RDA Global Adoption week

15 - 19 June 2020

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Objective

- Originally planned for Plenary 15, the RDA Adoption week aims to **demonstrate the wide variety of RDA adoptable and adopted solutions to data sharing challenges** that people in the field encounter in their daily jobs.

Purpose of the week:

- Learn about RDA Outputs
- Converse with speakers from all around the world who have created and implemented them
- Determine how best to integrate those data sharing solutions into your own projects

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Recommendations and outputs catalogue

- RDA Outputs are classified as **RDA Recommendations** *(official, endorsed results of RDA Groups),* **Supporting Outputs** *(useful solutions from our RDA Working and Interest Groups)* or **other Outputs**
- **They can be searched according to their status, Data Life Cycle topics or scientific domain**

rd-alliance.org/recommendations-and-outputs/catalogue

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RESEARCH DATA ALLIANCE

Friday 19th June

05:00 UTC

Policy, Legal, Compliance & Capacity

Currently, all scientific communities use their own set of policies, if any. A generic set of policies that can be revised and adapted by users to build up their own data collection does not exist.

- **Certification of trustworthiness and robust practices in the archiving and dissemination of data -** Heather Leasor (Australian Data Archive)
- **Building the Reputation as a trusted Repository following international Standards -** Mikaela Lawrence (CSIRO)
- **Improving Data Management Procedures based on CoreTrustSeal Certification -** Chenzhou Cui (National Astronomical Observatory of China)

Recommendations & Outputs Catalogue short-link: **https://bit.ly/376Gx8T**

Poll

Join at

slido.com

#W349

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Tell your adoption story

- **Are you an adopter?** RDA is actively seeking new adoption stories to inspire the further uptake of RDA outputs.
- **Submit your story here:** https://www.rd-alliance.org/tell-your-rda-adoption-story

CODATA CfP Data Science Journal

- **RDA special collection themes:**
  - Results produced by an IG or WG;
  - Description of an Adoption Case outlining how a specific recommendation or output has been implemented;
  - Other types of work related to RDA activities.
- RDA Europe 4.0 still has funds available for the publication of articles in DSJ
- Open to all interested applicants regardless of their geographical provenance.
- **Deadline 17 July**

WWW.RD-ALLIANCE.ORG/
@RESDATALL

RDA Global

Email - **enquiries@rd-alliance.org**
Web - **www.rd-alliance.org**
Twitter - **@resdatall**
LinkedIn - **www.linkedin.com/in/ResearchDataAlliance**
Slideshare - **http://www.slideshare.net/ResearchDataAlliance**

RDA Europe

Email - **info@europe.rd-alliance.org**
Twitter - **@RDA_Europe**

RDA US

Twitter - **@RDA_US**

The Australian Data Archive as a Trusted Repository for Research Data and Data Sharing

Dr. Heather Leasor
Archivist and user services, ADA
Dr Steve McEachern
Director, ADA

RDA Global Adoption Repository Audit and Certification Catalogue RDA Recommendation

- Background of ADA
- Reason to do CTS (DSA/WDS)
- Outcomes
- Next steps

ADA in Brief

- The Social Science Data Archive (now ADA) was set up in 1981, housed in the Research School of Social Sciences, with a mission to collect and preserve Australian social science data on behalf of the social science research community
- The Archive holds over 5000 datasets from around 1500 studies
- Data holdings are sourced from academic, government and private sectors.

ADA Data Holdings

ADA data holdings cover a wide variety of subject areas:

- Ageing
- Business and management
- Census data
- Culture
- Demography
- Drugs, alcohol and tobacco
- Economics
- Education, employment and work
- Environment, Conservation, Land use
- Family studies
- Foreign affairs
- Gambling
- Health
- Housing
- Law, Crime, Courts
- Mass media, communication and language
- Migration, immigration and multiculturalism
- Politics and elections
- Public opinion and social attitudes
- Psychology
- Quality of life
- Science, Technology
- Social welfare
- Sociology
- Tourism, recreation and leisure
- Travel and transport

Who uses ADA?

- 2019
  - 25000 data file downloads
  - 2500 new users each year
- User types (2016 figures):
  - Undergraduates: 41% of analysis, 16% of downloads
  - Postgraduates: 33% / 40%
  - Researchers:11% / 40%
  - Others (media, government, NGO, etc.): 15% / 4%
- Institution types: (approx.)
  - Australian universities: 70%
  - International universities: 15%
  - Government departments and agencies: 10%
  - Other: 5%

CTS (DSA/WDS)

Core Trust Seal

- Undertook a project with Australian National Data Service (ANDS) now Australian Research Data Commons (ARDC)
- ARDC member of RDA
- Used the opportunity to assess the CTS in the Australian Context for the Social Sciences.

Project phase

- Work with ANDS
- Assessing the criterion
- Assessing what documents existed in and out of public domain
- Assessing what could and should be in public domain
- Assessing agreements with outsource partners and how to demonstrate these
- Completing the CTS application and assessment
- Outlining changes to implement to ensure continued certification and fit with FAIR and 5 SAFES

Challenges in the Process

- Complex interplay between guidelines and relevant documents
- How to provide evidence from documents/items not in the public domain
- What constitutes risk management assessment
- Determining timelines for “in process of implementation”
- 9 of 16 guidelines required edits. In addition most links required website updates due to changes.

Changes Implemented at ADA

- Redevelopment of our database and website infrastructure
  - New website https://ada.edu.au/
  - New data catalogue http://dataverse.ada.edu.au

