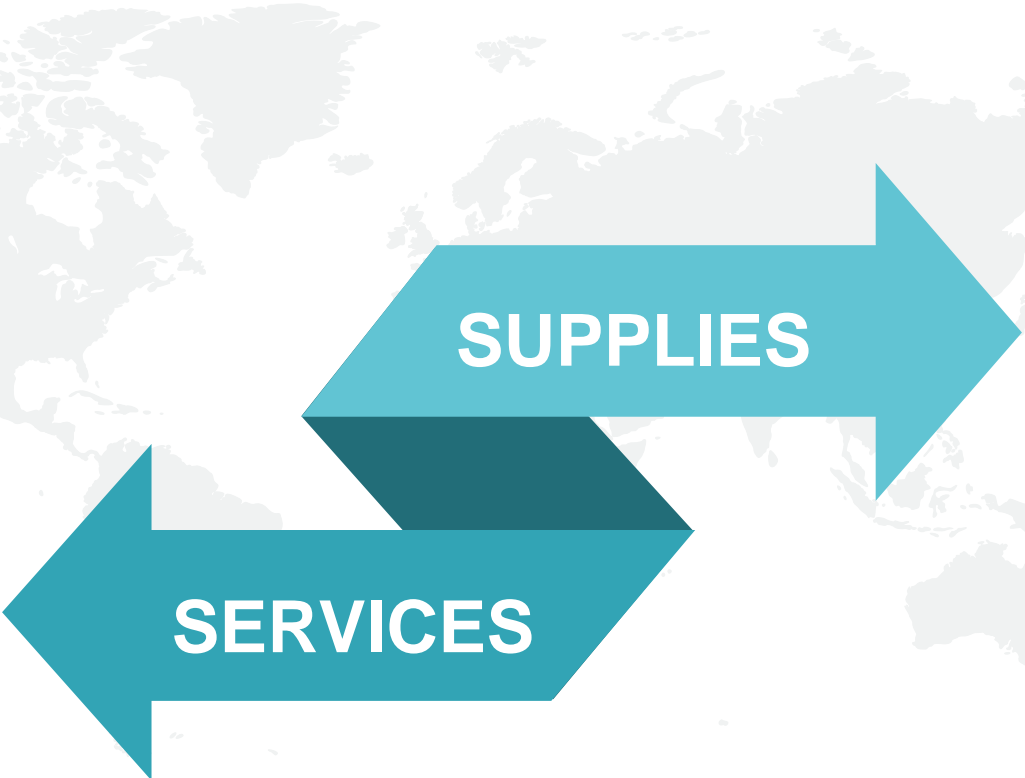
- **Sent to qualified and selected firms only;**
- **Submission deadline: 4 weeks from date of dispatch (with a longer period for more complex requirements);**
- **Firms shall ask all necessary questions in writing to understand all requirements and prepare a bid that best matches CERN's needs;**
- **All 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.



