

AUSTRALIAN ACCESS FEDERATION

# ANNUAL REPORT

# 2022



AUSTRALIAN  
ACCESS FEDERATION  
AAF.EDU.AU





Paul Sherlock  
Chair  
Australian Access Federation Ltd.

## ■ CHAIR'S REPORT 2022 REFLECTIONS

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It has been another successful year for the Australian Access Federation (AAF). AAF was recognised in the 2021 National Collaborative Research Infrastructure Strategy (NCRIS) Roadmap and as a result we received funding for a two-year Trust and Identity pathfinder program. This national program is focused on partnerships with NCRIS capabilities to advance a globally aligned Trust and Identity framework and technology specific to our community. The AAF has established a new eResearch team who are firmly focused on delivering this program and the expected outcomes for the sector.

As we began to emerge from the pandemic, we saw the return of face-to-face events and in person engagement with our international Trust and Identity colleagues. We have continued to provide international thought leadership through chairing the Asia Pacific Advanced Network (APAN) Identity and Access Management Task Force, the eduGAIN Steering Committee, various international federation working groups and committees and we played a key role in the ORCID Consortia Interest Group.

Local communication and engagement activities over the past 12 months have included the commencement of our online video series Coffee Break, the introduction of focus groups with our subscribers, video collaborations with the NCRIS community and ensuring strong presence at industry events such as the eResearch Australasia Conference. It has been wonderful to engage more with our subscribers and ORCID members during 2022 and on behalf of the entire AAF team I would like to thank you for your ongoing support.

The AAF is proud of another successful year in the delivery of the Australian ORCID Consortium. In 2022, the AAF and the Australian Research Data Commons, commissioned a cost benefit report into Persistent Identifiers (PIDS). Findings from the report identified that 38,000 researchers' days are lost each year due

**“ The Trust and Identity program will become a vital component of Australia's national research infrastructure. The two-year funding will kickstart a system-wide approach for a Trust and Identity framework to ensure Australia is globally aligned and researchers aren't left behind.”**

*AAF CEO Heath Marks*

to metadata re-keying and this equates to a \$24 million cost to the sector annually. Plans are now underway for AAF to support the recommendations of the report which includes the development of a national PIDS strategy that leverages ORCID and other priority PIDS.

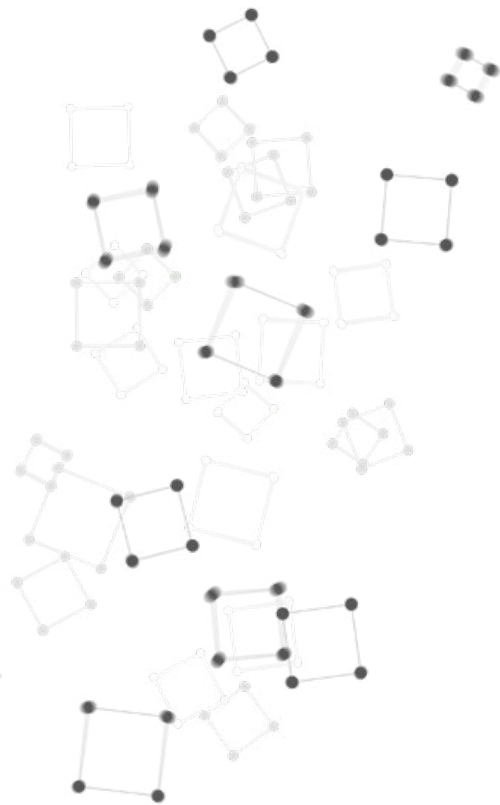
Our dedicated and highly skilled team continues to work on many important sector wide research infrastructure initiatives including the Australian BioCommons, Coordinated Access for Data Research Environments (CADRE) and the Language Data Commons of Australia (LDaCA). These initiatives explore emerging federated technologies and tools to simplify the research process and extend federation capabilities. These activities continue to highlight the importance of a national coordinated approach to Trust and Identity.

Rapid IdP, AAF's cloud hosted platform connects several of our institutions to the federation and has continued to see strong growth. More than 70% of our subscribers are now benefiting from the value this service offers. Automated distribution of patches and updates along with regular penetration testing, means Rapid IdP plays a significant role in maintaining the security and reliability of the Federation. Cyber security remains a priority for the AAF and in 2023 we will continue to focus on enhancing the security and robustness of our tools and services.

