



www.cern.ch

Doing business with CERN

Anders Unnervik

Ankara 5 October 2015

















Procurement at CERN

- Procurement budget
- What does CERN buy?
- How? Procedures and Rules
- What is in it for suppliers?
- How to become a successful supplier



CONTRIBUTIONS FOR 2015 (CHF)

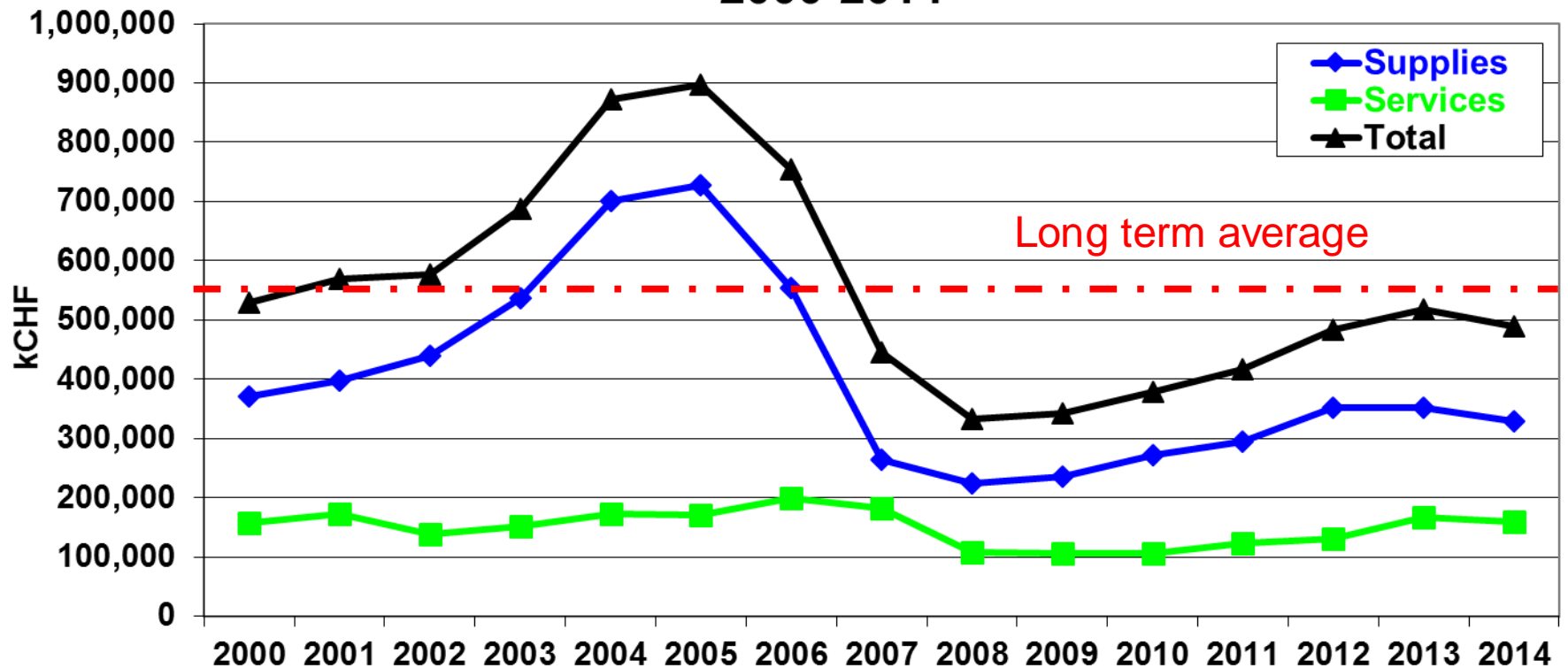
	DE Germany	214'704'000	20.21%		FI Finland	14'459'500	1.36%
	FR France	158'663'250	14.94%		IL Israel	14'071'950	1.32%
	GB United Kingdom	149'561'700	14.08%		PT Portugal	12'009'800	1.13%
	IT Italy	116'028'000	10.92%		CZ Czech Republic	10'516'900	0.99%
	ES Spain	81'997'100	7.72%		RO Romania *	8'154'500	0.77%
	NL Netherlands	47'765'700	4.50%		HU Hungary	6'541'550	0.62%
	CH Switzerland	40'618'700	3.82%		SK Slovakia	5'138'100	0.48%
	SE Sweden	29'537'500	2.78%		TR Turkey *	3'618'750	0.34%
	NO Norway	29'404'650	2.77%		BG Bulgaria	3'036'350	0.29%
	BE Belgium	28'965'550	2.73%		RS Serbia *	1'000'000	0.09%
	PL Poland	28'789'050	2.71%		PK Pakistan *	654'250	0.06%
	AT Austria	23'192'450	2.18%				
	DK Denmark	18'606'700	1.75%				
	GR Greece	15'166'700	1.43%				
					TOTAL	1'062'202'700	

