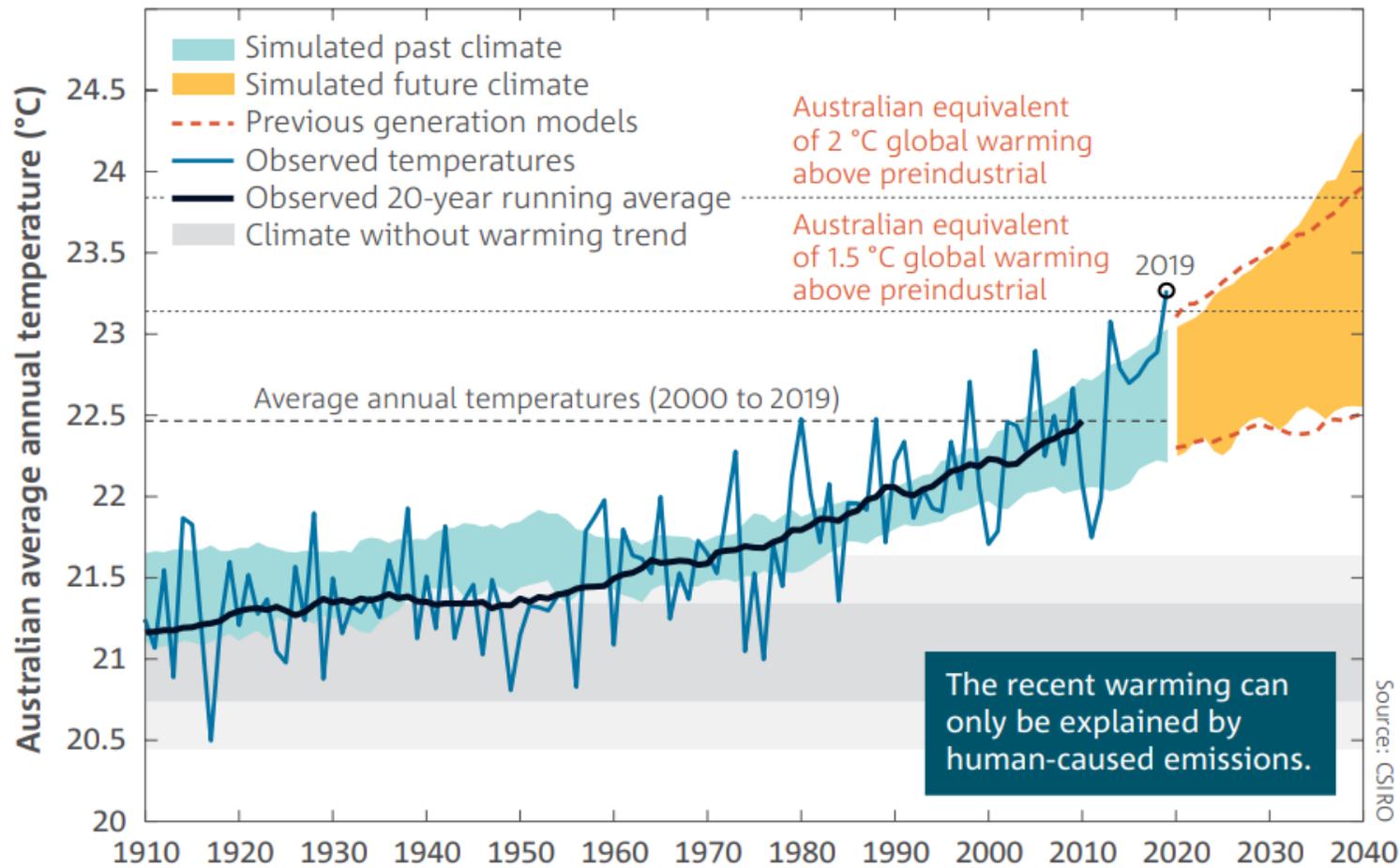
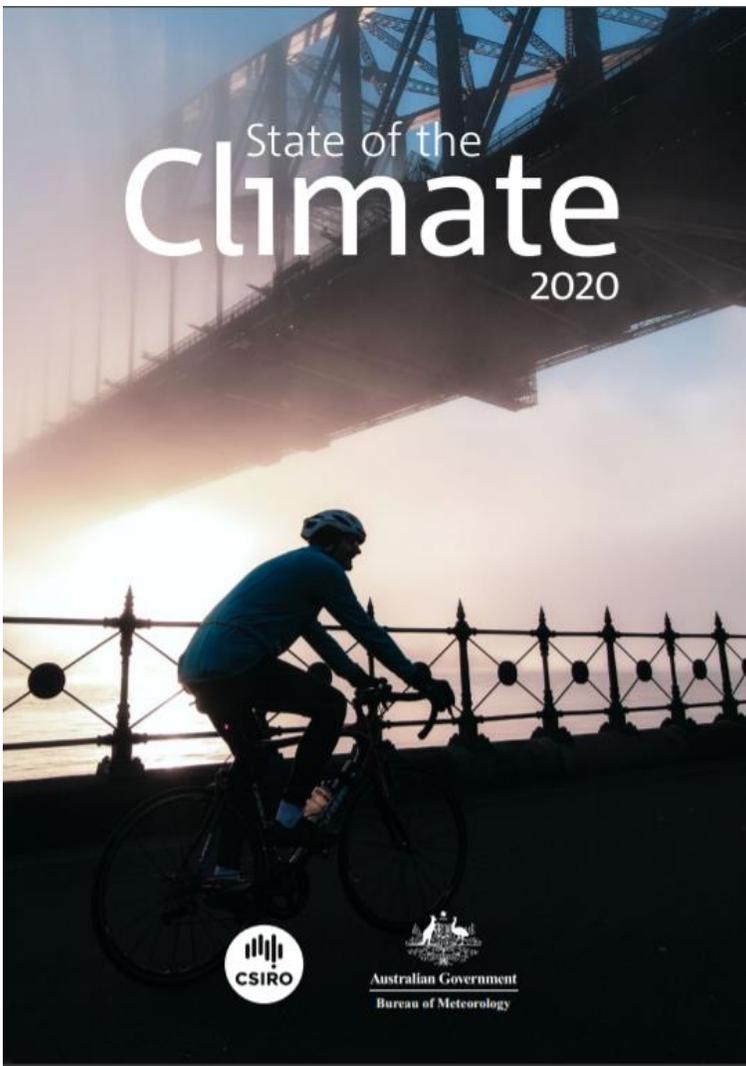




