



Harnessing biodiversity survey data for reuse - tools and outlook

Wednesday 25th November 2020, 11:00 AM – 12:00 PM



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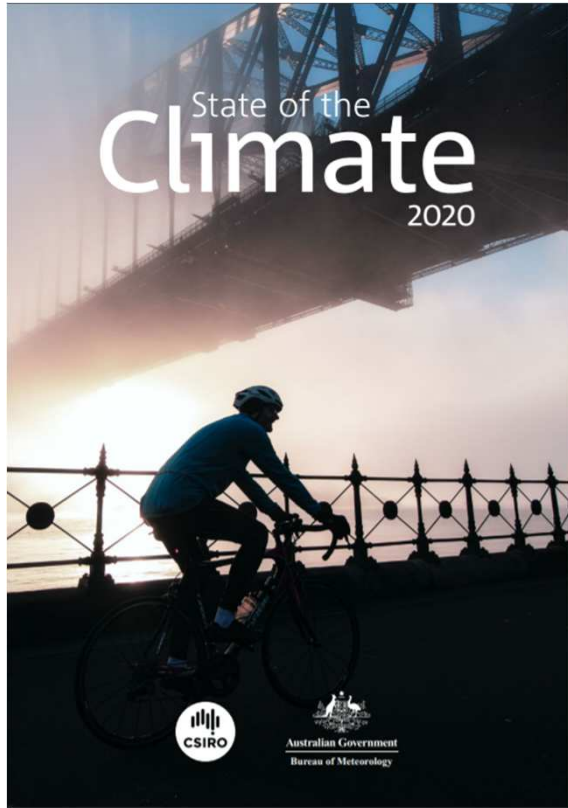
John Spencer/DPIE