* Associate Member States





Procurement Expenditures 2000-2014





What do we buy?

Recurrent supplies and services

Civil engineering

Buildings, roadworks,

Utilities

Cooling & ventilation

Power distribution, cables

Infrastructure & services

Metal structures

Mechanical engineering

Radiation shielding

Transport & handling

Safety & access control

Installation, operation & maintenance

Data acquisition, computing & networking

Various supplies

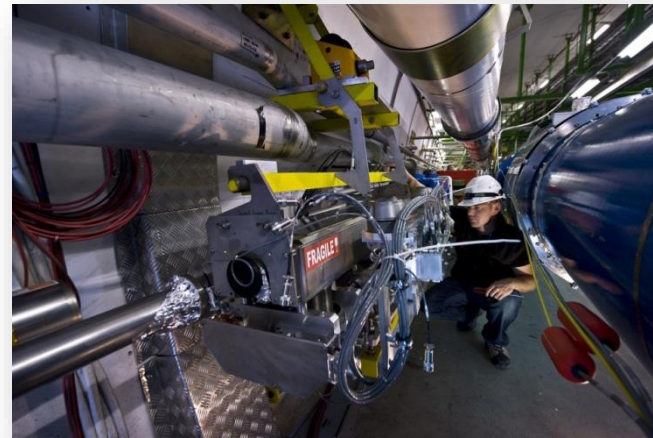
Furniture, tooling, gases, stationary, etc..



What do we buy?

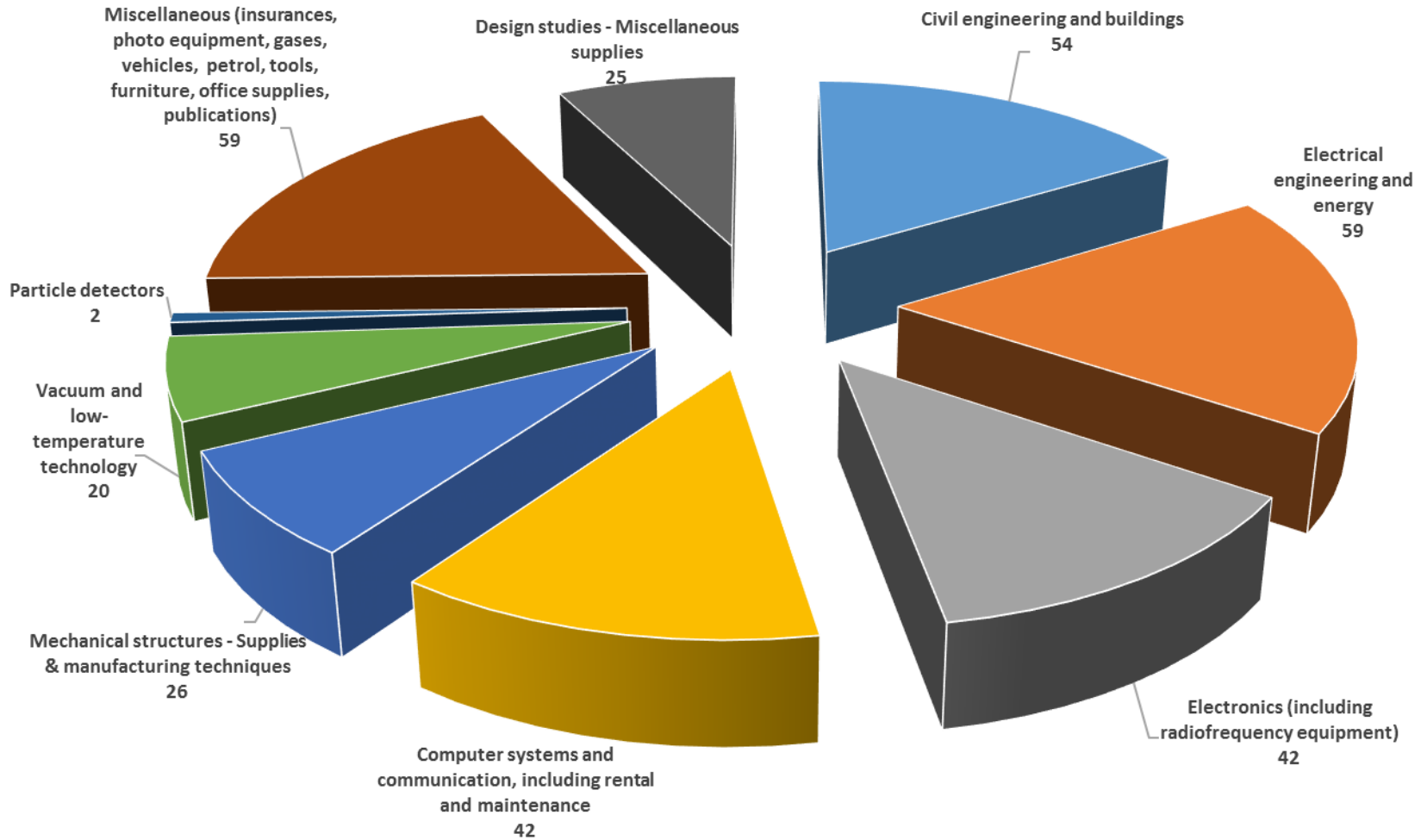
accelerator technologies required for consolidation projects and new developments

