

#### Doing Business with CERN Central Macedonia@CERN

Anders Unnervik 10 January 2019

# Legal Framework

- International Organization established on 1 July 1953.
- **Immunity** of jurisdiction and execution.

As such, 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.





# Legal Framework

- When created : 12 Member States, "Science for Peace"
- Today :
  - 22 Member States
  - 8 Associated Member States
  - ~ 2500 staff members
  - ~ 2000 contractors' employees
  - ~ 13000 physicists/users
  - Yearly budget ~ 1100 MCHF





# Yearly Budget (contributions 2018)

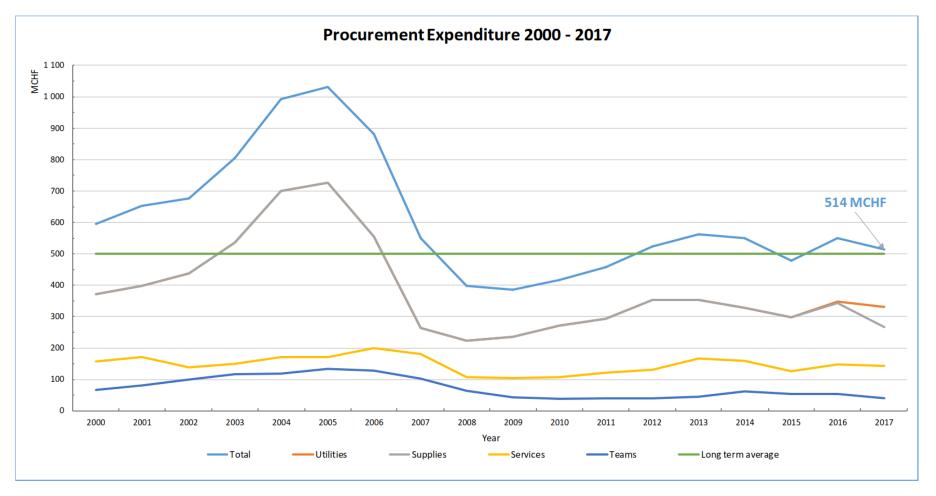
Country	Percentage of Total	Amount (CHF)	Count	try	Percentage of Total	Amount (CHF)
Germany	20.10%	230 756 250	Greec	e	1.09%	12 567 300
United Kingdom	15.49%	177 879 750	👳 Portug	gal	1.08%	12 367 300
France	13.81%	158 547 200	India*	ł	1.07%	12 272 050
Italy	10.20%	117 105 900	Roma	nia	1.00%	11 482 650
🌞 Spain	6.89%	79 073 450	Czech	Republic	0.91%	10 475 650
Netherlands	4.51%	51 751 300	Hunga	ary	0.60%	6 868 150
+ Switzerland	3.94%	45 193 300	C* Turke	у*	0.49%	5 619 000
Poland	2.76%	31 654 200	🖲 Sloval	kia	0.48%	5 482 000
Norway	2.65%	30 434 150	Bulga	ria	0.29%	3 286 800
Belgium	2.65%	30 392 150	Serbia	a**	0.17%	1 920 100
Sweden	2.63%	30 199 200	C Pakist	tan*	0.13%	1 502 400
Austria	2.10%	24 091 850	😴 Cypru	S**	0.09%	1 000 000
Denmark	1.76%	20 239 450	Lithua	ania*	0.09%	1 000 000
🌣 Israel	1.58%	18 129 350	Slove	nia**	0.09%	1 000 000
- Finland	1.30%	14 946 350	Ukrair	ne*	0.09%	1 000 000
				Total	100%	1 148 237 250

\* Associate Member State \*\* Associate Member State in the pre-stage to membership



