



Introduction to Doing Business with CERN for Republic of Ireland

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AGENDA

- Introduction
- How Do We Buy?
- How Much DO We Spend?
- Procurement @ CERN - the rules
- Impact of Doing business with CERN
- Procurement website



INTRODUCTION



CERN needs

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



CERN needs

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



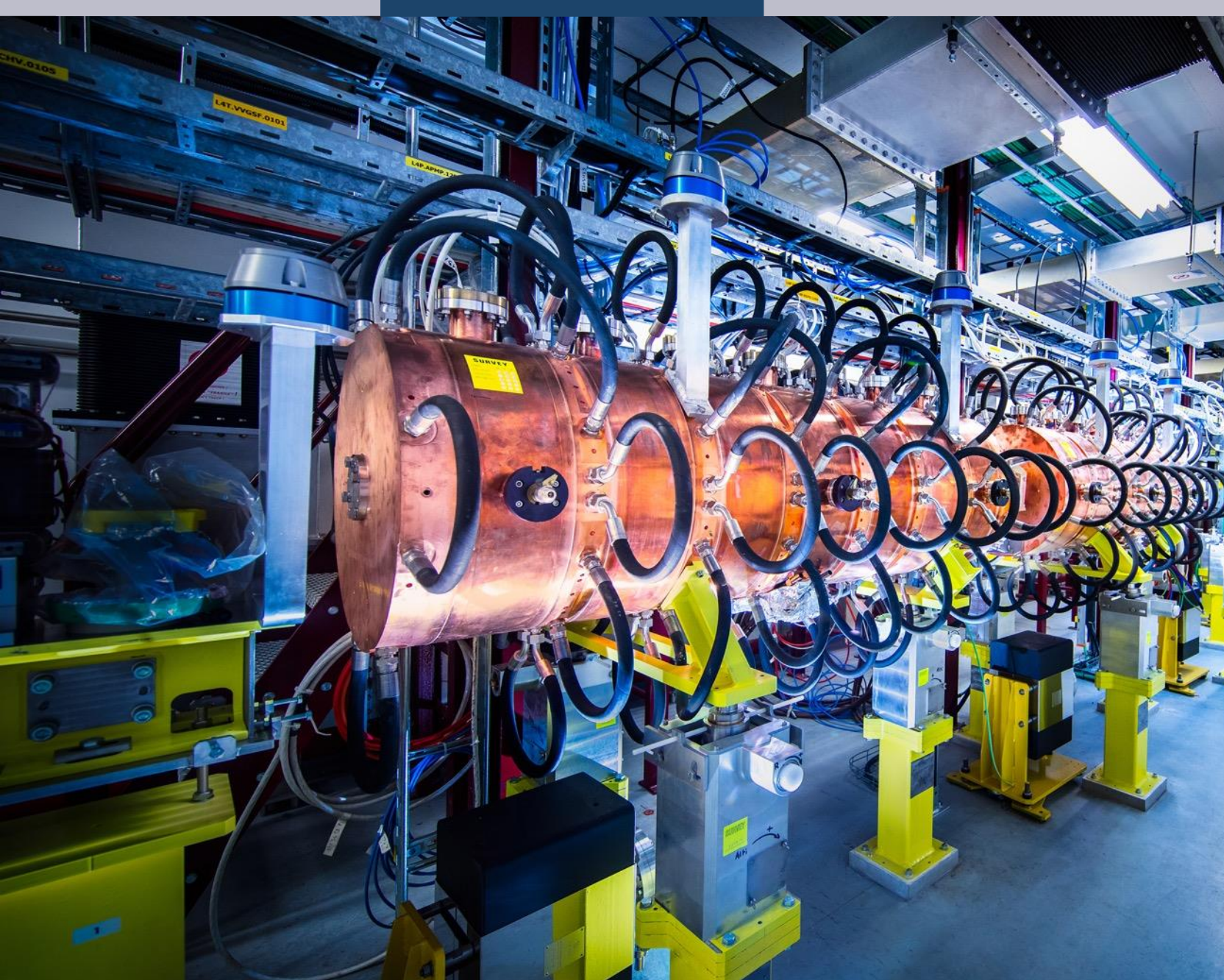
CERN needs

