






**AAA Land Information**

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AUSTRALIA



***Acknowledge the members of the Centre for Spatial Data Infrastructures and Land Administration***





*A SIMPLE PROBLEM?*



**CSDILA**  
THE CENTRE FOR SPATIAL  
DATA INFRASTRUCTURES  
& LAND ADMINISTRATION



**NATIONAL INFRASTRUCTURE FOR MANAGING LAND  
INFORMATION (NIMLI)**

Australian Research Council Linkage Project  
2009 - 2012



**CSDILA**  
THE CENTRE FOR SPATIAL  
DATA INFRASTRUCTURES  
& LAND ADMINISTRATION

## Project Aim

*“To use an engineering approach to design and propose a new infrastructure for integrating disparate, state based land information and administration processes to meet national needs”*



## NIMLI Team (about 18 years of full-time effort)

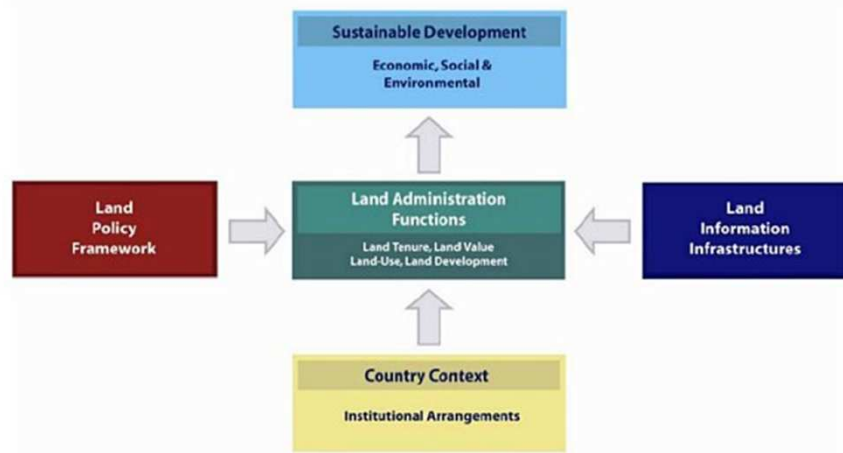
- Chief Investigators
  - Prof. Abbas Rajabifard (Project Leader)
  - Prof. Ian Williamson
- Researchers
  - Ms. Jude Wallace (SRF)
  - Dr. Rohan Bennett (RF)
  - Mr. Brian Marwick
  - Dr. Mohsen Kalantari (RF)
- Postgraduate Scholars
  - Ms. Nilofer Tambuwala
  - Ms. Katie Potts
  - Mr. Muyiwa Agunblade
  - Mr. Brian Marwick
- Industry Participants
  - Mr. Chris MacRae (Registrar of Titles, Executive Director, Land Victoria)
  - Mr. John Tulloch (Surveyor General, Land Victoria)
  - Ms. Jane Allen (Deputy Registrar of Titles, Manager Land Victoria Legal, Land Victoria)
  - Mr. Peter Goddard and Doug Walsham (Land and Property information, NSW)
  - Mr. Bruce Roberts (Landgate, WA)
  - Mr. Michael Dixon and Brian Marwick (PSMA Australia)



... and other members of CSDILA and the Geomatics Discipline



## What does a national land information infrastructure look like?

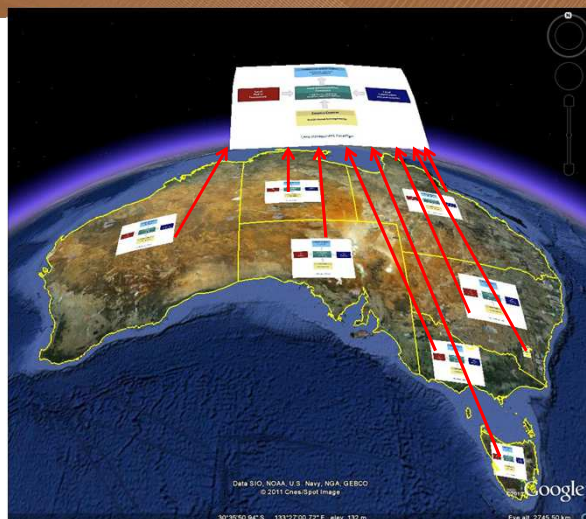


The Land Management Paradigm  
Enemark 2004

## The Australian reality...



## A national land management vision



## Benefits to Australian Federal Government

- Taxation and macro-economic policy
- Defence
- Disaster response
- Climate change response
- Social services etc etc etc
- *in fact almost every sector of the federal government requires access to large scale land information*



## What type of land information is required?

- The land registries provide government guaranteed titles with accurate cadastral surveys – but this is expensive?
- Growth of volunteered geographic information (VGI) or crowd sourced information ie GOOGLE
- Why use expensive land registry and cadastral information when VGI is available?



