

# The Metadata Coal Face for Digital Repositories

**Adrian Burton, Chris Blackall\* & Scott Yeadon**

**Australian Partnership for  
Sustainable Repositories (APSR)**

VALA 2008

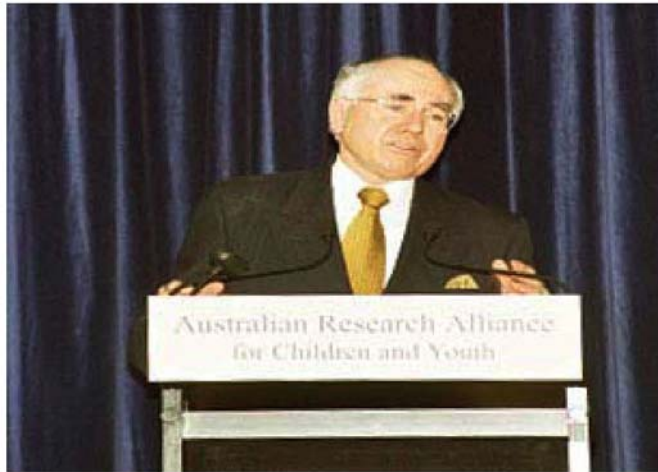
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- **Digital Curation and Preservation**
- **Repository Interoperability**
- **Collection/Services Registry**

# The Prime Minister's Science, Engineering and Innovation Council (PMSEIC)

## Australia Needs Data



Launch of the Australia Research Alliance for Children and Youth, 2002

Source: ARACY

*"... no amount of goodwill is enough, no amount of good policy direction is enough, unless you have accurate information on your data"*

**FOR SALE**





# Working Group on Data for Science (2006)

## The Urgent Need for Data → Wisdom



Working Group on Data for Science

Working Group on Data for Science

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# Working Group on Data for Science (2006)

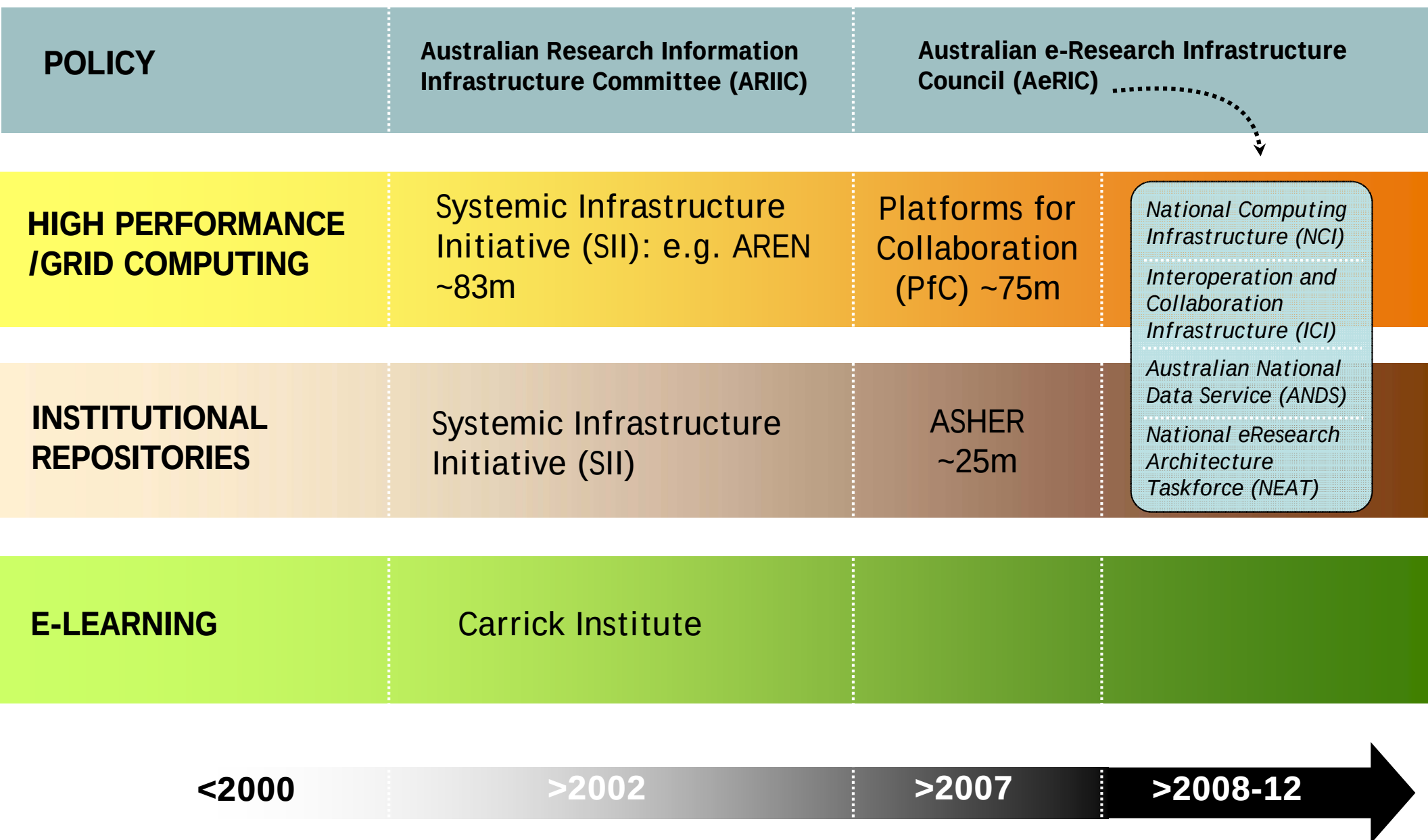
## Our Vision

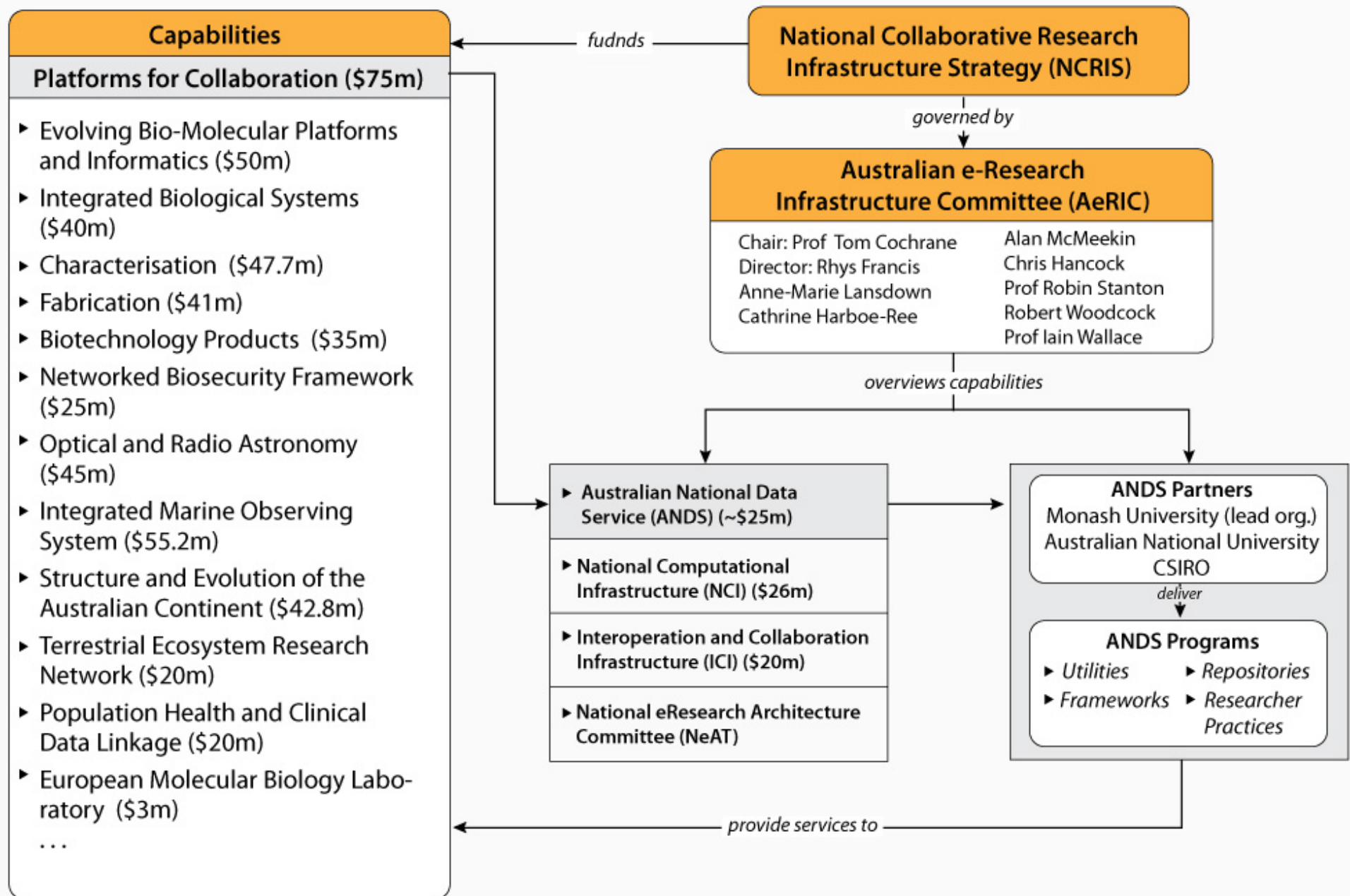
Australia is managing increasing volumes and complexity of data to enhance our country's scientific, economic and social prosperity and to protect it from threats