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



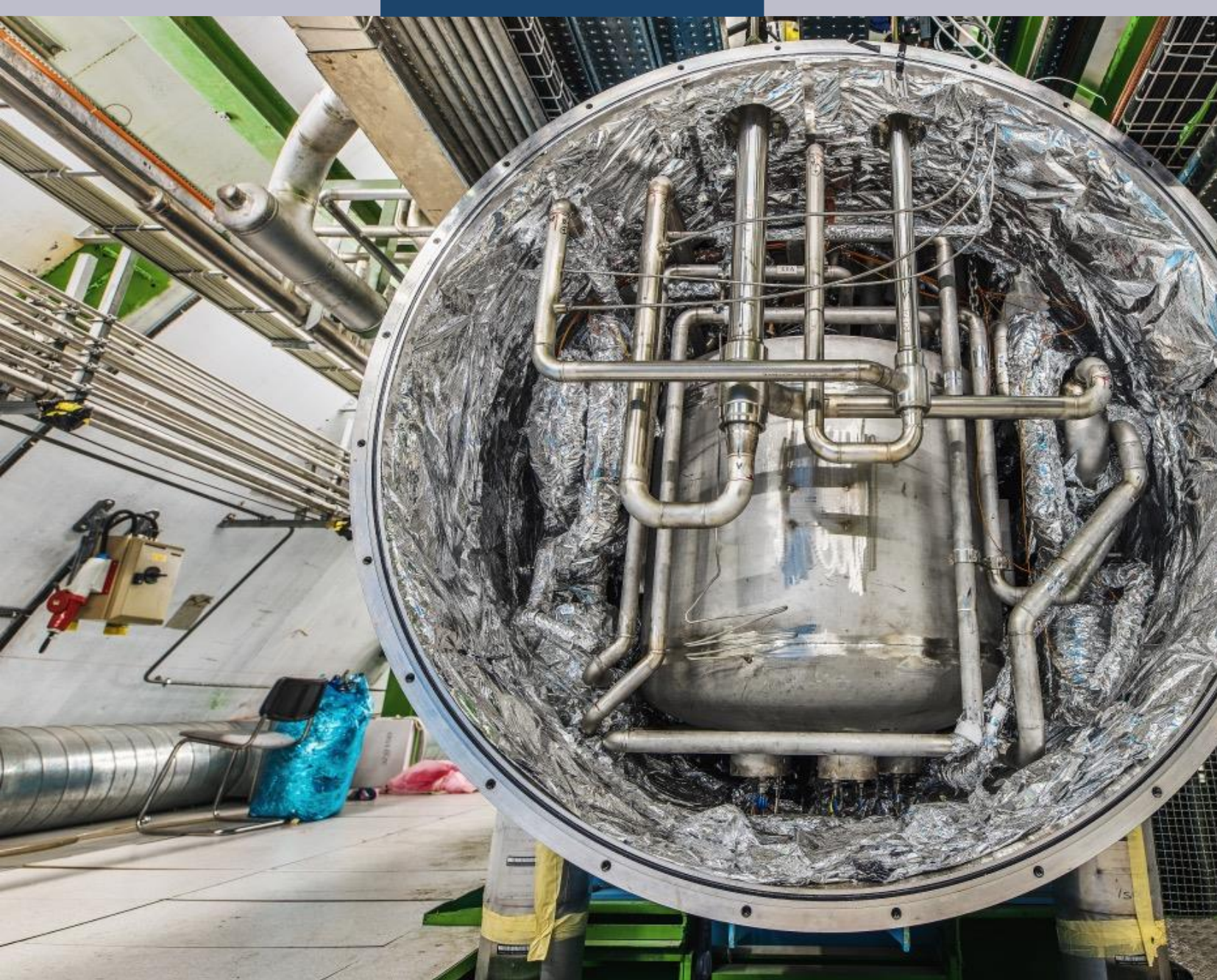
CERN needs

- **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



CERN needs

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

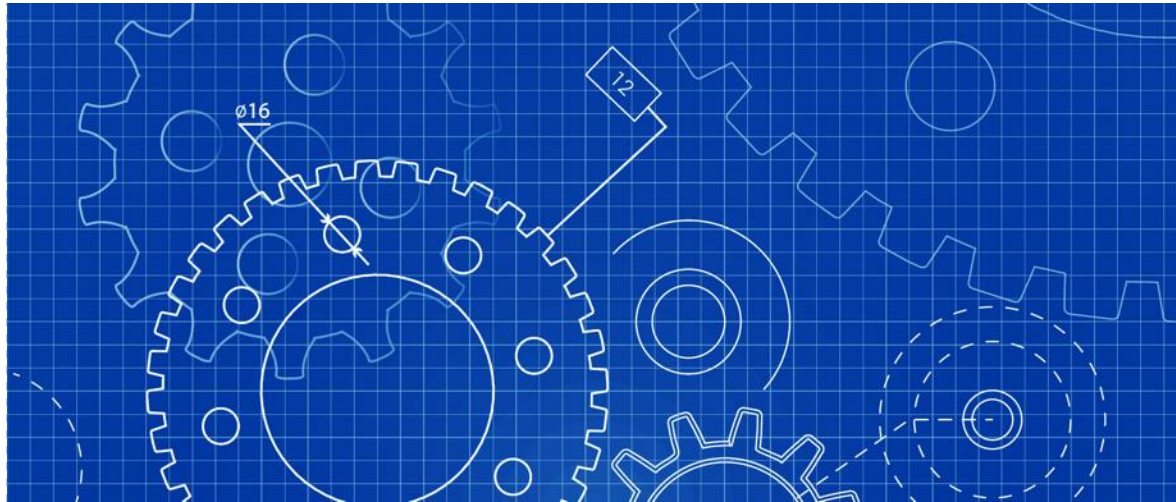


CERN needs

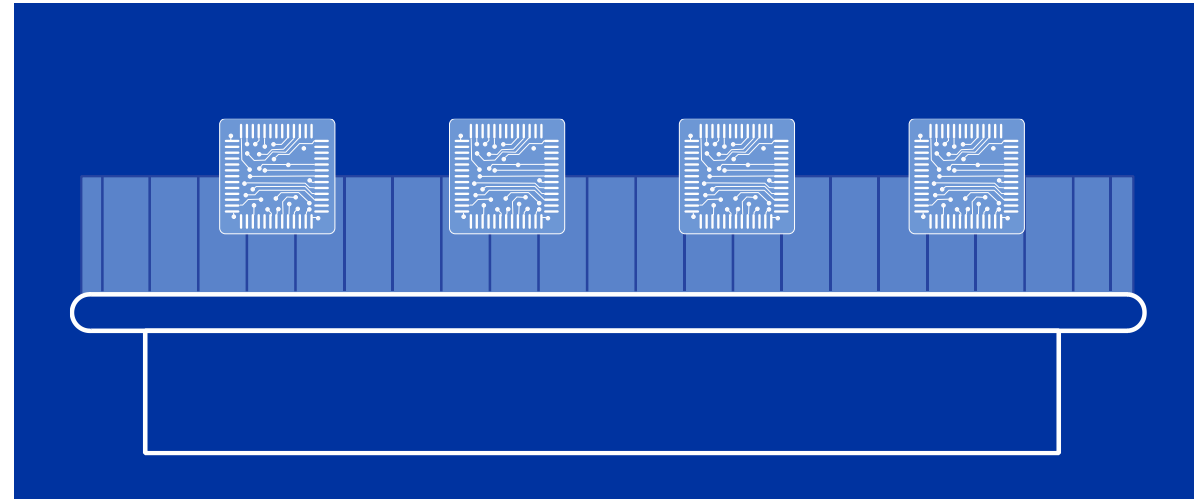
- **As well as:**
 - Cryogenic and vacuum equipment
 - Optics and photonics
 - Particle and photon detectors
 - Health and safety equipment,
 - Transport and handling equipment