- Industrial controls & field buses
- Timing & “fast” real-time controls
- Beam collimation
- Beam injection, ejection & dump
- Radio-frequency equipment
- Power converters
- Beam instrumentation & diagnostics
- Permanent and electromagnets
- Cryogenic equipment



What do we buy ?

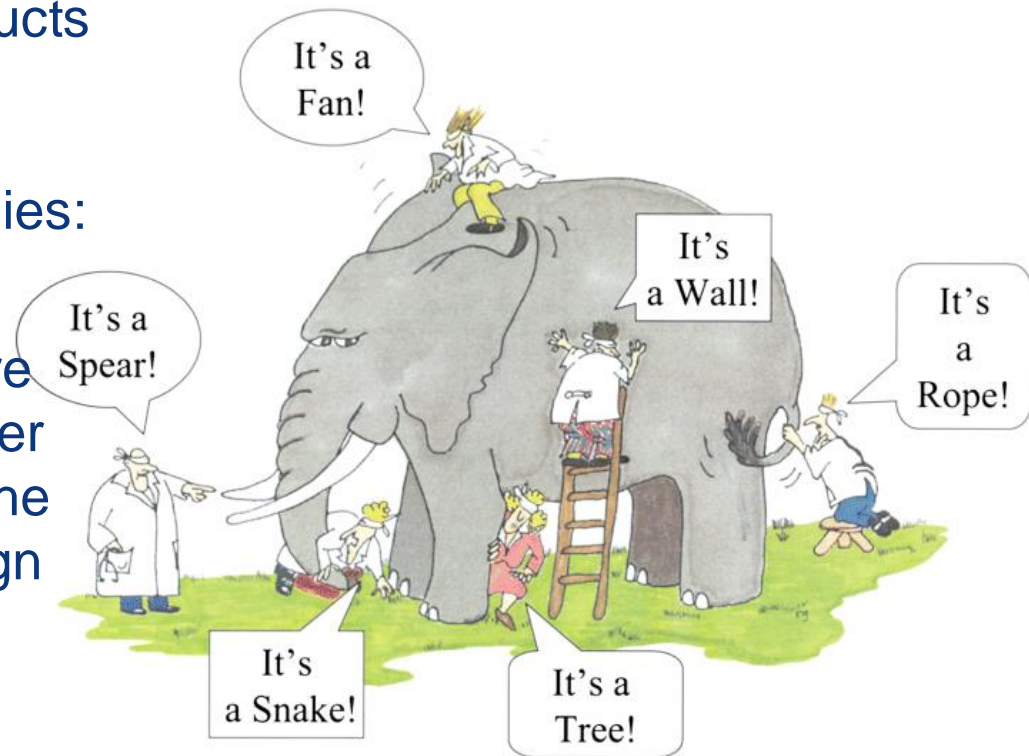
Supplies for 329 MCHF (2014)



All amounts are in Swiss francs (MCHF)

What do we buy ? Standard or Non-Standard?

