

# What is the International Data Spaces Association (IDSA)

Can it offer value for those interested in Dataspaces?

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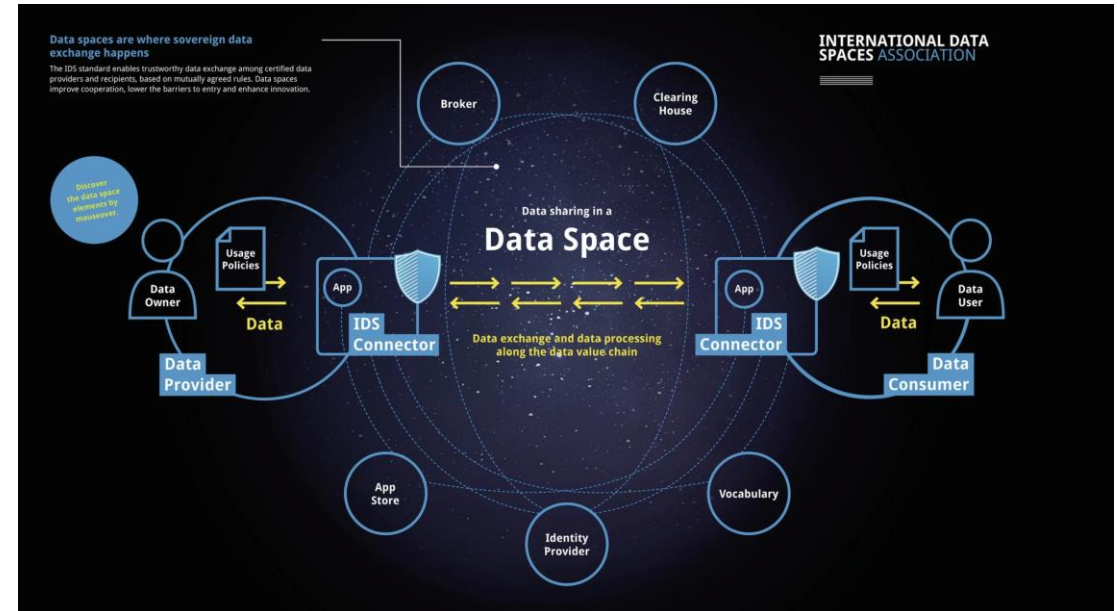
eResearch2024, 29th Oct 2024

# What are Dataspaces?

A dataspace is digital infrastructure that enables participants to find, access and use data based on a governance framework.

The vision for dataspaces is to create trusted, secure ecosystems for data exchange where all participants follow agreed rules.

Data providers set the usage policies for their data, and control over that data can persist even after it is shared.



# What value are Dataspaces offering?

## Identity

Each participant remains in control of their identity, but a common identity model allows all participants to be identified and authorised.

## Trustworthiness

Dataspaces provide a common framework for participants to assert their trustworthiness by only accessing and using data as required by the provider.

## Sovereignty

Participants negotiate the conditions for sharing data, and the dataspace ensures compliance with those agreements.

## Interoperability

Each participant remains in control of their deployment, but data exchange standards and dataspace connectors ensure interoperability.

