

www.ala.org.au

Indigenous Knowledge & Digital Infrastructure Futures



NCRIS

National Research
Infrastructure for Australia

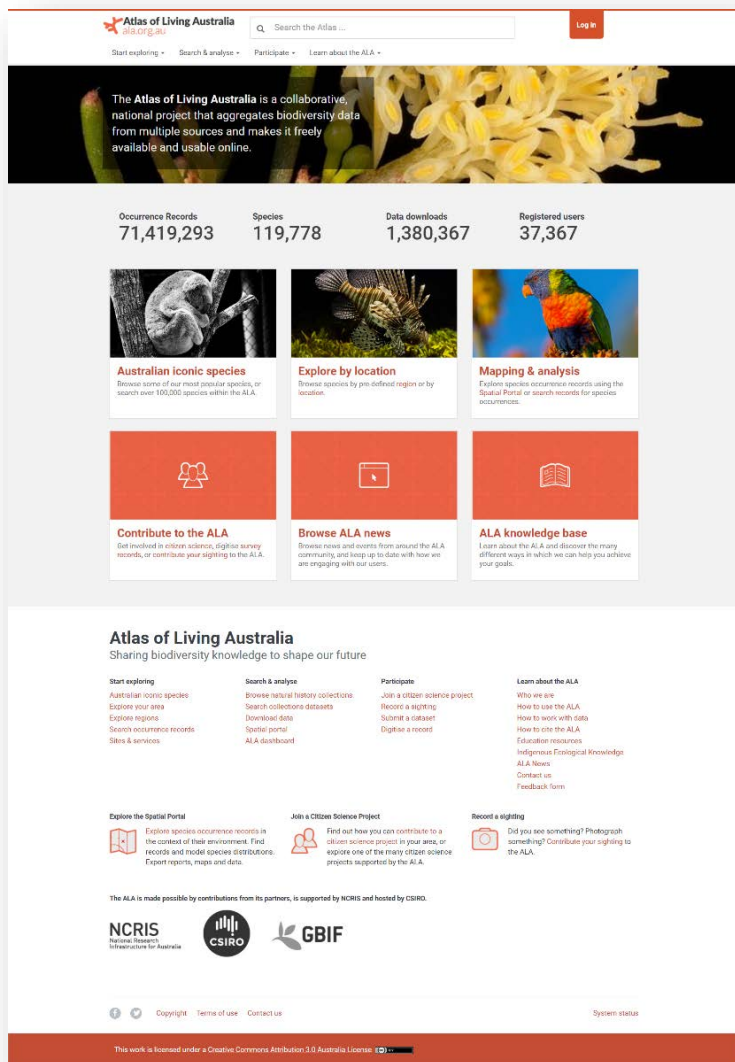
An Australian Government Initiative

www.ala.org.au

The ALA acknowledges Australia's Traditional Owners and pays respect to the past and present Elders of the nation's Aboriginal and Torres Strait Islander communities. We honour and celebrate the spiritual, cultural and customary connections of Traditional Owners to country and the biodiversity that forms part of that country.

What is the ALA?

Australia's aggregation & access e-platform for biodiversity data



The Atlas of Living Australia is a collaborative, national project that aggregates biodiversity data from multiple sources and makes it freely available and usable online.

Occurrence Records: 71,419,293
Species: 119,778
Data downloads: 1,380,367
Registered users: 37,367

Australian iconic species
Browse some of our most popular species, or search over 100,000 species within the ALA.

Explore by location
Browse species by pre-defined region or by location.

Mapping & analysis
Filter species occurrence records using the Spatial Portal or search records for species occurrences.

Contribute to the ALA
Get involved in citizen science, digitise survey records, or contribute your sighting to the ALA.

Browse ALA news
Browse news and events from around the ALA community, and keep up to date with how we are engaging with our users.

ALA knowledge base
Learn about the ALA and discover the many different ways in which we can help you achieve your goals.

