Introducing Australia's Terrestrial Ecosystem Research Network: linking disciplines for better environmental outcomes.

Nikki Thurgate

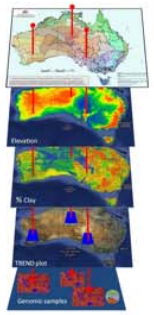
TERN is supported by the Australian Government through the National Collaborative Research Infrastructure Strategy and the Super Science Initiative.

TERN: *Transforming Australian ecosystem science*

TERN:

- **Infrastructure** and **networks** to support a coordinated and collaborative ecosystem science community
- Enabling sustained, long-term **collection, storage, synthesis and sharing** of ecosystem data
- Connecting science with **policy and management**



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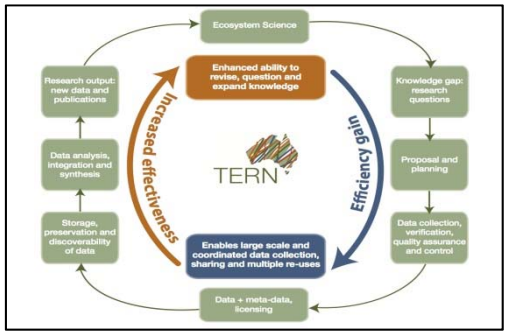
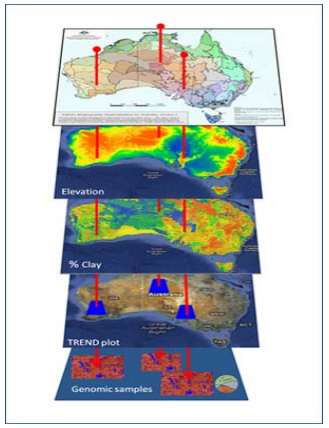
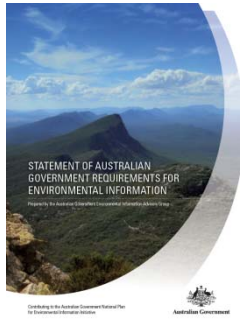
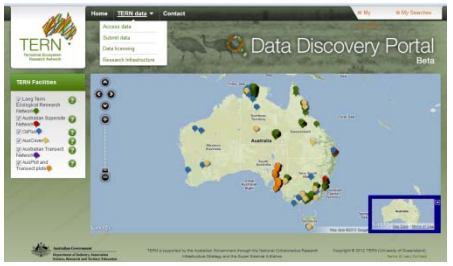