# 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”.*



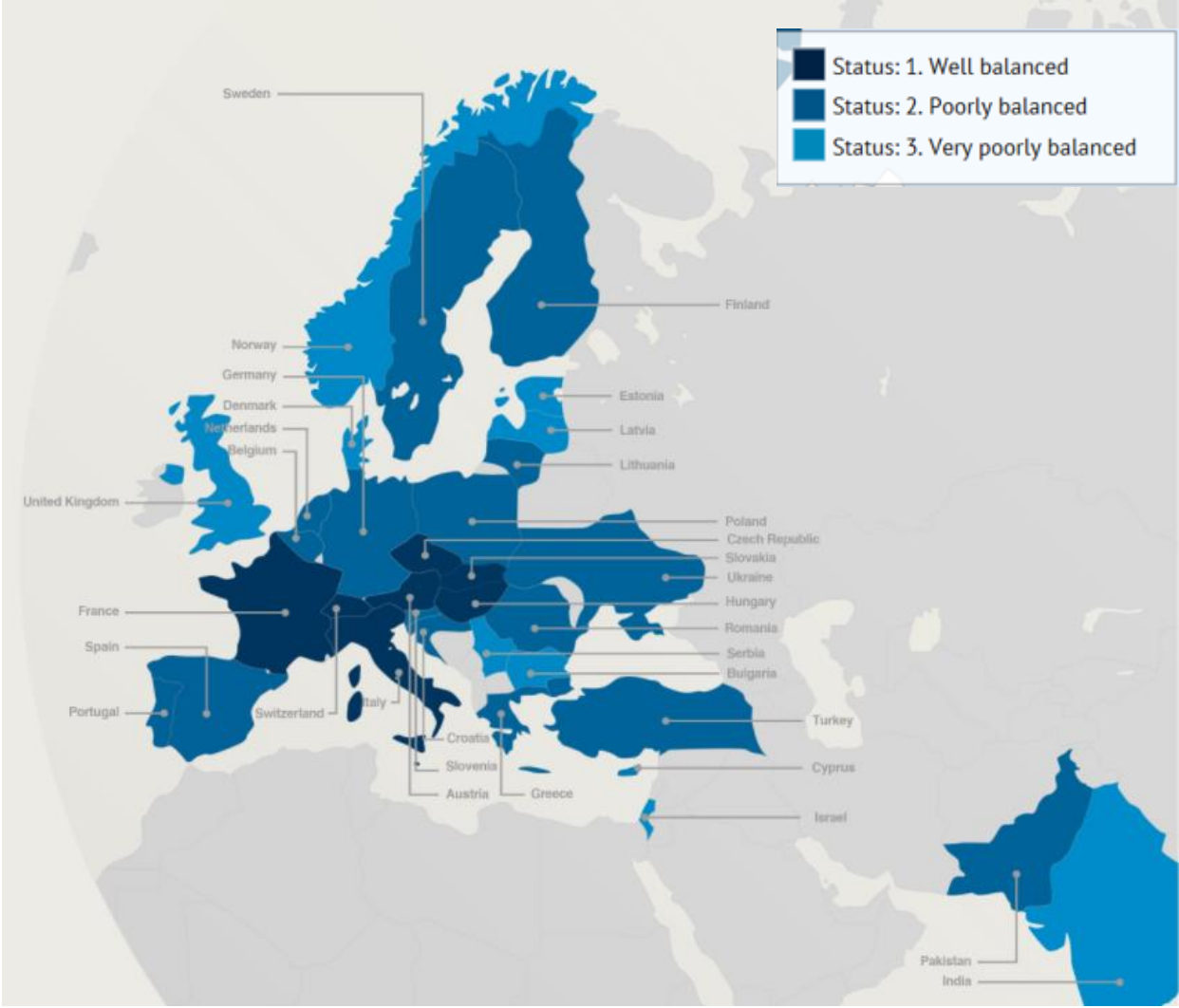
Over a 4-year period:  
Very poorly balanced :  $< 0.40$   
Poorly balanced (PB) :  $0.40 \geq x < 1$   
Well balanced (WB):  $\geq 1$

