



Baltic Ring Consortium Workshop

Network Services & Application areas

Infrastructure for Free Movement of Knowledge in the Baltic Sea Area

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Riga, Latvia

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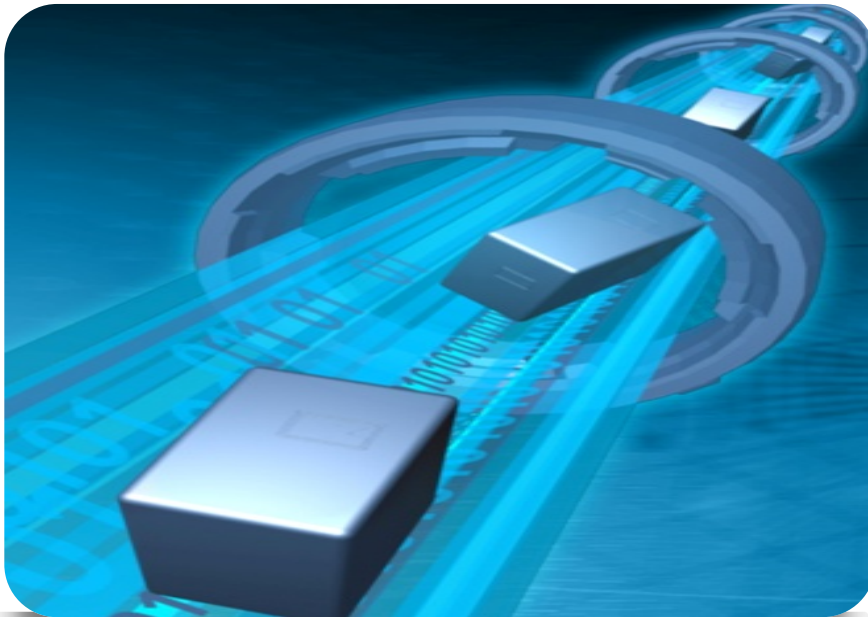


Who is the user ?

In this context users may be man or machine!



Both man and machine have some similarities ->



They like to be able to exchange information!



- Sufficient bandwidth
- Access to the Internet
- Private Connections
- High Quality
- Instant bandwidth when needed
- Low Cost - free of charge



