

VOESTALPINE STEEL DIVISION @ CERN

30 September 2015

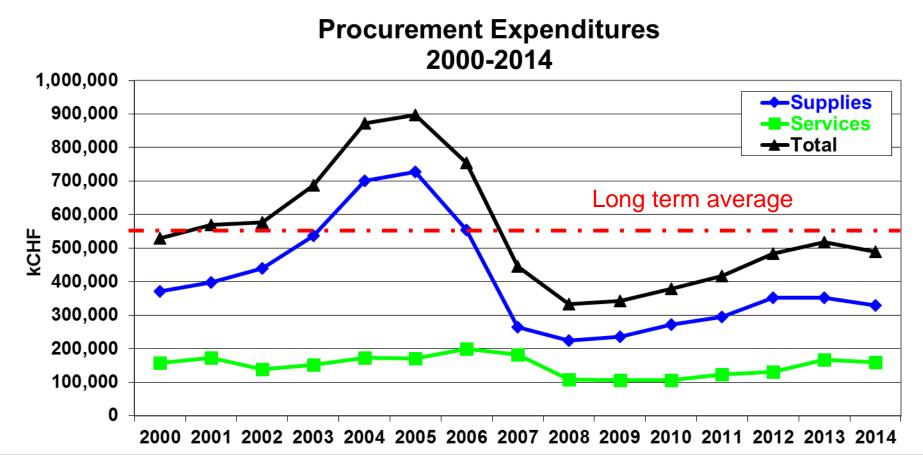
Anders Unnervik



Procurement at CERN

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





CERN's annual budget is approx. 1.1 Billion CHF





What do we buy? Recurrent supplies and services

Civil engineering

Buildings, roadworks,

Utilities

Cooling & ventilation

Power distribution, cables

<u>Infrastructure & services</u>

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



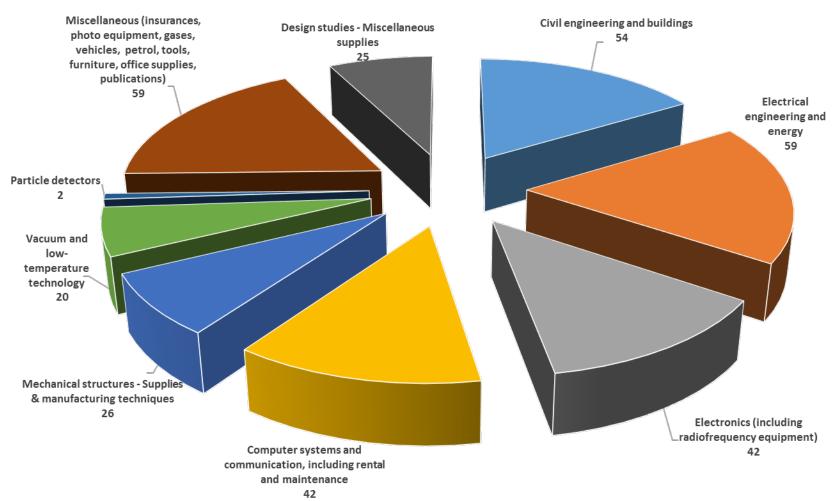








What do we buy? Supplies for 329 MCHF (2014)



All amounts are in Swiss francs (MCHF)



What do we buy? Standard or Non-Standard?

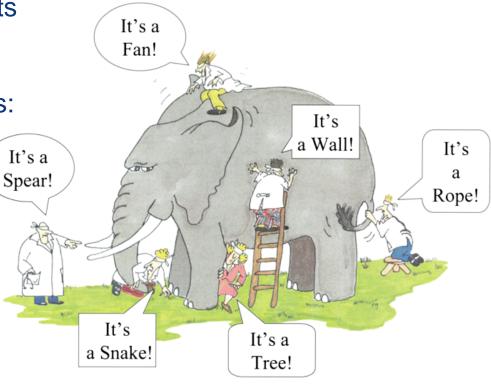
COTS or non-standard products which can be produced with existing manufacturing techniques and/or technologies:

- Functional specification

Non-standard products where Spear! 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.
- 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, <u>subject to</u> 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;

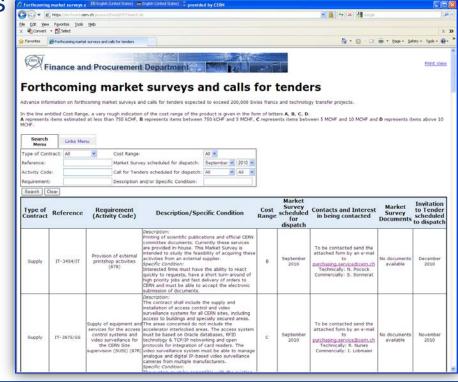
brief technical description (1-2 pages);

qualification criteria (financial and technical);

questionnaire.