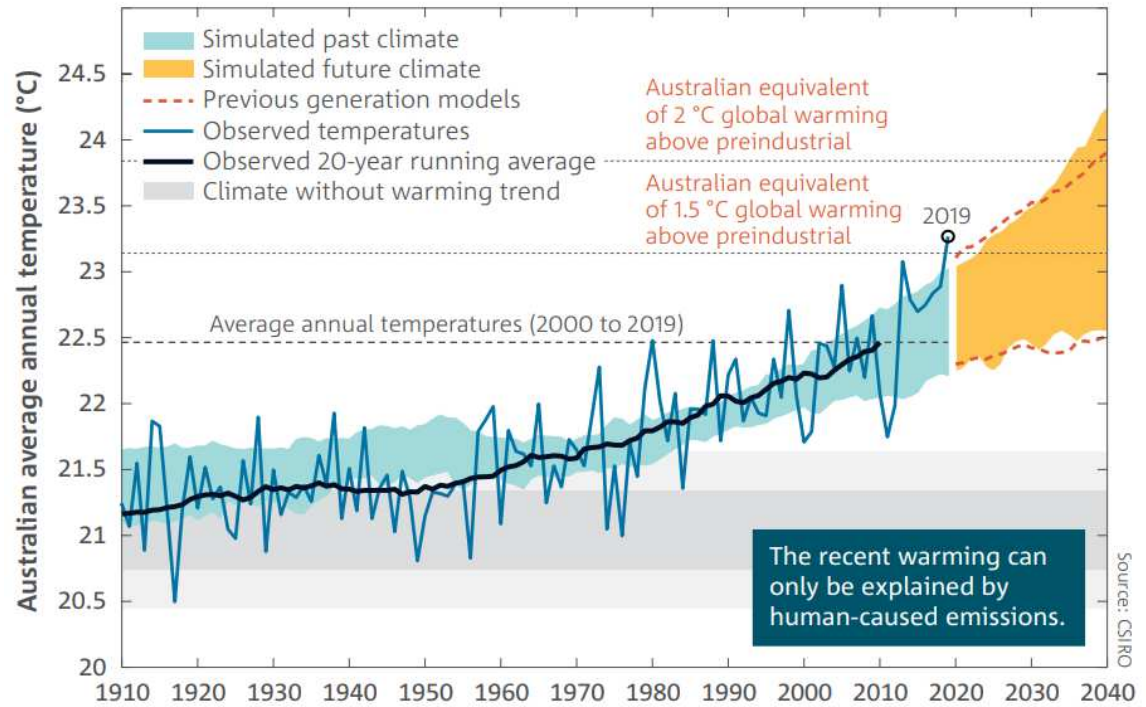
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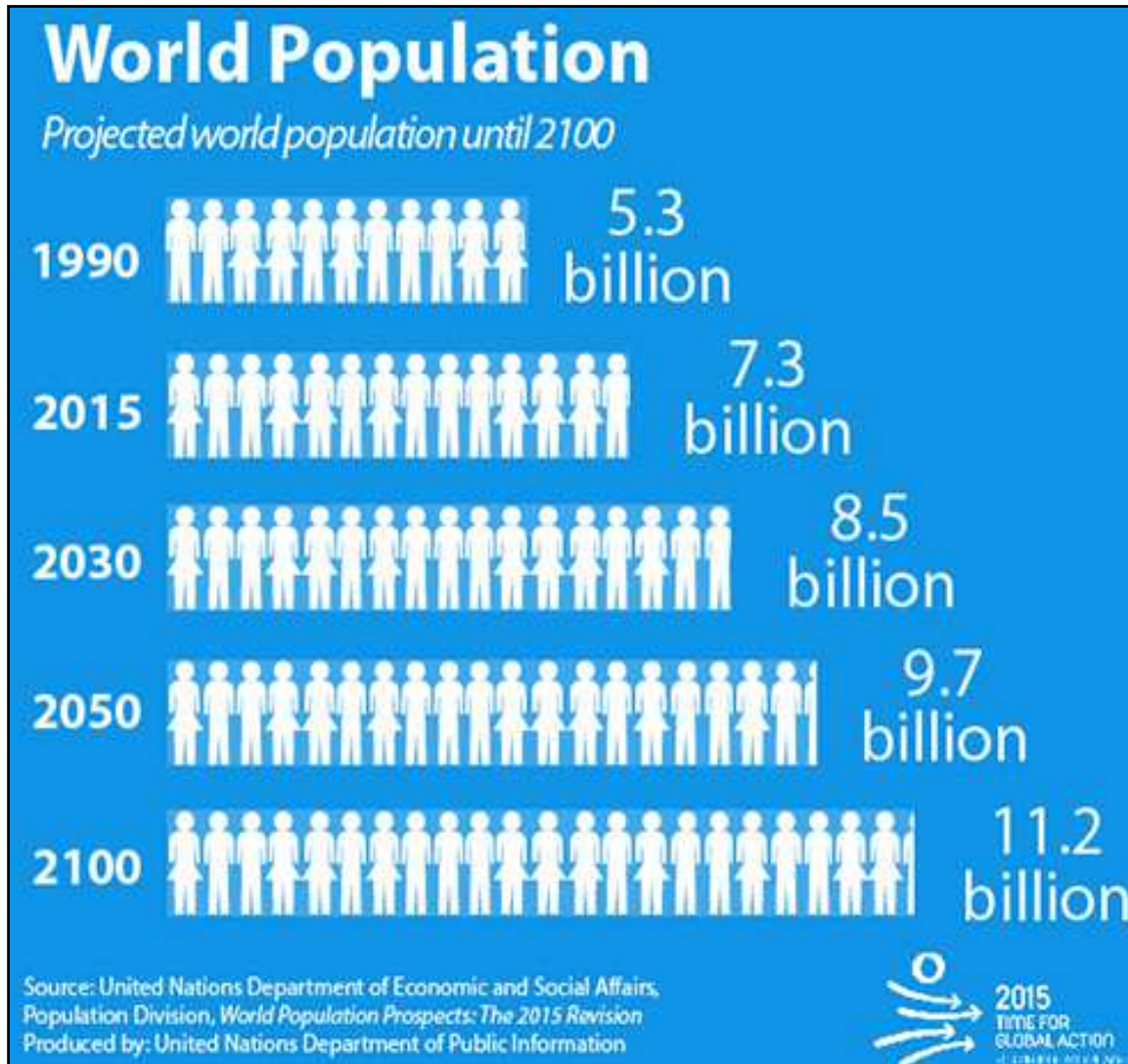
**“Houston,
we’ve got a
problem”**