Working Group on Data for Science



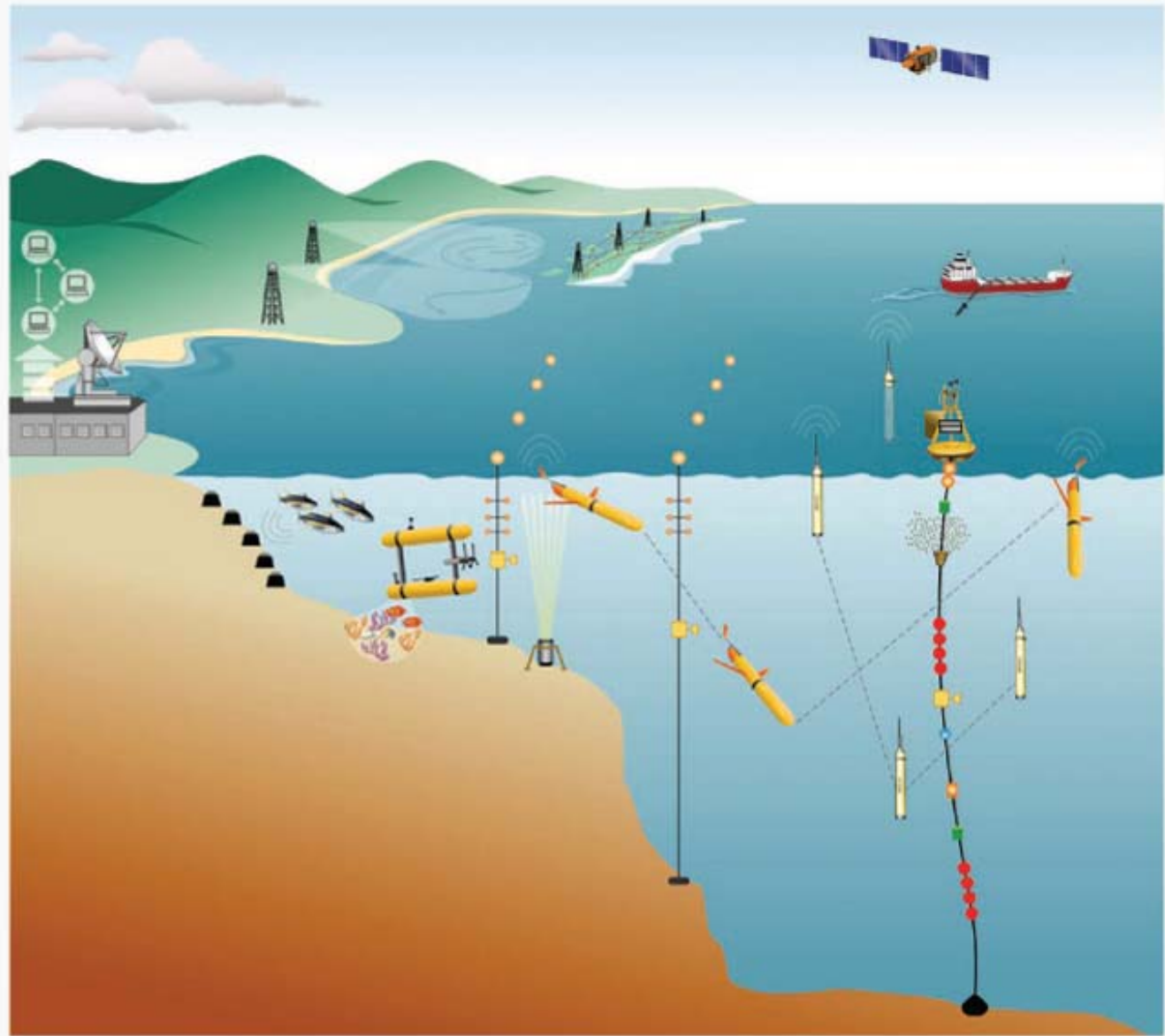






## Integrated Marine Observing System (IMOS)

- eMarine Information Infrastructure (eMII)
- Argo Australia
- Australian National Facility for Ocean Gliders (ANFOG)
- Autonomous Underwater Vehicle Facility (AUV)
- Australian National Mooring Network
- Australian Coastal Ocean Radar Network (ACORN)
- Australian Acoustic Tagging and Monitoring System (AATAMS)
- Enhanced Measurements from Ships of Opportunity (SOOP)
- Facility for Automated Intelligent Monitoring of Marine Systems (FAIMMS)
- Satellite Remote Sensing (SRS)
- Southern Ocean Automated Time Series Observations (SOTS)



IMOS integrates several independent technologies and instruments, ranging from moored sensors and deep sea autonomous floats to acoustic tracking devices, radar imagery and remote satellites, among others, into research infrastructure covering a vast swath of Australia's large coastal and deep water marine territory. IMOS will generate critical data needed to support a diverse range of marine research projects.



# Contexts

*Australian National  
Data Service  
(ANDS)*

*Interoperation and  
Collaboration  
Infrastructure (ICI)*

*National Computing  
Infrastructure (NCI)  
National eResearch  
Architecture  
Taskforce*

