

Sustainability, Community and Security

Research Data Infrastructure
in the Age of AI

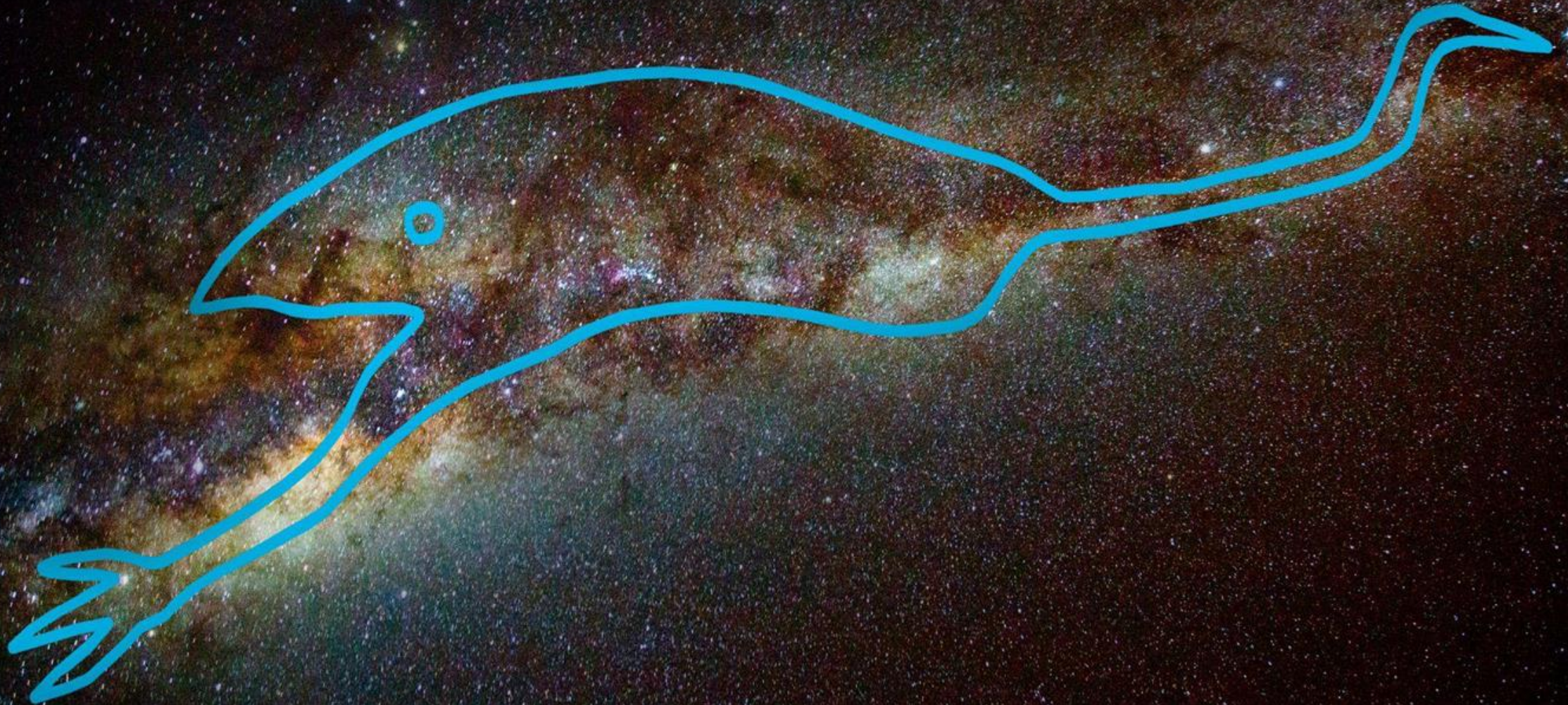
Rosie Hicks
CEO, Australian Research Data Commons



ARDC is enabled by NCRIS



Great Celestial Emu





About the ARDC

The ARDC is Australia's leading research data infrastructure facility.

Our Purpose

To provide Australian researchers with competitive advantage through data.