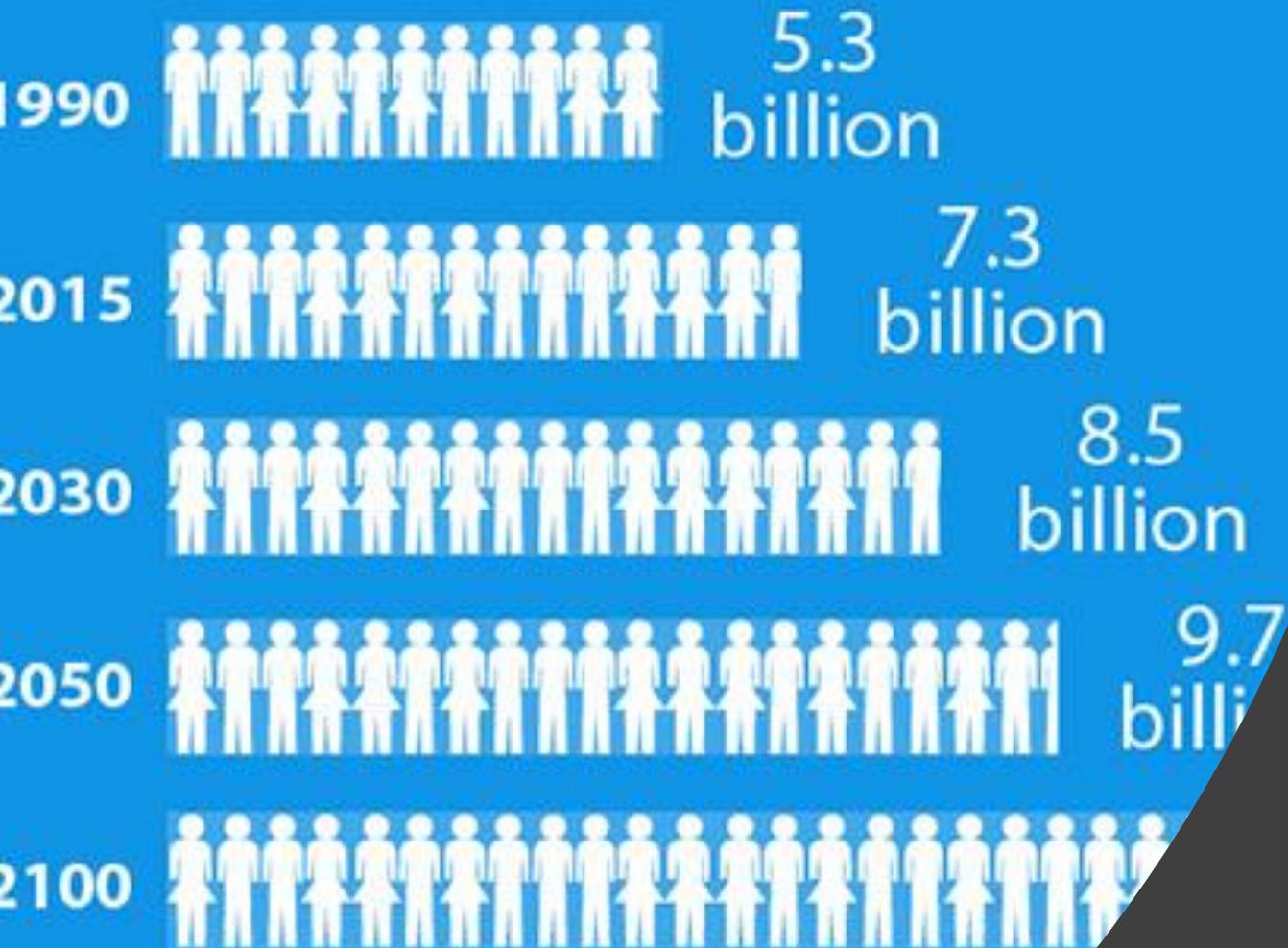
**“Houston,
we’ve got a
problem”**

Changing climate



World Population

Projected world population until 2100



Source: United Nations Department of Economic and Social Affairs, Population Division, *World Population Prospects: The 2015 Revision*
Produced by: United Nations Department of Public Information

