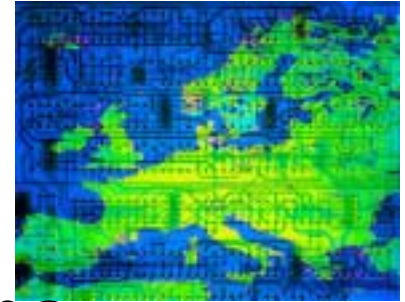


SpaceGRID

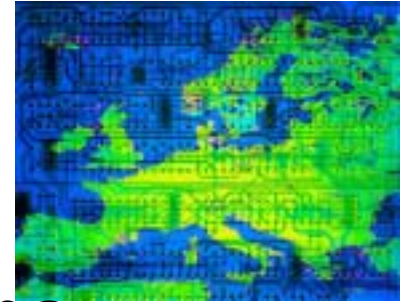
ESA GRID Infrastructure



SpaceGRID

ESA GRID Infrastructure

- which Users?
 - Engineers
 - Scientists
 - Application Developers
 - Application Managers



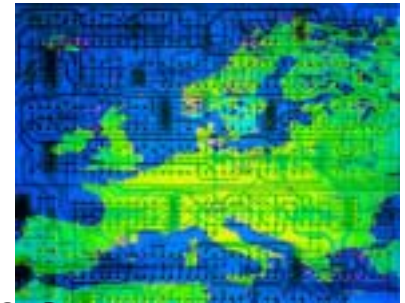
SpaceGRID

ESA GRID Infrastructure

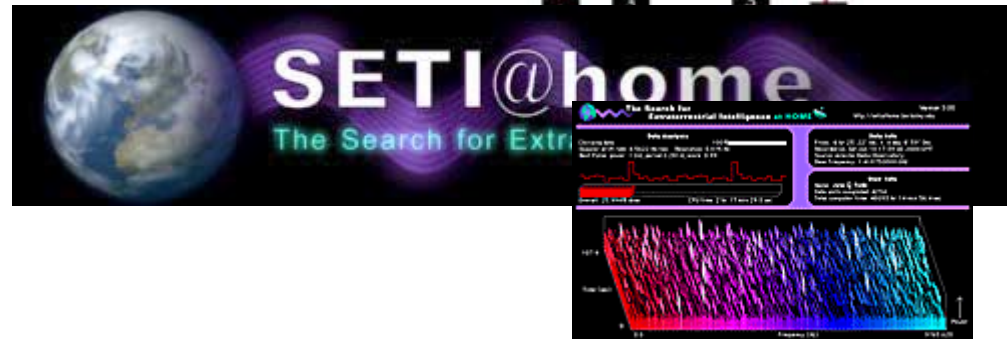
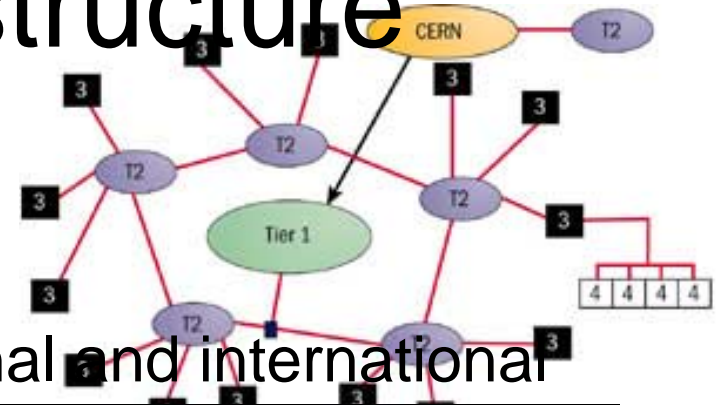
- across sites/applications/projects/groups
- which purpose?
 - science
 - engineering
 - R&D
 - application development and management
 - e-collaboration
 - outreach?

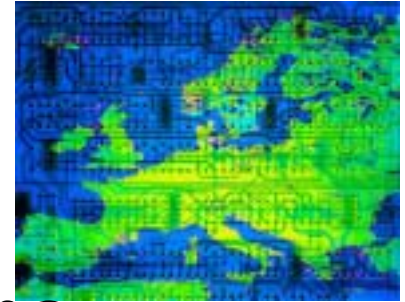
SpaceGRID

ESA GRID Infrastructure



- which model?
 - Tier model from CERN
 - explicit interface with national and international nodes
 - SETI@home
 - LCMPP
 - HPC
 - Scalable Virtual Organisations
 - GRID Portals

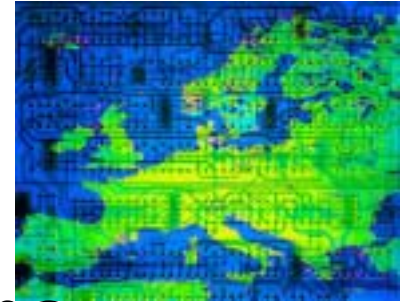




SpaceGRID

ESA GRID Infrastructure

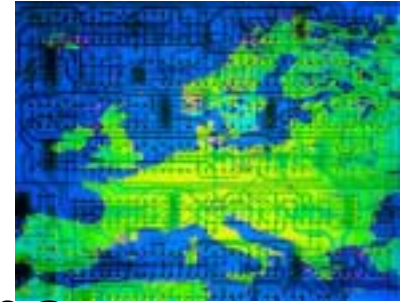
- where to start?
 - companion projects e.g.
 - DataGRID
 - NASA's IPG (<http://www.ipg.nasa.gov/>)
 - available/planned hw
 - Linux clusters available at ESRIN and ESTEC
 - Archive Management System 5Tbytes EO data
 - available/planned sw: Globus (and extensions)
- heterogeneous computing environment⁵



SpaceGRID

ESA GRID Infrastructure

- available/planned TLC
 - ESTEC: 34 Mbps connection to Surfnet
 - (Dutch NREN) in the process of being established (target date: November 1st), for exclusive usage of GRID-related projects.
 - ESRIIN: 2 Mbps connection to GARR-B
 - for EEM-related projects (this can be increased based on specific GRID-related requirements)
 - input from other projects
 - e.g. EODIS-Generic Communication Infrastructure for Earth Observation Data Distribution??

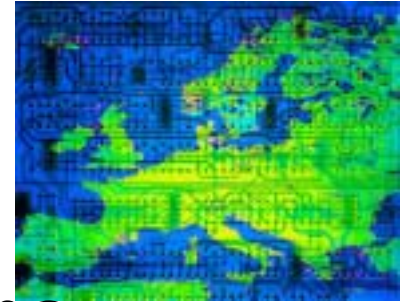


SpaceGRID

ESA GRID Infrastructure

- how R&D will shape the infrastructure?
 - 10 Gigabit Ethernet?
 - multimedia satellite communication?
 - nomadic access to GRIDs?
 - ESA@home?
 - netputing??
 - ...





SpaceGRID

ESA GRID Infrastructure

- what the GRID infrastructure will allow that is not possible to do today?
- which are the external nodes of the ESA GRID?