 - Office supply, furniture
 - Industrial services on the CERN site

How do we buy?

Service Contracts are for the provision of services to be performed on the CERN site.



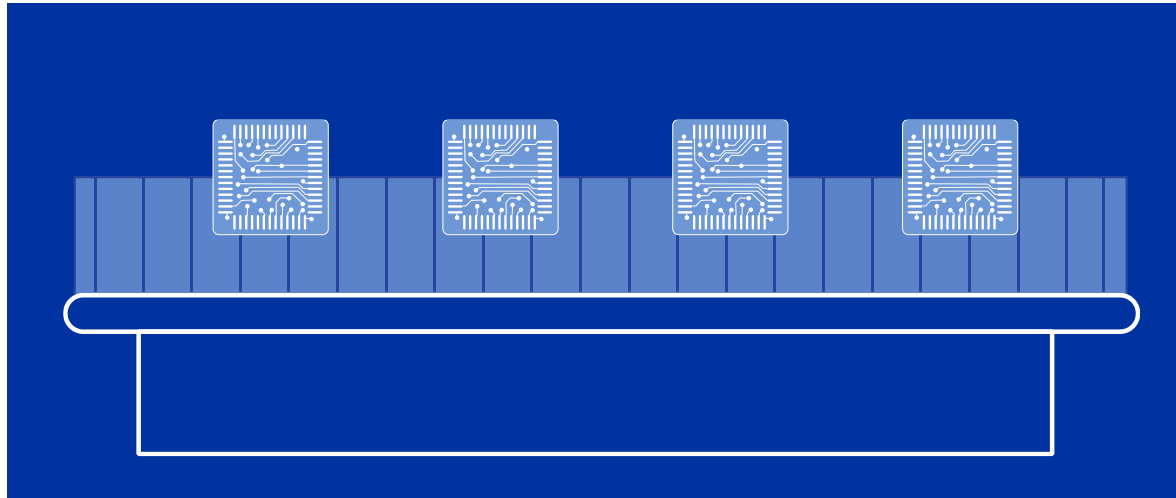
Supply Contracts are anything which are not service contracts



How does CERN buy?

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

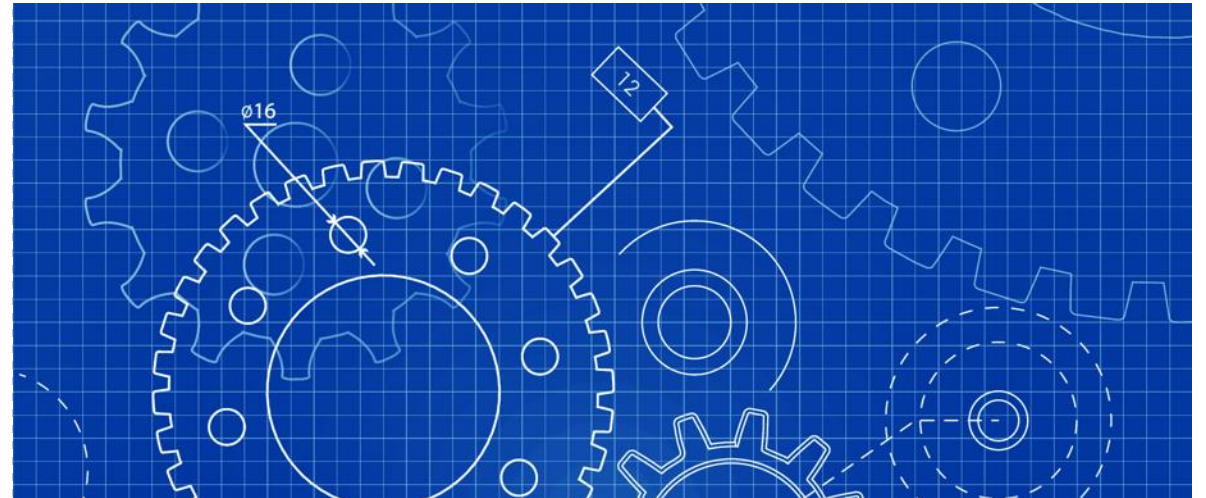
- **Functional specification**



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.