Current Market Surveys available on Procurement Service home page

https://found.cern.ch/javaext/found/CFTSearch.do



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.

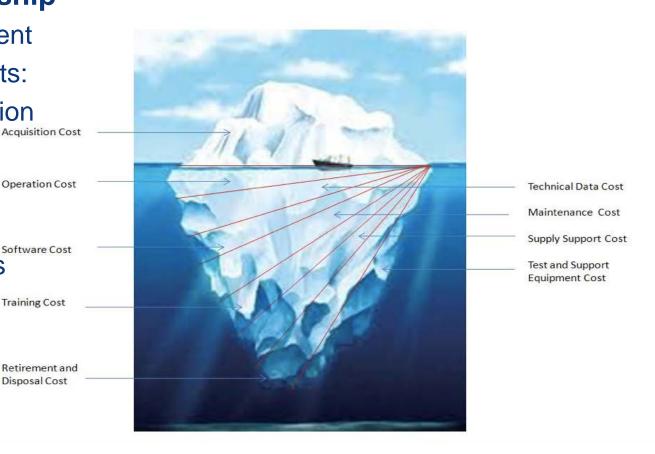
Disposal costs

Training Cost

Operation Cost

Software Cost

Retirement and Disposal Cost



Basis of Award

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

the most economically advantageous bid





Country of origin

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

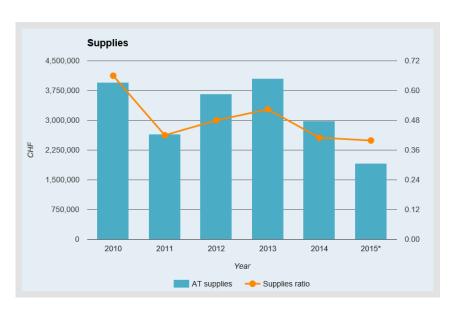
for a **service contract** is the country(ies) in which the bidder is established.

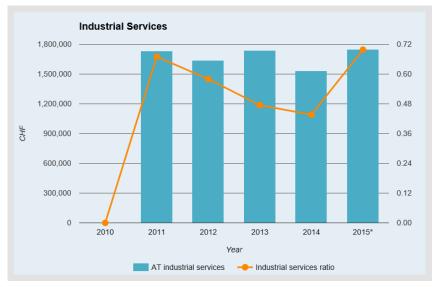
The realignment rule

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.

Collaboration with Austrian industry





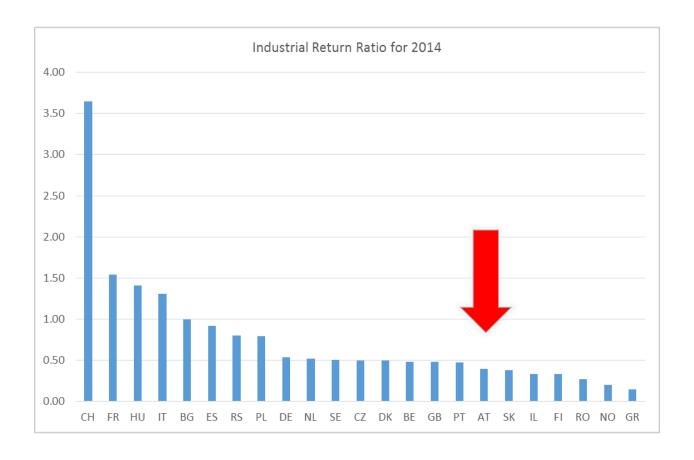
Industrial return for supplies, target for 2015 = 0.91

