



CERN A VZDELÁVANIE



CERN Education Activities

Scientists at CERN Academic Training Programme



Young Researchers

CERN School of High Energy Physics
CERN School of Computing
CERN Accelerator School



Physics Students Summer Students Programme



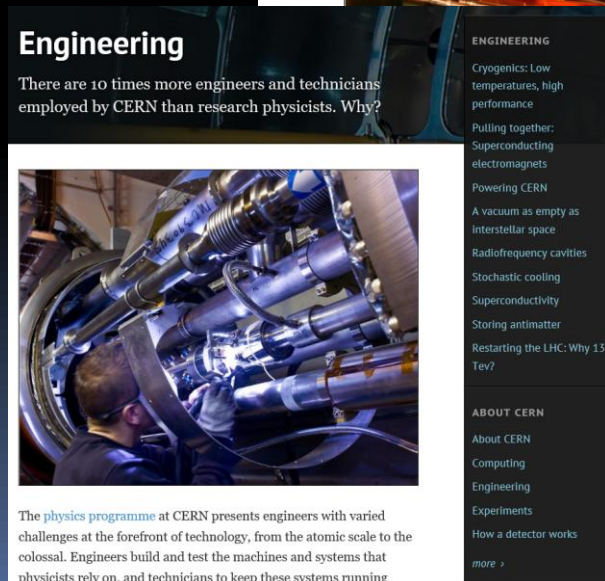
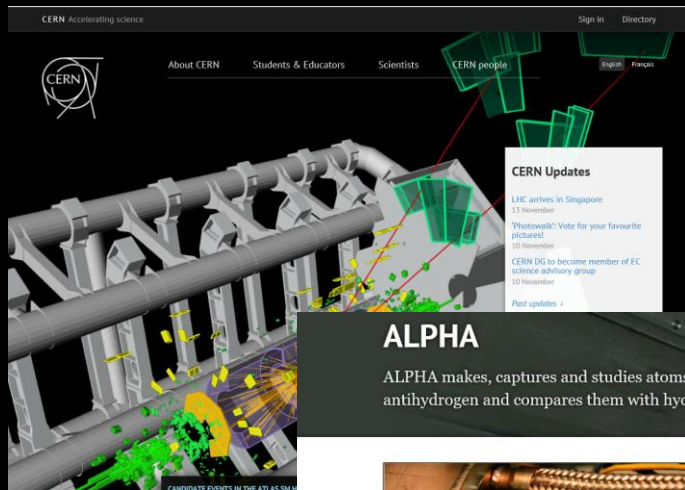
CERN Teacher Schools International and National Programmes



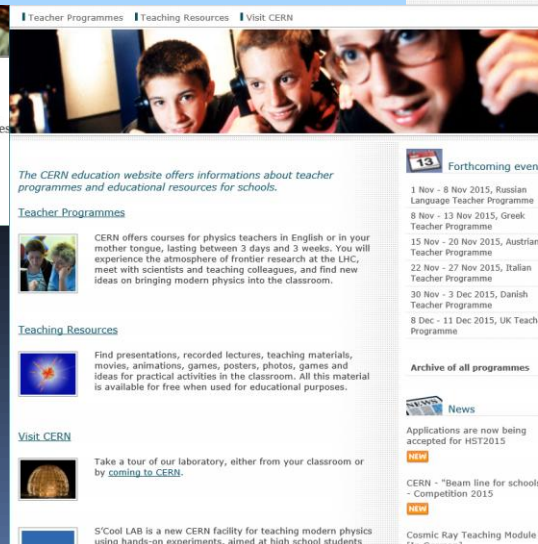
Návšteva CERNu

- CERN je možné navštíviť virtuálne, alebo reálne
 - Vzdelávacie materiály na webe
 - Súkromné návštevy v expozícii Microcosmos
 - Návštevy so sprievodcom
 - Návštevy organizované školami
 - Program pre študentov
 - Program pre učiteľov

