

Shared Environmental Analytics Facility (SEAF): A template for regional data integration?

Prof Owen T Nevin, Chief Executive Officer WABSI

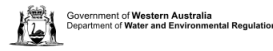
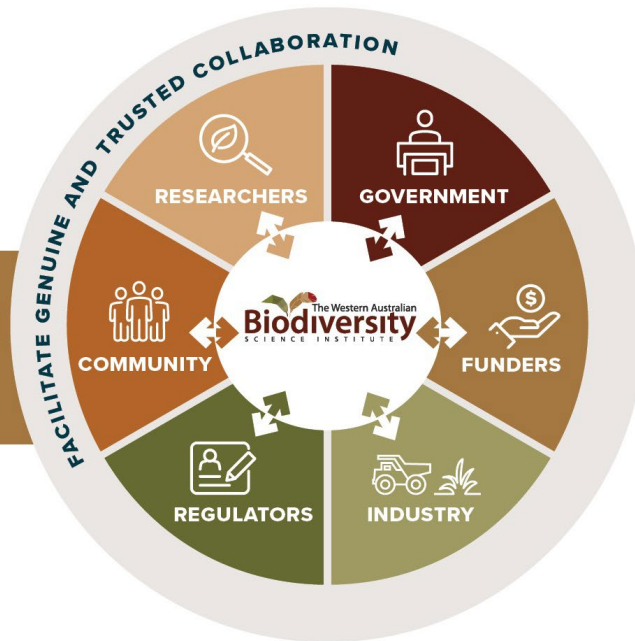
Anniversary Visiting Professor of Conservation Biology, University of Cumbria, UK
Adjunct Professor of Conservation Biology, CQUniversity Australia





Who we are

- We are an independent, collaboration mechanism.
- We facilitate end user driven, relevant research.

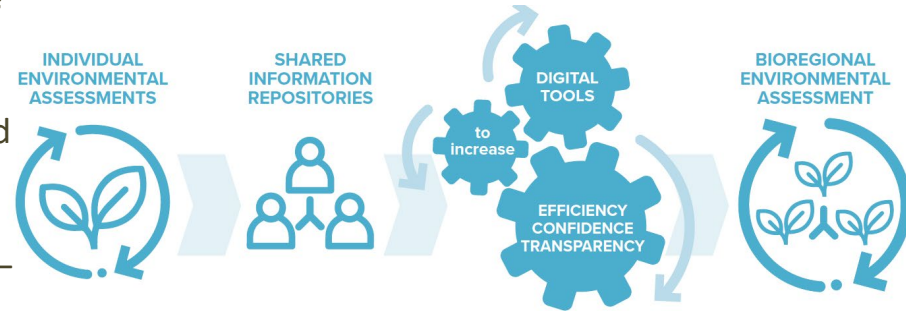


What has been achieved?