Information spreading
regardless of the location

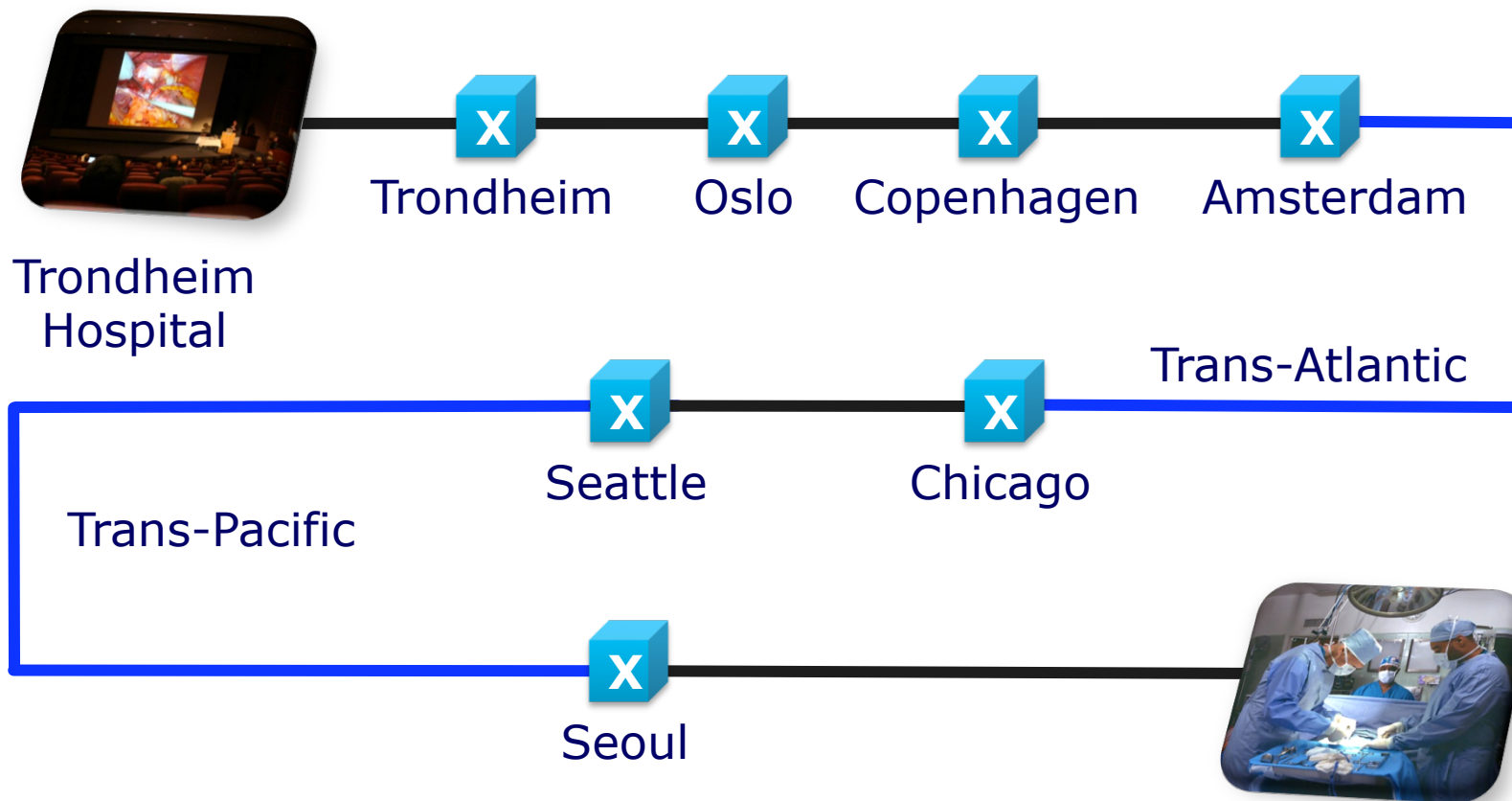
Deterministic and predictability!

Get the information when its
needed and where its needed!