2023 will be another exciting year for the AAF as we work closely with the NCRIS community to respond to the Research Infrastructure Investment Plan (RIIP) and to help meet the step changes in the Roadmap.

The AAF continues to play a valuable role for the Australian research and education sector and I'd like to thank our entire team for their outstanding dedication, skill and commitment to ensuring our ongoing success.

## ■ 2022 AT A GLANCE



**103**

Organisations connected  
to the AAF

**300+**

Australian service connections

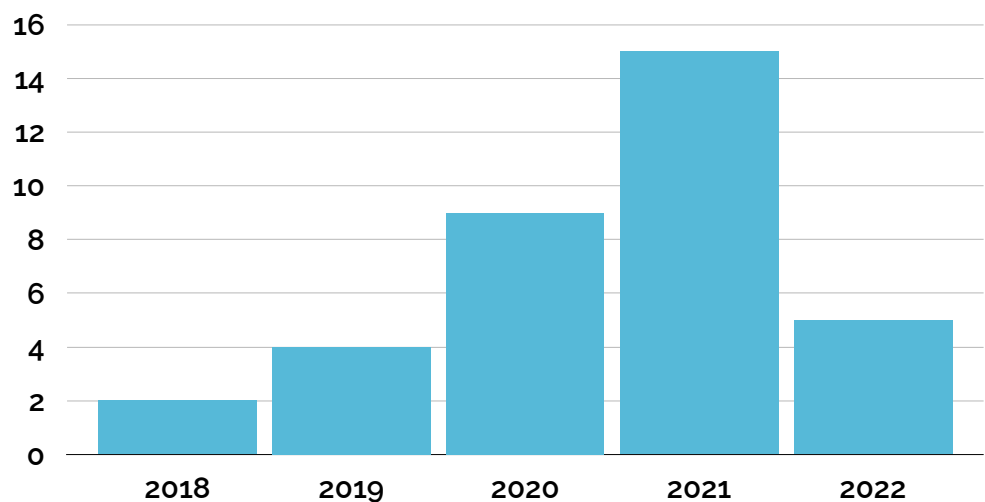
**370+**

International service  
connections

Rapid   
Identity Provider

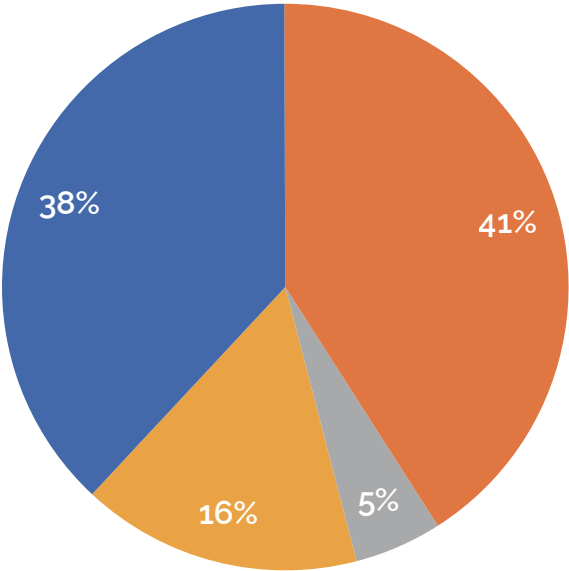
Rapid IdP Customers

More than 70%  
of subscribers  
on Rapid IdP



# SUBSCRIBER PROFILE

- Commercial
- Government
- Research
- University



# SERVICE PROFILE



Teaching and Learning