# What value are Dataspaces offering?

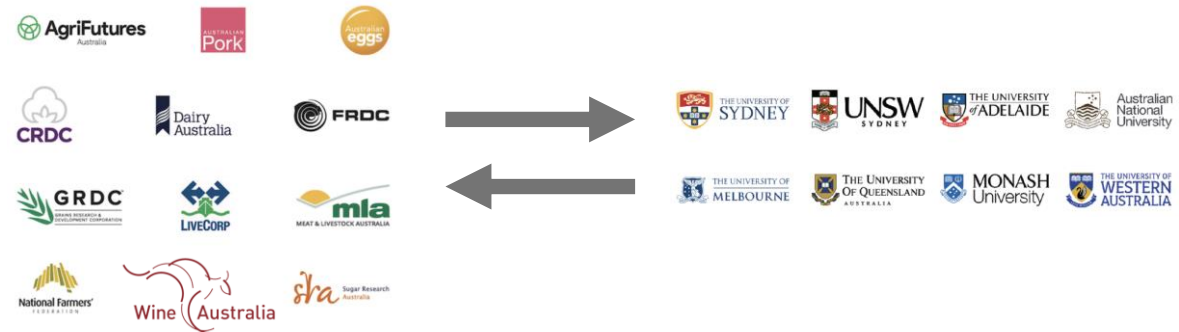
SCOPE 3 emissions reporting is a core driver of development of Dataspaces.

- Time sensitive (only allow sharing data for set windows of time)
- Must be able to subsets portions of data
- Reduce friction
- Automate legal agreements
- **MUST WORK AT SCALE**
- Needs to be operational, every day, business activity

# How are Dataspaces useful to research sector?

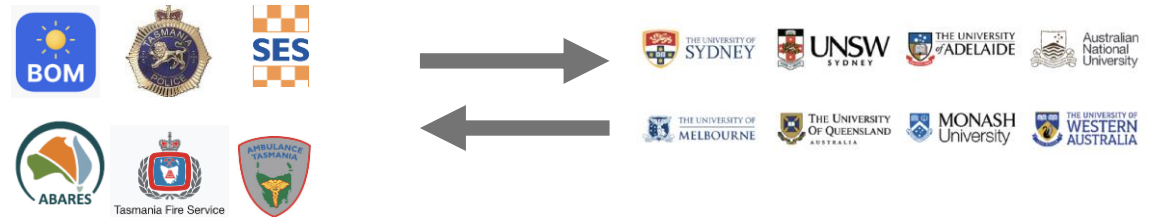
## Industry-to-Research

- commercially sensitive data
- Unpublished research data



## Government-to-Research

- Sensitive public data
- Personally identifiable data



## Research-to-Research

- Unpublished 'working data'
- Personally identifiable data
- Un-curated data
- Cross-discipline/ cross-silo collaboration
- Published archives



# What is the IDSA?

The International Data Spaces Association (IDSA) is a non-profit organization focusing on establishing and promoting standards for dataspaces.

Has been operating since 2017.

Offers access to a vibrant community actively building dataspaces.

