



better data: better research

MANAGING

CONNECTING

DISCOVERING

REUSING

R E S E A R C H D A T A

Research is producing larger and more complex data than ever before. It is imperative that these data outputs are effectively managed and shared.

Better data – better described, more connected, more integrated and organised, more accessible, more easily used for new purposes – allows new questions to be investigated, larger issues to be investigated, and data landscapes to be explored.

The Australian National Data Service (ANDS) is here to help by leading the creation of a cohesive national collection of research resources and a richer data environment that will:

- » Make better use of Australia's research outputs
- » Enable Australian researchers to easily publish, discover, access and use data
- » Enable new and more efficient research

Australian National Data Service

ANDS is enabling the transformation of:

Data

That are:

- » Unmanaged
- » Disconnected
- » Invisible
- » Single Use

to

Structured Collections

That are:

- » Managed
- » Connected
- » Findable
- » Reusable

...so that Australian researchers can easily publish, discover, access and use research data

Why manage data?

The deluge of complex data being produced by research is of greater value if it is effectively managed and described. This:

- » Preserves the integrity of the research
- » Allows data to be made available for others to use
- » Assists researchers to reduce the risk of data loss
- » Secures continued access to the value in data

Why make data discoverable?

Making data more discoverable:

- » Enables the demonstration of research excellence
- » Allows researchers to build upon existing data, instead of recreating it
- » Fosters innovation
- » Provides the ability to solve big problems across discipline boundaries

Why connect data?

Creating connections between research data is a central mission of ANDS because it:

- » Interlinks data to people to projects to publications
- » Improves the discoverability of data
- » Ties data to research achievements
- » Provides richer context for data value

Why reuse data?

Reusing data allows:

- » Verification of research claims
- » New discoveries from existing data
- » Integration of sets of data for new analysis
- » Re-analysis of expensive, rare or unrepeatable investigations
- » The reduction of duplicated effort

The ANDS approach

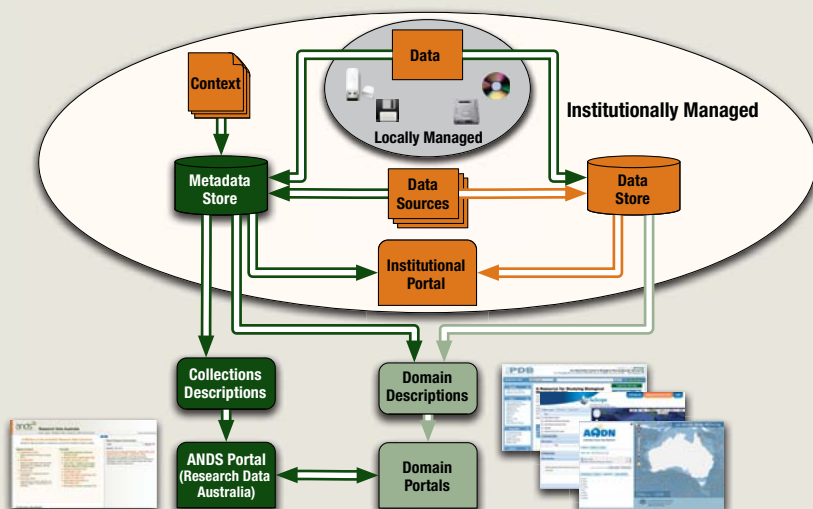
To enable Australia's research data to be transformed, ANDS is:

- » Creating partnerships with research and data producing organisations through funded projects and collaborative engagements
- » Delivering national services such as Research Data Australia and Cite My Data
- » Providing guides and advice on managing, producing and reusing data
- » Building a research data community of practice
- » Building the Australian Research Data Commons

The Australian Research Data Commons

ANDS is creating the Australian Research Data Commons as a meeting place for researchers and data, to provide:

- » A set of data collections that are shareable
- » Descriptions of those collections
- » An infrastructure that enables populating and exploiting the commons
- » Connections between the data, researchers, research, instruments and institutions



As well as data collections, a rich Australian Research Data Commons includes:

- » Data capture tools
- » Metadata management tools
- » The ANDS portal: Research Data Australia
- » Discipline and institutional portals
- » Publishing tools
- » Data exploitation tools
- » Data citation tools

What is Data Citation?

Data citation is the practice of providing a reference to data, in the same way researchers routinely provide a bibliographic reference, and is important because it enables the discovery and recognition of research.

ANDS provides the Cite My Data service, which utilises Digital Object Identifiers (DOIs) to assist in the citing and tracking of research data.

Accurate citation of research data supports reuse

Building a Culture of Data Citation



Research Data Australia

Research Data Australia is an Internet-based discovery service designed to promote visibility of Australian research data collections in search engines such as Google and Bing. Research Data Australia aims to provide a comprehensive window into the Australian Research Data Commons. It provides connections between data, projects, researchers and services across organisations and disciplines.

A window to the data commons

The screenshot shows the Research Data Australia website. At the top is a green navigation bar with links: HOME, COLLECTIONS, PARTIES, ACTIVITIES, SERVICES, ABOUT, CONTACT, and the ands logo. Below the navigation bar is the site title "RESEARCH DATA AUSTRALIA" and a search bar with a "SEARCH" button and "Advanced Search" text. The main content area is divided into two columns. The left column is titled "What's in Research Data Australia" and contains four categories: COLLECTIONS (Browse All Collections (25,928)), PARTIES (Browse All Parties (2,471)), SERVICES (Browse All Services (46)), and ACTIVITIES (Browse All Activities (966)). The right column is titled "Spotlight on research domains" and features logos for IMOS (Integrated Marine Observing System) and AuScope. Below the logos is a callout box for "NCRIS and EIF Capability - Integrated Marine Observing System" with the URL <http://www.imos.org.au/> and a description: "Integrated Marine Observing System (IMOS) has deployed observing equipment in the oceans around Australia, with data freely and openly available through the IMOS Ocean Portal."

<http://services.ands.org.au>

Engaging with ANDS

Services

- » Research Data Australia – a discovery service for Australian research data
- » Register My Data – allows institutions to share descriptions of research collections with discovery services and e-research applications
- » Identify My Data – allows institutions and researchers to persistently identify data
- » Publish My Data – allows individual researchers to publish the existence of research collections to the Internet
- » Cite My Data – allows research organisations and data centres to assign DOIs to their data

Guides

ANDS Guides cover a broad range of topics including:

- » Awareness of, and technical documentation for, ANDS services
- » Data management planning and infrastructure
- » Research data policy and the Australian Code for the Responsible Conduct of Research
- » Identifiers and data citation
- » Policy and Legal Framework

ANDS Guides and other resources as listed above are available from the ANDS website:

<http://ands.org.au/guides>

*ANDS creates partnerships
to transform data*



More Information

share, the ANDS newsletter, is available from: <http://ands.org.au/newsletters>

The ANDS Community Forum is available at: <http://community.ands.org.au>

A schedule of upcoming ANDS events is available from: <http://ands.org.au/events>

More information on ANDS online services, including Register My Data and Identify My Data, is available from: <http://ands.org.au>

Contact us

We welcome suggestions, comments and feedback regarding the work of ANDS. Please contact us at: contact@ands.org.au

If you or your institution is interested in accessing ANDS services please contact us at: services@ands.org.au



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ANDS Project Partners:



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