R&E need to be agile



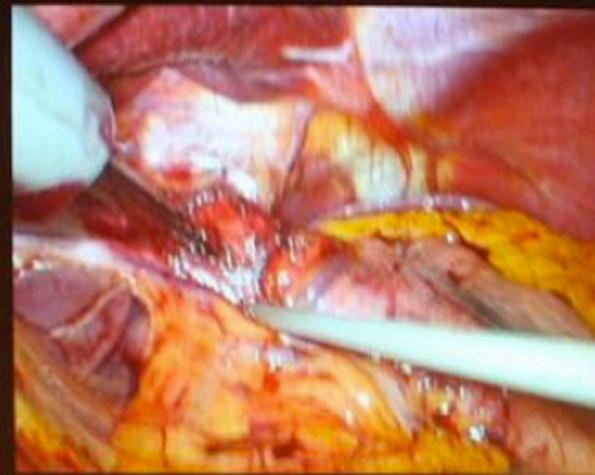


Trondheim, Norway – Seoul, Southern Korea

- HD-Video
- Real Time
- 800 Mbps

Yonsei
Hospital

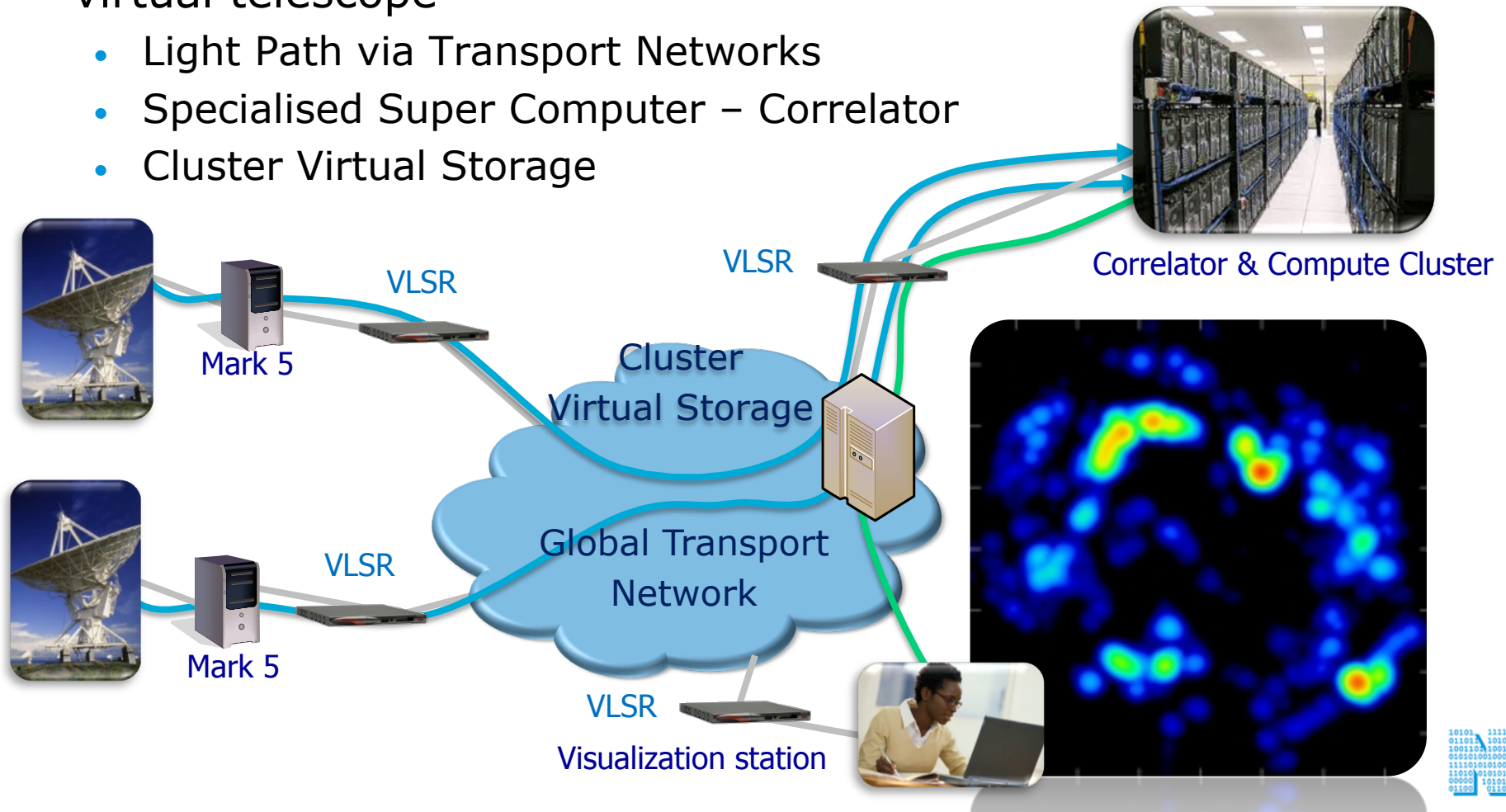




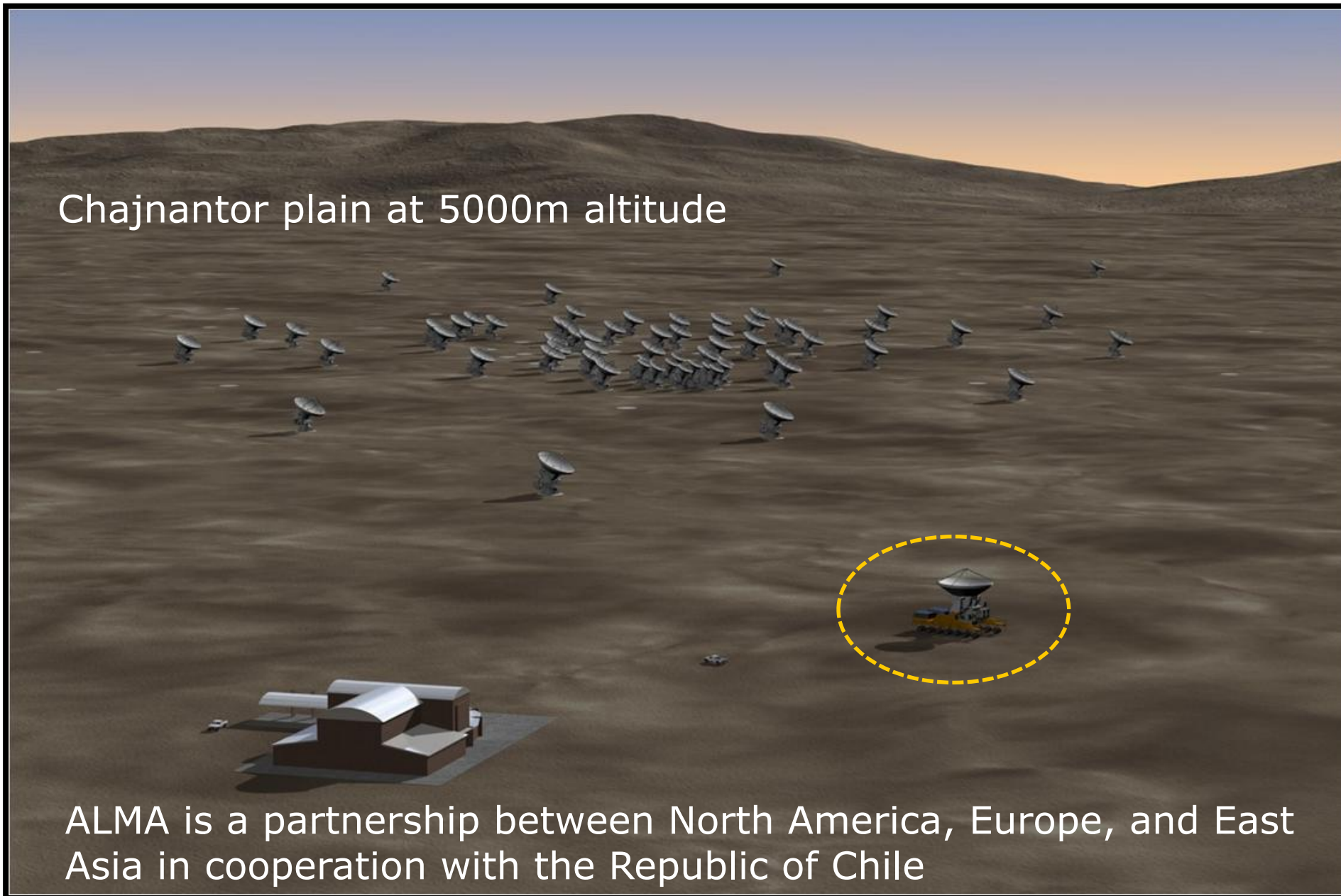
- Transmission of live surgery via HDV Enables doctors to
- Collaborate
 - Share knowledge
 - See details normally not available



- E-VLBI "Electronically Very Long Baseline Interferometry"
- Technology have enabled the researchers to observe a distant star by using the world's research networks to create a giant virtual telescope
 - Light Path via Transport Networks
 - Specialised Super Computer – Correlator
 - Cluster Virtual Storage



