

# Innovation in deep-tech: Latvian ILO's Approach to Business Engagement with CERN



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# Baltic ILOs: Industry Liaison Officers

## 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.



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# ILO's work @CERN

## Network

- ILO forum 2 times/year and Finance Committee meetings 4 times/ year
- Close contact with CERN's Procurement Service (PS) and Knowledge transfer (KT)
- Getting to know technical teams and scientists

## Outreach

- Webinars, industry days, thematic events with CERN
- Expanding industry network at home
- Company visits and individual visits to CERN

## Tools

- Suppliers database
- Procurement announcements of business opportunities
- Mapping technologies at home country



# Four pillars underpin CERN's mission

EDUCATION  
& TRAINING



TECHNOLOGY  
& INNOVATION



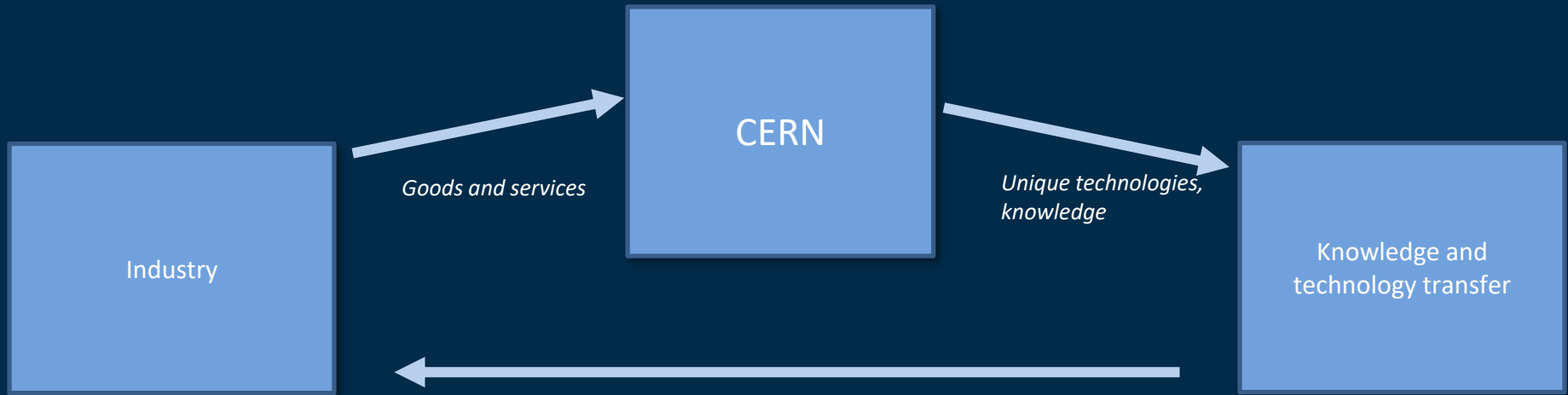
RESEARCH



COLLABORATION



# Roadmap to CERN



What industry gains from participation in CERN?

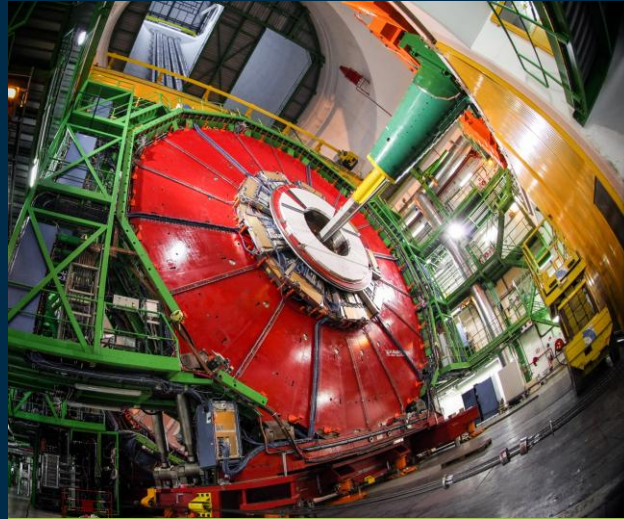
- a. Procurement
- b. New knowledge, technology transfer
- c. Scientific expertise, testbed
- d. Participation in EU projects