Kde začať – www.cern.ch

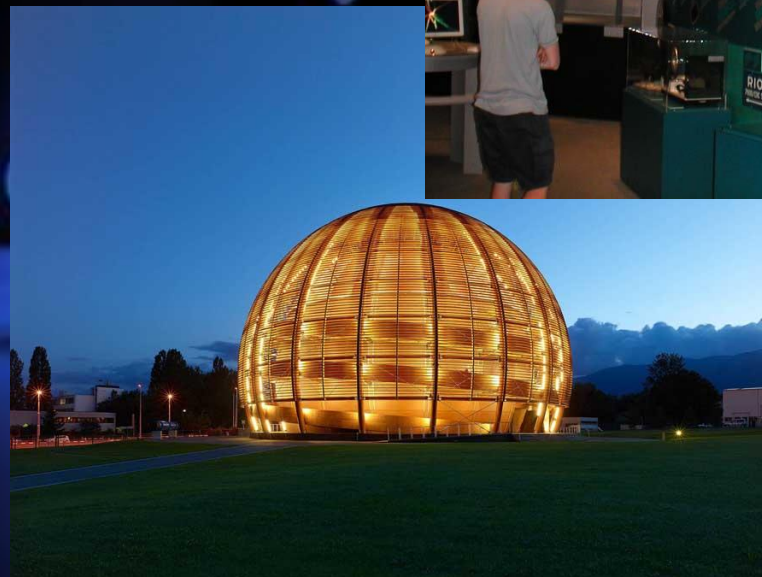
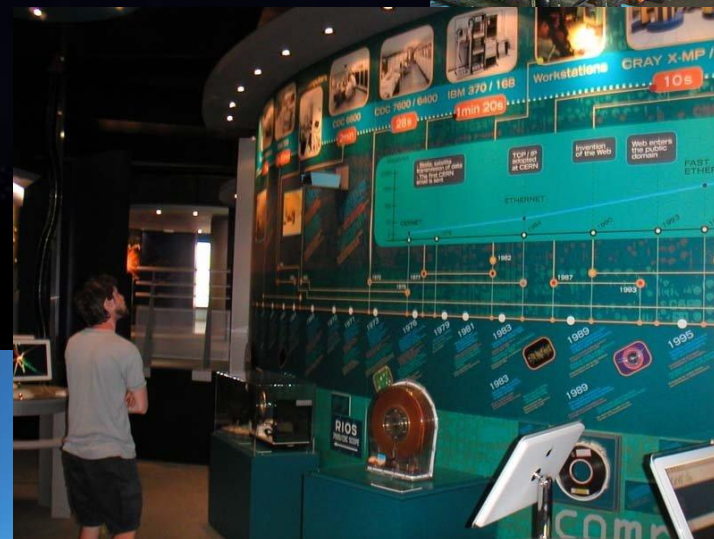


Vzdelávacie stránky



Privátne návštevy

CERN je možné navštíviť privátne počas týždňa
Výstava MICROCOSM priblíži aktivity CERNu



Návštevy so sprievodcom

- CERN organizuje návštevy so sprievodcom pre súkrobné osoby a školy
 - Prednáška
 - Návšteva 2 pracovísk v CERNe



S'cool lab

S'cool lab

- Možnosť rozšíriť program návštevy o prácu v laboratóriu
- Množstvo experimentov (supravodivosť, detekcia častíc, meranie náboja elektrónu...)
- Študenti pracujú v 2-4 členných skupinkách
- Potrebná je teoretická príprava pred príchodom do CERNu
- Študijné materiály a informácie na scool.web.cern.ch
- Pozor: termíny sú notoricky obsadené, treba sa registrovať dopredu (ale max 36 ľudí)





- Spolupráca s Univerzitami
- Výchova študentov v rámci rôznych programov
 - CERN poskytne tému, podmienky na prácu a školiťa
 - Program pre vysokoškolských aj postgraduálnych študentov
- Letný program pre študentov
 - Obvykle 2–3 študenti zo Slovenska /rok
 - Pre študentov od 3 ročníka (bachelor degree) univerzitného štúdia

Summer Student Programme

Participate in the day to day life of a research team and follow lectures.
~300 positions/year



*"Can't imagine a better way
to spend my summer"*

*Over 6000 young scientists
have benefitted to date...*

Fields

physics (incl. particle physics) =2/3 of students
engineering, computing

Length

8 to 13 weeks, during the summer

Eligibility

3 years of full-time studies at university level

Features

high-quality lecture programme
visits and workshops
living allowance
accommodation at the CERN hostel