## Status definition

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

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

\*Associate Member States



# Alignment rule

## Applicable for:

1

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

2

**With a total amount exceeding 100'000 CHF.**

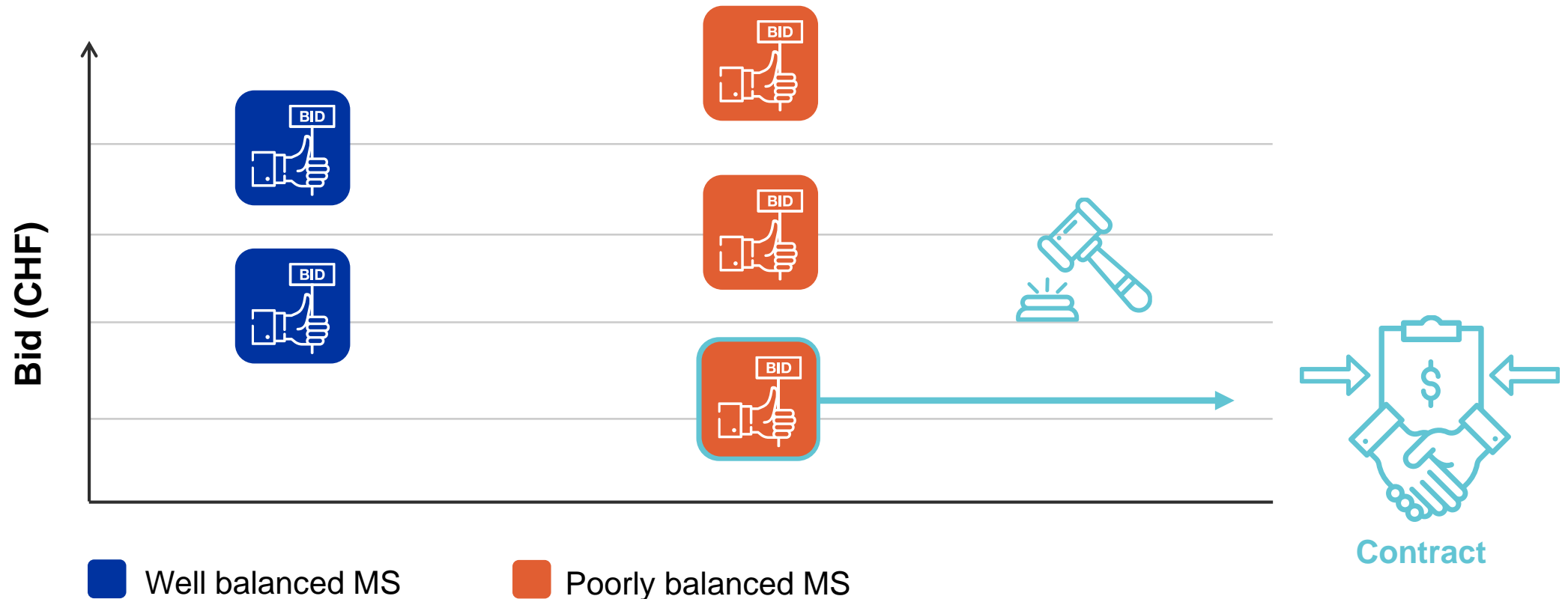
## RULE

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.