### **Procurement Expenditure**

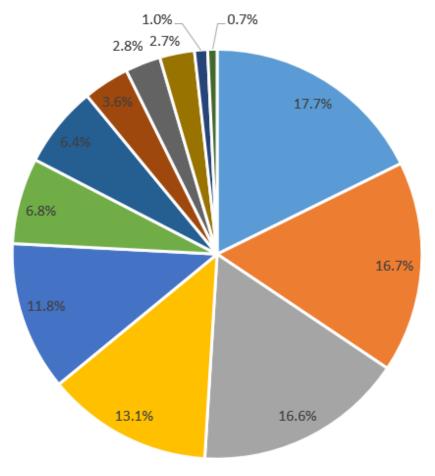




CERN

## **Supplies**

(253MCHF spent in 2017 – CERN budget only)



- Information technology
- Civil engineering, building and technical services
- Electrical engineering and magnets
- Mechanical Engineering and raw materials
- Electronics and radio frequency
- Vacuum and low temperature
- Office supply, furniture, communication and training
- Transport, handling and vehicles
- Gases, chemicals and radiation equipment
- Health, safety and environment
- Optics and photonics
- Particle and photon detectors



European Organization for Nuclear Research Organisation européenne pour la recherche nucléaire Procurement statistics

### What do we buy?

- <u>Civil engineering</u>:
  - Construction, renovation of buildings
  - Metallic structures
  - Earthworks, roads, etc.
- Infrastructure & services:
  - Cooling & Ventilation
  - Cables, electrical installations
  - Mechanical engineering
  - Transport & handling
  - Security & access control
  - Gas,
  - Etc.
- Installation, operation & maintenance
- Data acquisition, IT systems
- <u>Miscellaneous:</u> Furniture, tooling, stationery, etc.









# Technology for accelerators

- Industrial controls & field buses;
- Timing & "fast" real-time controls;
- Power converters;
- Magnets;
- Beams : instrumentation, collimation, injection, ejection & dump;
- Other specific equipment : cryogenics, vacuum, radiofrequency.



New projects:

- High Luminosity LHC (HL-LHC)
- LHC Injectors Upgrade (LIU)
- +
- Linear Collider studies (CLIC)
- Future Circular Collider studies (FCC)









# How do we buy?

• Off-the shelf or non-standard products which can be produced with existing manufacturing techniques and/or technologies:

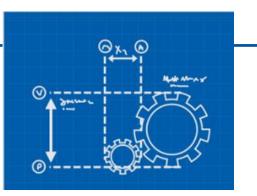
Functional specification

 Non-standard products where industry has neither the required know-how nor the interest to develop and design the products:

> Build-to-Print specification

\*

Prototypes and or Pre-series might be required.





# **The Procurement Service**

	<ul><li>The Procurement Service (PS) procures all supplies and services for CERN,</li><li>Meeting the specified and contractual</li></ul>
Mission*	<ul> <li>technical, delivery and performance requirements,</li> <li>At the lowest possible overall cost,</li> <li>While achieving balanced industrial return for CERN Member States and</li> <li>Respecting CERN Procurement Rules.</li> </ul>

\*The above applies for cases where only CERN contributes to the financing. Applicable rules may vary for cases where external funding (financing through external collaborations) is involved.



#### Principles of the Procurement Rules (1/4)

- Transparency and impartiality;
- Invitations to tenders open to Member States only;
- **Objectivity and equal treatment:** tendering procedures are objective and impartial

ORGANISATION EUROPÉENNE POUR LA RECHERCHE NUCLÉAIRE CERN EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH

> General Conditions of CERN Contracts

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#### Principles of the Procurement Rules (2/4)

- Selective tendering procedures: CERN's tendering procedures are not open to all firms;
- Confidentiality: Opening and evaluation of bids as well as negotiations are not public.