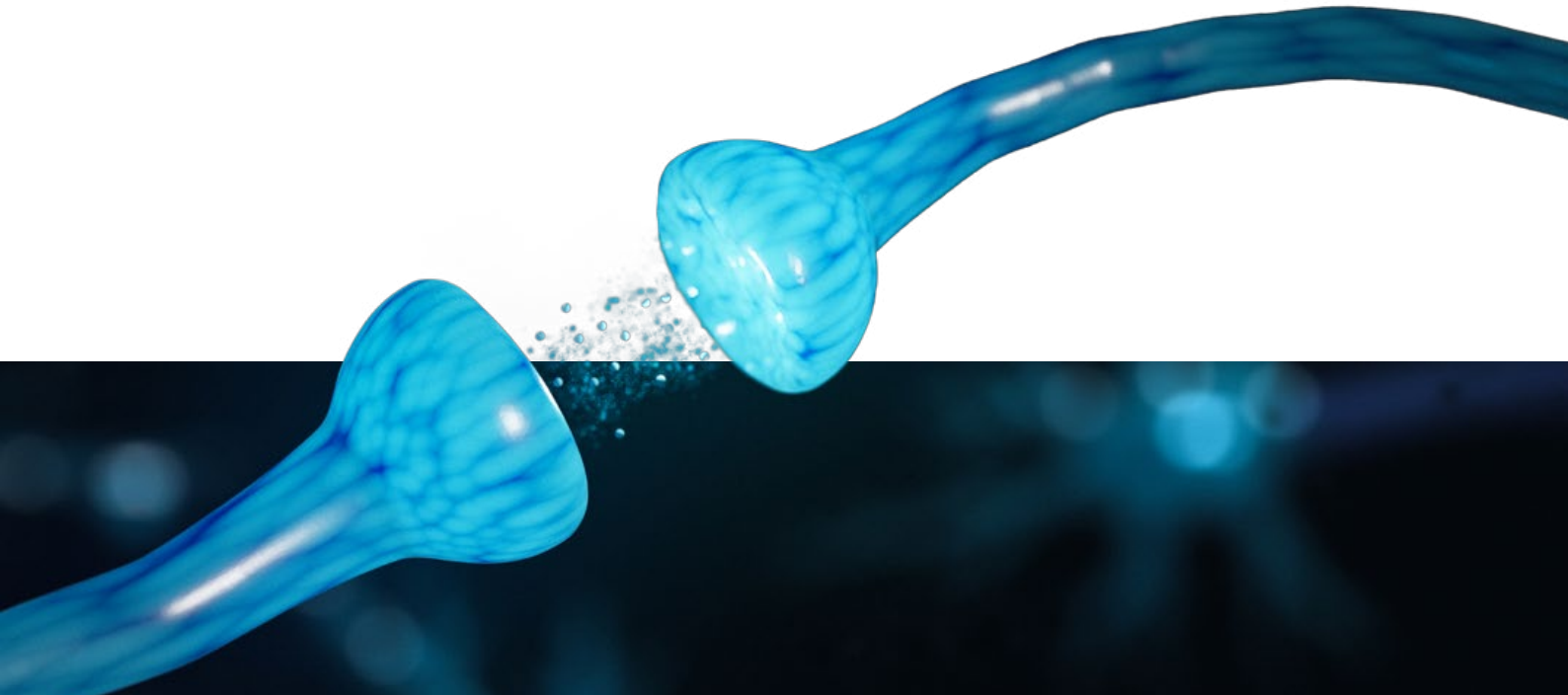
Research



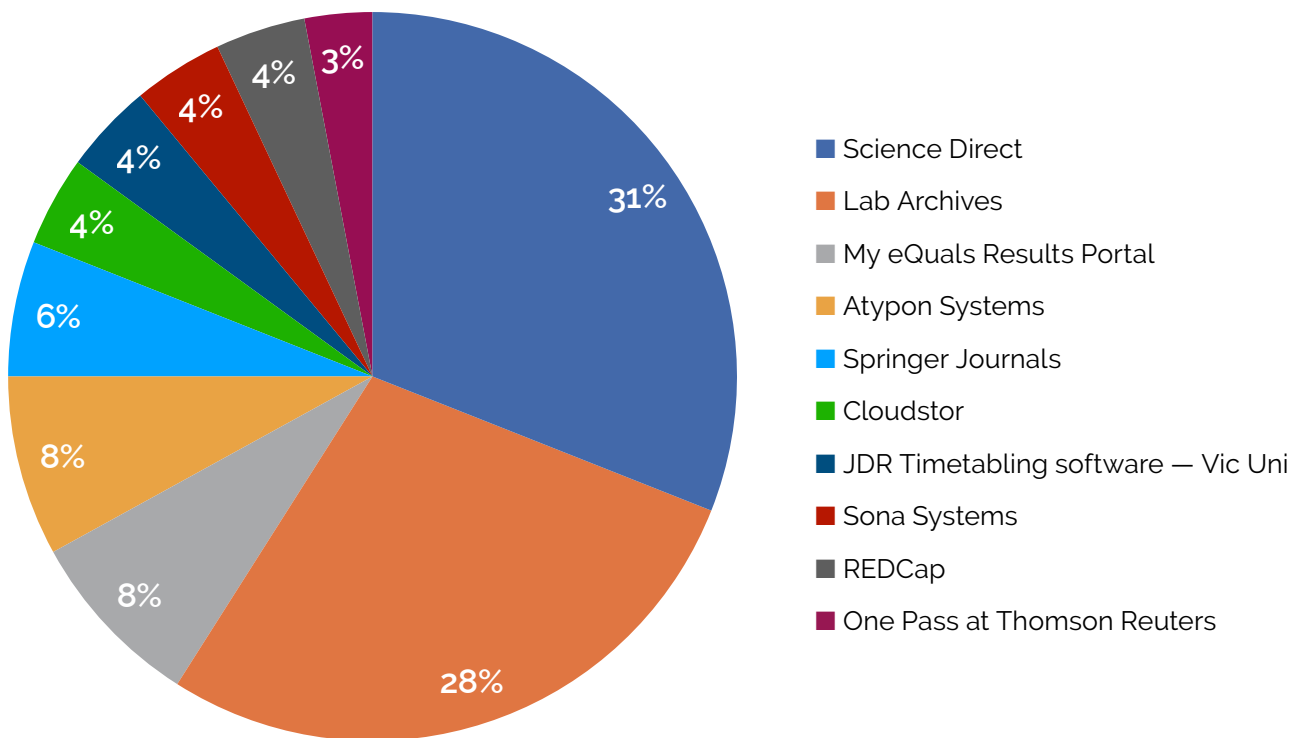
Publisher



Administrative



## TOP TEN SERVICES



Service statistics reflect 70% of the subscriber base. They have been collected from our cloud service Rapid IdP.

A total of  
**3.7M**  
Sessions for all Services

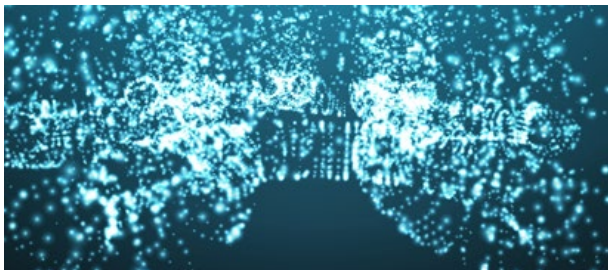


## ■ SERVICE HIGHLIGHTS

### CERN

CERN, the European Council for Nuclear Research operates some of the world's largest scientific instruments to study matter — fundamental particles. This includes the Large Hadron Collider (LHC) which is the world's largest and most powerful particle accelerator.

Through the AAF, Australian researchers are able to collaborate and access services provided by CERN to contribute to global research.



### My eQuals

My eQuals is Australia and New Zealand's official tertiary credentials platform for universities, TAFEs and tertiary education providers.