- Documentation
- Service Platform for repository

The ADA website: https://ada.edu.au

Dataset pages

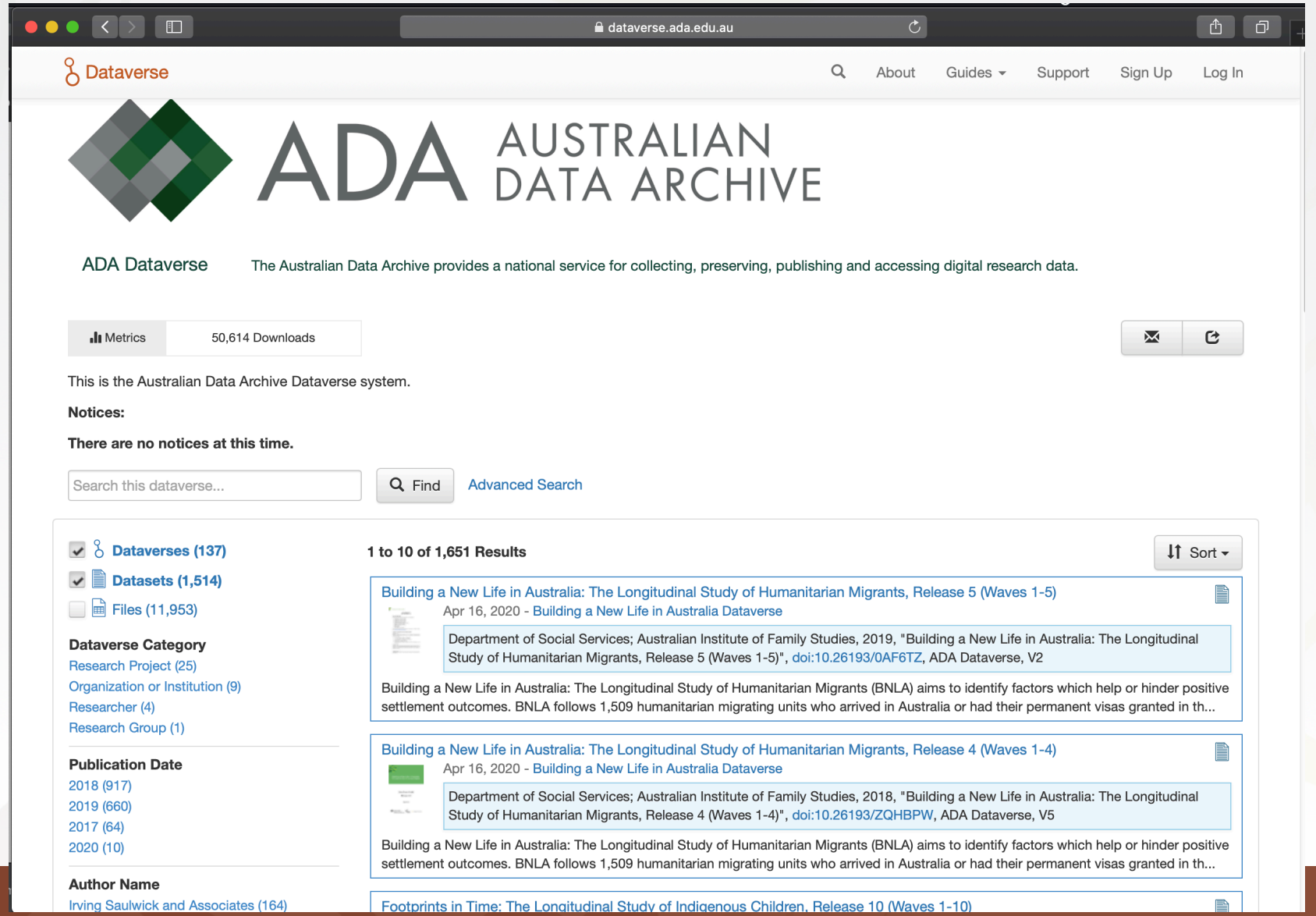
Study information is based on the **DDI-C** (Data Documentation Initiative) standard, and includes:

- Files: data and documentation files
- Metadata: information including the investigators, abstract, sample, data collection methods
- Terms: terms and conditions of use, and access requirements.
- Versions: current and previous versions of the dataset

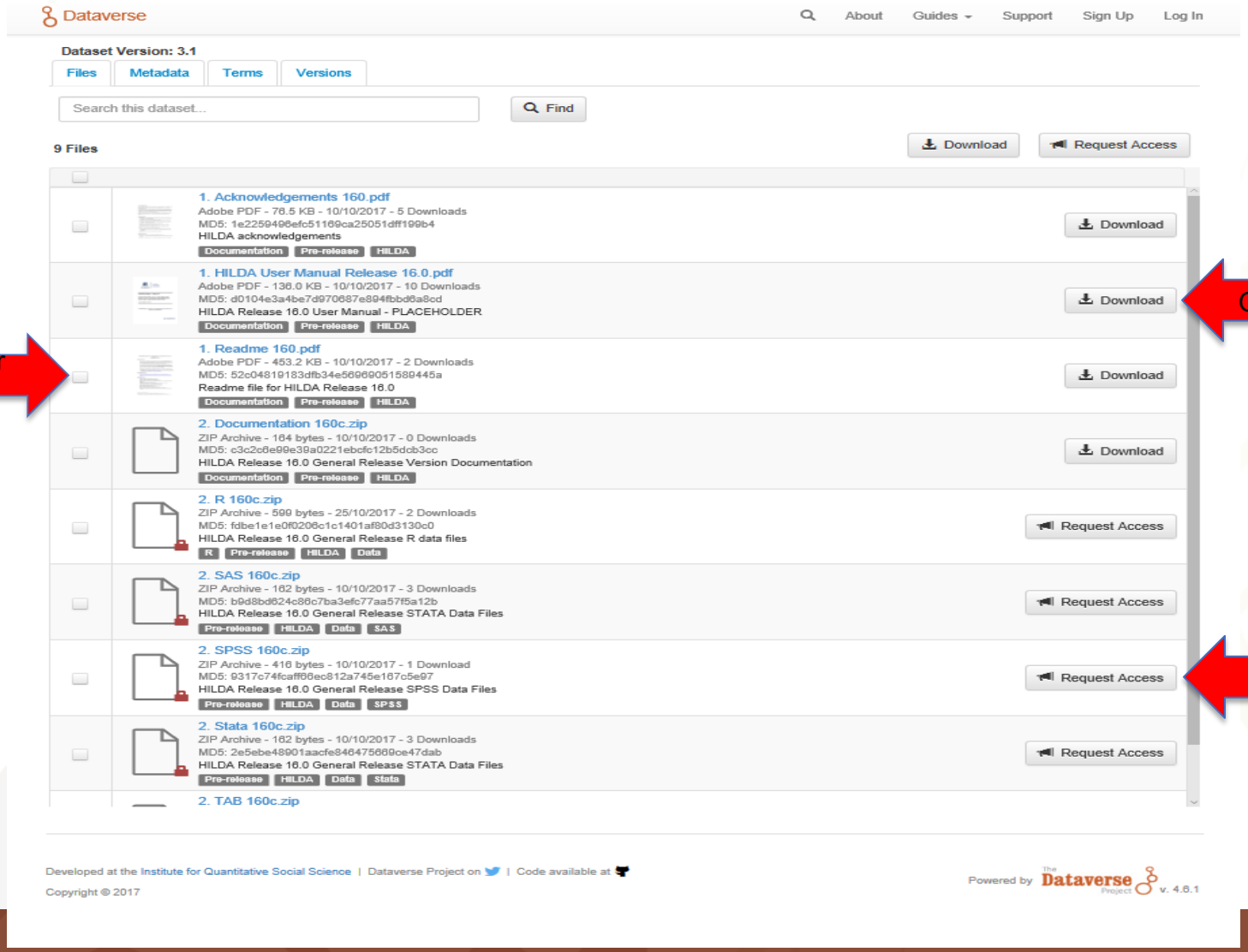
- Also includes a CITATION and DOI for every dataset

Department of Social Services; Australian Institute of Family Studies, 2019, "Building a New Life in Australia: The Longitudinal Study of Humanitarian Migrants, Release 5 (Waves 1-5)", doi:10.26193/0AF6TZ, ADA Dataverse, V2

ADA Dataverse: https://dataverse.ada.edu.au



Request access to data (1)