# Alignment rule (Scenario 1)

## Lowest bid from a PB MS

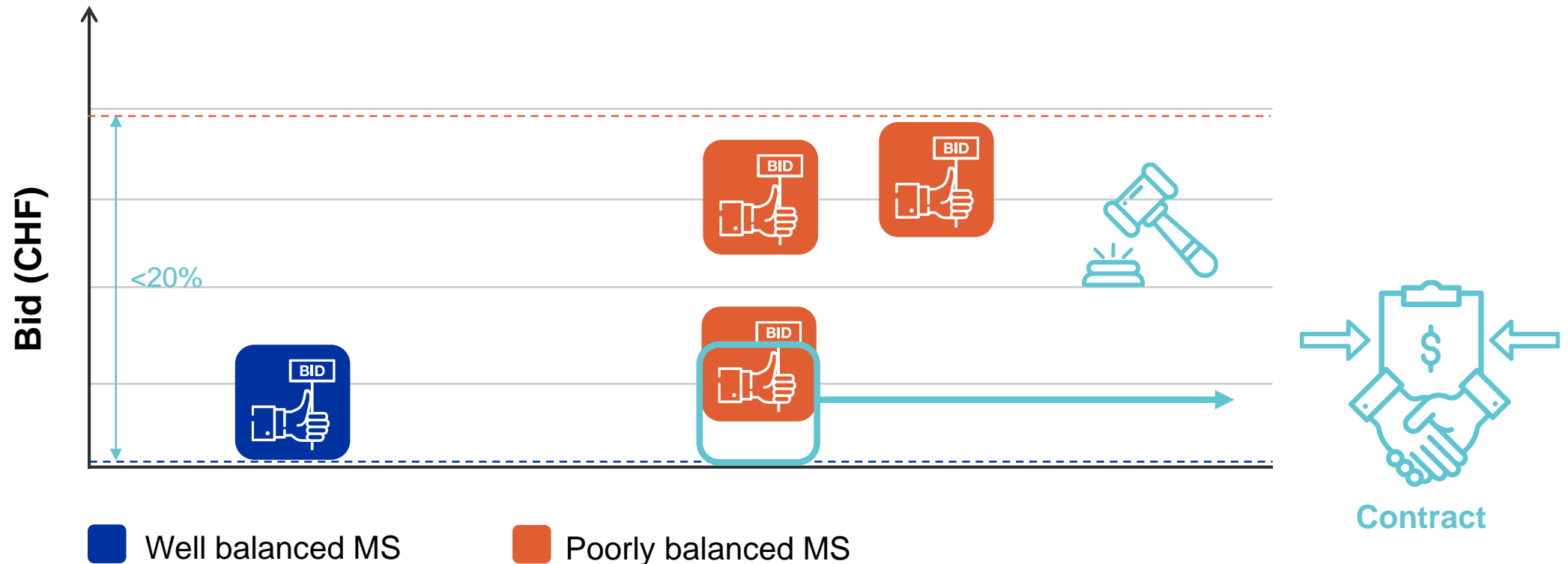




# Alignment rule (Scenario 2)

## Lowest bid from a WB MS

### (a) 1st bidder from PB MS aligns

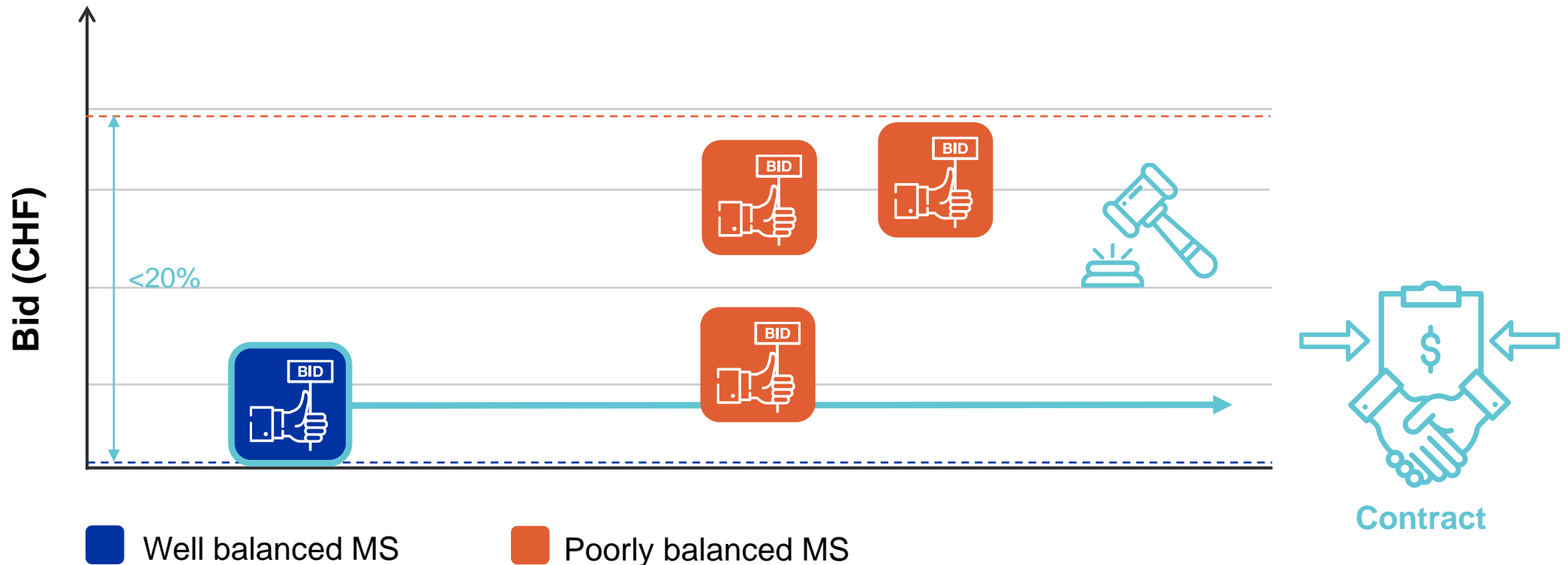




# Alignment rule (Scenario 2)

## Lowest bid from a WB MS

(c) if no alignment of second two bids, contract placed with lowest bidder from WB MS

