



The eResearch Program -Making Networks Work for Researchers

Dr M A Sargent
Chair, eResearch Coordinating Committee



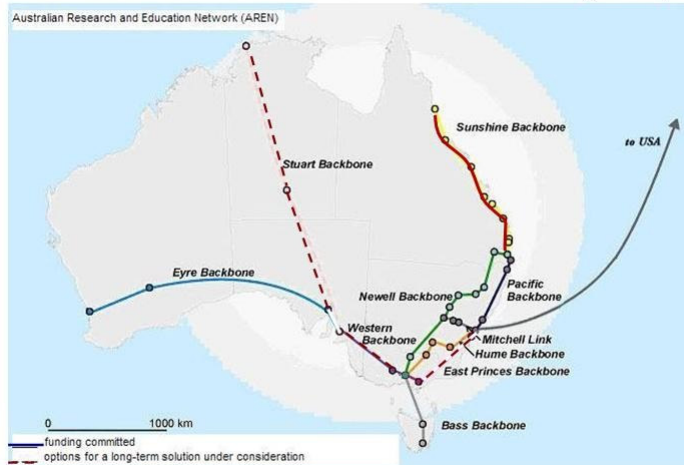
eResearch - What is it?

- **e-Research is an enabling technology to support ‘real’ research – not ‘virtual research’ - by allowing researchers to do *faster, better or different* research.**

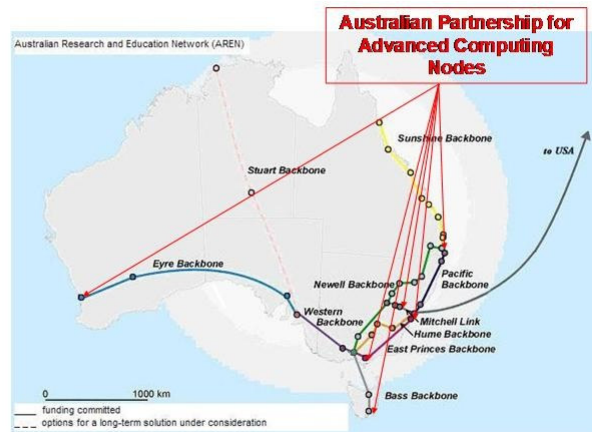
The eResearch Program

- The eResearch Coordinating Committee was established by the Australian Government in April 2005, to provide expert advice on a strategic framework for the development of Australia's eResearch capability
- Assisted by a broad Reference Group
- Outcomes: -
 - by end-Sep 2005, recommend short/ immediate term approaches and associated measures to support a national coordination of efforts
 - by end 2005, recommend an overarching long-term strategic policy framework to facilitate e-Research coordination, to develop a culture of e-Research amongst researchers and research communities, and to provide strategic directions in investment decisions

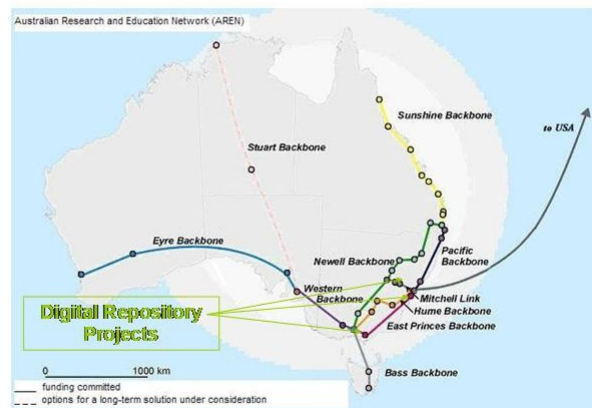
Australian Research and Education Network (AREN)



APAC Partnerships on AREN



ARIIC Projects on AREN



Elements of an eResearch Architecture

- **Access to facilities and data**
- **Data storage and management**
- **Knowledge access and management**
- **Legal issues**
- **Skills requirements**
- **Cultural issues**

Accessibility

- **Locational flexibility - Telepresence**
 - Session, and session structure, management
 - Session recording, annotation, editing
- **Remote operations**
- **Virtual organisation management**
 - interaction tools
 - workflow management
- **User authentication and access**
 - standards
 - frameworks
 - management
- **Data accessibility**
 - standards
 - rights management

Data Management

- **Storage**
 - Standards, format, metadata
 - Media
 - Accessibility
 - Security
- **Backup, Archive**
 - Media
 - Accessibility
 - Retention and retention duration
- **Transfer**
 - security, speed, integrity
- **Audit trail of users and versions**

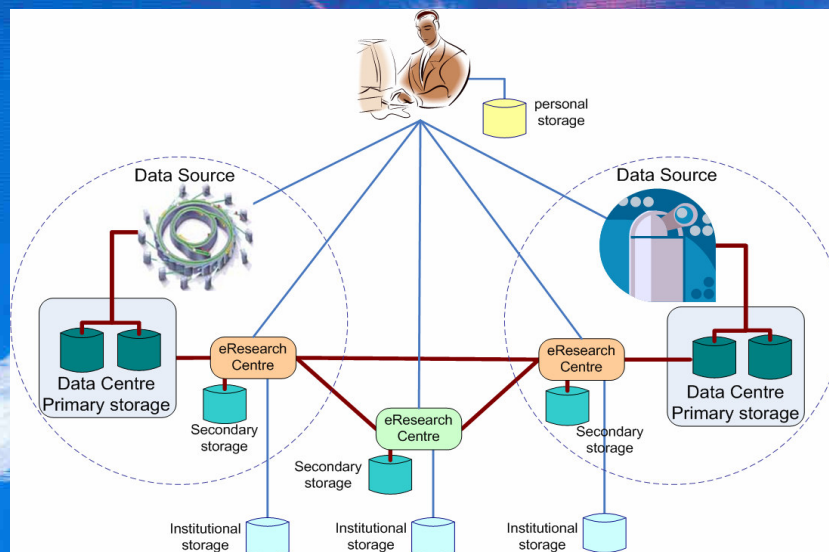
Knowledge Access & Management

- **Search and discovery of resources**
 - data and repositories
 - instruments
 - analytic capability
 - computing capacity
- **Integration of resources**
 - data stores
 - computing resources
 - networks
- **Interoperability**
 - Harmonisation of ontologies
 - Rules for assembly of resources

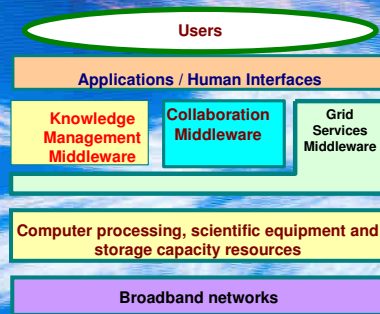
The basic need.....

- A production grade architecture for networks and facilities

National Data Architecture



Middleware - The Glue that Binds



The 'Soft' Issues

- Legals
- Skills
- Culture

