Soil Data in WA:

narratives to modelling through
Strategic partnerships

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A Narrative?

A na

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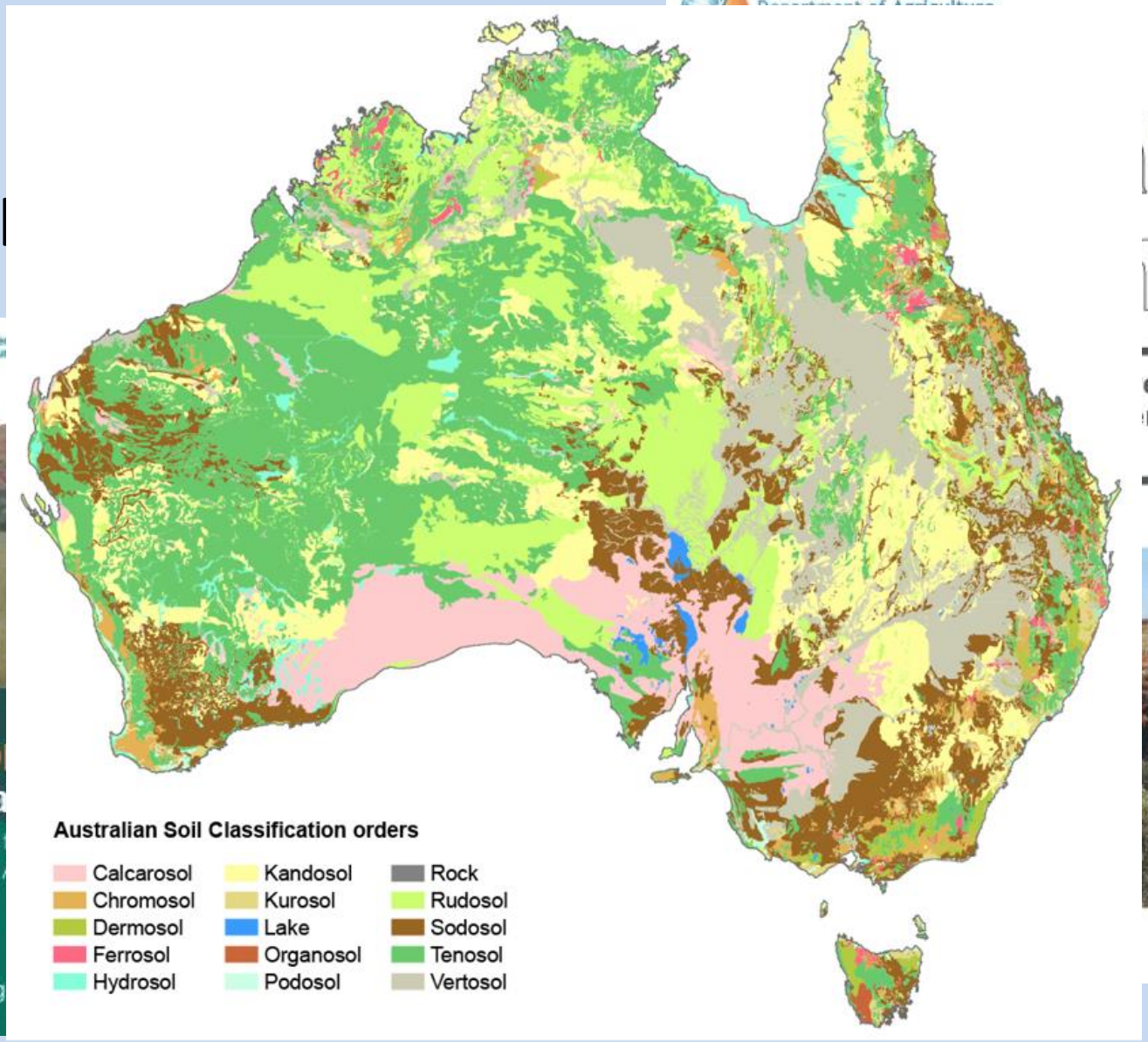


