

BiG Grid the dutch e-science grid



Mission Statement

“To realise a fully operational world-class and resources-rich grid environment at the national level in the Netherlands to serve public scientific research, including particle physics, life sciences and all other disciplines, and to encourage actively general grid usage across all disciplines.”

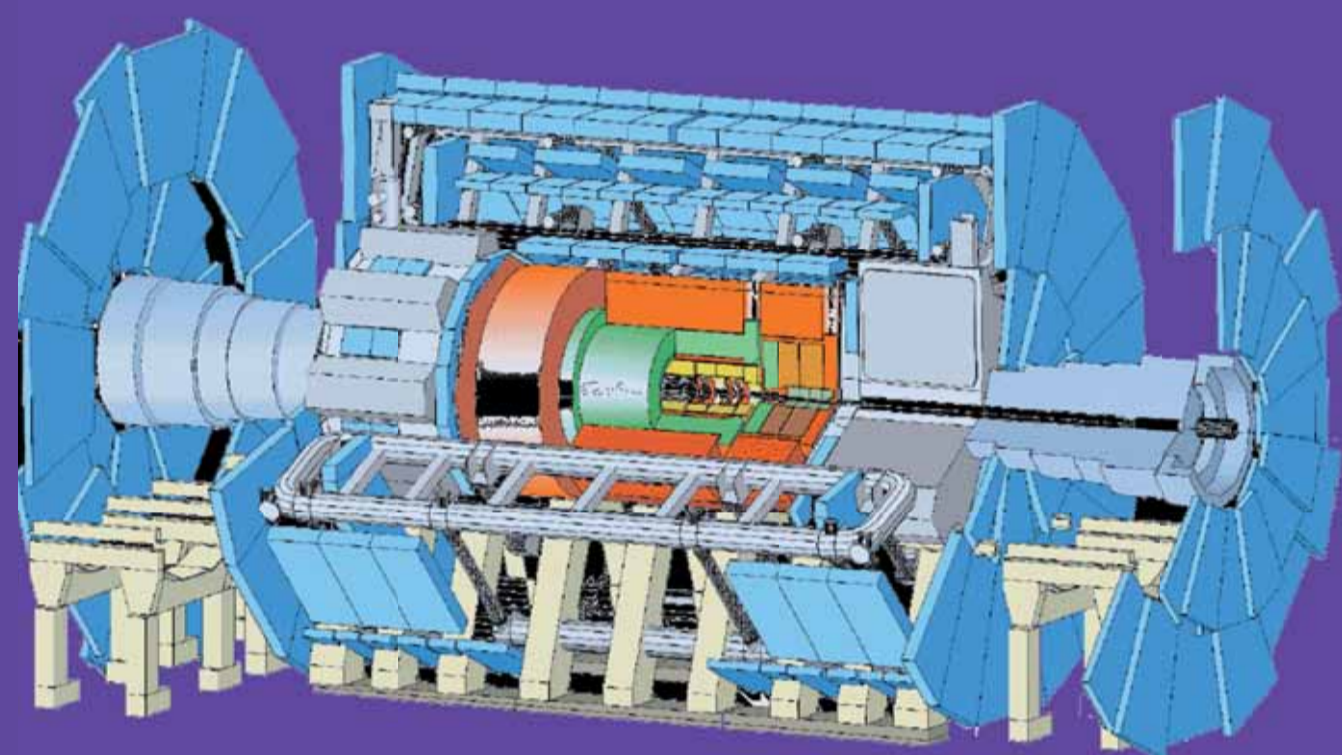
Data explosion in science

Data generated by

- Detectors
- Medical imaging instruments
- Micro-arrays
- Multi-sensor experiments
- Earth observation experiments

Scientific Application Areas

- Particle Physics (LHC)
- Astronomy (Lofar)
- Genome and protein analysis
- Biobanks
- Biodiversity
- Life sciences
- Archeology
- Historical archiving
- Water management
- Digital repositories