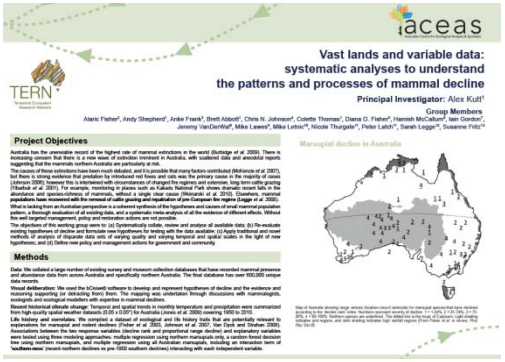




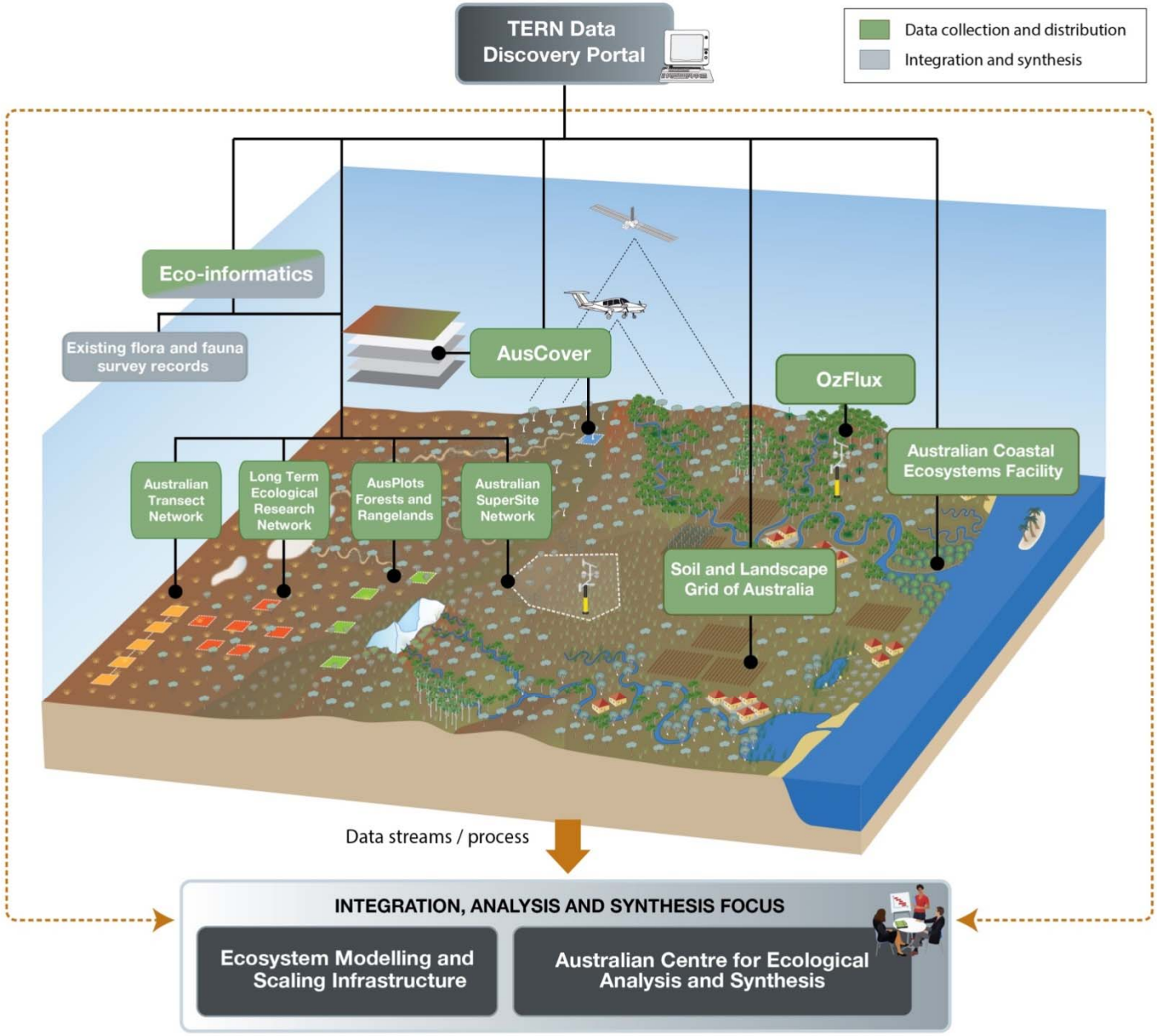
Collection Methods | **Data Storage** | **Data Sharing** | **Modelling** | **Policy + Management**

Instruments + Sensors | **Processing + Analysis** | **Data Curation + Publishing** | **Data Searching** | **Analysis + Synthesis**





