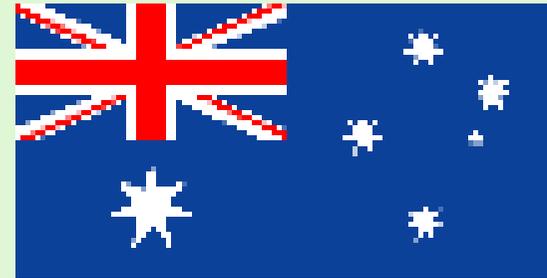
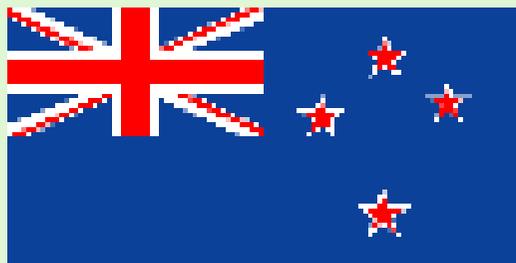


*FIG Commission 7 Annual Meeting  
2008, Verona, Italy*



## Country Report Australia (& N.Z.)



Dr David Mitchell  
Australian Delegate for Commission 7  
Director of Land Centre  
RMIT University, Melbourne



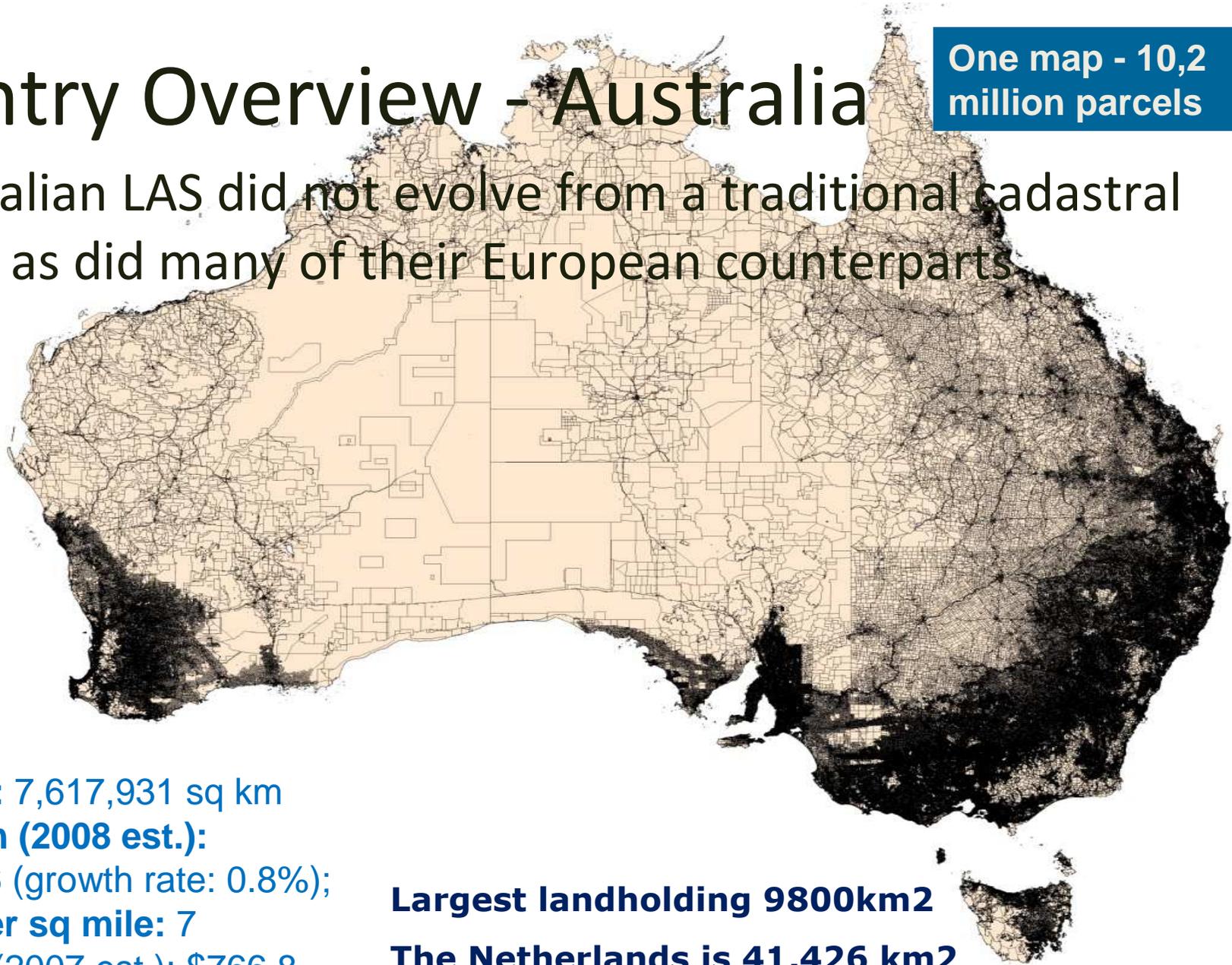
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# Country Overview - Australia