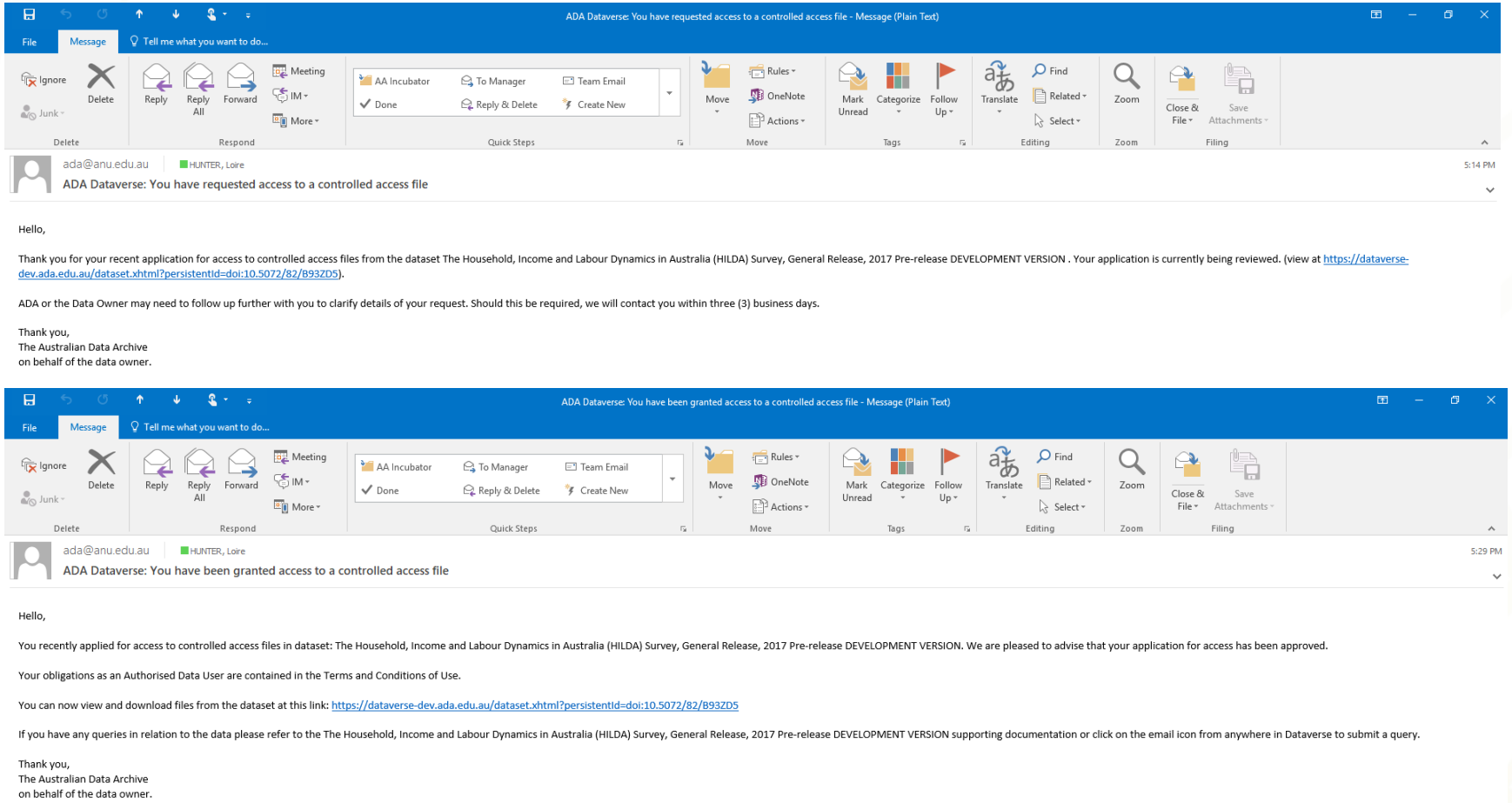


Select one or more

Open access

Controlled access

Email notification: confirmation of access request



ADA Dataverse: You have requested access to a controlled access file - Message (Plain Text)

File | Message | Tell me what you want to do...

Ignore | Delete | Reply | Reply All | Forward | Meeting | IM | More | Delete | Respond

AA Incubator | To Manager | Team Email | Done | Reply & Delete | Create New | Quick Steps

Move | Rules | OneNote | Actions | Move

Mark Unread | Categorize | Follow Up | Tags

Translate | Find | Related | Select | Editing

Zoom | Zoom

Close & File | Save Attachments | Filing

ada@anu.edu.au | HUNTER, Loire | 5:14 PM

ADA Dataverse: You have requested access to a controlled access file

Hello,

Thank you for your recent application for access to controlled access files from the dataset The Household, Income and Labour Dynamics in Australia (HILDA) Survey, General Release, 2017 Pre-release DEVELOPMENT VERSION . Your application is currently being reviewed. (view at https://dataverse-dev.ada.edu.au/dataset.xhtml?persistentId=doi:10.5072/82/B93ZD5).

ADA or the Data Owner may need to follow up further with you to clarify details of your request. Should this be required, we will contact you within three (3) business days.

Thank you,
The Australian Data Archive
on behalf of the data owner.

ADA Dataverse: You have been granted access to a controlled access file - Message (Plain Text)

File | Message | Tell me what you want to do...

Ignore | Delete | Reply | Reply All | Forward | Meeting | IM | More | Delete | Respond

AA Incubator | To Manager | Team Email | Done | Reply & Delete | Create New | Quick Steps

Move | Rules | OneNote | Actions | Move

Mark Unread | Categorize | Follow Up | Tags

Translate | Find | Related | Select | Editing

Zoom | Zoom

Close & File | Save Attachments | Filing

ada@anu.edu.au | HUNTER, Loire | 5:29 PM

ADA Dataverse: You have been granted access to a controlled access file

Hello,

You recently applied for access to controlled access files in dataset: The Household, Income and Labour Dynamics in Australia (HILDA) Survey, General Release, 2017 Pre-release DEVELOPMENT VERSION. We are pleased to advise that your application for access has been approved.

Your obligations as an Authorised Data User are contained in the Terms and Conditions of Use.

You can now view and download files from the dataset at this link: https://dataverse-dev.ada.edu.au/dataset.xhtml?persistentId=doi:10.5072/82/B93ZD5

If you have any queries in relation to the data please refer to the The Household, Income and Labour Dynamics in Australia (HILDA) Survey, General Release, 2017 Pre-release DEVELOPMENT VERSION supporting documentation or click on the email icon from anywhere in Dataverse to submit a query.

Thank you,
The Australian Data Archive
on behalf of the data owner.

Benefit

- Refinement of process, policy and procedure
- New perspective
- Trust from users and contributors
- Ease of access to information for contributors for ethics, grants/funding and participant information
- Integration of data deposit and reuse into the data lifecycle and data management plans

Next Steps

New functionality:

- Self-deposit of data and ensuring FAIR and TRUST
- Collaborations
- Open data access
- API access (both for deposit and access, e.g. through R)
- Shibboleth authentication
- ORCID integration

Further Refinement for Reusability

- Business rules
  - ADA continuing to refine Business rules
  - ADA continue to refine our outsource partner agreements and arrangements
  - Approvals are managed in Dataverse
  - Communications between users, ADA and owners regarding requests is managed via email, and logged in the ADA ticketing system
- Finding ways to Link into FAIR principles and 5 Safes Models for streamlined access
- Updating and keeping compliant on Licensing and Terms of use (Terms tab)
- Provenance provided (Metadata tab standards and controlled vocabularies)
- Common standards
- Recertification

DATA DOCUMENTATION INITIATIVE

Thank you!
Questions?