Atlas of Living Australia
Sharing biodiversity knowledge to shape our future

Start exploring
Australian iconic species
Explore your area
Explore regions
Search occurrence records
Sites & services

Search & analyse
Browse natural history collections
Search collections datasets
Download data
Spatial portal
ALA dashboard

Participate
Join a citizen science project
Record a sighting
Submit a dataset
Digitise a record

Learn about the ALA
Who we are
How to use the ALA
How to work with data
How to cite the ALA
Educational resources
Indigenous Ecological Knowledge
ALA News
Contact us
Feedback form

Explore the Spatial Portal
Explore species occurrence records in the context of their environment. Find records and model species distributions. Export reports, maps and data.

Join a Citizen Science Project
Find out how you can contribute to a citizen science project in your area, or explore one of the many citizen science projects supported by the ALA.

Record a sighting
Did you see something? Photograph something? Contribute your sighting to the ALA.

The ALA is made possible by contributions from its partners, is supported by NCRIS and hosted by CSIRO.

NCRIS National Research Infrastructure for Australia
CSIRO
GBIF

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- One of several facilities funded by the Australian Government for **national research infrastructure**



NCRIS
National Research
Infrastructure for Australia



- Hosted by  Australian node of 
- Enables

- more **effective & efficient** scientific research
- expanded research **opportunities & application**
- informing **policy & management**
- **community** participation & connection
- **education** resource

ALA — sharing biodiversity knowledge



➤ AUD \$55 million investment
over 10 years

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A leading-edge
collaborative e-infrastructure
integral to advancing
biodiversity knowledge

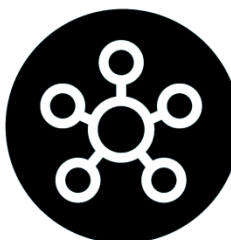


Partners – founding & beyond



Data types

- specimens
- occurrence
- images, sounds
- literature
- sequences
- more



National Research infrastructure

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- 73.9 million records
- 5,238 data sets
- 477 spatial layers
- 12.3 billion records downloaded from 1.4 million events
- 1,500 Google Scholar returns



Open data, open source, open
access, open services, open
infrastructure



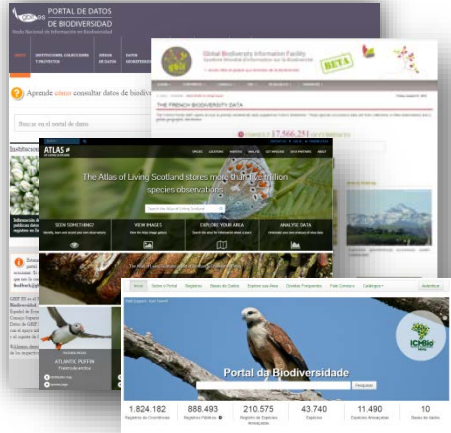
System

- data capture & aggregation
- data management
- data discovery
- data visualisation
- data analysis & reporting

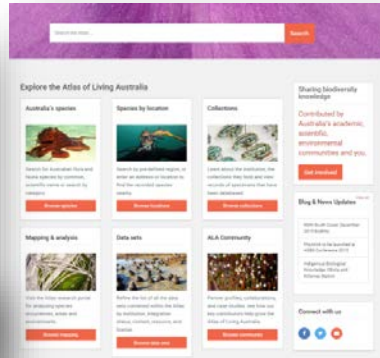
ALA — open infrastructure - “Powered by ALA”



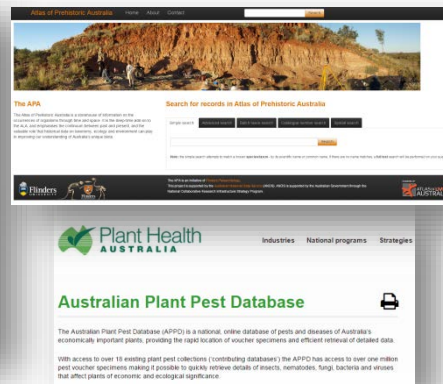
International Instances



ALA Portal



Domain Instances (Aus)



