Overview

- Past
- Present
- Future
  - Challenges
  - Behaviours
  - Commitment
What is e-Science?

- **Goal:** to enable better research in *all* disciplines
- **Method:** Invention and exploitation of advanced computational methods
  - to generate, curate and analyse research data
    - From experiments, observations and simulations
    - Quality management, preservation and reliable evidence
  - to develop and explore models and simulations
    - Computation and data at extreme scales
    - Trustworthy, economic, timely and relevant results
  - to enable *dynamic* distributed virtual organisations
    - Facilitating collaboration with information and resource sharing
    - Security, reliability, accountability, manageability and *agility*
What is e-Infrastructure - Political view

- A shared resource
  - That enables science, research, engineering, medicine, industry, ...
  - It will improve UK / European / ... productivity
    - Lisbon Accord 2000
    - E-Science Vision SR2000 - John Taylor
  - Commitment by UK government
    - Sections 2.23-2.25
  - Always there
    - c.f. telephones, transport, power

Science & innovation investment framework 2004 - 2014

July 2004
UK e-Science Budget (2001-2006)
Total: £213M + £100M via JISC

EPSRC Breakdown
- Applied (£35M) 45%
- Core (£31.2M) 40%
- HPC (£11.5M) 15%

+ Industrial Contributions £25M

Source: Science Budget 2003/4 – 2005/6, DTI(OST)

Slide from Steve Newhouse
The Future

- Inter-disciplinarity
- Sharing and finding a common core of facilities & methods
- Recognition & values
- How do we make things easy enough to use?