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On the stage we have....

- Tom Cochrane, Chair of AeRIC
- Rhys Francis, Executive Director of AeRIC
- Lindsay Botten, Director, National Computational Infrastructure
- Anthony Williams, Executive Director, Australian Research Collaboration Service
- Ross Wilkinson, Interim Executive Director, Australian National Data Service
- Andrew Treloar, Director, ANDS Establishment Project, one of the Deputy Directors of ANDS
- Nick Tate, Project Director of the AAF Establishment Project
- Alex Reid, eResearch Director, AARNet

NCRIS Investments

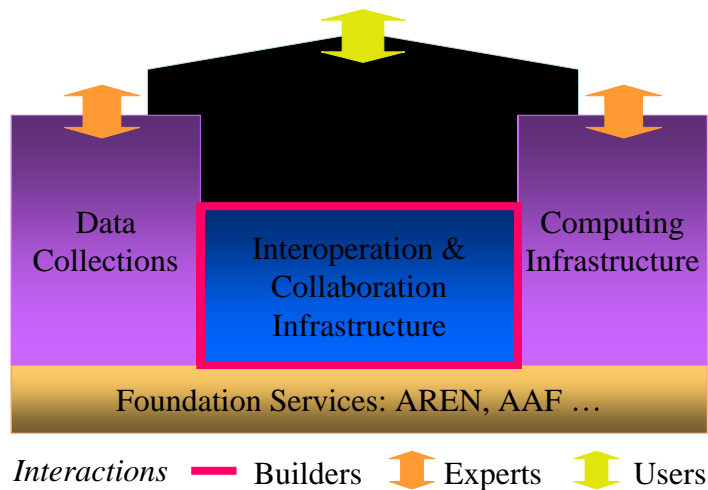
\$540M over the five years: 2007-2011

<ul style="list-style-type: none"> • Evolving bio-molecular platforms and informatics • Integrated biological systems • Characterisation • Fabrication • Biotechnology products • Optical and radio astronomy • Integrated marine capability • Structure and evolution of the Australian continent 	<ul style="list-style-type: none"> • Networked biosecurity framework • Population health and clinical data linkage • Terrestrial ecosystem research network
<p><i>Platforms for Collaboration (allocated \$82M)</i></p>	
<ul style="list-style-type: none"> • Data access and discovery, storage and management • Grid enabled technologies and infrastructures • Technical expertise • High performance computing • High capacity communication networks 	<ul style="list-style-type: none"> • Sharing researcher identities across all systems • Allowing researchers and resource owners to control who can do what to their resources • Expanding the e-Research community to “non-builder” users • Engaging the broader NCRIS community

Building on a decade of investment

- 1997: High Performance Computing Committee
 - Established the Australian Partnership for Advanced Computing to provide access to high performance computing capability
- 2000: Advanced Networks Programme
 - Established advanced demonstrator networks
- 2002: Higher Education Bandwidth Advisory Committee
 - Established the Australian Research and Education Network Advisory Committee, and the Australian Research and Education Network
- 2004: Research Infrastructure Taskforce Report
 - Established the National Collaborative Research Infrastructure Strategy Committee to implement a program of strategic investment in research infrastructure
- 2006: eResearch Coordinating Committee Report
 - Outlined an integrated program of skills development and of middleware and computer science research
- 2007: NCRIS Platforms for Collaboration
 - Commitment to an infrastructure program covering computing, data and inter-operation components, and supporting the development of the Australian Access Federation and the AREN
- 2008: NCRIS Roadmap Review, National Innovation System Review
 - Recognition of Platforms for Collaboration and eResearch as fundamental infrastructure
 - Tentative recognition of data as infrastructure

Draft of PfC Components - early 2007



Platforms for Collaboration Governance

The Australian eResearch Infrastructure Council

Composition	Role
<ul style="list-style-type: none"> An independent Chair - Tom Cochrane An Executive Director - Rhys Francis DIISR - Anne-Marie Lansdown Members drawn from providers and users of eResearch capabilities A small secretariat to assist programme management 	<ul style="list-style-type: none"> Determine strategic directions and variations to components Convene an eResearch community forum to provide advice Review the annual business plans prepared by PfC components Make recommendations to DEST and NCRIS

The National eResearch Architecture Taskforce

Role
<ul style="list-style-type: none"> Undertake a technical examination of future generations of tools and services <ul style="list-style-type: none"> Especially for the ARCS and the ANDS communities (collaboration around data) Make recommendations on priority projects to be developed Oversee the implementation of eResearch tools for research communities Provide advice to AeRIC on the development and use of eResearch tools in Australia

Why the three big investments...why not one?