Chajnantor plain at 5000m altitude

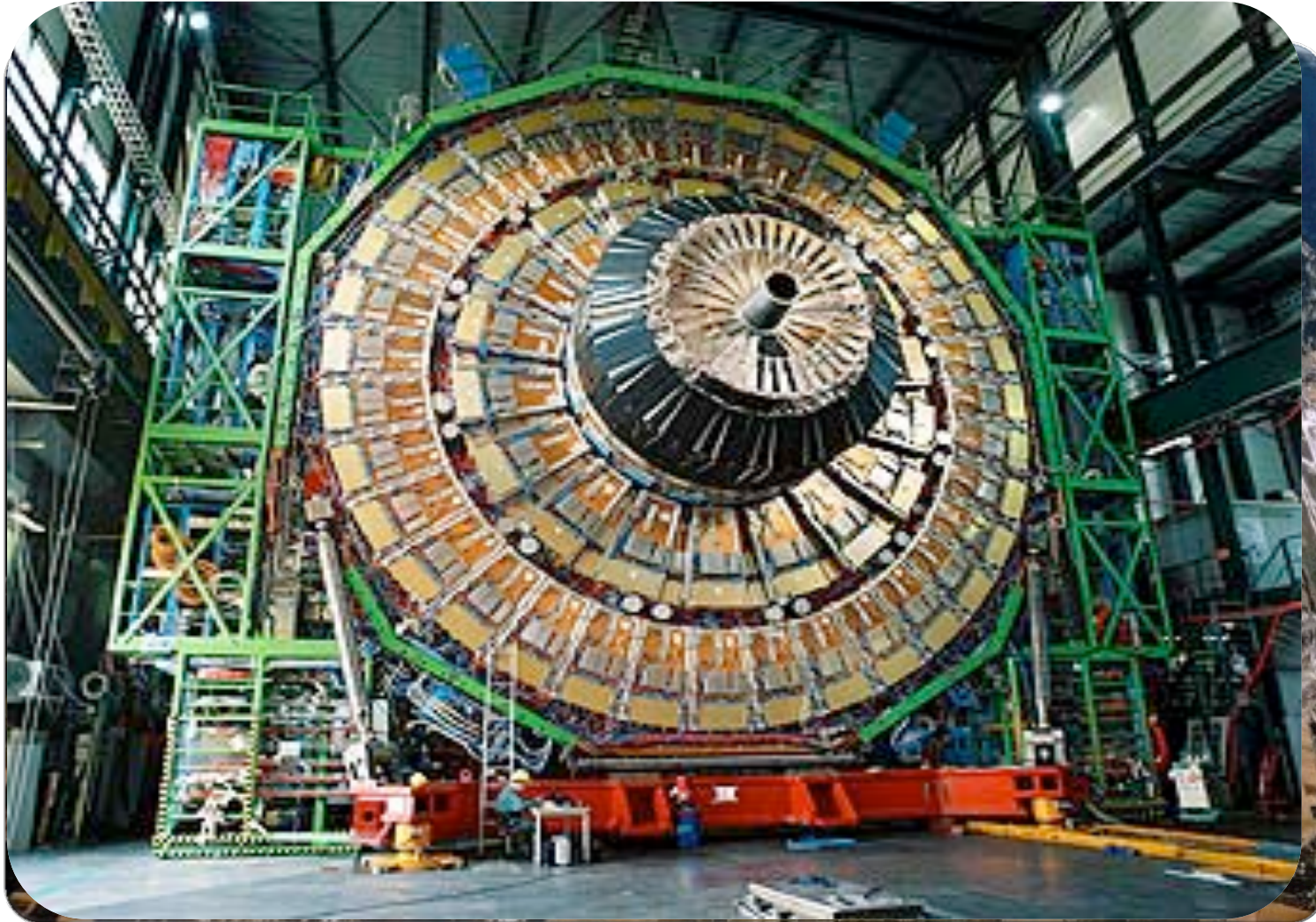


ALMA is a partnership between North America, Europe, and East Asia in cooperation with the Republic of Chile



