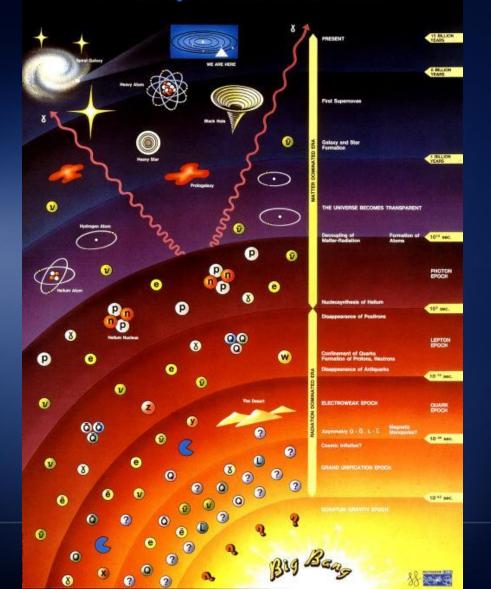
Parallel Worlds: Connecting the Micro and Macro

About CERN, Physics, and Innovation

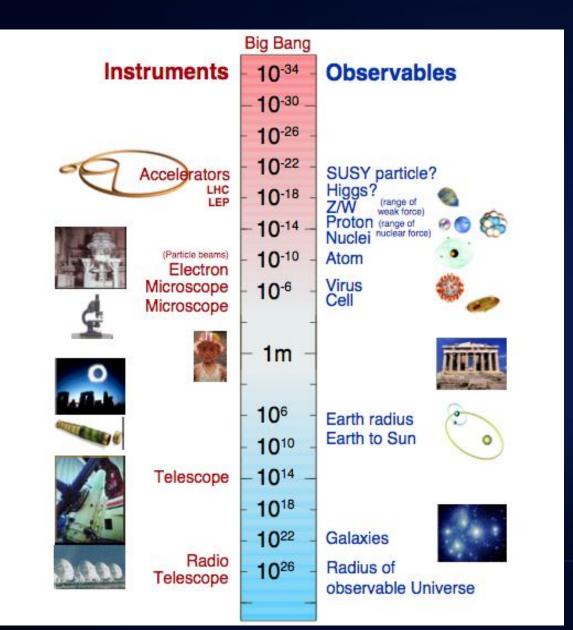
CBI@Barcelona, September 19, 2018 Markus Nordberg (CERN)

How does CERN Connect?

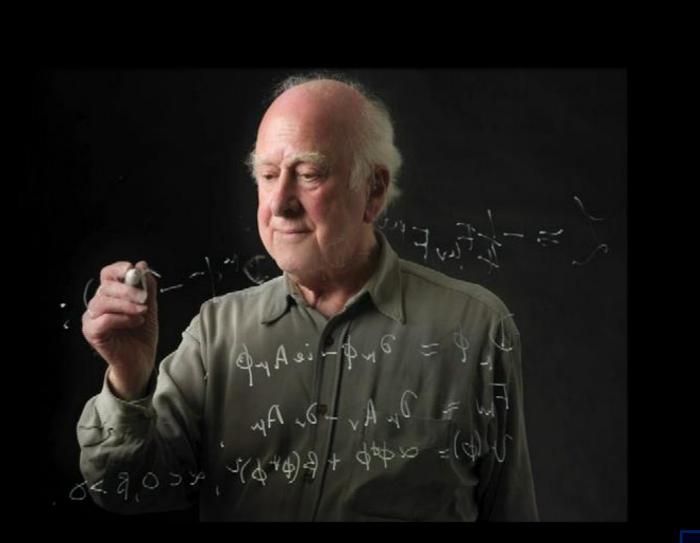
History of the Universe



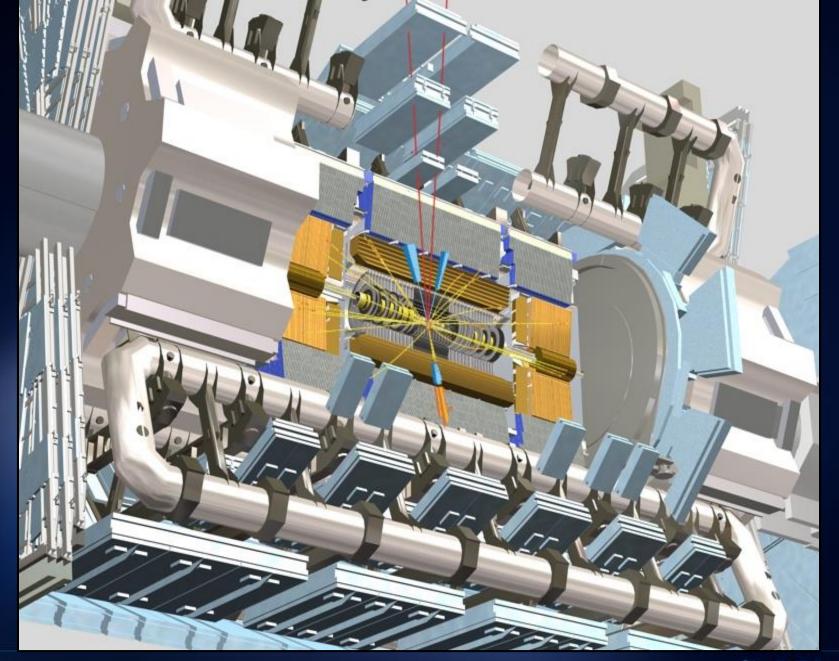
How does CERN Measure?