Hubs



One infrastructure - many systems

Suite of Apps

Web Services

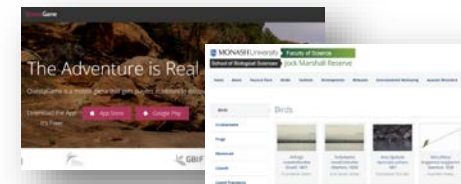
METADATA: ownership, location, collection method, permissions, quality control, data sensitivity

DATA: collections, field observations, images, literature, molecular data, expert knowledge



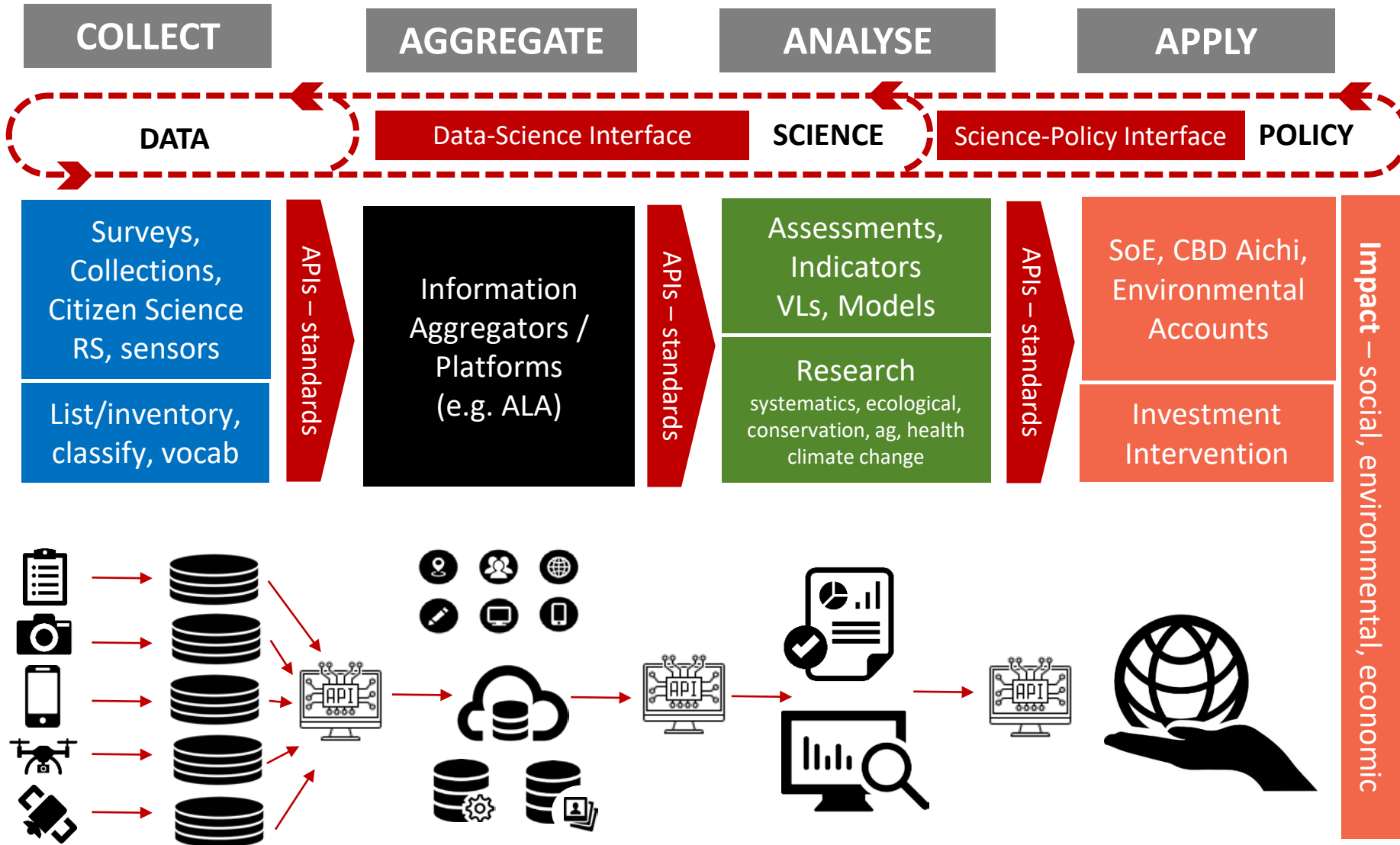
ATLAS OF LIVING AUSTRALIA
sharing biodiversity knowledge