One map - 10,2 million parcels

- Australian LAS did not evolve from a traditional cadastral focus as did many of their European counterparts



**Land area:** 7,617,931 sq km  
**Population (2008 est.):**  
20,600,856 (growth rate: 0.8%);  
**Density per sq mile:** 7  
**GDP/PPP (2007 est.):** \$766.8 billion; per capita \$37,500.

**Largest landholding 9800km<sup>2</sup>**  
**The Netherlands is 41,426 km<sup>2</sup>**

# Australian land tenure

Tenure Type	km <sup>2</sup>	%
<b>Private land</b>	<b>4,819,600</b>	<b>62.7</b>
<b>Aboriginal and Torres Strait Islander land</b>	<b>1,094,800</b>	<b>14.3</b>
<b>Public land</b>		
- Nature reserve	524,100	29.6
- Aboriginal freehold	1,800	0.6
- National Park	960,700	54.3
- Vacant crown land	80,600	4.6
- Other crown land	148,200	8.4
- Forestry reserve(b)	11,000	0.6
- Water reserve	18,600	1.1
- Defence Land	5,000	0.3
- Mining reserve	8,900	0.5
- Mixed category lands		
<b>Total public land</b>	<b>1,767,900</b>	<b>23.0</b>
<b>Total</b>	<b>7,682,300</b>	<b>100</b>



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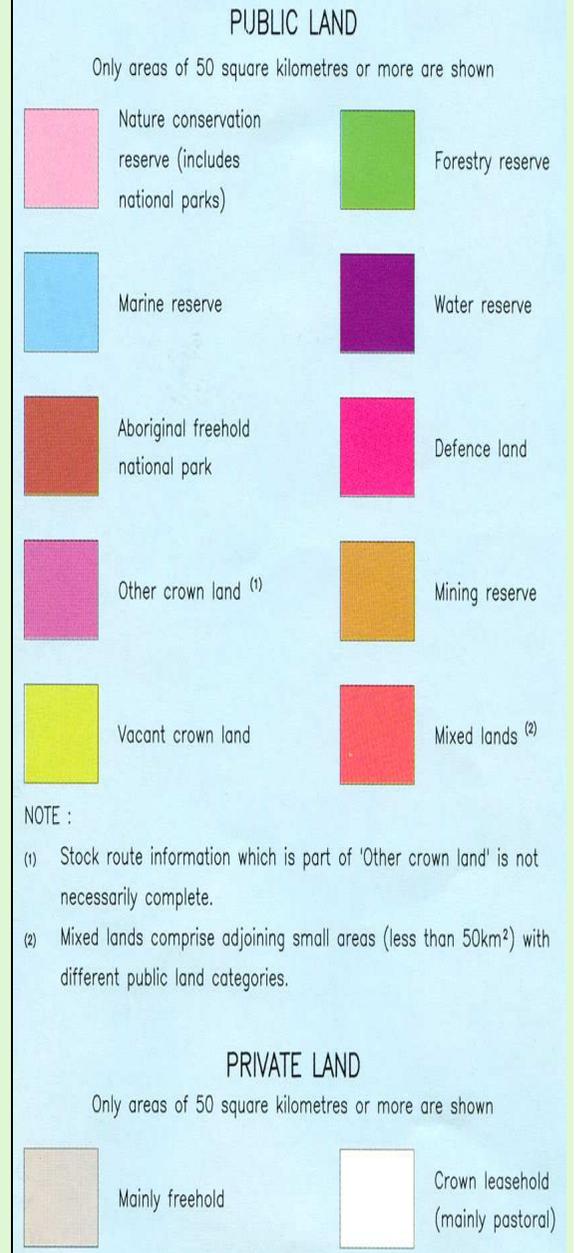