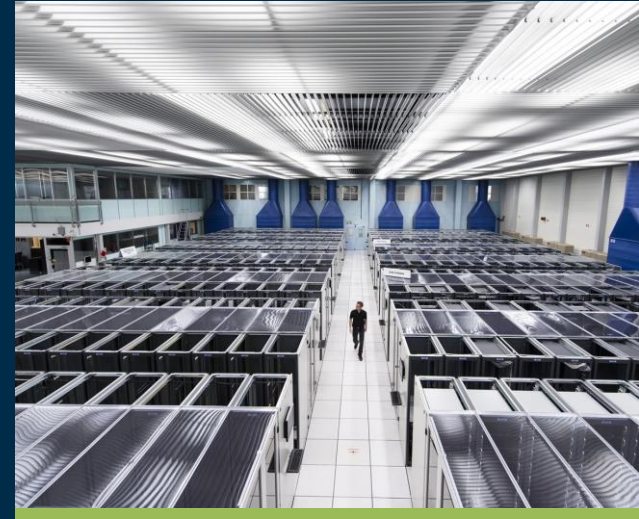
# CERN technologies in three key areas



ACCELERATORS



DETECTORS



COMPUTING

# What CERN buys

- Civil engineering
- Cooling and ventilation
- Electrical engineering and magnets
- Information Technology
- Mechanical engineering and raw materials
- Electronics and radiofrequency
- Cryogenic and vacuum equipment
- Health and safety equipment,
- Transport and handling equipment
- Office supply, furniture
- Industrial services on the CERN site



# Procurements

## Key facts:

- Annual total budget (approx): 1.2 BCHF
- Members of personnel: ~3500
- Associated members of personnel and users: ~13 000
- Member states: 24

**Procurements** comprise of a set of procedures that govern how CERN buys something, while ensuring:

1. Effective allocation of funds
  2. Fair competition between bidders
  3. Equitable industrial return for member states
  4. Other policy targets
- ~230 MCHF spent on supplies (CERN budget only) excluding services, utilities, experiments
  - ~500 MCHF yearly procurements on average every year

### Forthcoming Tendering Procedures

Forthcoming tendering procedures expected to exceed 200k CHF are listed below. Except if specified otherwise, the firms that have the right to reply to the Market Survey are only the ones which country of origin of supplies and services is one of CERN Member States.

If you would like to know more about a specific procedure, please, click on one of the following procedures. In case you are interested in a specific Market Survey, you will find the related document under "Available action". However, if the Market Survey documents have not been deadline yet, you are invited to express your interest by sending an email to the email address depicted in the same section.

Firms may reply as long as the tendering procedures are still on this page. Therefore, in case the deadline for replies indicated in the Market Survey cover letter is over, disregard the date on the cover letter but please send your reply to the Market Survey as soon as you can.

If you have any questions, please address them to [procurement.service@cern.ch](mailto:procurement.service@cern.ch) or to the procurement or technical officers in charge of the corresponding market survey.

Finally, we invite you to consult this page frequently as the status of each procedure is regularly updated.

Type keywords e.g. Magnets, Software, Civil Engineering, ...

200k Cost Range (CHF) 750k 5M 10M


More Filters Share Search Results Reset Filters

Publication date	Type of contract	Reference	Description	Cost Range (CHF)	Status	Next step
08/04/2024	Supply	MS-4990/TE/HL/LHC	Supply of Electrical Feedthroughs to ensure hermetic transmission of an electrical measurement signal through a cryogenic enclosure	200k - 750k	Announcement	Market Survey 04/2024

## Classification of procurements

Procedural division by contract size	<ul style="list-style-type: none"> <li>• Small (up to 50 kCHF)</li> <li>• Medium (50-200 kCHF)</li> <li>• Large (200+ kCHF)</li> <li>• Very large (1.5 m + kCHF)</li> </ul>
Type of bid evaluation	<ul style="list-style-type: none"> <li>• Lowest compliant</li> <li>• Best value for money</li> <li>• Total cost of ownership</li> </ul>
Type of competition	<ul style="list-style-type: none"> <li>• Competitive tendering</li> <li>• Limited competition</li> </ul>
Type of supply:	<ul style="list-style-type: none"> <li>• Build to print</li> <li>• „shelf-product“</li> </ul>





# CERN's technological innovations have applications in many fields

CERN is the birthplace of the World Wide Web

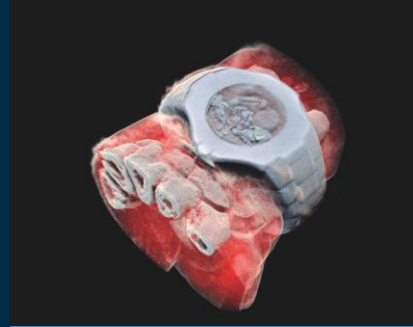
## **And there are many more examples**

Medical imaging, cancer therapy, material science, cultural heritage, aerospace, automotive, environment, health & safety, industrial processes.