This is one of AAF's highly used services.



### Murchison Widefield Array

Murchison Widefield Array (MWA), the precursor to the Square Kilometre Array is one of Australia's leading radio telescopes located in Western Australia. It partners with Canada, India, Japan, China, New Zealand and the United States.

To ensure international collaboration is seamless and secure MWA connected to eduGAIN via the AAF. eduGAIN is a global initiative which connects research communities and higher education identity federations around the world.



### NIH

National Institutes of Health (NIH) is America's medical research agency, supporting scientific studies.

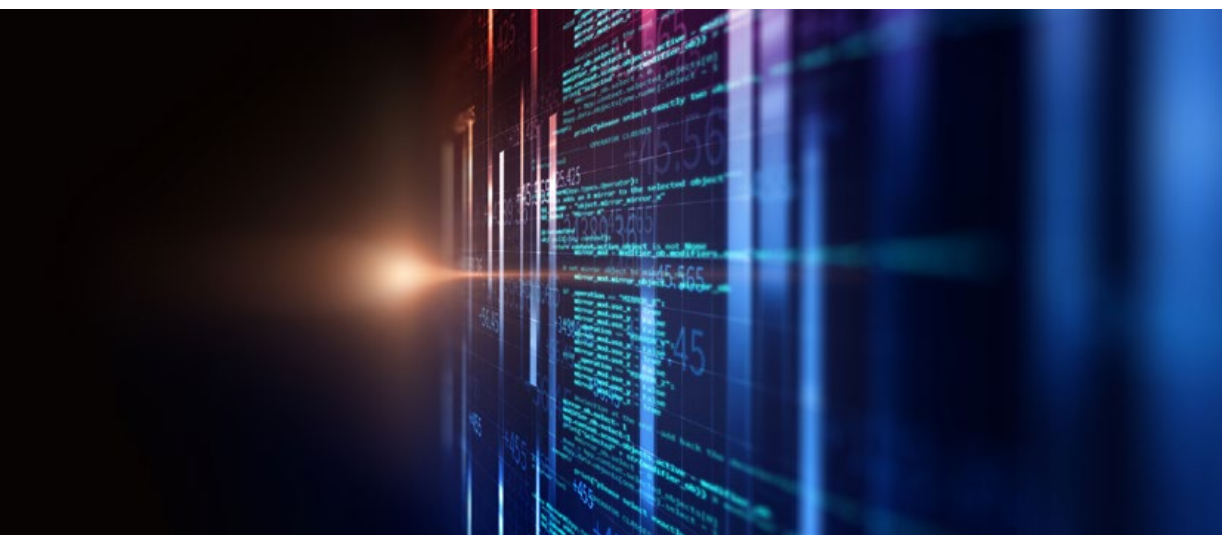
Through AAF, researchers are accessing NIH services via the international Federation bridge, eduGAIN.