Web Services

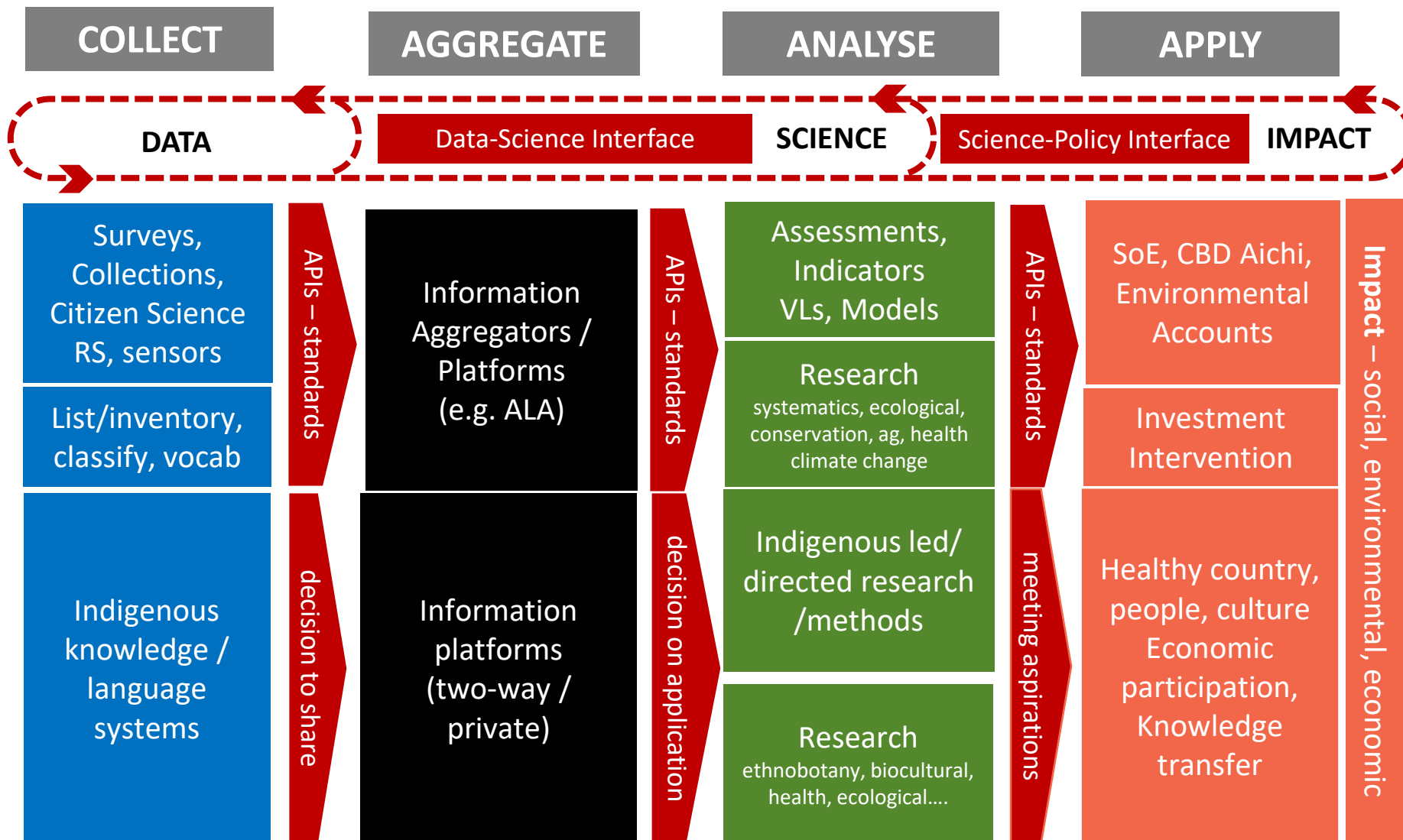


click on images to go through the site

Context – information supply chain



Context – information supply chain



Indigenous Ecological Knowledge

Vision

- *Improved social and ecological sustainability through enabling two-way biodiversity knowledge*

