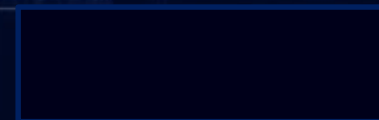


Parallel Worlds: Connecting the Micro and Macro

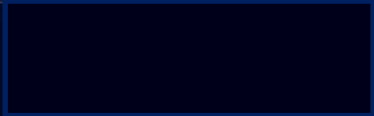
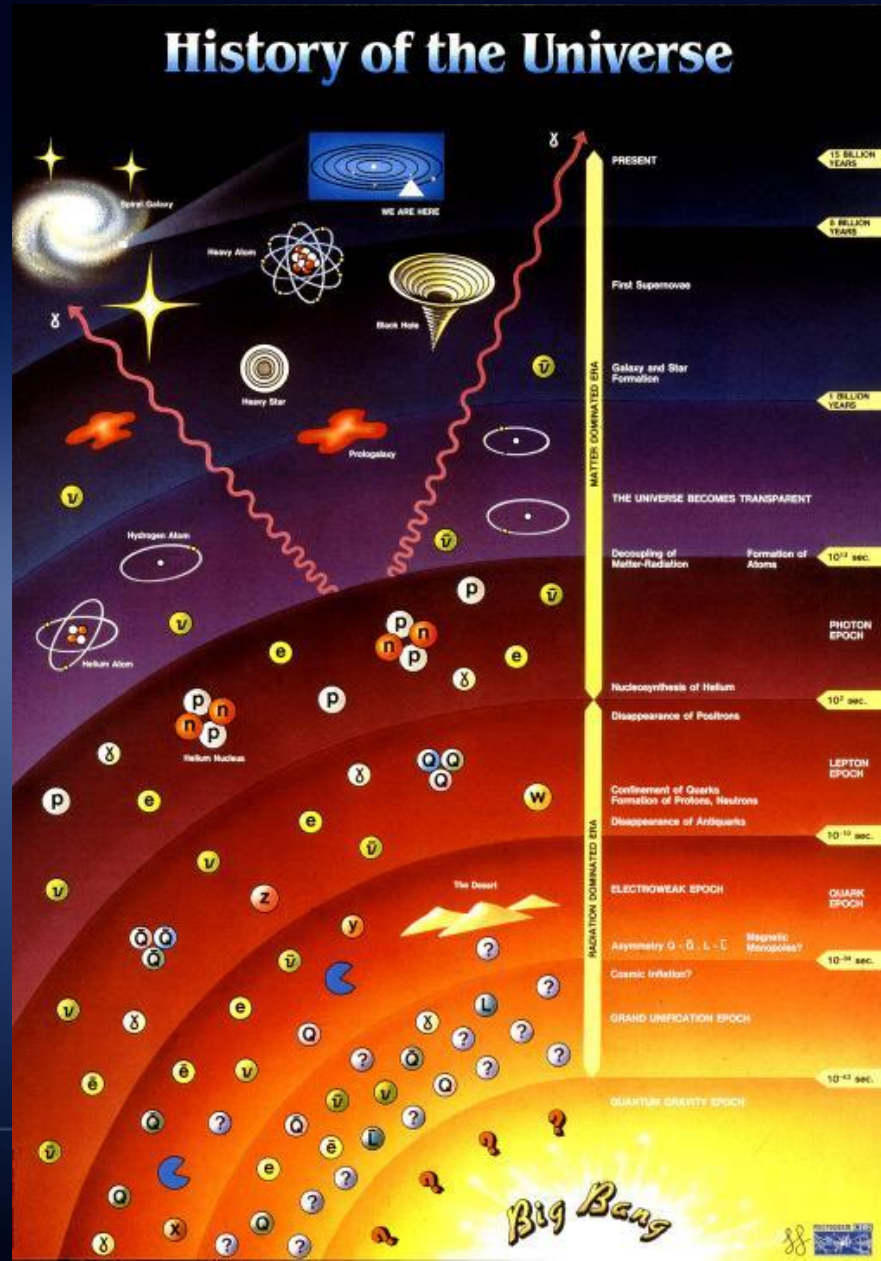
About CERN, Physics, and Innovation