Application & Selection

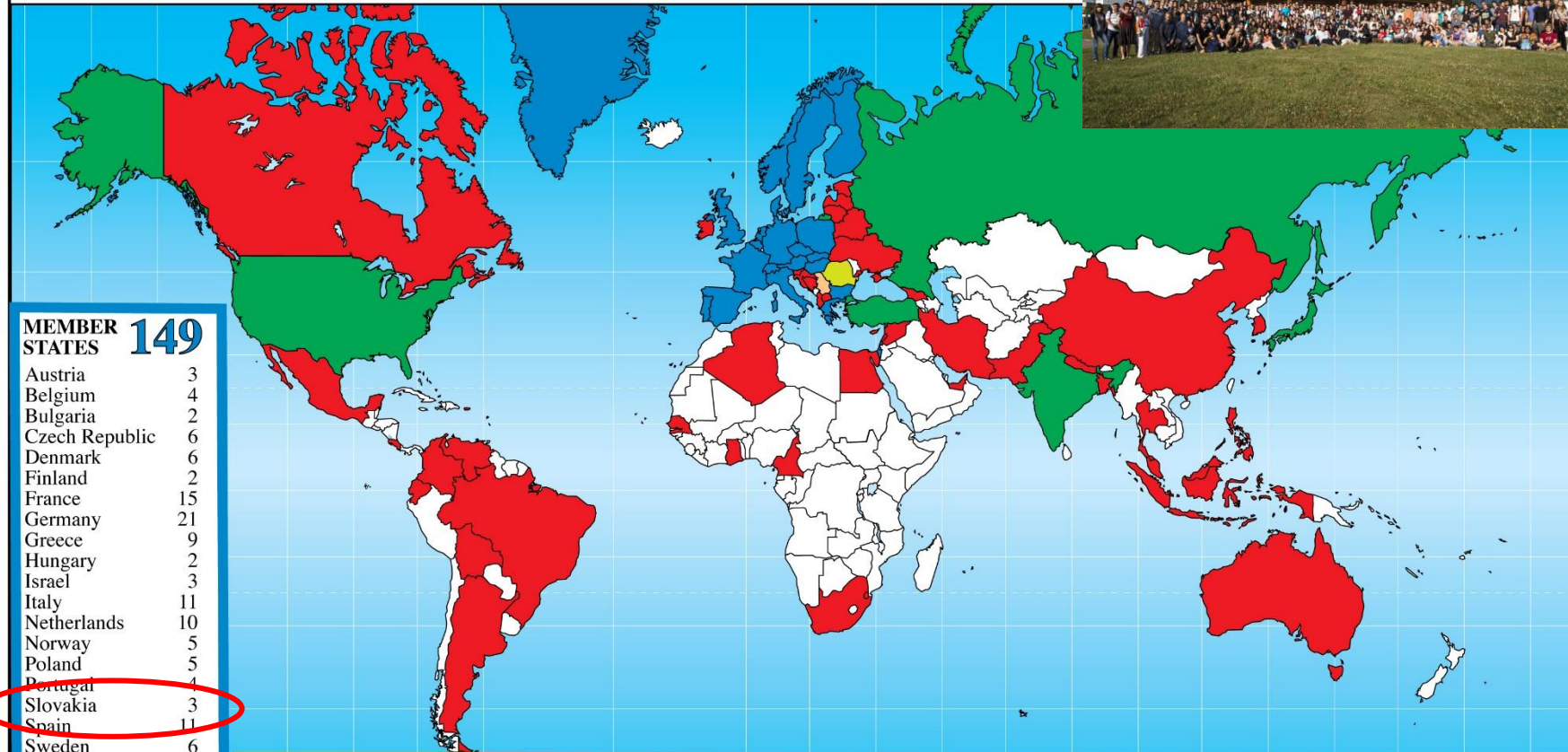
Deadline January. Web selection by the
supervisors, Offers in March



Summer Students 2014



Summer Students 2014



MEMBER STATES 149

Austria	3
Belgium	4
Bulgaria	2
Czech Republic	6
Denmark	6
Finland	2
France	15
Germany	21
Greece	9
Hungary	2
Israel	3
Italy	11
Netherlands	10
Norway	5
Poland	5
Portugal	4
Slovakia	3
Spain	11
Sweden	6
Switzerland	4
United Kingdom	17

OBSERVERS 45

India	10
Japan	5
Russia	10
Turkey	7
USA	13

CANDIDATE FOR ACCESSION

Romania	2
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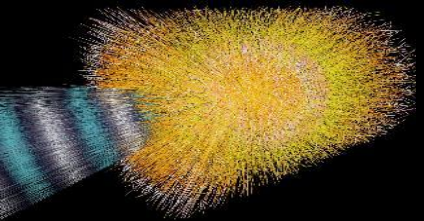
ASSOCIATE MEMBER IN THE PRE-STAGE TO MEMBERSHIP

Serbia	2
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OTHERS

Albania	1	Cameroun	1	Estonia	5	Lithuania	4	Senegal	1	U.A.E.	2
Algeria	3	Canada	3	Georgia	1	Malaysia	4	Singapore	1	Venezuela	1
Argentina	1	China	8	Ghana	1	Malta	3	Slovenia	1		
Australia	1	Colombia	1	Indonesia	2	Mexico	1	South Africa	2		
Bangladesh	1	Costa Rica	1	Iran	3	Nepal	1	Swaziland	1		
Belarus	1	Croatia	2	Ireland	1	Pakistan	3	Syria	1		
Bolivia	1	Cyprus	2	Korea, South	1	Palestine	1	Thailand	4		
Bosnia	1	Ecuador	3	Latvia	1	Philippines	1	T.F.Y.R.O.M.	2		
Brazil	1	Egypt	5	Lebanon	2	Puerto Rico	1	Ukraine	4		