- COTS or non-standard products which can be produced with existing manufacturing techniques and/or technologies:
 - **Functional specification**
- Non-standard products where industry does not have neither the required know-how nor the interest to develop and design the products:
 - **Build-to-Print specification**
- Prototypes and or Pre-series needed?



What do we buy ?

Equipment that will be required for HL-LHC

Magnets: manufacturing of magnets and/or coils, involving processing of impregnation (dipole, quadrupoles, correctors...)

S.C. cables: the acquisition process for NbTi and Nb₃Sn strand is already ongoing.

Steel for magnets (circa 1800 Tonnes)

Cryostat for magnets, crab cavities and superconducting links: (cryostating will be done at CERN);

Collimators and absorbers, involving mechanical manufacturing and assembly work

Cryo refrigerators for the triplets at P1 and P5

Civil engineering and infrastructures: surface buildings to erect and underground works (new caverns and tunnels to excavate);





Legal framework

CERN, an Intergovernmental Organization, was established in July 1953, by the “Convention for the establishment of a European Organization for Nuclear Research”.

- As an Intergovernmental Organization, CERN is not a legal entity under national law but governed by public international law.
- CERN benefits from immunity from national jurisdiction and execution. Thus, legal disputes between CERN and its suppliers and contractors are not submitted to national courts but solved via international arbitration.

CERN is thus entitled to establish its own internal rules necessary for its proper functioning, such as the rules under which it purchases equipment and services.



Mission of Procurement and Industrial Services

The mission of the Procurement and Industrial Services group is to:

- procure all supplies and services for CERN;
- meeting all requirements;
- at the lowest possible overall cost, while;
- achieving balanced industrial return for the CERN Member States, and;
- respecting the CERN Procurement Rules.



Procurement Principles

- Contracts awarded in compliance with the principles of transparency and impartiality.
- CERN's tendering procedures are selective.
- Limited to firms established in the Member States.
- CERN's documents are objective to guarantee fair competition.
- Subject to the provisions aimed at achieving balanced industrial return for all the Member States, contracts are awarded to the firm whose bid meets all requirements and:
 - Is either the lowest; or
 - Represents the best value for money.



Procedures for obtaining offers

- **Requirements <10'000 CHF;**

Users may issue enquiries directly provided CERN procurement rules are followed;

- **Requirements >10'000 CHF and <200'000 CHF**

Price Enquiries issued by Procurement Service;

- **Requirements >200'000 CHF**

Market Surveys & Calls for Tenders issued by Procurement Service.



Requirements between 10'000 and 200'000 CHF

Price enquiries:

- Time for bidding 4 weeks;
- Invite 3 -5 firms;
- >50'000 CHF sent to Industrial Liaison Officers (ILOs) for information;
- Adjudication based on lowest offer (FCA price) which complies with all requirements, subject to the rules aimed at achieving well balanced industrial return coefficients for the Member States (from 100'000 CHF).