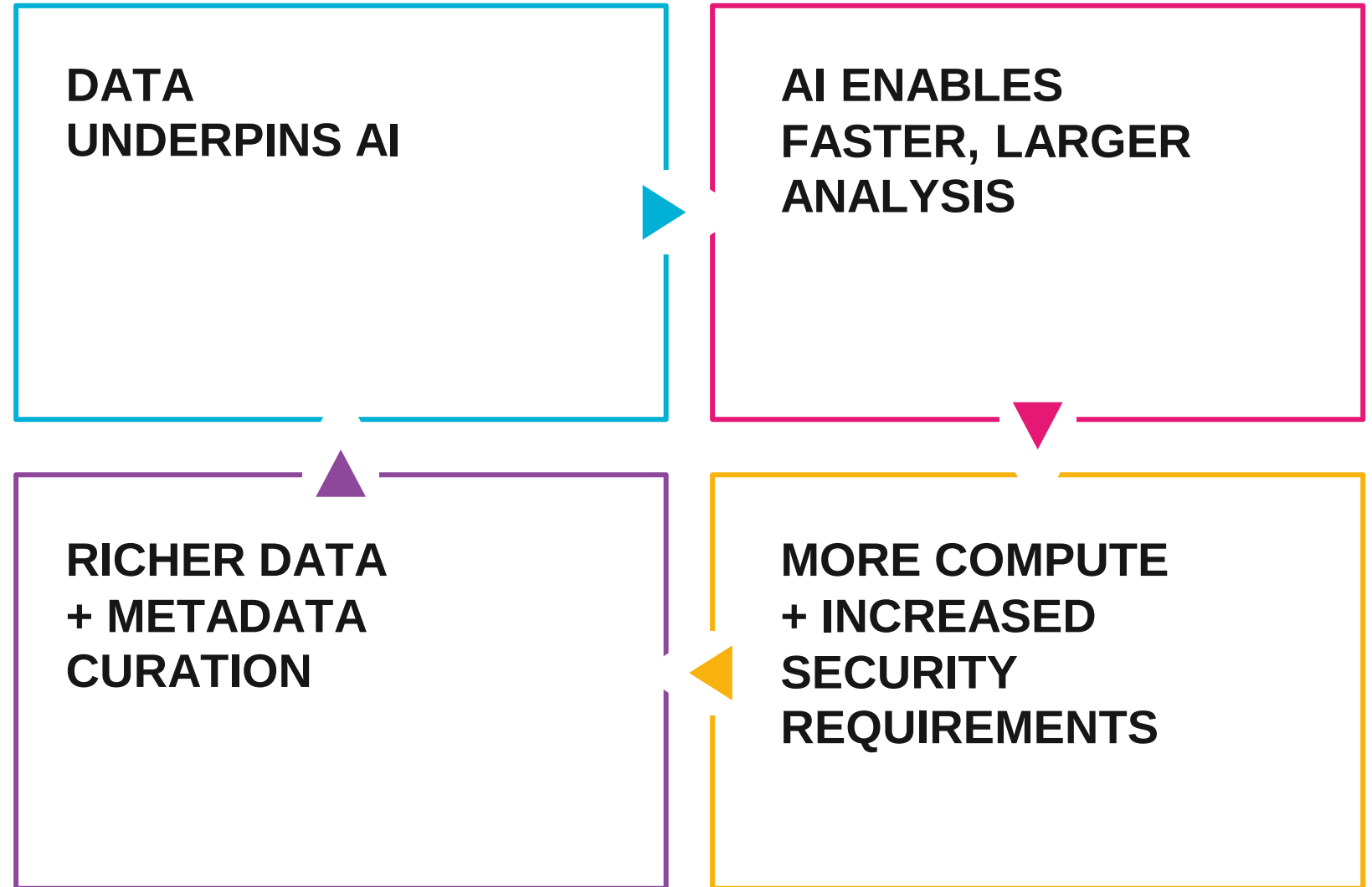
Our Mission

To accelerate research and innovation by driving excellence in the creation, analysis and retention of high-quality data assets.



**From projects to products
Co-designed with researchers
Trusted by design**

AI is Changing Research Data Infrastructure Demands



Research Infrastructures

Institutional

Smaller scale infrastructure at an institutional level

National

Nationally significant assets, facilities and skilled personnel to support leading edge research and innovation

Landmark

Large scale facilities that serve diverse communities and need international collaboration

International

Multinational collaborative infrastructure of a scale where cost of establishment is beyond the means of a single nation