93

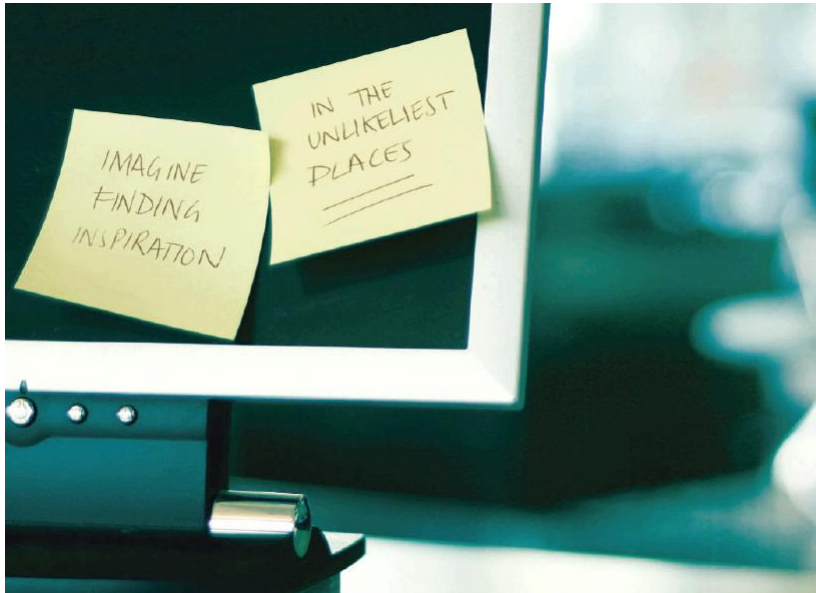


- Program pre diplomantov
 - ▣ 4-12+14 mesiacov
 - ▣ Aplikovaná a experimentálna fyzika, computing, inžinierske smery
- Program pre administratívnych študentov
 - ▣ 2-12+14 mesiacov
 - ▣ Pre študentov bakalárskych a magistérskych programov
- Doktorandské štúdium 6-36 mesiacov
- Tréning pre rôzne profesie
- Vzdelávacie programy pre učiteľov
 - ▣ Využívané aj slovenskými učiteľmi

Technical Student Programme

For students looking for a practical training assignment or who would like to write their bachelor or masters thesis at CERN

~200 positions / year



“It’s a great place to start a career, it’s a great place to learn new skills, make new friends...”

Fields

Computing (50% of the students)
Engineering
physics (excl. theory and particle physics)

Length

4 to 14 months for technical students

Eligibility

18 months of technical undergraduate studies

Features

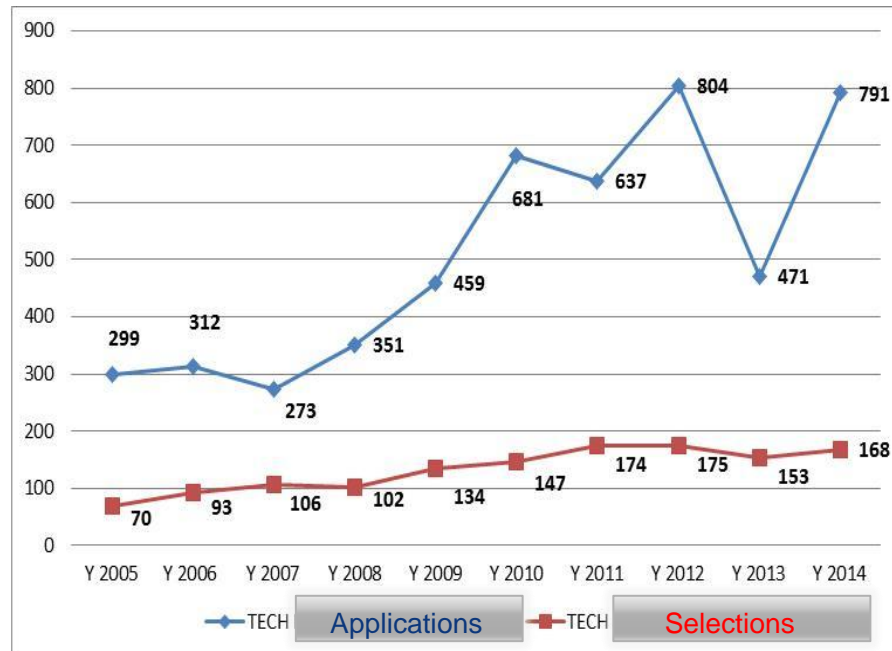
technical project with a CERN supervisor
a living allowance