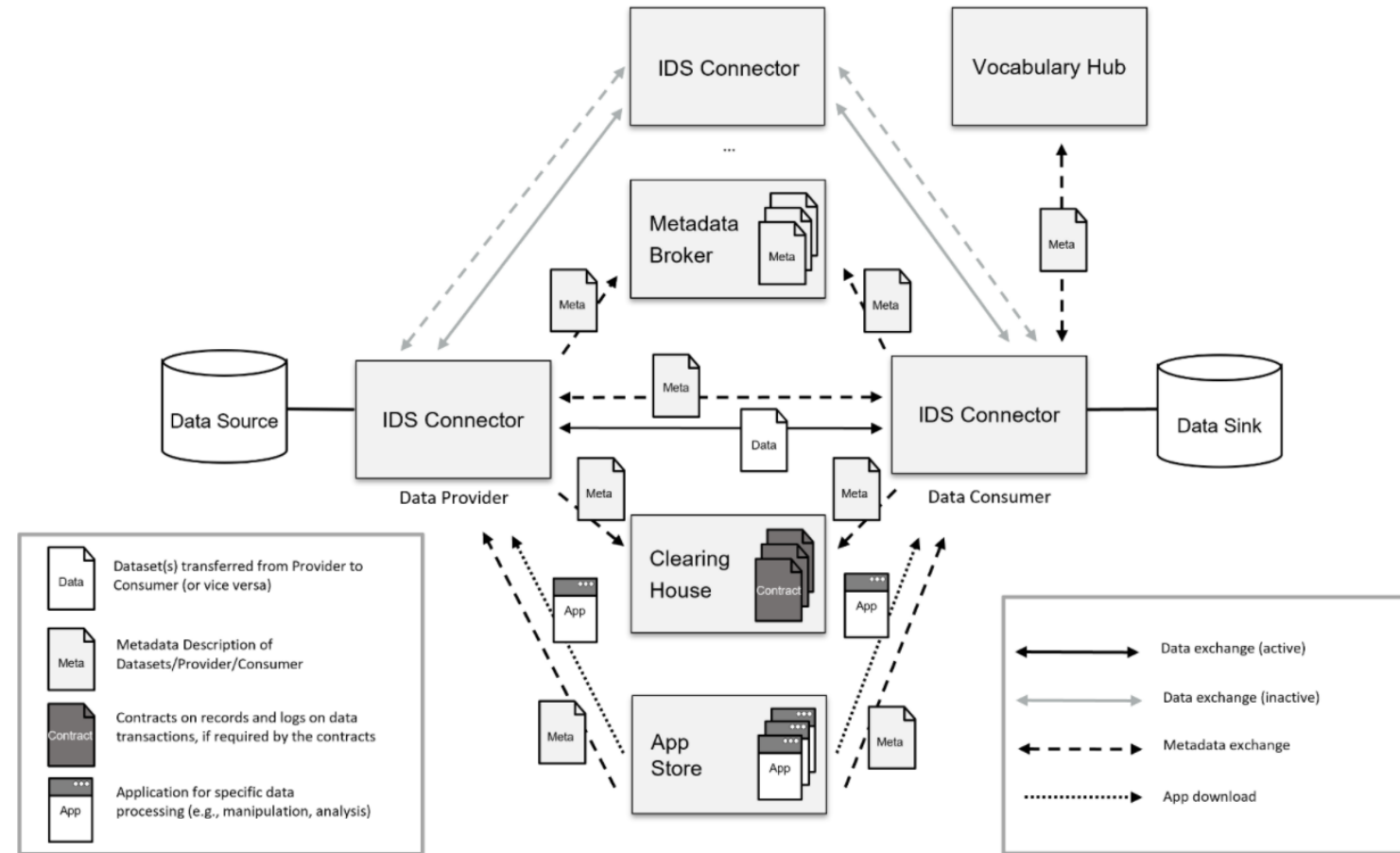
Key assets:

- Developing an international Standard for Dataspaces (underway with ISO)
- RAM 4.0 – Reference Architecture Model



