



CERN: 65 Years of Accelerating Science

Science and Diplomacy: two distant worlds?

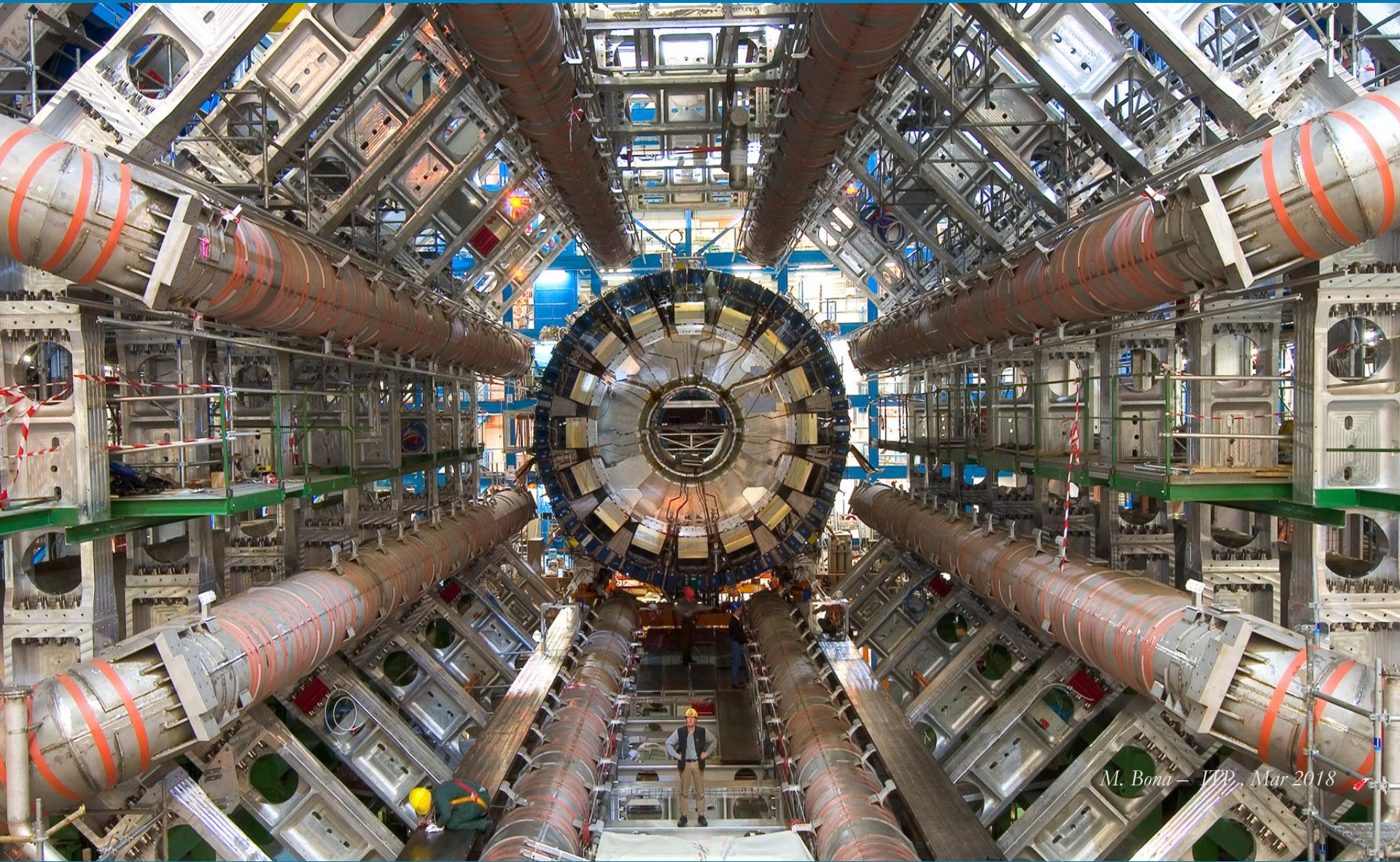


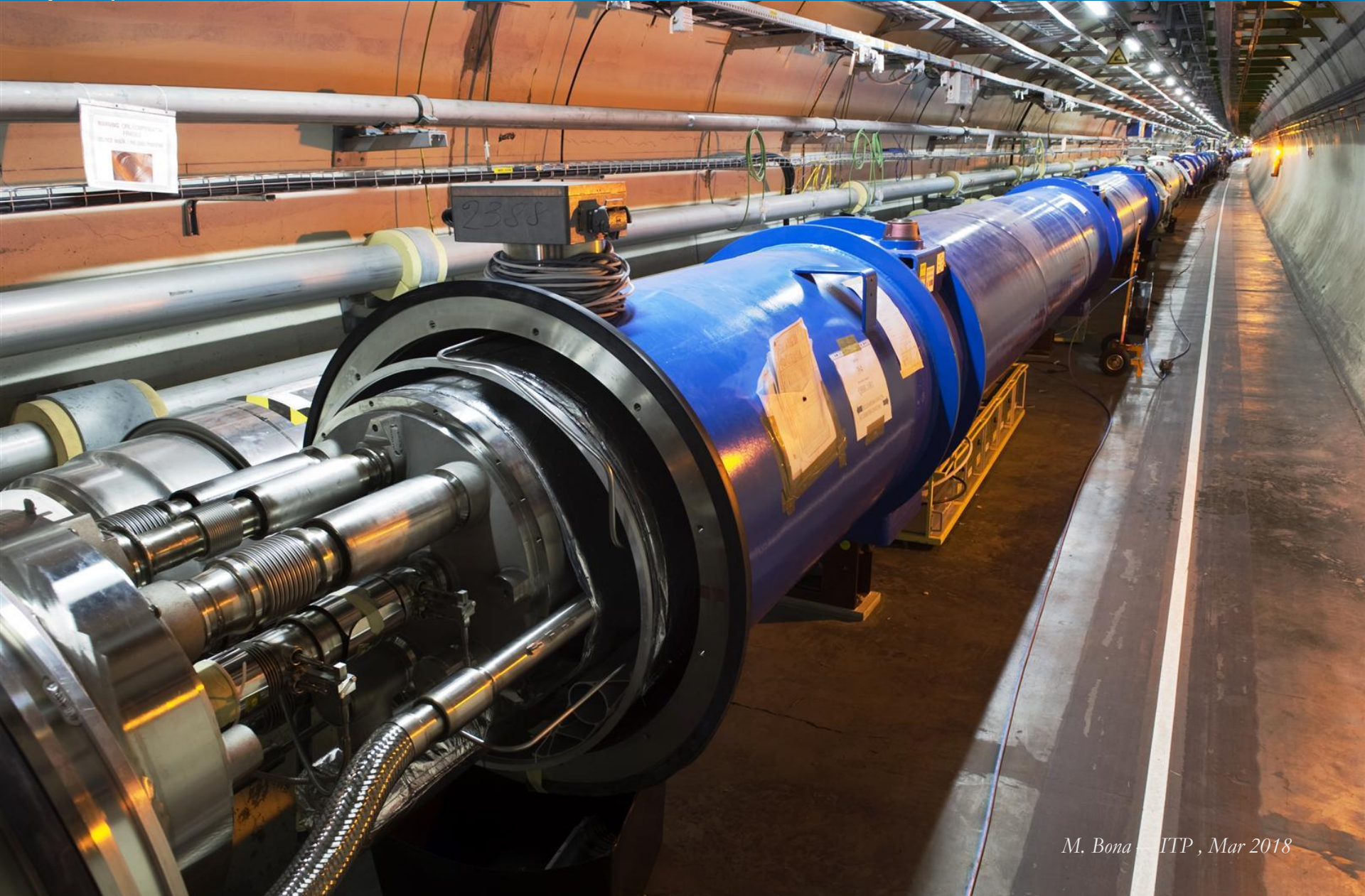
Italian Teacher Programme

CERN, 3 March 2018

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CERN: founded in 1954 by 12 European States

“Science for Peace”

Today: 22 Member States

- ~ 2500 staff
- ~ 1800 other paid personnel
- ~ **13000 scientific users**
- ~ 1000 teachers trained per year
- . hundreds of students trained/year
- Budget (2017) ~1150 US\$