Application & Selection

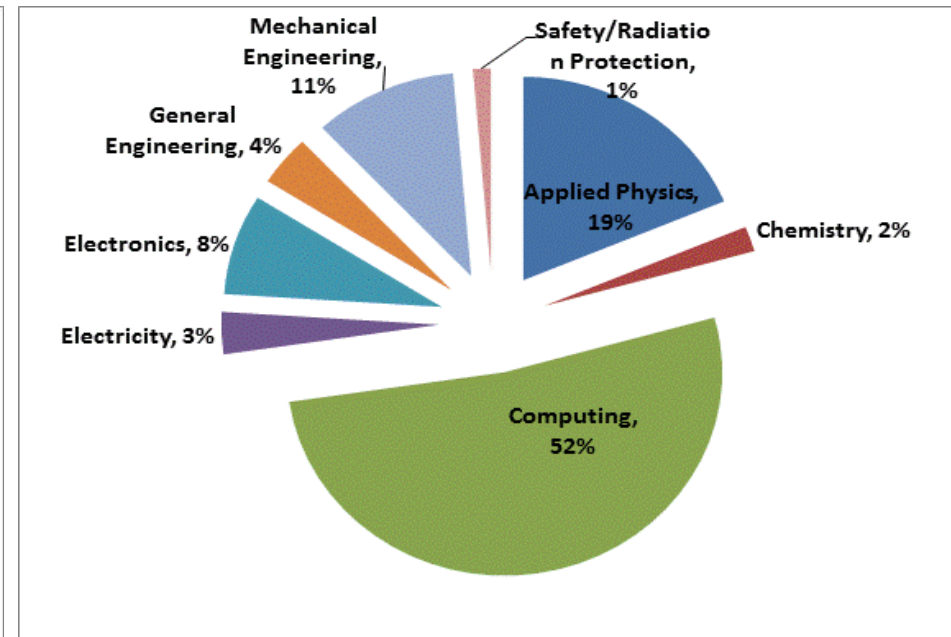
2 Committees : June and December

Technical Student Programme

Applications vs. Selections



Students by Discipline

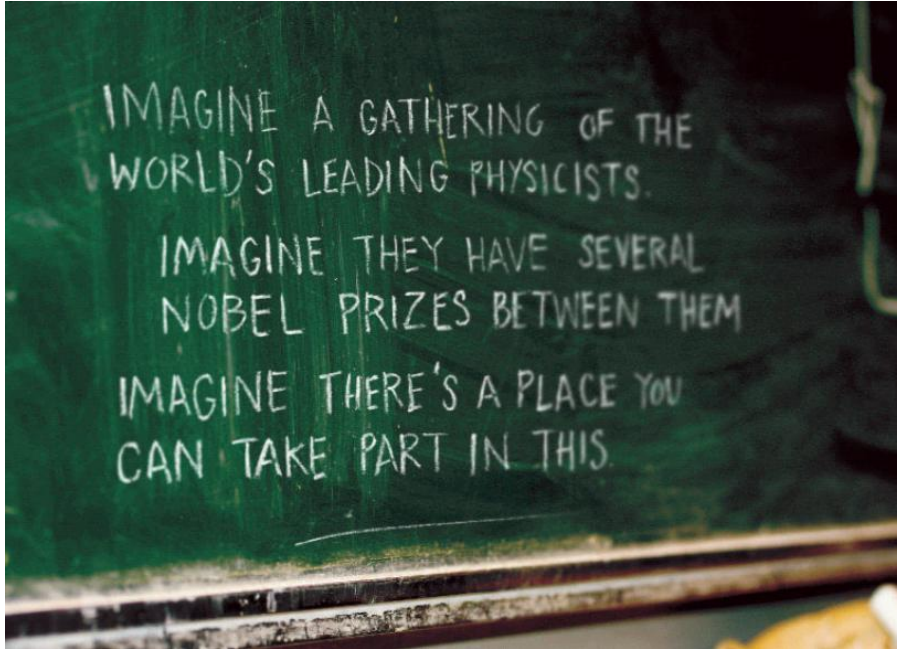


HRT October 2014

Doctoral Student Programme

For students who would like to spend 3 years at CERN to work on their thesis

~60 positions/year



“Gave me the opportunity to meet important people, especially in the research fields”