National

Landmark

International

Institutional

Strategic Roadmaps



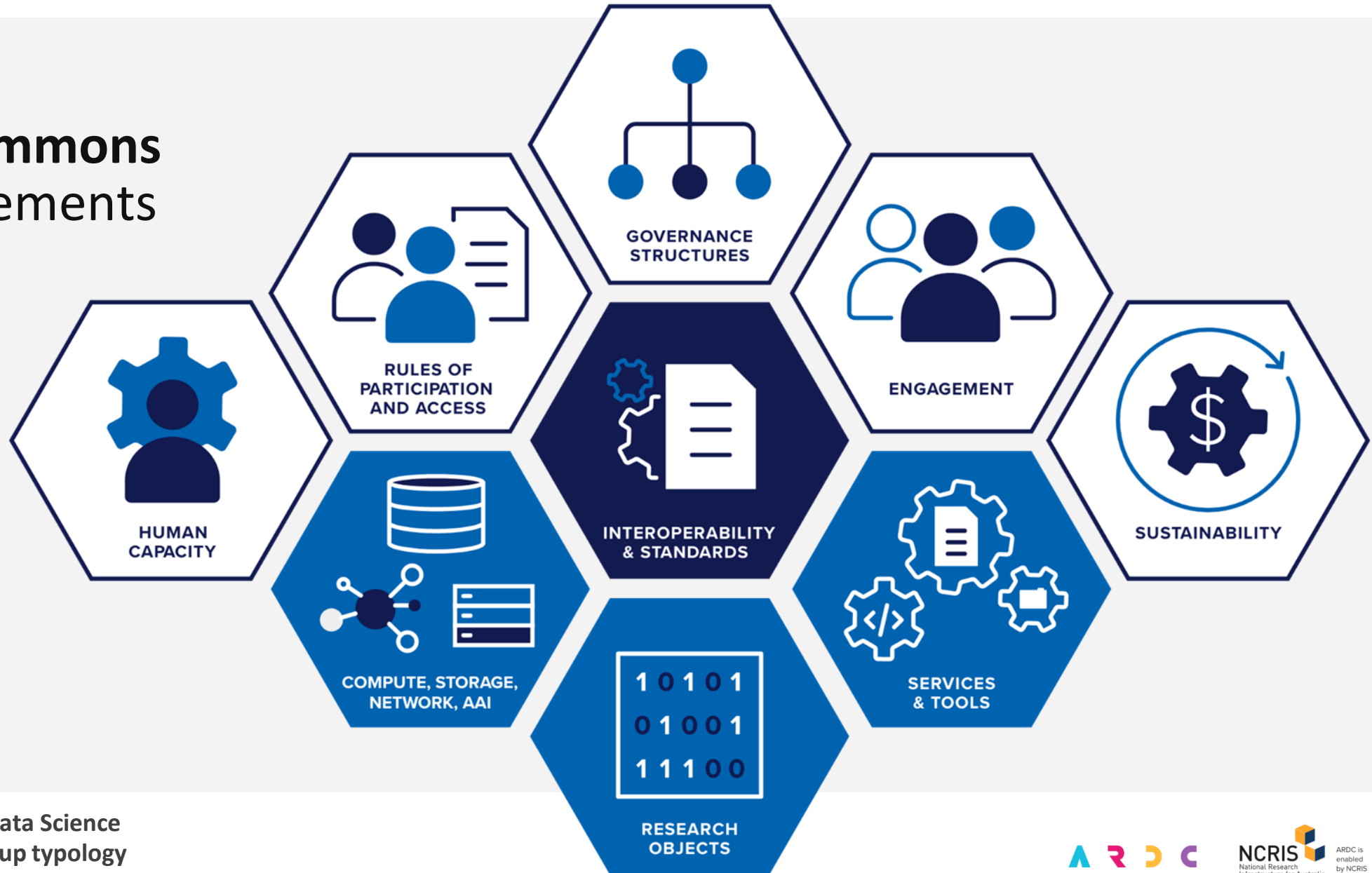


Supporting
NCRIS Capability





Global Open Research Commons - Essential Elements



Treloar and Woodford (2024), Data Science
Journal; RDA GORC Interest Group typology

ARDC Strategy

ARDC Strategic Drivers

Provide Australian Researchers With Competitive Advantage Through Data

Deliver Leading-Edge Digital Research Infrastructure

Thematic Research Data Commons

GOAL

Enduring and targeted data infrastructure meets research community needs

Nectar Research Cloud

GOAL

Nectar is a critical component of the national compute ecosystem

National Information Infrastructure

GOAL

Services for the discovery, linkage and interoperability of data accelerate research and underpin research integrity

Skills

GOAL

ARDC provides national leadership in Digital Research Infrastructure (DRI) skills

Continue To Develop The Ardc Hub Of Expertise That Underpins All Our Work

Nurture Partnerships With Our Stakeholders

ARDC Thematic Research Data Commons

World Leading Digital Infrastructure Enabling Australian Researchers to Transform our Lives



