Establishing a Research Storage Service at UNSW.

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starting with the end in mind
There are a number of critical terms that describe our aspiration:

1. Leading: To maintain and build upon our position amongst the top research-intensive universities globally.

2. Research intensive: Research is critical both for its own sake, and because it is reflected in our learning and teaching and community engagement.

3. Asia-Pacific region: We continue to build on our long and successful tradition of engagement with the region, deepening and broadening our international links.

4. Contemporary and social issues: Consistent with our B2B theme we concentrate on key issues in society.

5. Defined strengths: More than 90% of all research activity at UNSW is focused in areas of existing or emerging research strength. We identify existing strengths through a continuing process of review, and build strength in areas of emerging strategic significance, underpinned by fundamental and enabling knowledge in science and humanities. We also have a strong tradition of excellence in learning and teaching, regularly being ranked highly by students, graduates, employers and within the University sector.

6. Professional, scientific and technological fields: We cover a broad range of professions underpinned by science and the scientific method as appropriate to the disciplines involved. The most successful programs are interdisciplinary, fully engaging the humanities, social sciences and professional, scientific and technological disciplines in tackling important social issues.
Research: Objective and Strategies

Continue to build on our position as a peer of the best globally in research performance, concentrating on defined strengths by:

1. Retaining, attracting and developing leading, internationally recognised research staff and distinguished visitors, to achieve “critical mass” of research activity in key areas.

2. Providing an excellent research environment, with cutting-edge facilities and equipment.

5. Developing and expanding research linkages with industry in Australia and internationally, and encouraging strategic collaboration of our th with the best in their
e in identifying h support.

7. Embedding professional values and integrity in our research culture.
the end state

a research data service
the service
an institutional long-term store with metadata functionality at no direct cost to researchers
the investments
multi-million
multi-year
multi-stream
a roadmap

- **2012**
  - **Pilot Archive**
    - 350TB Disk + 500TB Tape for Long Term Archive Storage

- **2013**
  - **RDMP Launch**
    - Online Research Data Management Plans available and required for access to storage

- **2014**
  - **Archive Storage**
    - Expansion of storage to 500TB Disk + 3PB Tape

- **2015**
  - **HDR RDMP**
    - Customised RDMP and storage for HDR Candidates
  - **Smart Data**
    - Additional metadata tool for research to better tag and improve searchability of data

- **2016**
  - **Active Storage**
    - Faster storage solutions suitable for analysis, computation and visualisation

- **2017**
  - **Devices**
    - Support for automated upload of data from instruments to the research data storage
a roadmap

2012
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2017
- Devices
  Support for automated upload of data from instruments to the research data storage
the key components

align with typical research lifecycles and support research practice

Beginning a project

During a project

Concluding a project

Research Data Management Plan

Different Kinds of Active Storage

Archival Storage

Metadata Tools
in service
the institutional long-term store

User Interfaces

Java / Web LiveArc MediaFlux Server

Command Line Interface

Disk Cache

Tape-based Storage

On site

Taken off site
a journey
from plans
to projects
to service
two themes

- collaboration
- governance
“the processes that ensure the effective and efficient use of IT in enabling an organization to achieve its goals”

Gartner
an IT focus
collaboration
three frameworks

- strategic
- program
- service
three frameworks
- business domains
- Prince2
- ITIL
three frameworks

- Govern, Direct, Prioritise
  - UNSW IT Investment Planning Business Domains
- Plan, Align, Organise
- Build, Acquire, Implement
  - Prince2
- Run, Deliver, Service, Support
  - ITIL
strategic
business domains
three domains:

what we do

and

supporting what we do

business domains
business domains

- span organisational boundaries
- enable institution-wide strategic planning
- foster alignment
- reduce duplication
business domain owners

Business Domain Owners Advisory Group

- Academic 2
- Research 2
- Support 3

chair their domain

work with other domains to set priorities and identify dependencies

are a key role in promoting cross-organisational collaboration

business domains
investment prioritisation

3 year plans - updated annually

**within domains:** alignment to domain strategy. Best place to identify business issues, risks and opportunities.

**across domains:** alignment to university strategy. Ensures transparency, reduces duplication, ensures high level sponsorship.
investment prioritisation

cross institutional stakeholder input

**within domains:** through domain
domain membership

**across domains:** through faculty
and divisional voting

Domain Investment Proposals

Cross-Domain Prioritisation

Voting

business domains
summary

- Business Domains are an effective model to promote strategic objectives, foster alignment and promote collaboration across typical organizational silos.

- Internal domain work is where existing and emerging business issues, risks and opportunities are most clearly identified.

- The Domain Owner role is important in communicating important cross-domain issues.

- A transparent prioritisation process supports business engagement and clearly communicates executive sponsorship.
prince2

program / project
Prince2
7 principles
7 themes
7 processes

a formal methodology responding to IT project failures with a focus on business justification and managing by stages

used at UNSW since 2009
Prince2

business-led role-based governance groups

boards & BAGs

regular meetings
small board / big BAG

senior stakeholders

program / project
Prince2 approves plans and stages authorises changes communicates out ensures that the project is valuable and contributes to the organization’s strategic objectives.

Senior Stakeholders:
Pro-Vice Chancellor (Research)
UNSW Librarian
Chair UNSW eResearch Committee
Director UNSW Analytical Centre
Chief Technology Officer, UNSW IT
Prince2 the board ensures that the project is valuable and contributes to the organization’s strategic objectives.

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executive approves plans and stages
senior user authorises changes
senior supplier communicates out

program / project
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Prince2

the BAG
Business Advisory Group

represents business interests
projects acceptance input
monitor for business impact

provides project assurance and
direct access to key stakeholders
such as individual researchers,
heads of school, Faculty IT staff,
Library, Research Managers…

program / project
a smaller board and an empowered large BAG is effective in providing the right oversight and input.

the Board composition is important. It ensures projects are aligned with university strategies and practices.

having senior stakeholders on the Board provides the resources and visibility required to achieve project goals.

Prince2 is an effective project governance framework for academic organisations. But boards need timely and actionable and accurate updates to function.
ITILv3
running the service
ITILv3

IT quality \equiv \text{alignment of IT services with the needs of the business.}

ITIL Official web site, 2011

running the service
a service \equiv something \text{ that provides value to customers.}

(services \text{ that customers can directly utilise or consume are known as business services.)}

running the service
ITILv3

26 processes} 5 components

Service Strategy organizational objectives and customer needs.

Service Design delivering the business objectives.

Service Transition introducing new services into supported environments.

Service Operation manages services in supported environments.

Continual Improvement incremental and large-scale improvements of services.

running the service
ITILv3

service delivered across different service provider groups different cultures

/ UNSW IT UNSW LIBRARY UNSW Research Division

a common language clarifies and defines interactions

running the service
ITILv3

Service Design

[ service definition ]

* the business customer and the service provider groups to know what to expect

* established to agreed service levels with a service owner

running the service
running the service

ITILv3

Service Transition

change control

standardised methods to handle changes in IT systems to minimize service disruption

weekly CAB, code versioning, common testing

running the service
Service definition provides clarity when delivering support across teams.

The service owner role helps to bridge across the technical teams.

Clear change control is important so each team knows what the other team is doing.

ITIL provides a good methodology when formal processes and clear documentation are required.
collaboration

research division

library

information technology

researchers

collaboration
Thank you