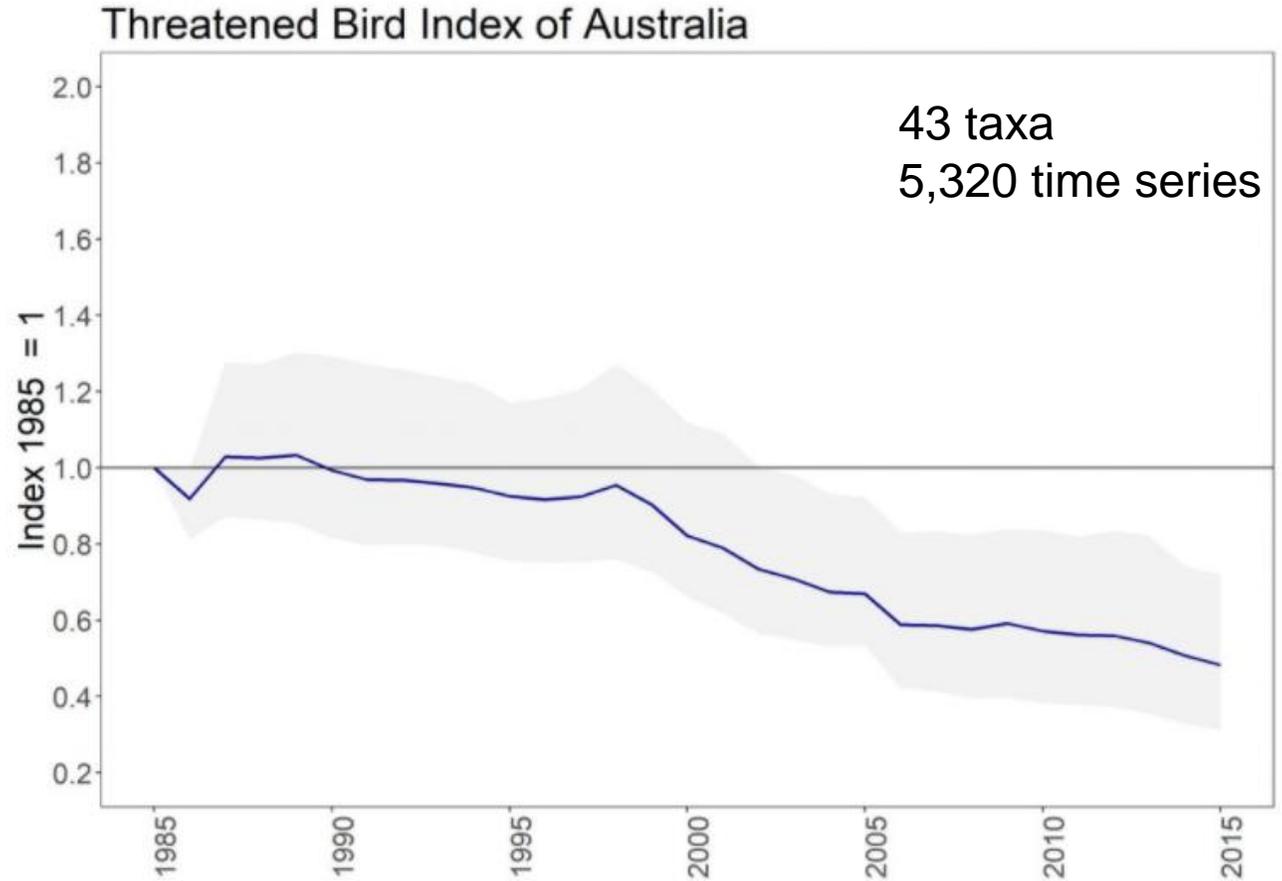
Growing population pressure

Media Release: Australian threatened bird populations drop by half in 30 years on average

