THE UNITED NATIONS COMMISSION ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT

18th SESSION

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Geneva

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6 May 2015

Contribution by

CERN

CERN's involvement in and views on the post-2015 Development Agenda

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CERN

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United Nation's Commission on Science and Technology for Development
Eighteen session, Geneva 4-8 May 2015

Maurizio Bona
Advisor to the Director General, in charge of relations with international Organizations

CERN and the post-2015 Development Agenda

Outline

- CERN and its contribution to the post-2015 process
- Contribution to Data Revolution
- The two priority themes: strategic foresight and digital development
- Some elements of reflection

CERN: founded in 1954: 12 European States
"Science for Peace"
Today: 21 Member States

- ~ 2300 staff
- ~ 1300 other paid personnel
- ~ 11500 scientific users

Budget (2015) ~1000 MCHF

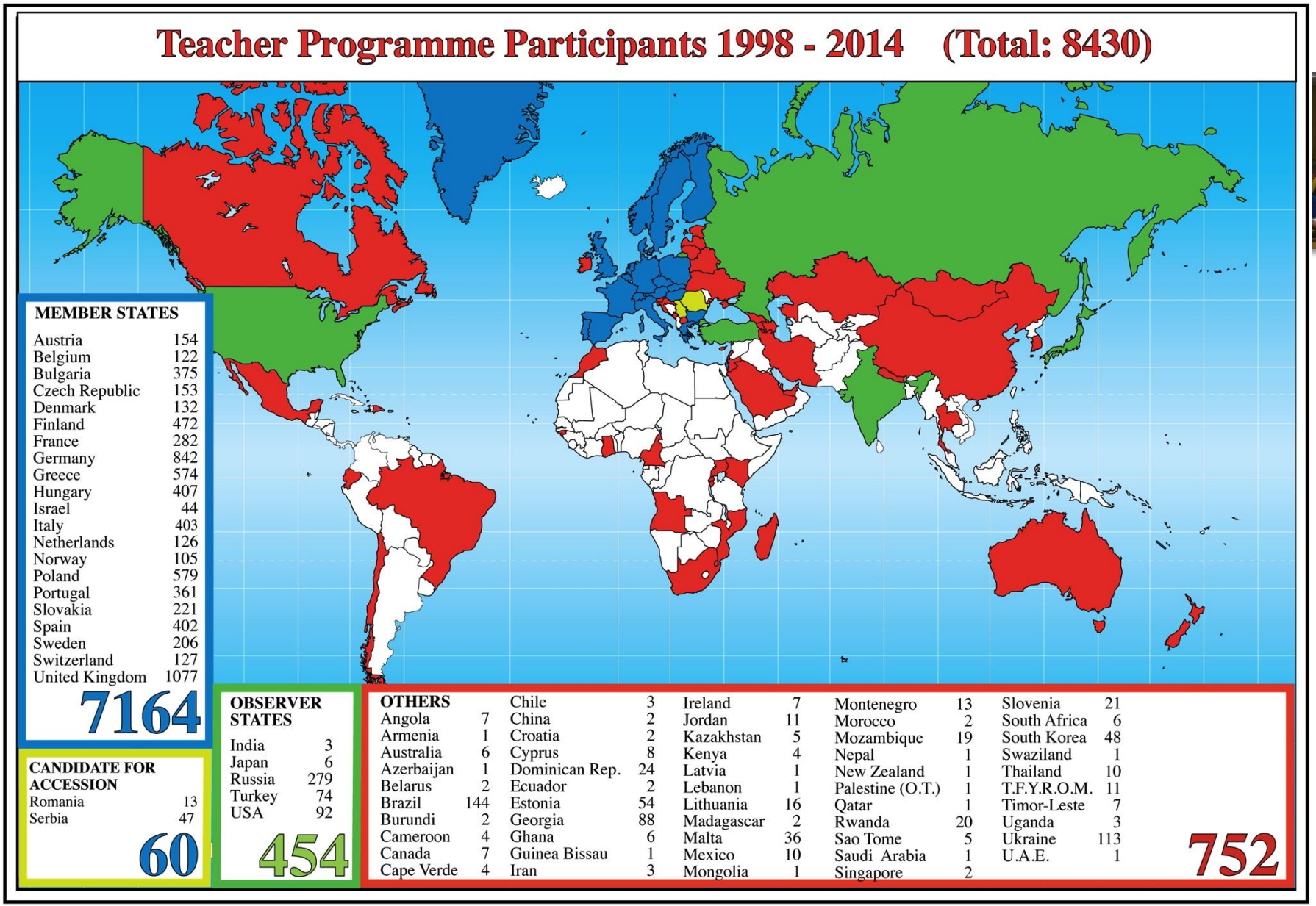
Member States: Austria, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Israel, Italy, Netherlands, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland and United Kingdom

States in accession to Membership: Romania, Serbia

Applications for Membership or Associate Membership: Brazil, Croatia, Cyprus, Pakistan, Russia, Slovenia, Turkey, Ukraine