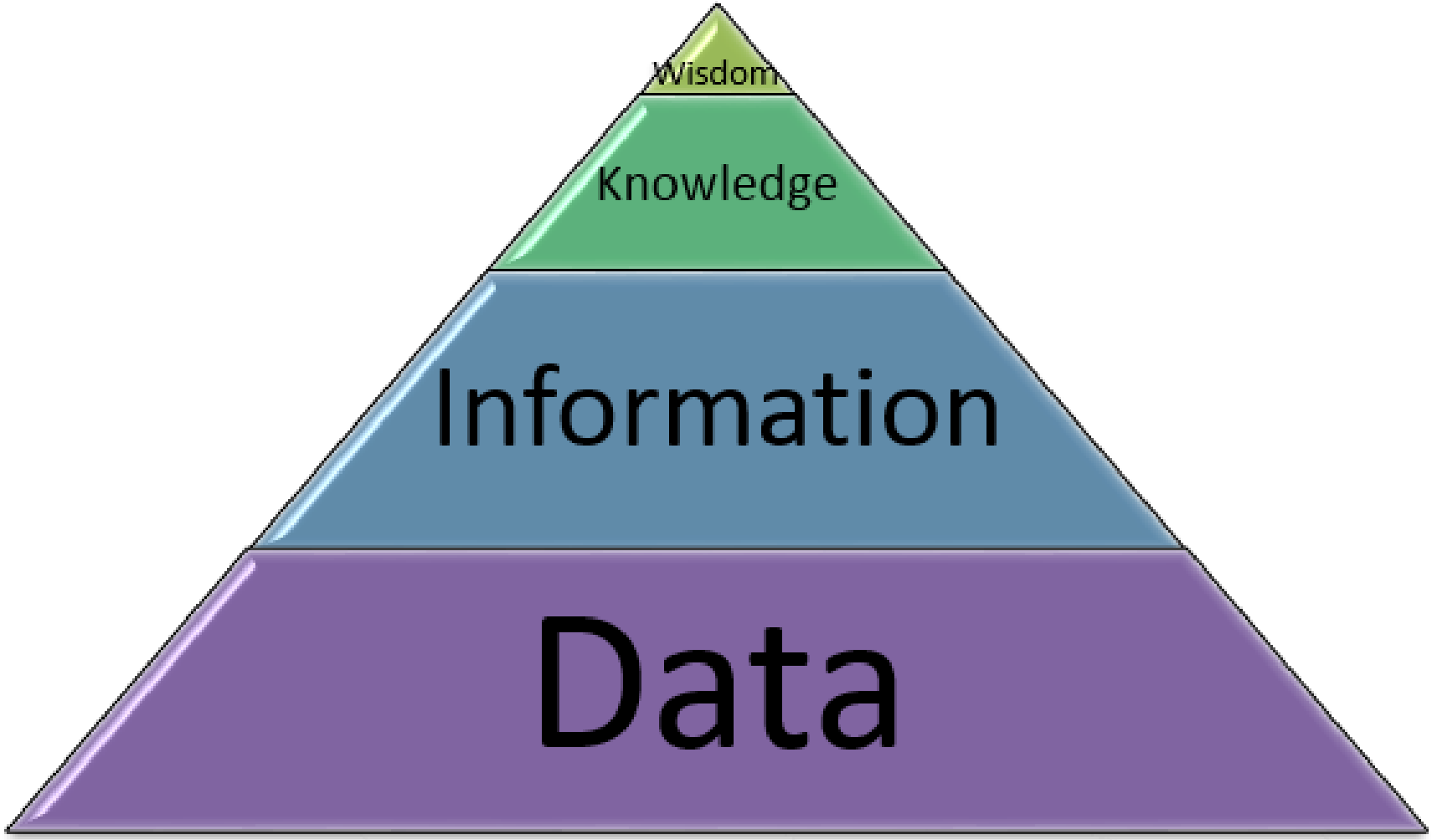
Our Task

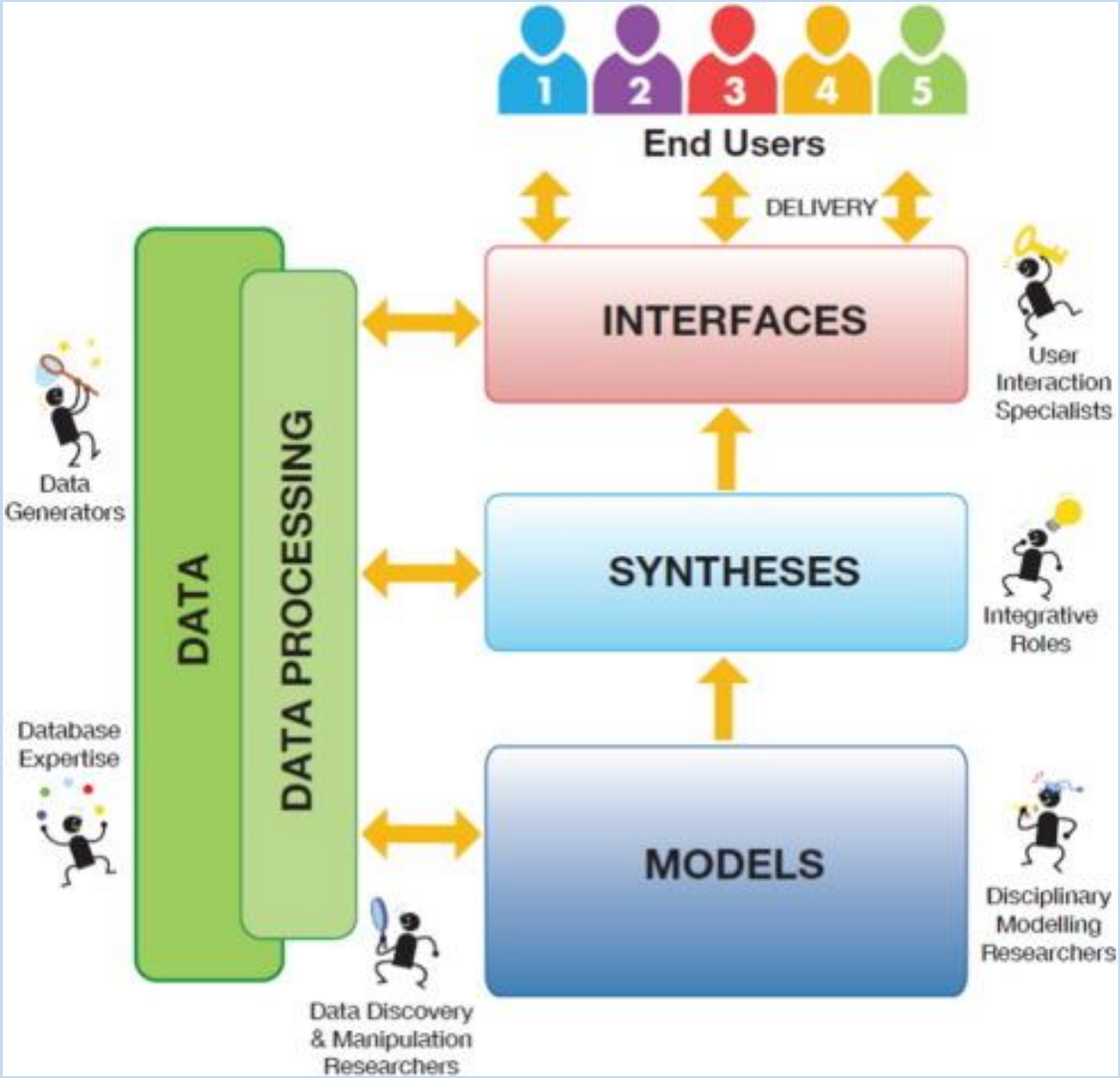
Simplify the complex picture