land\_tenure\_australia.jpg

# Australia – Land Tenure



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# New Zealand

- 2.4 million land parcels.
- Maori Land (held by the original inhabitants in their traditional forms of customary tenure covers 6% of NZ (1,514,000 ha) in 26, 840 titles. Average size is 59 ha (73 owners per block).
- 15,278 Maori titles (57%) are unsurveyed.
- The challenge is integrating Maori title into the cadastral system.



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# Key developments in Australasia

- Cadastral maps and all title registration records digital
- Towards e-Land Administration
- Further development of spatial data infrastructures
- The role of Cadastre & Land Management in the big issues facing Australasia



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# e-Land Administration

Australasia has embarked on a range of projects involving e-land administration:

- SPEAR
- ePlan
- eConveyancing
- “e-lodgement” in NZ

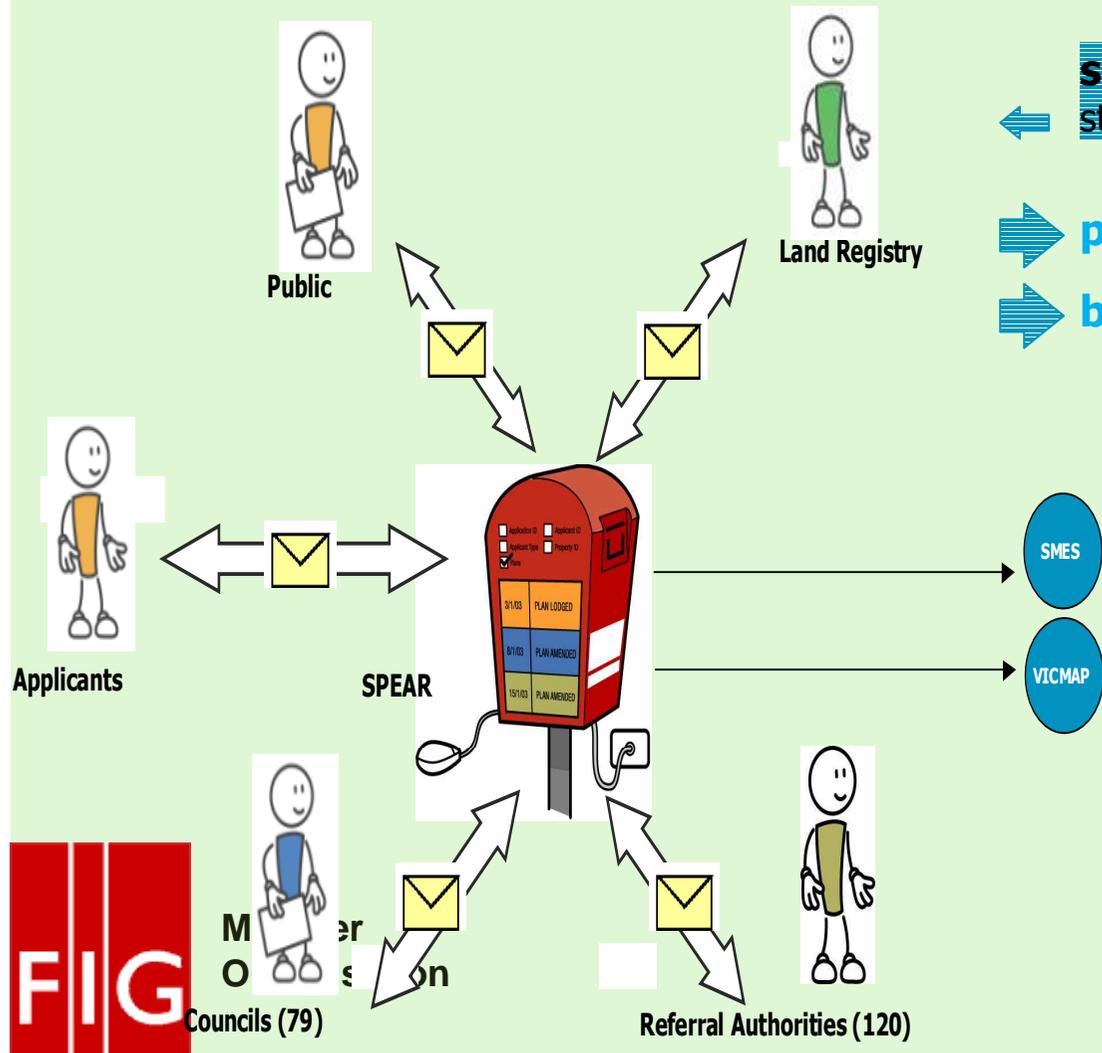


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# Streamlined Planning through Electronic Applications and Referrals (SPEAR)

allows subdivision applications to be compiled, lodged, managed, referred and tracked online



← **subdivision process** (planning, certification, statement of compliance, Land Registry)

⇒ **planning process** (land use and development)

⇒ **building process**

- Applicants lodge application and track its progress
- Councils receive, manage and refer applications.
- Referral Authorities receive and respond to referrals.
- Members of the public find out basic information about an application and lodge and view objections

# E-lodgement: LandOnline (NZ)

- a fully structured , intelligent and topological database with many of the business rules also automated, as envisaged by Cadastre 2014.
- Surveyors, conveyancers, and other land professional are able to access this data digitally and remotely and use in their own transactions or as information for other land developments and GIS.
- From July 2008 enables land professionals to search, and to lodge all title dealings and survey data digitally.
- Eliminates virtually all of the clerical and calculation errors that can occur with transcription of data onto paper plans.



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# Digital Signature/Certificates

- SPEAR requires Councils and Surveying organisation to have one or more ABN-DSC Digital Signature Certificates for use in SPEAR.
- Digital Certificates are purchased through a security company called [VeriSign](#).
- LandOnline (NZ) uses digital certificates.