OSU@Transatlantic, May 10, 2016

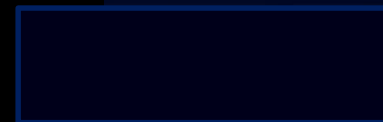
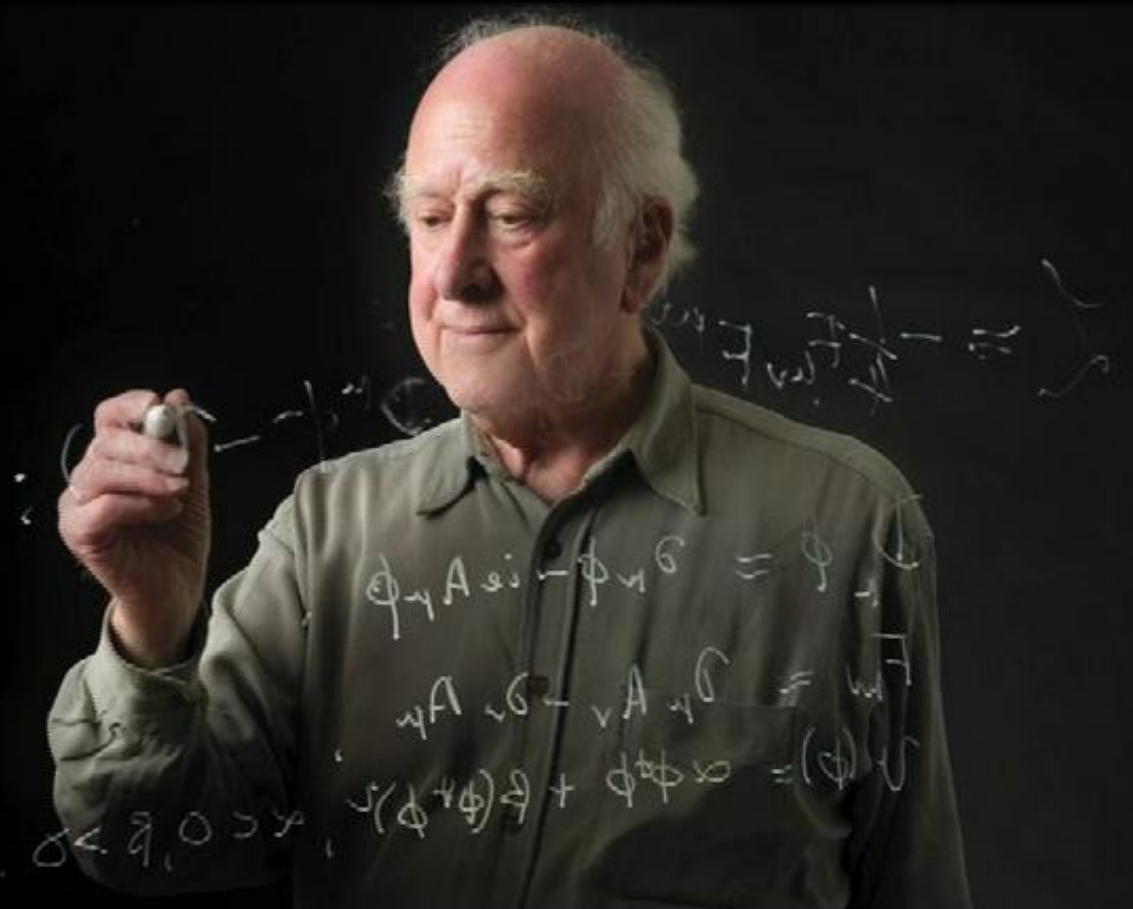
Markus Nordberg (CERN)



How does CERN Connect?



Where do we start?