How TERN fits together



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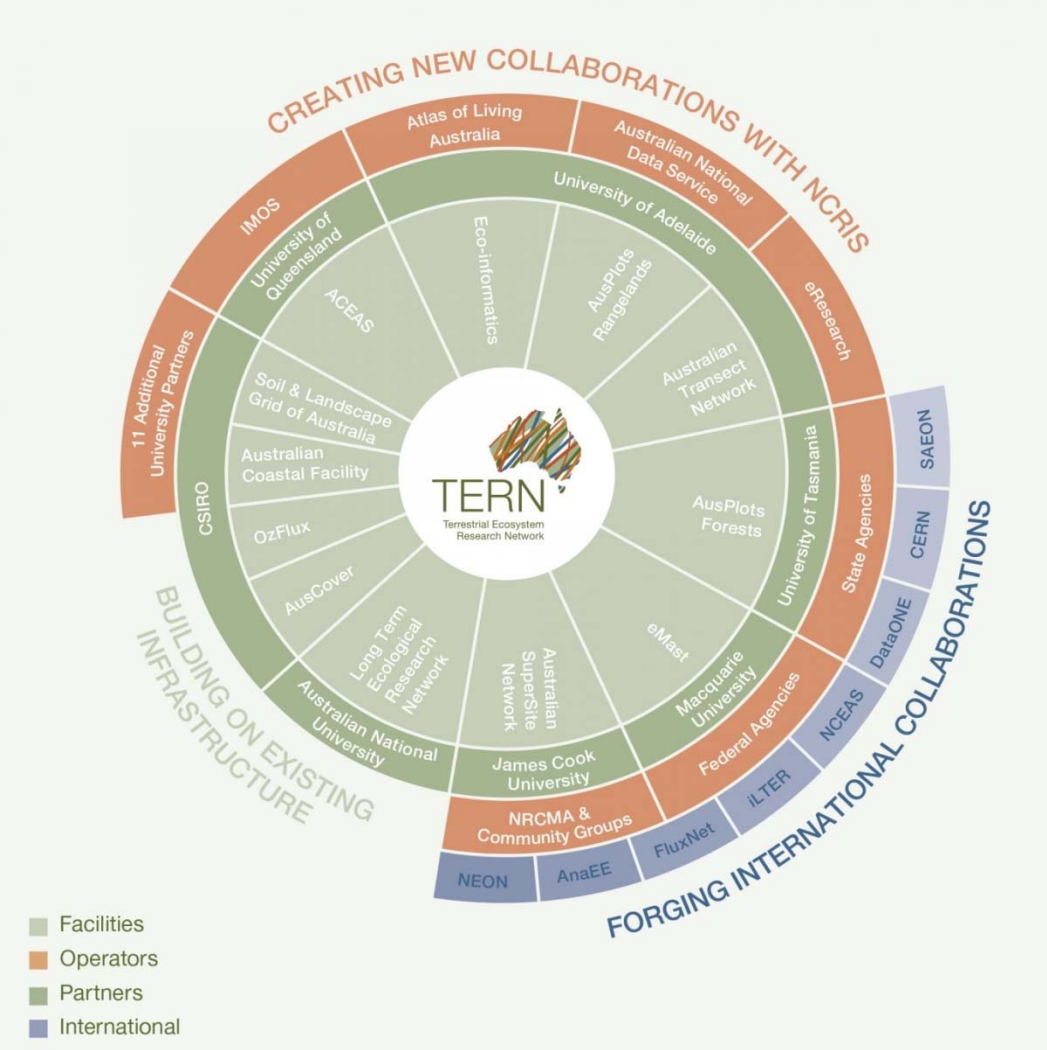
TERN Collaborative Network



CERN:	Chinese Ecological Research Network
SAEON:	South African Ecological Observation Network
NEON:	National Ecological Observation Network
iLTER:	International Long Term Ecological Research
NCEAS:	National Centre Ecological Analysis and Synthesis
NRCMA:	Natural Resource & Catchment Management Authorities
AnaEE	Analysis and Experimentation on Ecosystems
IMOS	Integrated Marine Observing System

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NEON and TERN Sign Interoperability and Collaboration Agreement

TERN Director Tim Clancy (left) and NEON Project Scientist David Tazik (right) announce the formal agreement between TERN and NEON at the 2013 TERN Symposium. Photo by Claire Heath

NEON and the Terrestrial Ecosystem Research Network (TERN) signed a memorandum of understanding in mid-May 2013. The MOU is a written agreement to foster collaboration and interoperability between TERN and NEON on core network elements such as delineation of science requirements, measurements and sampling protocols; data products; informatics; science and education programs and project management.

Collaboration objectives include establishing an action plan using this strategic framework, continuing program-level discussions to enhance opportunities for collaboration, exploring opportunities for personnel exchange and continuing joint participation in a variety of workshops and symposia.

The MOU formalizes announced a working agreement announced at the 2013 TERN symposium held February 18-20 in Canberra, Australia. Attendees included ecosystem scientists, managers, and policymakers from across Australia and New Zealand. The symposium brought together a diverse group of people who are intent on building a national, networked program of collaborative research.

NEON meetings with TERN and its Australian Supersite Network began last fall. Interoperability and data comparability were discussed, among other topics that the MOU now addresses.