Image source: www.calxibe.com



Changing climate





Growing population pressure

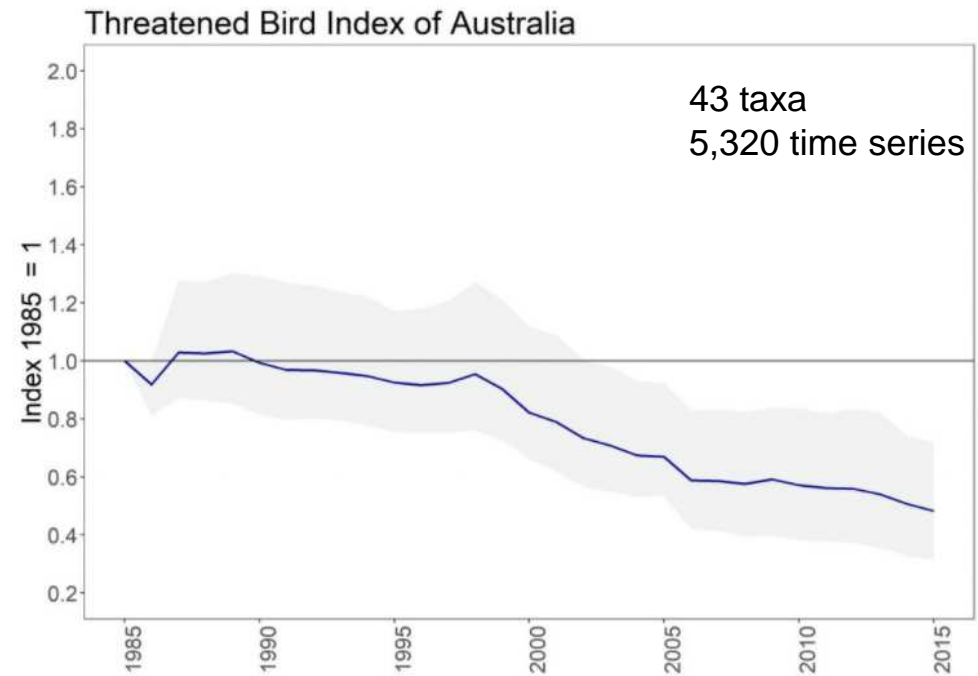


Threatened Species decline



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

▲ Rachel Morgain □ Media Release 📅 November 27, 2018 | 👁️ 7



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



Monitoring, evaluation and reporting program

**Assessing the recovery of threatened species,
populations and ecological communities in NSW**

“...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.