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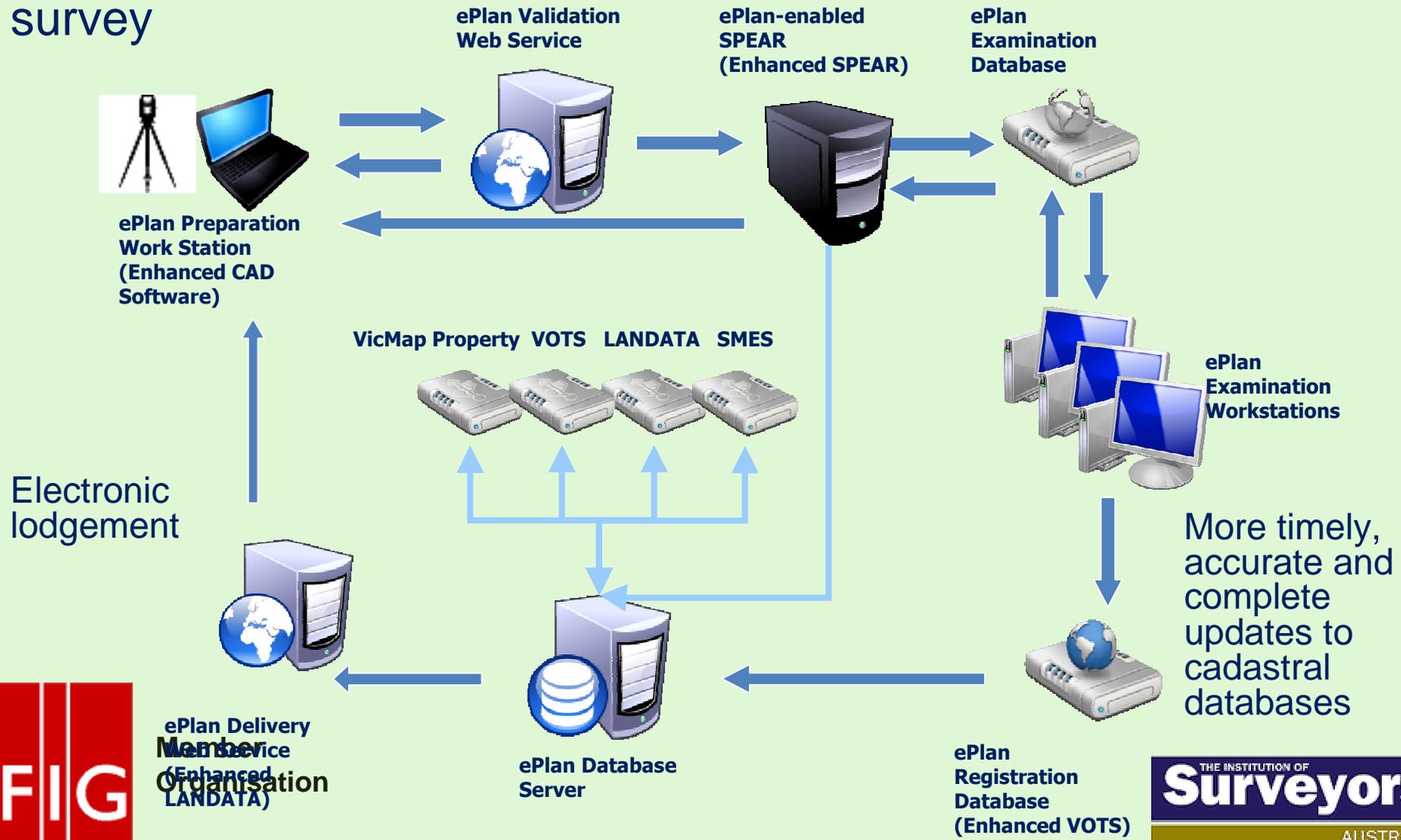
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ePlan will enable the creation of a data file of surveying information related to a subdivision survey