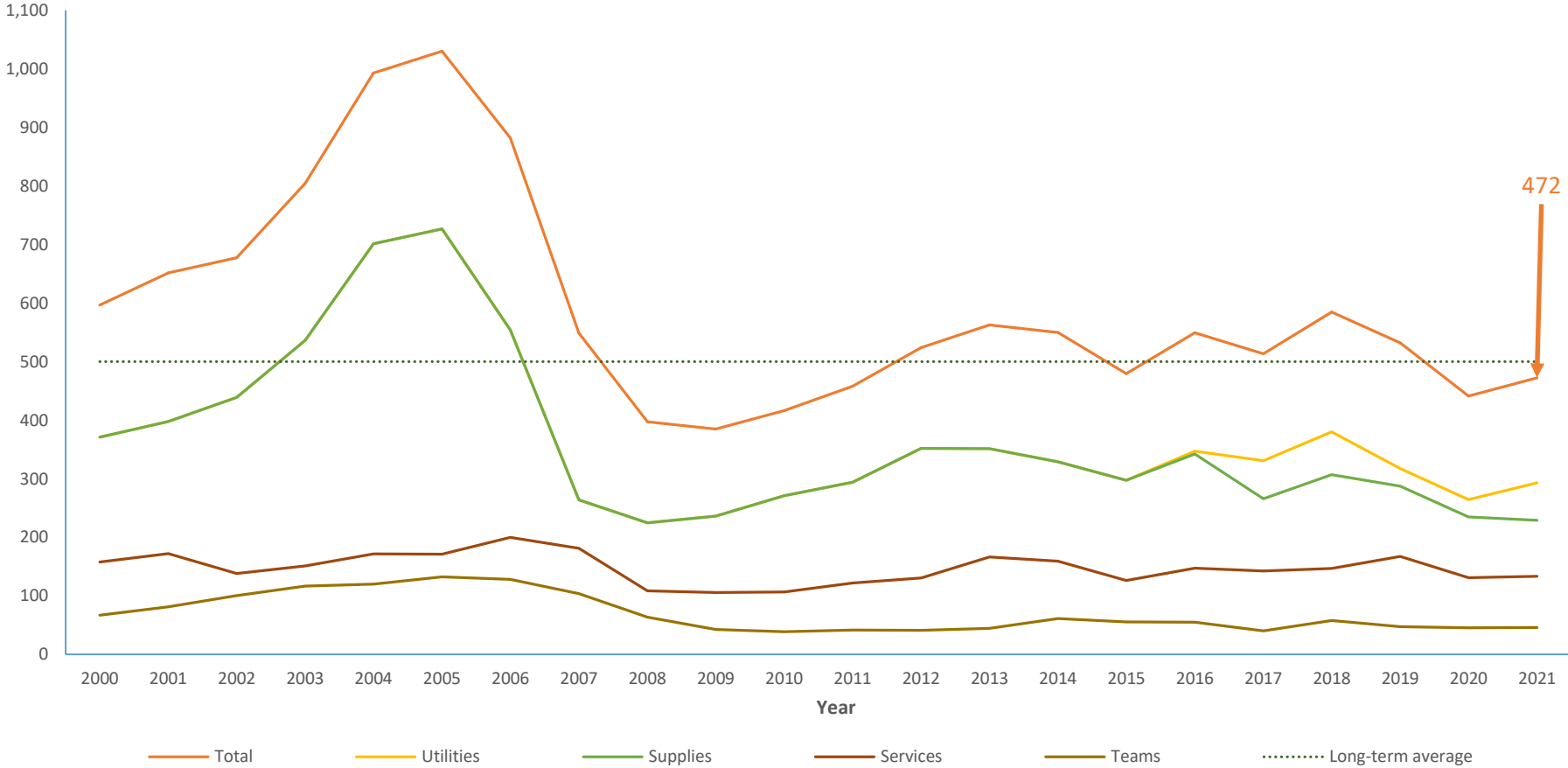


Yearly Budget (contributions 2022)