Source: <https://epbcactreview.environment.gov.au/resources/interim-report>



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Supply chain problem

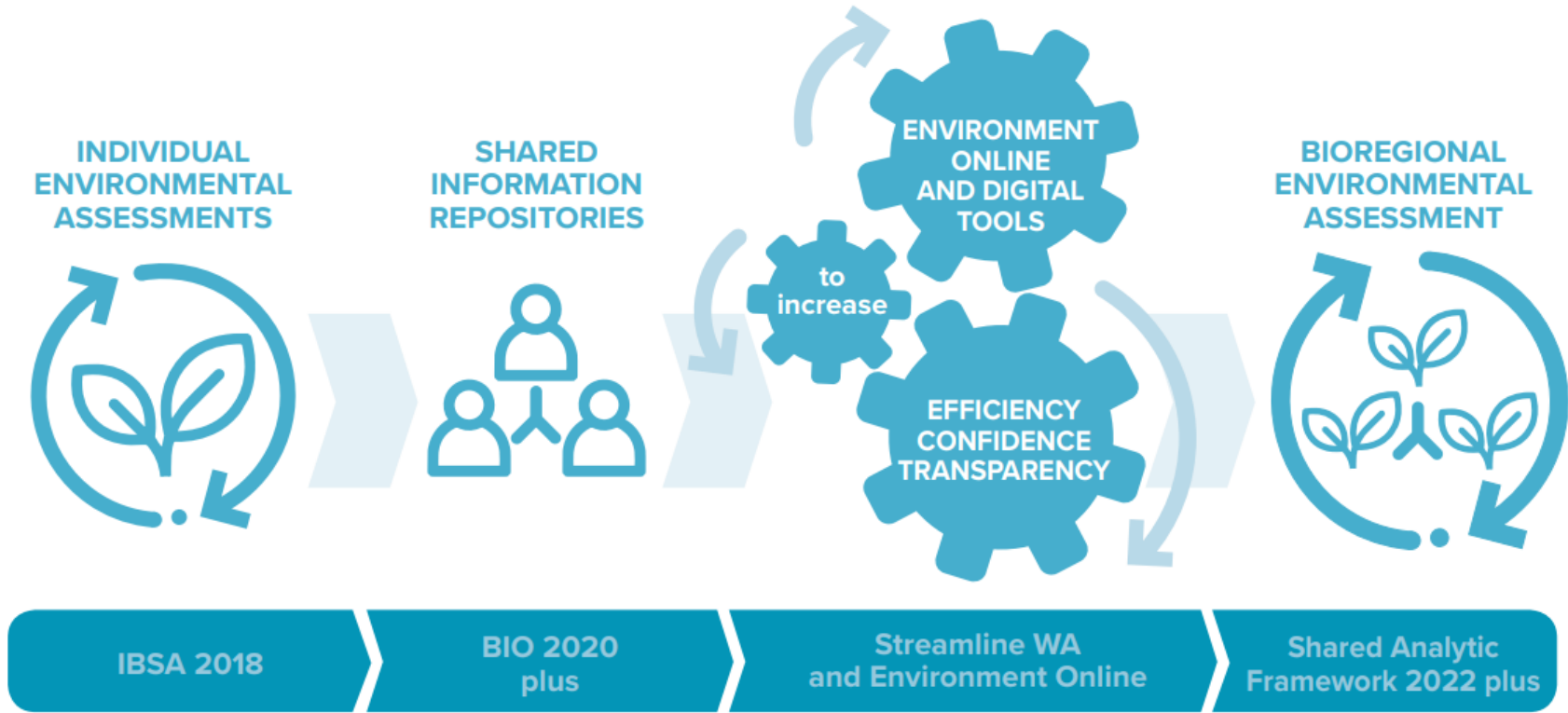
“...**systems and capability that are needed to deliver the evidence base** for Australia’s national system of environmental management.

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..