▲ Rachel Morgain | Media Release | November 27, 2018 | 7



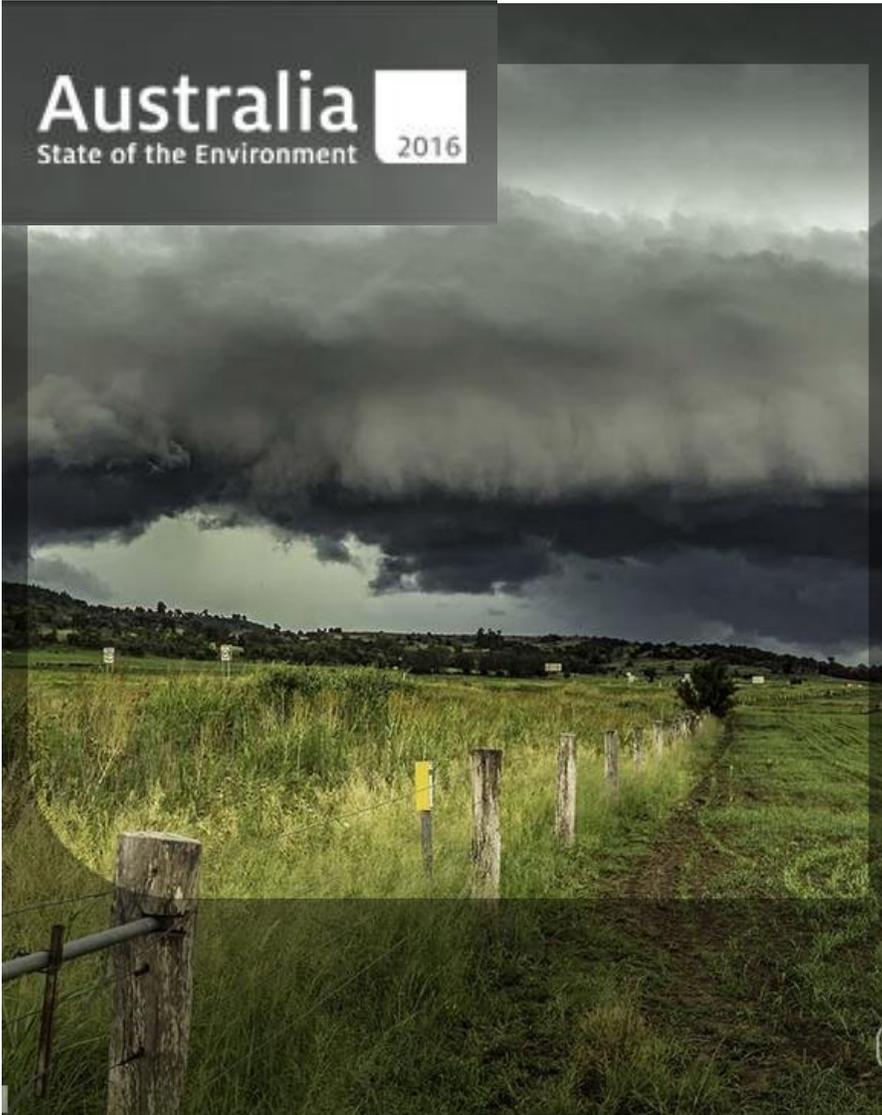
Threatened Species decline



Source: <https://tsx.org.au/2018/11/27/media-release-australian-threatened-bird-populations-drop-by-half-in-30-years-on-average/>



“...**very few meaningful datasets were available**, and feedback from experts led to the abandonment of these assessments. **As a result, endangered populations and threatened ecological communities were not assessed...**”



“The **lack of data and information** from long-term monitoring of biodiversity is **universally acknowledged** as a **major impediment** to biodiversity conservation

“Australia’s **biodiversity is continuing to decline...**, and **new approaches are needed** to prevent accelerating decline in many species.

Source: <https://soe.environment.gov.au/>

A review of biodiversity
legislation in NSW

Final Report



Independent Biodiversity Legislation Review Panel

Dr Neil Byron (Chair)

Dr Wendy Craik AM

Dr John Keniry AM

Professor Hugh Possingham

Changing climate

“...**no overarching strategy in place that ensures the collation and retention of information**, particularly data collected in the course of undertaking regulatory impact assessment and other statutory processes...”

Recommendation 30. Better harness data collection efforts and make this data available to the public as part of open government

Source: <https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Biodiversity/review-biodiversity-legislation-nsw-final-report-2014.pdf>

Independent review of
the **EPBC Act**

Interim Report

June 2020

Professor Graeme Samuel AC



Supply chain problem

“Decision-makers, proponents and the community **do not have access to the best available data**.... This results in **sub-optimal decision-making, inefficiency & additional cost for business, and poor transparency** to the community.”

“A national **‘supply chain’ of information is required** so that the right information is delivered at the right time to those who need it.