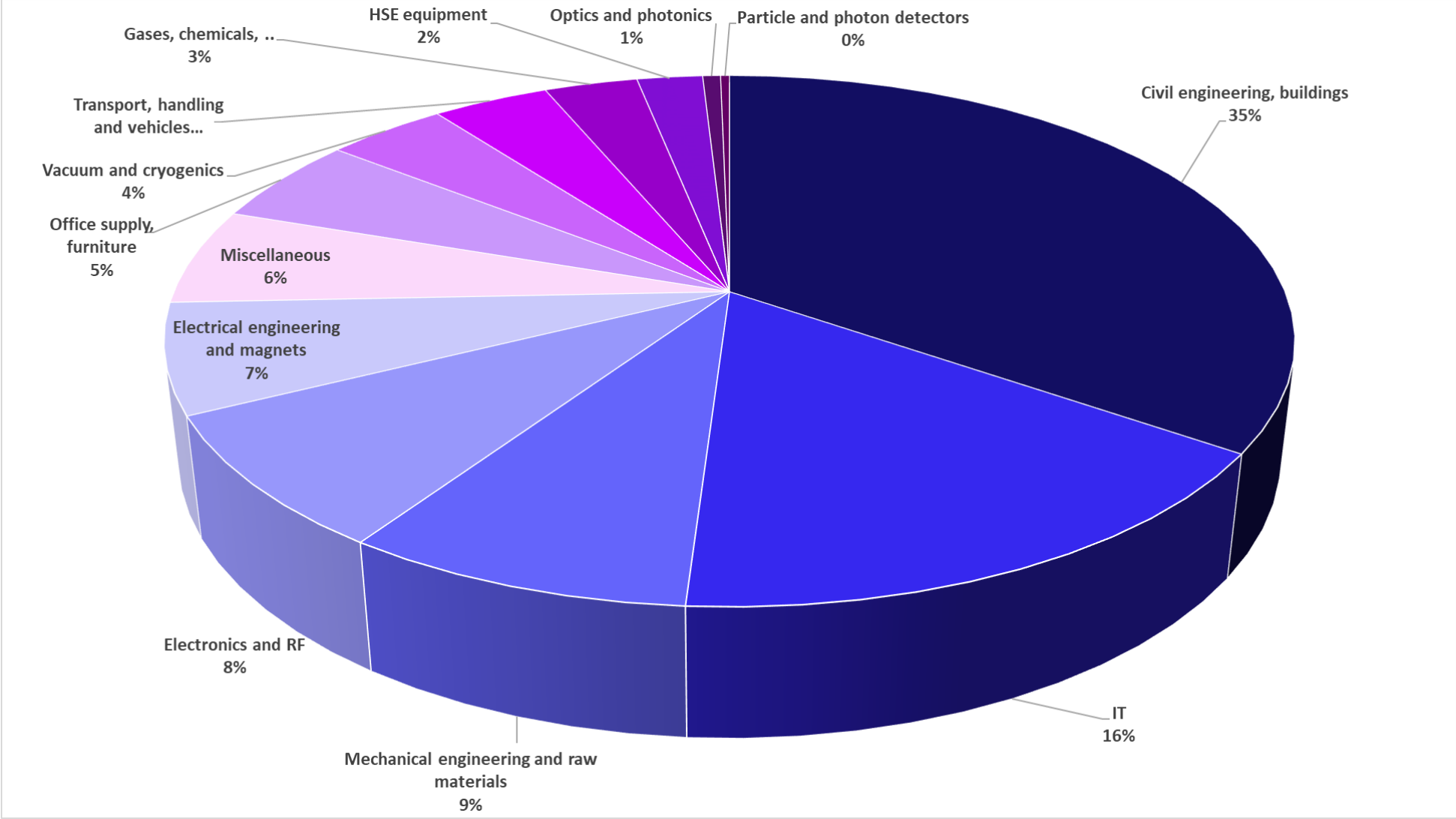
Country	Percentage of Total	Amount (CHF)
 Germany	20.32%	245 017 700
 United Kingdom	14.20%	171 219 200
 France	13.42%	161 894 900
 Italy	10.10%	121 766 050
 Spain	7.25%	87 403 500
 Netherlands	4.63%	55 847 250
 Switzerland	3.84%	46 281 900
 Poland	2.88%	34 787 950
 Belgium	2.71%	32 668 100
 Sweden	2.49%	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

Procurement Expenditure



Supplies (229MCHF spent in 2021 – 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 and Associate Member States only