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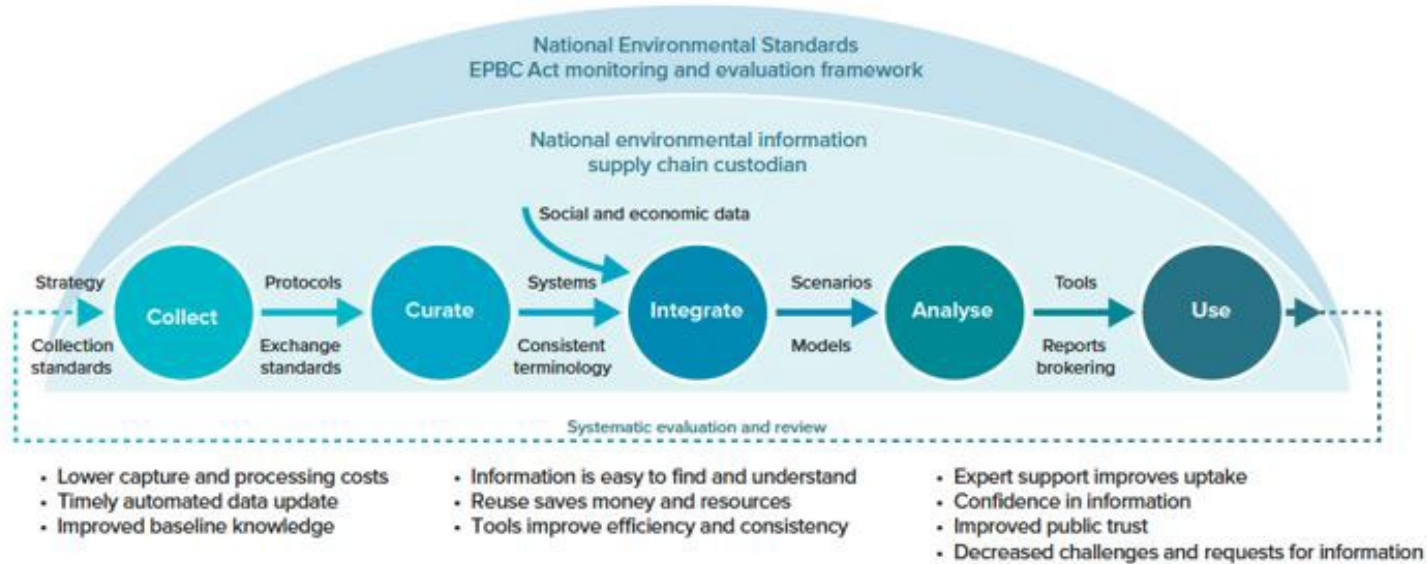
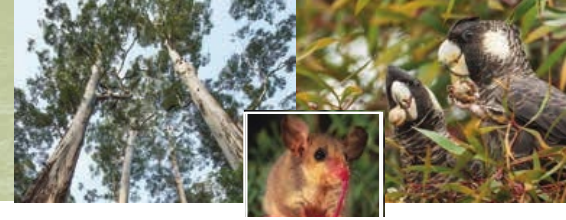


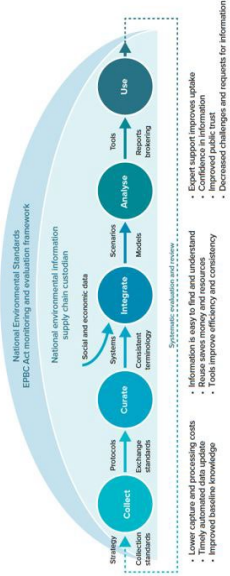
1. **Index of Biodiversity Surveys for Assessments (IBSA)**
(implemented 2018, 500 surveys ~ AU\$40m annually)
2. **Digitally Transforming Environmental Assessment Case**
(completed 2019, ~\$150m NPV benefit annually)
3. **Index of Marine Surveys for Assessments** (implemented 2020, 50 surveys ~ AU\$50m annually)
4. **Biodiversity Information Office (BIO)** (under way 2020 – 23, ~ AU\$10m), CoA Biodiversity Data Repository \$4m
5. **Environment Online / Digital Environmental Assessment Program** (under way 2020 -2022, ~ AU\$50m)
6. **Shared Analytic Framework for the Environment (SAFE)**



Samuel's Environmental Data Supply Chain

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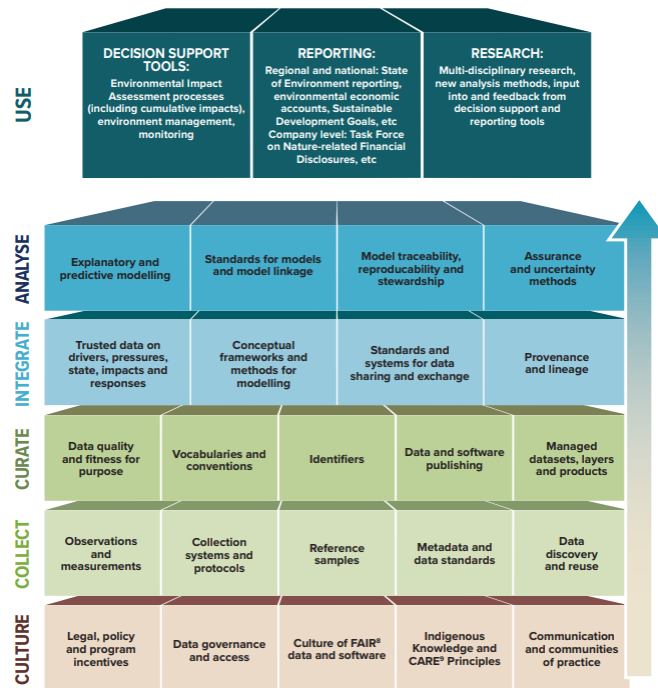
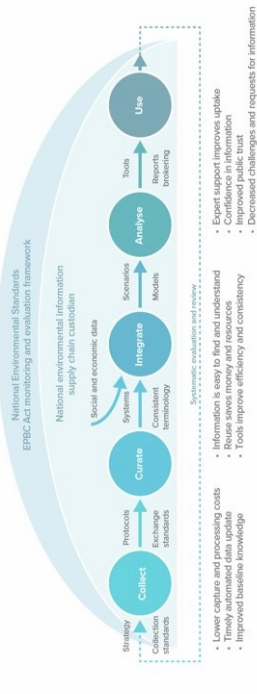