ORGANISATION EUROPÉENNE POUR LA RECHERCHE NUCLÉAIRE CERN EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH

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#### Principles of the Procurement Rules (3/4)

Award for supplies (and services, exceptionally) based on: <u>Lowest compliant bid</u>



#### /!\ Alignment rule applicable if >100kCHF



#### Principles of the Procurement Rules (4/4) Award for industrial services based on: Best Value For Money



#### /!\ No alignment rule



## Thresholds and procedures

Enquiries below 10'000 CHF:

Bids can be requested by the Technical Officer provided CERN Procurement Rules are followed;

- Enquiries between 10'000 CHF and 200'000 CHF:
   Price enquiries ("DO") issued by the Procurement Service;
- Enquiries exceeding 200'000 CHF:

Market Surveys ("MS") and Invitations to Tender ("IT") issued by the Procurement Service.



# 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 "<u>Business</u> <u>Opportunities</u>"
  - 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.





### Enquiries exceeding 200'000 CHF (2/2)

#### "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);
- Invitations to Tender consist of:
  - Technical specification and annexes;
  - Tender form (and a technical annex optional);
  - General Conditions of CERN (contracts, Invitations to Tender, Safety, etc.);
  - ...
- Firms may ask 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 of origin

Supplies	<ul> <li>"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."</li> <li>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.</li> </ul>				
Services	<ul> <li><i>"Country(ies) in which the bidder is established."</i></li> <li>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.</li> </ul>				
	Well Poorly balanced balanced				
	Country 				



# Alignment rule

Applicable for:

- Contracts awarded on the lowest compliant basis (mainly supply contracts);
- 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 its price to that of the lowest bidder and thereby be awarded the contract.

Well

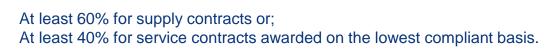
balanced

country

Poorly

balanced

country





# Industrial return coefficient



Industrial return coefficient	<ul> <li>For Supply contracts and for a 12-month period starting on 1<sup>st</sup> March, defined as:</li> <li><i>"The ratio</i> 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".</li> <li>Return Coef. = % expenditure in the MS % contribution to CERN budget for this MS</li> </ul>
Status definition	Over a three-years period:• Very poorly balanced :< 0.40• Poorly balanced (PB) : $0.40 \ge x < 1$ • Well balanced (WB): $\ge 1$



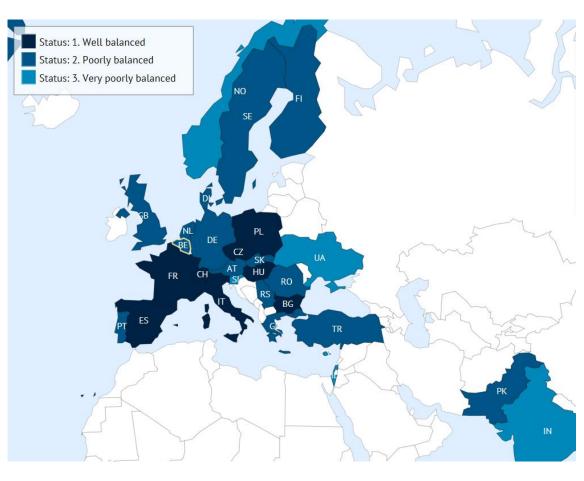
#### Poorly balanced Member States (Supplies)

(1st March 2018 – 28 February 2019, based on the previous 4 calendar years):

http://procurement.web.cern.ch/en/industrial-returns-for-cern-member-states

Well	Poorly	Very Poorly
Balanced	Balanced	Balanced
Bulgaria Czech Republic France Hungary Italy Poland Spain Switzerland	Austria Belgium Denmark Finland Germany Greece Netherlands Pakistan* Portugal Romania Serbia* Slovakia Sweden Turkey* United Kingdom	Cyprus* India* Israel Lithuania* Norway Slovenia* Ukraine*