Independent review of
the **EPBC Act**

Interim Report

June 2020

Professor Graeme Samuel AC

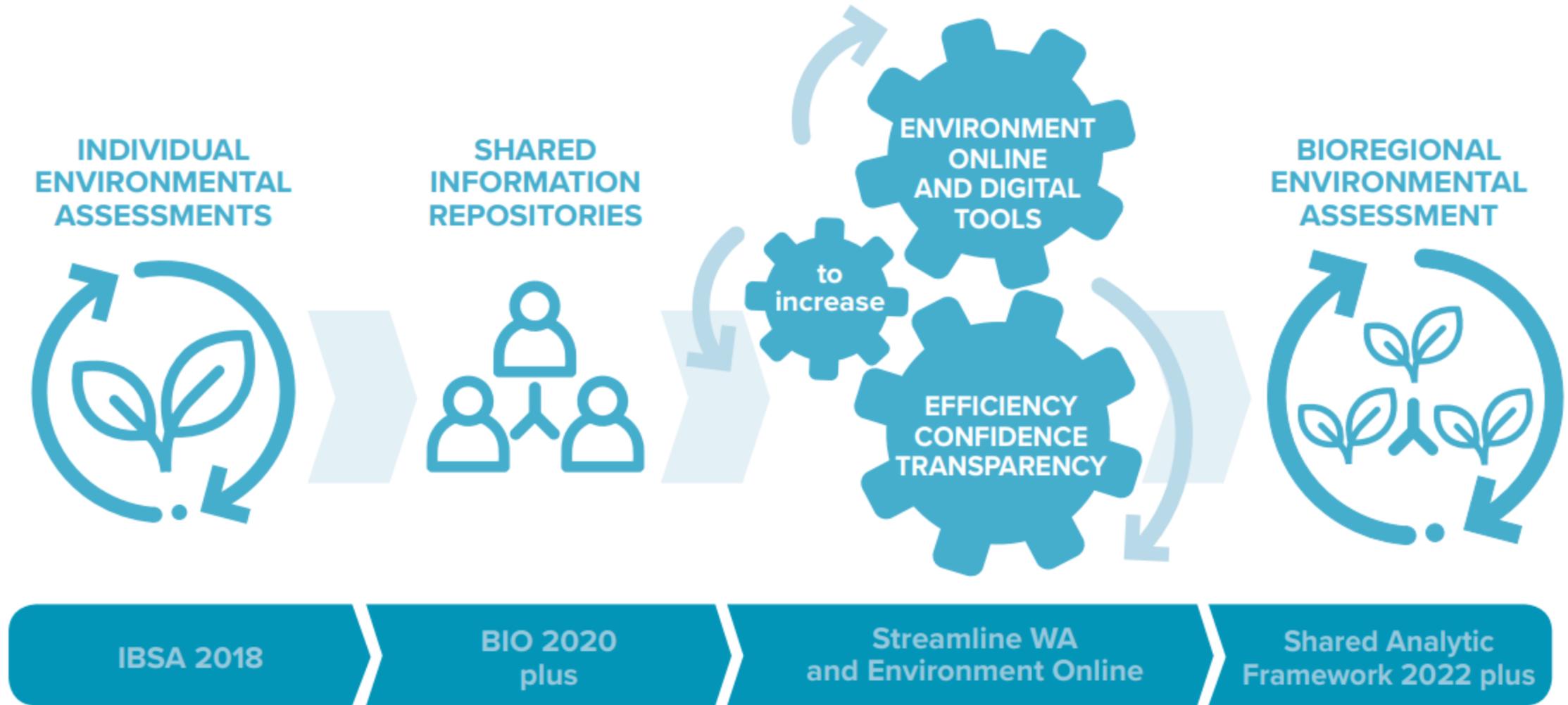


Supply chain problem

“...**systems and capability that are needed to deliver the evidence base** for Australia’s national system of environmental management.

The recent financial commitment from the Australian Government and the Western Australian Government to the collaborative **Digital Environmental Assessment Program is a good first step** in this direction. The program will deliver a single online portal for assessments and biodiversity databases..

