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# CoreGRID: European Research Network on Foundations, Software Infrastructures and Applications for large scale distributed, GRID and Peer-to-Peer Technologies


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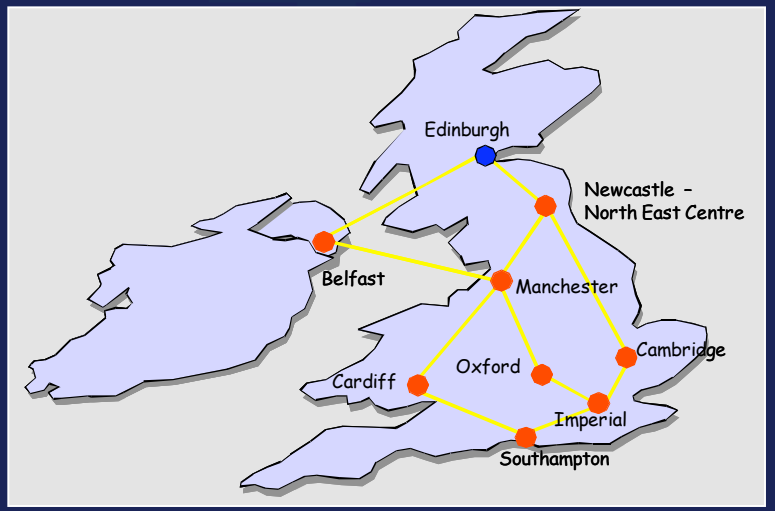
Information Society Technologies

# NEReSC

- Active participation
  - Global Grid Forum
  - UK e-Science task forces and various committees
- Regular regional meetings
- Local grid-group meetings
- Established in July 2001
  - First-point of contact in the region for companies and research groups
  - Part of the national e-Science Grid network
- Great number of research projects
  - Many in collaboration with industry
  - $16M



# NEReSC Research Themes

- Information management for Internet-scale applications
  - Data-intensive
  - Computation and data
- Dynamic formation and management of virtual organizations
  - Trust
  - Security
  - Structure
- Service-oriented computing and Web Services technologies

Some projects...

- BASIS
- OGSA-DAI
- OGSA-DQP
- GridMIST
- eXSys
- Microbase
- e-Demand
- myGrid
- GridSHED
- GOLD
- Polar*
- CoreGRID
- Web Services Grid Application Framework (WS-GAF)

# Related Work

- Services as the "new" components
  - Principles of service-orientation for building Internet-scale applications
  - Message-focused (the truth is in the message :-)
  - Protocol-based integration
  - No assumptions about programming models, classes/types (object-orientation), implementations
  - MEST to Web Services what REST is to the Web
  - Web Services as an implementation technology for Internet-scale applications
- Service contracts
  - Service behaviour exposed through declarative service descriptions
  - Check against model checkers
- Virtual organisations
- Dynamic service deployment
  - Building one of the largest campus grids in the world
  - Policy and utilisation-based scheduling
- Large-scale databases
  - Distributed query processing on internet-scale databases