PEOPLE

Research Data Commons



PLANET

Research Data Commons



HASS & INDIGENOUS

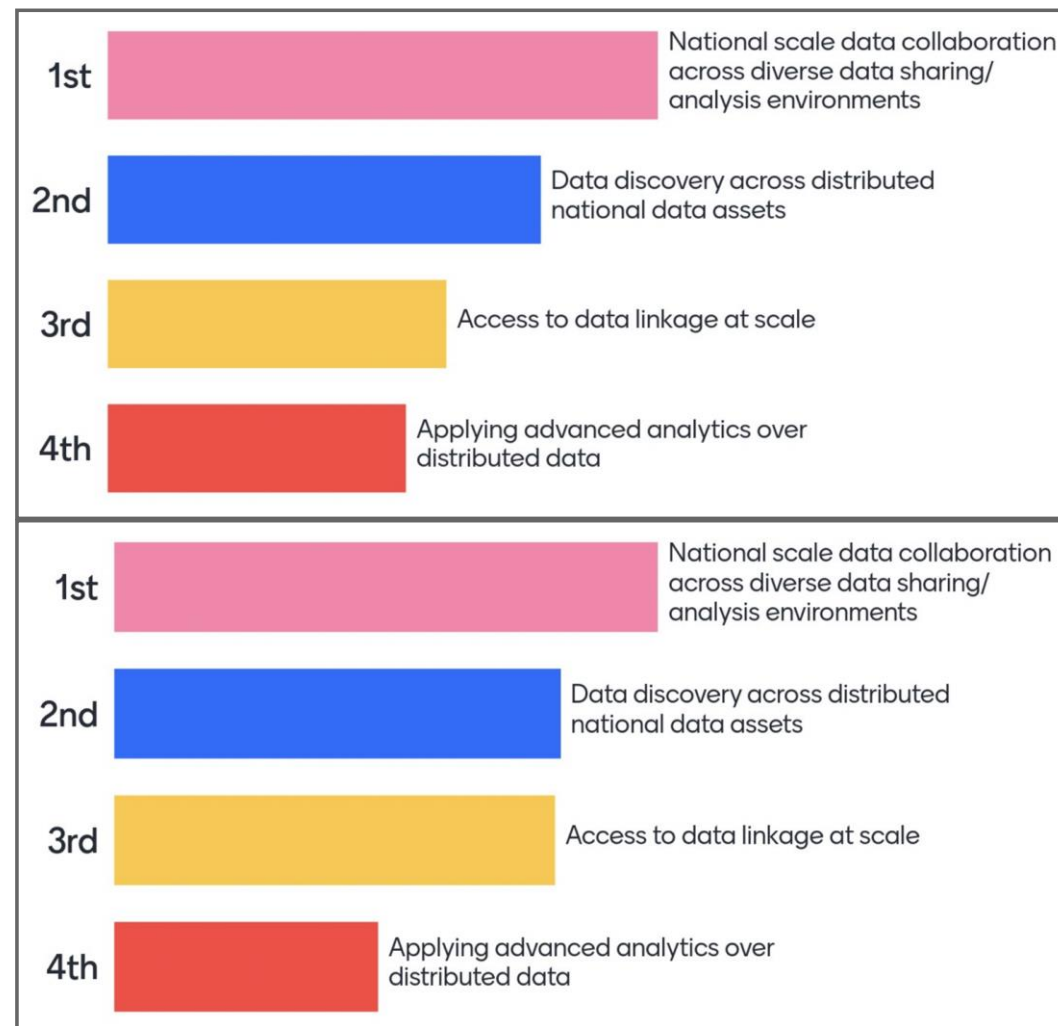
Research Data Commons