Please feel free to contact the ADA

ada@anu.edu.au

http://ada.edu.au

Core Trust Seal Outcomes

- Identified 4 guidelines set at level 3
  - 7 Data integrity and authenticity
  - 10 Preservation plan
  - 15 Technical infrastructure
  - 16 Security
- Identified 12 guidelines set at level 4
  - Assessor indicated potential to move Guideline 9 Documented storage procedures to a 3

Building the Reputation as a trusted Repository following international Standards

Commonwealth Scientific and Industrial Research Organisation (CSIRO) Data Access Portal (DAP) adopts Repository Audit and Certification Catalogue RDA recommendation

CSIRO Data Access Portal

Trusted Data Repository Project

Mikaela Lawrence

RDA Global Adoption Week - 19 June 2020

CSIRO is a trusted organisation that undertakes research of fundamental importance to Australia. This research produces data that CSIRO manages over the long-term, enabling reuse as inputs to new research.

Certification Project

- Certification of CSIRO's institutional repository, Data Access Portal (DAP) **https://data.csiro.au/**, as a trustworthy data repository

- DAP infrastructure and software is developed and maintained internally, it has been available since 2012

- Support for the project from Australian National Data Service (ANDS), now the Australian Research Data Commons (ARDC), who are an organisational member of Research Data Alliance

Investigating potential

- To provide trustworthy access to significant data assets
- Host third party data for those organisations with whom we collaborate where appropriate.

RDA output adopted

Repository Audit and Certification Catal
recommendation,

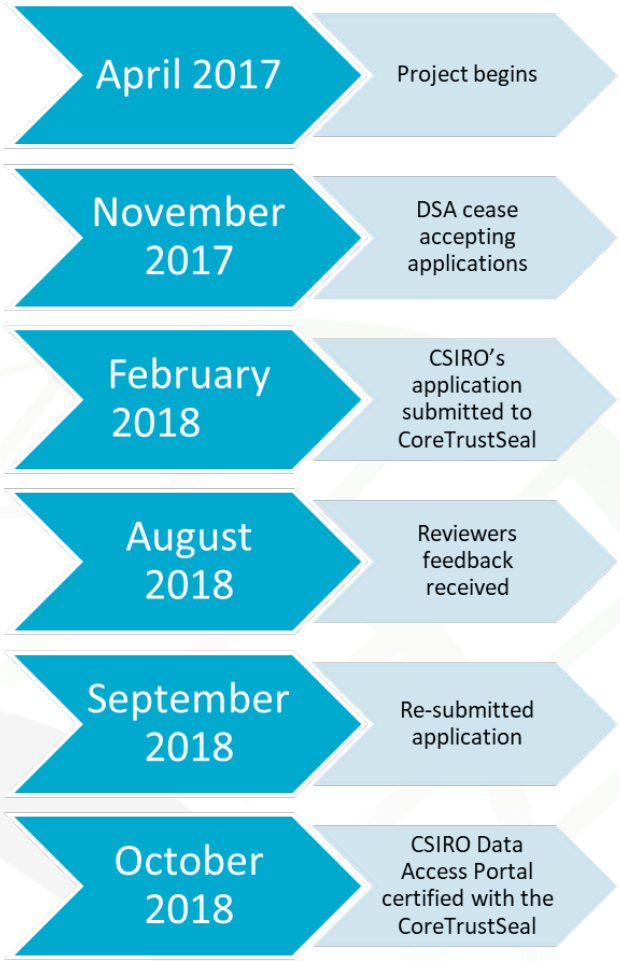
an outcome of the RDA/WDS Certificati
Repositories Interest Group.

Adoption to certification process

The project had four distinct phases:

- Understanding requirements
- Gathering documentation, evidence and advice
- Developing publicly available documentation
- Completing the application for certification

CSIRO's CoreTrustSeal Application



Adoption logistics

- Staffing: 2 data librarians or 1.0 full-time equivalent for 8 months
- Senior Legal Counsel: developed policies and procedures for data deposit applications by external organisations
- Information technology staff: consulted on requirements relating to software, infrastructure, disaster management
- Researchers (internal and external): testing procedures for hosting externally owned data.
- Fortnightly meetings: project manager, project sponsor, senior data librarian
- Weekly meetings: ANDS who supported the project

Hosting externally owned data

- Why was it part of our strategy
- Investigated policies, procedures and system changes to host externally owned data
- Project impact: Processes for requests to host externally owned data in place
- Developed Collection Development Principles

https://confluence.csiro.au/display/daphelp/Data+Collection+Development+Principles

- Developed Data Deposit Conditions and Data Deposit Form

https://confluence.csiro.au/display/daphelp/External+Data+Applications

Benefits of adopting the RDA output

- Increased profile of the repository
- Future planning - identified areas of strength and weakness
- Policy and procedures for hosting external data
- Professional development
- Networking - Australian trusted data repository community of practice, CoreTrustSeal reviewer

Lessons learned

- Use available resources to develop understanding of requirements
  - Other applications, webinars on the CoreTrustSeal site, professional networks
- Applying for access to the CoreTrustSeal management tool early
- Drawing on expertise within our organisation – IT, legal, end users
- Understanding of the risk management and legal framework for externally owned data
- Confirmation that policies and processes are aligned with good practice

RDA Adoption next steps

Re-certification with CoreTrustSeal

- Full implementation of the disaster recovery plan for Requirement 15 Technical infrastructure (2021-22)

Data Versioning WG

- Implement versioning recommendation – remove metadata versioning (2021-22)

FAIR Data Maturity Model WG

- Investigating metrics from FAIRsFAIR project (2021-22)

Persistent Identification of Instruments WG

- Investigating using DAP as an instrument register (2021-22)

This project was supported by the Australian National Data Service (ANDS), now the Australian Research Data Commons (ARDC).

ANDS is supported by the Australian Government through the National Collaborative Research Infrastructure Strategy Program

Thankyou

Mikaela Lawrence
Data Librarian
mikaela.Lawrence@csiro.au

Acknowledgements:
Janet Applegate
Sue Cook
Kathryn Unsworth
Cynthia Love
Susan McMaster
David Lemon