Shared Analytics Framework for the Environment (SAFE)

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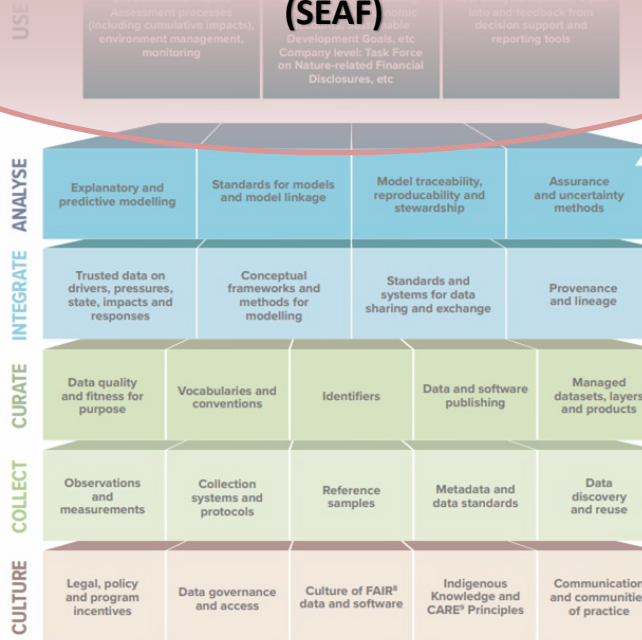


Shared Analytic Framework for the Environment (SAFE)





Shared Environmental Analytics Facility (SEAF)



National Environmental Standards
EPBC Act monitoring and evaluation framework

National environmental information
supply chain connection

Social and economic data

Systems

Consistent terminology

Integrate

Curate

Collect

Strategy

Protocols

Exchange standards

Collect

Standards

Protocols

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Protocols

- Lower capture and processing costs
- Timely automated data updates
- Improved baseline knowledge

- Information is easy to find and understand
- Better saves money and resources
- Tools improve efficiency and consistency

- Expert supply chain connections
- Confidence in information
- Improved decision making
- Provenance and lineage

Shared Environmental Analytics Facility (SEAF)

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What SEAF looks like

An independent entity: for collaboration and national scalability.

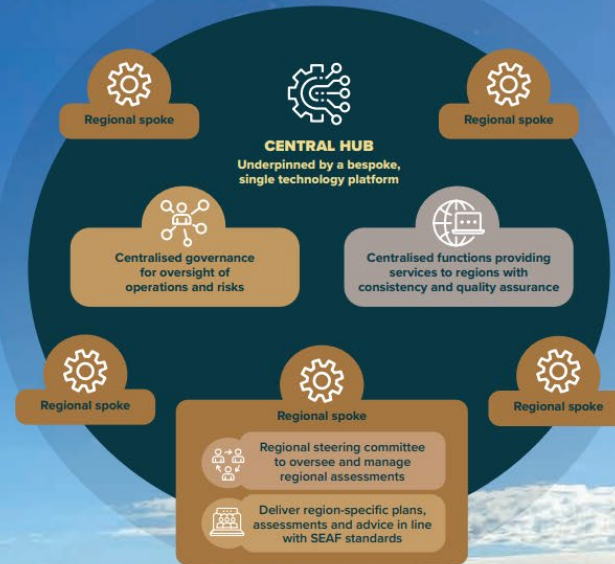
- Enables objectivity and rapid value realisation
- Robust, representative governance

A central hub with regional spokes: for centralised efficiency with regional autonomy and benefits.