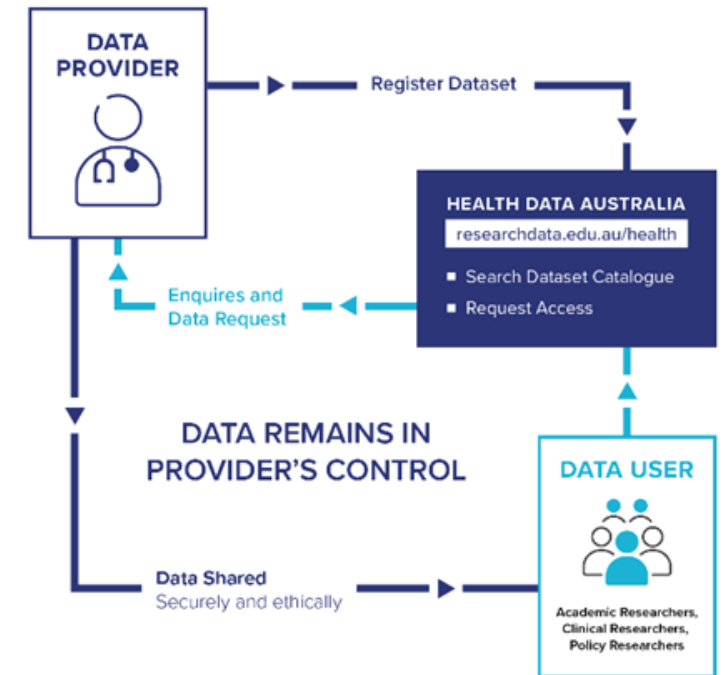
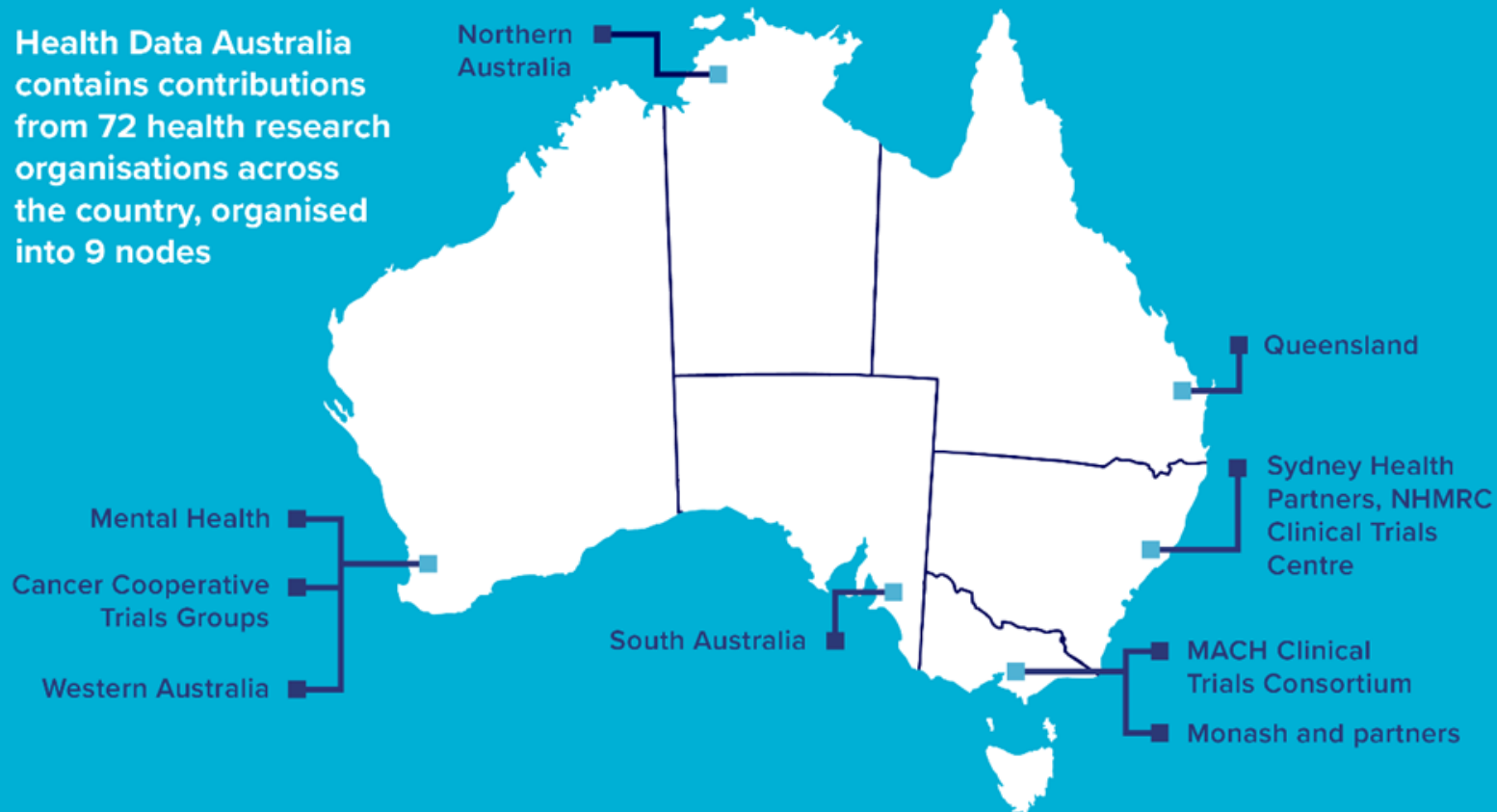
RANKING OF DATA CHALLENGES

(from public roundtables)

