

Expanded Uptake and Sustainable Communities of Use JISC's Role in Shaping the UK e Infrastructure

Dr. Ann Borda
JISC Programme Manager (e-Research)
a.borda@jisc.ac.uk

To provide world-class leadership in the innovative use of Information and Communications Technology to support education and research.

JISC provides:

- A world-class network - JANET
- Access to electronic resources
- New environments for learning, teaching and research
- Guidance on institutional change
- Advisory and consultancy services
- Regional support for FE colleges

- **To develop a coherent UK e-Research infrastructure** in collaboration with the Research Councils and other relevant organisations which will:
 - provide the infrastructure and tools to allow research communities to create multidisciplinary research environments and to facilitate research collaboration within and between institutions
 - provide a robust, trustworthy, secure, interoperable and scalable infrastructure for the transmission, storage, sharing, accessibility and dissemination of research data and outputs
 - provide robust sustainable central services supporting the processes of research and which facilitate high quality research

UK Research Community is the primary beneficiary

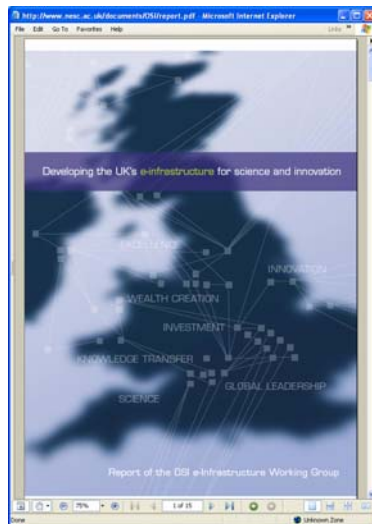
- Arts & Humanities;
- Biotechnology and Biological Sciences;
- Engineering and Physical Sciences;
- Medical Sciences;
- Natural Environment;
- Particle Physics and Astronomy;
- Social Sciences.

RCUK www.rcuk.ac.uk

Informed by:

- e-Science Core Programme
- JISC and UK and international developments
- Community requirements (across domains)– **SUPER study**
- Government reports – **OSI Report on e-Infrastructure**

OSI – e-Infrastructure (2007)



www.nesc.ac.uk/documents/OSI/index.html

“A national e-infrastructure for research provides a vital foundation for the UK’s science base, supporting not only rapidly advancing technological developments, but also the increasing possibilities for knowledge transfer and the creation of wealth”

Recommended investment in three broad areas:

software, policy and support

Top recurring issues:

- Distributed file management and policy relating to curation
- Tools to support the creation and use of dynamic virtual organisations
- Need to support projects through tools and training
- Operational provision of authentication, software licensing, and reliable and consistent environments across distributed resources
- User interaction with e-infrastructure services through defined APIs, scripting environments, and graphical workflow environments

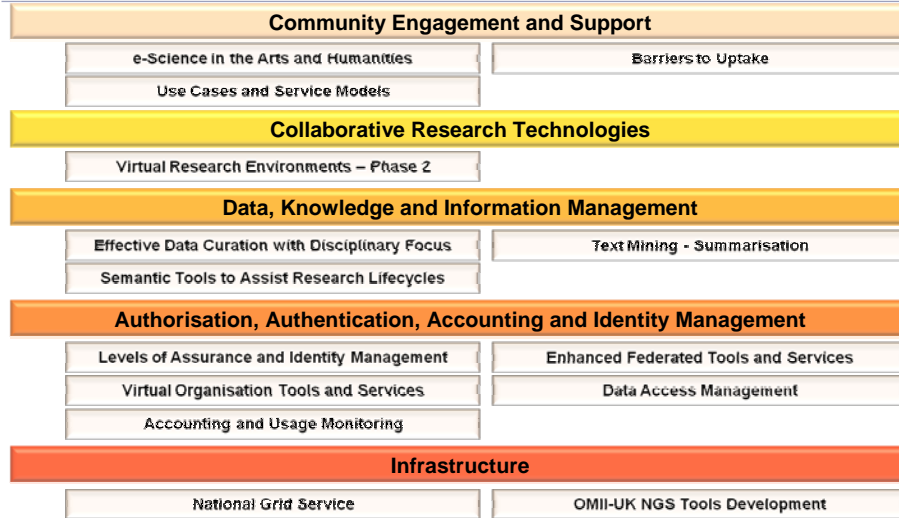
■ **JISC e-RESEARCH PROGRAMME – 2006-2009**