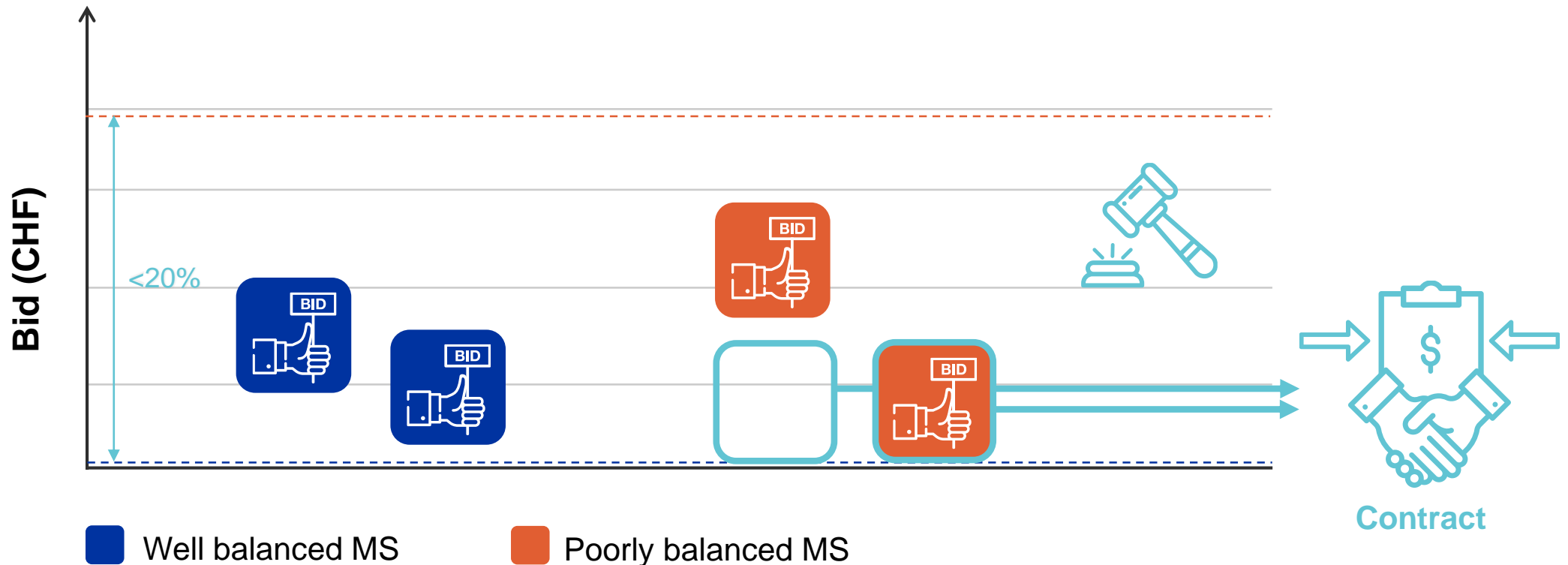




# Alignment rule with splitting (Scenario 3)

Lowest bid from a PB MS another bid from a PB MS falls within 20% of the lowest

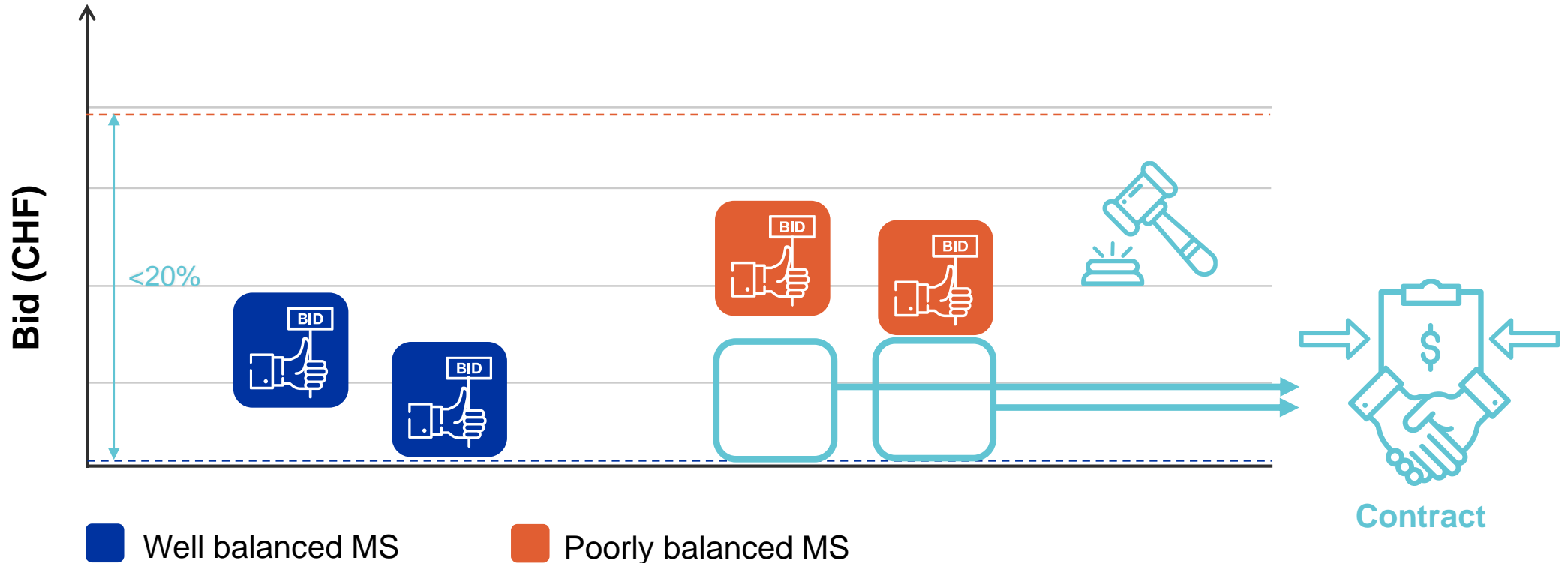
Bidder from PB MS aligns  $\longrightarrow$  contracts placed with the 2 lowest bids from PB MS