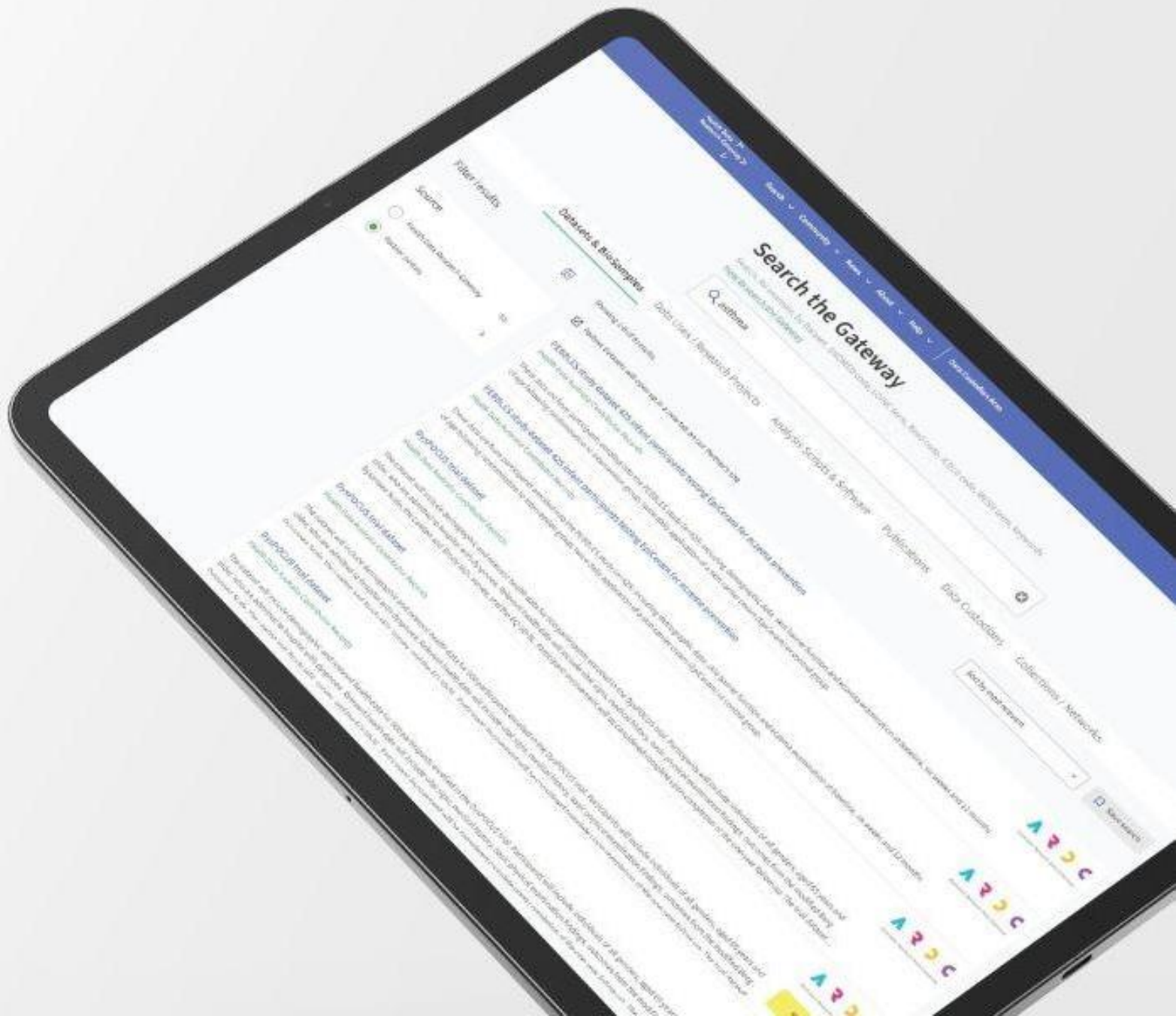


Health Data Australia

Health Data Australia contains contributions from 72 health research organisations across the country, organised into 9 nodes



HDA Now Connects to the **Health Data Research Gateway** Operated by Health Data Research UK (HDR UK)



“

Infrastructure that supports the humanities research sector...plays a key role in ensuring the health, wealth and wellbeing of the nation.

2026 NRI Roadmap Issues Paper





Australian Research Data Commons



SHARED INTELLIGENCE. SMARTER DECISIONS.

Data Sharing for a Shared Environmental Analytics Facility (SEAF)

Applying international dataspace processes and connectors for secure, sovereign environmental data access in Australia



AI Is Reshaping the Research Ecosystem

The Guardian Aus

AI summaries cause 'devastating' drop in audiences, online news media told

arXiv > cs > arXiv:2602.18455

Search...

Help

Computer Science > Computers and Society

[Submitted on 5 Feb 2026]

Impact of AI Search Summaries on Website Traffic: Evidence from Google AI Overviews and Wikipedia

 Search Engine Land

SEO » Article

Google searches per U.S. user fell nearly 20% YoY: Report

Published: Jan 28, 2026, 10:00 am · 3 min read

PUBLISHERS

The AI Search Reckoning Is Dismantling Open Web Traffic – And Publishers May Never Recover

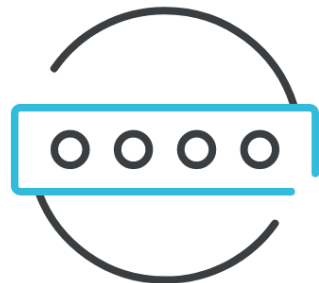
The "AI Search Reckoning"

Publishers report devastating drops in audiences as AI summaries replace traditional search traffic. Google searches per U.S. user fell 20% YoY, signaling a fundamental shift in how information is consumed.