Improving Data Management Procedures based on CoreTrustSeal Certification

Chenzhou CUI

National Astronomical Data Center

National Astronomical Observatories, CAS

Basic Information about CTS

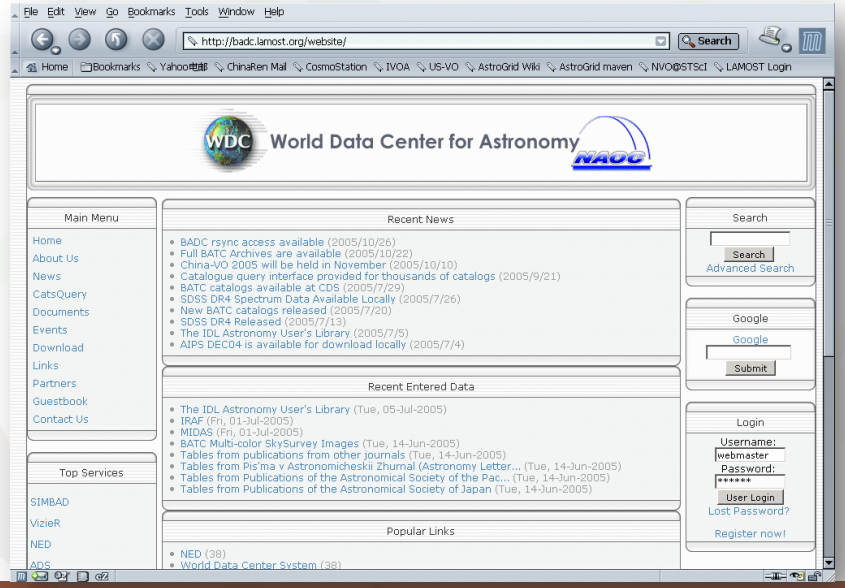
- The CoreTrustSeal, launched in 2017, defines requirements and offers core level certification for Trustworthy Data Repositories holding data for long-term preservation. It is a cooperative effort between the Data Seal of Approval (DSA) and the World Data System of the International Science Council (WDS), under the umbrella of the Research Data Alliance (RDA).
- 16 **Requirements,** 150+ **Certified Repositories**

- **Background Information** (R0)
  - Context
- **Organizational Infrastructure (R1-R6)**
  - I. Mission/Scope
  - II. Licenses
  - III. Continuity of access
  - IV. Confidentiality/Ethics
  - V. Organizational infrastructure
  - VI. Expert guidance

- **Digital Object Management (R7-14)**
  - VII. Data integrity and authenticity
  - VIII. Appraisal
  - IX. Documented storage procedures
  - X. Preservation plan
  - XI. Data quality
  - XII. Workflows
  - XIII. Data discovery and identification
  - XIV. Data reuse
- **Technology (R15-R16)**
  - XV. Technical infrastructure
  - XVI. Security

History of CAsDC

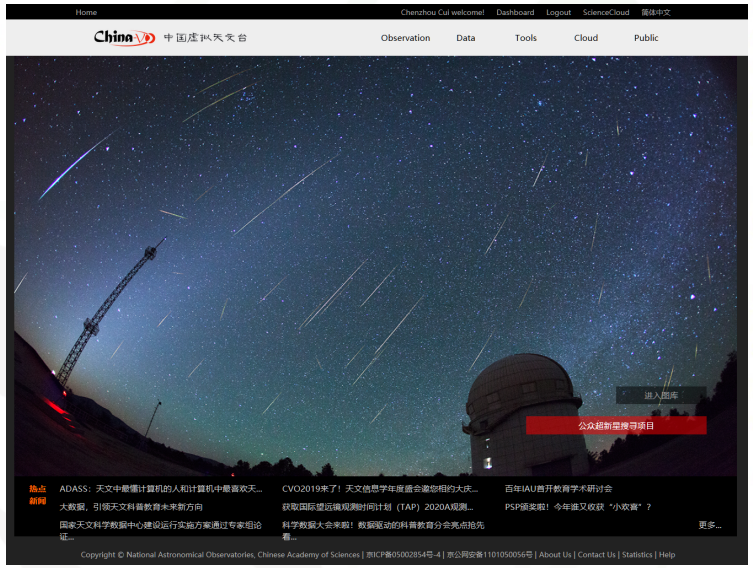
- The Chinese Astronomical Data Center (CAsDC) is based on World Data Center (WDC) for Astronomy, which is hosted at NAOC and has been providing data services to users since its initiation in 1989.
- In 2012, the CAsDC became a regular member of the new created Word Data System.
- In October 2018, CAsDC passed the CTS certification
  - The ~33rd CST certified Repository
  - The 1st CST certified Repository in Asia

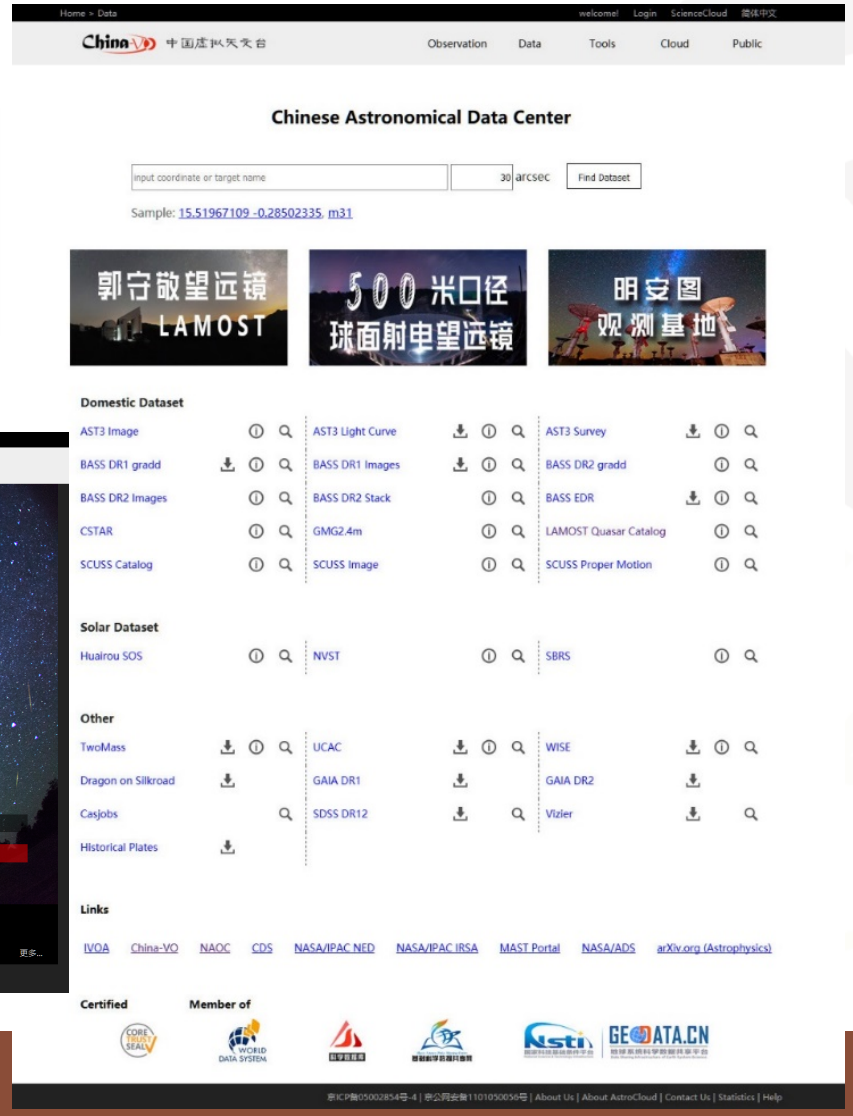


CAsDC Status

Roles:

