Israel at CERN
Business Opportunities at CERN

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

- Civil engineering, building and technical services, 35%
- Information technology, 16%
- Electrical engineering and magnets, 7%
- Electronics and radio frequency, 8%
- Mechanical engineering and raw materials, 8%
- Vacuum and low temperature, 4%
- Transport, handling and vehicles, 4%
- Health, safety and environment, 2%
- Gases, chemicals, radiation and waste equipment, 3%
- Optics and photonics, 1%
- Particle and photon detectors, 0%
- Office supply, furniture, communication and training, 5%
- Miscellaneous, 6%
What do we buy?

- Civil engineering:
  - Construction
  - Renovation of buildings
  - Metallic structures
  - Earthworks
  - Roads

- Cooling and ventilation equipment
Electronics
Sensors
Power Supplies

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

What do we buy?
Electronics
Sensors
Power Supplies
## Spending profile

<table>
<thead>
<tr>
<th>Year</th>
<th>Electronics</th>
<th>Sensors</th>
<th>Power supplies</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>CERN: 27 MCHF, Teams: 18 MCHF</td>
<td>CERN: 2 MCHF, Teams: 3 MCHF</td>
<td>CERN: 5 MCHF, Teams: 2 MCHF</td>
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<tr>
<td>2019</td>
<td>CERN: 25 MCHF, Teams: 15 MCHF</td>
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</tbody>
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### Notes
- **CERN** and **Teams** spending profile for electronics, sensors, and power supplies in 2018, 2019, and 2020.
Examples of forthcoming projects

In the next 6 months several Market Survey will take place for qualifying companies to supply components for the power converters of the North Area. The total estimated contract volume is >30 MCHF (different contract sizes). Companies in the following areas are required:

• Integration/cabling
• Power stacks
• Magnetics low and medium voltage
• Energy storage (capacitor banks)
• Power resistors

Constant need in the following areas:

• UPS and batteries
• Transformers
• Switchboards and switchgear
• Cables
• Automation
• Electronic components (active, passive)
• PCBs and assembled boards
• Radiofrequency plants
• Amplifiers
North Area Consolidation

Renovation of the Fixed Target Experimental Area at the CERN Prevesin site, after 45 years of wear-and-tear + fantastic physics

1. Recover the availability and reliability of the beam-facility
2. Correct safety concerns and non-conformities
3. Be prepared for new projects and test beams in next decades
Schematic view of the North Area

A few numbers:
- Overall surface 60000 m$^2$:
  - underground 16600 m$^2$,
  - experimental halls 31000 m$^2$,
  - service buildings: 12000 m$^2$
- 6 beam lines, ~ 6.3 km cumulated
- ~ 1500 visitors / year
Cumulated budget

Nota: without EL-CONS (~ 20 MCHF)
POLARIS Highlights

PHASE I - LS3: commit for qty / contracts in 2022/23

PHASE II - LS4: use optional qty / re-order in 2027/28

All new IT contracts
Contracts: 5 years (+2)

IT Manufacturing
- 188 units
  Cat. C
- 200 units
  Cat. C

IT Power Stacks
- 438 units
  Cat. B
- 496 units
  Cat. B

IT Magnetics
- 438 units
  Cat. B
- 496 units
  Cat. B

IT ELCO Capacitors
- 13400 units
  Cat. B
- 14000 units
  Cat. B

CONTRACT 1

CONTRACT 2

CONTRACT 4

CONTRACT 7

396 POLARIS to deliver

188 units

208 units

360 V / 2000 Apk

Standard off-the-shelf capacitors
• Electronics and radiofrequency
• Electronic components (active, passive)
• PCBs and assembled boards
• LV and HV power supplies
• Radiofrequency plants
• Amplifiers

What do we buy?

Session 4: Electronics

Sensors
Power Supplies

Magnets, Superconductors, Mechanical Engineering & Materials
Spending profile

- Magnets
- Cables and Superconductors for Magnets
- Mechanical engineering and raw materials

2018 | 2019 | 2020
---|---|---
MCHF Magnets | MCHF Magnets | MCHF Magnets

2018 | 2019 | 2020
---|---|---
MCHF Cables and Superconductors for Magnets | MCHF Cables and Superconductors for Magnets | MCHF Cables and Superconductors for Magnets

2018 | 2019 | 2020
---|---|---
MCHF Mechanical engineering and raw materials | MCHF Mechanical engineering and raw materials | MCHF Mechanical engineering and raw materials

CERN | Teams
Examples of forthcoming projects

- Normal conducting magnets: constant need for spare coils and magnet yokes
- Mechanical engineering: machining of parts, welding, metallic construction, special fabrication techniques
- Raw materials, finished and semi-finished products (plates, pipes, etc.)
- Wood products for engineering and construction applications
Electronics and radiofrequency:
- Electronic components (active, passive)
- PCBs and assembled boards
- LV and HV power supplies
- Radiofrequency plants
- Amplifiers

What do we buy?

Session 4: Electronics
- Sensors
- Power Supplies

Session 7: Cryogenics, Cooling, Vacuum Technology
Spending profile

- Cryogenics
- Cooling Technology
- Vacuum Technology

2018: CERN 12,500, Teams 6,000
2019: CERN 12,000, Teams 5,500
2020: CERN 10,500, Teams 5,000

2018: CERN 10,000, Teams 4,500
2019: CERN 9,500, Teams 4,000
2020: CERN 9,000, Teams 3,500

CERN: Deep blue
Teams: Light blue
• Warm structure material
• Warm structure components manufacturing
• Warm structure membrane manufacturing
• Warm structure underground assembly
• Cold structure material procurement
• Cold structure underground assembly
Session 8: Safety, Radiation Protection, ICT
Spending profile

- Safety
- Radiation Protection
- ICT

CERN
Teams
Upcoming opportunities

Several blanket purchase contracts for the supply of Servers and Storage for Physics Data Processing, Acquisition and Control (above 10 MCHF)

Fairly regular opportunities for circuit testing and wafer processing.

For PCBs and electronic card assembly there is very regular requirements in support of the HL-LHC upgrade, for example:

- MS-4742 for the supply of low-density hexagonal printed circuit boards for CMS
- MS-4737 for the supply of PCBs, mainly for ATS
- MS-4726 for the supply of wafer probe testing services for CMS.
- MS-4750 for the design of custom made rad-hard cables (375MRad) for the ATLAS pixel detector (to be published)

See https://found-java-ext.cern.ch/java-ext/found/CFTSearch.do for forthcoming Market Surveys
Data for Israel

01 Civil engineering, building and technical services
02 Electrical engineering and magnets
03 Electronics and radio frequency
04 Information technology
05 Mechanical engineering and raw materials
06 Vacuum and low temperature

07 Particle and photon detectors
08 Optics and photonics
09 Gases, chemicals, radiation and waste equipment
10 Health, safety and environment
11 Transport, handling and vehicles
12 Office supply, furniture, communication and training
13 Miscellaneous
Data for Israel

Required annual spending to reach target, Israel

Israel

Year

kCHF

2018 2019 2020 2021

Spend
Target
Summary

• CERN provides exciting business opportunities for you!
• The procurement service has the aim to increase the return coefficient of Israel significantly;
• To achieve this goal we need your help!

For any further question please feel free to contact:

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