• Data Stewardship and Curation

◆ UTILITIES PROGRAM ✓

◆ REPOSITORIES PROGRAM

◆ FRAMEWORKS PROGRAM

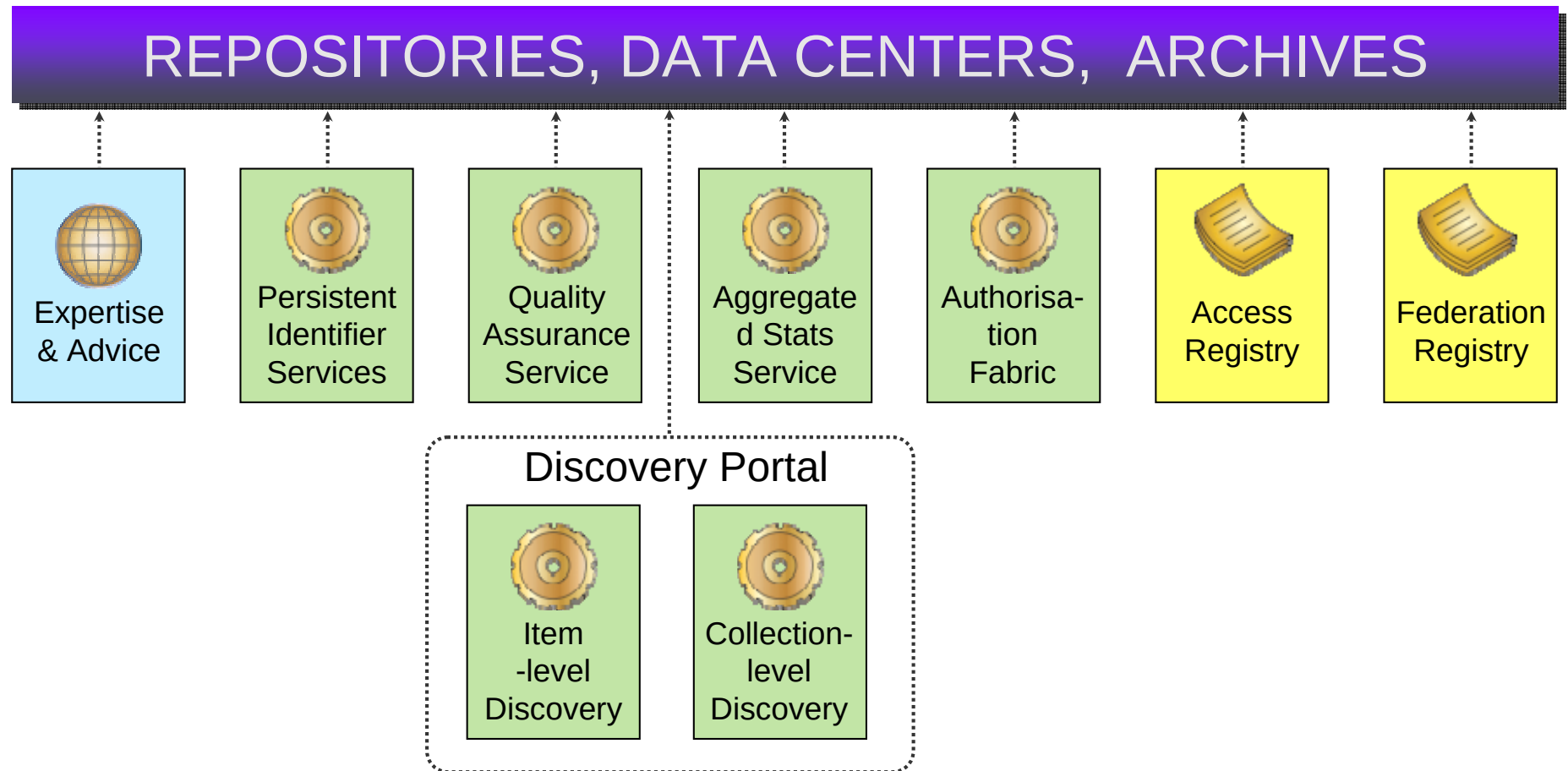
◆ RESEARCHER PRACTICES

• Grid Computing/Middleware

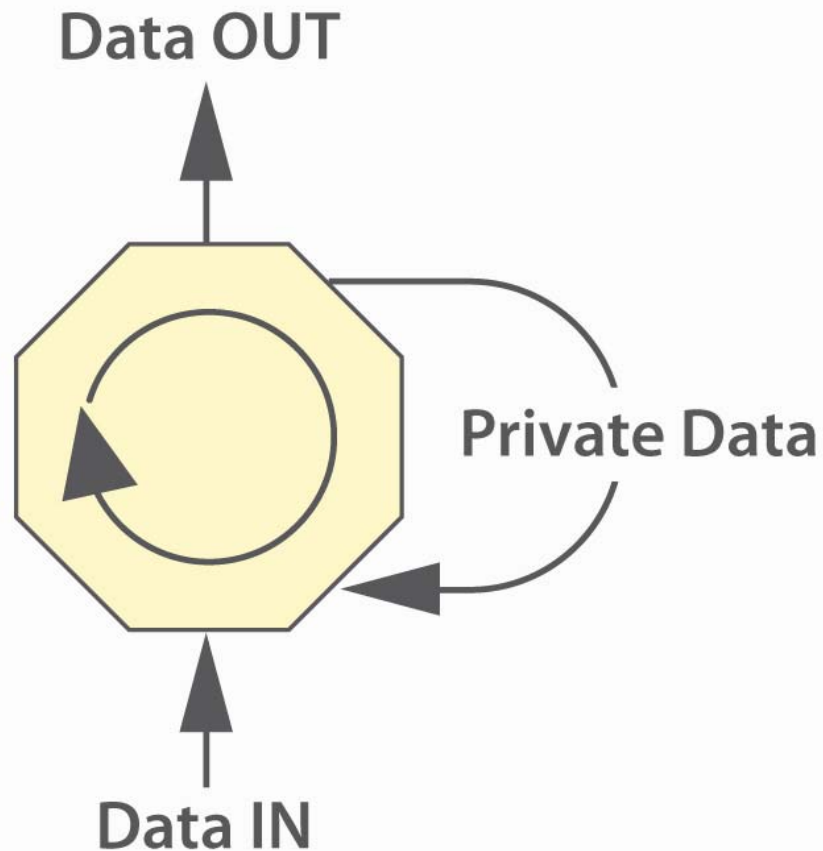
• HPC/Mass data facilities

• Infrastructure Projects

# ANDS Utilities Program



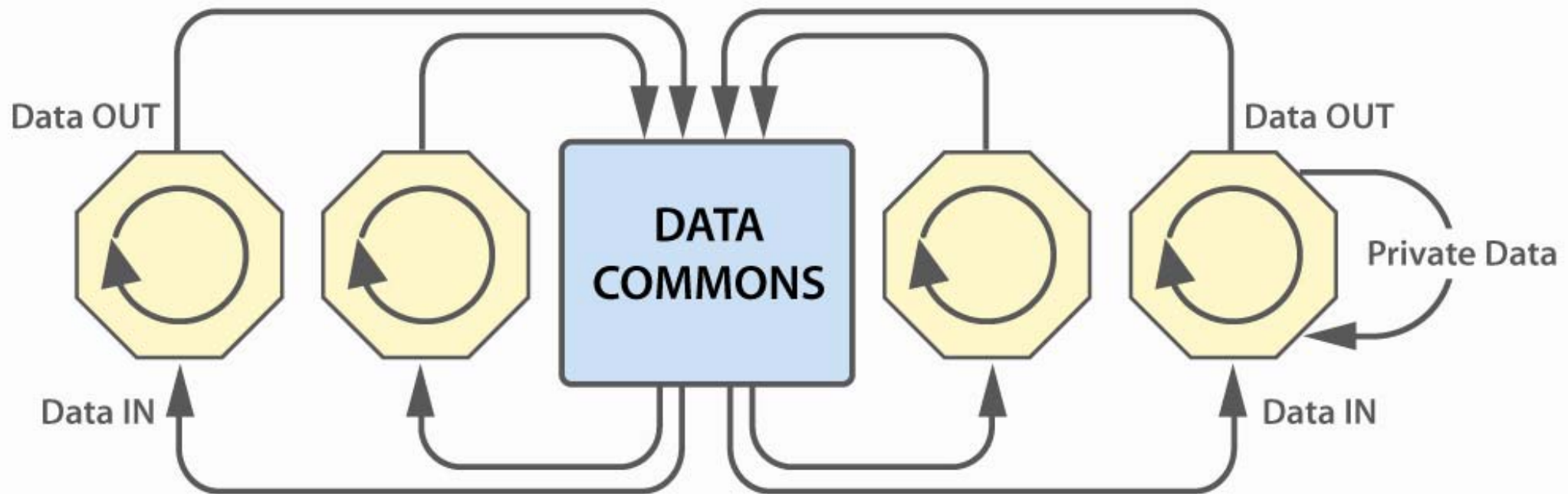
# The Australian Data Commons



*Towards the Australian Data Commons, ANDS  
Technical Working Group, October 2007*