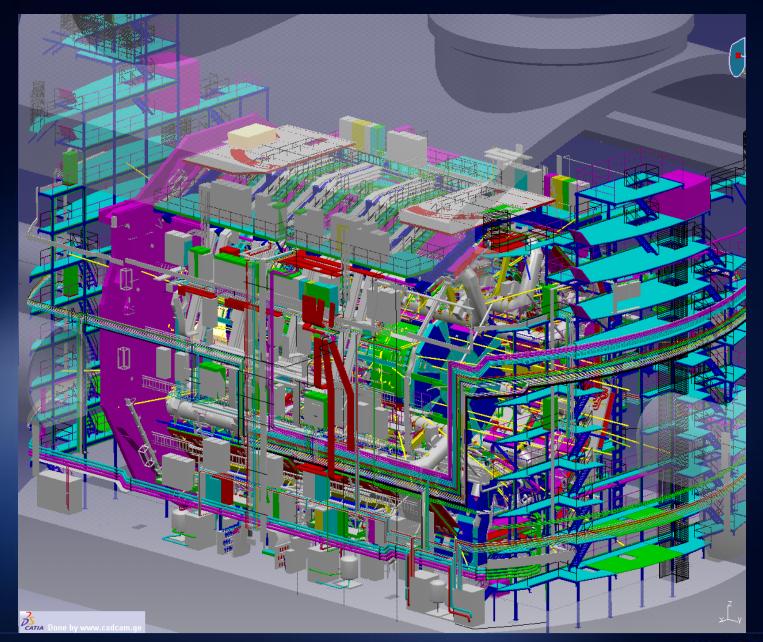
Where do we start?