# CERN's technological innovations have important applications in medicine and healthcare

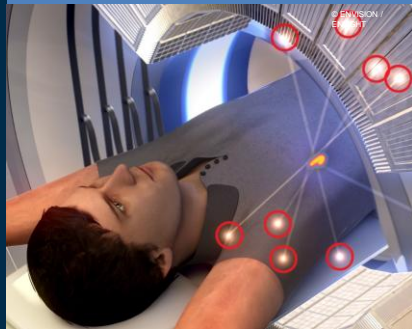


Technologies at CERN are also used in PET, for medical imaging and diagnostics.

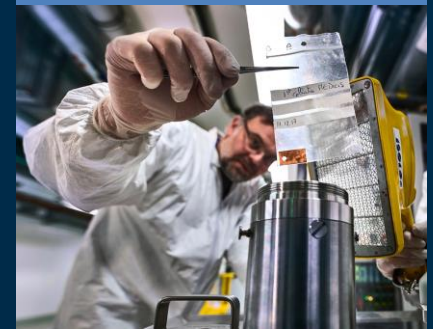


CERN produces innovative radioisotopes for nuclear medicine research.

Accelerator technologies are applied in cancer radiotherapy with protons, ions and electrons.



Pixel detector technologies are used for high resolution 3D colour X-ray imaging.



# Competences

**Machine Learning and Deep Learning** Industrial Controls and Automation

Data Analytics **Metrology** High and Ultra High Vacuum Systems  
Health, Safety and Environment Management Cryogenics

Optoelectronics and Microelectronics **High Volume Data Management & Storage**  
**Superconducting Magnets** Particle Acceleration and Control

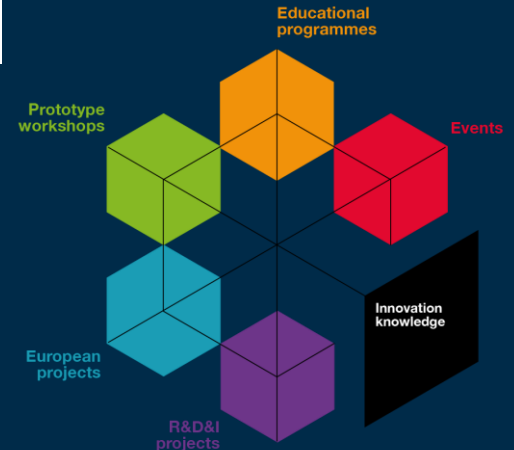
**Radiation Protection and Monitoring** Particle Tracking and Calorimetry

Robotics **Sensors** Material Science **Cooling and Ventilation**  
Collaboration Tools Radio Frequency Technology

**Manufacturing and Mechanical Processes**

# R&D partnership possibilities

- Openlab remains a ground-breaking public-private partnership, CERN collaborates with leading technology companies and research institutes. Within this framework, CERN provides access to its complex ICT infrastructure and its engineering experience - in some cases even extended to collaborating institutes worldwide.
- CERN Venture Connect (CVC) programme aims to support deep-tech startups in all of CERN's Member States and Associate Member States. The programme will help the founders succeed by giving them fast-track access to cutting-edge CERN technologies and partner investor companies or venture incubators that will provide further possibilities for investment, distribution, expert mentoring and service providers.
- IdeaSquare is the innovation space at CERN using collaborative methodologies, access to CERN expertise and cross-connectivity to ideate solutions for the future of humankind. A place where people have the license to dream.





# Latvia Industry Engagement with CERN from 2024 Q1 – 2024 Q3

- **44** companies in CERN Suppliers database
- **16** companies with supplier status
- **11 companies** visited CERN in 2024 Q1-Q3
- From August 2021-2024 Latvian companies have received orders from CERN worth 466,000 CHF (~ 495,000 EUR).

## Events with industry engagement

- |               |   |
|---------------|---|
| 18 September  | CERN Industry webinar   |
| 2-4 October   | Big Science Business Forum 2024 (Trieste, Italy) – B2B, networking        |
| 30-31 October | 5G Techritory (Riga, Latvia) – networking, cybersecurity expert visit     |
| 22 November   | Thematic Event – Precision Machining (Online) – 1:1 matchmaking with CERN |



## In conclusion

- CERN is open for business but most opportunities for R&D oriented ones
- Be specific and work with well-defined projects and companies with objectives
- Success requires dedicated experts from both sides, find the right people
- Driving deep tech innovation requires courage
- Contact your ILO



Paldies

Aitäh

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