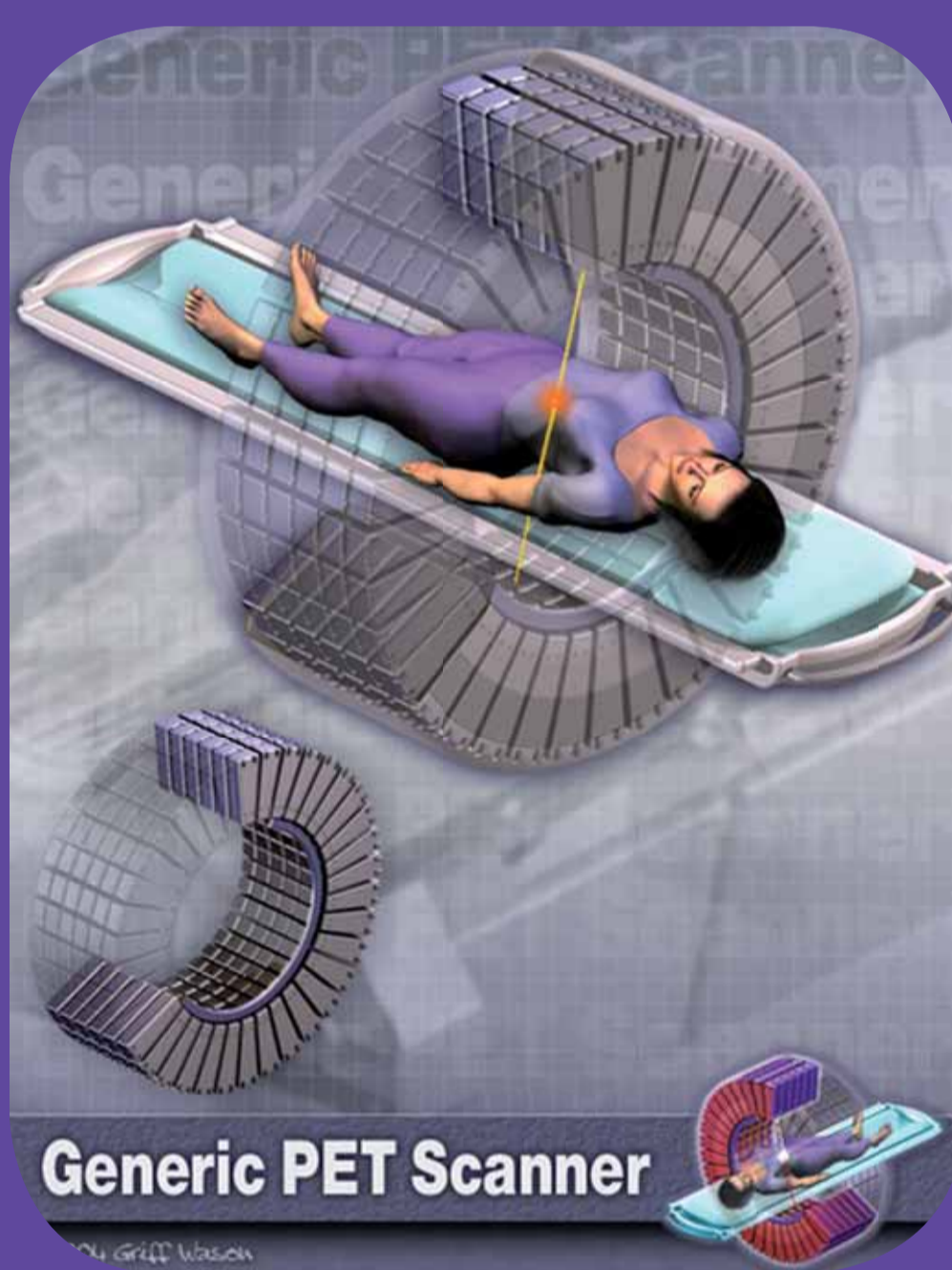


Large Hadron Collider (LHC)