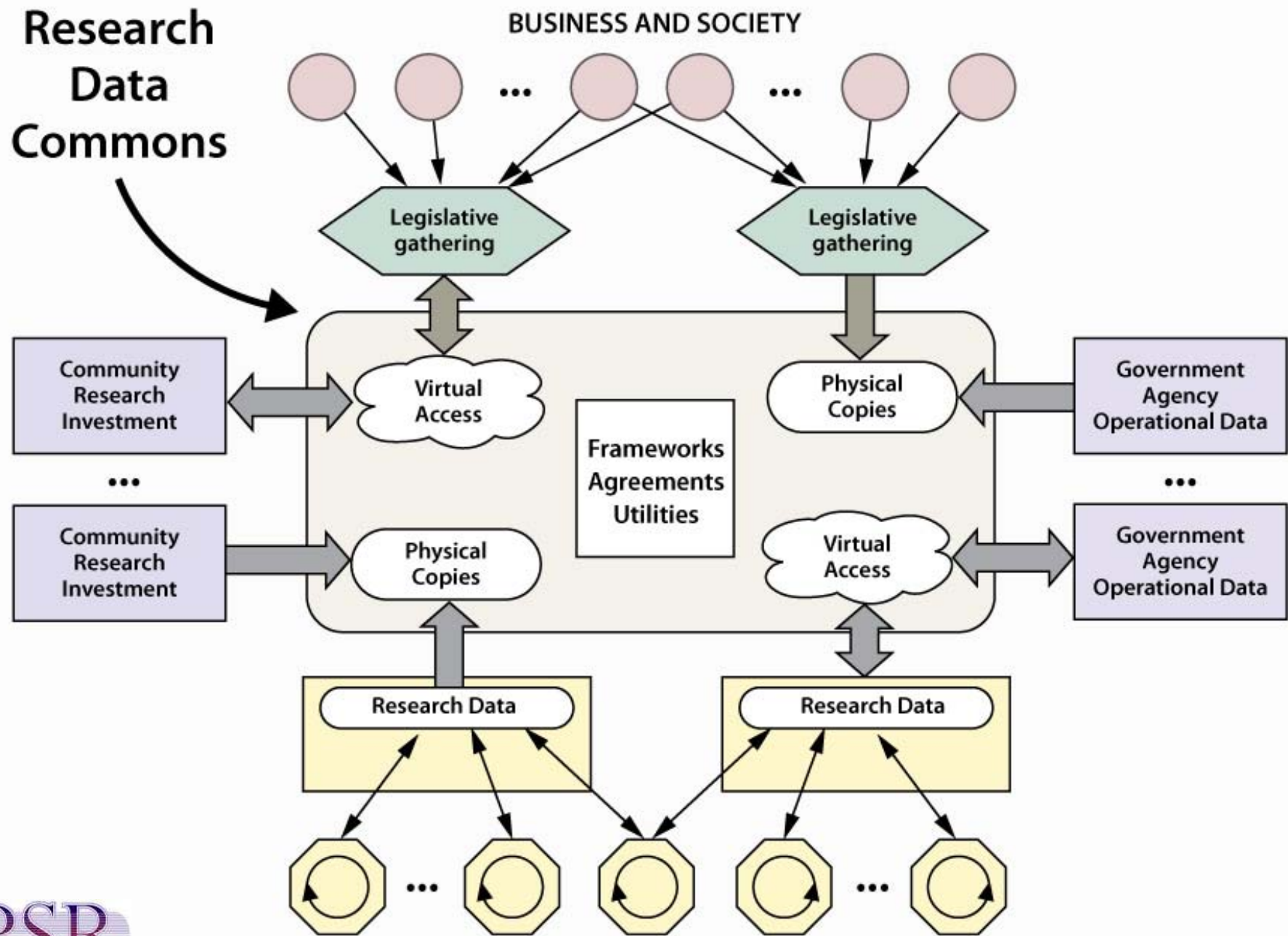


# The Australian Data Commons



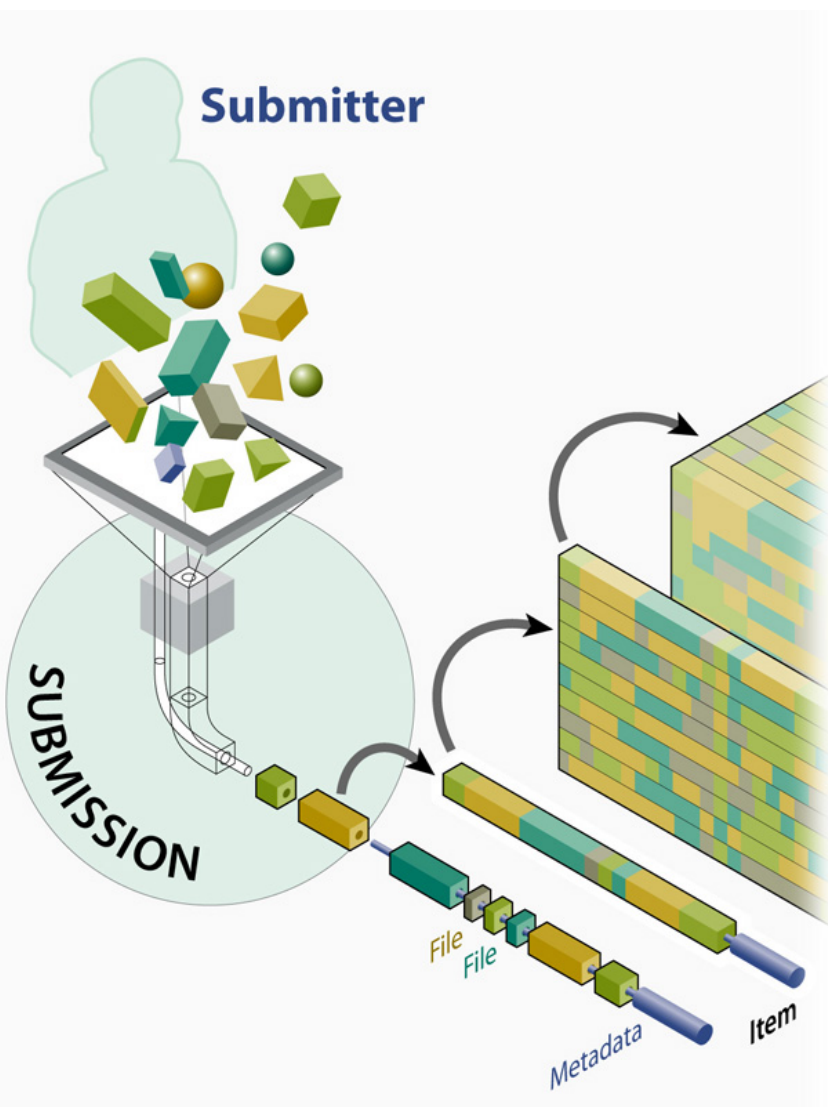
*Towards the Australian Data Commons, ANDS  
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# Research Data Commons