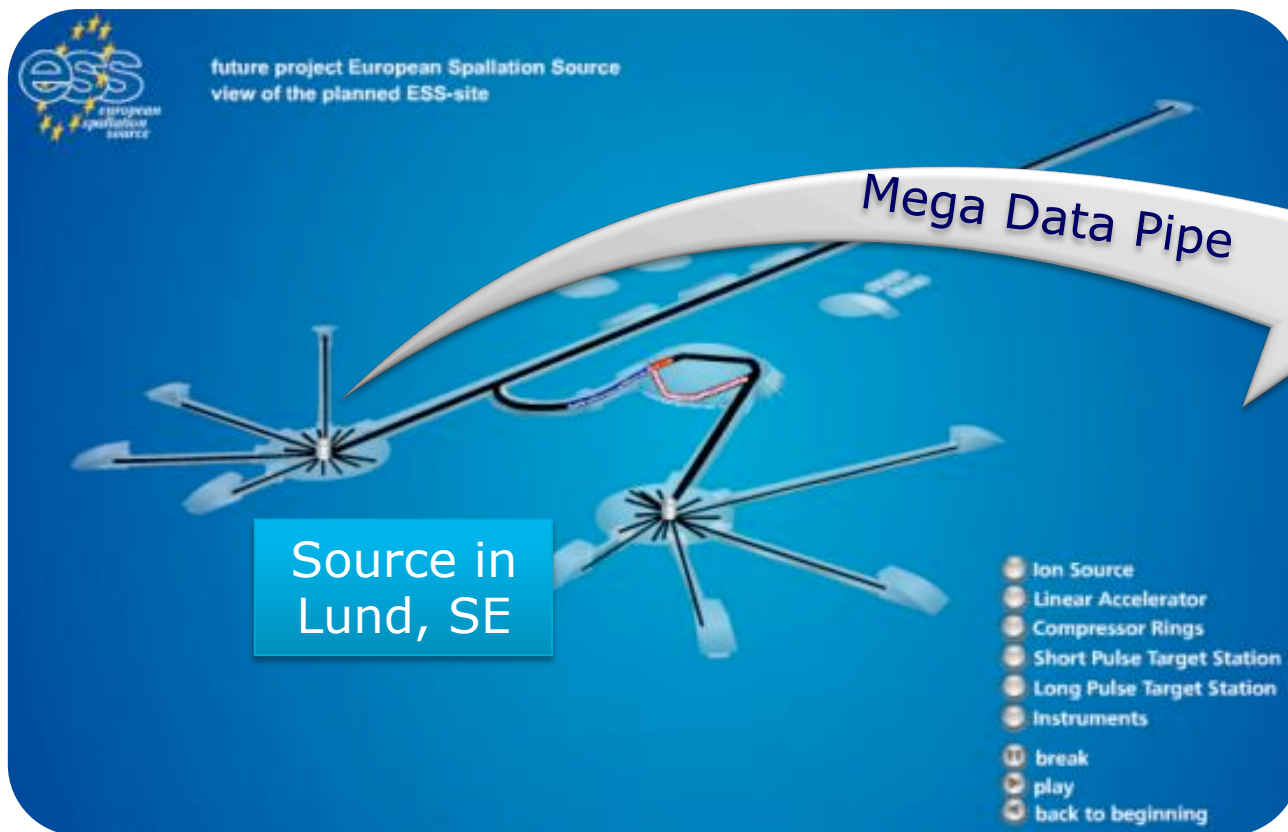
- 12 m and 7 m antennas
- Array configurations
 - Baselines from 160 m to 16 km





LHC: A large, shared scientific instrument with distributed (global) use and vast resource requirements