# ■ NATIONAL RESEARCH PARTNERSHIPS

## AUSTRALIAN BIOCOMMONS

The Australian BioCommons entered a partnership with AAF to pilot federated identity and access management (IAM) in 2019. The two organisations have worked together on several projects to address policy and technology solutions to simplify access for life science researchers. Throughout 2022 we focused on connecting the BioPlatforms Australia Data Portal and Galaxy Australia to an identity management platform. This platform allows research communities to manage access rights for their members. The Threatened Species Initiative (TSI) is the first pilot group, however, we expect more communities to be connected over time. This pilot will act as a model with reusable tools, policy, and services for other research communities.



## HUMAN GENOMES PLATFORM

The Human Genomes Platform Project (HGPP) aims to make research data more interconnected and secure. Our role has been to implement identity and access management policies and tools to support secure human genome data sharing. AAF provided expertise to integrate tools and an identity management platform for researchers. These tools have aided in data discovery, streamlined access requests, and simplified the process for granting access to authorised researchers. The team is also extending platform capabilities to support emerging technology standards such as Global Alliance for Genomics and Health (GA4GH) Passports.

The project involves collaboration with a number of partner organisations across the sector and industry.





## COORDINATED ACCESS FOR DATA, RESEARCH AND ENVIRONMENTS (CADRE)

Coordinated Access for Data, Research and Environments (CADRE) assists researchers to discover and apply for sensitive datasets and supports data custodians to evaluate requests. Based on the 5 Safes framework, CADRE uses a range of data sources with emphasis on the 'safe people' and 'safe projects' framework elements. AAF's contribution includes policy development and technology to combine data that provides a more comprehensive user identity. The project will lay the foundations for all AAF services to use higher levels of identity assurance and to share authentication information from a home organisation.

## LANGUAGE DATA COMMONS OF AUSTRALIA (LDACA)

The LDaCA project's purpose is to share significant language data collections using appropriate authorisation from dataset custodians. AAF has leveraged experience from other projects to implement policy and tools to manage access to a wide range of language datasets. The AAF's role included interviewing stakeholders to understand and document dataset access rules, and deliver infrastructure to streamline and support the implementation of these rules.



# ■ A NATIONAL TRUST & IDENTITY PATHFINDER FOR RESEARCH

In 2021, the National Research Infrastructure Roadmap identified a need to develop cutting edge Trust and Identity (T&I) solutions for Australian research infrastructure. Currently there is a gap in securely connecting researchers with the data and instruments they need to carry out their research. The purpose of the T&I pathfinder is to create a national framework and tools that will enable researchers from universities and industry to easily access national research capabilities in a secure and seamless way.

“ T&I is integral for ensuring researchers from academia, the public sector, and industry have seamless and secure access to digital research infrastructure. The T&I program will be a crucial component of the ARDC's new Thematic Research Data Commons, which will scale up digital research infrastructure to meet Australia's future research needs.”

*Australian Research Data Commons (ARDC) CEO Rosie Hicks*

## PROGRAM SNAPSHOT

### 1. NATIONAL FRAMEWORK



Australian T&I framework

### 2. ACCELERATOR



Cyber security for T&I



Skills, expertise and collateral



Reusable tools, modules and software



Access and authentication infrastructure

### 3. INCUBATOR

*Work with incubator partners in the NCRIS community to pilot and implement T&I solutions to:*



Enhance cyber security



Enhance connectivity across NRI



Improve access to sensitive data



Enhance research translation

## BENEFITS TO RESEARCHERS

Researchers will enjoy a more cohesive network of services as they use one set of credentials to seamlessly access multiple NRI.