3

Objectivity and equal treatment: tendering packages are objective and impartial

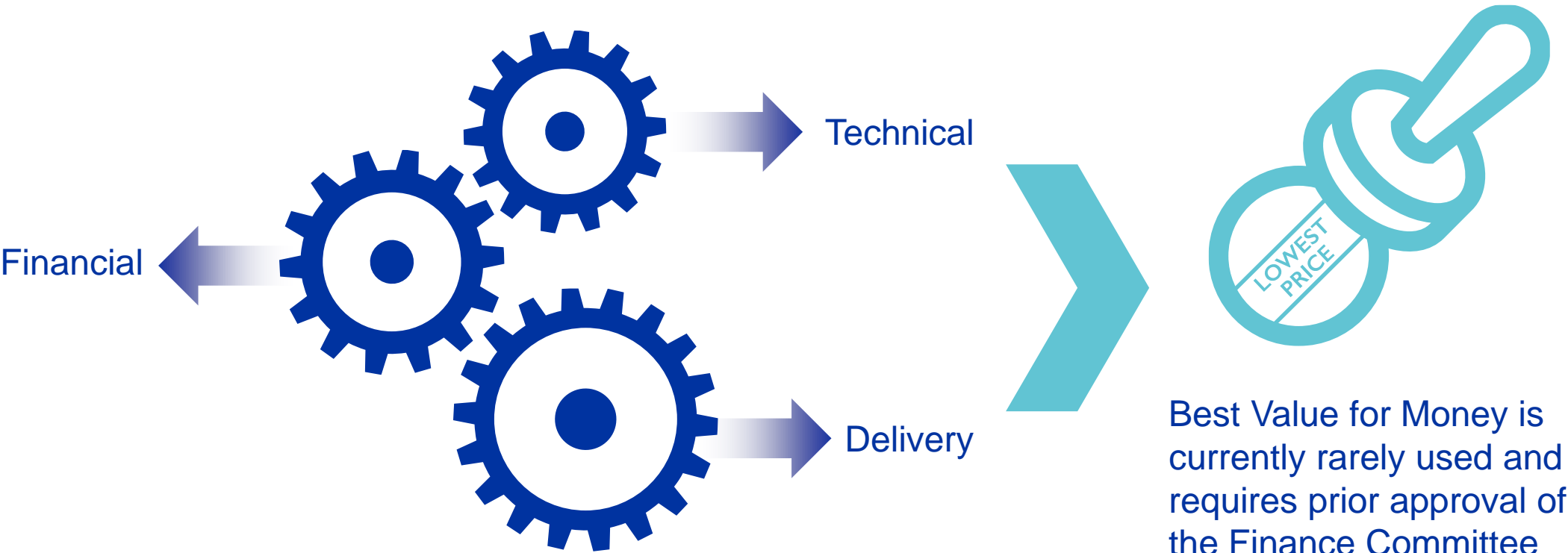
Principles of the Procurement Rules (2/4)

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

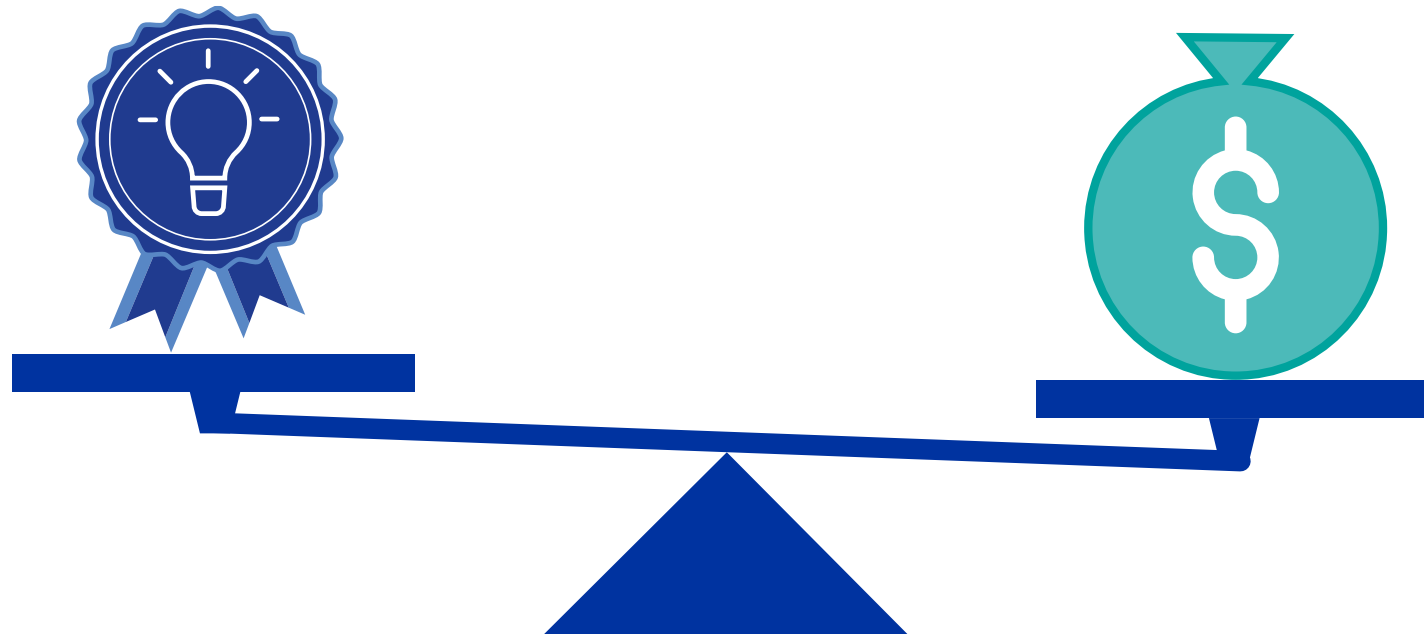
Principles of the Procurement Rules (3/4)

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

Procedures Based On Estimated Cost

The procedure followed depends on the estimated cost

- **Increasing value = increasing scrutiny and approval**
- **Increasing value = increasing response times**
- **Member States have visibility of mid value price enquiries**
- **Member States approve all high value contracts and derogations from the rules**



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.



SUPPLIES

SERVICES

*“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.