Materials research facility using the neutron scattering technique



Data Facility in Copenhagen, DK

Build an future proof back bone for data transport





Scale

- Bandwidth growth
- Terabit switching
- Capacity evolution



Service Dynamicity

- Dynamic bandwidth adjustments
- Easy E2E path setup
- Transparency

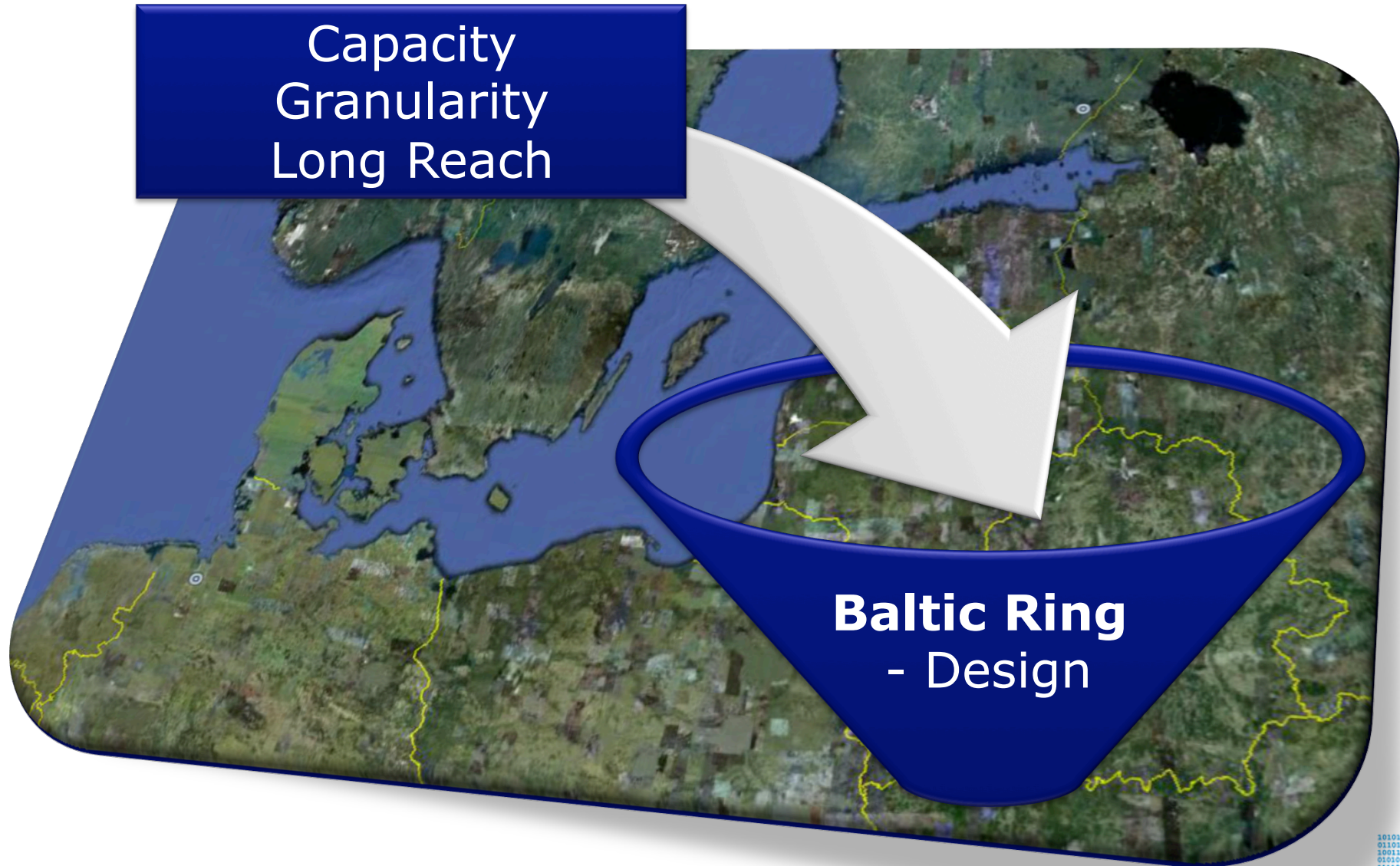


Economics

- Reduce the CAPEX per Gbps
- Reduce the power/space per Gbps
- Reduce the overall CAPEX



Capacity
Granularity
Long Reach



Baltic Ring
- Design



Thank you



Questions...