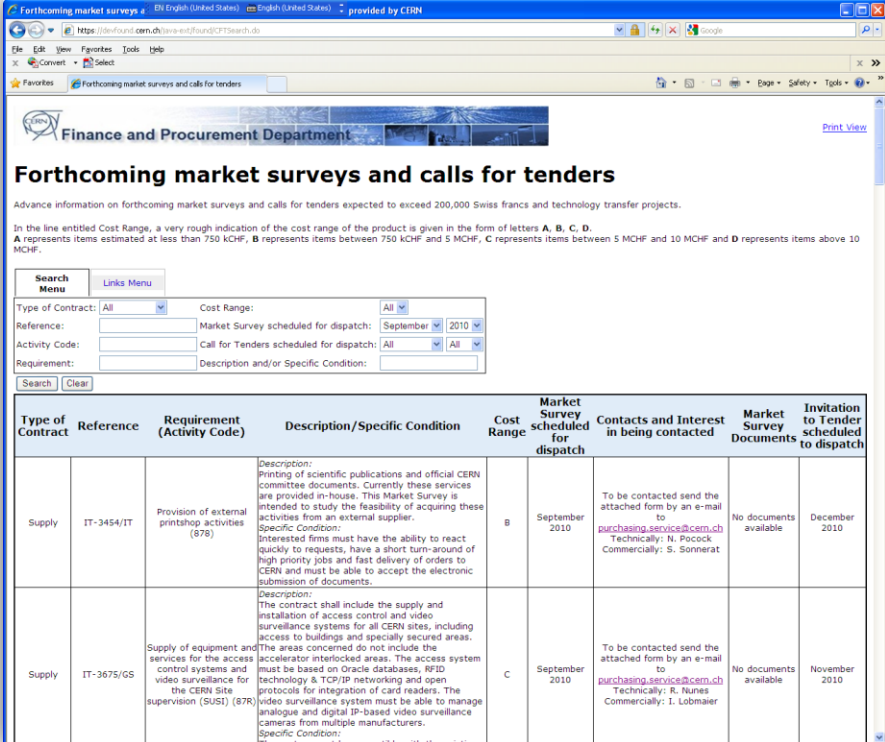
Requirements exceeding 200'000 CHF

Market Survey followed by a Call for Tenders:

- Announcement in the document “Advance information on Forthcoming Market Surveys and Calls for Tenders expected to exceed 200'000 Swiss francs”
- Market survey;
 - brief technical description (1-2 pages);
 - qualification criteria (financial and technical);
 - questionnaire.

Current Market Surveys available on Procurement Service home page

<https://found.cern.ch/java-ext/found/CFTSearch.do>



The screenshot shows a web browser window displaying the CERN Procurement Service website. The page title is "Forthcoming market surveys and calls for tenders" and it is provided by CERN. The page contains a search interface with various filters and a table of results.

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
Supply	IT-3454/IT	Provision of external printshop activities (876)	Description: Printing of scientific publications and official CERN committee documents. Currently these services are provided in-house. This Market Survey is intended to study the feasibility of acquiring these activities from an external supplier. Specific Condition: Interested firms must have the ability to react quickly to requests, have a short turn-around of high priority jobs and fast delivery of orders to CERN and must be able to accept the electronic submission of documents.	B	September 2010	To be contacted send the attached form by an e-mail to purchasing.service@cern.ch Technically: N. Pocock Commercially: S. Sornerat	No documents available	December 2010
Supply	IT-3675/GS	Supply of equipment and services for the access control systems and video surveillance for the CERN Site supervision (SUS1) (87R)	Description: The contract shall include the supply and installation of access control and video surveillance systems for all CERN sites, including access to buildings and specially secured areas. The areas concerned do not include the accelerator interlocked areas. The access system must be based on Oracle databases, RFID technology & TCP/IP networking and open protocols for integration of card readers. The video surveillance system must be able to manage analogue and digital IP-based video surveillance cameras from multiple manufacturers. Specific Condition: Interested firms must be able to provide the	C	September 2010	To be contacted send the attached form by an e-mail to purchasing.service@cern.ch Technically: R. Nares Commercially: I. Lobmaier	No documents available	November 2010

Requirements exceeding 200'000 CHF

Call for tenders:

- Time for bidding 4 weeks;
- Invite
 - 10 firms for contracts between 200'000 and 750'000 CHF;
 - 15 firms for contracts exceeding 750'000 CHF;
- All call for tenders sent to Industrial Liaison Officers (ILOs) for information;



Basis of Award

Supply contracts shall be awarded on a
«Lowest compliant bid » basis....