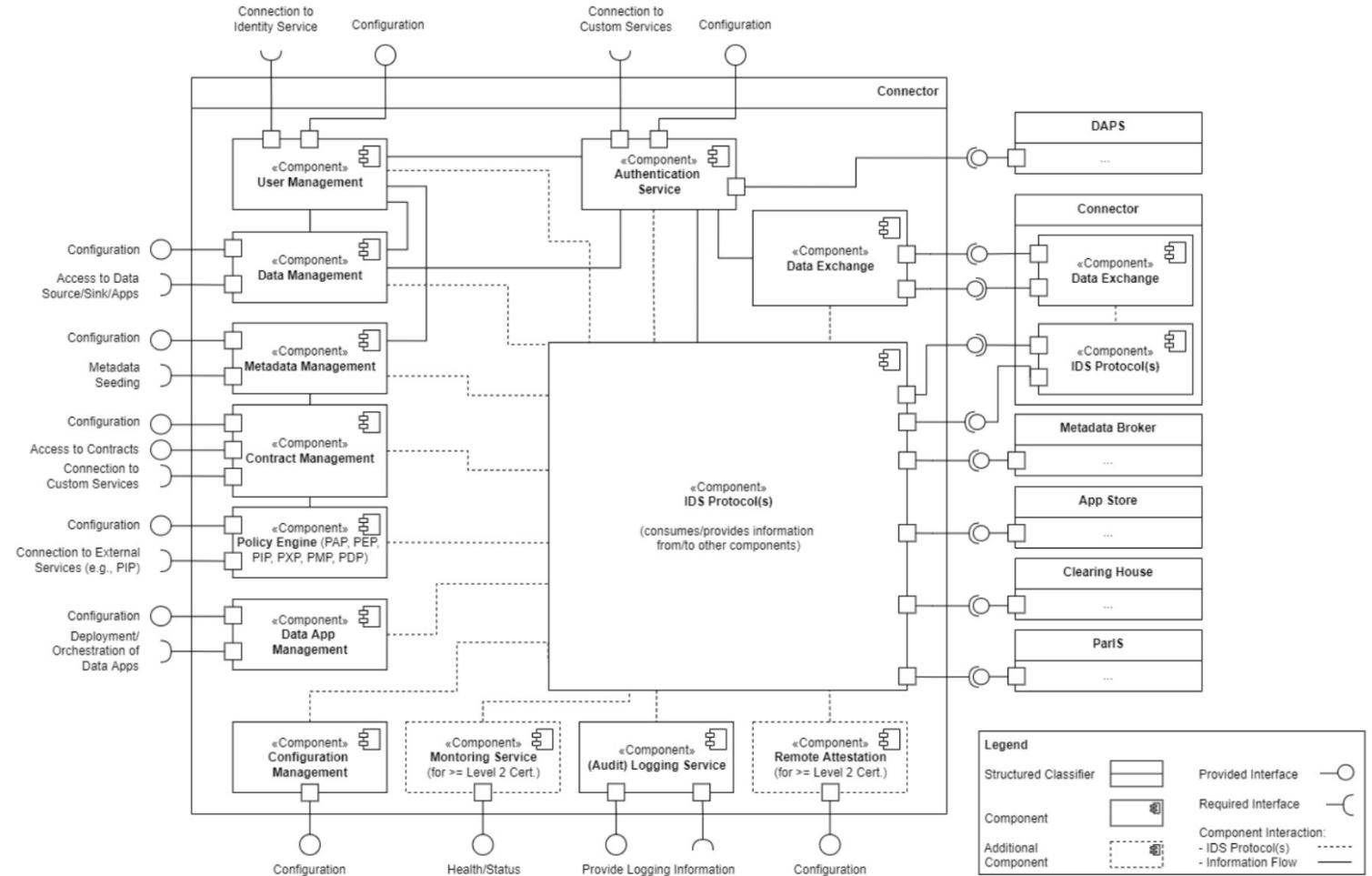
# What tools, systems, and supports does IDSA offer?

Dataspace design standards



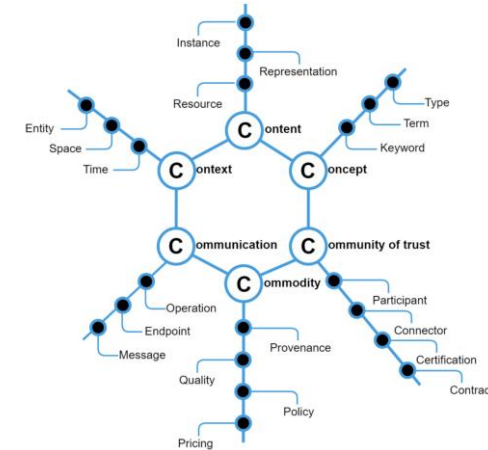
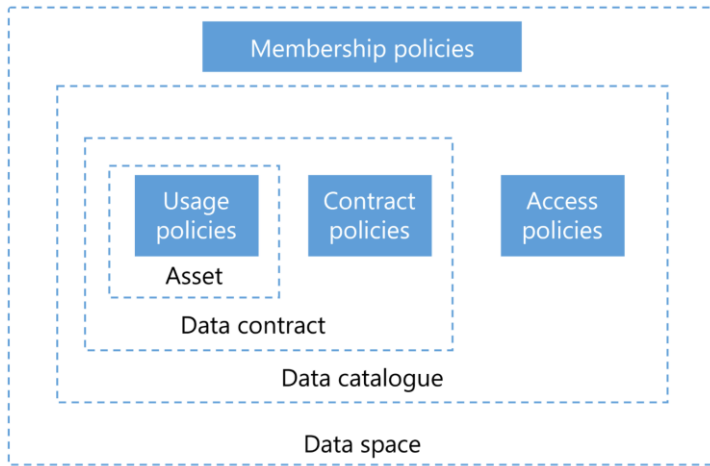
# What tools, systems, and supports does IDSA offer?