Source: <https://epbcactreview.environment.gov.au/resources/interim-report>



Supply chain problem



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



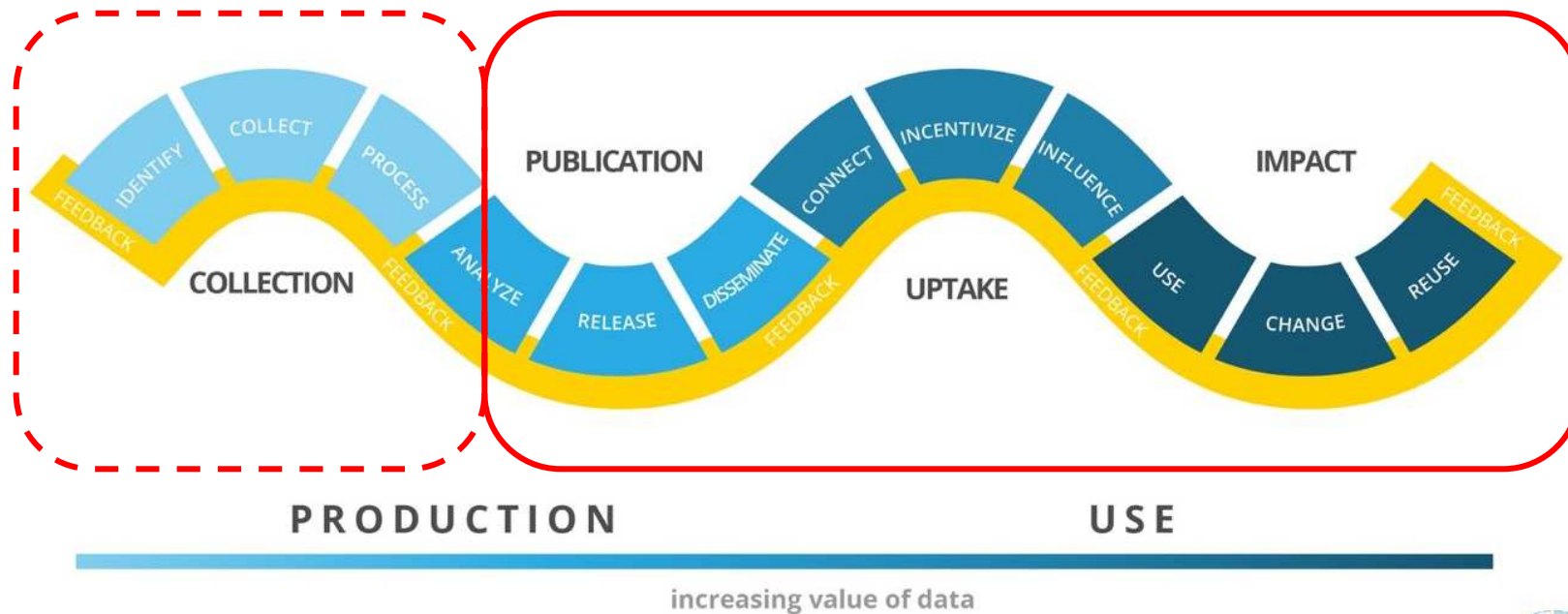
National Collaboration Initiatives

- 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)



Our response as biodiversity data managers?