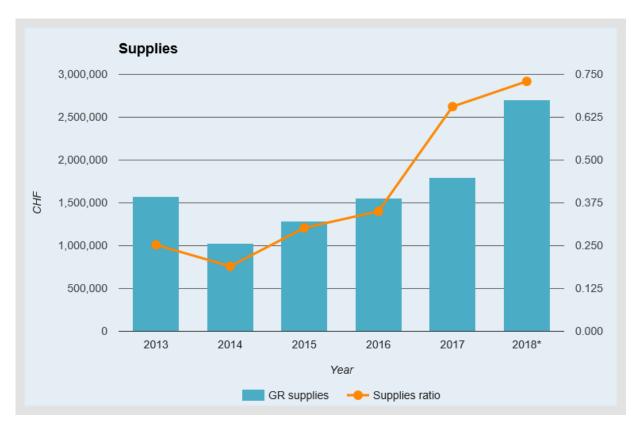
\*Associate Member State







#### Industrial Return (supplies) Greece



\*preliminary



#### Procurement statistics

### Some Greek suppliers, 2018

			1.50
			5.00
			150
			200
			1.50
			1.00
÷.,	· · ·	1.1	6.50

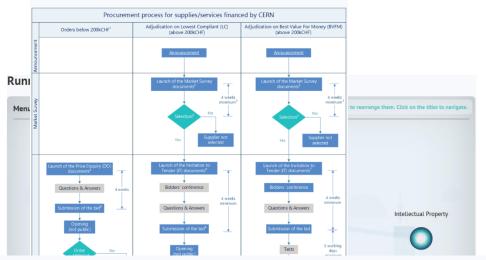
Supplier name	City
RENTRON ELECTRONICS	P. FALIRO
ELEKTROMECH	Athens
DROMEAS SA	ATHENS
ALEXMOLDS	PERAMA
Bros N Axakalis and Co	Neo Ikonio Perama
KAMPAKAS	ATHENS
Prisma Electronics SA	ALEXANDROUPOLIS
INTEGRATED SYSTEMS DEVELOPPMENT	MAROUSSI
HOTEL NIKOPOLIS THESSALONIKI	THESSALONIKI
ARISTOTLE UNIVERSITY OF THESSALONIKI	THESSALONIKI
KORFIATIS ENGINEERING	PERAEUS
TELECOMMUNICATION SYSTEMS RESEARCH INSTITUTE	CHANIA, CRETE
TEMMA SA	Athens
UNIVERSITY OF PATRAS	PATRAS
THE NATIONAL TECHNICAL UNIVERSITY OF ATHENS	ATHENS
EVRYDIKI P. KOSTARAKI	ATHENS, ATTIKI
MORFI MOLDS LTD HIGH PRECISION PARTS & MOLD MANUFACTURING	KALIVIA - ATTICA
GENPRO ELECTRICS ELECTRONICS / M. GKOUZELOU	ATHENS
SAFEDOOR	ATHENS
NIKI BAI NB EVENTS	THESSALONIKI

\*preliminary

#### Website of the Procurement Service http://procurement.web.cern.ch/



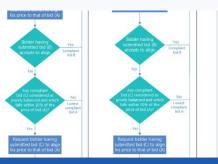
#### **Procurement Process**



#### Law applicable to contractors' personnel

As from January 2014, firms entering a new contract with CERN for the provision of services on both the French and Swiss parts of the CERN site, will have to comply with new rules concerning the law applying to the working conditions of their personnel. Information about these new rules concerning applicable law can be found in the documents listed below

- Accord tripartite
- Amendement à la convention franco-suisse de 1965
- · Working on the CERN site
- FAQ 🛛 🖼





European Organization for Nuclear Research Organisation européenne pour la recherche nucléaire Doing business with CERN



#### **CERN Shopping List**

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.

In the line entitled Cost Range, a very rough indication of the cost range of the product is given in the form of letters A, B, C, D. A represents items estimated at less than 750 kCHF, B represents items between 750 kCHF and 5 MCHF, C represents items between 5 MCHF and 10 MCHF and D represents items above 10 MCHF.

