



**AUSTRALIAN NATIONAL DATA SERVICE (ANDS)
National Collaborative Research Infrastructure
Strategy (NCRIS)**

Progress Report 1, 30 September 2009



1.1. Project Overview

The Australian National Data Service has commenced successfully. Its aim of having more researchers re-using research data more often requires establishing partnerships beyond ANDS and this is occurring. For researchers to be able to share effectively, they need the technology to enable this to occur more efficiently, and an environment where appropriate resources, often provided institutionally are available. Consequently ANDS is engaging extensively with institutions to support them in their research data ambitions. The recent consultation on the ARDC project has indicated a high level of institutional willingness to engage, as well as many researchers actively interested in sharing and re-using research data.

Other crucial partners are the other providers of eResearch services – ARCS, NCI, AAF, and state based providers such as IVEC and INTERSECT. ANDS has already placed staff at eRSA and INTERSECT and is in the process of placing further state based staff. ANDS has developed plans for coordinated service offerings with ARCS in storing and managing data and metadata. As well some of the NeaT projects are being conducted by eResearch teams such as the one based at the University of Queensland.

ANDS has actively engaged with other NCRIS capabilities to ensure coordinated responses to needs, and have been important contributors to ANDS strategy, ANDS projects, and planned ANDS staff based at NCRIS capabilities.

Most importantly, ANDS has been engaging with researchers, particularly on data capture projects, with a good example being the engagement with the crystallography research group at Monash who have captured comprehensive metadata, deposited the data for an international journal and made their metadata visible through ANDS Research Data Australia service.

Whilst there has been inevitable disruption with the advent of the EIF ARDC project and slowed some delivery, it has been very helpful in deepening engagement with our partners, and increasing the scope of data capture and sharing.

1.2. Description of activities

Research Infrastructure

ANDS has made considerable progress towards its initial goals of providing greater support to enable researchers to work in the new world of data-intensive research, notably through the release of specific services for their use (Identify My Data and Register My Data), engagement with several institutions to better support their data management (e.g. University of Newcastle, ANSTO, iMOS etc), and the provision of advice and documentation in various data management areas, via the ANDS website. More detailed reports on progress in this area are contained in Attachment D.

Once ANDS was established and underway, the direction of some of the programs was altered and this was reflected in the Business Plan 2009-10 that was submitted to DIISR in March 2009. Future reports will reflect these changes.

The introduction of the Education Investment Fund Australian Research Data Commons (EIF-ARDC) project in the 2009 Federal Budget has had a large impact on ANDS work and directions, notably in the



level of growth that the Commons will undergo. Work on EIF-ARDC proper (as opposed to planning) commenced after the period covered by this report.

Access and Pricing

All ANDS services are available free of charge to all Australian researchers at publicly funded research institutions and discovery is available to all.

Performance Indicators

An agreed set of performance indicators were developed and submitted to DIISR as part of the 2009-10 planning process. These are:

1. The number and coverage of data repositories providing metadata feeds to the national registry compared to the number of data repositories
2. The number and coverage of institutions and number of research groups with which ANDS has engaged
3. The number of institutions with research data management policies and practice consistent with ANDS recommendations
4. The number of times a search is initiated with an ANDS discovery service
5. The number of times an ANDS data page is accessed
6. The satisfaction of researchers and partners with ANDS services as measured by an annual survey
7. The number of data access and sharing agreements with our stakeholders – principally research institutions, government data agencies, government research agencies

There are two measures that ANDS will not have full control over, but that are important and will measure our success in influencing others' behaviour:

8. The number of research data sets in harvestable repositories
9. The number of research data sets with persistent identifiers

There is a final measure that ANDS aspires to – it will be measured it but is unlikely to be a useful short-term KPI

10. The number of times a data set is reused and referenced – the ultimate long term measure

The measures continue to be appropriate. These measures will be reported upon after the formal evaluation we conduct later in the year.