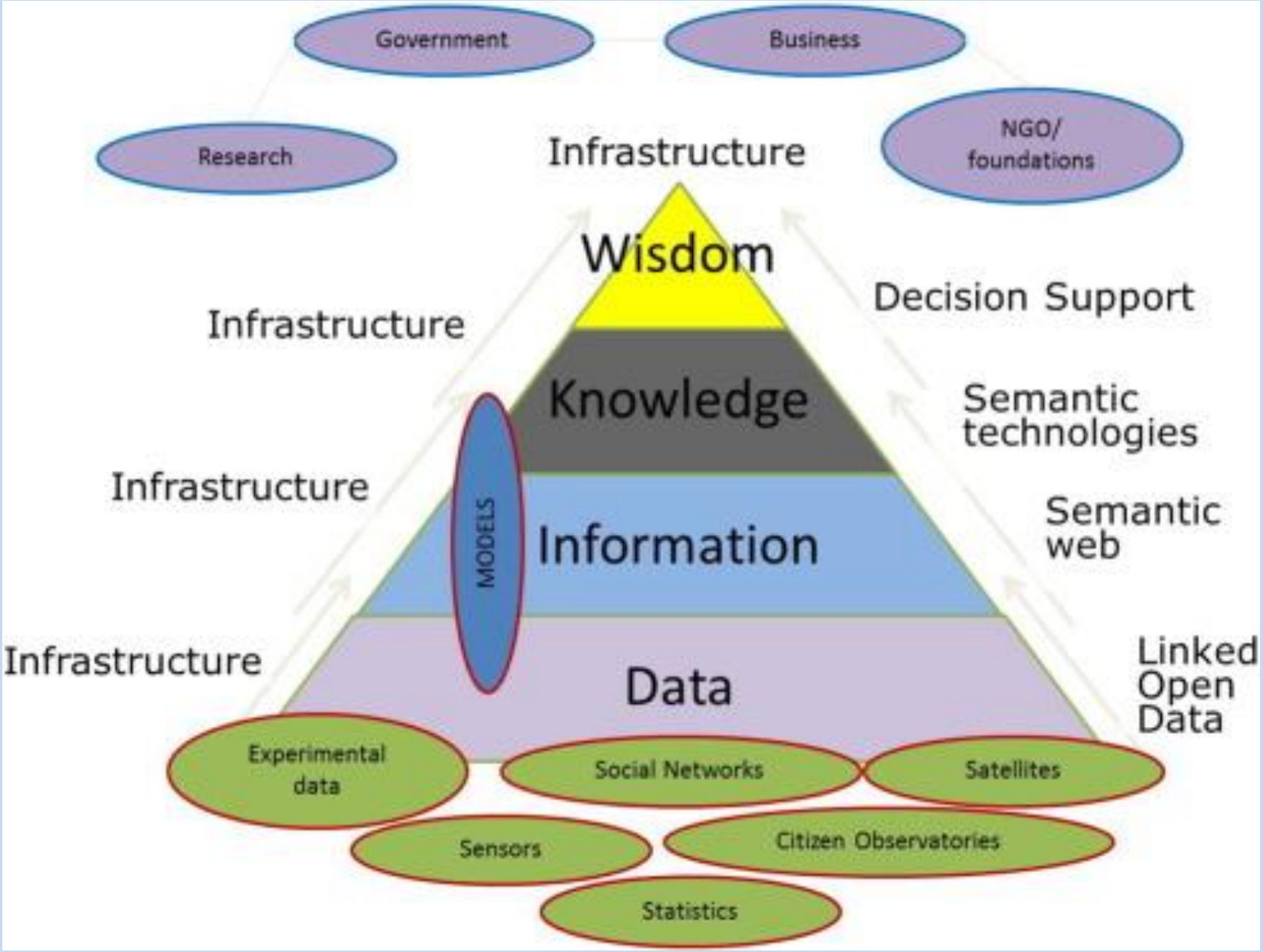
Why?

Perhaps:

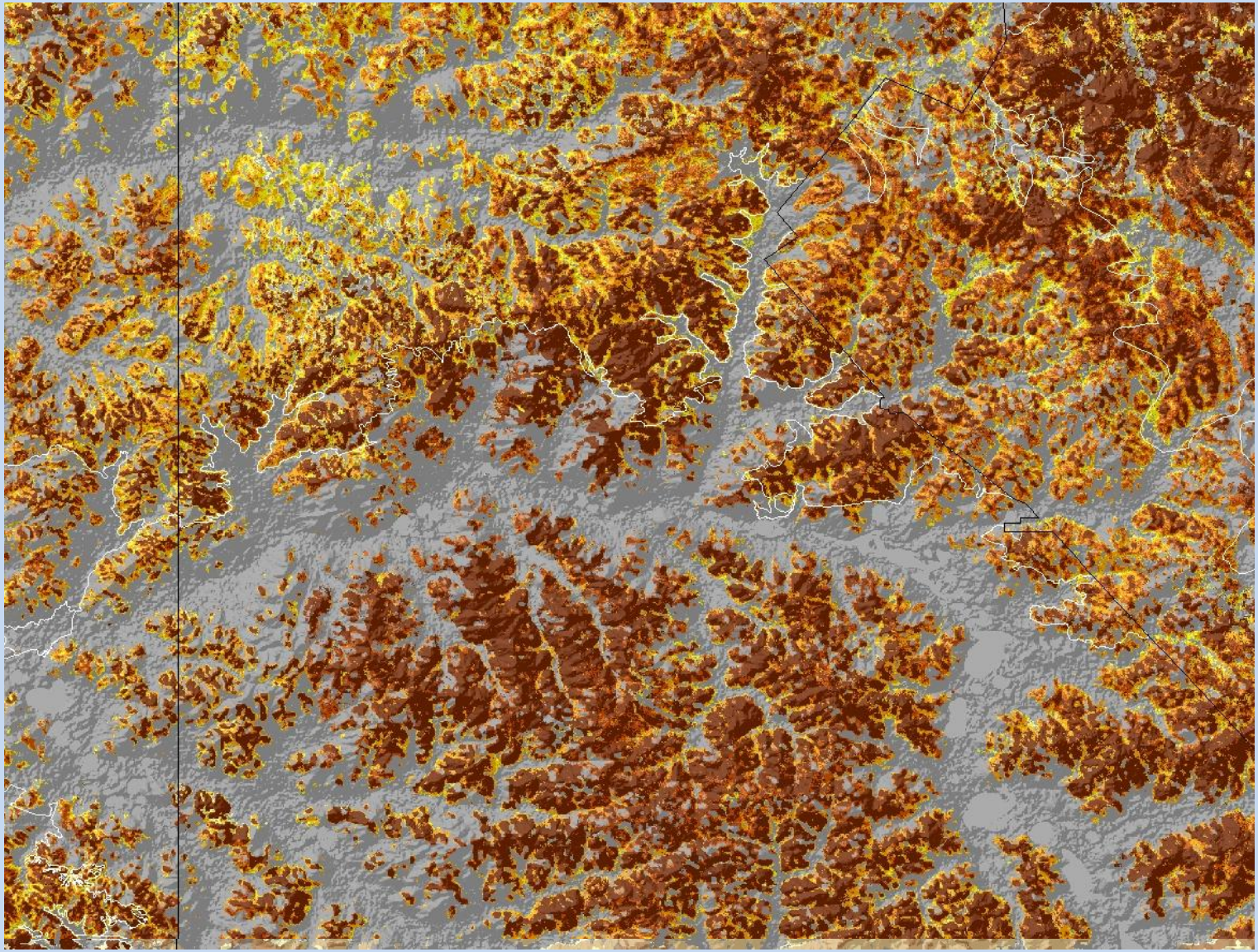
Better decision making.