TERN Terrestrial Ecosystem Research Network

Bottom Up Approach

- Existing infrastructure harnessed
- New infrastructure to fill gaps
- Proof of concept studies

BENEFITS

- Flexible and adaptive
- Avoids duplication
- Allows for open networks

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Bottom Up Approach

BENEFITS

- Responsive to change

CHALLENGES

- Governance
- Integration
- Cultural change
- The wrong reasons
- Competition
- Interoperability

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Building a true network

- Coalition of the willing
- Stakeholders are part of the process
- Build relationships
- Build trust
- Common goals and questions
- Flexibility

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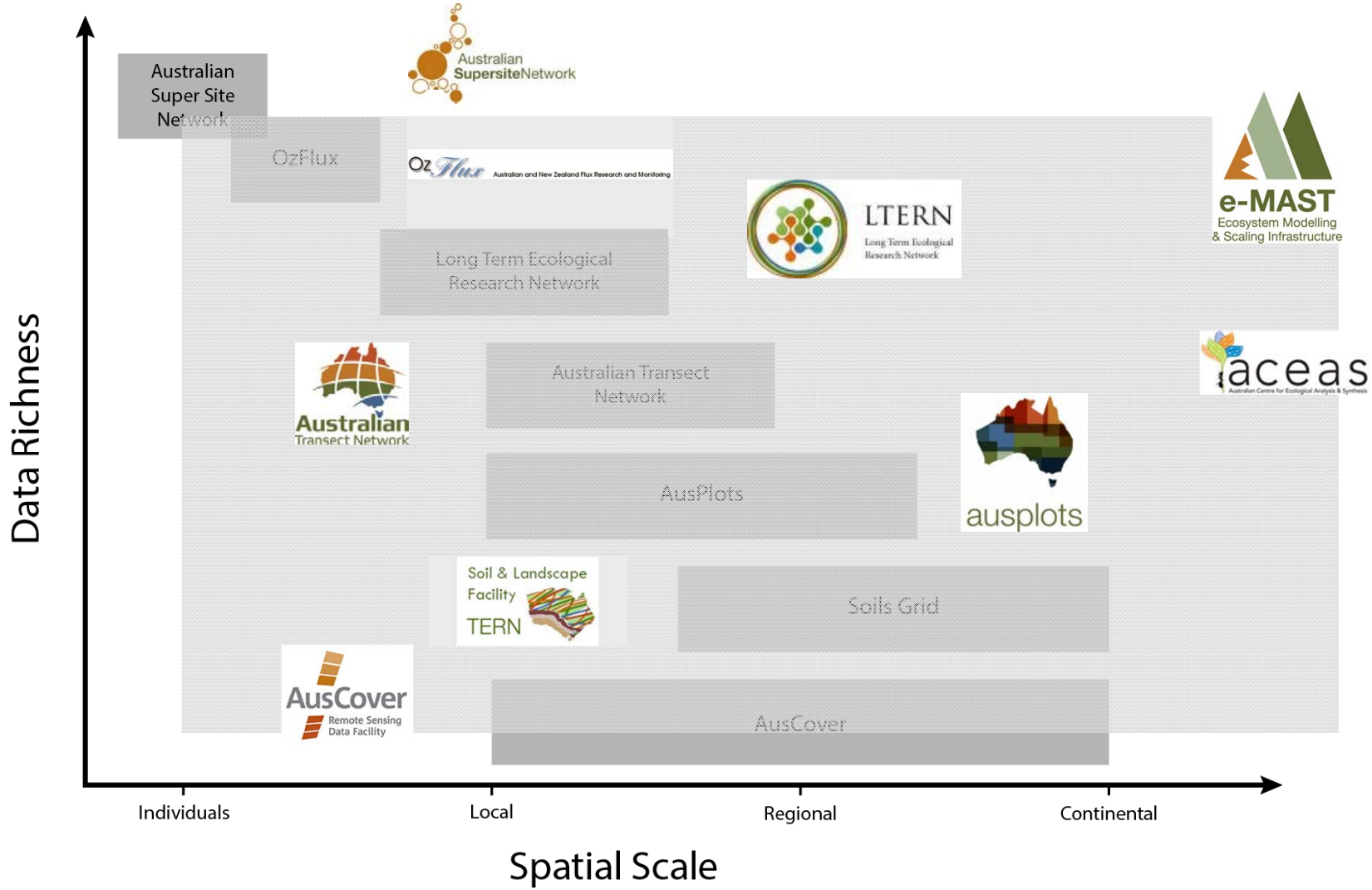
TERN Monitoring Frameworks