Governance



A formal Collaboration Agreement between Monash, CSIRO and ANU has been signed. The ANDS Steering Committee has been in operation since the beginning of 2009, and has met regularly. It is lead by Dr Ron Sandland as the independent Chair. The current makeup of the Committee is:

- Chair: Dr Ron Sandland
- Ms Cathrine Harboe-Ree (Monash University)
- Mr David Toll (CSIRO)
- Mr Vic Elliott (The Australian National University)
- Prof Mark Ragan (University of Queensland)
- Mr Paul Sherlock (University of South Australia)
- Dr Lee Taylor (NSW Department of Health)
- Executive Director (ex-officio): Dr Ross Wilkinson (Australian National Data Service)

Management of the service is being undertaken in the manner described in the plan. Dr Ross Wilkinson was appointed as Executive Director in November, 2008. At Monash Dr Andrew Treloar was appointed as Deputy Director, Seeding the Commons and David Groenewegen was appointed as Deputy Director, Developing Frameworks. At ANU Dr Adrian Burton was appointed as Deputy Director, Building Capabilities and Providing Utilities. This team has assumed management of the staff and programs at the two ANDS sites.

Risk management is monitored regularly, and a Risk Register is maintained and updated. The Executive Director makes a report on the status of the risk register to each meeting of the Steering Committee.

Promotion

ANDS has undertaken a large number of promotional activities in the first six months of operation, in accordance with the Communications Plan that has been developed. These include:

Presentations/attendance at Conferences

ANDS staff have presented and attended a range of international and local conferences to promote the service and to establish relations with other parties. These include:

- EduCause Australasia, Perth, May 2009 (ANDS Presentation)
- JISC/DRIVER workshop, Amsterdam, March 2009 (ANDS Presentation)
- DigCCurr Conference April 2009
- CNI Meeting, Minneapolis, April 6-7. 2009.
- National and Institutional Perspectives on Metrics-Based Research Evaluation, University of Queensland, April 16-17 2009.
- Open Repositories 2009 Conference, Atlanta, Georgia, 18-21 May 2009

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- eSciDoc Days 2009, Karlsruhe, Germany June 15-16 2009 (ANDS Presentation)
- CERN Workshop on Innovations in Scholarly Communication (OAI6), Geneva, Switzerland, 17th-19th June 2009 (ANDS Presentation)
- SUN Preservation and Archiving Special Interest Group Summer Meeting 2009

Forums

ANDS has held two information gathering and sharing forums on the Australian Code for the Responsible Conduct of Research to help us develop materials to take to the wider community. The first forum was held in Melbourne on 20th April, 2009 with representatives from Monash University, the University of South Australia, CSIRO, and University of Melbourne. The second was in Sydney, on 21st May, 2009, with representatives from the University of Sydney, Australian National University, University of Newcastle, Intersect and Queensland University of Technology.

These small discussion groups enabled us to compare how institutions are responding to the Code, by developing new policies and procedures. ANDS is seeking to understand the issues involved and provide support in data management. Common themes emerged over the two days, along with differences in how each institution responded to those themes.

Consultation meetings

ANDS staff have travelled extensively to meet with potential partners and stakeholders to discuss the service and how it might be of interest to them.

Newsletter

Extensive planning and work was put into developing a newsletter to cover the operations and developments of the service. The first issue was made available in July 2009.

Other activities

ANDS has established a mailing list (ands-general) to promote news about the service, as well as participating in other mailing lists as appropriate.

1.3. Progress against milestones

Milestone	Progress
Model institutional data management plan developed	Some guides available on ANDS website at http://www.ands.org.au/guides/index.html . Development has been focussed on the idea that a single model will not work in all cases, and that assistance needs to be given in identifying needs at an institution.
Guidelines on how to comply with the data management requirements in the <i>Australian Code</i>	Documentation and resources made available on the ANDS website at