# Alignment rule with splitting (Scenario 4)

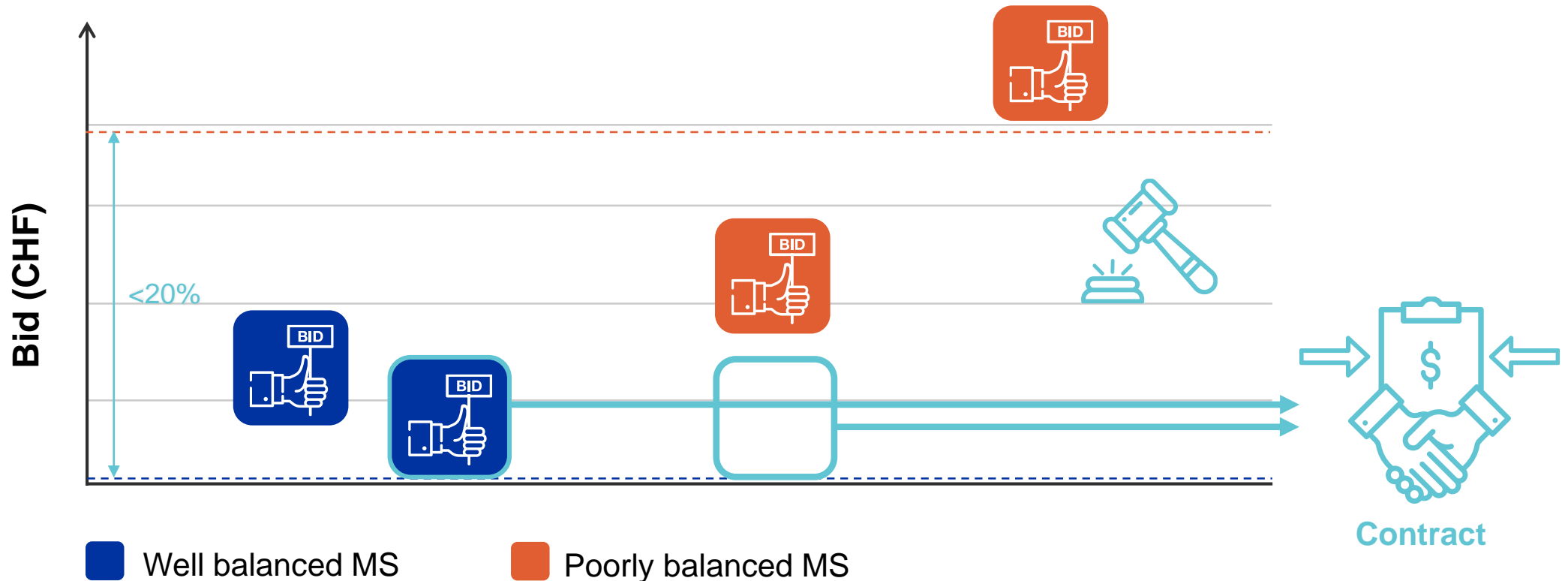
Lowest bid from a WB MS and two bids from PB MS fall within 20% of the lowest

Both bidders from PB MS align  $\longrightarrow$  contracts placed with bids from PB MS



# Alignment rule with splitting (Scenario 5)

Lowest bid from a WB MS and a bid from PB MS falls within 20% of the lowest  
Lowest bidder from PB MS align  $\longrightarrow$  contracts placed with the lowest bid and the bid from PB MS