- Capital funded
- £10m – e-Infrastructure
- £2m – VREs



•Support for new capabilities and research practices underpinned by UK e-infrastructure services and/or service functions

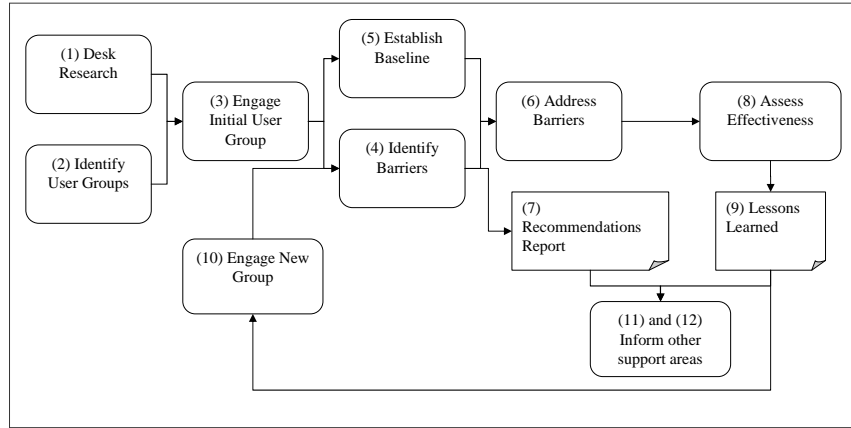
- Community Engagement and Support
- Collaborative Research Technologies
- Data, Knowledge and Information Management
- Authorisation, Authentication, Accounting and Identity Management
- Infrastructure



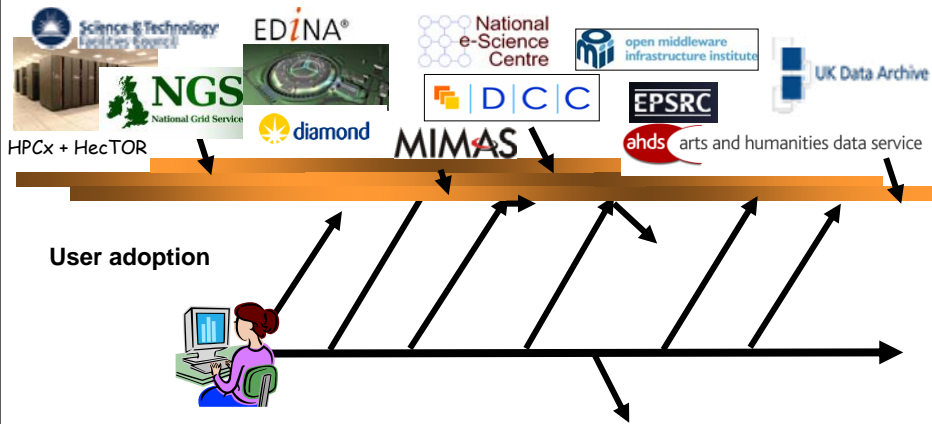
- Build upon the initial five year investment in the UK e-Science Infrastructure.
- Work with other partners to expand the uptake and effective use of e-infrastructure from early adopters and researchers across disciplines.
- Two desired outcomes:
 1. To have enhanced and consolidated the current technologies.
 2. To have established sustainable communities of use.

- Barriers project (led by National Centre for e-Social Sciences, and partners: National eScience Centre, Arts & Humanities Data Service)
- A phased approach to identify barriers and to address these through research, user engagement, training and awareness-raising, and assessment, comprising :
 - Examination of barriers to take-up of a selection of existing JISC funded 'e-infrastructure services'.
 - A user requirements and assessment exercise focusing on 'early adopters' of these services