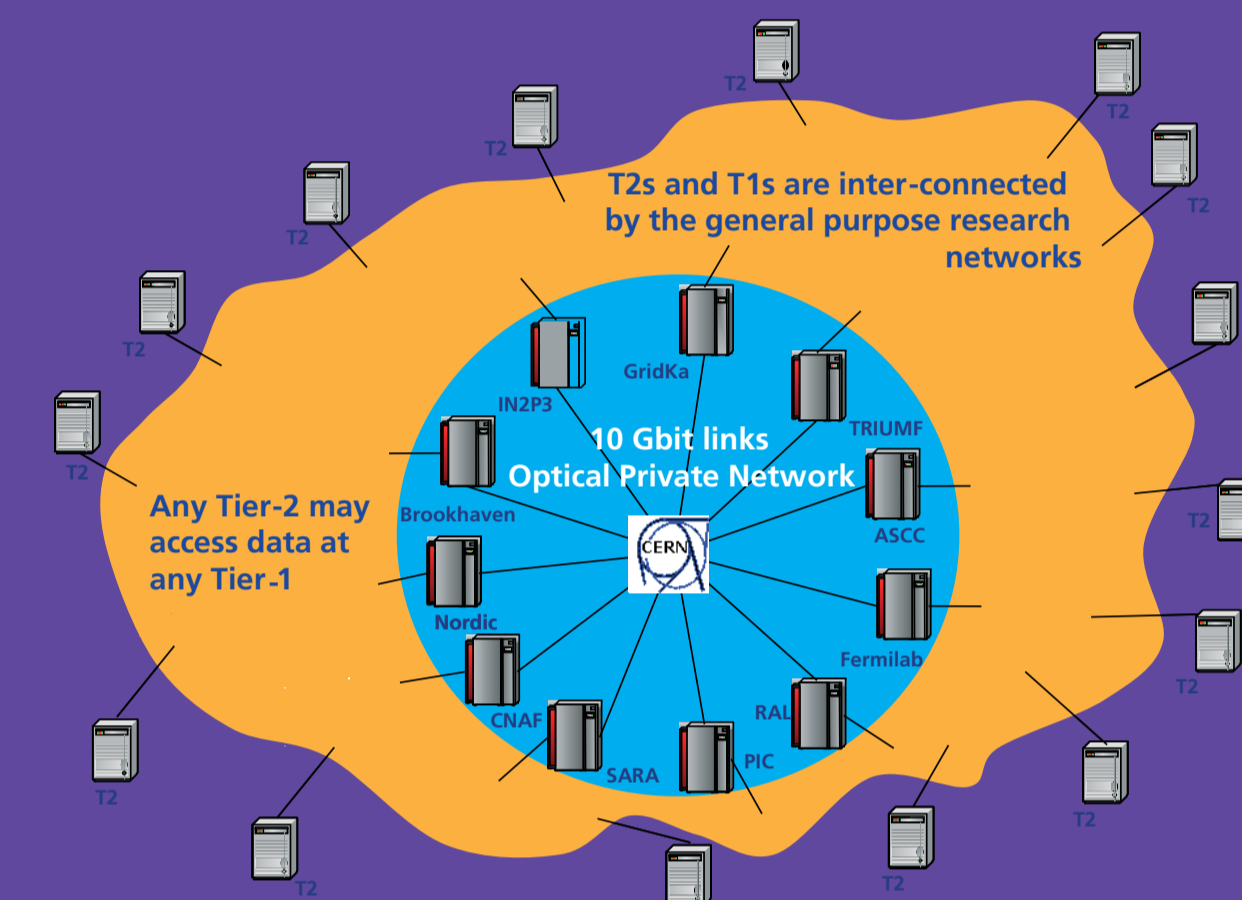
Digital Research Infrastructure



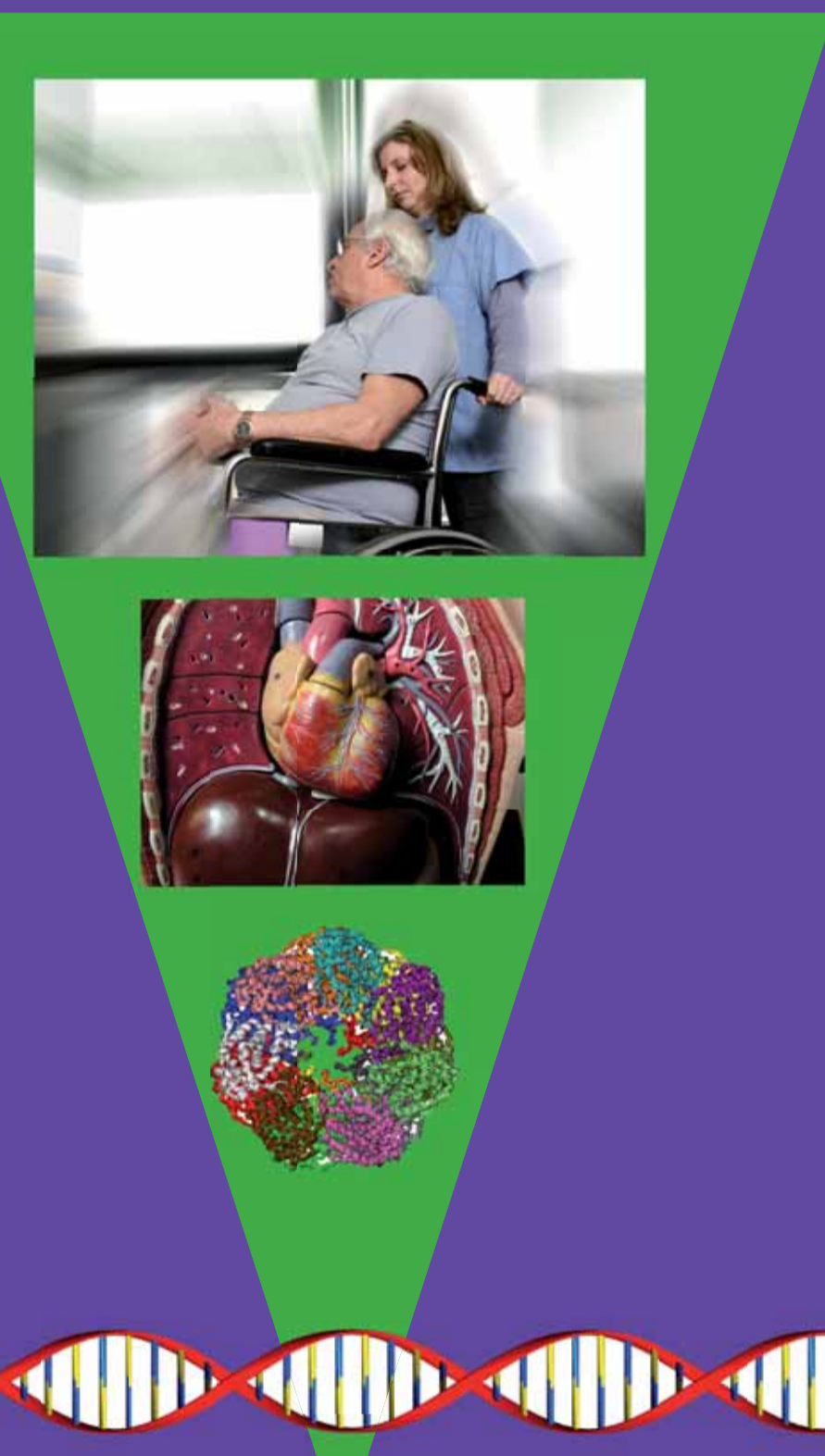
LOW Frequency ARray (LOFAR)



Philips PET Scanner



- Patient
- Organs
- Cells
- Proteins
- DNA/mRNA



Systems Biology

Project Goals

- set-up a distributed ICT infrastructure to facilitate scientific research.
- to provide data analysis (compute) and data storage/archiving resources.
- to provide grid services to attract a broad range of scientific disciplines.
- to provide human resources to assist scientific disciplines.

Key Milestones

- 2007: Set-up of organisation and procurement model
- 2008: Applications up-and-running, operational model in use
- 2009: More applications, operational model fine-tuned
- 2010/11: Full application range, permanent follow-up in place

Founding Partners

- Netherlands National Computing Facilities Foundation (NCF)
- National institute for subatomic physics (Nikhef)
- Netherlands Bioinformatics Centre (NBIC)

Operational Partners

- SARA Computing and Networking Services (SARA)
- National institute for subatomic physics (Nikhef)
- Centre for Information Technology – Groningen (CIT-RUG)
- Philips Research



The BiG Grid project is funded in the context of big research facilities by the Netherlands Organisation for Scientific Research (NWO), the Ministry of Education, Culture and Science (OCW) and the Ministry of Economic Affairs (EZ). It has a budget of 29 M€ for a period of 5 years (2007-2011).