

Resources

e-Infrastructure Roadmap Update

Chair: Peter Kunszt,
Swiss National Supercomputing Centre CSCS



Definition of 'Resource'

“Everything that is of interest to science”

“Exchange information through standardized interfaces”

- People
- Data: Collections, **databases**, **archives**, ..
- Hardware: Computers, storage facilities, instruments (telescopes, satellites, ...), sensor networks
- Networking Infrastructure
- Middleware: **Services**, agents, **portals**, ..
- Software and Standards

Recommendations for Resource Roadmap

- Current Structure is not intuitive enough
- Data as a concept is underdeveloped:
 - Finding the relevant data
 - Extract Information from Data
 - Distribute data, make data available for analysis
 - Data annotation, data curation, metadata
 - Long term persistent data
 - Identification of persistent data
 - Certification of data repositories ('data quality') based on standards
 - Cost/benefit of the Data maintenance
- Grid Infrastructures as a Resource is unclear
 - How do High Throughput computers, High Capability computers, Instruments, Storage Facilities integrate in a Grid?
- Services as a Resource is missing
- Resource allocation and management (to multiple disciplines) should be added to Organisation chapter
- Correct definition of Research Infrastructure on page 44 according to the ESFRI definition

Non Intuitive Roadmap Structure

- Centrally owned or large grained, shared use Resources
 - Supercomputer Infrastructures for Europe
 - European Storage Facilities
 - Making Sense of Sensors
- Data for the Grid
 - Grid-enabled Instruments
 - Leveraging New Technologies
 - Incentives for Providing Grid Resources*

*this is in the wrong chapter in the roadmap booklet (middleware)

Possible Roadmap Structure

- Centrally owned or large grained, shared use Resources
 - Supercomputer Infrastructures for Europe
 - European Storage Facilities
 - Grid-enabled Instruments and Sensor Networks
- Data as a Resource for Research
 - Data Analysis
 - Data Persistence, Information Extraction, Curation
- Resource Evolution
 - Leveraging New Technologies
 - Incentives for Providing Grid Resources*

*this is in the wrong chapter in the roadmap booklet (middleware)