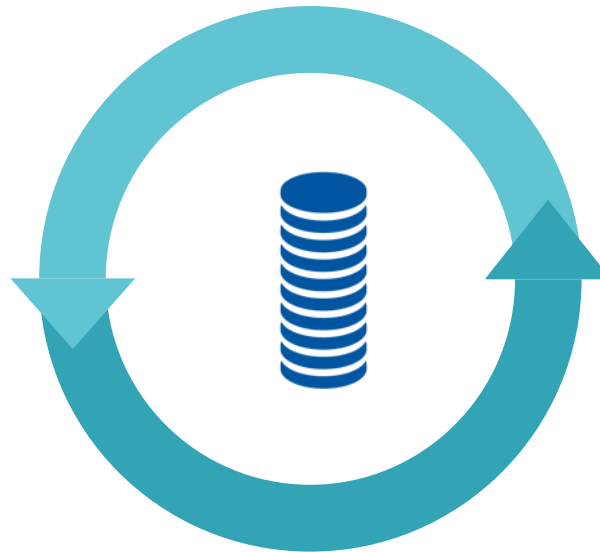
Industrial return coefficient

Industrial return coefficient

For Supply contracts and for a 12-month period starting on 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

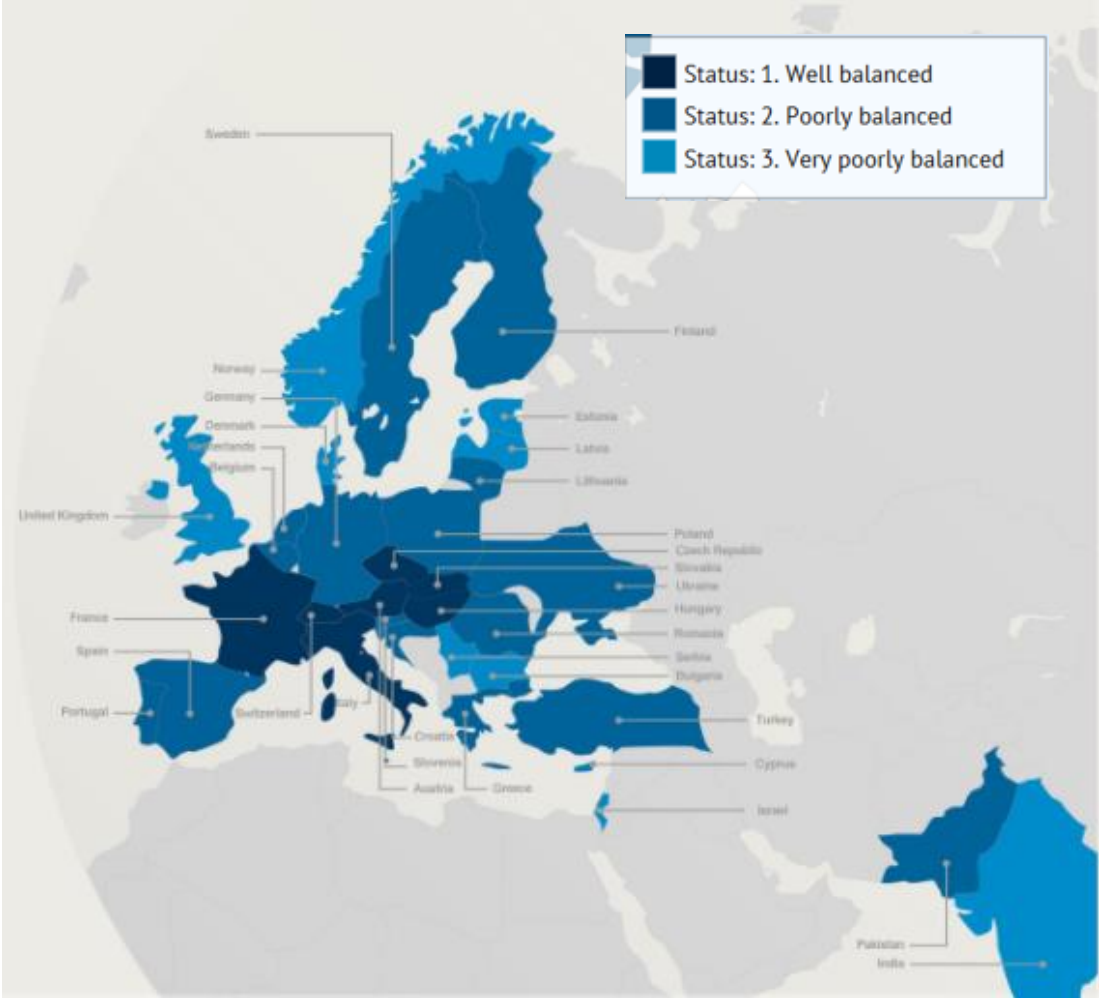
Poorly balanced (PB) : $0.40 \geq x < 1$

Well balanced (WB): ≥ 1

Status definition

Poorly balanced Member States (Supplies)

(1st March 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

Active Steps to Improve Balance

The Member States wish to see an improvement in balance for Supplies

- **Services are less of a concern – recognised as local in nature**
- **KPI of 3 VPBMS by 2025**
- **Tools/mechanisms in the rules on Alignment and Limited Tendering**
- **Regular data monitoring to target use of tools**
- **Outreach to potential bidders – early information on larger procurements**
- **Training and support**



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.

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.