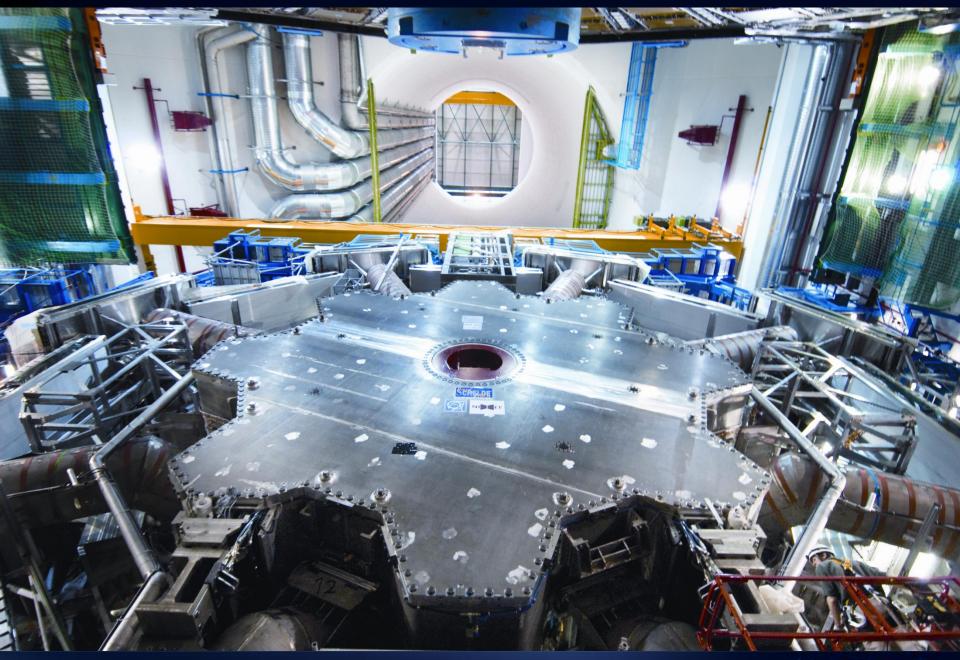




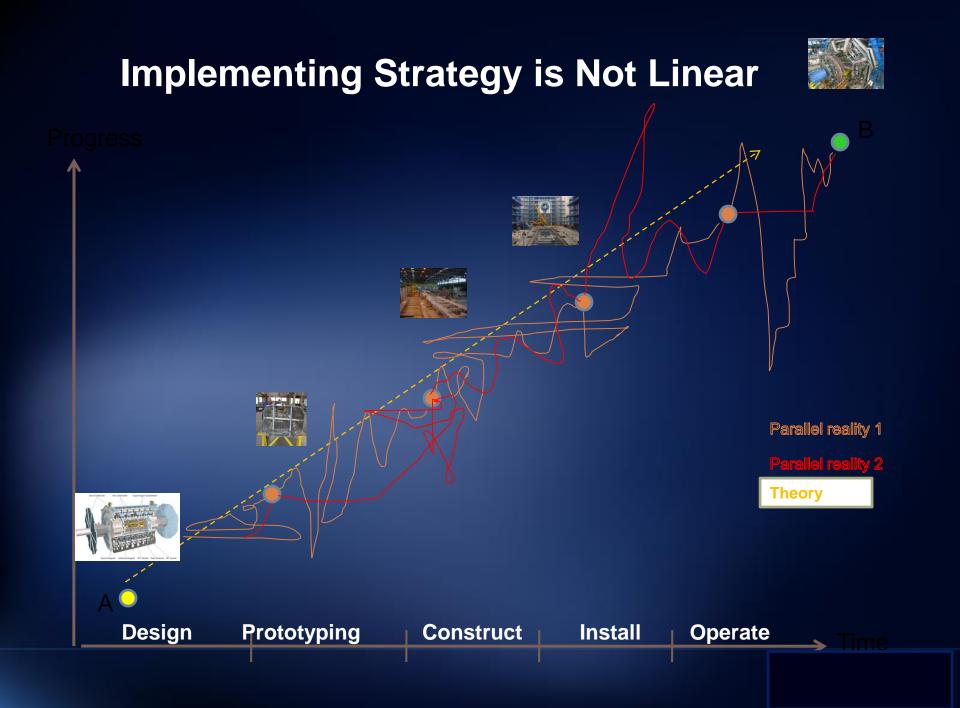




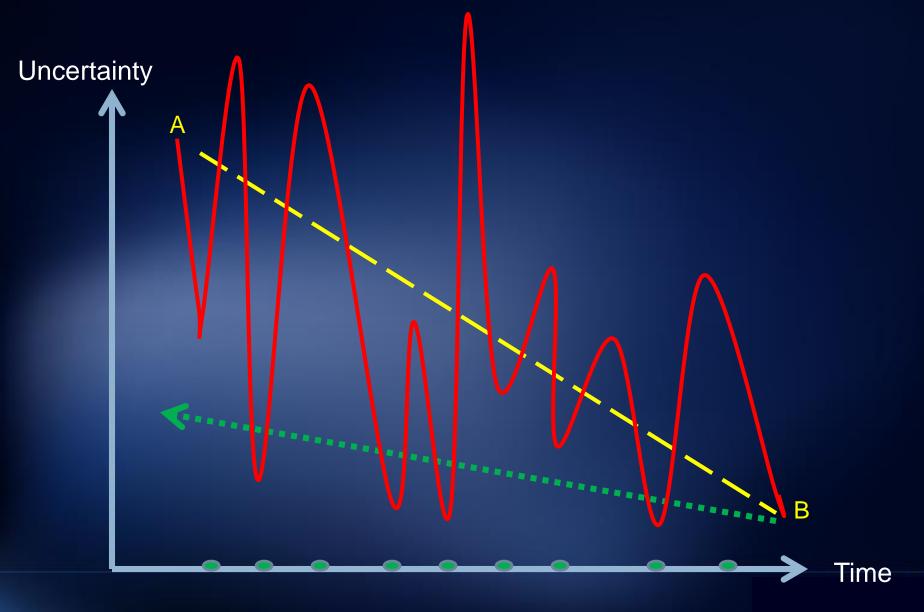




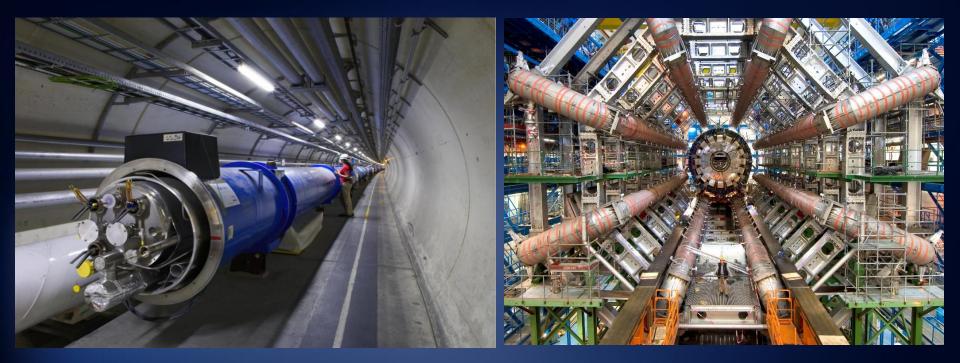




Absorbing vs. Reducing Uncertainty



Seeing the Micro needs the Macro (scopes)