Supply chain problem

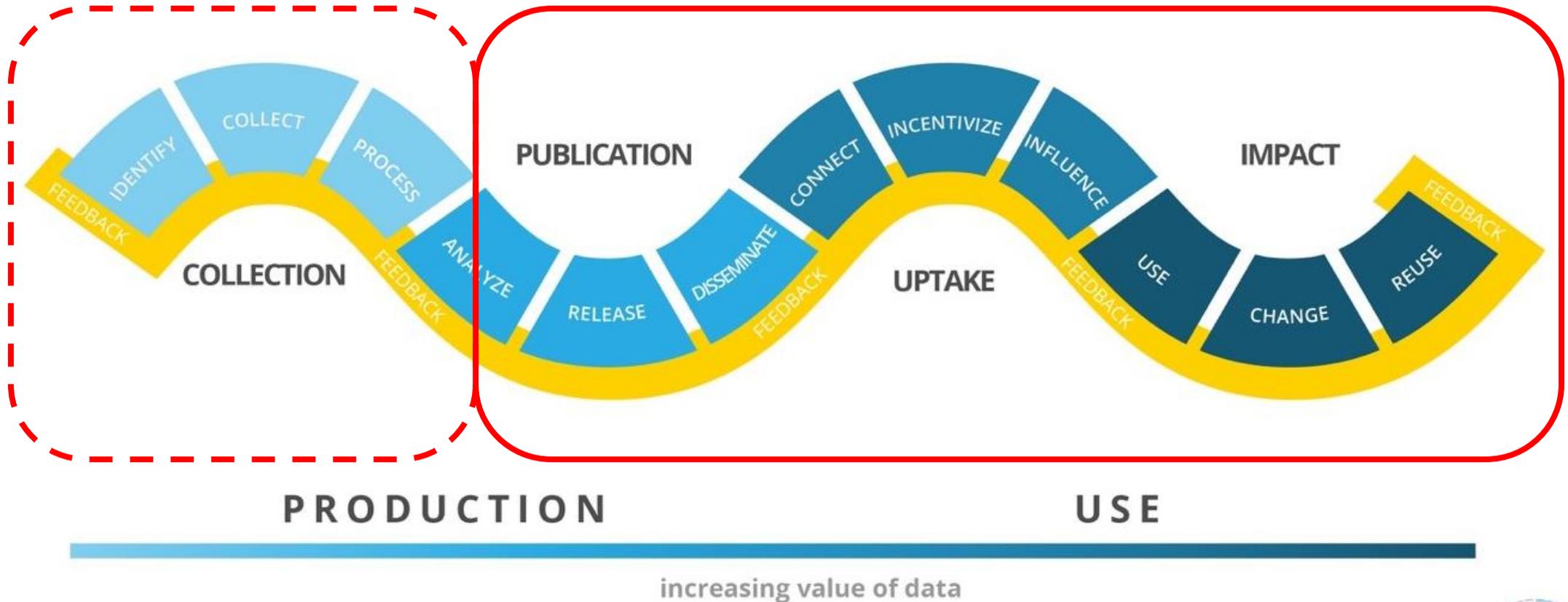


Source: https://wabsi.org.au/wp-content/uploads/2019/10/Digitally-Transforming-EIA_Working-Group-Report-FINAL-1.pdf

National Collaboration Initiatives

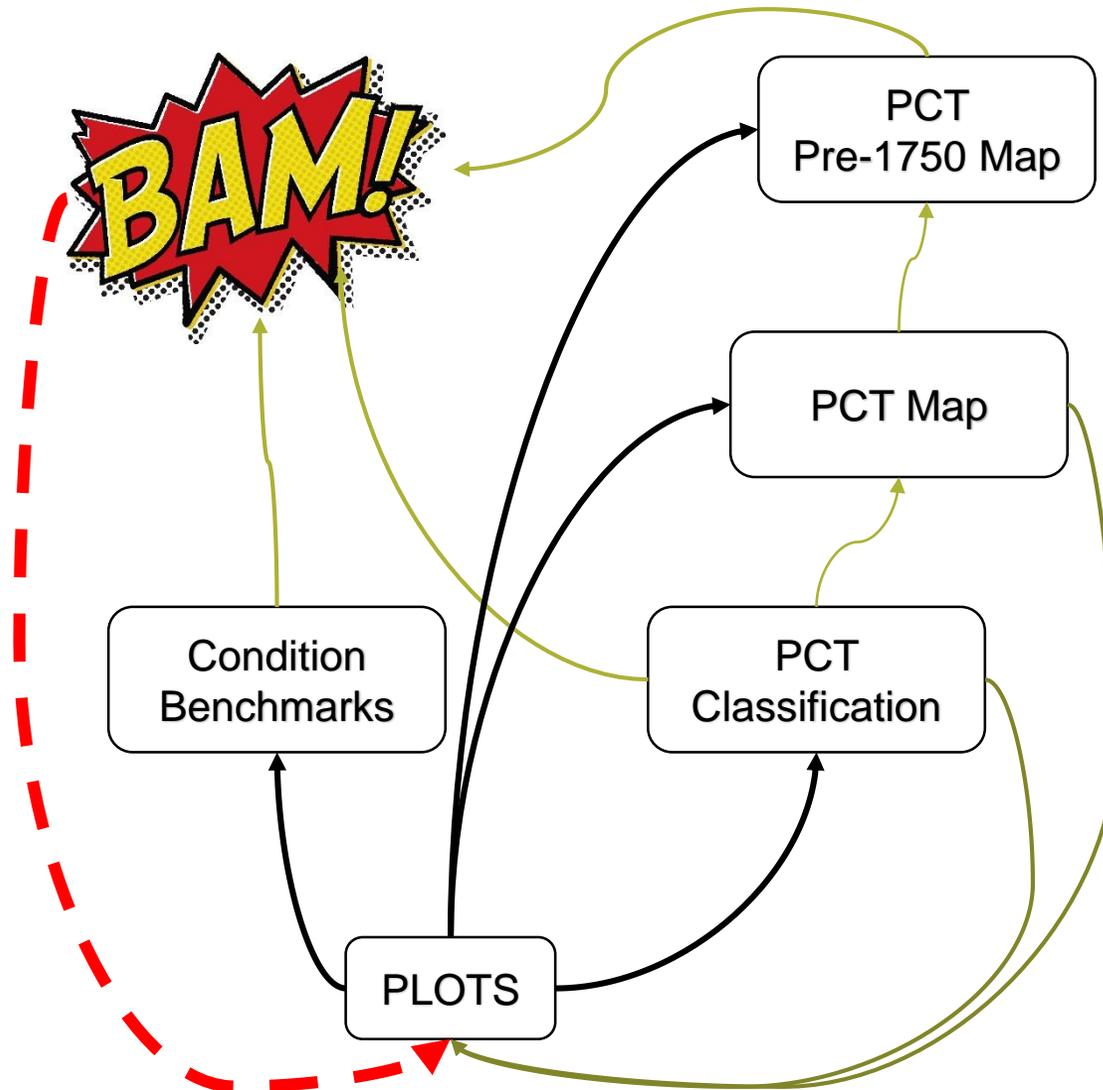
- Digital Environmental Assessment Program (DAWE)
 - Establishing National Biodiversity Governance (standards etc)
 - Federated Biodiversity Data Repository
- EcoCommons - Shared Analytics Framework
- Collaborative Species Distribution Modelling Program (CSDM)
 - Barriers to data flow (national sensitive species data framework / National species names list)
- National Ecological Data Exchange Standard
 - Flora Survey
 - Threatened Species time-series (NESP TSX)
- Text Mining (Data61)