How Ireland Could Support Industry To Win Work At CERN

Starting Industrial Relationships With CERN

- **Outreach and training**
- **Synergies with academia**
- **Identification of realistic opportunities and industrial match**
- **Managing expectations**

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.



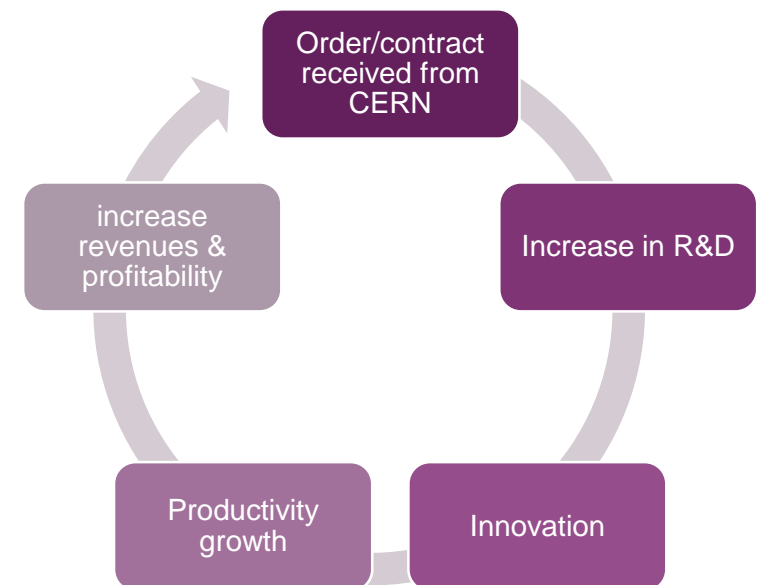
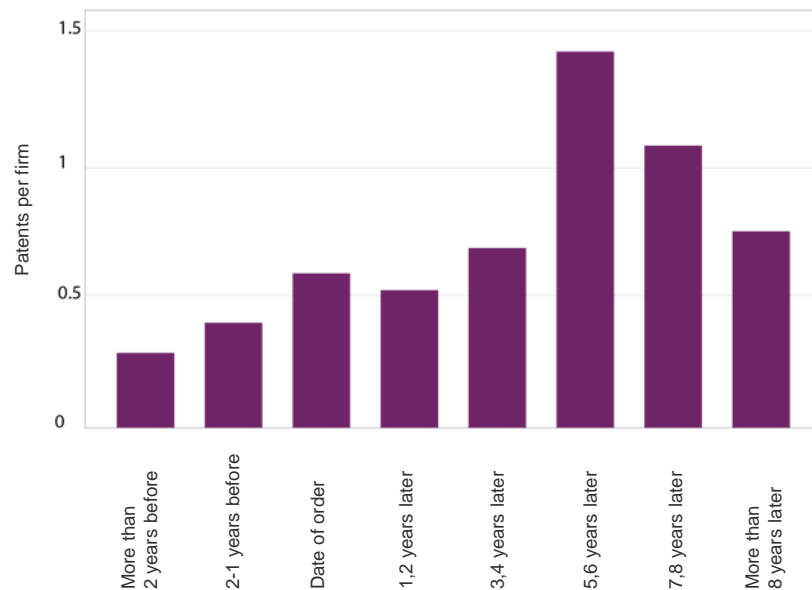
Impact of Doing business with CERN

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



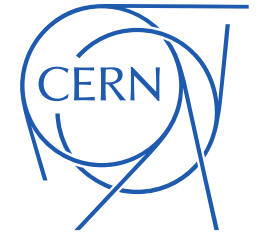
18%

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.).”

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://forthcoming-ms.app.cern.ch/#/>

Publication date	Type of contract	Reference	Description	Cost Range (CHF)	Status	Next step
14/10/2022	Supply	MS-4826/SCE/HL-LHC	Framework Market Survey concerning the supply of Cables for HL-LHC	> 10M	Announcement	Market Survey 11/2022
04/10/2022	Supply	MS-4823/EN	Supply of a new five-axis Computer Numerical Control (CNC) milling machine	750k - 5M	Announcement	Market Survey 10/2022
23/09/2022	Supply	IT-4820/SY	Supply of around twenty 18 kV/1 kV @ 2 MVA/ cast-resin rectifier power transformer with a rated power	750k - 5M	Announcement	Invitation to Tender 12/2022
23/09/2022	Supply	IT-4821/SY	Supply of around forty-five 18 kV cast-resin rectifier power transformers with a rated power of 0.62 MVA.	750k - 5M	Announcement	Invitation to Tender 03/2023
23/09/2022	Supply	MS-4822/SY	Framework Market Survey concerning the supply of around one hundred 18 kV cast-resin rectifier power transformers in the 0.6 MVA to 2.6 MVA power range of seven different types.	750k - 5M	Announcement	Market Survey 10/2022
20/09/2022	Services	MS-4819/EN	Provision of maintenance services for high voltage (HTB) power electrical equipment on the CERN site.	750k - 5M	Announcement	Market Survey 11/2022
19/09/2022	Supply	MS-4805/EN/HL/LHC	Supply of one custom built lateral forklift with 2,5t capacity for the transport and installation of HL-LHC components in the underground LHC tunnel.	200k - 750k	Announcement	Market Survey 11/2022

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.

Thank you



home.cern