for the Responsible Conduct of Research agreed	http://www.ands.org.au/resource/code.html . Planning undertaken for Roadshows to provide further guidance to be run in 2009-10
Australian Research Data Commons Policy Forum (ARDCPF) established and program of work agreed	ANDS eResearch Support Forum has been established and met.
ANDS Discovery Service make it possible to discover data collections and items across multiple research domains (although access to the collections and items may need to happen through native interfaces)	An operational discovery service has been created with some of the function that we seek. It can be accessed at http://services.ands.org.au/home/orca/rda/index.php
Persistent identifier service available for use by repositories and research communities as part of establishing data federation utilities in their own domains	A persistent identifier service has been created and is available to institutions as a web service.
Initial interoperability requirements between repositories and initial utilities services defined and promulgated	Version 1 of services documentation available at: http://ands.org.au/resource/techdocs.html
Protocols and SLAs for how current ANDS registries and discovery services will interface with relevant international equivalents agreed	Global Registries Initiative meeting held Dec 2008 Global registries website established and maintained at: www.globalregistries.org Planning for Global Registries Agreements commenced. Draft agreements and architecture due S2 2009
Roadmap developed for the progressive delivery of utility services	Utilities program management plan maintained at: http://plone.arcs.org.au/ands/utilities/program-documentation Utilities program activity schedule maintained at: http://plone.arcs.org.au/ands/utilities/program-documentation/schedules
Australian Research Data Commons Interoperability Forum (ARDCIF) established	Re-named Technical Forum. First meeting held
Initial targets for focussed assistance under Seeding the Commons selected and plans for activity in 09/10 ready to commence	Targets have been identified and initial discussions held, with a view to working closely with 2009-10. These include ANSTO, University of Newcastle, Monash University and TPAC.
A number of strategic data sources and federations	IMOS, TARDIS and and iVEC data now available.



are available through ANDS registry and discovery infrastructure, thus increasing their visibility and accessibility and seeding the commons	
Australian data repository landscape mapped	Preliminary scan performed
Key and representative data stewards of the Australian Research Data Commons identified and engaged with through the Australian Research Data Commons Stewards Forum	Re-named and re-focused as E-research Support forum. Established and two meetings held
Training program developed to improve lifecycle data management practices across a range of research communities and institutions	Focus changed. ANDS will not develop a training curriculum. ANDS has worked with institutions to deliver training (Monash University, University of Newcastle). ANDS Guides developed: http://ands.org.au/guides/index.html
Initial cohort of data managers trained	Focus changed. ANDS will not develop a training curriculum. ANDS has worked with institutions to deliver training (Monash University, University of Newcastle).

1.4. Deviations from the Project Plan/Annual Business Plan

ANDS staff have spent considerable time in the period April – June 2009 responding to the requirements of the additional funding provided from the Education Investment Fund announcement in the 2009 Federal Budget. This has involved:

- Negotiation with Department staff over contractual arrangements
- Development of an acceptable business plan, with a June 30 deadline
- Development of a targeted 'fast start' program to commit \$10,000,000 by September 30, 2009
- Amendments to anticipated staffing, budgetary and management planning for the remainder of the funding period.

As ANDS has developed and consulted more widely there have also been changes to the initial plans of the Service. These are documented in Attachment D, as part of the reporting on progress.

1.5. Financial and human resources

The following table indicates ANDS expenditure for January to June 2009. Income is shown in the audit statement in Appendix B.

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Attachment A Performance Indicators

These will be reported upon once the agreed survey is conducted later in the year.



There is no confidential information.