Dataspace connector design standards



# What tools, systems, and supports does IDSA offer?

Data management policies and interactions



Standardised data schema/model

Data sharing Roles & Actions

	Create	Own	Certify / Verify	Publish	Provide	**Consume	Use	Delete
Connector	Connector Creator	Connector Owner	Connector Certifier	Connector Publisher	Connector Provider	(Out of RAM scope)	Connector User	(Out of RAM scope)
Data	Data Creator	Data Owner	(Out of RAM scope)	Connector / Metadata Broker	Data Provider	Data Consumer	Data User	Data Eraser
Vocabulary	Vocabulary Creator	Vocabulary Owner	(Out of RAM scope)	Vocabulary Publisher	Vocabulary Provider	Vocabulary Consumer	Vocabulary User	(Out of RAM scope)
Identity	Identity Creator	Identity Owner	Identity Verifier	Identity Publisher	Identity Authenticator	(Out of RAM scope)	Identity User	Identity Eliminator
App	App Creator	App Owner	App Certifier	App Broker	App Provider	App Consumer	App User	App Deleter (?)
Transaction	Transaction Initiator	(Out of RAM scope)	Transaction Clearer	(Out of RAM scope)	(Out of RAM scope)	(Out of RAM scope)	Transaction Participant	(Out of RAM scope)
Service	Service Creator	Service Owner	Service Certifier	Service Broker	Service Provider	Service Consumer	Service User	(Out of RAM scope)

	Data Owner	Data Provider	Data Consumer	Data User	Metadata Broker	Clearing House	Identity Provider	Service Provider	App Provider	App Store	Vocabulary Provider	Certification Body	Evaluation Facility
Data Owner	-	X	-	-	-	(X)	-	(X)	(X)	(X)	(X)	-	(X)
Data Provider	X	-	X	-	X	(X)	X	(X)	(X)	(X)	(X)	-	X
Data Consumer	-	X	-	X	(X)	(X)	X	(X)	(X)	(X)	(X)	-	X
Data User	-	-	X	-	-	(X)	-	(X)	(X)	(X)	(X)	-	(X)
Metadata Broker	-	(X)	(X)	-	-	-	X	(X)	-	-	?	-	X
Clearing House	(X)	(X)	(X)	(X)	-	-	X	(X)	(X)	(X)	(X)	-	X
Identity Provider	-	X	X	-	X	X	Federation	-	(X)?	(X)?	-	-	X
Service Provider	(X)	(X)	(X)	(X)	(X)	(X)	-	-	(X)	(X)	(X)	-	X
App Provider	(X)	(X)	(X)	(X)	-	(X)	(X)	(X)	-	(X)	-	-	(X)
App Store	(X)	(X)	(X)	(X)	-	(X)	(X)	(X)	(X)	-	(X)	-	(X)
Vocabulary Provider	(X)	(X)	(X)	(X)	?	(X)	(X)	(X)	(X)	(X)	-	-	X
Certification Body	-	-	-	-	-	-	-	-	-	-	-	-	X
Evaluation Facility	(X)	X	X	X	X	X	X	X	(X)	X	X	X	-