Fields

physics (excl. theory and particle physics), engineering, computing

Length

3 years

Eligibility

enrolled on a doctoral programme in a Member State university

Features

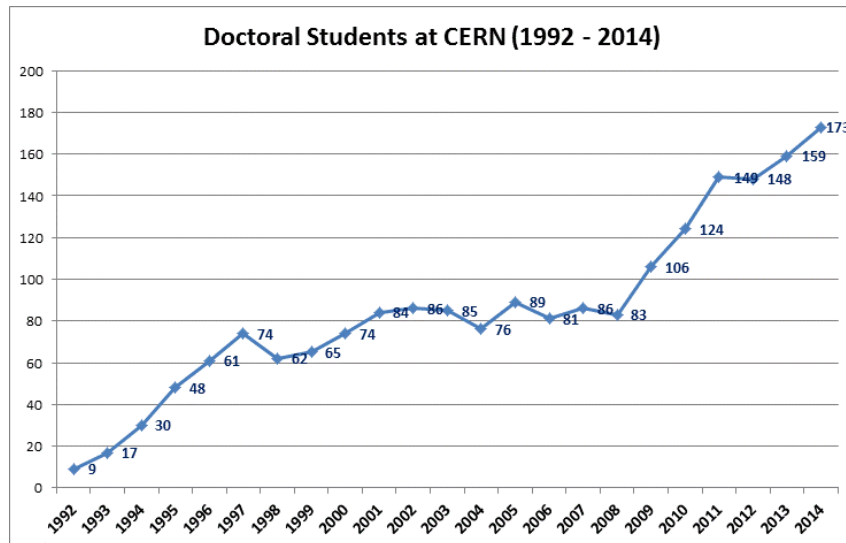
a PhD thesis project with a CERN supervisor & university supervisor
a living allowance

Application & Selection

2 Committees : June and December

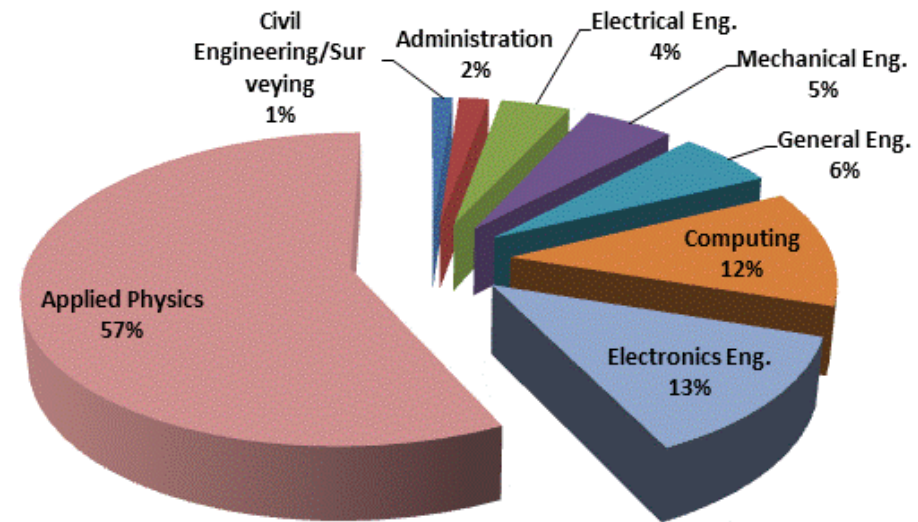
Doctoral Student Programme

Students at CERN



HRT extraction on 01/01

Students by Discipline

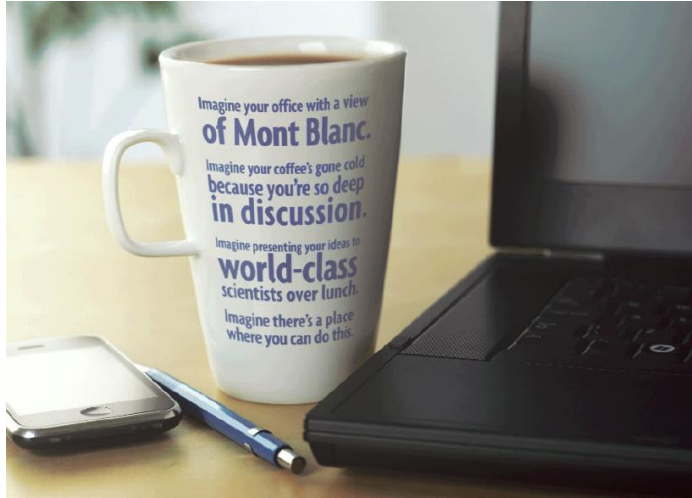


HRT October 2014

Fellowship Programme

For recent graduates who would like to spend 2-3 years in a world renowned center of scientific excellence at the forefront of technology

~220 positions/year



"An ideal place to follow the most recent ideas in physics and start new collaborations"

Fields

Physics (incl. Theory and Particle Physics), engineering, computing

Length

Usually 2 years (max 3)

Eligibility

BSc, MSc or PhD (max 10yrs experience)