IMPROVE THE DATA VALUE SUPPLY CHAIN



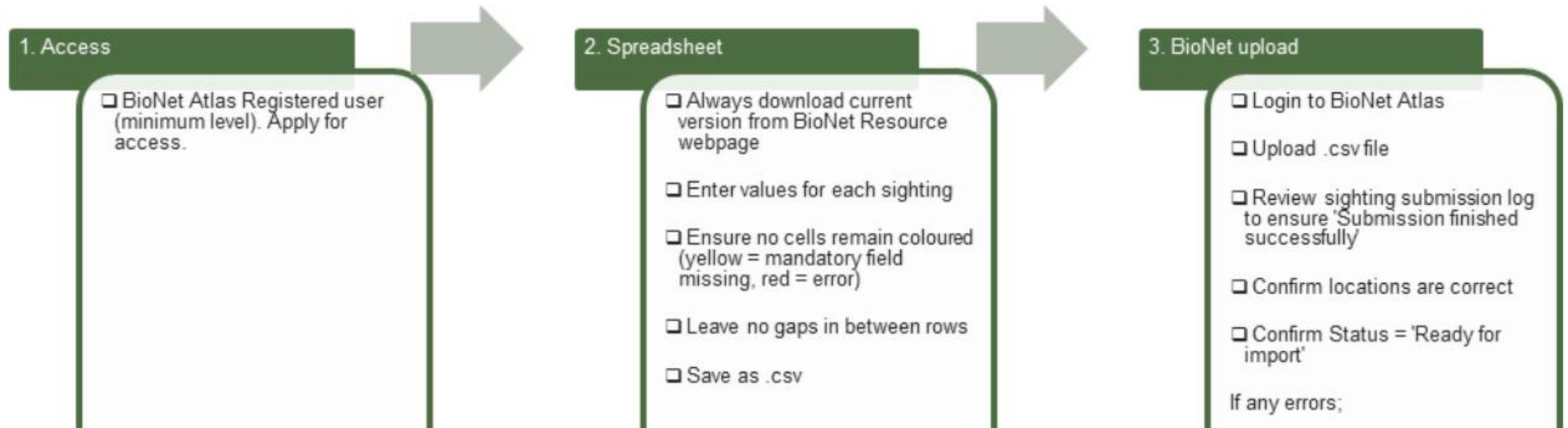
Standard plots used to maintain many products