IMPROVE THE DATA VALUE SUPPLY CHAIN



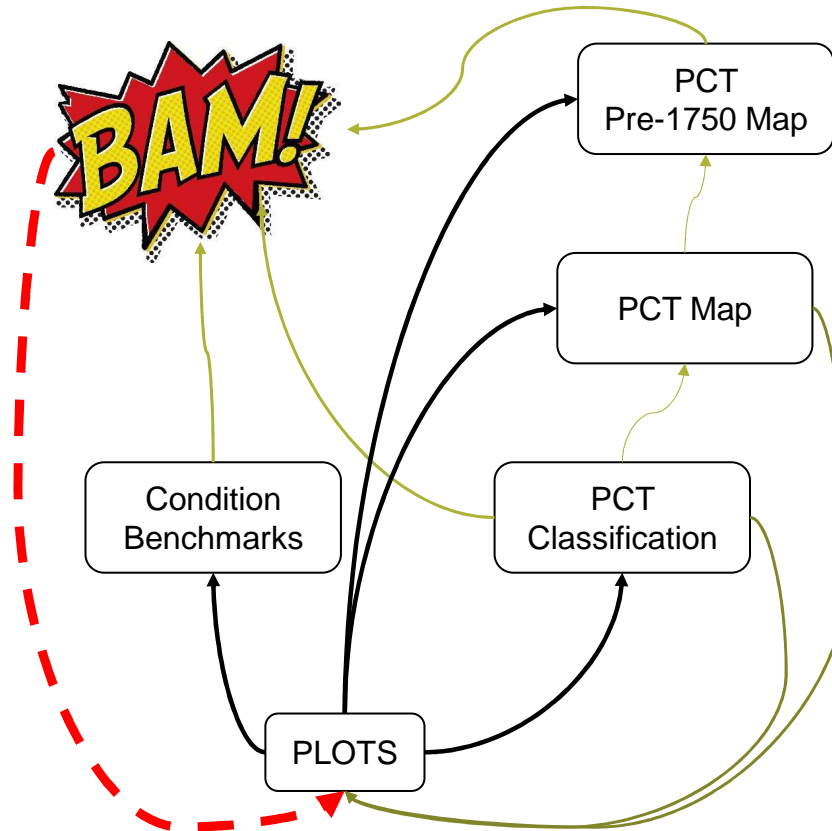


Continuous Improvement Cycle

Current State

Standard plots used to maintain many products

Products may be validated using standard plots

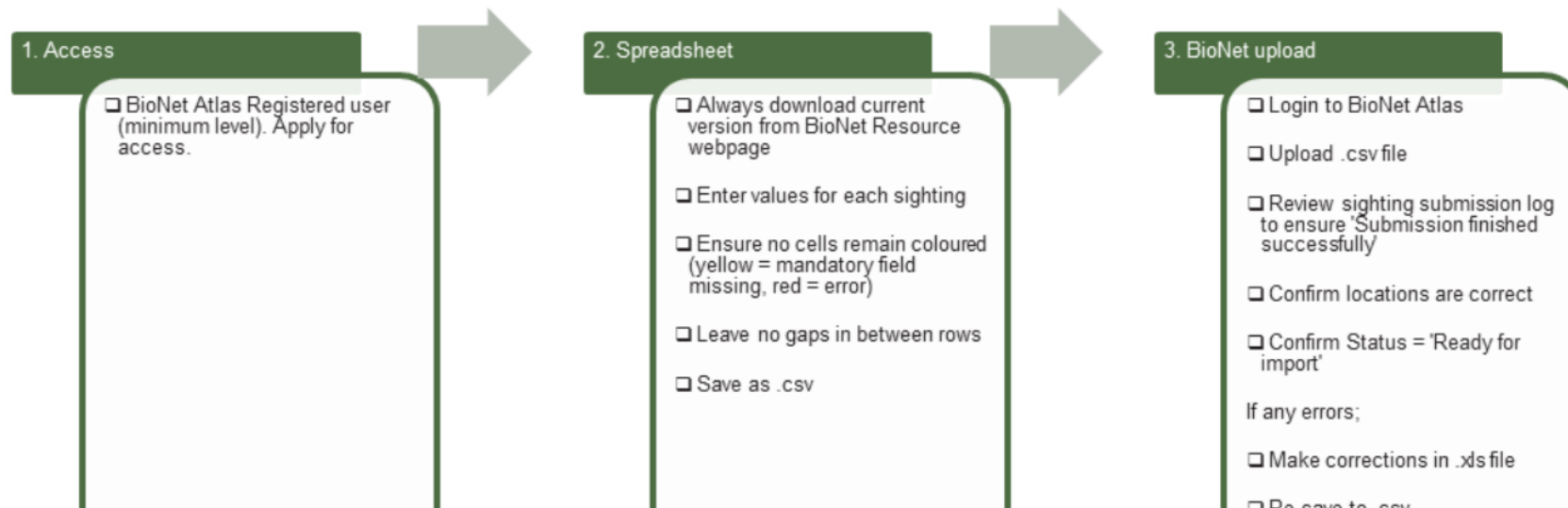




Current BioNet data supply requirements

Current State

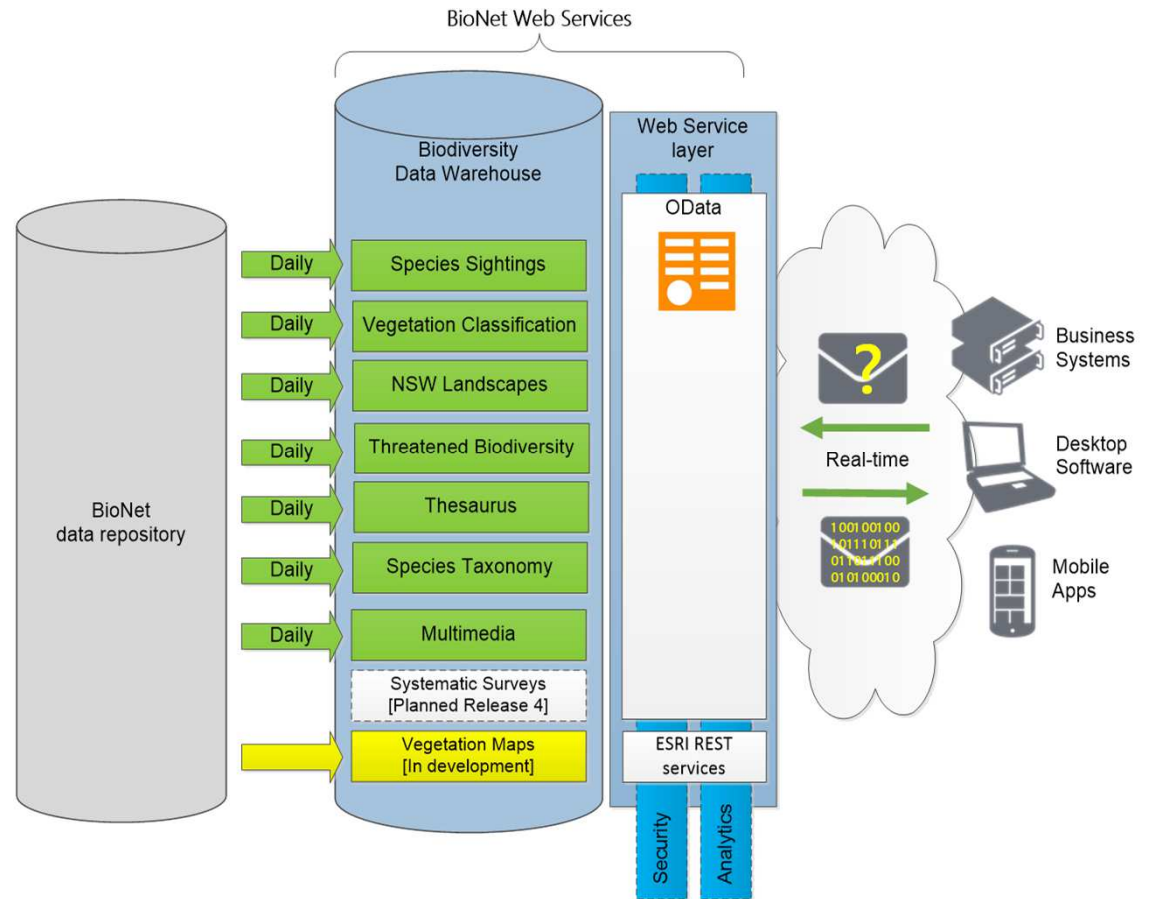
- Scientific Licence (*Biodiversity Conservation Act 2016*) current requirement to supply species sighting data to BioNet annually.
- Scientific License will be reviewed
- Current data upload of species sightings and systematic flora and fauna survey data is via CSV upload templates
- <https://www.environment.nsw.gov.au/wildlifeatlas/upload-sightings-bionet.htm>





