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, CERN has 23 Member States.

- 23 Member States
- 3 Associate Member States in the pre-stage to membership
- 7 Associate Member States
- 6 Observers

Israel became a Member State in January 2014.

Geographical & cultural diversity:
110 nationalities, from 77 countries

Yearly budget ~ 1100 MCHF

- ~2500 Staff members
- ~2000 Contractors’ employees
- ~13000 Physicists/users
Key Figures
## Yearly Budget (contributions 2022)

<table>
<thead>
<tr>
<th>Country</th>
<th>In CHF, 2022 prices</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>245 017 700</td>
<td>20,3%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>171 219 200</td>
<td>14,2%</td>
</tr>
<tr>
<td>France</td>
<td>161 894 900</td>
<td>13,4%</td>
</tr>
<tr>
<td>Italy</td>
<td>121 766 050</td>
<td>10,1%</td>
</tr>
<tr>
<td>Spain</td>
<td>87 403 500</td>
<td>7,2%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>55 847 250</td>
<td>4,6%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>46 281 900</td>
<td>3,8%</td>
</tr>
<tr>
<td>Poland</td>
<td>34 787 950</td>
<td>2,9%</td>
</tr>
<tr>
<td>Belgium</td>
<td>32 668 100</td>
<td>2,7%</td>
</tr>
<tr>
<td>Sweden</td>
<td>30 045 050</td>
<td>2,5%</td>
</tr>
<tr>
<td>Norway</td>
<td>26 636 300</td>
<td>2,2%</td>
</tr>
<tr>
<td>Austria</td>
<td>25 937 750</td>
<td>2,2%</td>
</tr>
<tr>
<td>Israel</td>
<td>23 501 450</td>
<td>1,9%</td>
</tr>
<tr>
<td>Denmark</td>
<td>21 381 600</td>
<td>1,8%</td>
</tr>
<tr>
<td>India*</td>
<td>16 838 200</td>
<td>1,4%</td>
</tr>
<tr>
<td>Finland</td>
<td>15 708 050</td>
<td>1,3%</td>
</tr>
<tr>
<td>Romania</td>
<td>14 424 700</td>
<td>1,2%</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>13 220 000</td>
<td>1,1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country</th>
<th>In CHF, 2022 prices</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portugal</td>
<td>13 148 350</td>
<td>1,1%</td>
</tr>
<tr>
<td>Greece</td>
<td>11 894 950</td>
<td>1,0%</td>
</tr>
<tr>
<td>Hungary</td>
<td>8 580 300</td>
<td>0,7%</td>
</tr>
<tr>
<td>Slovakia</td>
<td>6 151 800</td>
<td>0,5%</td>
</tr>
<tr>
<td>Turkey*</td>
<td>4 961 450</td>
<td>0,4%</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>3 977 800</td>
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</tr>
<tr>
<td>Serbia</td>
<td>3 002 950</td>
<td>0,2%</td>
</tr>
<tr>
<td>Pakistan*</td>
<td>1 843 950</td>
<td>0,2%</td>
</tr>
<tr>
<td>Slovenia*</td>
<td>1 484 800</td>
<td>0,1%</td>
</tr>
<tr>
<td>Estonia*</td>
<td>1 310 850</td>
<td>0,1%</td>
</tr>
<tr>
<td>Cyprus*</td>
<td>1 025 350</td>
<td>0,1%</td>
</tr>
<tr>
<td>Latvia*</td>
<td>1 024 850</td>
<td>0,1%</td>
</tr>
<tr>
<td>Croatia*</td>
<td>1 000 000</td>
<td>0,1%</td>
</tr>
<tr>
<td>Lithuania*</td>
<td>1 000 000</td>
<td>0,1%</td>
</tr>
<tr>
<td>Ukraine*</td>
<td>1 000 000</td>
<td>0,1%</td>
</tr>
<tr>
<td>Total</td>
<td>1 205 987 050</td>
<td>100,0%</td>
</tr>
</tbody>
</table>
Procurement Expenditure (all MS and AMS)
Industrial Return (supplies) - Israel

* provisoire
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 2026, 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 → 100 TeV pp collisions in 100km ring
- e+e- collider (FCC-ee) as 1st step?
Supplies (229 MCHF spent in 2021, all countries – CERN budget only)

- Civil engineering, building and technical services: 35%
- Information technology: 16%
- Mechanical engineering and raw materials: 8%
- Electronics and radio frequency: 8%
- Electrical engineering and magnets: 7%
- Vacuum and low temperature: 4%
- Optics and photonics: 1%
- Health, safety and environment: 2%
- Transport, handling and vehicles: 4%
- Gases, chemicals, radiation and waste equipment: 3%
- Office supply, furniture, communication and training: 5%
- Miscellaneous: 6%

3/7/2022

Lisa Bellini Devictor | Doing Business with CERN
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
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
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**
Award for industrial services based on: Best Value For Money
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.
“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(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.