Goals

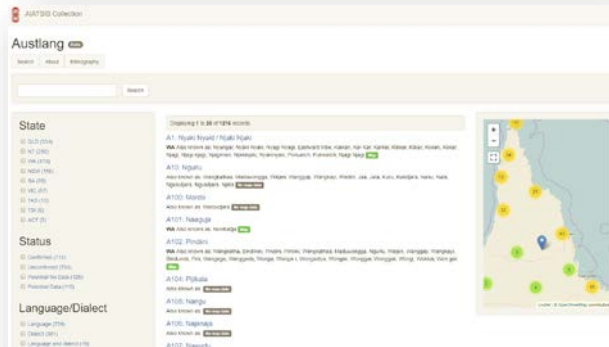
- *respect and recognise* the **value and ownership** of Indigenous Ecological Knowledge (IEK) and give **prominence** to it alongside western science biodiversity knowledge
- *support and invigorate* IEK and its ongoing **application and revitalisation** in biodiversity conservation, environmental management and socio-cultural, land rights and economic goals
- *support* Indigenous people to **realise their goals** in Indigenous knowledge maintenance, management and application
- *empower* **two-way participation** in biodiversity information collection, management and access
- *support* **intergenerational** transmission of IEK
- *ensure* **ethical practice** through informed consent, equitable sharing of benefits arising from access to IEK, and other established principles of engagement