Interoperation



Platforms for Collaboration Investments

- Share and access data in the commons
- National registries and access services
- Connect repositories to the commons
- Data frameworks

- A shared national computational facility
- Domain oriented modeling capabilities

The Data Commons
Data Federations

ANDS \$24M

ASSDA \$3M

AAF \$2M

AARNet \$3M

Research connectivity
Seamless reach

- Shared authorisation framework for resources
- Connect researchers at required bandwidth

Capability Computing
Advanced models

NCI \$24M

ARCS \$22M

Collaboration services
Research workflows

- Services linking resources nation wide
- Collaboration and workflow tools

NeAT Projects - approach to new tools

- Aim to develop new eResearch services and applications that utilise or enhance PfC services
- Proposals developed by National eResearch Architecture Taskforce
- NeAT must deliver value to NCRIS capabilities (the NCRIS priorities)
 - But NeAT can and does look more broadly
- Projects are implemented through ARCS and ANDS
 - Have been supported by between \$200,000 to \$600,000 pa
 - Initial projects involve 55 EFTs, funded by about \$3M pa
- Projects need very considerable buy-in from user communities
 - Because researchers need to assist refine the services
 - Somebody needs to own the service output - they must care
- Each project is governed by a Project Committee
 - Representatives from the research discipline (including end users of the services), ARCS, ANDS, other service providers
- More open process in second round (starting after this conference)

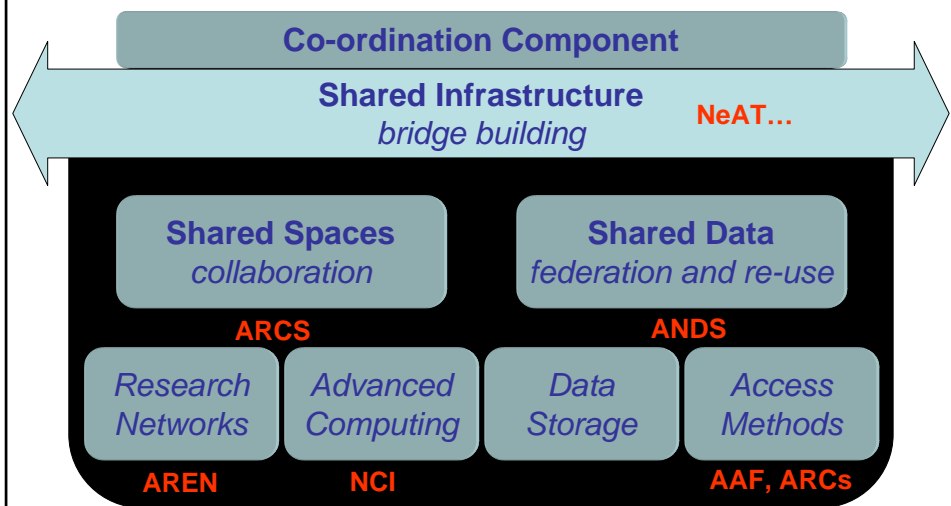
Initial Projects

- Aus-e-Lit - (Assoc. for Study of Australian Literature)
 - Extend AustLit web portal to provide federated search across multiple relevant distributed databases, support annotation and compound digital objects
- DIAS-B - Data Integration and Annotation Services in Biodiversity (Atlas of Living Australia)
 - Metadata repository with registration, discovery and search of many biodiversity data resources
 - Support user annotations, particularly for data quality, and additions or corrections
- ASeSS - ASSDA Services for e-Social-Sciences (ASSDA)
 - Tools for authorized data search and analysis for Australian Social Science Data Archive
 - Web based data visualization (esp spatio-temporal)
 - Tools to increase automation of data ingest and access control
- MACDDAP - Marine and Climate Data Discovery and Access Project (IMOS)
 - Add support for OGC spatial data standards to OPeNDAP
 - Automation of ingest and metadata generation so more data sets are available in standard formats
- SISS - Spatial Information Services Stack (Auscope)
 - Similar to MACDDAP but for a broader range of software using OGC Catalog Service and geoscience data
- DataMINX - Data in Microscopy Imaging Neutron X-ray (Characterisation)
 - moving data from instruments to data repositories and user's desktop
 - automated capture of metadata into searchable repository
 - remote access to experiments (telepresence)

Extract from Revised Roadmap...

- In the main, the capabilities identified in the 2006 Roadmap are supported
- A number of additional needs result in a reshaping, and in the most part a supplementing, of elements in individual capabilities.
- The Humanities, Arts and the Social Sciences (HASS) are specifically recognised as an important capability area
- The significance of information and communication technologies (ICT) as an underpinning and pervasive capability is strongly acknowledged
- The inclusion of data itself as collaborative research infrastructure is emphasised
- The need to further enable and recognise the linkages between specific capabilities has resulted in the grouping of related areas

Our proposed investment structure....



What are my issues going forward...

HPC	How to invest in the next generation machines and machine rooms How to build co-investment in people and models with the machines
Collaboration	How best to bring 'main street' collaboration to 'our street' How to make research sites as smooth as social sites
Data	How to achieve retention for all and re-use for some How to create the co-operative for data that data really is
Networking	How to connect researchers to the resources they need How to connect us to the rest of the research world
Access	How to integrate access to all research resources not just PIC/NCRIS resources
NeAT	How to get closer to the researchers, closer to the research interface What to do about tools development
PfC	How to have our best researchers think of themselves eResearchers