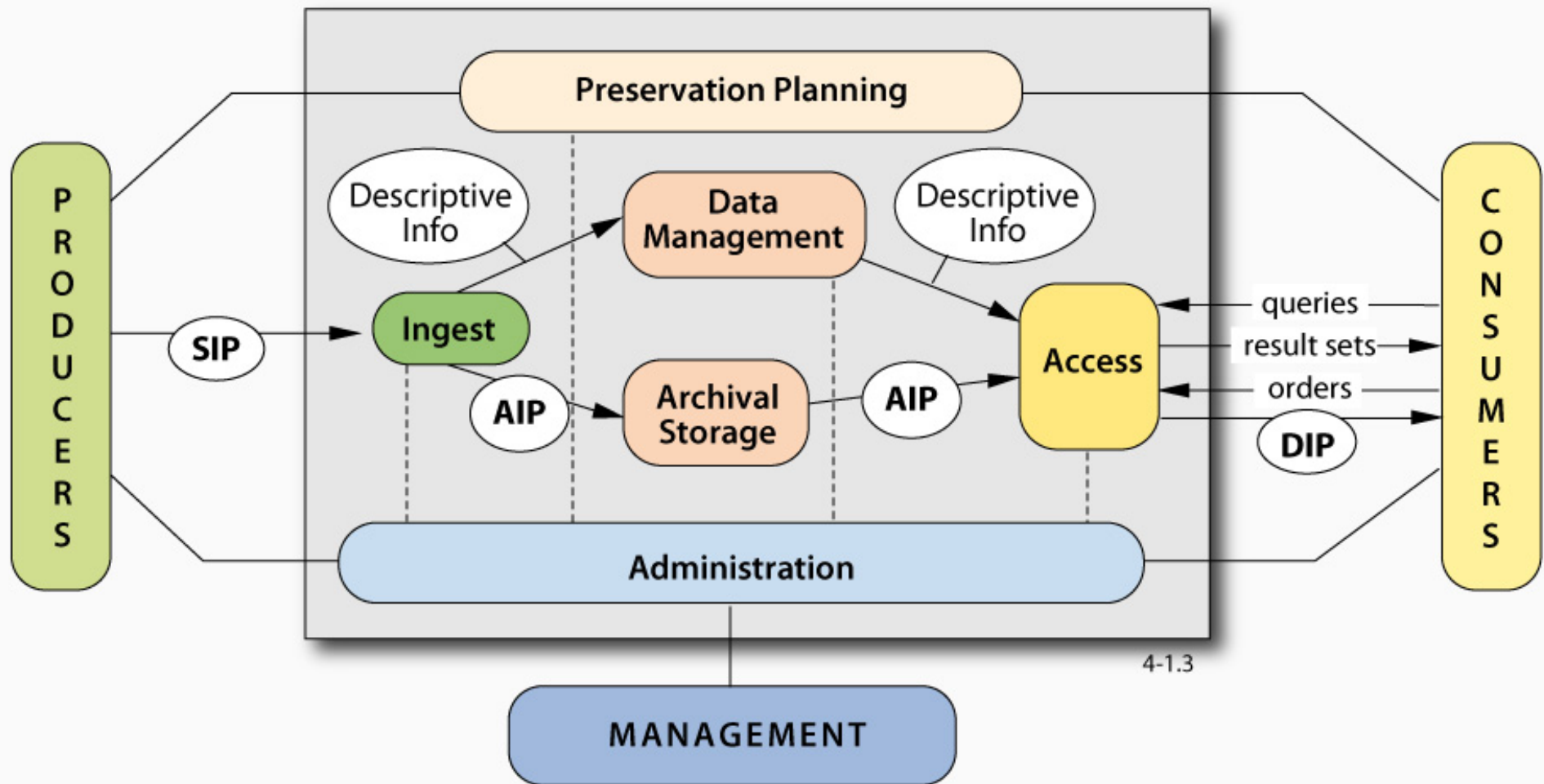
VALA 2008

# Repository specifications/standards



- File/object standards
  - file formats
  - XML data & applications
- Item-level Metadata for
  - Discovery
  - Management/Preservation
  - Structure
- Collection-level Metadata
  - e.g. Dublin Core Collection Application Profile
- Community-level specifications & standards
  - e.g. Australian METS Profile