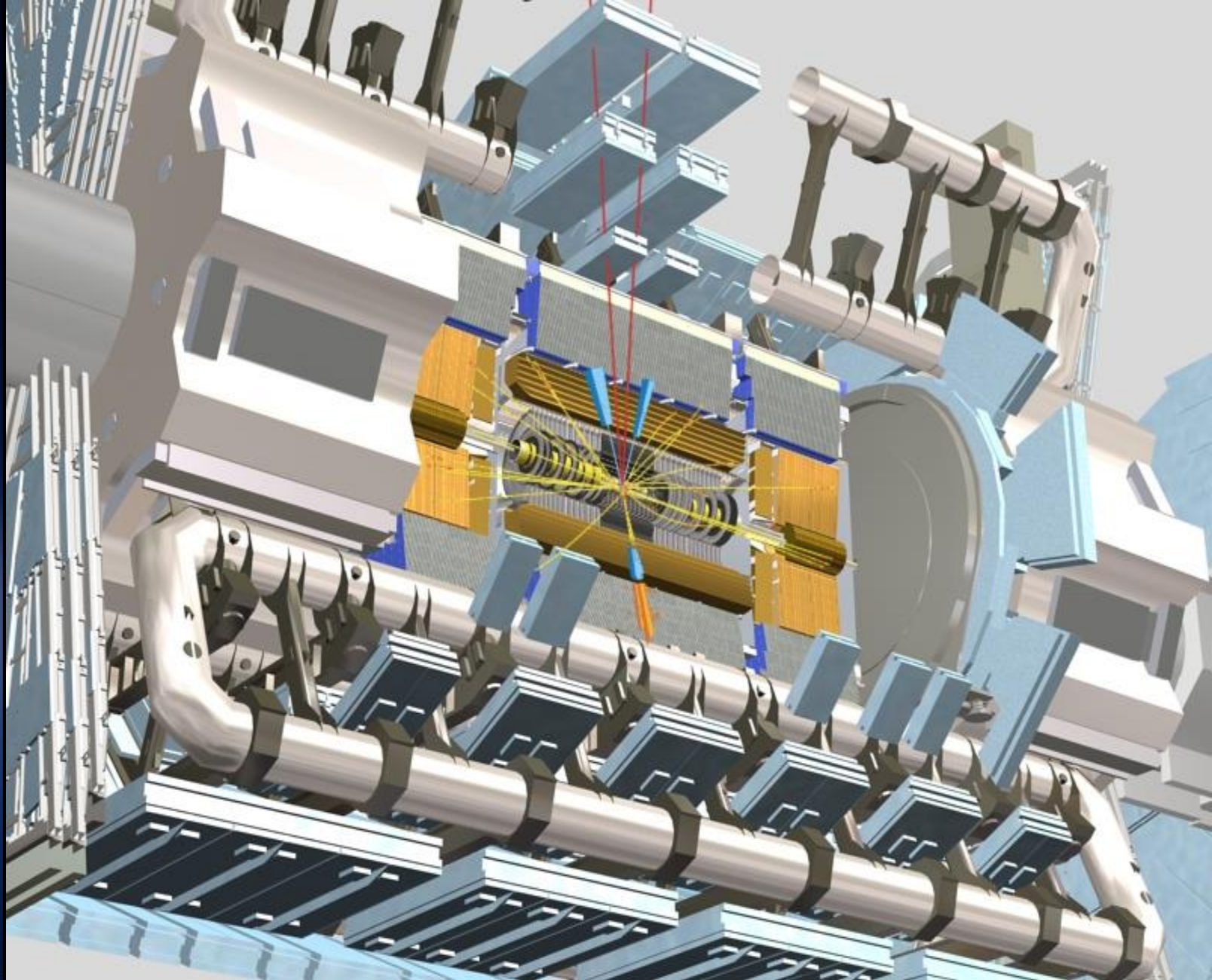


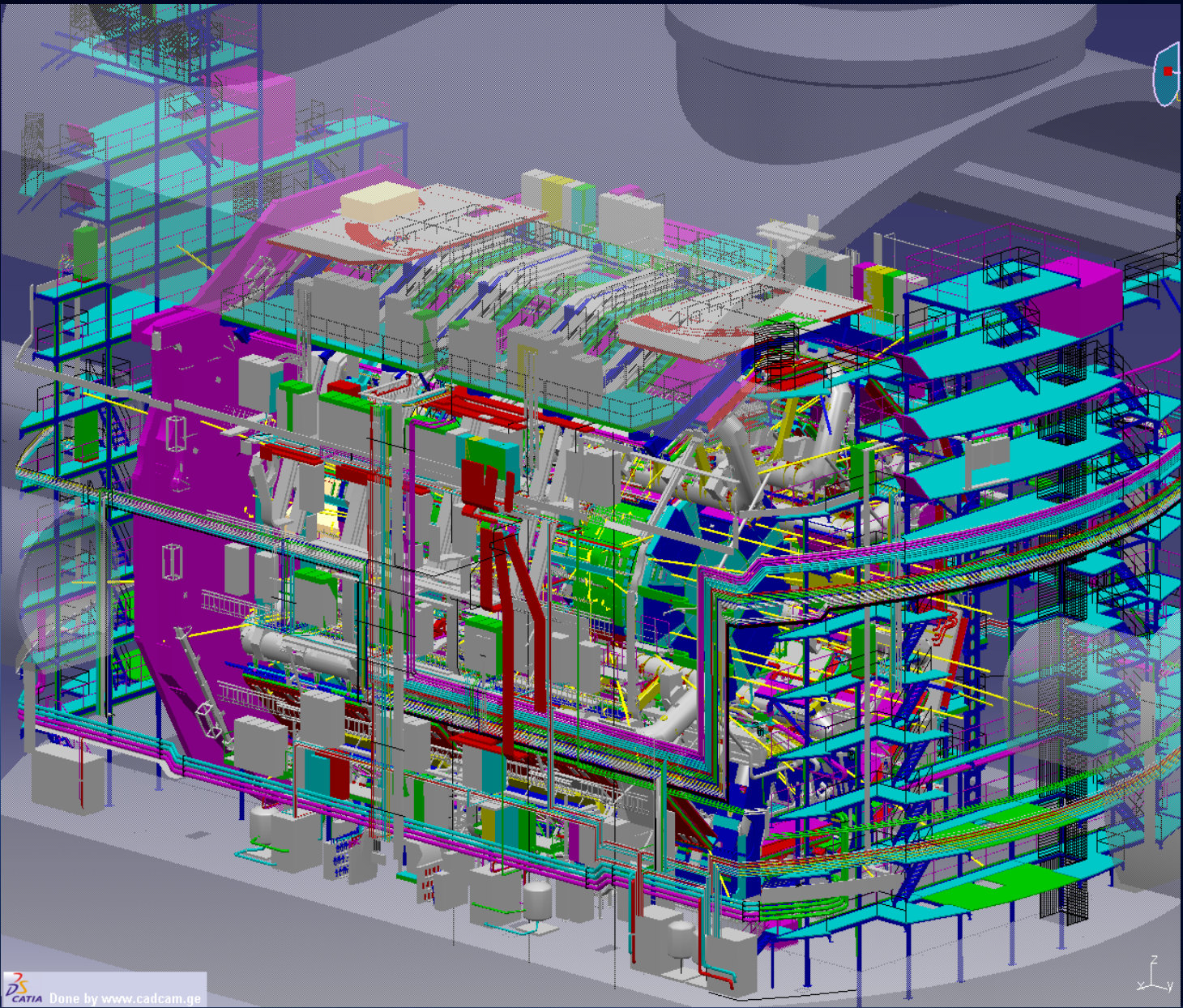


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