Features

Employment Contract

Career Development Programme

Project with a CERN supervisor

Application & Selection

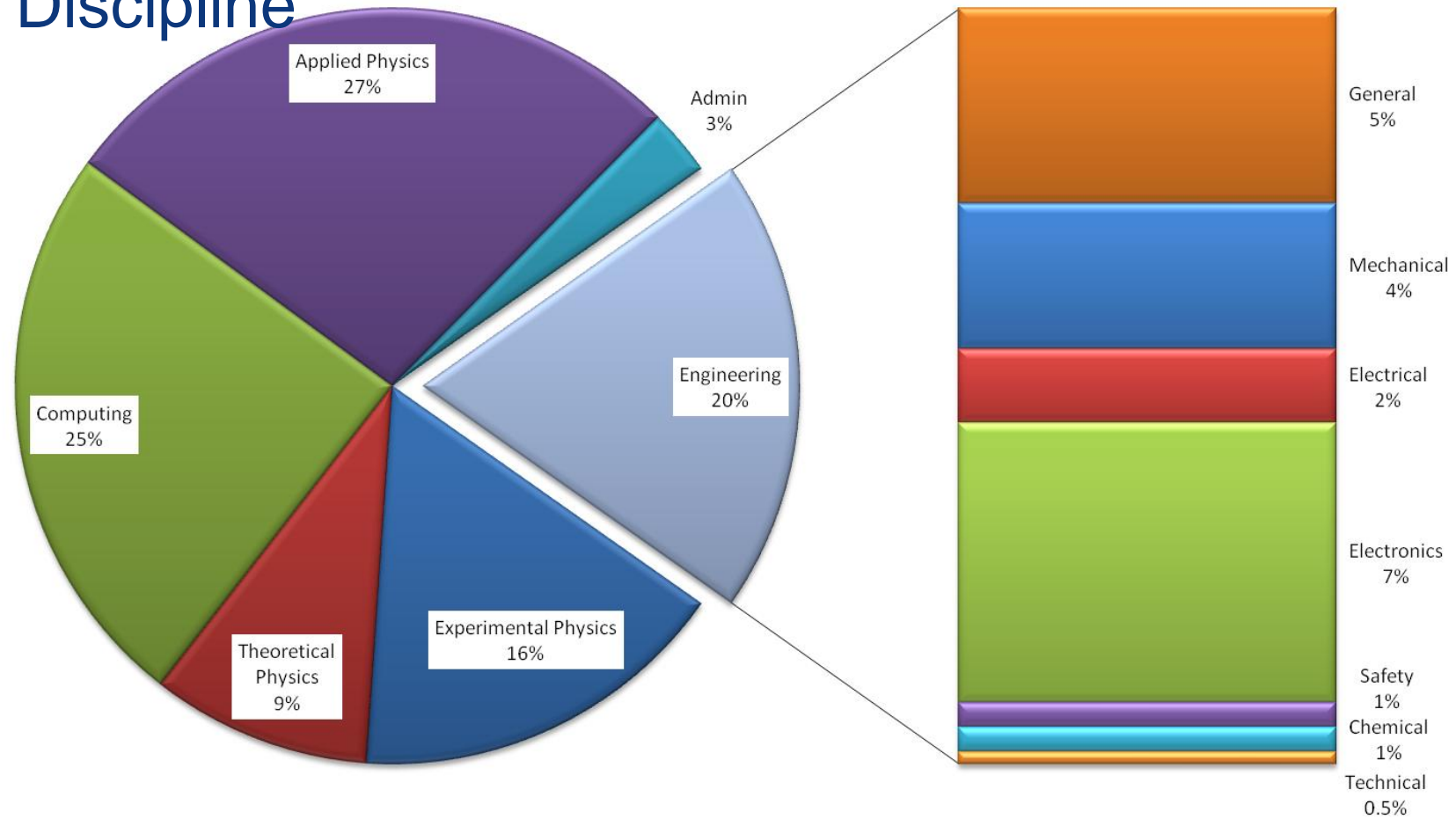
2 Committees : May & November



To mention: Marie Curie Fellowships: funded by the European Commission under the Framework programmes. Goal: training of scientists.

Fellowship Programme

By Discipline



STAFF Employment

Opportunities for Engineers, Technicians, Administrative personnel
~100 positions/year



JOBS at CERN

EMPLOYED MEMBERS OF PERSONNEL RECRUITED FROM OUR 21 MEMBER STATES

Eligibility : > *from apprenticeship to PhD*

Selection : > *vacancies published on the WEB*

Features : - *Maximum 5 year contract*

- *competitive salaries incl. social benefits*
- *training possibilities (language courses, technical training)*
- *help with integration: housing service, social service*

STAFF Employment

Examples of professions at CERN

Information Officer

Administrative Assistant

Electronics
Engineer

Technical Engineer
(Electronics)

Computing Engineer

Lawyer

Vacuum Technician

Firefighter

Machine Operator

Radioprotection
Engineer

Translator

Physicist



Overview

STAFF
~ 2500

Recruited from our Member States, paid by CERN with limited duration or indefinite contracts.