BioNet web services – open, standardised & transparent

Current State





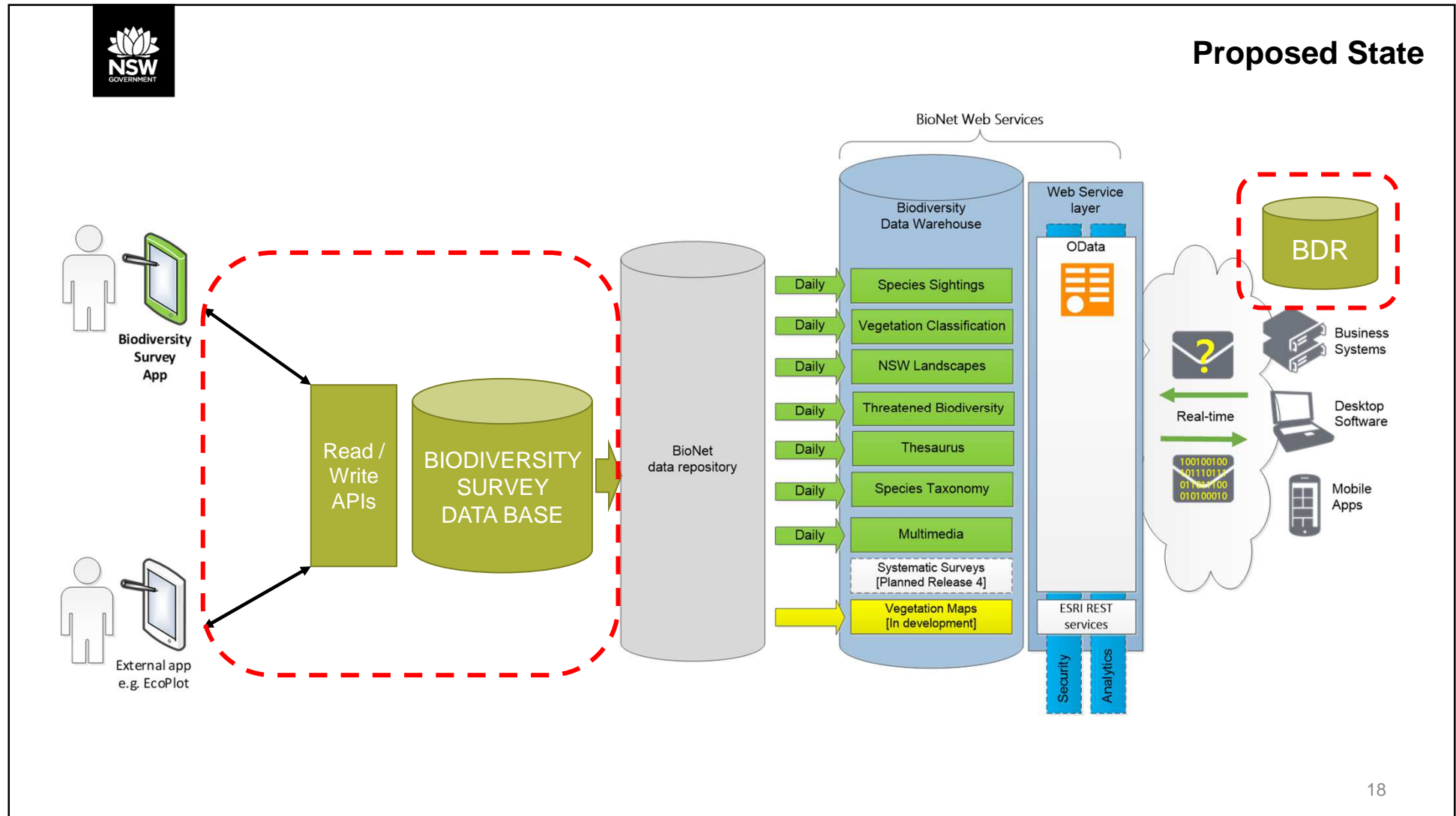
Innovative and off the shelf mobile survey tools

Current State

The image displays three screenshots of mobile survey applications. The first screenshot, 'ecoplotbam', shows a species list for 'Bargo - 1A Kader Street' with columns for species name, abundance, and presence. The second screenshot, 'ecotransectbam', shows a field view of a transect with a grid overlay and data points for litter and bare earth. The third screenshot, 'ecoplotbam detail', shows a detailed view of a plot with various metrics like IBRA region, Mitchell landscape, and plant community type.



ArcGIS Survey123





Solving the data capture problem through co-design





Q&A

This session will not be included in the webinar recording.

Written questions and answers will be attached to the online webinar recording.

Questions asked during these webinars also contribute to the development of the [Assessor Q&A](#) page, future webinars and other Biodiversity Offsets Scheme supporting resources.

John Spencer/DPIE



Thankyou for your participation

Webinar recordings will be available to view online on the [BOS Support webinars](#) page.

For further support, contact us via the [BOS Support](#) page.

John Spencer/DPIE