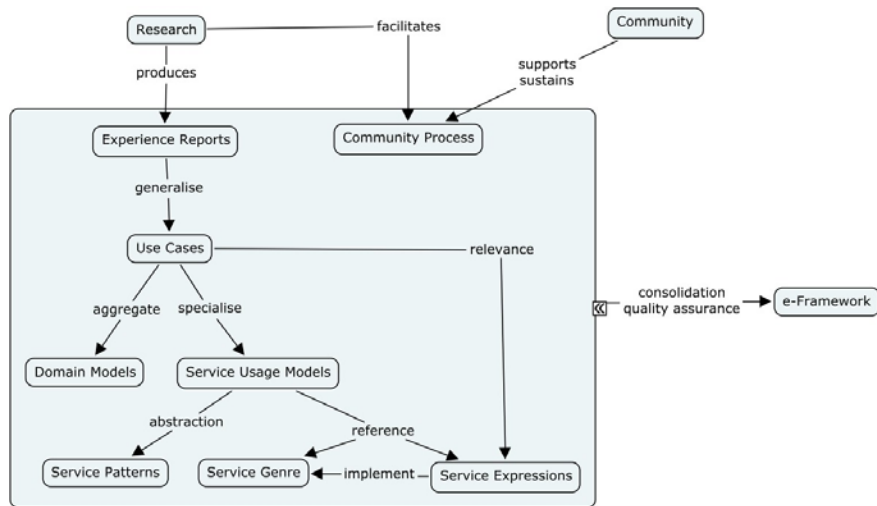
- Access Grid Support Centre – www.agsc.ja.net
- Data Centres – EDINA (<http://edina.ac.uk>), MIMAS (www.mimas.ac.uk), UKData Archive (www.data-archive.ac.uk), AHDS (www.ahds.ac.uk)
- Digital Curation Centre (DCC) - www.dcc.ac.uk
- National Centre for Text Mining (NaCTEM) – www.nactem.ac.uk
- National Grid Service (NGS) – www.ngs.ac.uk
- UKERNA – www.ja.net/about/ukerna/ukerna.html
- Viznet - <https://wiki.viznet.ac.uk/bin/view>



Users to get common access to tools, information and nationally supported services



- Project led by Oxford University, with partner National Centre for e-Social Science
- Collect use cases on working methods and practices in the use or engagement of e-infrastructure tools and technologies by the research community
- Draw a set of Service Usage Models (SUMs) to contribute to the JISC e-Framework initiative (www.e-framework.org)
- Comparative overview and identification of common solutions, issues, and gaps



- Physical test-beds & services
- Support organisations & procedures
- Policy groups to inform issues such as access (e.g. security) and licensing
- Appropriate governance
- Interoperability and adoption of standards (e.g. adoption of industry standards in order to interoperate with multi-services)

- Provide resources/services which have ***a clear community need, identified benefits***, and possible commercial potential
- Bring on board **early adopters** (build communities!)–
- More users see **grid as a tool, not a technology**

- Provide users with a **diversification of services** (plug-and-play services)
- Invest in an accessible & coordinated infrastructure for **user support & training**
- Create a **marketing strategy**
- Invest in **awareness and outreach**

Crossing the 'chasm'

Requirements: Sustained 'need'; Sustained 'capability'

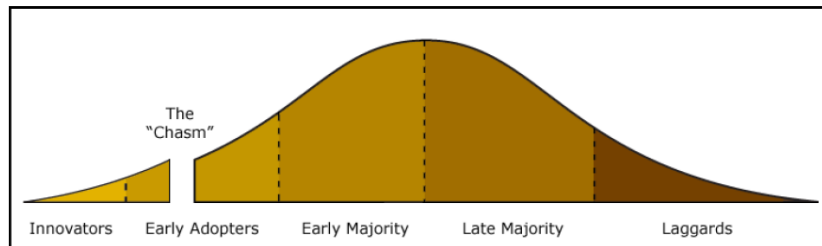


Figure 1 – Geoffrey Moore's Technology Adoption Model

- Liaising with services as a conditional requirement of funding
 - National Grid Service (www.ngs.ac.uk)
 - OMII-UK (www.omii.ac.uk)
 - OSS-WATCH (www.oss-watch.ac.uk)

Need to take into account deployment and sustainability of tools in development and/or adoption

- The clue is in the name
 - Infrastructure
 - Delivery is the key
 - Maintain UK lead
 - Real opportunity to influence this infrastructure
 - Remember infrastructure is for a purpose (users)

- Development to Service

- Access Management Federation

- Joint funding calls with the Research Councils

- Business & community engagement

Resources:

Business cases, benefits profiles, and the results of evaluation and QA activities

Further requirements:

- evidence for need in community;
- evidence of quality of existing trial or pilot service
- evidence of strategic partnership(s)
- evidence of cost-effectiveness (e.g. pooled resources supporting multi-collaborations)
- evidence that may still be lacking, and suggestions for how to fill the gaps

Dr. Ann Borda
e-Research Programme Manager
JISC
a.borda@jisc.ac.uk