*Until 29 Sep 2015

for services, target for 2015 = 0.40



Collaboration with Austrian industry





Collaboration with Austrian industry, 2015

Supplier name	City
UNIQA OSTERREICH VERSICHERUNGEN - UNIQA ASSURANCES	WIEN
UNIVERSITAT INNSBRUCK	INNSBRUCK
SEPURA SYSTEMS	VIENNA
ETM PROFESSIONAL CONTROL	EISENSTADT
PRAEZISIONS-WERKZEUGBAU LINDENTHAL	ST MARGARETEN
MECHANISCHE KOMPONENTEN TSCHANN GMBH & CO KG	BARTHOLOMAEBERG
CIVIDEC INSTRUMENTATION	VIENNA
AUSTRIA TREND EVENTHOTEL PYRAMIDE	VOSENDORF
F&K DELVOTEK SEMICONDUCTOR GMBH	BRAUNAU INN
VOESTALPINE STEEL & SERVICE CENTER EX.VOEST ALPINE STAHL	LINZ
PLANSEE	SAINT PIERRE EN FAUCIGNY
INFINEON TECHNOLOGIES	VILLACH
WALTER PURRER	INNSBRUCK
BUNTMETALL AMSTETTEN GMBH	AMSTETTEN
RHP-TECHNOLOGY	SEIBERSDORF
TU TECHNISCHE UNIVERSITAT WIEN (VIENNA UNIV. OF TECHNOLOGY)	WIEN
ALGE ELEKTRONIK GMBH	LUSTENAU
BITSCHNAU METALLVERARBEITUNG	BLUDENZ
EISENBEISS	ENNS
GREENSHIRE SYSTEMS E.U.	GRNAU IM ALMTAL



Study of Technology Transfer through Procurement

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

11 September 2003 Education and Technology ORGANISATION EUROPÉENNE POUR LA RECHERCHE NUCLÉAIRE CERN EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH TECHNOLOGY TRANSFER AND TECHNOLOGICAL LEARNING THROUGH CERN'S PROCUREMENT ACTIVITY Helsinki Institute of Physics, Helsinki, Finland & CERN, Geneva, Switzerland Marilena Bianchi-Streit CERN, Geneva, Switzerland Ari-Pekka Hameri Helsinki Institute of Physics, Helsinki, Finland & HEC, Lausanne, Switzerland GENEVA



- 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 offthe-shelf products
- 250 companies contacted.

- New products
 - >50% had developed new products



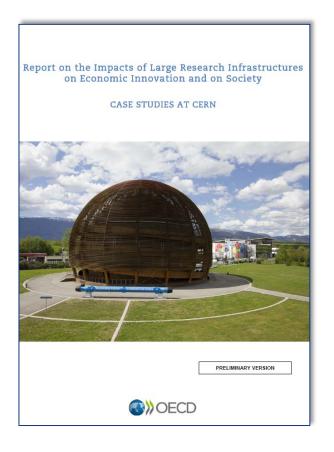
- >65% had either developed new or modified existing products
- Of these, 50% have introduced or planned to introduce new products on the market

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

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

Other reports and studies....





Företagsekonomiska institutionen Department of Business Studies

Science in Business Interaction

A Study of the Collaboration between CERN and Swedish Companies

Susanne Åberg



Successful suppliers

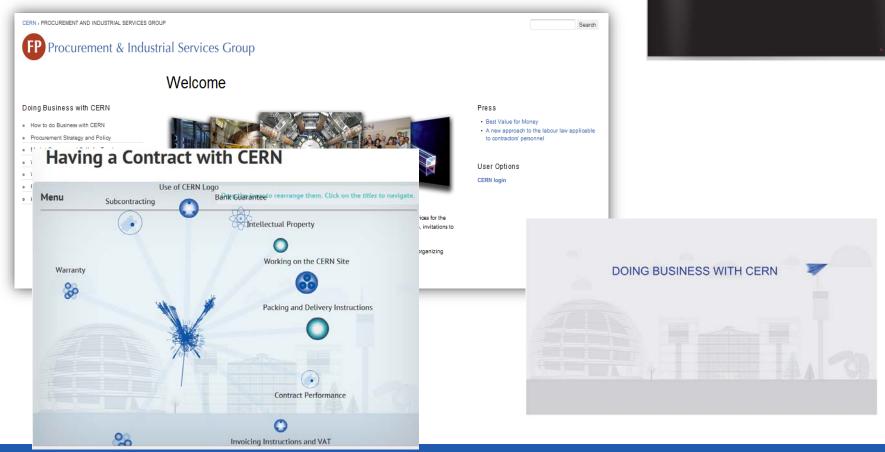
- Often small medium sized and flexible firms
- Ensure full understanding of specifications exceeded specifications may be too expensive
- Communicate with CERN (problems, issues, alternatives, etc.)
- Take into account test requirements and documentation
- Verification of performance by sub-contractors

Contacts with CERN

Doing business with CERN

Procurement web page

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









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