- Repository (Data Center)
- Science Platform
  --Virtual Observatory

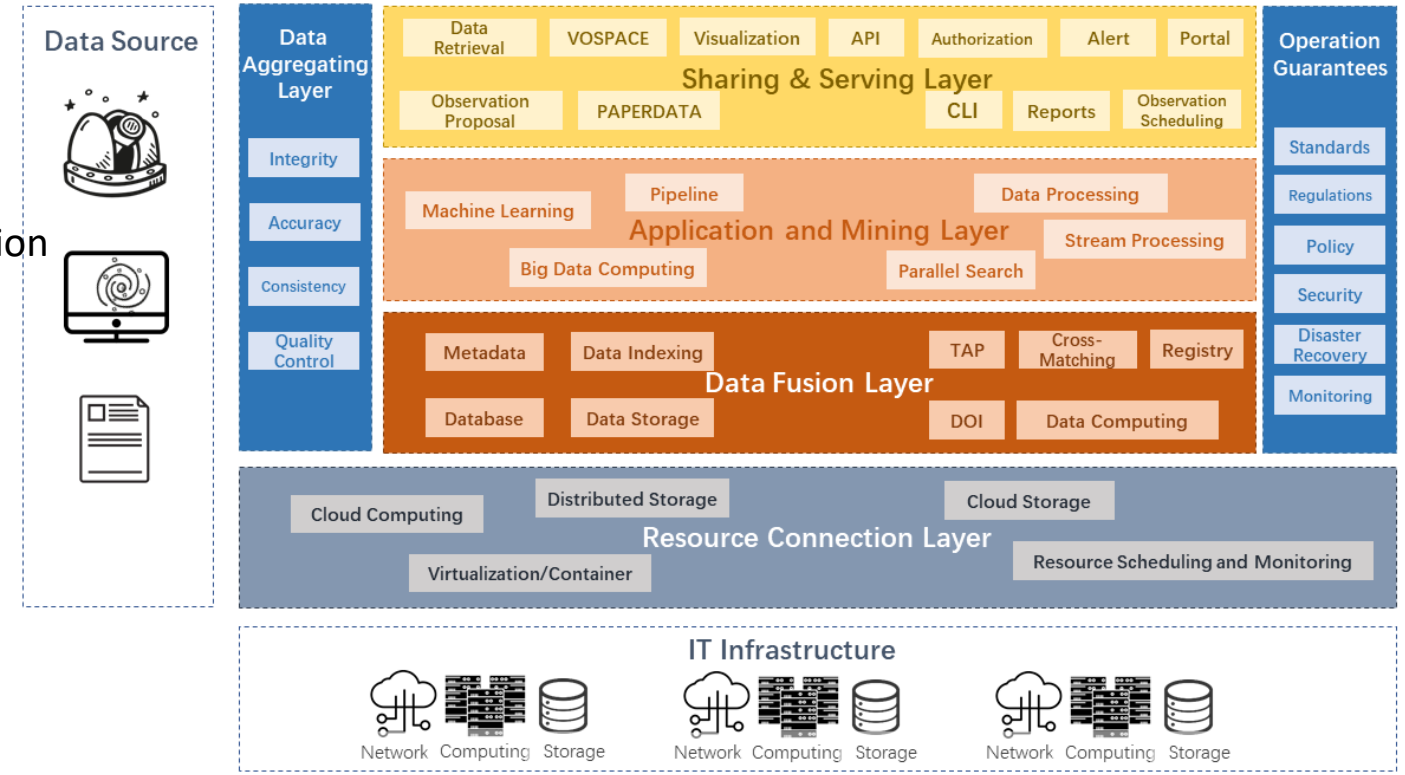




National Astronomical Data Center

- In 2019, the CAsDC was endorsed by Chinese government as one of the first 20 national scientific data centers, i.e. National Astronomical Data Center (NADC).

- Required responsibilities
  - Data collection
  - Long-term curation and preservation
  - Data application and utilization
  - Data sharing and open access
  - International collaboration



Potential Benefits in the National System

- National Scientific Data Center community
- Long-term operation/funding support
  - ~2025
- Interdisciplinary experience sharing

科学技术部
财政部文件

国科发基〔2019〕194号

科技部 财政部关于
发布国家科技资源共享服务平台优化
调整名单的通知

教育部、自然资源部、农业农村部、卫生健康委、市场监管总局、林草局、中科院、地震局、气象局、药监局科技、财务主管部门，广东省科技厅、财政厅：

为落实《科学数据管理办法》和《国家科技资源共享服务平台管理办法》的要求，规范管理国家科技资源共享服务平台（简称国家平台），完善科技资源共享服务体系，推动科技资源向社会开放共享，科技部、财政部对原有国家平台开展了优化调整工作，通过部门推荐和专家咨询，经研究共形成“国家高能物理科学数据中心”等20个国家科学数据中心、“国家重要野生植物种质资源库”等30个国家生物种质与实验材料资源库。

请你们组织依托单位进一步加强对各国家平台的管理，根据相关管理办法要求，制定国家平台五年建设运行实施方案，进一步明确国家平台功能定位和目标任务，梳理本领域科技资源体系架构，推进相关领域科技资源向国家平台汇聚与整合，强化科技资源开发应用与分析挖掘利用，提升科技资源使用效率和科技创新支撑能力，完善科技资源存储、管理和安全所需基础设施，健全网络安全保障体系，创新运行管理机制，加强评价考核组织管理，开展国际交流与合作，充分发挥法人单位主体责任，为科学研究、技术进步和社会发展提供高质量的科技资源共享服务。

特此通知。

附件：国家科技资源共享服务平台名单

2019年6月5日

（此件主动公开）

— 1 —

— 2 —

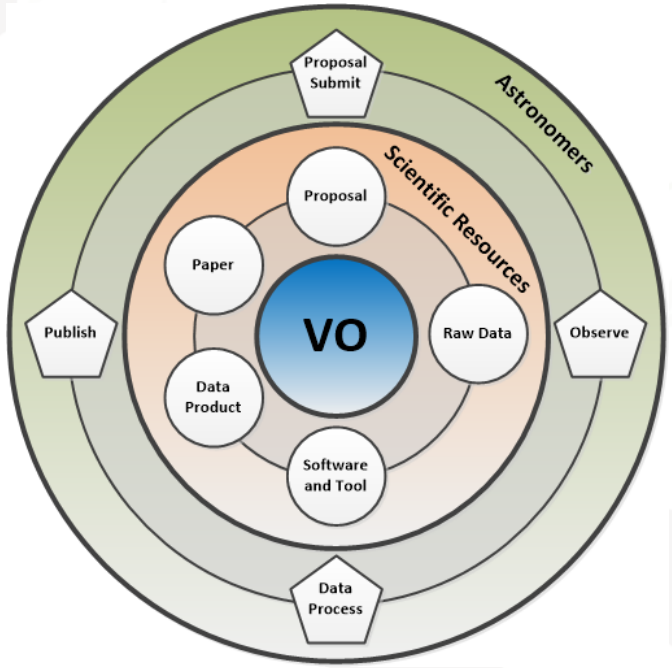
Agriculture, Earth System Science, Space Science, Genomics, Polar Science, High-energy Physics, Biology, Meteorology, Ocean Science, Seismology