- A central hub with oversight of operations and risk and centralised functions
- Regional spokes with regionally specific governance
- Autonomy to undertake regional assessments and regional management of data and tools

Built on a cloud-based, bespoke technology platform: for bringing together disparate information sources.

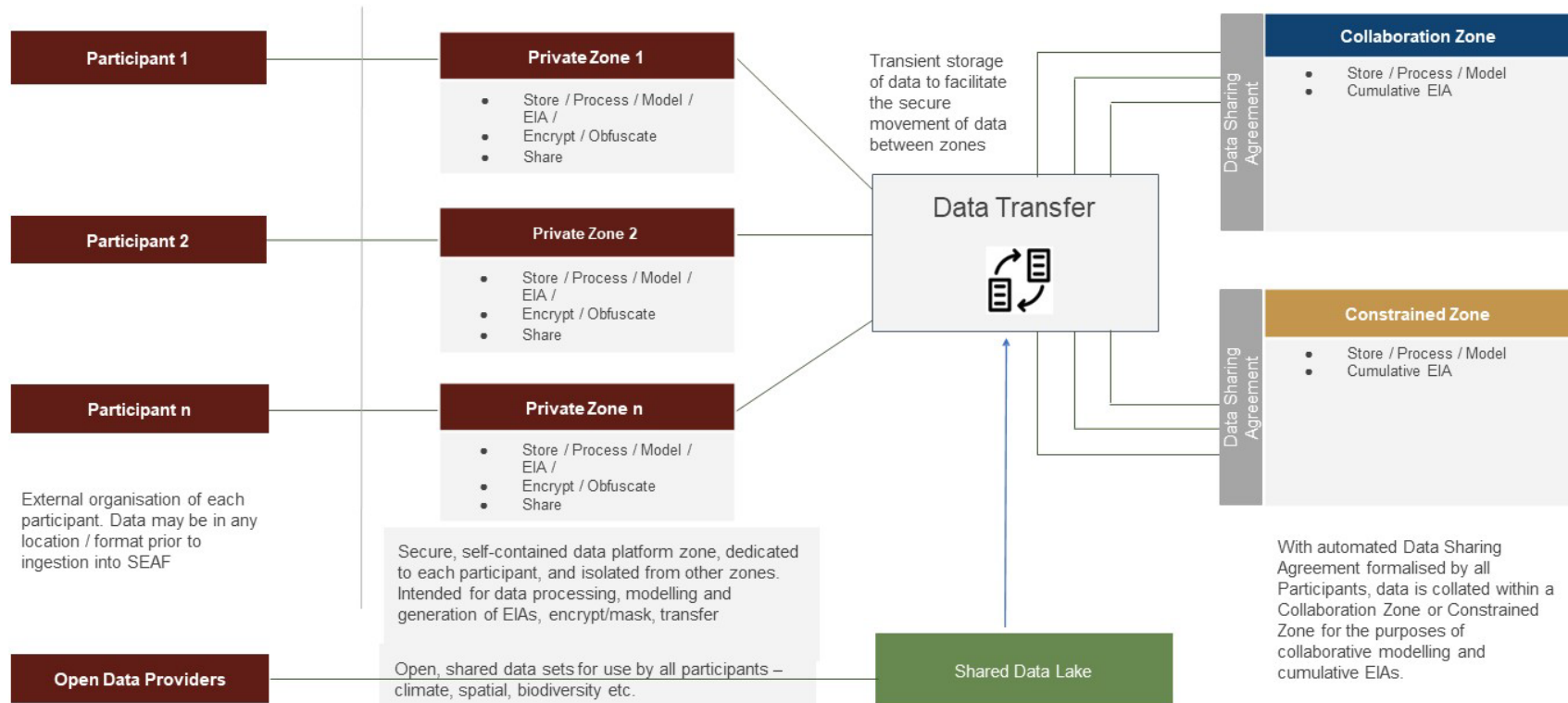
- Drives standards and consistency
- Enables a trusted, shared point of access for analytics and predictive models



Shared Environmental Analytics Facility (SEAF)

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The structure of the SEAF platform allows all Participants to operate independently and then also work together to share data for the purposes of a cumulative EIA. The Collaboration Zone allows for provide access to all participants that are providing data. A constrained zone restrict access to one or more participants that are providing data – in cases where cumulative EIA is being generated with additional highly-sensitive data from certain participants. NDA/Data Sharing Agreements are essential as part of this process.





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