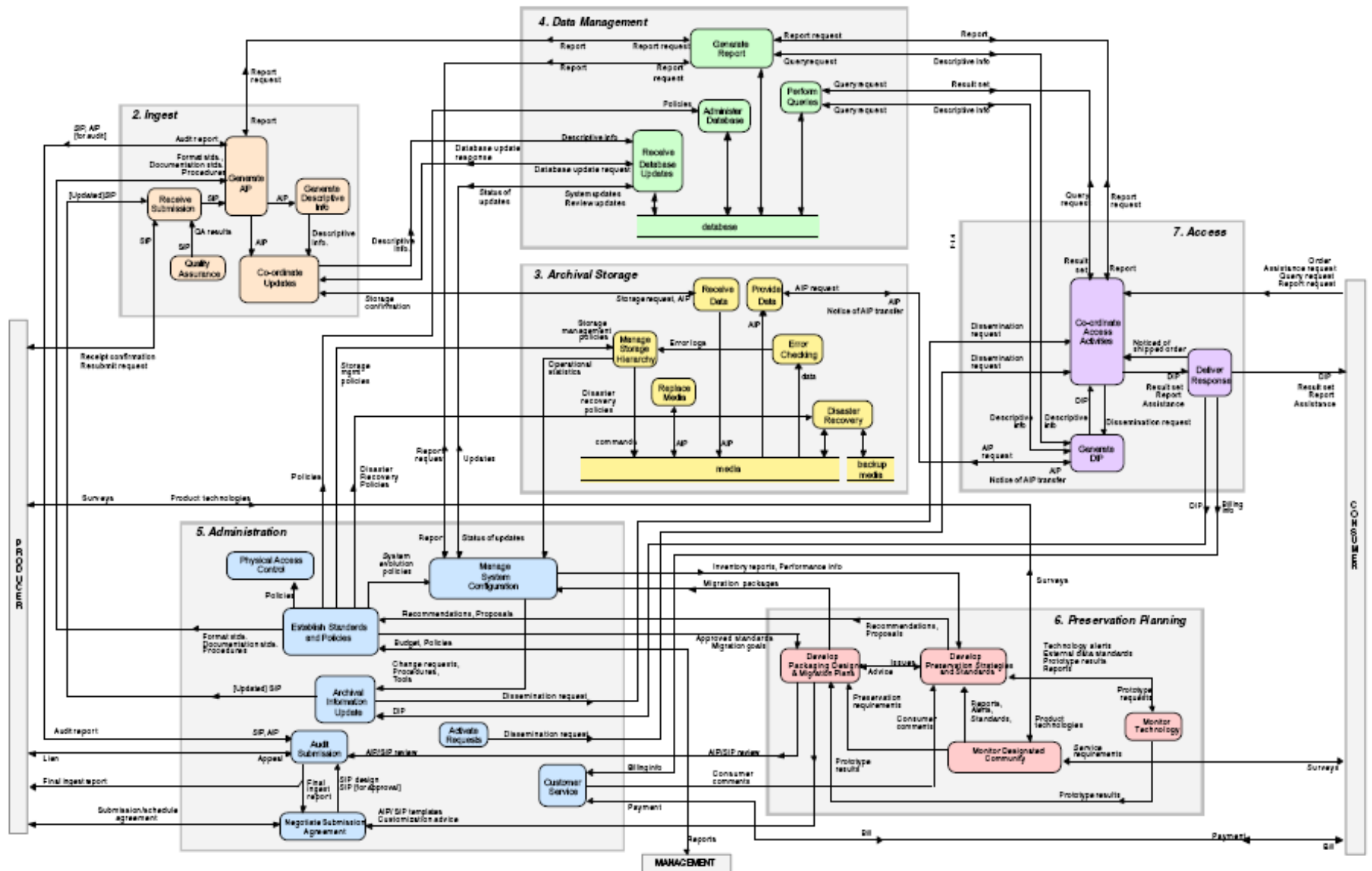
# OAIS Reference Model

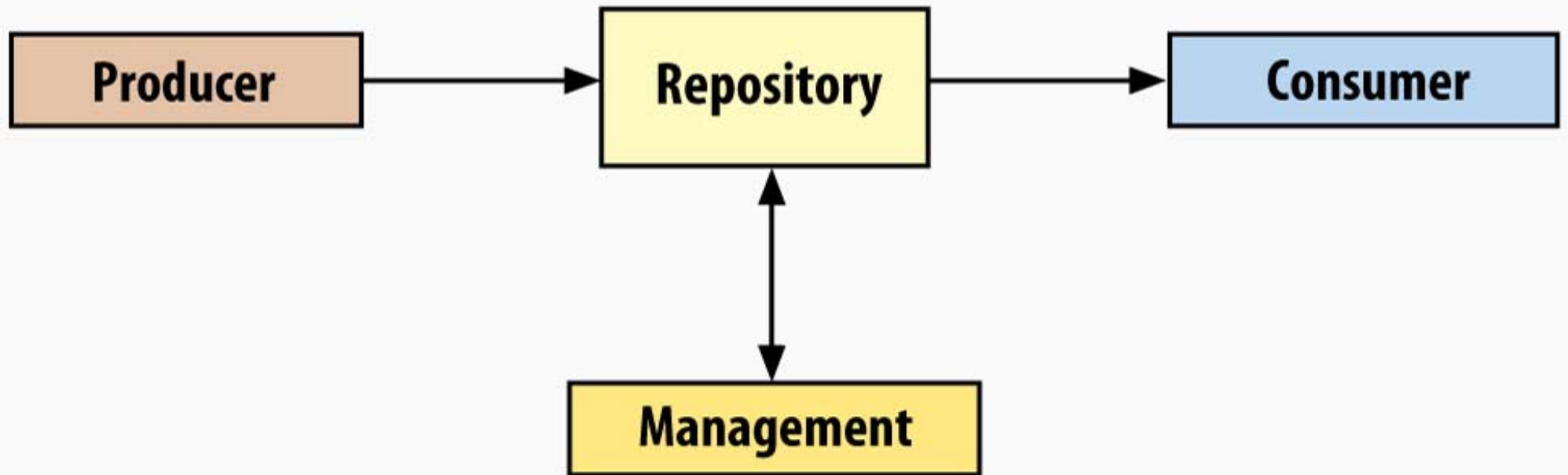


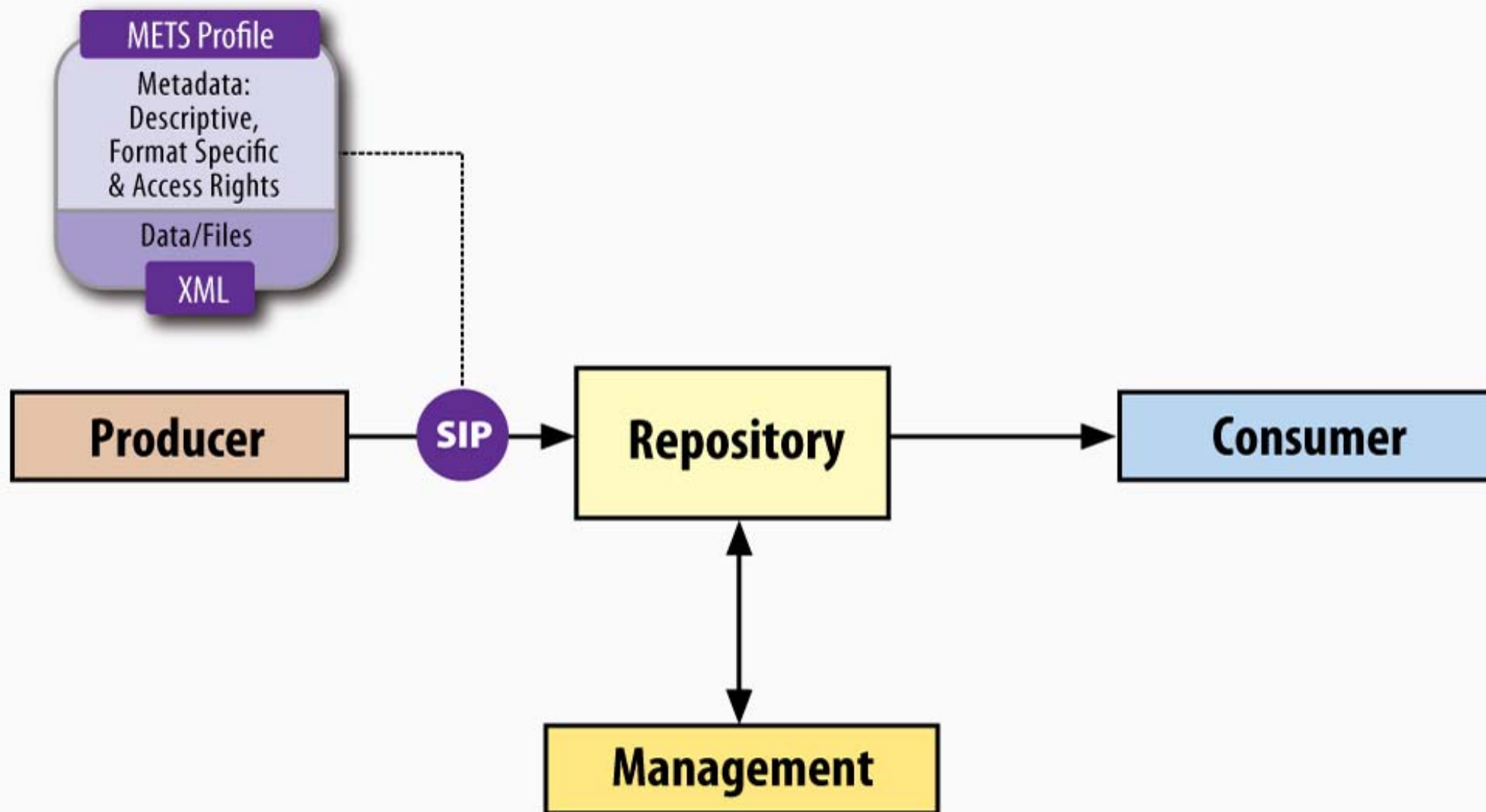
AIP: Archival Information Package  
DIP: Dissemination Information Package  
SIP: Submission Information Package