Seamless access to NRI



Globally Connected



Industry Access



Verified Identity Access



Controlled access to sensitive data



Improved Security

## STEP CHANGE FOR TRUST & IDENTITY

The T&I pathfinder program will inform a future capability to address the step change in the 2021 NCRIS Roadmap.

### STEP CHANGE

**TRUST & IDENTITY**  
CAPABILITY+FUTURES+CYBER SECURITY

**PATHFINDER**





## CYBER SECURITY

Cyber security remains a strategic priority of the AAF. As an active member of the Australasian Higher Education Cyber Security Service (AHECS), the AAF continues to work closely with the community to add value to cyber security initiatives.



**Policy Development**



**Operational Security**



**Staff Training and Awareness**



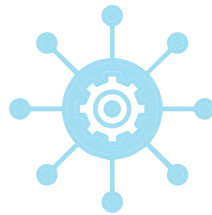
**Community Engagement**





## TECHNOLOGY ENHANCEMENTS

Our engineering team constantly works to improve and enhance our products and services for the community. 2022 was no exception.



**Enhanced connectivity  
for subscribers through  
multi-protocol support  
such as OIDC**



**Investment in federation  
technologies to support  
higher levels of trust**



**Further development  
of data analytics and  
business intelligence  
capabilities**



**Implementation of  
advanced cyber  
security controls**



**Prototype of next  
generation technologies  
such as WebAuthn  
for password-less  
authentication**

# ■ COMMUNICATION & ENGAGEMENT

## COFFEE BREAK SERIES

This year the Communications Team launched an online video series to highlight key projects and activities across the team. The sessions gave AAF subscribers and ORCID members an opportunity to join the team live and ask questions in real time. Feedback and attendance confirmed that this type of engagement was a success and we will continue the series in 2023.



## FOCUS GROUPS

Focus groups were conducted for the first time to gain qualitative feedback from our members and subscribers. The data acquired from the sessions was instrumental in the development and continued improvement of our products and services.



The team presented

**33**

times in 2022

Produced

**8**

digital assets

(video and conference presentations)

**23,000**

Website users

Attended

**38**

conferences & events

**31**

Broadcast communications

**5**

Focus Groups

## COMMITTEES AND WORKING GROUPS

### INTERNATIONAL PARTICIPATION 2021

REFEDS Schema Editorial Board  
eduGAIN Futures Working Group  
APAN Identity and Access Task Force  
ORCID Community Interest Group  
VERIFIid Global with JISC  
eduGAIN Steering Committee  
iFIRExMAN project  
REFEDS Steering Committee

### NATIONAL PARTICIPATION 2021

ORCID Advisory Group  
ORCID Governance Committee  
QUDIT  
BioCommons  
DDeRP Strategic Planning Group  
NCRIS Communications Network  
CAUDIT Identity & Access Management  
National Approach to Genomic Information Management (NAGIM)  
eduGAIN Security Working Group



## PERSISTENT IDENTIFIER COST BENEFIT ANALYSIS

A cost-benefit analysis of persistent identifiers in the Australian research systems was undertaken by MoreBrains Cooperative and co-funded by the AAF and Australian Research Data Commons (ARDC). MoreBrains worked with managers at 23 institutions to understand how grants and publications were entered into systems and the time and money that is currently wasted on rekeying metadata. The report found that:

- ♦ the total time manually rekeying metadata is 38 000 days per year
- ♦ the total cost of this manual rekeying is \$24 million per year
- ♦ administrative tasks make up the bulk (30-40%) of the researchers' time that is wasted

The report recommended that Australia develop a national PIDS strategy with five priority PIDS, with an 80% adoption rate over the next five years. AAF will work closely with ARDC and other partners to provide a leadership role in this space and the creation of a national PIDS strategy will commence in 2023.

To read the full report go here: <http://doi.org/10.5281/zenodo.710057>



### ORCID GOVERNANCE

When the Consortium was first formed, it was set up with an ORCID Advisory Group and Governance Committee. These two groups were instrumental in encouraging adoption and ensuring that the Consortium delivered outcomes for its members. As the Consortium has matured and in its seventh year of operation, the purpose of these two groups has changed. In 2023 these two groups will merge to form the ORCID Steering Committee.