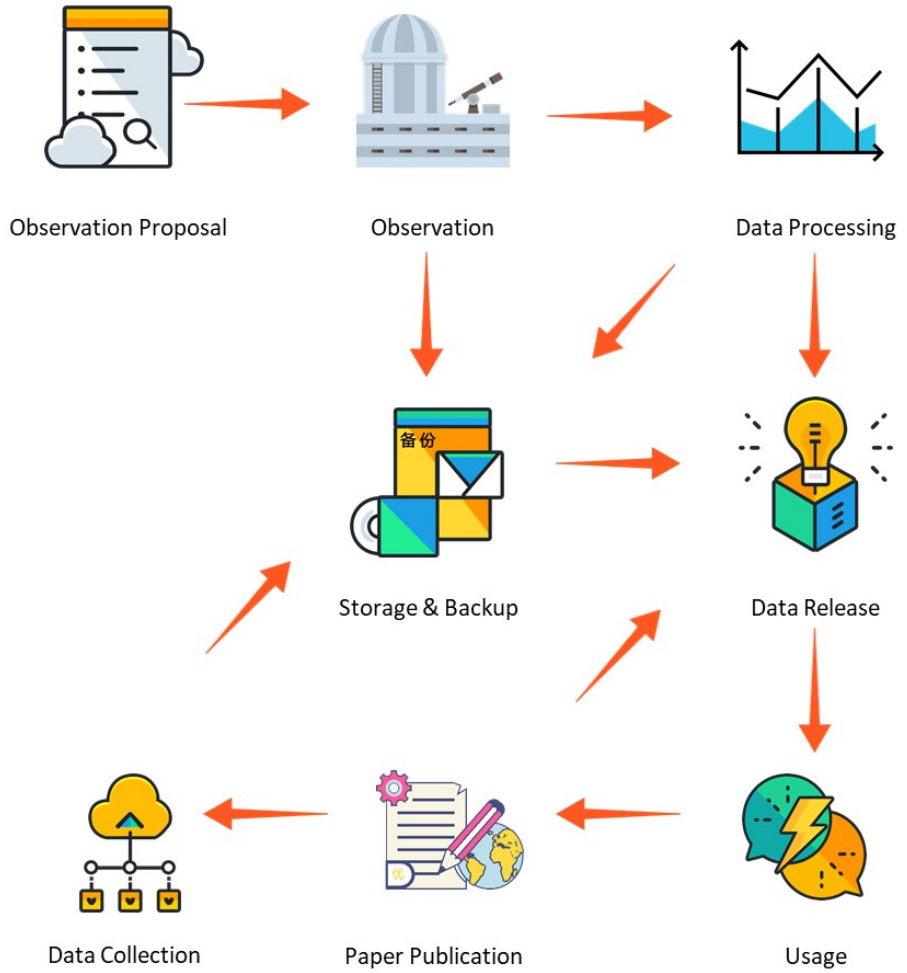
NADC Unique Characters

- National- and Institute- level data policies as umbrellas
  - Data archiving requirements for research projects
  - Archiving requirements for academic paper uplated data
  - Long-term reservation and open access requirements
- Whole life-cycle management platform
  - One stop (All in one)
  - Serving different types of users
    - Telescope team, observers, sky survey team, scientific users, EPO users, managers, etc.
- Application driven but not tech-architecture driven
  - LAMOST, FAST, time-domain astronomy, …

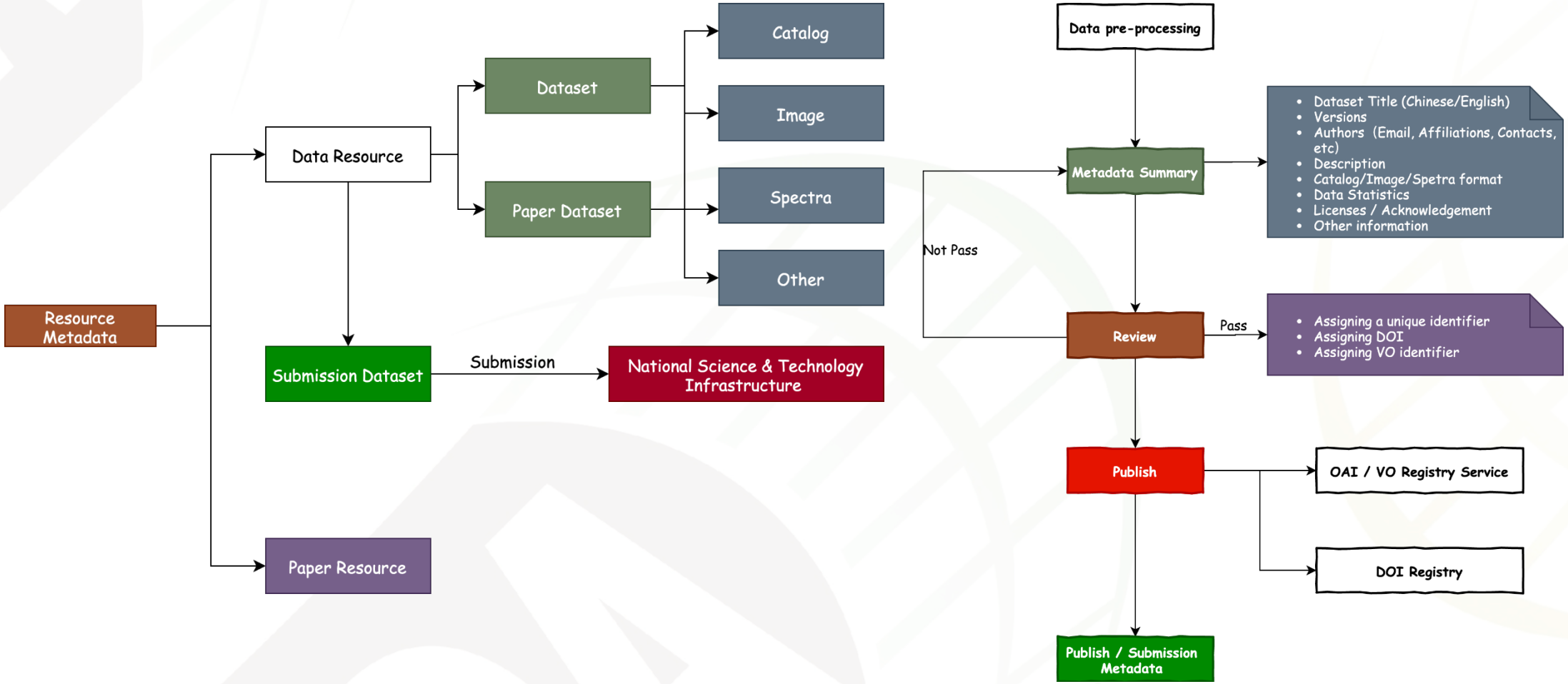
NADC New Website

CTS-driven Whole life-cycle management





Metadata Management



China-VO PaperData repository

PaperData Repository

Powered by China-VO

China-VO Paper Data Repository provides long-term storage and open access service for your paper data, which includes but not limited tables, figures, pictures, movies, source codes, models, software packages mentioned in your scientific papers. A permanent but user specified URL will be provided for each item. Furthermore, copyrights of these properties are still owned by yourself.

Recommended by AAS Journals (AJ/ApJ/ApJL/ApJS/RNAAS) and Research in Astronomy and Astrophysics (RAA).