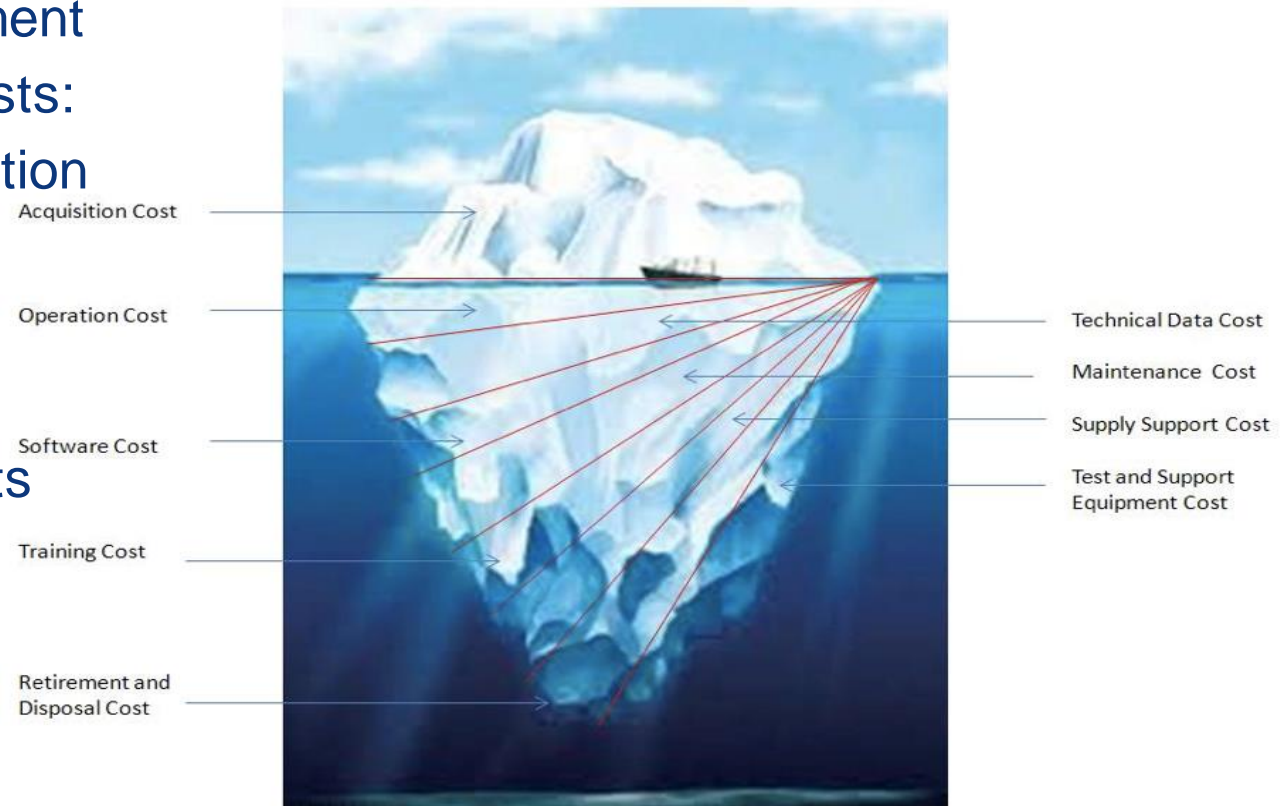


....but.....

Lowest price?

Total Cost of Ownership

- Initial investment
- Operating costs:
 - Energy consumption
 - Spares
 - Maintenance
 - Training etc.
- Disposal costs



Basis of Award

.....Service contracts shall be awarded on
«Best Value for Money» basis
to the bidder submitting
the most economically advantageous bid

Price // Quality

The diagram shows the words "Price" and "Quality" in a large, orange, sans-serif font, separated by a double slash //. A black arrow points downwards from the word "Price", and another black arrow points upwards from the word "Quality".

Criteria and weighting factors, service contracts

The following criteria and weights will be applied by CERN to evaluate the bids:

Criterion	Weight
Price (inc. all relevant costs)	XX
Quality	XX
<ul style="list-style-type: none">▪ Experience of the key personnel▪ Stability of the personnel▪ External references▪ Technical know-how▪ Technical training▪ Quality of the bid▪ Tests..etc...	
TOTAL	100

Country of origin

for a **supply contract**: is the country(ies) in which the goods are manufactured or where the last major modification took place.

for a **service contract** is the country(ies) in which the bidder is established.



The realignment rule

For contracts to be awarded on the lowest compliant bid basis and exceeding 100'000 CHF in value.

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.