Wisdom
Knowledge
Information
Data

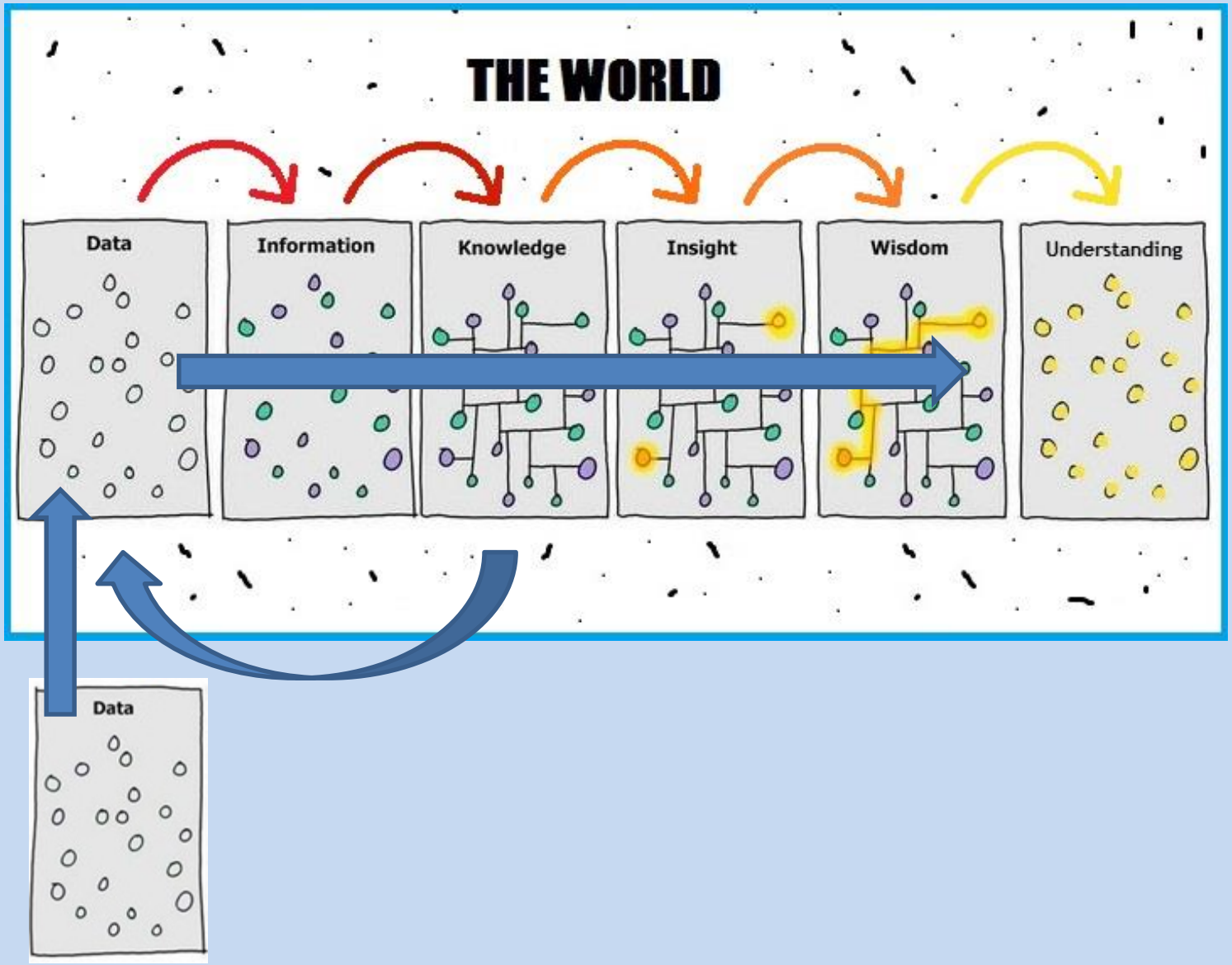

1
2
3
4
5
End Users
DELIVERY
INTERFACES
SYNTHESES
MODELS
DATA
DATA PROCESSING
User Interaction Specialists
Integrative Roles
Disciplinary Modelling Researchers
Data Generators
Database Expertise
Data Discovery & Manipulation Researchers


Government
Business
Research
NGO/
foundations
Infrastructure
Wisdom
Decision Support
Infrastructure
Knowledge
Semantic
technologies
Infrastructure
MODELS
Information
Semantic
web
Infrastructure
Data
Linked
Open
Data
Experimental
data
Social Networks
Satellites
Sensors
Citizen Observatories
Statistics