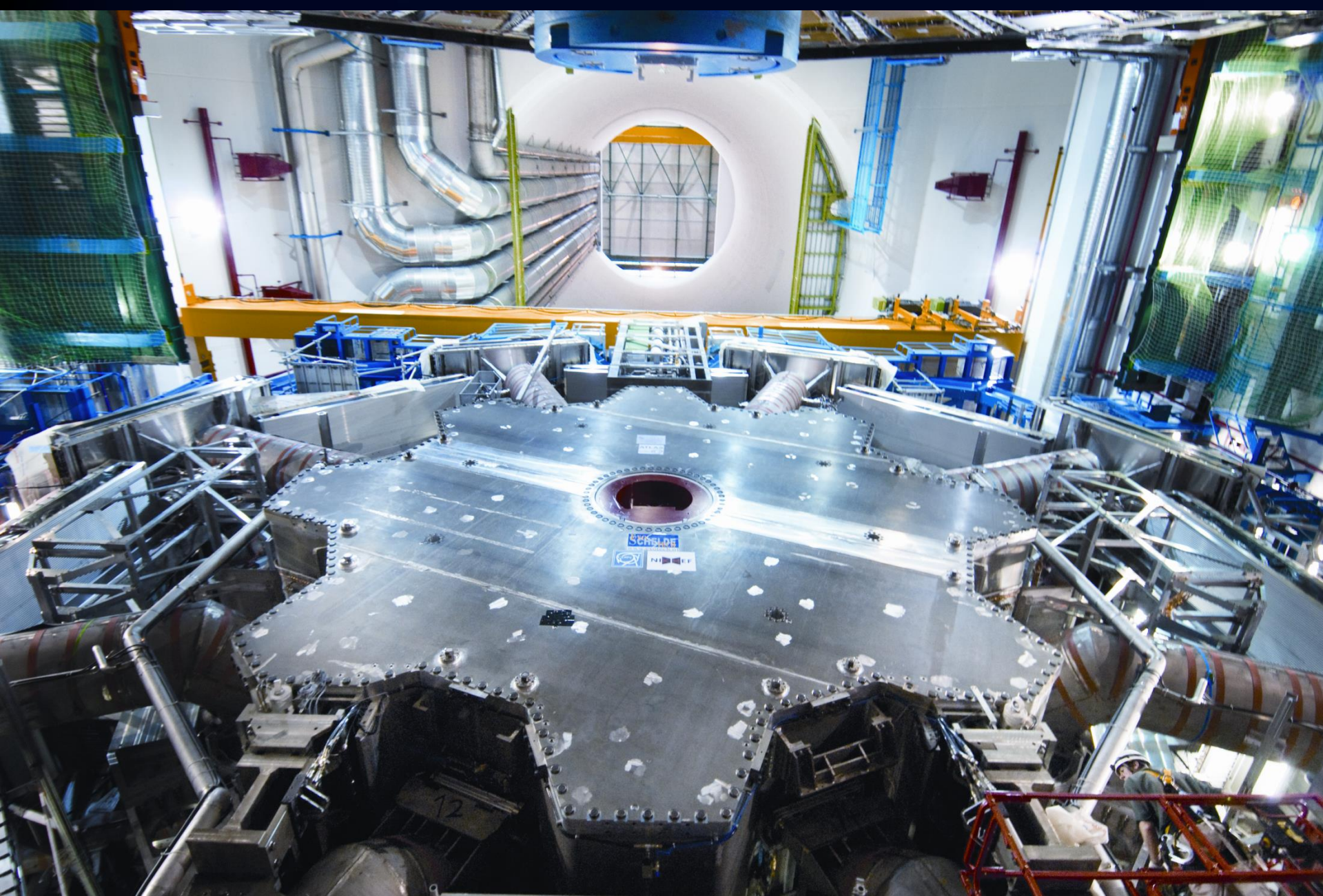
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16+