Fellows
~ 650

recent graduates in physics and engineering, normally staying two years.

Students
~ 600

Come for a practical training assignment, write their Diploma or PhD thesis at CERN.

Associates
~ 220

Scientific and Corresponding Associates: senior scientists coming on leave of absence.
Project Associates: Physicists, engineers and technicians sent by their home institutes for periods of up to 3 years.

USERS
~ 11.000

Sent by their universities to „use“ the CERN facilities
> 80 Nationalities und > 600 Univ. and Institutes.

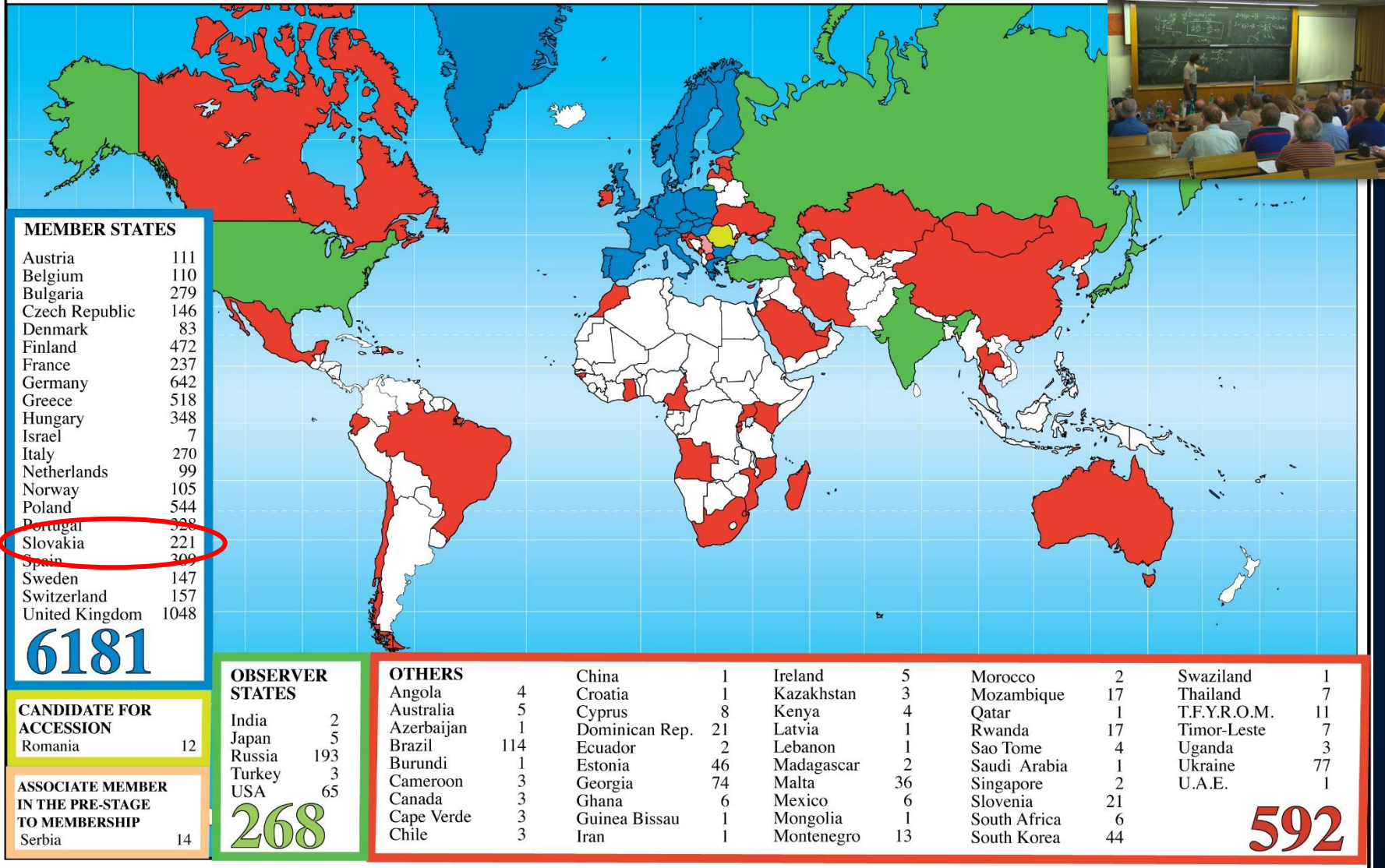


Who works at CERN ?



CERN Teacher Programme

Teacher Programme Participants 1998 - 2013 (Total: 7067)



Elektronické vzdelávanie a live kurzy



- Veľké množstvo prednášok je voľne dostupných na WWW CERNu
- Masters classes – prenášané live aj pomocou technológie ViEVO vyvinutej aj na Slovensku

