



Australian Research Data Commons

Successful Discovery Activities Projects

List of funded infrastructure and data projects

Storage and compute infrastructure

Organisation/institution	Investment	Question investigated	Project title
Australian Access Federation Limited	\$50,000	Exploring options for access to sensitive data sets; what authentication technologies (e.g. multi-factor authentication) are needed to access sensitive data and secure compute environments?	Exploring higher levels of assurance for federated access to sensitive data (including multi-factor authentication)
Centre for Big Data Research in Health, South Western Sydney Clinical School, and University of New South Wales Medicine	\$43,000	Exploring options for access to sensitive data sets; what authentication technologies (e.g. multi-factor authentication) are needed to access sensitive data and secure compute environments?	Locking the front door without leaving the windows open: positioning authentication technologies within the “Five Safes” framework for effective use of sensitive research data
Garvan Institute of Medical Research	\$36,000	What is the total cost of delivering a range of example workflows on local, shared, national, international and commercial platforms; an apples and apples comparison.	Costs of Running Production Genomics Workflows On-Premise as well as on Commercial Clouds
Garvan Institute of Medical Research	\$36,000	What is the current usage (and interest/potential demand) of commercial cloud in the research sector and NCRIS capabilities?	Garvan’s love-hate relationship with commercial clouds
Monash University	\$50,000	What are the global experiences of infrastructure federations and what is the capacity of federation to continue to provide benefit?	Global experiences digital research infrastructure federations
Monash University (MASSIVE)	\$50,000	What is the demand for machine learning tools and services and how could these be most effectively supported?	Machine learning infrastructure deployed at scale: understanding requirements, demand, impact and international best practice
Queensland Cyber Infrastructure Foundation	\$48,500	What is the total cost of delivering a range of example workflows on local, shared, national, international and commercial platforms; an apples and apples comparison.	Storage and compute workflow cost comparisons

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Queensland Cyber Infrastructure Foundation	\$30,250	What is the demand for high throughput computing tools and services and how could these be most effectively supported?	Analysis of HTC demand and deployment models
University of New South Wales (Centre for Big Data Research)	\$27,000	How can we best support analytics platforms such as Jupyter, R Studio?	Disseminating research in the 21st century
Western Sydney University	\$42,000	What is the demand for high throughput computing tools and services and how could these be most effectively supported?	High Throughput Computing in Australia: Applications, Tools and Services

Data and services

Transformative data collections

Organisation/institution	Investment	Project title
Australian Data Archive	\$39,000	Preserving the Australian Census - 250 years of population data for Australia
Queensland University of Technology	\$47,800	Facilitating national cultural research into historically-significant textile-based heritage artefacts through the application of high-end photogrammetry techniques to create a transformative digital collection of three-dimensional datasets
Victor Chang Cardiac Research Institute	\$49,999	Database for Cardiovascular Functional Genomics
Institute for Marine and Antarctic Studies	\$43,600	Macroalgal Essential Ocean Variable (EOV) data processing and workflow
State Library of New South Wales	\$49,999	Enabling access to the David Scott Mitchell digital collection for digital humanities research
The Australian National University	\$49,999	Visualising and communicating genome-led biodiversity discovery in Australia
The Australian National University	\$49,999	Roadmap to integrate Indigenous genome assemblies into a national in-instance of the international human reference genome resource
University of New South Wales	\$49,999	A brain imaging database of rare and endangered Australian mammals. A conceptual demonstration of a national imaging data collection of Australia's unique fauna.
The University of Sydney	\$49,999	Enhancing the data, tools and policy translation resources on 'CARDAT'; the NHMRC Centre for Air pollution, energy and health Research Data and Analysis Technology (DAT) platform.
University of Melbourne	\$49,999	Indigenous Data Network National Survey: Indigenous-Controlled Research Organisations
University of Melbourne	\$49,999	Transforming Research Communities: Data Archiving, Sharing and Reuse in Qualitative Social Sciences
Australian Brain Alliance	\$49,999	Australian Brain Data Commons
Griffith University	\$49,999	Improvements in standardisation of storage and representation of glycomics data collections
University of Melbourne	\$49,999	Developing the Water and Energy Supply and Consumption Data Standard
Griffith University	\$49,999	An Australian historical criminal justice data repository

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University of New South Wales	\$49,999	Bioimaging Bank: Linking Medical Imaging and Biobanking Data for Cancer Research
Brain Cancer Biobanking Australia	\$49,999	Towards the Development of Clinical Quality Indicators for a national Paediatric & Adult Brain Cancer Clinical Registry
University of Western Australia	\$49,999	Bringing Long-Tail Microscopy and Characterisation Data into the Light
Australian Institute of Marine Science	\$49,999	Machine learning dataset creation for Australian fish species from Baited Remote Underwater Videos (BRUV)
Monash University	\$49,999	Developing an Australian-scale Characterisation Data Capture, Collection, and Collaboration Outline
Queensland University of Technology	\$49,999	National Australian Twitter Collection
University of New South Wales	\$49,999	AusTraits: a curated plant trait database for the Australia flora
CSIRO	\$49,999	Supporting Industry and Academia/Researchers to have FAIR data in the ARC's ITTC for Data Science Transforming Maintenance
Astronomy Australia Limited	\$49,999	Interoperability of Australian Astronomical Data
University of Melbourne	\$49,999	Modularising PARADISEC's catalogue as a model for the data commons
Federation University Australia	\$49,999	Enactment of the Agricultural Research Data Federation (AgReFed) Data and Stewardship and Governance Framework and the formation of AgReFed
University of New South Wales	\$49,999	A pilot database of Industrial Internet of Things Networks for cyber security applications
University of New South Wales	\$49,999	Standardisation of protocols for collecting linked images and electrophysiological data from in vitro and in vivo studies on neural cells and tissues
Eastern Heart Clinic	\$49,999	Percutaneous Coronary Intervention (PCI) Outcomes Registry - Baseline Data
University of Melbourne	\$49,999	What large clinical data sets exist across the member organisations of MACH, Melbourne and how can we collate and curate them to maximise research outcomes?
University of Queensland	\$49,999	Overcoming pinch-points in ingesting, cataloguing and accessing (meta)data for the development of a national language data commons
Monash University	\$49,999	Understanding and Creating Instrument Generated Data Collections

Institutional role in a data commons

Organisation/institution	Investment	Project title
Swinburne University of Technology	\$49,999	Data Cooperative for Social Impact and Public Health
Australian Institute of Marine Science	\$49,619	Integration of Great Barrier Reef near real time meteorological and oceanographic data systems with the AODN
The University of Sydney	\$49,999	Institutionally supported policy and data infrastructure to ensure management and reusability of sensitive imaging data through controlled access using XNAT
Macquarie University	\$49,999	Implementing FAIR: Standards in Research Data Management
The University of Queensland	\$49,999	Australian Neuroscience Microscopy Data Sharing Platform
Griffith University	\$49,999	Combined DMP/Provisioning workflow with Research Project Resources Portal
University of Wollongong	\$49,999	Building in additional platform capabilities (specifically for cloud) for data management and provisioning using Red Box
University of Technology Sydney	\$49,999	FAIR Simple Scalable Static Research Data Repository Demonstrator
Monash University	\$49,999	Developing a proposal for enabling the creation of health data collections and a federated secure platform for research collaborations over these collections of sensitive data
University of New South Wales	\$49,999	Cloud storage solution for commercially sensitive research data