Recent collaborations with Turkish industry

Supplier	City	Description
SONMEZ TRANSFORMATOR SANAYI	KOCAELI	SESAME quadrupole magnets
SIMPRO	KARTAL / ISTANBUL	Assembly of electronics cards



Contacts with CERN

Procurement web page

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

Industrial liaison Officer (ILO)

Mr. Hakan KIZILTOPRAK

Special Advisor to the President

The Union of Chambers and Commodity Exchanges of Turkey
Dumlupinar Bulvari No 252. (Eskisehir yolu 9.Km.) 06530, ANKARA - TURKEY

Tel: +90 (312) 218 2039

Tel: +90 (312) 218 2182 (fax)

Tel: +90 (530) 511 77 62 (mobile)

Email: hakan.kiziltoprak@tobb.org.tr

Website: <http://tobb.org.tr>

Doing business with CERN

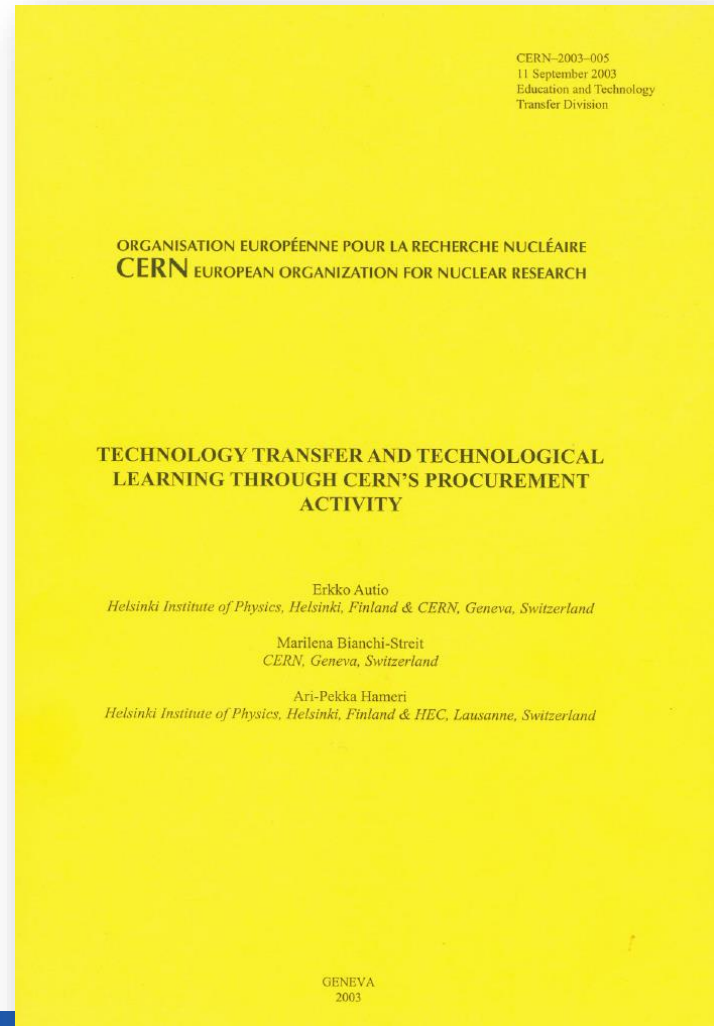
DOING BUSINESS WITH CERN

Having a Contract with CERN



Study of Technology Transfer through Procurement

- Period studied 1997 – 2001
- Excluded: civil engineering, standard items, services and low value orders
- 629 companies contacted.



Result of contracts with CERN

- 38% had developed new products
- 42% increased international exposure
- 44% improved technological learning
- 52% would have had poorer sales performance without CERN
- 17% opened a new market
- 60% acquired new customers
- all firms had derived great value from CERN as a marketing reference



Study of the impact of CERN contracts on firms

Internship report, P. Fessia, 2001

- Firms having received at least one order > 50'000 CHF during 2000-2001
- Excluded, standard services and off-the-shelf products
- 250 companies contacted.