But never just one Iteration



It should be systems improvement



Ingredients for systems improvement

Standard methods & data vocabularies

Databases and GIS maps

→ capture

→ QA and continuous improvement

→ integration of site data and mapping

Inter-agency learning and data sharing

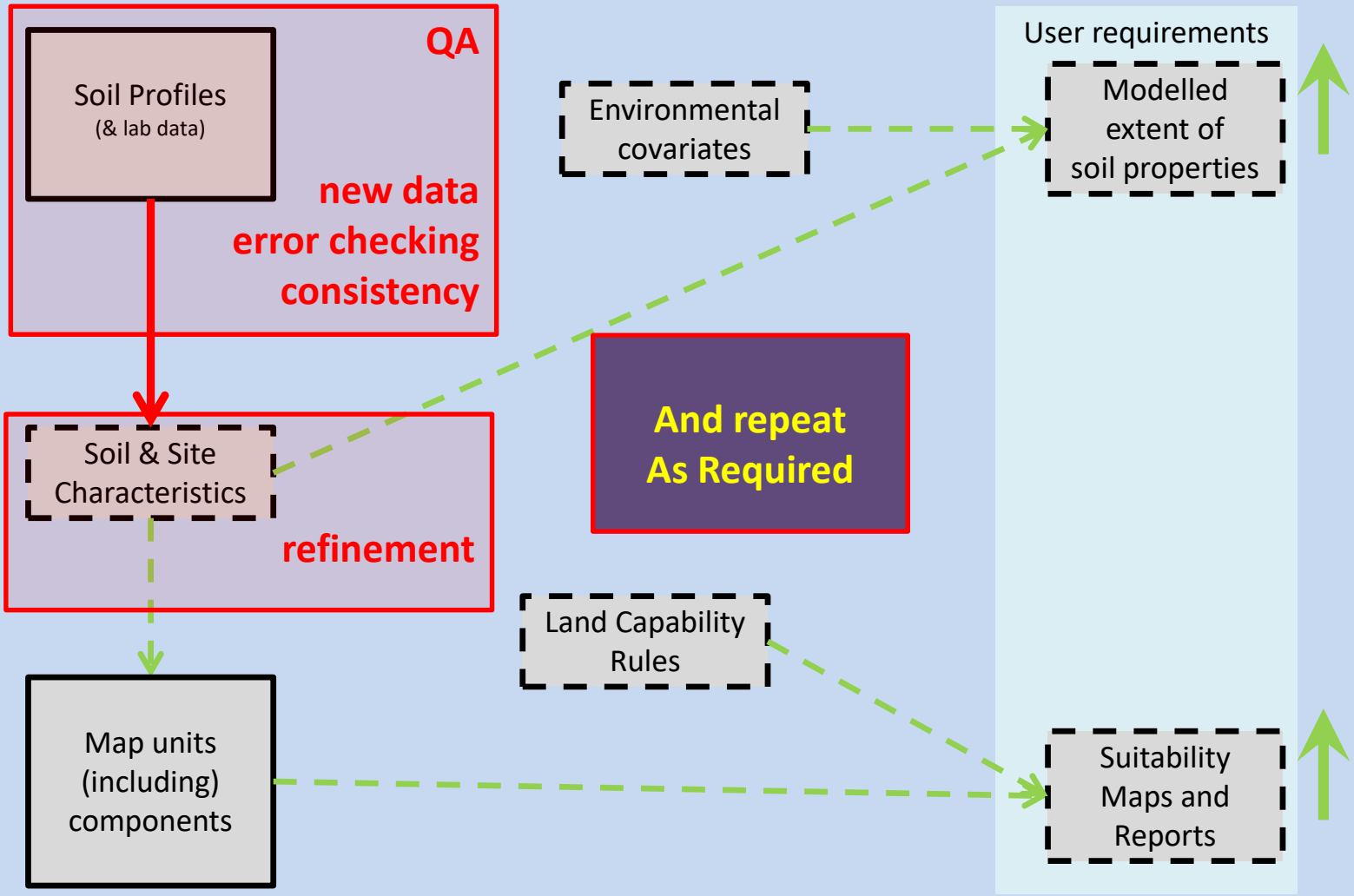
→Modelling and digital mapping

→User focused products

Soil vs Botanical

	Soil Survey/observation	Botanical Survey / observation
	Soil nutrient sampling	Herbarium specimen
	Site	**Quadrat/releve**
Brief observation	Soil type	Veg type
Detailed obs	Profile description	Species list
Inference	Soil classification	Plant community
Spatial extent	**Map unit**	**Map unit**
	rank	rank
	description	description
	soil types by %	(rarely done)
	Land capability maps	Maps of “rare” veg types
	Soil property maps and models	(not so easy to produce)