Attachment D

Progress against activities

Developing Frameworks

Proposed Activity	Progress
Develop and maintain a strong stakeholder engagement strategy, including establishment of the Australian Research Data Commons Policy Forum; and proactively seeking membership/ involvement in other policy forums	Decision made to have separate Forums on topics (e.g. <i>Code for Responsible Research</i> – held in Feb/Mar 09), rather than a single Forum
Review existing state and commonwealth data management and records management policies and guidelines	Ongoing
Contribute to national policy development through issues-based events resulting in documented policy recommendations	<i>Code</i> Forums held, which have led to Roadshows on the topic being run in 2009-10. See http://ands.org.au/resource/code.html
Prepare submissions and responses to relevant government enquiries, reviews, working groups, etc. (scope dependant on demand)	Responded to Victorian Government Inquiry into Improving Access to Victorian Public Sector Information, final report recommended that Government seek to work with ANDS; responded to Federal Government Digital Economy Future Directions inquiry
Advocacy and outreach for data management policy and planning	Working with Seeding the Commons in their engagements with key partners, such as University of Newcastle and ANSTO.
Investigate and establish connections between ANDS and government instrumentalities that hold data collections relevant to researchers	Working with CSIRO on their data sharing potential.
Consult with and advise DIISR to ensure that good research data management practice is incorporated into Research Training Scheme (RTS) activities	No progress due to other priorities.
Develop relationships with equivalent activities overseas to share approaches to national and international policy activities that can inform ANDS	Met with JISC (UK) and SURF (Netherlands)
Develop model data management policies, plans and implementation guidelines (as well as associated strategies) for implementation at	Ongoing in conjunction with Capabilities program, work being made available though ANDS website



research-producing institutions at various levels: institutions, research program leaders, research project managers, individual researchers and post-graduate researchers	
Develop consensus based policy guidelines for data re-use, access rights, and data object referencing, consistent with international and discipline standards	No progress due to other priorities.
Adopt, adapt and embed appropriate licence agreements for data sharing as the preferred option, and support other legal aspects of data creation and management	No progress due to other priorities.

Providing Utilities

<p>Commission fundamental national utility services to support:</p> <ul style="list-style-type: none"> • users discovering the existence of some data collections and objects • users (and software) generating and resolving persistent digital identifiers that point to digital objects 	<p>Register My Data service in production: http://ands.org.au/services/register-my-data.html</p> <p>Identify My Data Service commissioned: http://ands.org.au/services/identify-my-data.html</p>
Develop a roadmap for potential successor services, such as an Access Policy Registry (developed in collaboration with the ARCS authorisation fabric), Quality Assurance Service, Metadata Schema Registry (building on work funded in the DART and ARCHER projects), Obsolescence Notification (building on the AONS/AONS-II work), Aggregated Statistics (building on the Australian Partnership for Sustainable Repositories BEST project), and a Federations Registry (this roadmap will need to deal with outsourcing to potential service providers, including institutional IT Directors; it will also need to consider the value in providing a range of solutions for integration by institutions with varying levels of technical expertise)	No progress due to other priorities. Directions for the EIF ARDC project reflect the planning that was to take place in this area. Roadmap for both contexts is re-scheduled for Q4 2009
Assist with communication and knowledge transfer	Planning and preparation for workshops and roadshows undertaken. Partial schedule for S2



<p>about these utility services</p>	<p>2009 available at: http://ands.org.au/events/roadshow.html Presentation scheduled at eResearch Australasia</p>
<p>Develop relationships with equivalent activities overseas to share approaches to national utilities (such as registries) that can inform ANDS</p>	<p>Global Registries Initiative meeting held Dec 2008 Global registries website established and maintained at: www.globalregistries.org Planning for Global Registries Agreements commenced. Draft agreements and architecture due S2 2009 Participation in JISC sponsored Global Infrastructure workshop. Planning for ANDS to join DataCite an international consortium dedicated “to establish a not-for-profit agency that enables organisations to register research datasets and assign persistent identifiers to them, so that research datasets can be handled as independent, citable, unique scientific objects” http://www.datacite.org/</p>
<p>Convene (together with the Seeding the Commons program) an Australian Research Data Commons Technical Forum (ARDCTF)</p>	<p>Renamed Technical Forum. Forum convened and first meeting held.</p>
<p>Continue the work of the Metadata Advisory Commission for Australian Repositories group</p>	<p>No progress due to other priorities.</p>
<p>Assist in the specific instantiation of appropriate federation data utilities within discipline and community federations</p>	<p>Consultancies with various NCRIS groups (ABIN, ALA, APPN, TERN) and all NEAT projects</p>
<p>Develop and maintain a data federations reference model and service integration framework</p>	<p>No progress due to other priorities.</p>
<p>Identify initial strategic (and willing) data federations to partner with and learn from</p>	<p>Initial data federations identified (IMOS, ALA, Astronomy, AuScope)</p>
<p>Work closely with Seeding the Commons targets to identify and implement technical solutions to assist their integration into broader visibility systems (such as Australian Research Data</p>	<p>IMOS, TARDIS and and iVEC data now available.</p>