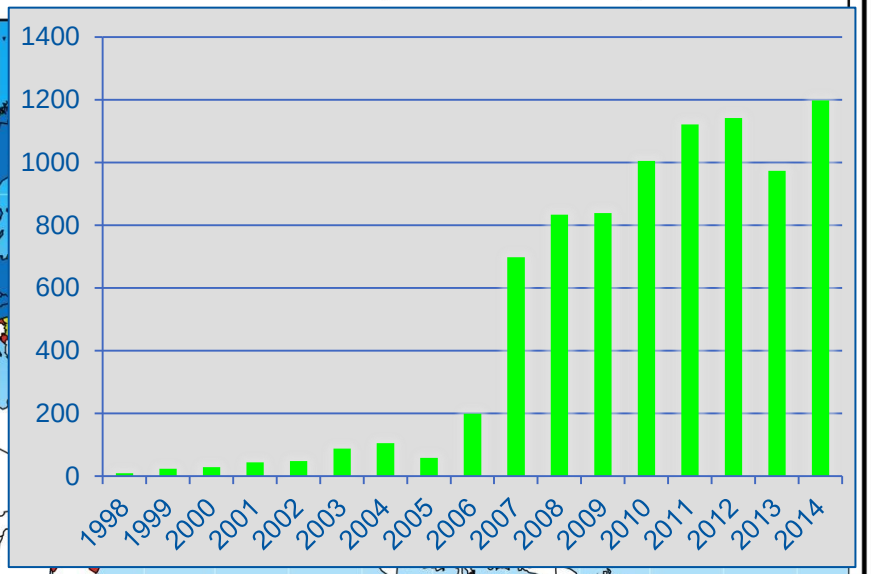
Observers to Council: India, Japan, Russia, Turkey, United States of America; European Union, JINR and UNESCO

CERN Teacher Programme



CERN Teacher Programme

Teacher Programme Participants 1998 - 2014 (Total: 8430)



MEMBER STATES

Austria	154
Belgium	122
Bulgaria	375
Czech Republic	153
Denmark	132
Finland	472
France	282
Germany	842
Greece	574
Hungary	407
Israel	44
Italy	403
Netherlands	126
Norway	105
Poland	579
Portugal	361
Slovakia	221
Spain	402
Sweden	206
Switzerland	127
United Kingdom	1077

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CANDIDATE FOR ACCESSION

Romania	13
Serbia	47

60

OBSERVER STATES

India	3
Japan	6
Russia	279
Turkey	74
USA	92

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OTHERS

Angola	7	Chile	3	Ireland	7	Montenegro	13	Slovenia	21
Armenia	1	China	2	Jordan	11	Morocco	2	South Africa	6
Australia	6	Croatia	2	Kazakhstan	5	Mozambique	19	South Korea	48
Azerbaijan	1	Cyprus	8	Kenya	4	Nepal	1	Swaziland	1
Belarus	2	Dominican Rep.	24	Latvia	1	New Zealand	1	Thailand	10
Brazil	144	Ecuador	2	Lebanon	1	Palestine (O.T.)	1	T.F.Y.R.O.M.	11
Burundi	2	Estonia	54	Lithuania	16	Qatar	1	Timor-Leste	7
Cameroon	4	Georgia	88	Madagascar	2	Rwanda	20	Uganda	3
Canada	7	Ghana	6	Malta	36	Sao Tome	5	Ukraine	113
Cape Verde	4	Guinea Bissau	1	Mexico	10	Saudi Arabia	1	U.A.E.	1
		Iran	3	Mongolia	1	Singapore	2		

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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
Serbia	2

4

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	2	Iran	3	Nepal	1	Swaziland	1		
Belarus	1	Croatia	1	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		

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CERN and its contribution to the post-2015 process

- Observer status in Dec 2012; present in SAB to the SG
- Participated to several UN meetings, including ECOSOC
- Main contributions: OWG in Dec 2013; HLPF in July 2014
- Input 1: need to finance scientific research and STEM education
- Input 2: need to finance basic research as well

CERN's Contribution to Data Revolution

- CERN has developed knowledge and expertise in the areas of big data, open access (incl. data), ICT capacity & cost-effectiveness
- We are developing models of public-private clouds
- CERN believes it can help UN's Data Revolution initiatives in terms of knowledge & technology, possibly leading to time and money saving
- We offered to support the UN's action, both on strategy and implementation, by making our expertise (and part of our infrastructure) available
- Presentation at the HLCM of the CEB meeting on 20 March 2015, Paris

The two priority themes: strategic foresight and digital development

- Report of the SG on: strategic foresight for the post-2015 Dev. Agenda
- Report of the SG on: Digital Development

Overal impression: these are two excellent reports, very complete

but

is there something else to address?

“Information is not knowledge”

(A. Einstein)

Some elements of reflection

- Science and technology are essential for the progress of the society

- In the present debate on post-2015 science as well as STEM education are not addressed as they should deserve

- Often technology transfer is not associate to knowledge transfer

- “Disruptive improvements” provide the most significant jumps to society

- Real “disruptive improvements” can hardly be planned

Some elements of reflection

Some elements of reflection

Elements that can help achieving planned improvements in scientific and technological areas, while increasing chances to obtain “disruptive improvements” are:

Education (in particular STEM education)

Education

Education

Some elements of reflection

“Education is the most powerful weapon which you can use to change the world ”

(N. Mandela)


LHCb
ATLAS
CERN Meyrin
CERN Prévessin
SPS 7 km
SUISSE
FRANCE
CMS
ALICE
LHC 27 km
Thank You!
CERN
Accelerating Science and Innovation