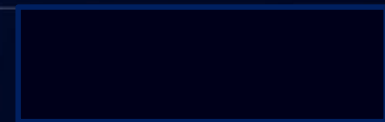
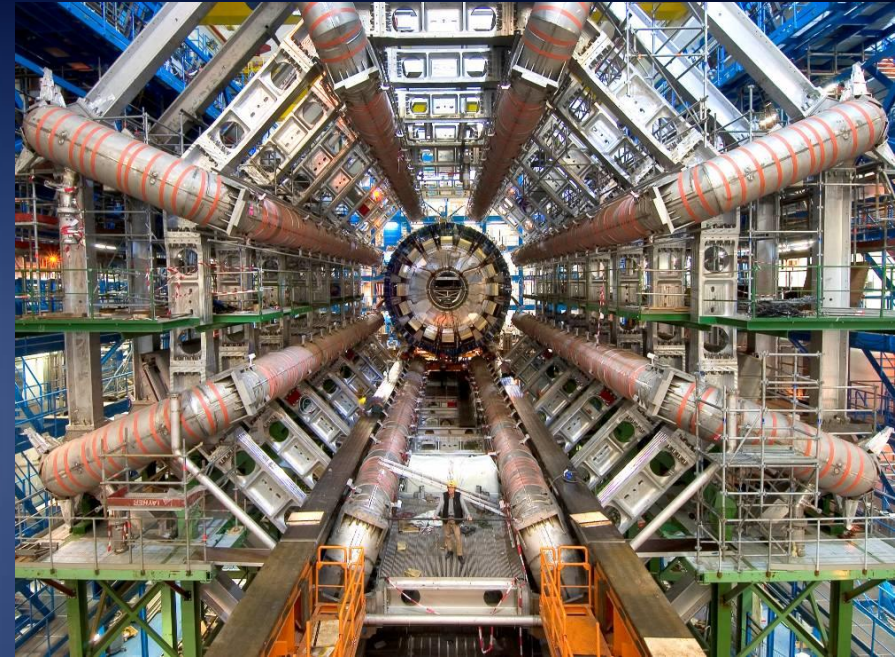
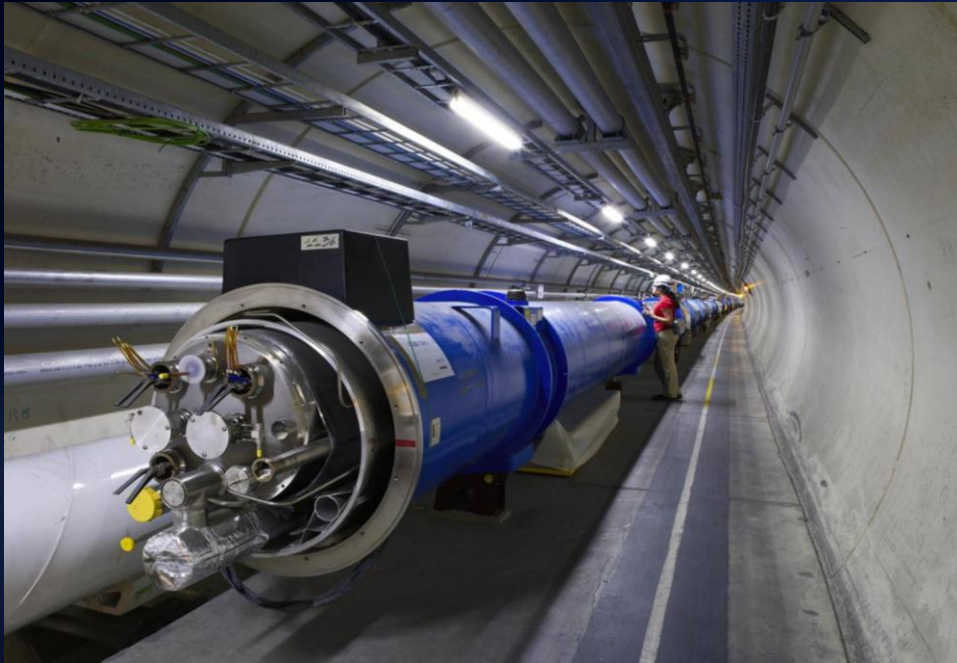




DS
CATIA Done by www.cadcam.ge



Seeing the Micro needs the Macro (scopes)