National Information Infrastructure



**ARDC
Research
Vocabularies
Australia**

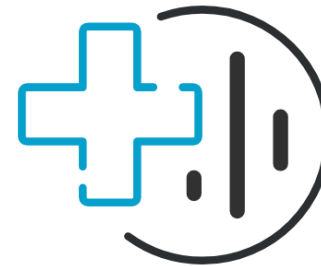


**Identifier
Services**



**ARDC Research
Data Australia**

*Specialist
platforms,
including*



**Health Data
Australia**



**Research
Link Australia**

ARDC Research Data Australia

Research Data Australia is an online portal for finding research data and associated projects, researchers and data services.



2024 / 2025

221,964

data collections

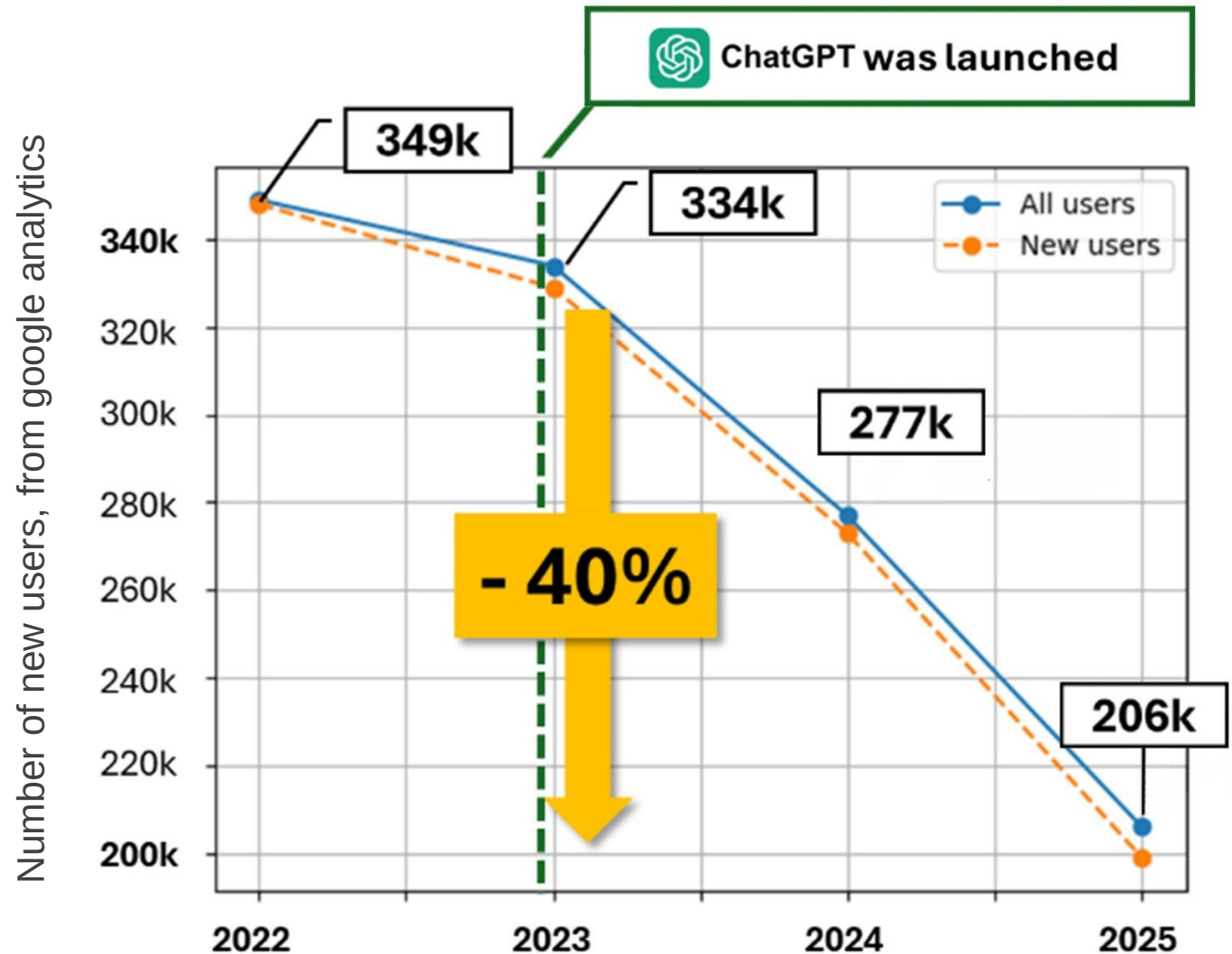
641,249

page views

84,397

searches conducted

RDA Traffic Decline: AI Has Already Changed How Researchers Discover Information



Trend observed in Google Analytics; causality not isolated