Firms may reply to the Market Survey published in the table below up to two weeks before the corresponding Invitation to Tender is sent out. Therefore, in case the deadline for replies indicated in the Market Survey cover letter is over, please send your reply to the Market Survey at the earliest possible date.

The countries of origin of supplies and services shall be CERN Member States, except if provided otherwise in the table below.

References marked with "New" have been posted during the last 8 weeks.

Search Menu	Links Menu		
Type of Contract:	All 🗸	Market Survey dispatched:	All ~
Reference:		Call for Tenders scheduled for dispatch	All V All V
Activity Code:		Description and/or Specific Condition:	
Requirement:		Commercial contact:	All
Cost Range:	All $\checkmark$	Publication Date:	From To dd-mm-yyyy
Orant Dreat			

Search Reset

Publication Date	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
03-10-2018	Supply	1000 MS- 1000 MS- 10000 MS- 1000 MS- 10	Civil-engineering works for the design and construction of new Building 937 situated on CERN&s Prevessin site in France. (01020101, 01020102)	CERN intends to place a contract for the design and construction Interested firms shall have a proven experience and competence in design	в	Fourth quarter 2018	To express an interest please send an e-mail to procurement.service@cern.ch Technically: <u>S. Cahuet</u> Commercially: <u>A. Horridge</u>	First quarter 2019
26-09-2018	Supply	New <u>MS-</u> 4486/TE/HL-LHC	Supply of 600 bellow expansion joints of 10 different types for HL- LHC ( <u>06010100</u> )	CERN intends to place a contract for the supply of Interested firms shall have a proven experience and competence in the	A	Fourth quarter 2018	To express an interest please send an e-mail to <u>procurement.service@cern.ch</u> Technically: <u>Y. Leclercq</u> Commercially: <u>J. Pierlot</u>	First quarter 2019
17-09-2018	Supply	New <u>MS-4470/IT</u>	Framework Market Survey concerning the supply of Desktop PC, Mini-PC and Laptop (portable) PC office computers ( <u>04010500</u> , <u>04010700</u> )	CERN intends to place several contracts for the supply of PCs,  Interested firms shall have a proven experience and competence in Intel	в	Third quarter 2018	To express an interest please send an e-mail to <u>procurement.service@cern.ch</u> Technically: <u>G. Metral</u> Commercially: <u>H. Gerster</u>	Fourth quarter 2018
10-09-2018	Supply	New <u>MS-4469/EN</u>	Supply of system interconnections and industrial wiring. (02070300, 03030100, 03030200, 13030500)	CERN intends to place a three years blanket contract for the Interested firms or group of firms shall have proven competence, experience	A	Third quarter 2018	To express an interest please send an e-mail to <u>procurement.service@cern.ch</u> Technically: <u>G. Canale</u> Commercially: <u>N. Azizi</u>	Third quarter 2018





#### **HL-LHC Shopping list**

#### http://project-hl-lhc-industry.web.cern.ch/content/main-procurement-needs-hl-lhc



	Main Domains of Activitiy - HL-LHC Project	Work Packages
	Cryogenics systems	WP9
	Magnets components and assemblies	WP3, WP11
	Electrical equipments, electronics & instrumentation for accelerators	WP4, WP5, WP6A, WP6B, WP7, WP13
	Ultra High vacuum components and systems	WP12
	Collimators and new material resistants to high temperatures	WP5, WP8, WP14
	Cryostats and subcomponents for cryogenic equipment	WP3, WP4, WP6A, WP9, WP11
	High precission assembling and manufacturing technologies	WP4, WP5, WP8, WP12, WP14
	Others	WP6A, WP10, WP15, WP16
	Raw materials	WP3, WP4, WP5, WP8, WP11, WP12, WP14
	Civil engineering and technical infrastructures	WP17

High Luminosity LHC project





#### **Register in the Suppliers Portal**



**Doing business** 

with CERN





<u>Mandatory</u> 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.