# OAIS Detail

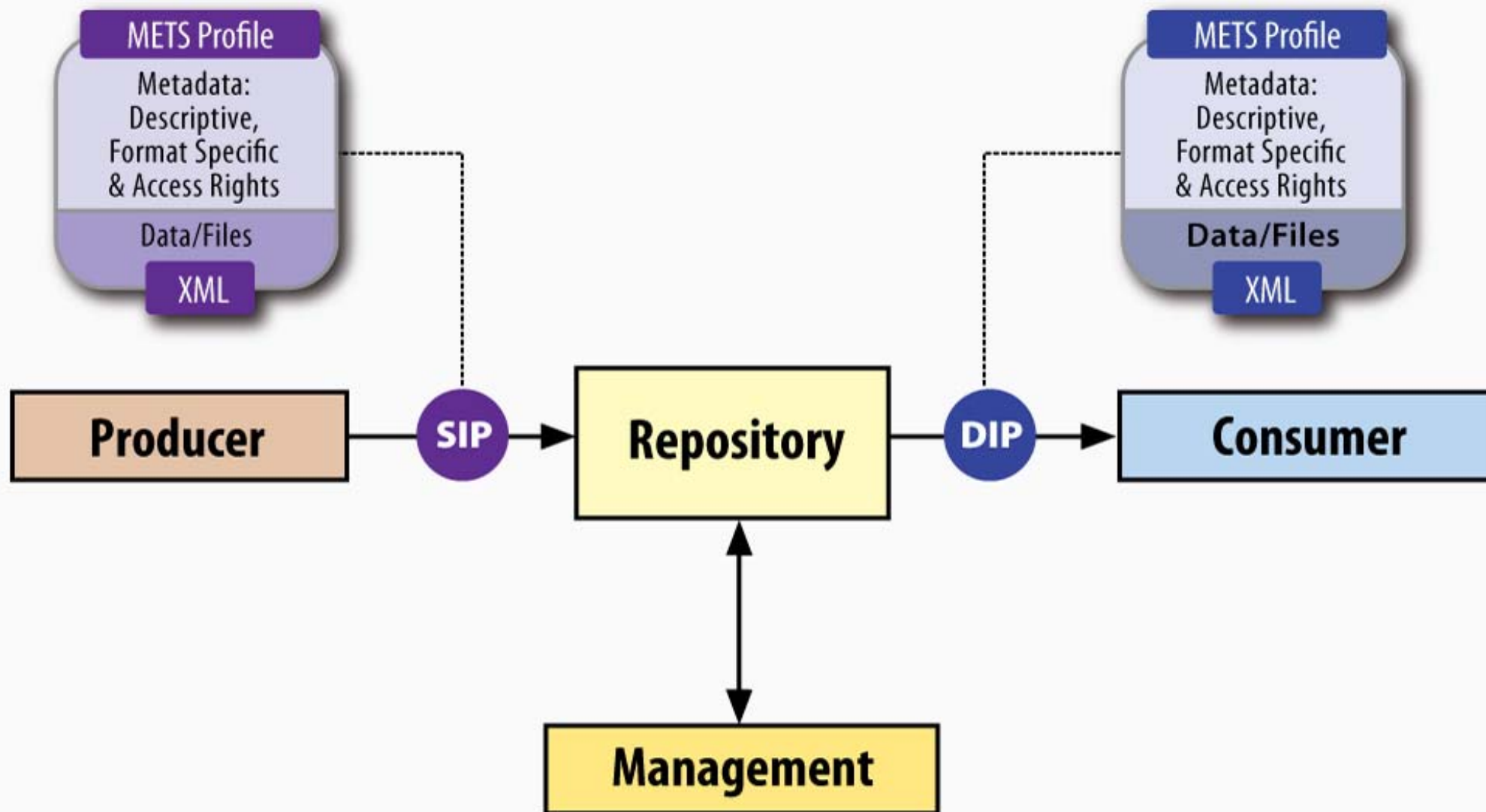






SIP: Submission Information Package

METS: Metadata Encoding and Transmission Standard

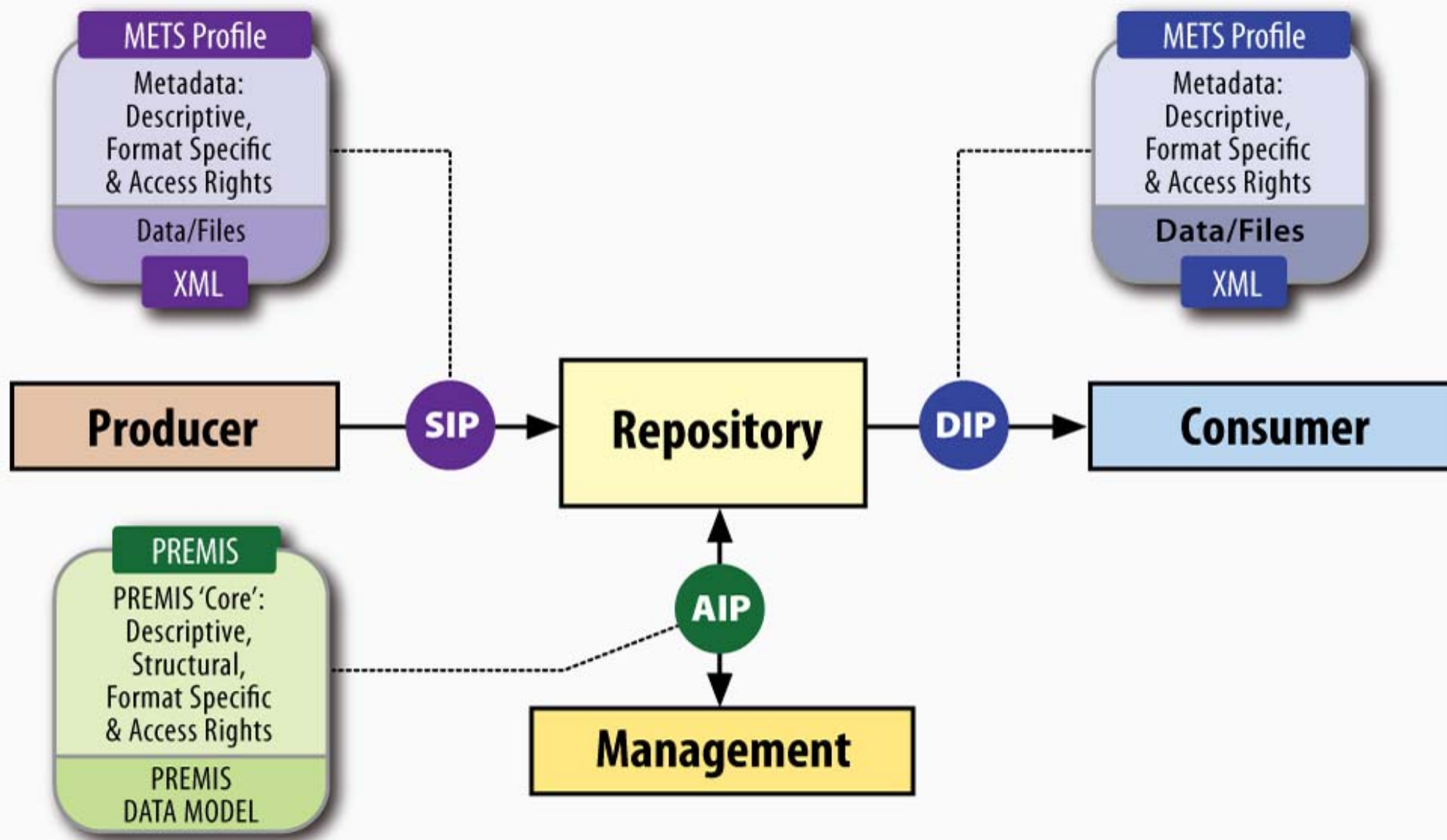


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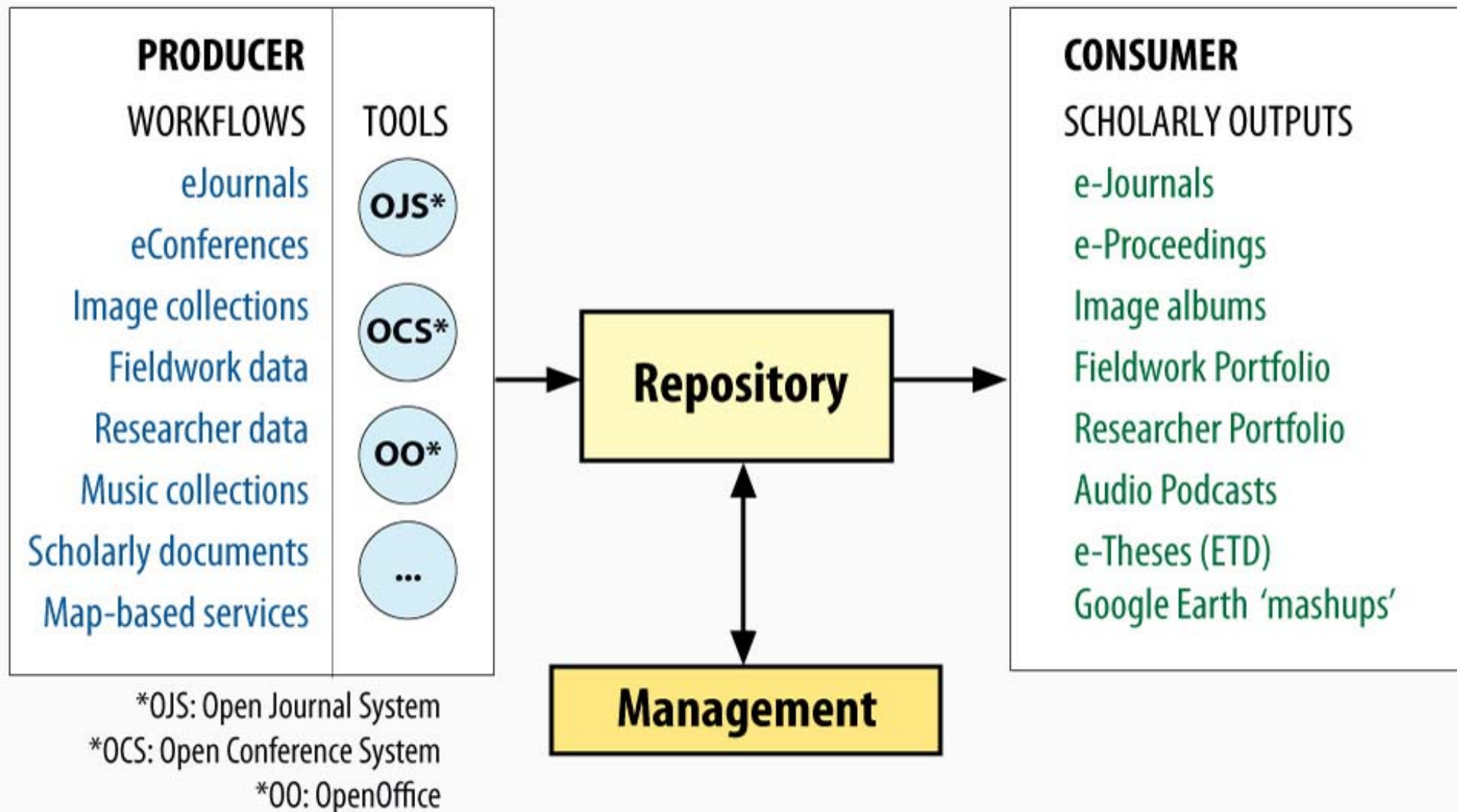
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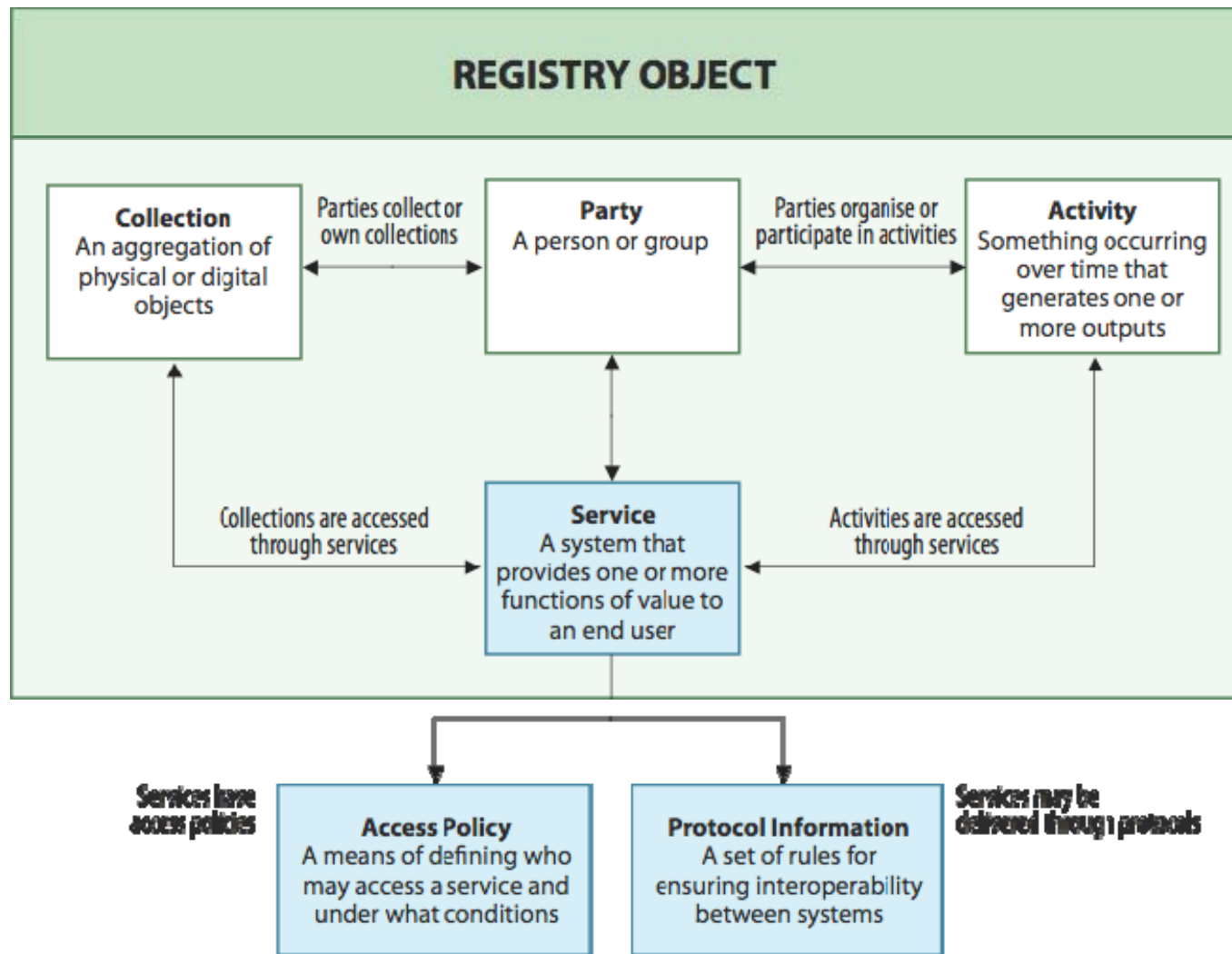