## NIMLI developed two new concepts (or terms)

- **AAA land information**  
(authoritative, assured, accurate)  
with a documented and legally valid  
audit trail
- **OPIT information** (owner, parcel,  
interest, transaction)



## So what is AAA land information?

- **Accurate** – with on-ground truthing
- **Authoritative** – created within a regulated legal environment
- **Assured** – government guaranteed

*Importantly provides an authoritative audit trail for other land information data sets and services*



## The value of registry information - AAA qualities

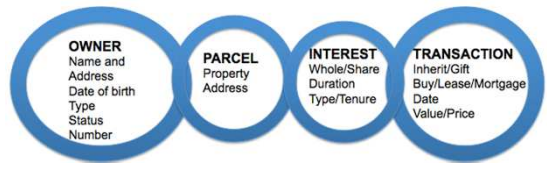
### AAA INFORMATION FROM LAND REGISTRIES

Accurate	Authoritative	Assured
On-ground accuracy of parcel information is scientifically built through surveying systems using reliable technology. Accuracy of text information comes from professional standards of lawyers and notaries.	Information is legally authoritative and evidentiary in courts.	Information is assured by statutory functions of the registries, risk management systems, and, in case of Torrens type land registers, is guaranteed.
<b>AUDIT TRAIL</b>		



## Roles of AAA LI in government

Increased engagement of coercive agencies in collection of OPIT land information.



AAA INFORMATION FROM LAND REGISTRY		
Access	Authenticity	Assured
<p>Information is available to all users of the system and is not subject to any access controls.</p> <p>Information is available to all users of the system and is not subject to any access controls.</p>	<p>Information is available to all users of the system and is not subject to any access controls.</p> <p>Information is available to all users of the system and is not subject to any access controls.</p>	<p>Information is available to all users of the system and is not subject to any access controls.</p> <p>Information is available to all users of the system and is not subject to any access controls.</p>

OPIT information is required for all compliance functions, especially fiscal enforcement

- National**      ATO, ABS, RBA, Human Services
- State**         Land tax, stamp duty
- Local**          Rating



The key to AAA is the parcel base

or for the initiated...

“the cadastre”

*the parcel base connects people to land*





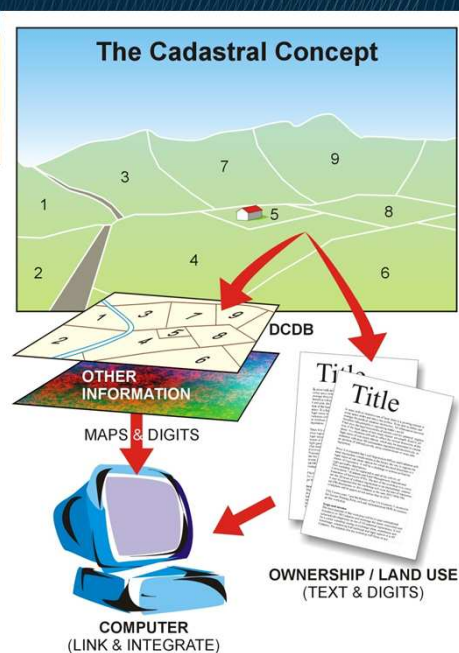
## The “Crown Jewels”

- AAA that allows ....
- a national cadastral data base that allows ....
- a national geocoded street address file, that allows such things as ....
- a national land conveyancing system.

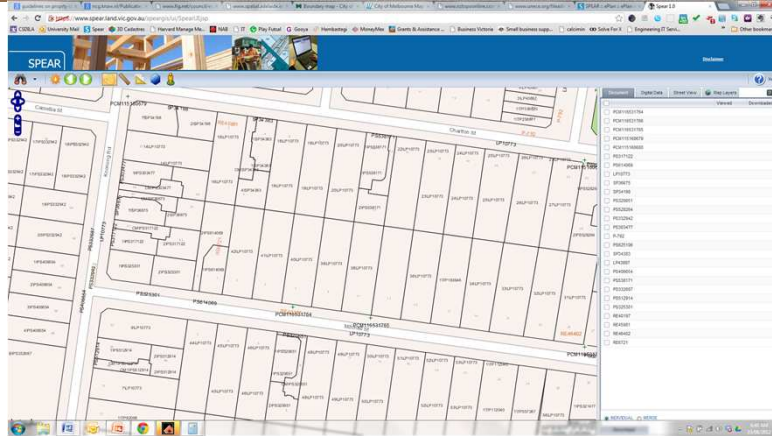


### The Cadastral Concept

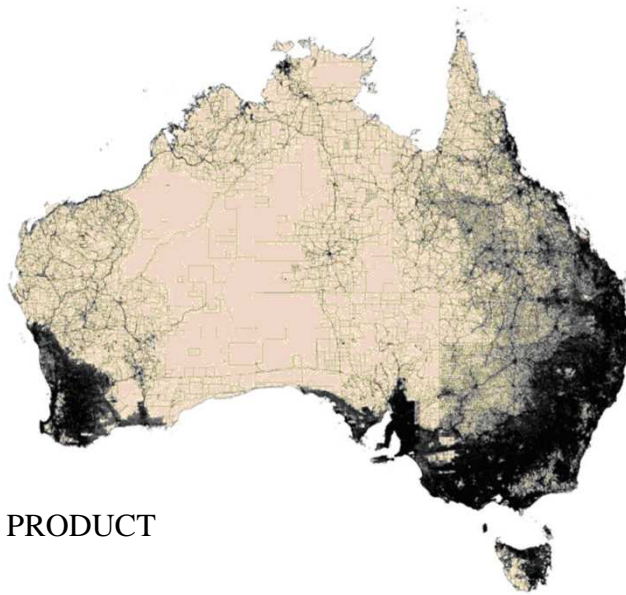
- The traditional view of the cadastre (buying, selling, leasing and mortgaging interests in land).
- The new approach makes the *cadastre central to spatially enabling government*