ALA IEK program – knowledge systems

Seasonal

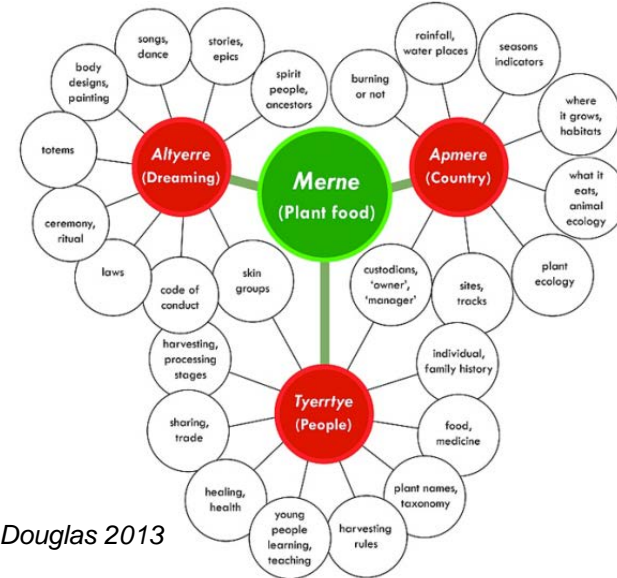


Language



Living Archive of Aboriginal Languages

Worldview

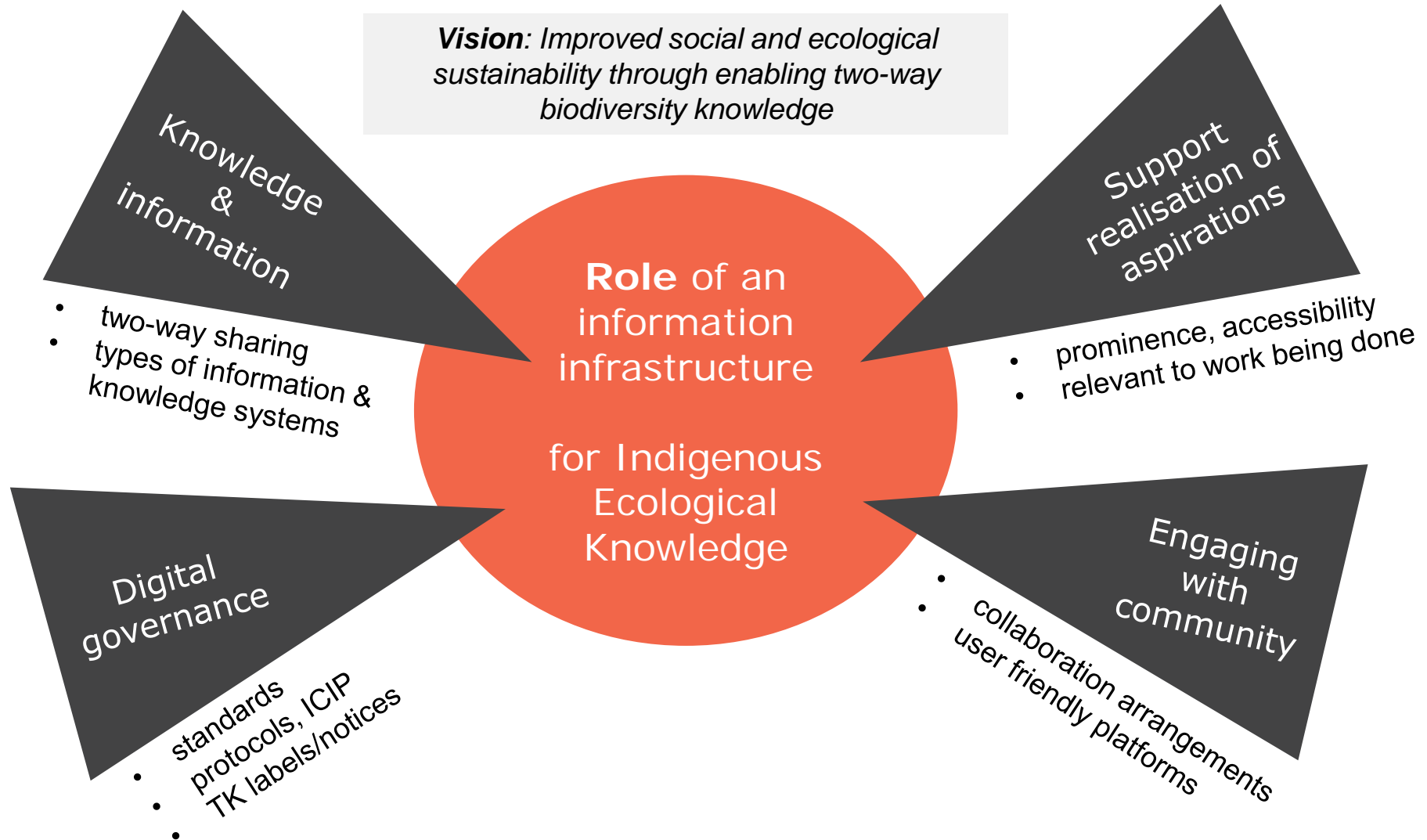


Walsh, Dobson, Douglas 2013



Ara Irititja – Keeping Culture

ALA IEK program – *relevance*



Context – IEK program activities

Indigenous ecological knowledge

decision to share

decision on application

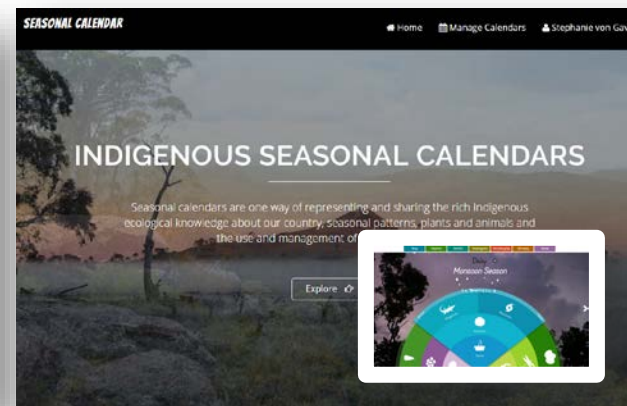
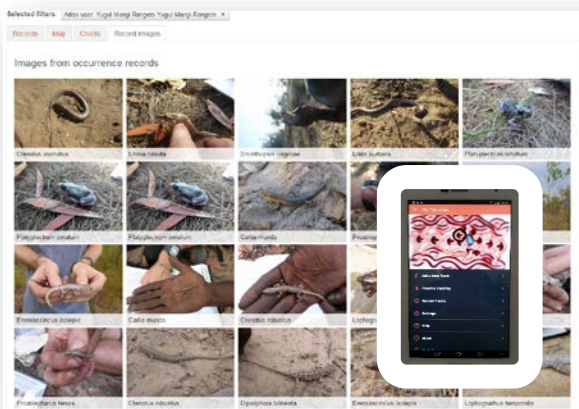
meeting aspirations

Information platforms
(two-way/private)

- Yugul Mangi two-way project
- Kamilaroi language names
- Tracks App - CLC

- Olkola: decision & risk matrix
- Traditional Knowledge Labels
- ICIP principles/protocols

- Prototype information platforms:
- Seasonal calendar
 - Profiles - cross-cultural collections



TK Label proposal - *needs*

Recognition of ownership

Respect for Indigenous Knowledge

Greater **control** of access & usage



Embedding protection in the digital circulation of information

Keeping **localised** context

Community driven processes

Limitations of formal IP system

Tracking **provenance**

Commercialisation of cultural assets

This project will **embed** Indigenous Cultural and Intellectual Property principles and protocols in a digital platform

supporting the recognition & visibility of Indigenous ecological knowledge through the co-development of knowledge labels