Products may be validated using standard plots

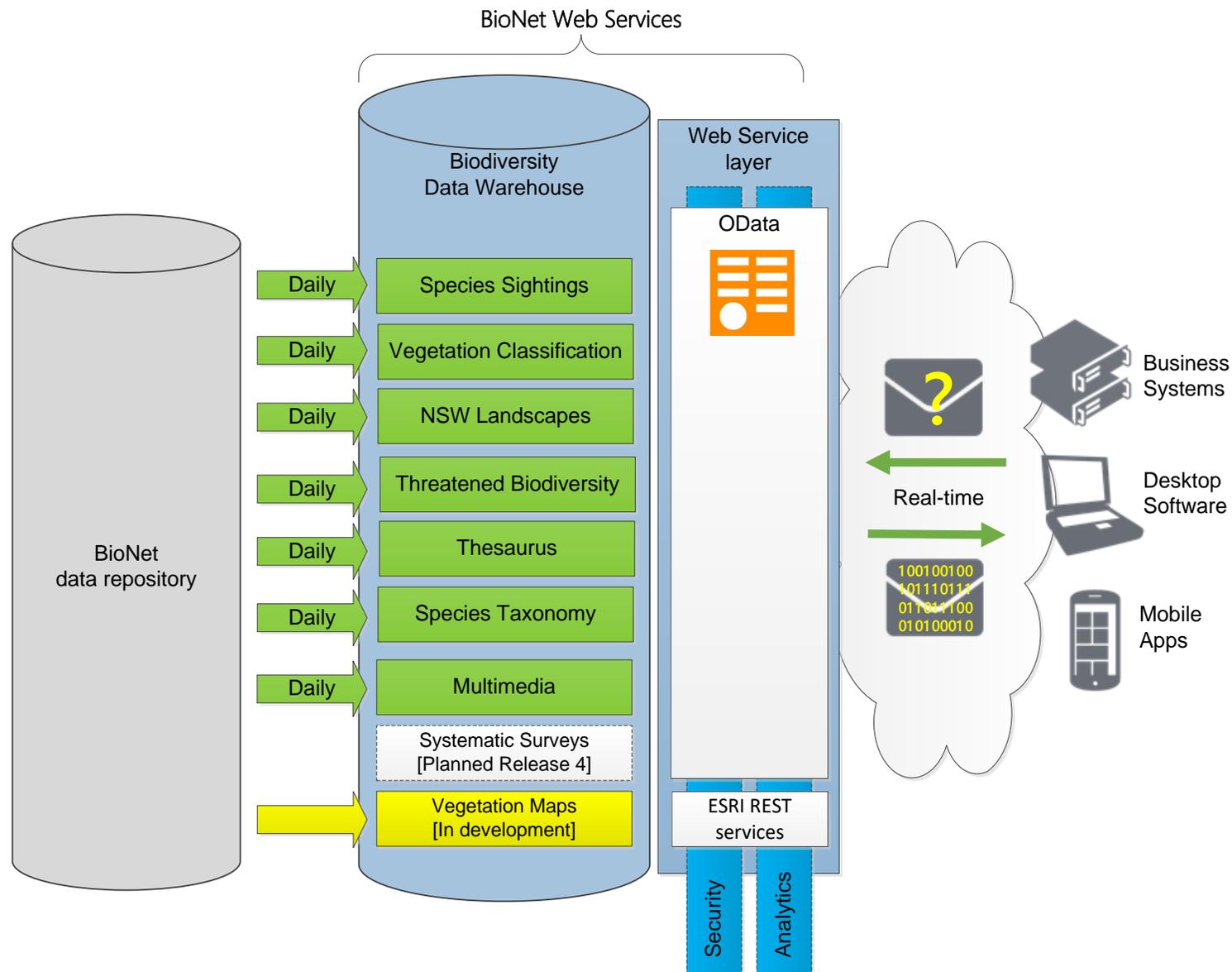


Current BioNet data supply requirements

- Scientific Licence (BCAct) currently requirement to supply species sighting data to BioNet annually.
- Scientific License will be reviewed
- Current data upload of species sightings and systematic flora and fauna survey data is via CSV upload templates
- <https://www.environment.nsw.gov.au/wildlifeatlas/upload-sightings-bionet.htm>



BioNet web services – open, standardised & transparent



BAM (EcoServer) Admin

Precise Planning **ecoplotbam** Bargo — 1A Kader Street

go to setup for this project/area

2018 2019 2020 2021 2022

species + add new species record

cover	abundance	present	photo
2018	2018	2018	note
Acacia paramattensis	0.1	5	yes
Allocasuarina littoralis	0.1	1	yes
Asperula conferta	0.3	100	yes
Bothriochloa macra	0.3	10	yes
Centella asiatica	0.1	50	yes
Desmodium varians	0.1	20	yes
Dichondra repens	0.3	100	yes
Eragrostis leptostachya	0.5	50	yes
Eucalyptus amplifolia	5	15	yes
Glycine clandestina	0.1	20	yes
Juncus homalocaulis	0.1	1	yes
Lomandra filiformis	0.1	5	yes
Microlaena stipoides	0.5	50	yes
Oxalis perennans	0.1	5	yes
Rytidosperma spp.	20	300	yes
Sporobolus creber	0.1	2	yes
Themeda triandra	25	300	yes
Tricoryne elatior	0.1	2	yes
Veronica plebeia	0.1	1	yes
Axonopus fissifolius	3	50	yes
Cirsium vulgare	0.1	2	yes

BAM (EcoServer) Admin

Precise Planning **ecotranssectbam** Bargo

go to setup for this project/area

go to plot

Precise Planning-Bargo -1A Kader Street-Site-1

Floristics (BAM)

BDAR

4 Sep 2018

10:45 AM

Brian

1 transect

4/9/2018 10:44:39 am
-34.293388
150.577637

hide litter grid 1 metre

litter 60

bare earth 5

crypto 0

rock 0

hide litter grid

litter 40

bare earth 10

crypto 0

rock 0

hide litter grid 1 metre

litter 55

BAM (EcoServer) Admin

Precise Planning **ecoplotbam** Bargo — 1A Kader Street

go to setup for this project/area

2018 2019 2020 2021 2022

detail

Floristics (BAM)

plot area ha 0.04

patch size ha 101

condition class underscrubbed

latitude -34.293388 easting

longitude 150.577637 northing

orientation 160 56 MGA zone

1 plot

4 Sep 2018

10:45 AM

Thomas

IBRA region and sub-region

SYB Sydney Basin

SYB08 Cumberland

70 PCT count for this IBRA subregion

Mitchell landscape

953 Picton - Razorback Hills

61% cleared

plant community type

835 Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion

no threatened AUS

yes Cumberland riverflat forest

count of Native Richness

	3	4	tree	5.2	21
0	8	shrub	46.5	73	sum of Cover of native vascular plants by Growth Form Group
7	8	grass	1	3	
6	7	forb	.2	1	
0	2	fern			
2	3	other			
					32

export BAM metrics 4 sum of High Threat Weed Cover



ArcGIS Survey123