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

Associate Members in the Pre-Stage to Membership: Cyprus, Serbia, Slovenia

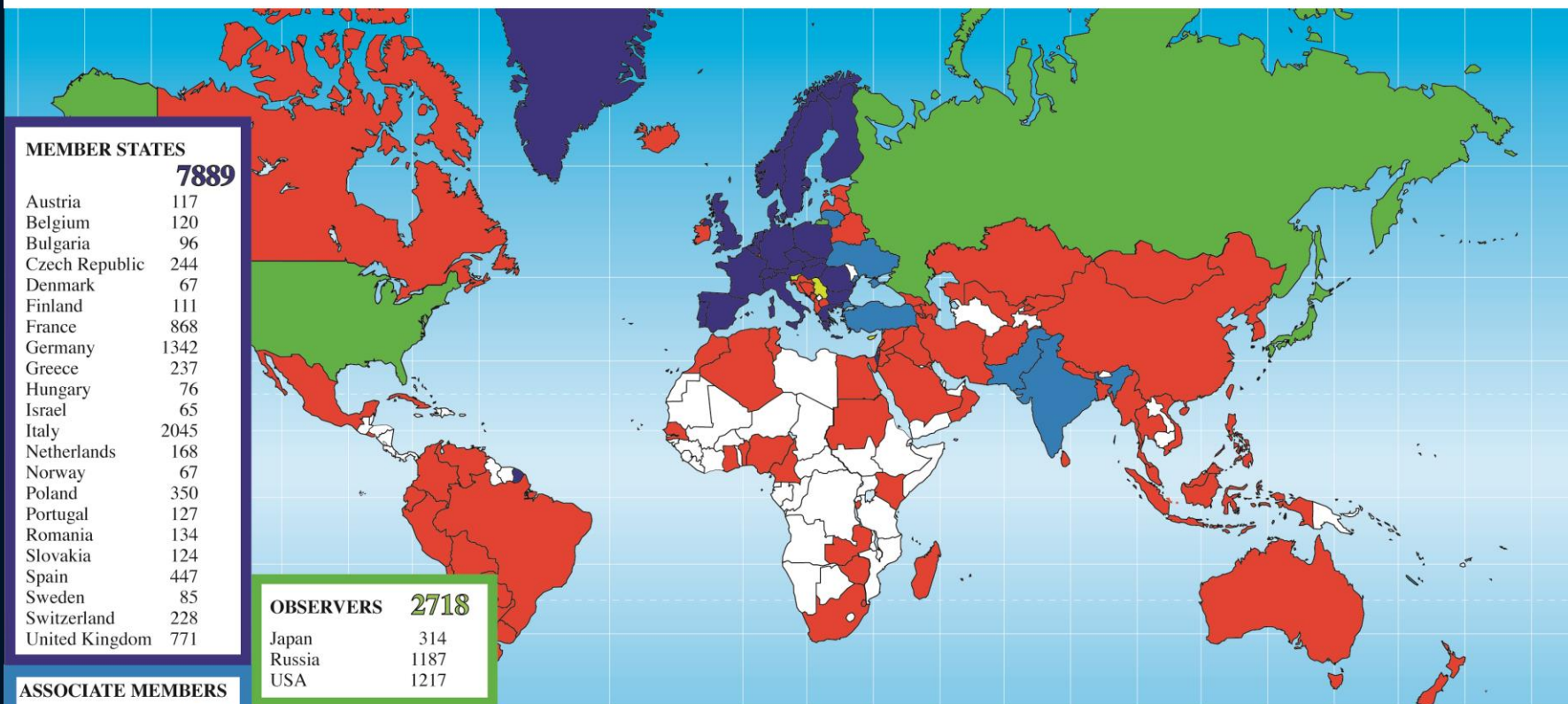
Associate Member States: India, Lithuania, Pakistan, Turkey, Ukraine

Applications for Membership or Associate Membership:
Brazil, Croatia

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



Distribution of All CERN Users by Nationality on 24 January 2018



MEMBER STATES

7889

Austria	117
Belgium	120
Bulgaria	96
Czech Republic	244
Denmark	67
Finland	111
France	868
Germany	1342
Greece	237
Hungary	76
Israel	65
Italy	2045
Netherlands	168
Norway	67
Poland	350
Portugal	127
Romania	134
Slovakia	124
Spain	447
Sweden	85
Switzerland	228
United Kingdom	771