CERN was founded 1954: 12 European States Today: 21 Member States

- ~ 2300 staff
- ~ 730 other paid personnel
- ~ 11000 users
- Budget (2016) ~1000 MCHF

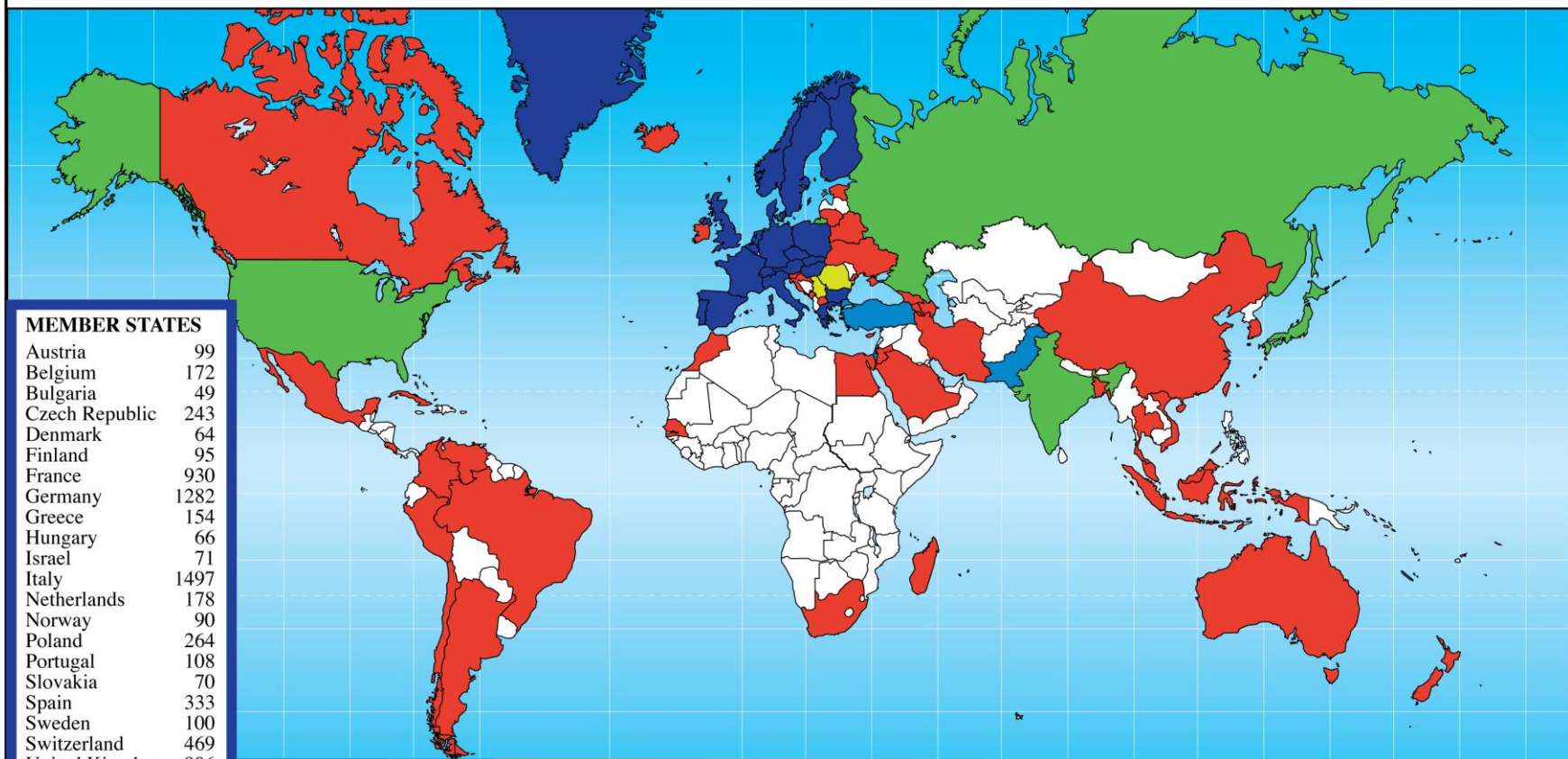
- **21 Member States:** Austria, Belgium, Bulgaria, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Israel, Italy, Netherlands, Norway, Poland, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom
- **2 Candidate for Accession to Membership of CERN:** Serbia, Romania
- **8 Observers to Council:** India, Japan, the Russian Federation, the United States of America, Turkey, the European Commission and Unesco





A Global Reach

Distribution of All CERN Users by Location of Institute on 21 September 2015



MEMBER STATES

Austria	99
Belgium	172
Bulgaria	49
Czech Republic	243
Denmark	64
Finland	95
France	930
Germany	1282
Greece	154
Hungary	66
Israel	71
Italy	1497
Netherlands	178
Norway	90
Poland	264
Portugal	108
Slovakia	70
Spain	333
Sweden	100
Switzerland	469
United Kingdom	906