# 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.



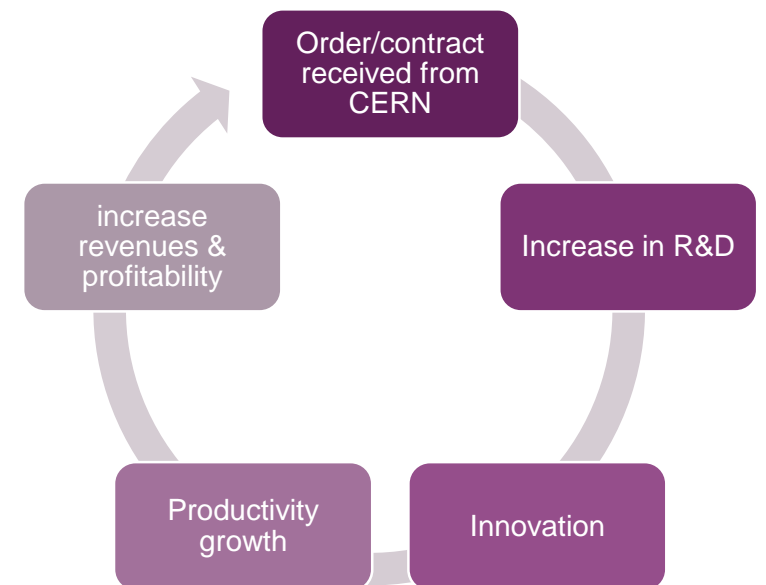
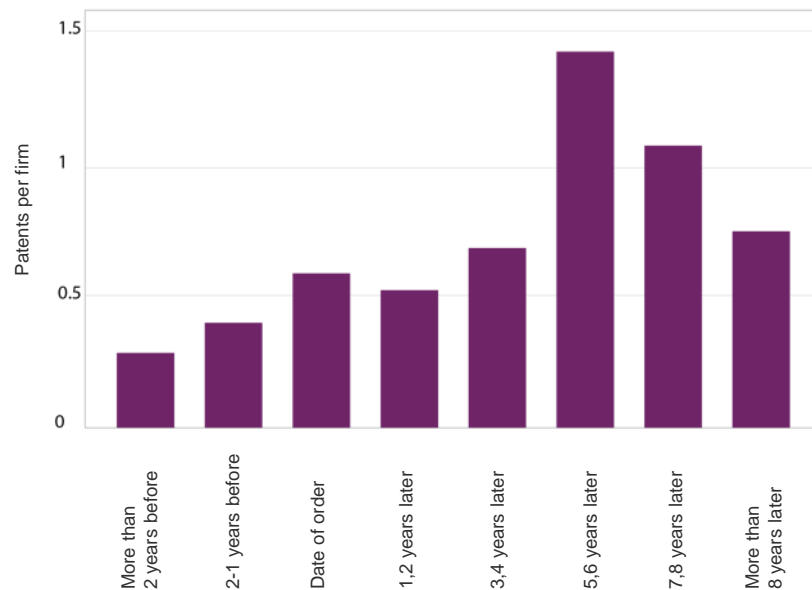
# Impact of Doing business with CERN

# 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%

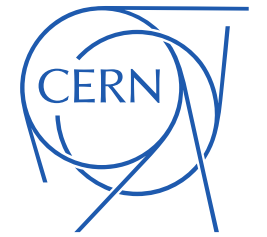
found or opened a new market to  
address

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*







# Social Cost-Benefit Analysis (CBA) calculated by the University of Milan

*“Each CHF invested in HL-LHC project pays back approximately 1.8 CHF on societal benefits, including scientific, economic and cultural value (development of innovative technologies, industrial spillovers, skills acquired by students, etc.).”*



# Successful Bidders & Contractors

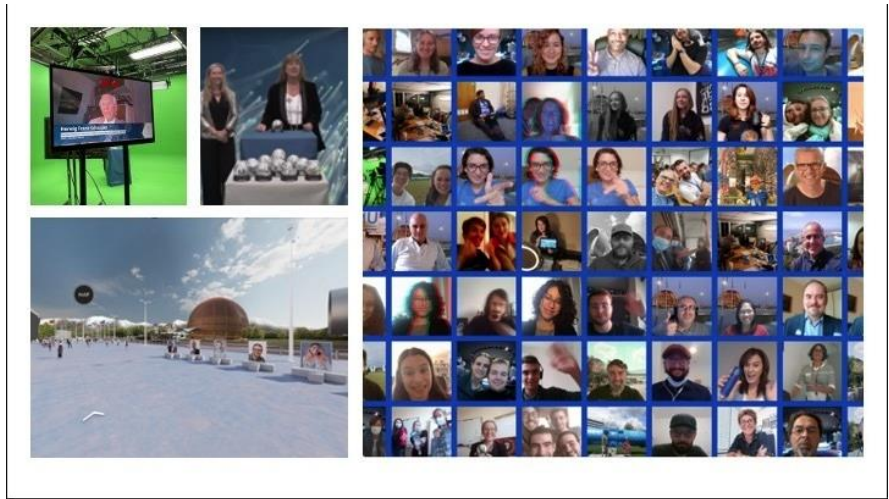
- ✓ Often small – medium sized and flexible firms
- ✓ Ensure full understanding of specifications – exceeded specifications may be too expensive
- ✓ Communicate proactively and constructively (problems, issues, alternatives, etc.)
- ✓ Ensure good working relationship with partners and sub-contractors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



# Success Story

In 2021, CERN placed its first contract with an Estonian company with **Miltton Events** for the design, provision and support of a virtual event space for the CERN Alumni Second Collisions event in Oct 2021

The event was a real success and in June 2022, the alumni relations team was awarded the CASE (Council for the Advancement and Support of Education) Circle of Excellence gold award for the CERN Alumni Second Collisions online event.