OBSERVERS

2718

Japan	314
Russia	1187
USA	1217

ASSOCIATE MEMBERS

India	357	745
Lithuania	35	
Pakistan	65	
Turkey	173	
Ukraine	115	

ASSOCIATE MEMBERS IN THE PRE-STAGE TO MEMBERSHIP

118

Cyprus	26
Serbia	57
Slovenia	35

OTHERS

1872

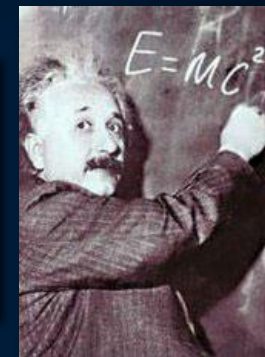
Afghanistan	1	Bolivia	4	Egypt	31	Kazakhstan	5	Mongolia	2	Philippines	3	Thailand	22
Albania	3	Bosnia & Herzegovina	2	El Salvador	1	Kenya	3	Montenegro	11	Saint Kitts and Nevis	1	T.F.Y.R.O.M.	2
Algeria	14	Brazil	135	Estonia	15	Korea Rep.	185	Morocco	20	Saudi Arabia	2	Tunisia	5
Argentina	27	Burundi	1	Georgia	46	Kyrgyzstan	1	Myanmar	1	Singapore	4	Uruguay	1
Armenia	19	Cameroon	1	Ghana	1	Latvia	2	Nepal	10	Senegal	1	Uzbekistan	4
Australia	31	Canada	161	Hong Kong	1	Lebanon	23	New Zealand	5	Singapore	4	Venezuela	10
Azerbaijan	10	Chile	20	Iceland	3	Luxembourg	2	Nigeria	3	South Africa	56	Viet Nam	13
Bangladesh	11	China	510	Indonesia	11	Madagascar	4	North Korea	1	Sri Lanka	6	Zambia	1
Belarus	48	Colombia	45	Iran	51	Malaysia	15	Oman	3	Sudan	1	Zimbabwe	2
Benin	1	Croatia	41	Iraq	1	Malta	9	Palestine (O.T.)	7	Swaziland	1		
		Cuba	12	Ireland	16	Mauritius	1	Paraguay	2	Syria	1		
		Ecuador	6	Jordan	1	Mexico	82	Peru	7	Taiwan	51		



The Mission of CERN

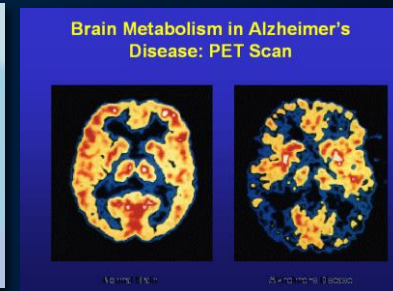
❑ Push back the frontiers of knowledge

E.g. the secrets of the Big Bang ...what was the matter like within the first moments of the Universe's existence?

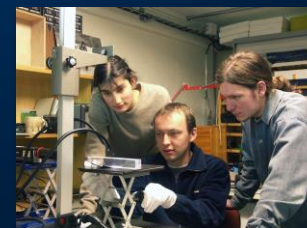


❑ Develop new technologies for accelerators and detectors

Information technology - the Web and the GRID
Medicine - diagnosis and therapy



❑ Train scientists and engineers of tomorrow



❑ Unite people from different countries and cultures





Science for Sustainable Development and Peace





CERN - The very beginning



- **The CERN “parents”**

A group of far-sighted **scientists, politicians, diplomats.**

- **CERN’s initial main objectives**

- . Carry out scientific programmes.

- . Resume the dialogue after World War II among former belligerent European Countries, and beyond.

- **The CERN Convention (signed in 1953)**

“The Organization shall have no concern with work for military requirements and the results of its experimental and theoretical work shall be published or otherwise made generally available”



The first CERN Council session, 1955



Berlin, 1961

(AP Photo/Worth) PA-9275541



Ronald Reagan Presidential Library, C32042-10

Reagan - Gorbachev first meeting, Geneva 1985



The “CERN model” - 1 Governance

- . A simple but strong Convention, excluding military implications.
- . Composition of the delegations to Council.
- . Decisional processes (e.g. Scientific Policy Committee).



The “CERN model” - 2 Operational aspects:

- . Researchers from Member and non-Member States.
- . Valorization of the national research communities.
- . Open access philosophy in all fields. **Co-opetition.**
- . **Stay away from politics.**



SESAME – Synchrotron-light for Experimental Science and Applications in the Middle East



Amman, Jordan



Members (2017)



Observer status at the UN, Dec 2012



CERN, March 2013



“CERN: Sixty years of Science for Peace and Development” - United Nations, New York, Oct. 2014



Teachers Training School Middle East, CERN 2014

M. Bona – ITP, Mar 2018



Signing of the Agreement between CERN and the InterParliamentary Union (IPU), Nov 2016



SESAME at the 2nd IPU Roundtable on Water in the Middle East, July 2017



Science and diplomacy

Three questions to reflect upon:

- . **How can scientists contribute to science diplomacy?**
- . **Can “science models” help in other societal fields ?**
- . **How can science contribute to the intercultural dialogue and to peace ?**

West-Eastern Divan Orchestra

founded by Daniel Barenboim - Edward Said, 1999



“... Let me tell you something: **this is not going to bring peace.** What it can bring is **understanding**, the **patience**, the **courage**, and the **curiosity to listen to the narrative of the other**”

Daniel Barenboim, Ramallah concert, August 2005.



Thank you for your attention !