We would like to thank all our dedicated members for their time and contribution over the last seven years to help grow and spread the word about ORCID adoption in Australia.

**43** CONSORTIUM  
MEMBERS

**157,000** ORCID IDs CONNECTED  
VIA INTEGRATIONS

**13,731** UNIQUE ORCID IDs  
UPDATED WITH  
AFFILIATION

**26,723** NEW ORCID IDs  
CREATED

**192,221** ITEMS ADDED  
BY MEMBER  
INTEGRATIONS

**177,000** ORCID RECORDS  
WITH .AU DOMAIN





## ■ VISION

OUR VISION IS TO LEAD ACCESS MANAGEMENT  
FOR AUSTRALIAN EDUCATION, RESEARCH,  
GOVERNMENT AND INDUSTRY.



## ■ MISSION

OUR MISSION IS TO DELIVER SECURE ACCESS AND IDENTITY SERVICES THAT CONNECT AUSTRALIAN TEACHERS, STUDENTS, AND RESEARCHERS WITH GLOBAL ONLINE RESOURCES.



# ■ STRATEGIC PLAN

## BUILDING STRATEGIC PARTNERSHIPS

National eResearch Infrastructure Programs

Health & Government

Technology Sector

Persistent Identifier Community (PIDS)

Global

Key Digital Identity Providers

Research & Education CIOs

# 1

## DEVELOPING SKILLS & CAPABILITIES

Overcoming skills and capability gaps across the sector

Developing the skills and capabilities of our own staff

# 2

## STRENGTHENING FOUNDATIONAL SERVICES

Security Posture

International Connectivity

Customer Intimacy

# 3

## LEADING TECHNOLOGY INNOVATION

Innovating the AAF and exploring new opportunities to deliver the next generation of technologies

Shaping reference architectures

# 4

## DEVELOPING VALUE ADDED SERVICES

Identification and exploration of potential market opportunities

Expanding existing capabilities and actively seek new business models

# 5





# 1

## **BUILDING STRATEGIC PARTNERSHIPS**

NCRIS

Health & Government

Technology Sector

Persistent Identifiers (PIDS)

Global

Digital Identity Providers

Research & Education CIOs

# 2

## **DEVELOPING SKILLS & CAPABILITIES**

Skills and capability gaps

AAF staff development

Communities of Practice

Training programs

Professional services

Industry events

# 3

## **STRENGTHENING FOUNDATIONAL SERVICES**

Cyber security

International connectivity

Customer intimacy

# 4

## **LEADING TECHNOLOGY INNOVATION**

Next generation of technologies

Reference architectures

New opportunities

# 5

## **DEVELOPING VALUE ADDED SERVICES**

Market opportunities

Expanding capabilities

## AAF TEAM

**Chief Executive Officer** Heath Marks

**Chief Operating Officer** Elleina Filippi

**Head of Support** Terry Smith

**Head of Projects & Managed Services** John Scullen

**Head of eResearch — T&I Pathfinder** Sarah Nisbet

**Head of Technology** Russell Ianniello

**ORCID Engagement & Support Lead** Melroy Almeida

**Senior Finance Officer** Marita Dore

**Development Team Lead** Matthew Puku

**Senior Developer** Ritchie Young

**Senior Developer** Jun Zheng

**Senior Developer** Jack Carpenter

**Software Developer** Waldo Fouche

**Graduate Developer** Kelley Foster

**Senior Technical Support Analyst** Dalia Abraham

**Senior Business Analyst** Kylie Davies

**Senior Business Analyst** Cherry Green

**Senior Solutions Analyst — Identity & Access** Patrick Carnuccio

**System Engineer** Jesse Paarman

**eResearch Portfolio Manager — T&I Pathfinder** Sarah Thomas

**eResearch Portfolio Manager — T&I Pathfinder** Nick Rossow

**Executive Assistant** Sheree Cuyten

**Projects Officer** Carolyn Plant

**Content Producer** Suzi O'Shea

## AAF BOARD

**Chair & Independent Director** Paul Sherlock

**Deputy Chair & Director** Jonathan Churchill

**Director** Niranjan Prabhu

**Director** Ian Gibson

**Director** Margie Jantti

**Director** Adrian Dillon

**Independent Director** Bruce Callow

**Company Secretary and Independent Director** Richard Northam