An integrated approach



Legacy Survey

Too valuable to ignore

Building on a Legacy

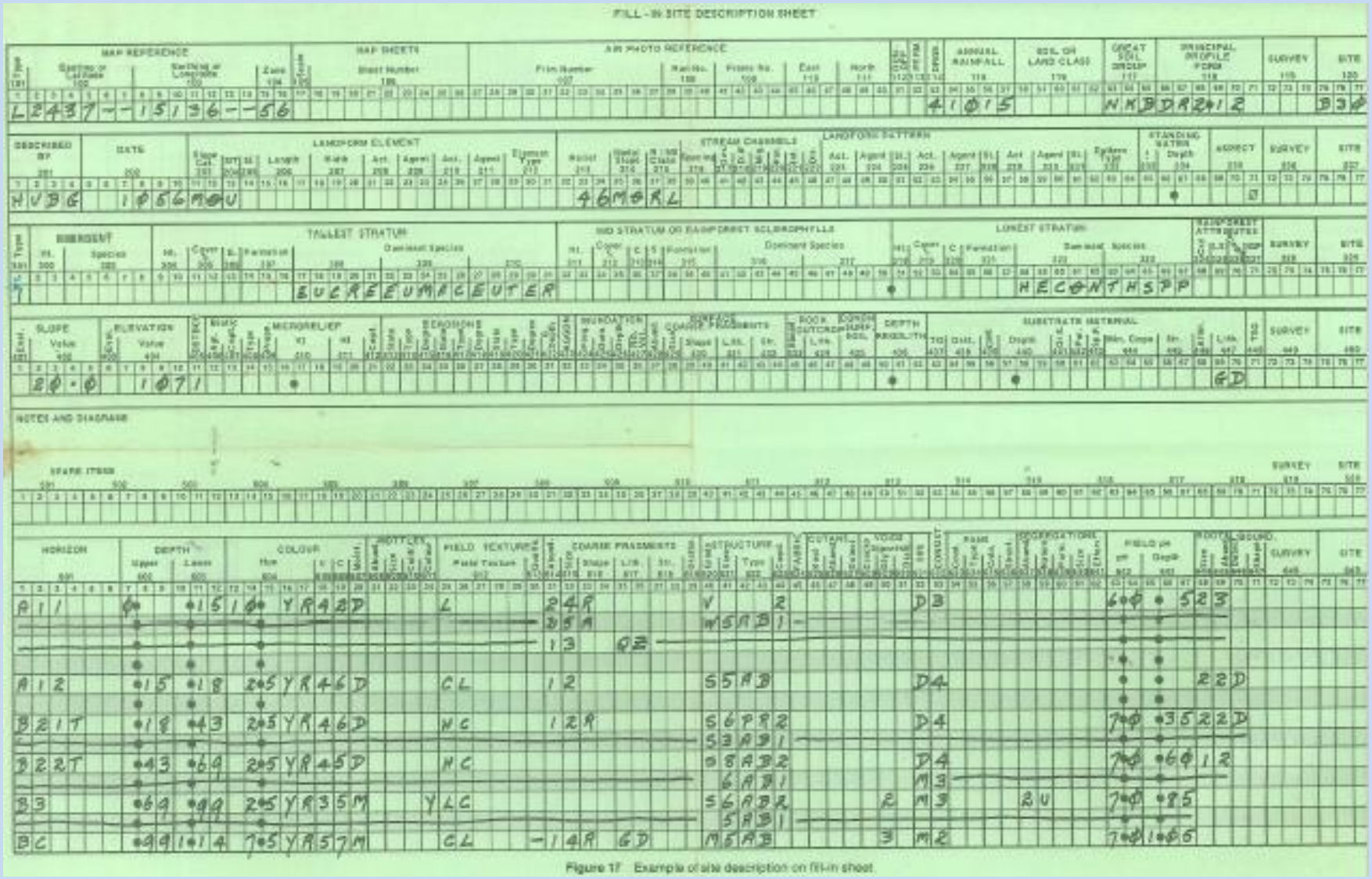


Figure 17 Example of site description on fill-in sheet

A new era; 1980 -->

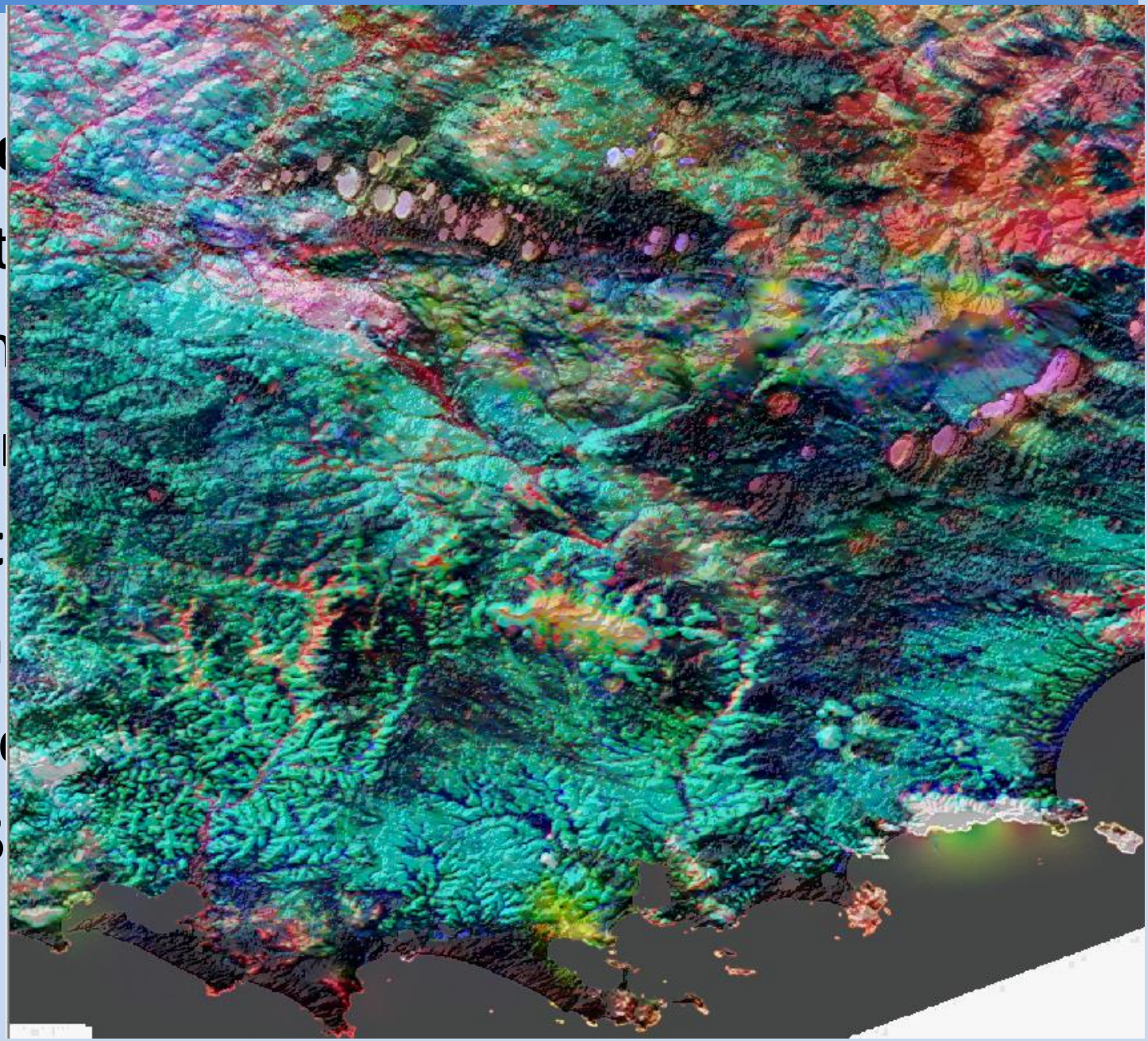
New evi

- Satellit
- Terrain
- Airbor

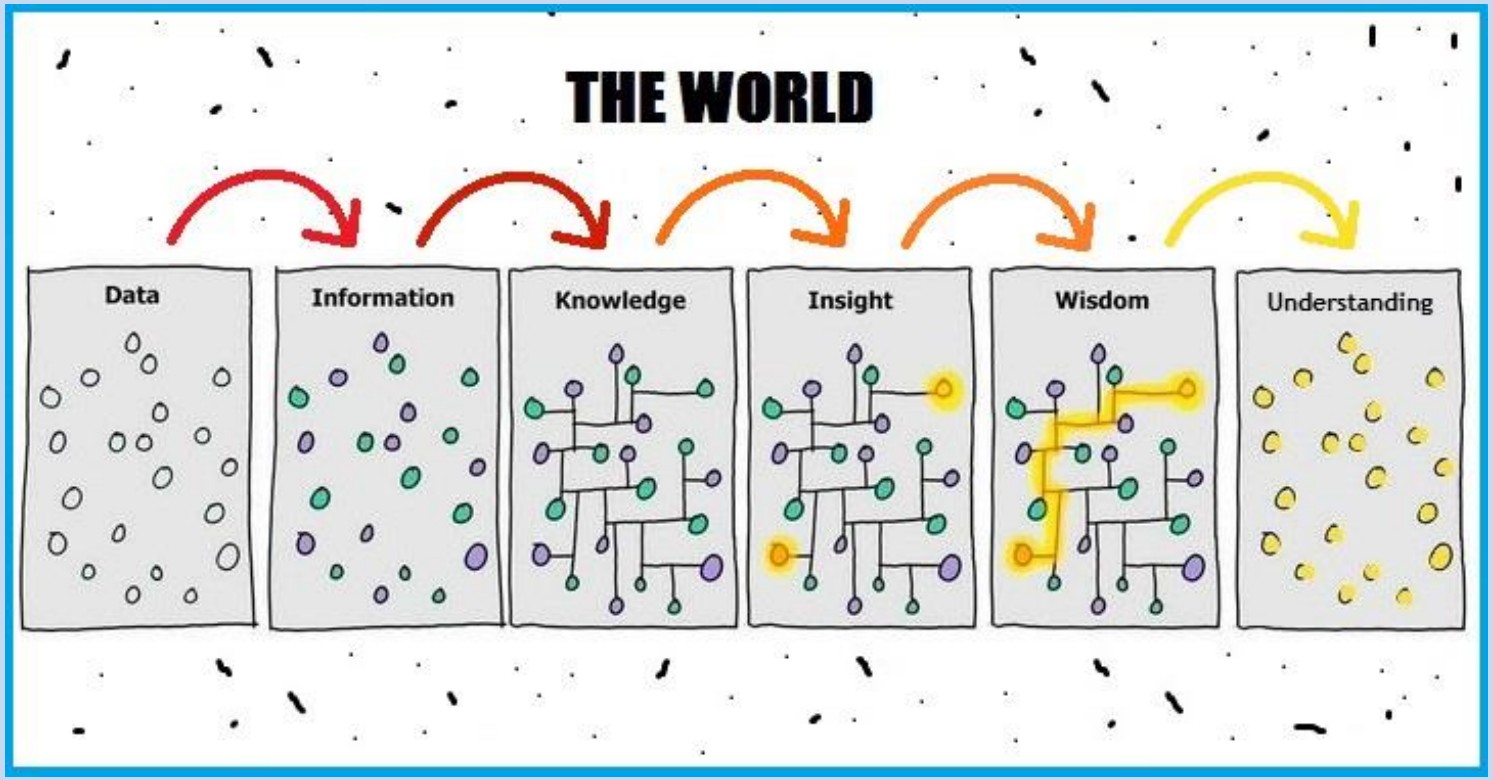
New dat

- Eg Ora
- MS Ac

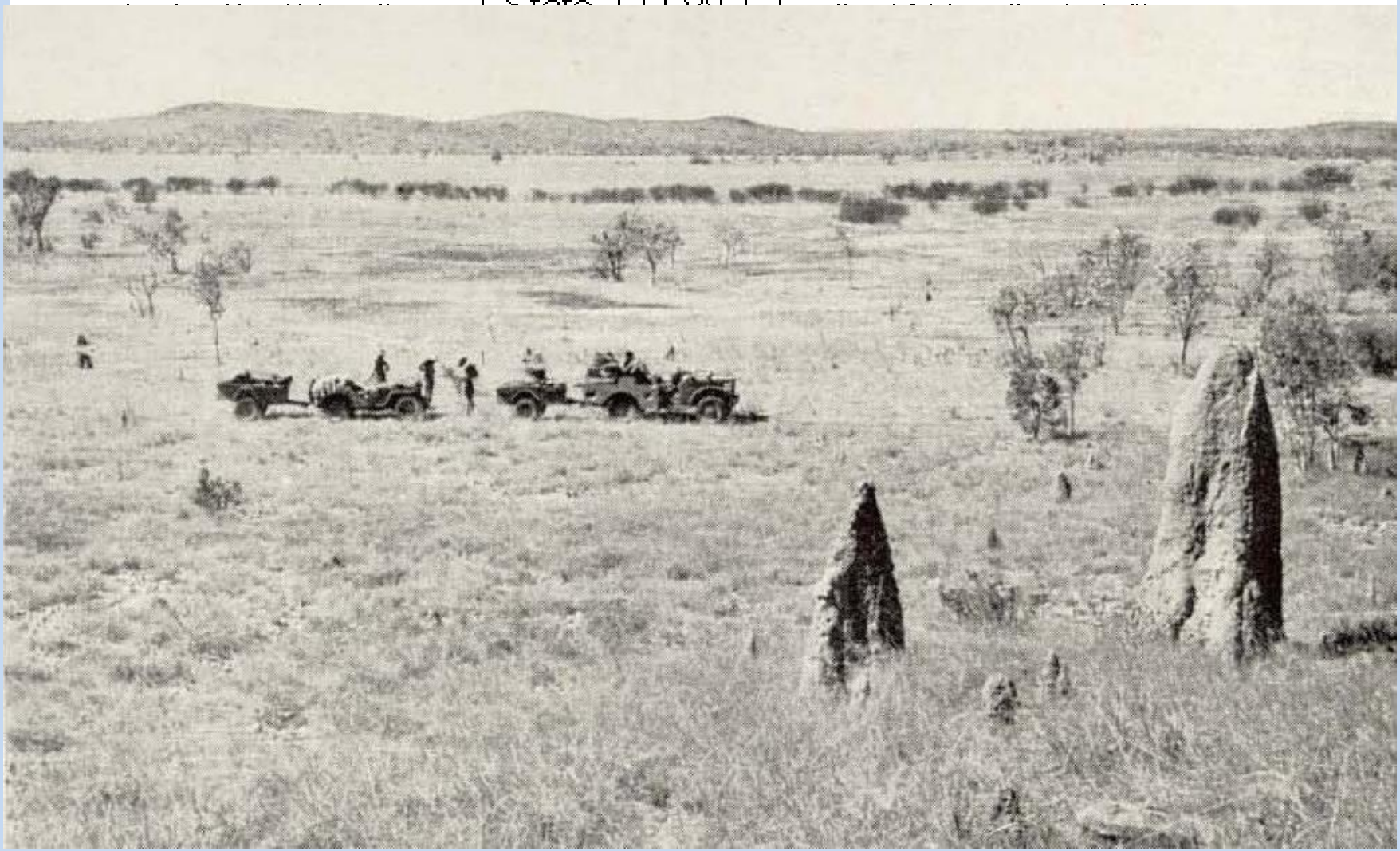
New GIS



We can do this better



Collaboration



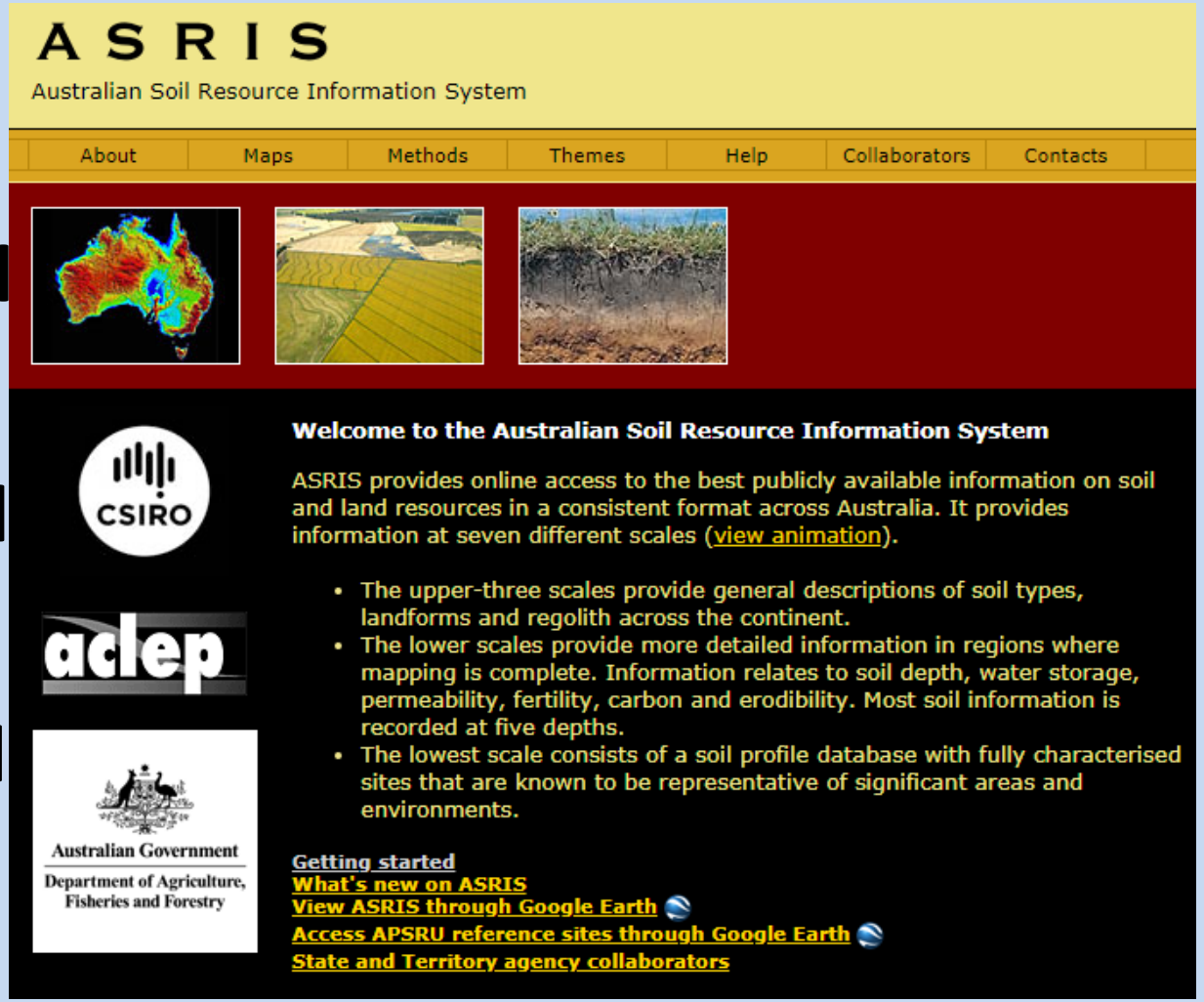