ensuring more equitable and culturally respectful terms for the sharing of IEK

TK Label proposal - *components*



Consultation & Collaboration

Scope and focus of the project, and ongoing collaboration and co-creation



Integration of TK labels

Integrating into e-infrastructure and metadata standards, including search function



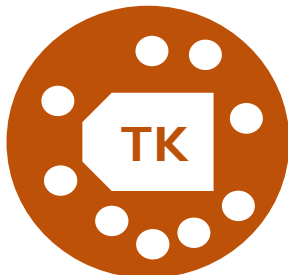
New TK labels & TK Notice

Environmental and ecological specific labels, including identifying notice



Tools

co-curation of labels via GitHub, workshops, educational materials, training



Adapt to local context

Local community adaption of labels



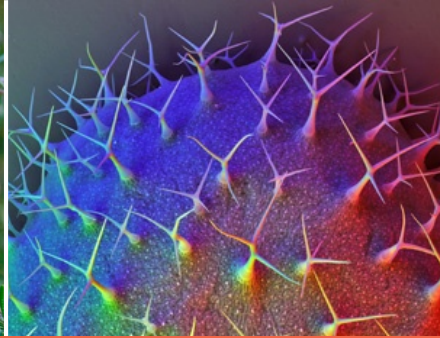
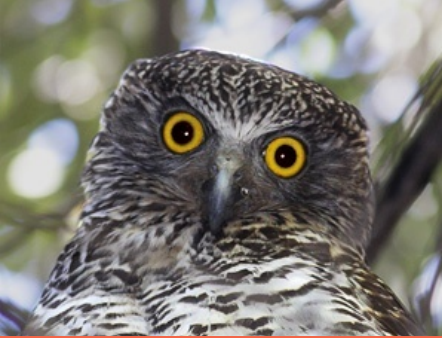
Broader application

Contributing to national & international dialogue on rights and responsibilities for IEK recognition

TK Label proposal – *next steps*

- Seek **feedback** & input into research plan
- Seek expressions of interest from Indigenous groups / individuals and refine proposal
- Further discussion with other potential research & industry **collaborators**
- Build consortium of **investors**





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More Information

<http://www.ala.org.au/ala-and-indigenous-ecological-knowledge-iek/>



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sharing biodiversity knowledge

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