Commons registry and discovery utilities)	
Integration of ANDS registries with international initiatives (NSF and JISC)	<p>Global Registries Initiative meeting held Dec 2008</p> <p>Global registries website established and maintained at: www.globalregistries.org</p> <p>Planning for Global Registries Agreements commenced. Draft agreements and architecture due S2 2009</p>

Seeding the Commons

Define and run the selection process	Ongoing – EIF-ARDC project has considerable impact on this.
Select the initial target groups	Done
Undertake detailed planning for work to commence in ANDS Year 2	Underway.
Start work with Seeding the Commons target repository managers to help them overcome barriers to content recruitment	Work underway with Newcastle, Sydney, Melbourne, Monash, ANU, CSIRO and ANSTO.
Start work with initial Seeding the Commons target content owners to help them lodge the content over which they have control	Engagements initialised
Identify as much content as possible that is already in repositories (or can easily be loaded) and make it discoverable	IMOS, TARDIS and and iVEC data now available.
Work with DCC, NSF and SURFNET to collaboratively develop tools to help improve the quantity and quality of repository content	<p>Participation in JISC sponsored Global Infrastructure workshop.</p> <p>No progress on tools due to other priorities.</p>
Convene (together with the Utilities program) an Australian Research Data Commons Technical Forum (ARDCTF)	Renamed Technical Forum. Forum convened and first meeting held.
Map the Australian research repository landscape	No progress due to other priorities.
Model, implement, provide and support a reference data repository software stack,	No progress due to other priorities.



preintegrated with ANDS utility services and available for easy deployment by research groups or within institutions	
Provide a repository interface toolkit to facilitate easier submission	No progress due to other priorities.
Develop relationships with equivalent activities overseas to share approaches to data management systems that can inform ANDS	Participation in JISC sponsored Global Infrastructure workshop. Discussions held with SURF, DCC, DANS, JISC,

Building Capabilities

Establish the Australian Research Data Commons Content Forum	eResearch Support Forum established and two meetings held
Engage the community on capacity and capability constraints to be addressed and the means of addressing them	Community initially engaged and constraints gathered and documented through the forum, numerous site visits, workshops, and meetings.
Work with practitioners to identify best practices in data management processes, data repository management, preservation planning, data management practices, roles and responsibilities and skillsets for the research community	Through workshops, forum, site visits, a “first cut” of fundamental issues for data intensive research are documented at: http://ands.org.au/resource/index.html
Assess training needs, leverage existing activity, help define curricula and identify possible training providers to educate people in effective data management	Focus of this program has been changed from curriculum development and training to support for professional intermediaries.
Train initial cohort of data managers	Focus changed. ANDS will not develop a training curriculum. ANDS has worked with institutions to deliver training (Monash University, University of Newcastle).
Start to address the skills shortage among repository data managers	Community initially engaged and constraints gathered and documented through the forum, numerous site visits, workshops, and meetings.
Build communities of best practice among repository data managers, with associated knowledge-sharing mechanisms	<ul style="list-style-type: none"> • eResearch Support Forum established and two meetings held • email lists established



	<ul style="list-style-type: none">• bulletin board scheduled for Q3 2009• workshops planned for S2 2009
Develop relationships with equivalent activities overseas to share approaches to capability building that can inform ands	No progress due to other priorities.
Deliver a training program to distribute best practice across data sharing communities	Focus of this program has been changed from curriculum development and training to support for professional intermediaries. Support materials developed and published at: http://ands.org.au/resource/index.html