Collaboration

Mentoring and

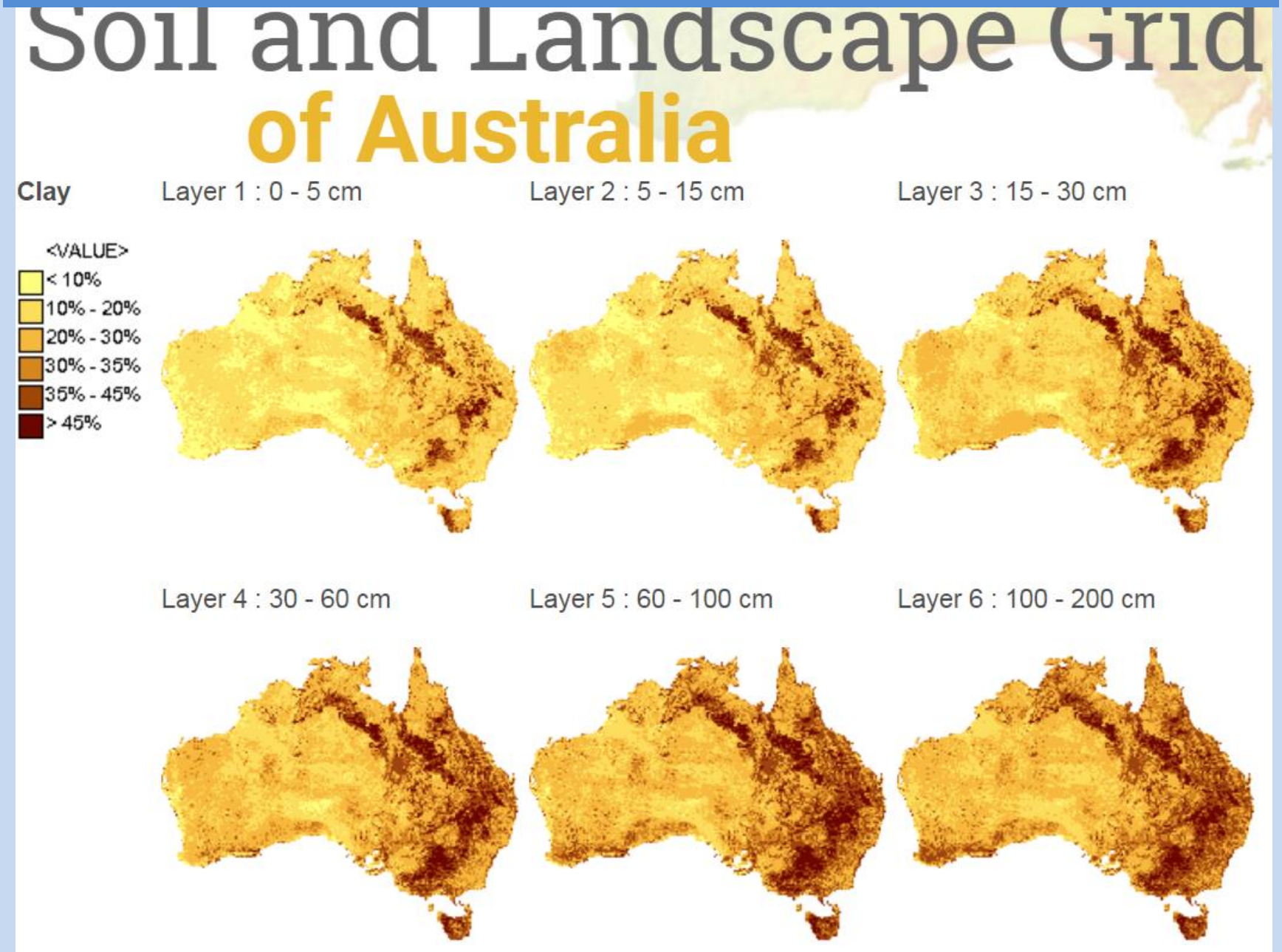
Databasedevel

Survey method

Collaborative d



Collaboration



Collaboration

Northern Australia Land suitability assessment

GRDC Subsoil constraints and Forest Gravels

Collaboration

Northern Australia Land suitability assessment

GRDC Subsoil constraints and Forest Gravels

- **New data and QA processes**
- **Data exchange rapid**
- **Sharing modelling tools approaches and review**

Data collaboration Reminder

Standard structure and codes

Compatible data structure

- **Enterprise – Desktop - Field**

Import / export tools

QA processes including annotating change

- **collaborative approach**

Be Prepared to be surprised

Questions you never thought of can be addressed when you have compiled data.

Thanks

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NRInfo (www.agric.wa.gov.au/resource-assessment/nrinfo-western-australia)

ASRIS (www.asris.csiro.au)

TERN Soils (www.clw.csiro.au/aclep/tern/index.html)