CERN was founded 1954: 12 European States Today: 22 Member States

~ 2300 staff
~ 730 other paid personnel
~ 12 000 users

• Budget (2017) ~1000 MCHF



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

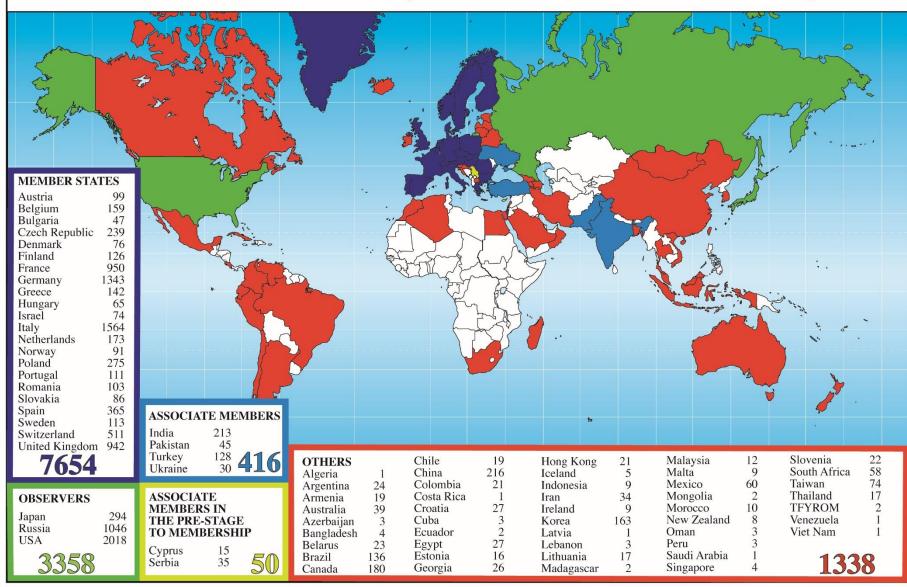
 2 Candidate for Accession to Membership of CERN: Cyprus, Serbia

 8 Observers to Council: India, Japan, the Russian Federation, the United States of America, Turkey, the European Commission and Unesco



A Global Reach

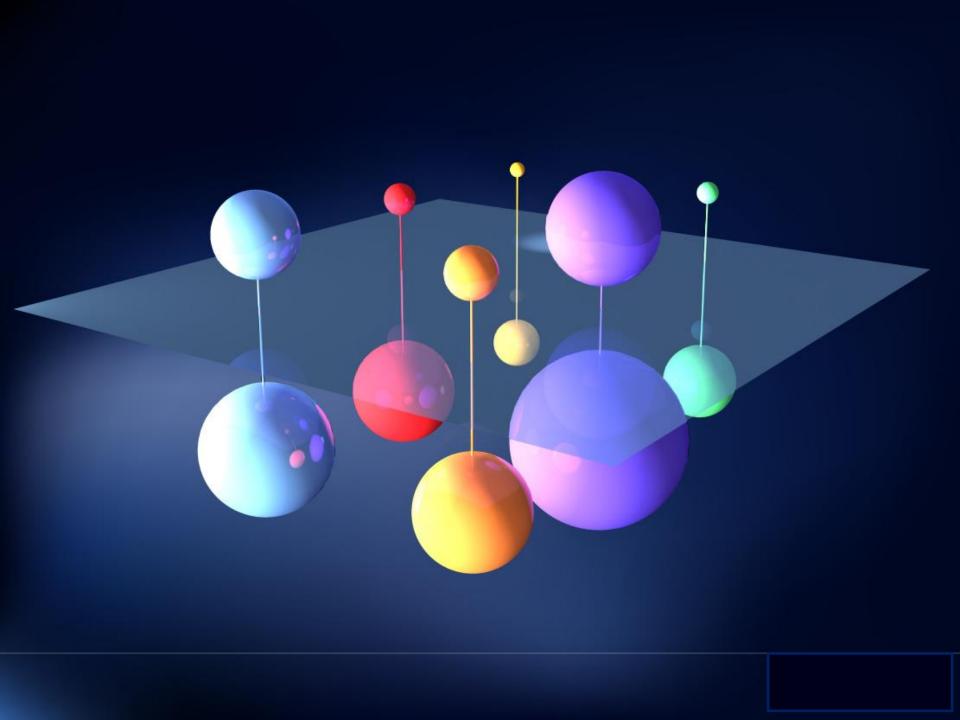
Distribution of All CERN Users by Location of Institute on 12 January 2017



(How) Do We Manage This?



What is Wrong with this Picture?



















What do you see differently?