“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.
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

Bid (CHF)

Well balanced MS | Poorly balanced MS

Contract
Alignment rule (Scenario 2)

Lowest bid from a WB MS

(a) 1st bidder from PB MS aligns

Well balanced MS

Poorly balanced MS

Contract
Alignment rule (Scenario 2)

Lowest bid from a WB MS

(b) if not, 2nd lowest 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 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 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 aligns contracts placed with the lowest bid and the bid from PB MS

- Well balanced MS
- Poorly balanced MS
Industrial return coefficient

For Supply contracts and for a 12-month period starting on 1\textsuperscript{st} 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”.

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

Status definition

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

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

<table>
<thead>
<tr>
<th>Well Balanced</th>
<th>Poorly Balanced</th>
<th>Very Poorly Balanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>Belgium</td>
<td>Bulgaria</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>Croatia*</td>
<td>Denmark</td>
</tr>
<tr>
<td>France</td>
<td>Cyprus*</td>
<td>India*</td>
</tr>
<tr>
<td>Hungary</td>
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<td>Israel</td>
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<td>Italy</td>
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<td>Latvia*</td>
</tr>
<tr>
<td>Slovak Republic</td>
<td>Greece</td>
<td>Norway</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Lithuania*</td>
<td>Serbia*</td>
</tr>
<tr>
<td></td>
<td>Netherlands</td>
<td>United Kingdom</td>
</tr>
</tbody>
</table>

*Associate Member States
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
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**

![Graph showing patents per firm over time after order contracts received from CERN.](image)
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
“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.).”

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

[https://found.cern.ch/java-ext/found/CFTSearch.do](https://found.cern.ch/java-ext/found/CFTSearch.do)

## Forthcoming market surveys and calls for tenders

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

The table below lists forthcoming market surveys and calls for tenders expected to exceed 200,000 Swiss francs. The cost range is indicated as follows:

- A: less than 500 CHF
- B: between 500 CHF and 1000 CHF
- C: between 1000 CHF and 5000 CHF
- D: over 5000 CHF

Firms interested in participating are invited to submit their expressions of interest to CERN at the earliest possible date.

<table>
<thead>
<tr>
<th>Publication Date</th>
<th>Type of Contract</th>
<th>Requirement (Activity Code)</th>
<th>Description/Specific Condition</th>
<th>Cost Range</th>
<th>Market Survey scheduled for</th>
<th>Contacts and Interest in being contacted / Market Survey Documents</th>
<th>Invitation to Tender scheduled to dispatch</th>
</tr>
</thead>
<tbody>
<tr>
<td>01-09-2018</td>
<td>Supply</td>
<td>Civil-engineering works for the design and construction of new Building 597 situated on CERN’s Prevessin site in France. (001031051, 001031052)</td>
<td>CERN intends to place a contract for the design and construction. Interested firms shall have a proven experience and computer in design.</td>
<td>B</td>
<td>Fourth quarter 2018</td>
<td>To express an interest please send an e-mail to <a href="mailto:procurement.service@cern.ch">procurement.service@cern.ch</a>.</td>
<td>First quarter 2019</td>
</tr>
<tr>
<td>26-09-2018</td>
<td>Supply</td>
<td>Supply of hit all expansion joints of 10 different types for the CERN LHC (000310305)</td>
<td>CERN intends to place a contract for the supply of ... Interested firms shall have a proven experience and computer in design.</td>
<td>A</td>
<td>Fourth quarter 2018</td>
<td>To express an interest please send an e-mail to <a href="mailto:procurement.service@cern.ch">procurement.service@cern.ch</a>.</td>
<td>First quarter 2019</td>
</tr>
<tr>
<td>17-09-2018</td>
<td>Supply</td>
<td>Framework Market Survey concerning the supply of Desktop PC, Mini-PC and Laptop (portable) PC office computers (001100105, 00031076)</td>
<td>CERN intends to place several contracts for the supply of PCs, Laptops and Desktop computers.</td>
<td>B</td>
<td>Third quarter 2018</td>
<td>To express an interest please send an e-mail to <a href="mailto:procurement.service@cern.ch">procurement.service@cern.ch</a>.</td>
<td>Fourth quarter 2018</td>
</tr>
<tr>
<td>10-09-2018</td>
<td>Supply</td>
<td>Supply of system interconnections and industrial wiring. (00000100, 00001010, 00100020, 00100000)</td>
<td>CERN intends to place a three-year blanket contract for the supply of system interconnections and industrial wiring. Interested firms shall have proven experience and computer in design.</td>
<td>A</td>
<td>Third quarter 2018</td>
<td>To express an interest please send an e-mail to <a href="mailto:procurement.service@cern.ch">procurement.service@cern.ch</a>.</td>
<td>Third quarter 2018</td>
</tr>
</tbody>
</table>
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.
To ensure our emails reach your inbox please add our email procurement@cern.ch to your safe senders and check your spam filter settings.
Contacts at CERN (Procurement and Technical)
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.

Ms Leora HADAR

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Thank you