Getting started with China-VO Paper Data, please click here.

Support DOI Apply

China-VO PaperData allow user to apply DOI for their data used in the paper through the platform.

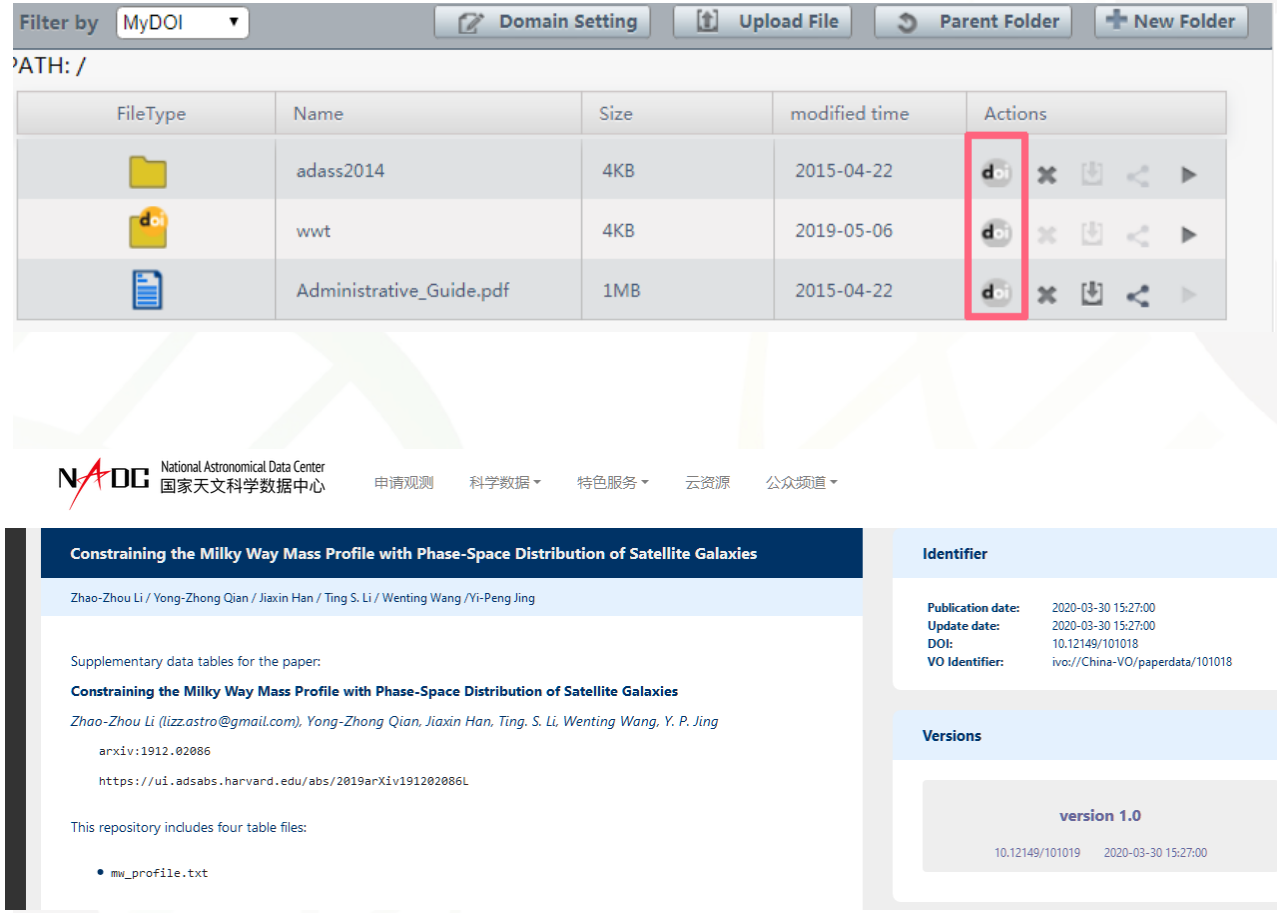
A China-VO PaperData DOI (https://doi.org/10.12149/100XXX) will be issued within 2 working days after we get the notification that the paper is accepted by the journal.

AAS Official Recommendation

AAS has officially recommended China-VO PaperData in their tutorials. For your convenience, please include the fact that a PaperData DOI will be issued for these results in your submission notes to AAS journal.

Help Document

How to start?
How to get a DOI for your data?
Check the document before you start.



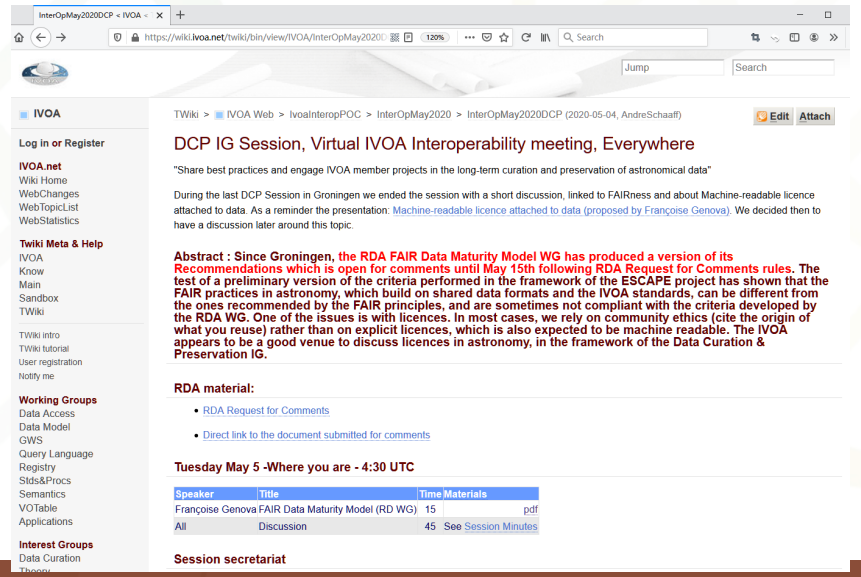
International Virtual Observatory Alliance

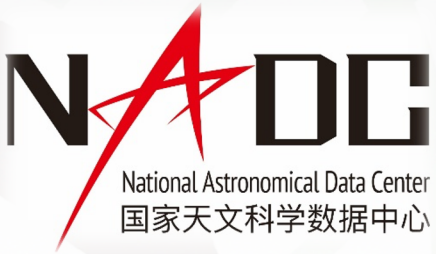
The vision of Virtual Observatory is made possible by standardization of data and metadata, by standardization of data exchange methods, and by the use of a registry, which lists available services and what can be done with them. **IVOA is an organisation that debates and agrees the technical standards that are needed to make the VO possible.**

- Created in 2002, 21 member VO projects
- 6 Working Groups, 8 Interest Groups

IVOA has been informed about the RDA activities since the beginning of the RDA. in particular through IVOA Data Curation and Preservation Interest Group, the CTS certification topic has been discussed in the IVOA .

At IVOA May 2020 Interop VM, the Recommendation of the RDA Data Maturity Model WG and its consequences for astronomy were discussed.



ADA AUSTRALIAN DATA ARCHIVE

Thank You