Core AI Ready Capabilities



**Quality &
Standards**

**Metadata
Uplift**



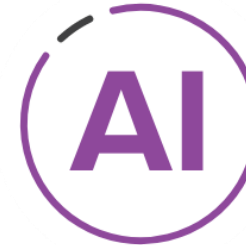
**Intelligence
Layer**

**Knowledge
Graph**



**Interaction
Layer**

**AI-Powered
Discovery**



**AI Exposure
Layer**

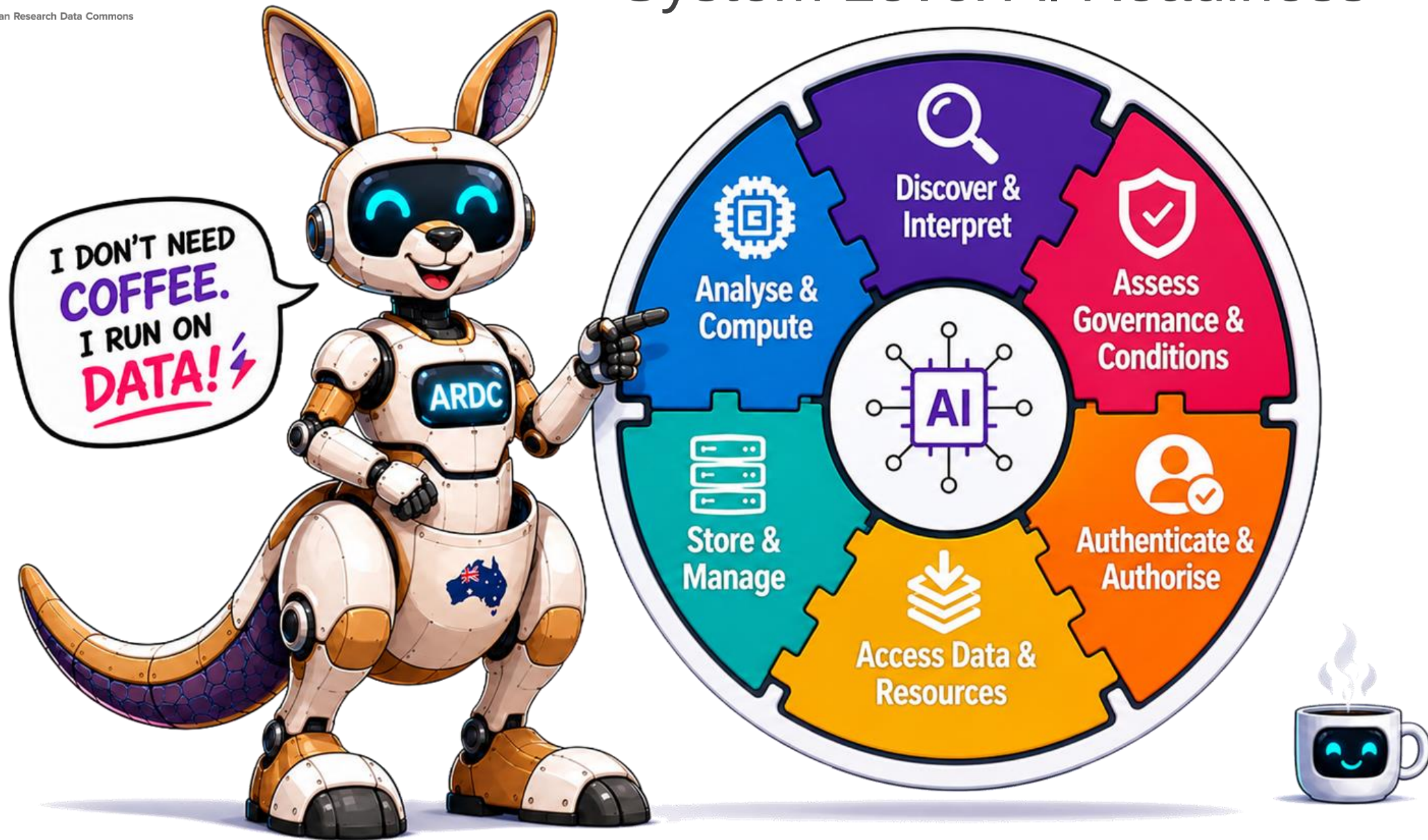
**AI Consumption
& Agents**



**Orchestration
Layer**

**System-Level
AI Readiness**

System Level AI Readiness



SUSTAINABILITY



COMMUNITY



SECURITY



**Critical, reinforcing aspects of how we respond to
current and future research data developments**



Year in Review 2025

Innovation
Starts with Data



bit.ly/ardc-2025



Australian Research Data Commons

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