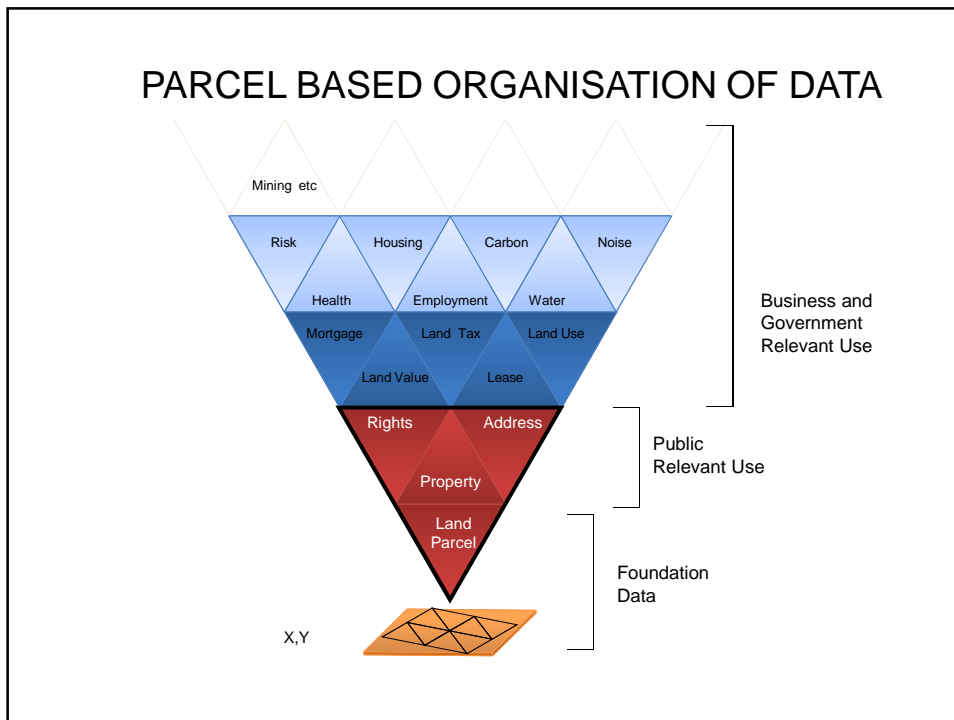
## Parcel Identifiers






## THE AUSTRALIAN CADASTRE



A PSMA PRODUCT



***But we need to better understand the role of AAA land information in a growing world of VGI and crowd sourced data***

## Spatial Data Continuum – fitness for purpose



## SUMMARY

- All spatial information is useful, but different types have advantages and disadvantages defining their fitness for purpose
- AAA standards are offered as a way of discriminating cadastral and land registry data
- This paper is also a plea for land registries globally to enter the information trade with confidence in their products



# CONCLUSION

*Importantly it is the land professionals who will need to provide the leadership if society is to fully benefit from AAA land information and the spatial information revolution*



1.0pm Tuesday ESRI desk

Complimentary copies and book signing

Free PDF available to universities

Category: Land Administration

## Land Administration for Sustainable Development

Land is much more than the earth we live on. The way land is administered can have a profound effect on social equity, economic growth, and environmental protection. We need well-managed processes in land administration that ensure sustainable development.

Authors Jan Williamson, Ulf Enemark, Jølle Walløe, and Abbas Rajabifard have spent more than three decades studying how people relate to land. In *Land Administration for Sustainable Development*, they show how these varying perceptions of land form the basis for building and reforming land administration systems (LAS). The book, which contains fourteen chapters covering the theory, history, and evolution of LAS, includes ten best practices for creating and reforming LAS in developed and developing countries.

The authors explore the capacity of the systems that administer the way people relate to land. A land administration system provides a country with the infrastructure to implement land policies and land management strategies. From the origin of the cadastre to organizing land rights to the increasing importance of spatially enabled government in an ever-changing world, the writers emphasize the need for strong geographic and land information systems for the future world.

*Land Administration for Sustainable Development* forms a solid basis for building the capacity of governments and people around the world to use modern technologies productively and sustainably, thus empowering future generations.

*"The material in this book is extremely valuable. It also represents a significant effort to assemble many important ideas in one document. It is timely and this should be done. The book is readable."*

Earl Spivey,  
Professor in the School of Environment and Natural Resources,  
The Ohio State University

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## Land Administration for Sustainable Development



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