## Second Collisions: Research Matters - Alumni impact on Society

Year: 2022  
Award Level: Gold  
Award Winner(s): CERN  
Award Circle of Excellence  
Category: Special Events | Online Alumni Dinners



# Procurement website





# Website of the Procurement Service

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

Procurement and Industrial Services Group

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## › 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"/> <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. ( <a href="#">01020101</a> , <a href="#">01020102</a> )	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 ( <a href="#">06010100</a> )	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 ( <a href="#">04010500</a> , <a href="#">04010700</a> )	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. ( <a href="#">02070300</a> , <a href="#">03030100</a> , <a href="#">03030200</a> , <a href="#">13030500</a> )	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

# Website of the Procurement Service

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

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## › 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





# 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>

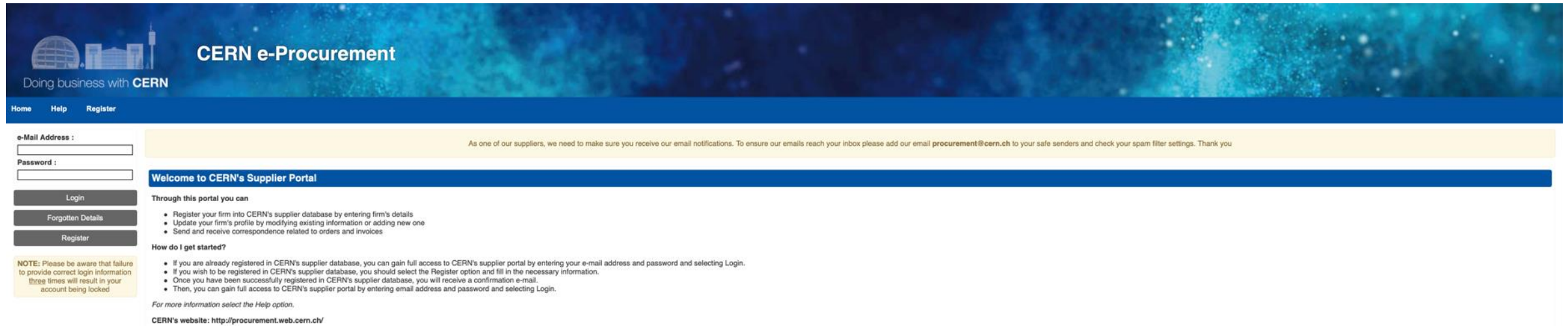
Using this platform, you will be able to receive orders, manage the delivery of supplies and send invoices for processing.

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).

# CERN e-Procurement



The screenshot shows the CERN e-Procurement Supplier Portal. At the top, there is a blue header with the CERN logo and the text "CERN e-Procurement" and "Doing business with CERN". Below the header, there is a navigation bar with "Home", "Help", and "Register" links. The main content area is divided into several sections:

- Left sidebar:** Contains login fields for "e-Mail Address" and "Password", and buttons for "Login", "Forgotten Details", and "Register". A note below these fields states: "NOTE: Please be aware that failure to provide correct login information three times will result in your account being locked".
- Yellow banner:** A message at the top right of the main area: "As one of our suppliers, we need to make sure you receive our email notifications. To ensure our emails reach your inbox please add our email [procurement@cern.ch](mailto:procurement@cern.ch) to your safe senders and check your spam filter settings. Thank you".
- Blue header:** "Welcome to CERN's Supplier Portal".
- Main content:** A section titled "Through this portal you can" with a bulleted list: "Register your firm into CERN's supplier database by entering firm's details", "Update your firm's profile by modifying existing information or adding new one", and "Send and receive correspondence related to orders and invoices". Below this is a "How do I get started?" section with a bulleted list: "If you are already registered in CERN's supplier database, you can gain full access to CERN's supplier portal by entering your e-mail address and password and selecting Login.", "If you wish to be registered in CERN's supplier database, you should select the Register option and fill in the necessary information.", "Once you have been successfully registered in CERN's supplier database, you will receive a confirmation e-mail.", and "Then, you can gain full access to CERN's supplier portal by entering email address and password and selecting Login." At the bottom of this section, it says "For more information select the Help option." and "CERN's website: <http://procurement.web.cern.ch/>".



To ensure our emails reach your inbox please add our email [procurement@cern.ch](mailto:procurement@cern.ch) to your safe senders and check your spam filter settings.

# Contacts at CERN (Procurement and Technical)





# Contact in your country: **country ILO: Industrial Liaison Officer**

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.

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Thank you



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