#### 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.



#### **CERN e-Procurement**

Doing business with CERN

Register

Home

Help

e-Mail Address : As one of our suppliers, we need to make sure you receive our email notifications. To ensure our emails reach your inbox please a Password : Welcome to CERN's Supplier Portal Through this portal you can Login Register your firm into CERN's supplier database by entering firm's details Forgotten Details · Update your firm's profile by modifying existing information or adding new one How do I get started? Register If you are already registered in CERN's supplier database, you can gain full access to CERN's supplier portal by entering your e-mail address and password and selecting Login. If you wish to be registered in CERN's supplier database, you should select the Register option and fill in the necessary information. NOTE: Please be aware that failure Once you have been successfully registered in CERN's supplier database, you will receive a confirmation e-mail. to provide correct login information Then, you can gain full access to CERN's supplier portal by entering email address and password and selecting Login. three times will result in your account being locked For more information select the Help option.



To ensure our emails reach your inbox please add our email **procurement@cern.ch** to your safe senders and check your spam filter settings.



## 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.



#### **Dr. Nikolaos MANTHOS**

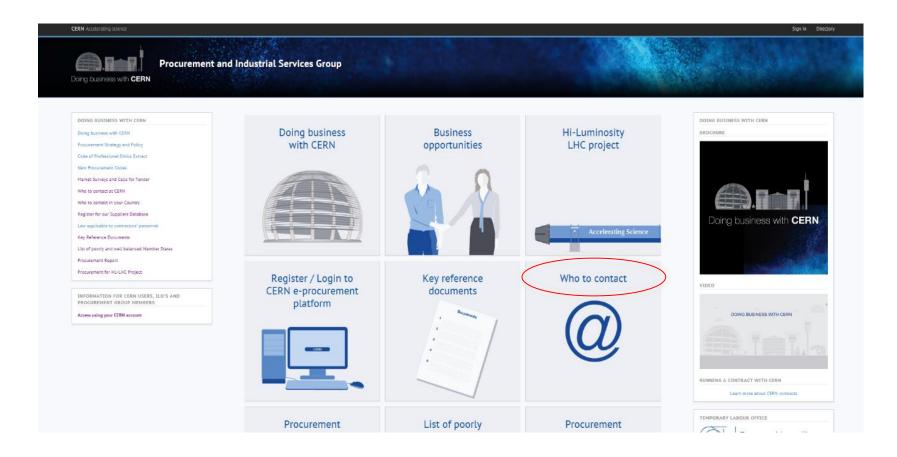
Assoc. Prof. University of Ioannina University Campus - Physics Dept GR- 45110 Ioannina TEL: +30 26510 08524 EMAIL: nmanthos@uoi.gr

Who to contact





#### **Contacts at CERN** (Procurement and Technical)





# Key success factors

	<ul> <li>Often small – medium sized and flexible firms;</li> </ul>
	<ul> <li>Ensure full understanding of specifications – exceeded specifications may be too expensive;</li> </ul>
Profile of successful	<ul> <li>Communicate efficiently with CERN and ask questions when in doubt (issues, alternatives, etc.);</li> </ul>
firms	Take into account test requirements and documentation;
	• Follow-up closely on the performance of sub-contractors;
	<ul> <li>Ensure best efforts are made from the outset through to contract completion.</li> </ul>



### Doing business with CERN: the facts

#### Supplier survey (+600 firms, 1997-2001):

•	38% o	devel	oped	new	products;
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- 42% increased visibility at international level;
- 44% improved technical knowledge in their field;
- 52% would not have had the same sales level without CERN;
- 17% found or opened a new market to address;
- 60% found new clients.

#### All suppliers considered having CERN as a reference to be beneficial





Results

### Doing business with CERN: the facts

Study on cost and benefits of HL-LHC (+650 suppliers, 2018):

Results

"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.)."

> Doing business with CERN





#### THANK YOU



www.cern.ch