Result of contracts with CERN

- New products

- >50% had developed new products
- >65% had either developed new or modified existing products
- Of these, 50% have introduced or planned to introduce new products on the market



Result of contracts with CERN

- Improvements
 - 45% had improved technical competencies (recognized that CERN had helped reduce risk of new developments)
 - 40% had invested to improve production
 - 30% considered they were more competitive
 - 30% considered new markets
 - 33% had used the CERN contact to establish new relationships and alliances with other firms

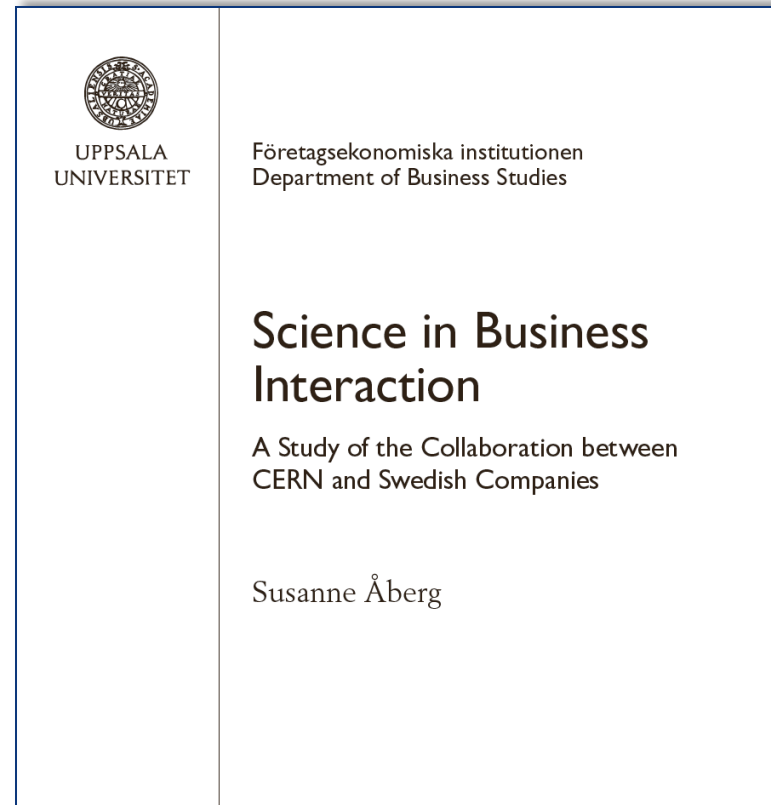
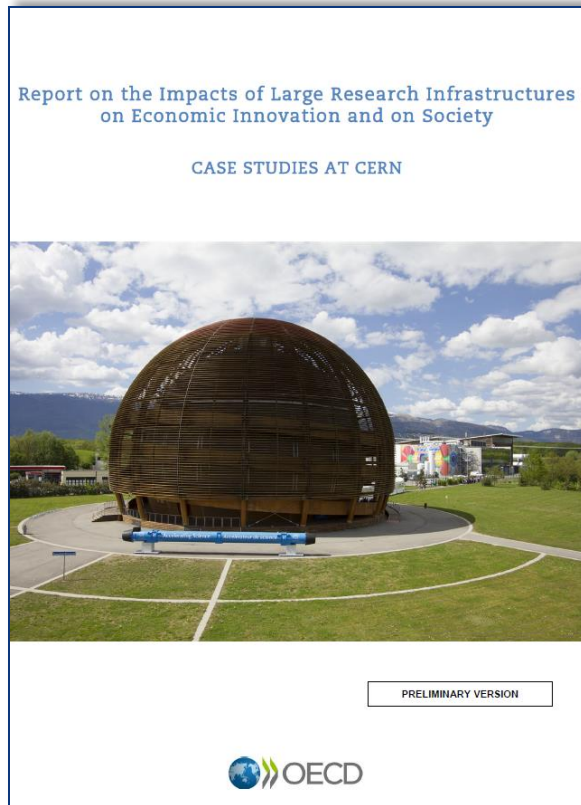


Result of contracts with CERN

- Marketing
 - >70% of SMEs consider the CERN reference as strategic for their business



Other reports and studies....



Successful suppliers



- Often small – medium sized and flexible firms
- Ensure full understanding of specifications – exceeded specifications may be too expensive
- Communicate with CERN (problems, issues, alternatives, etc.)
- Take into account test requirements and documentation
- Verification of performance by sub-contractors