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Environmental Outcomes

- Resource characterisation and status
- Condition/Quantity Trend
- Outlook
- Option evaluation
- Bespoke solutions

Better Environmental Outcomes

- Multi-disciplinary approach allows for novel outcomes
- Includes expertise that ecosystems scientists don’t have
- Includes policy and decision makers so that outcomes are meaningful NOW!
- Some part of the network can help
- The whole is greater than the sum of its parts

Connecting with TERN

www.tern.org.au

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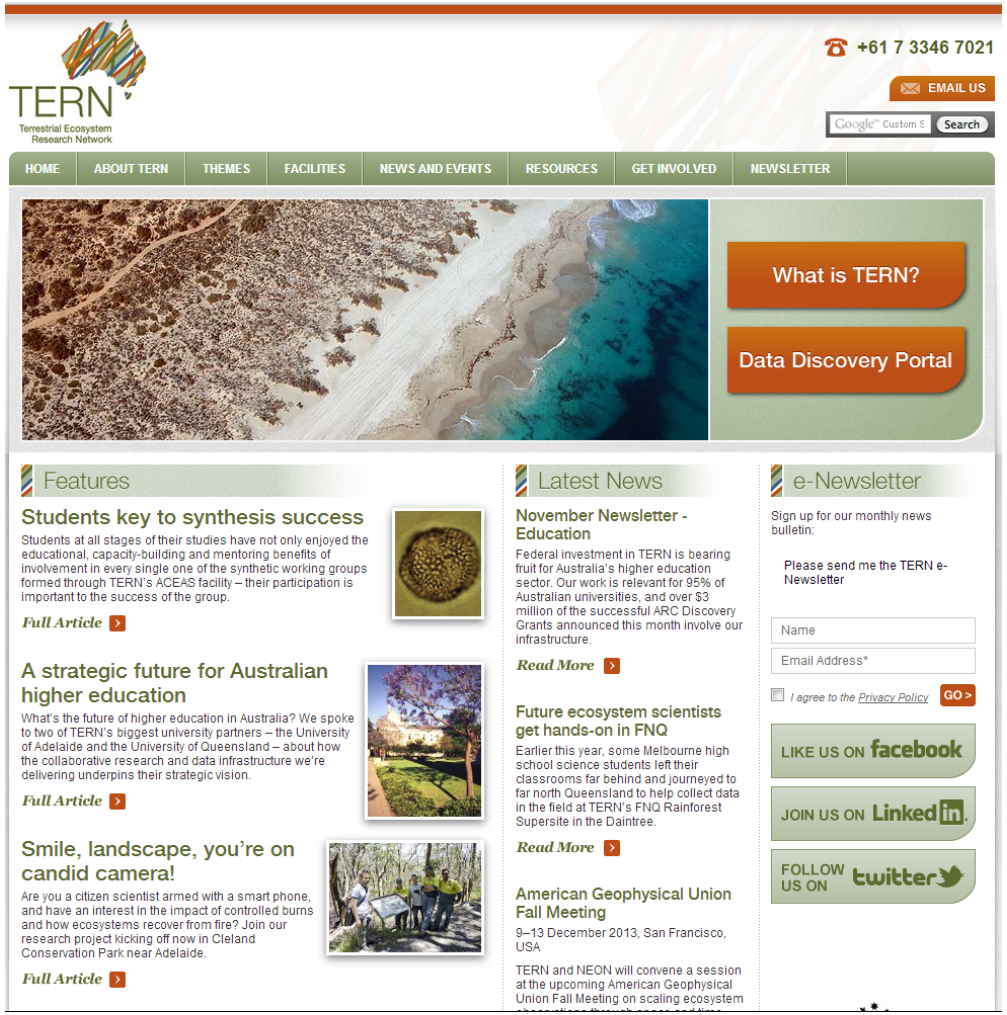

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