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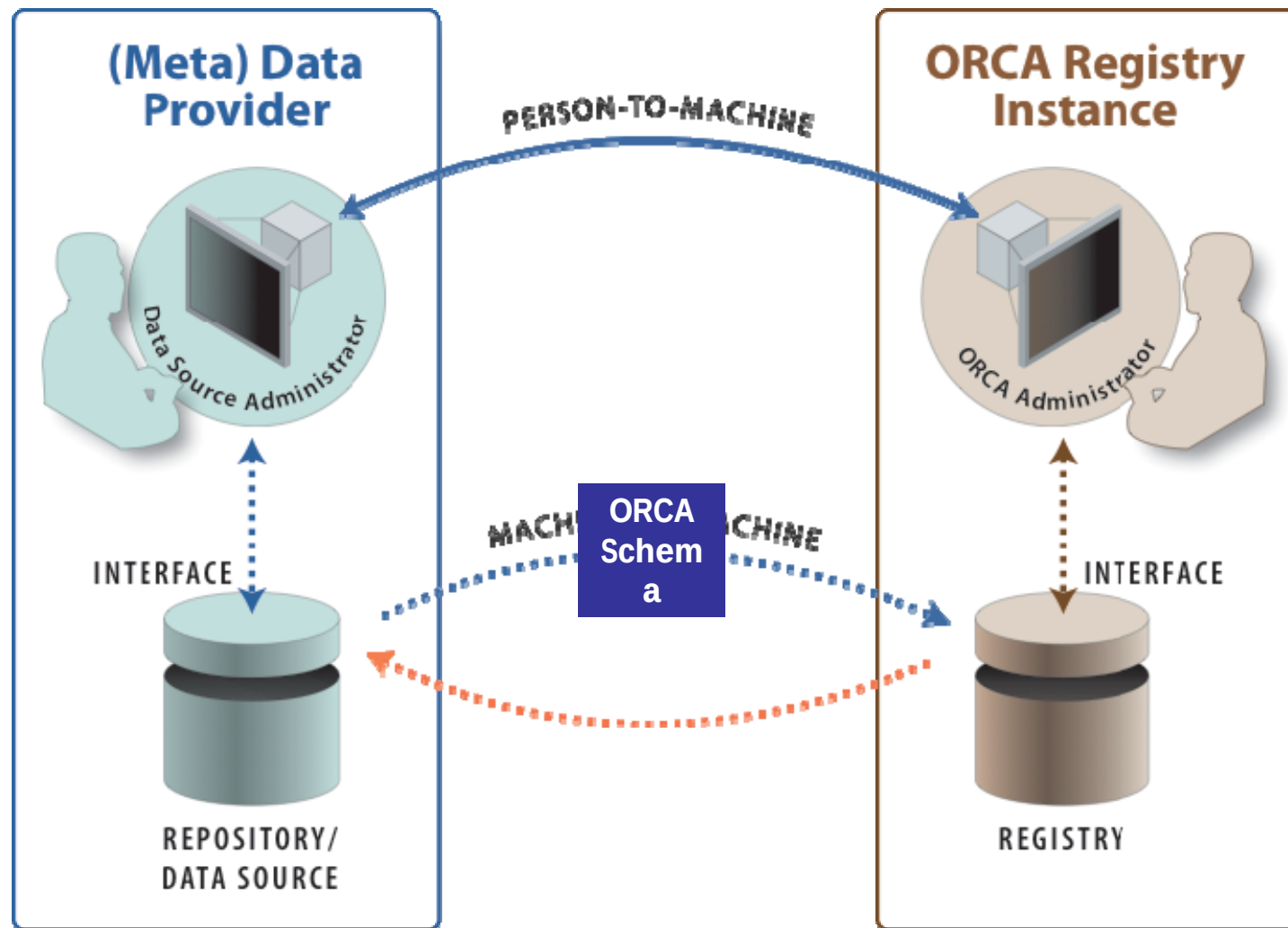
**PREMIS:** PREservation Metadata Implementation Strategies



# ISO2146 Registry Services for Libraries and Related Organisations



# Online Research Collections Australia (ORCA) Registry



**FIN**