7240

ASSOCIATE MEMBERS

Pakistan	30
Turkey	128

158

STATES IN ACCESSION TO MEMBERSHIP

Romania	103
Serbia	37

140

OTHERS

Argentina	27	China	191	Iceland	2	Mexico	66	Taiwan	84
Armenia	19	Colombia	15	Indonesia	8	Montenegro	1	Thailand	12
Australia	39	Costa Rica	1	Iran	25	Morocco	7	TFYROM	2
Azerbaijan	3	Croatia	24	Ireland	9	New Zealand	6	Ukraine	30
Bangladesh	2	Cuba	3	Jordan	7	Peru	3	Venezuela	1
Belarus	26	Cyprus	11	Korea	142	Saudi Arabia	1	Viet Nam	1
Brazil	151	Egypt	26	Lithuania	19	Senegal	1		
Canada	179	Estonia	16	Madagascar	3	Singapore	1		
Chile	15	Georgia	18	Malaysia	10	Slovenia	19		
		Hong Kong	21	Malta	5	South Africa	51		

1303

OBSERVERS

India	180
Japan	270
Russia	941
USA	1890

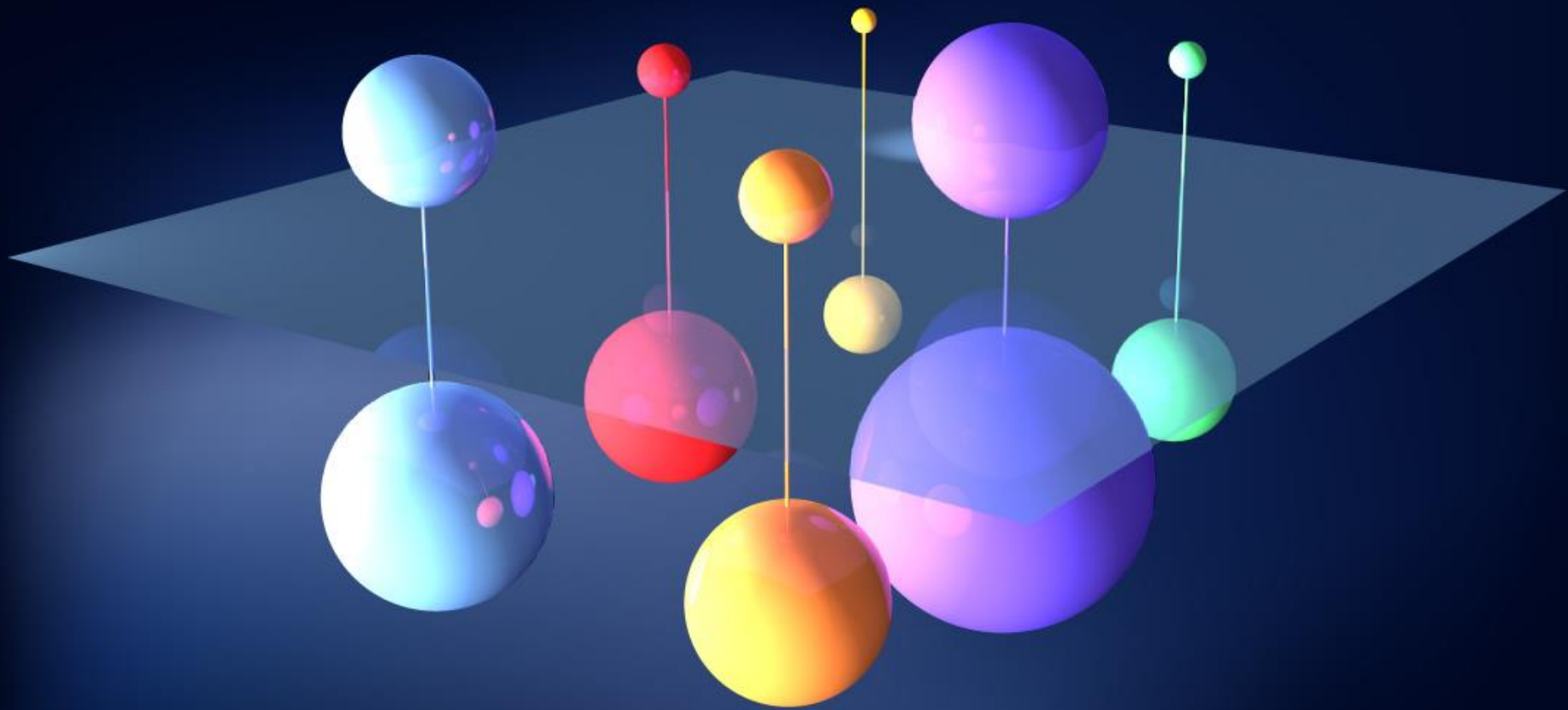
3281

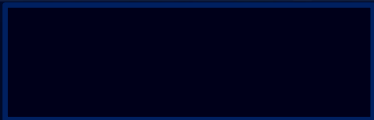
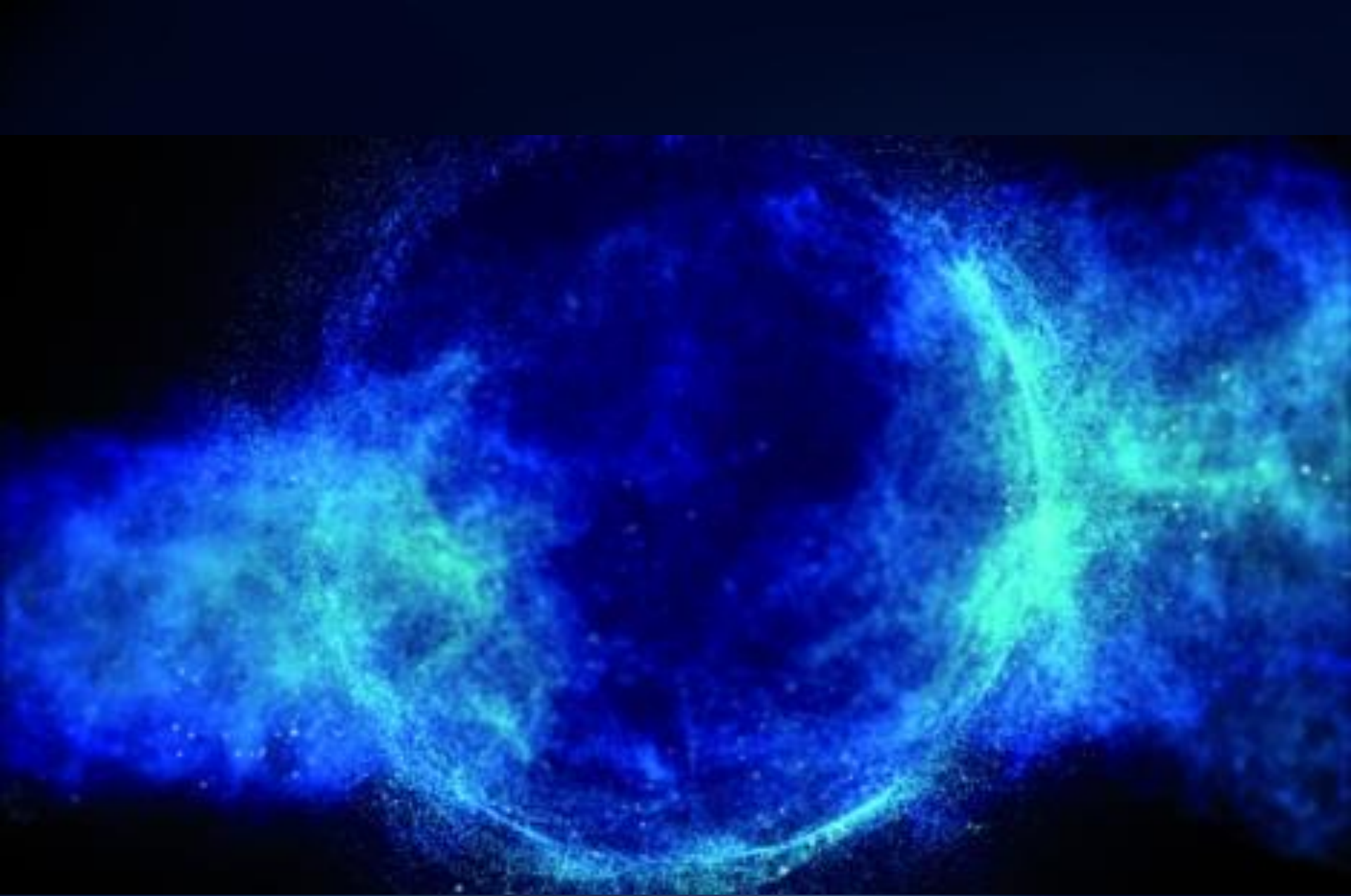
(How) Do We Manage This?

1. Vision
2. Commitment
3. Tolerance

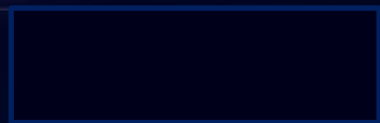
What is Wrong with this Picture?

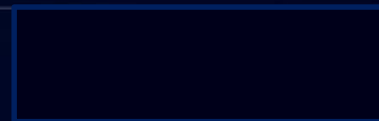














What do you see differently?