Interactions between Roles

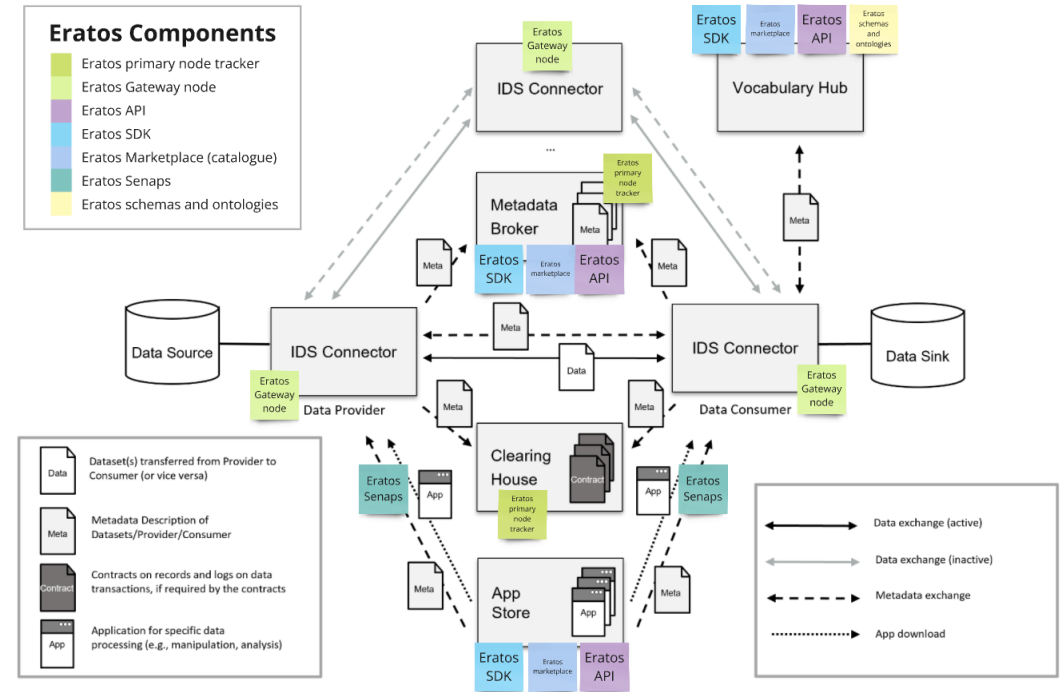
# Why is Eratos interested in Dataspaces?

## Fisheries Research Development Corporation (FRDC)

- Fishing data collection & safe transfer
- Fisherman maintain control of their data
- Reuse of assets created during previous research project
- Mandatory reporting to governing bodies

## Australian Agriculture Data Exchange (AADX)

- Data sharing
- Scalability of new solutions
- Interoperability of data and algorithms
- Farmers maintain control of their data



# How is ARDC investing in Dataspaces?

ARDC has been a member of the IDSA for a number of years.

This year, ARDC launched a new dedicated program to establish an Australian dataspace capability to support the research community<sup>[SEP]</sup>

We are running pilot projects to:

- Define dataspace **adoption** within the Australian context.
- Characterise the organisational, legal, semantic, and technical aspects of **deploying** dataspaces.
- Establish a national discussion on the **value** of data spaces across research, government and industry.<sup>[SEP]</sup>



*QR Code takes you to  
ARDC's Initiatives  
(including Dataspaces)*

# How is ARDC investing in Dataspaces?

We are leveraging our current data focussed services:

- Nectar Research Cloud
- Research Data Australia
- Research Vocabularies Australia
- Identifier Services

## Wednesday lunch break

- Informal dataspaces gathering at the ARDC booth,
- Register your interest,
- Hear from others interested in dataspaces,
- Meet the Programme Manager (Kheeran Dharmawardena).



*QR Code takes you to  
ARDC's Initiatives  
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# Thank you