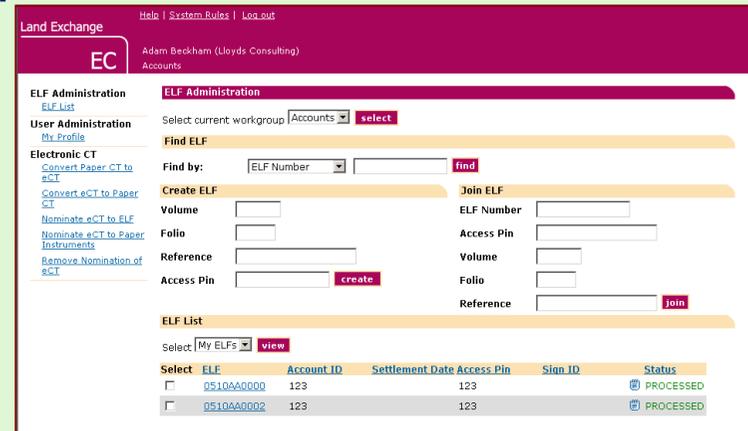
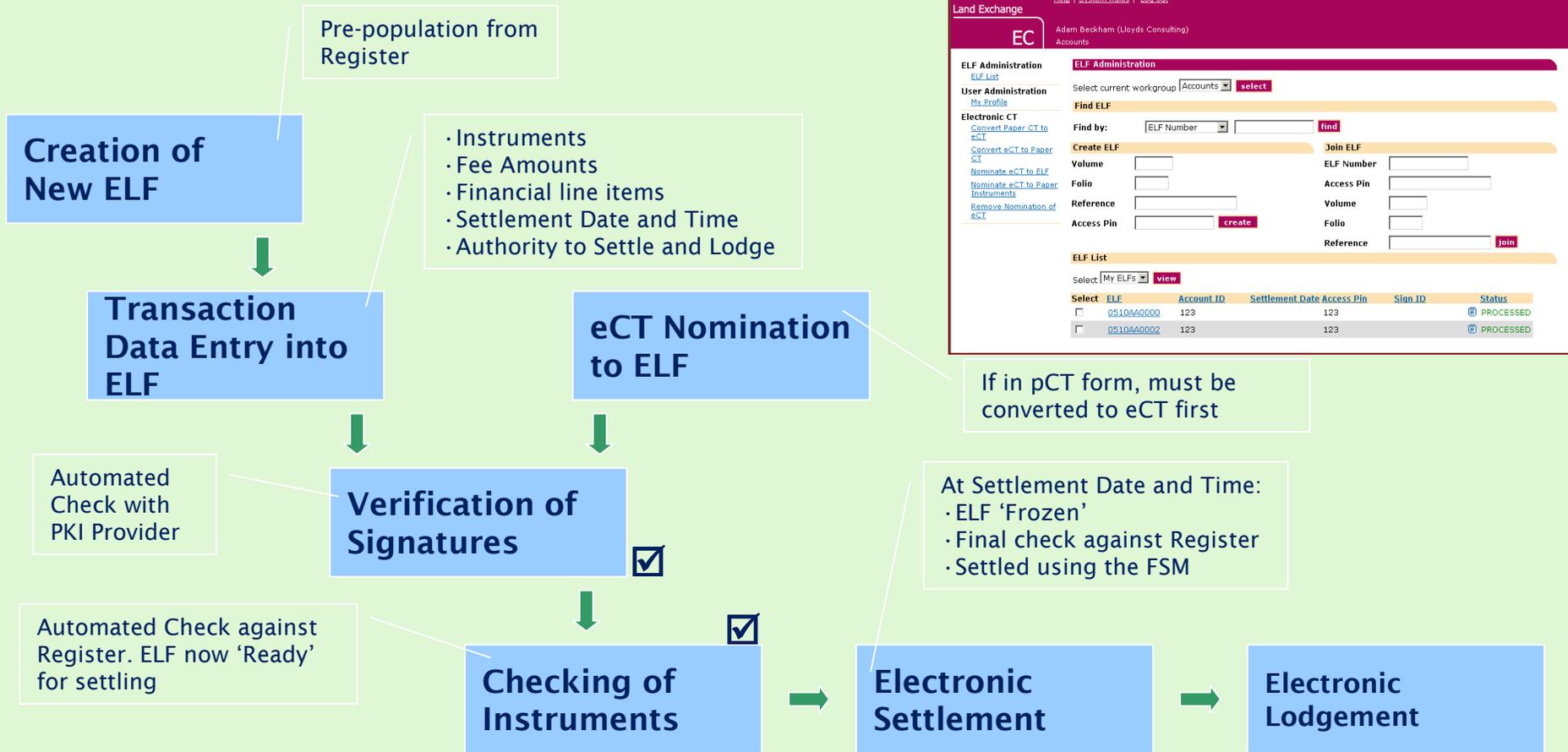
# ePlan

based on LandXML and will replace the paper/PDF Plan of Subdivision



# eConveyancing Process Overview

Electronic title document lodgement and online financial settlement of transfer – saving up to \$400 per settlement



# Challenges – accuracy of the cadastral mapbase

- To maximise the advantages that can be gained from e-land administration applications (in particular ePlan) it is most apparent that a survey-accurate digital cadastral data base is essential.
- The ACT currently have a survey-accurate DCDB.
- Victoria is finalising documentation for the development of a business case to improve the spatial accuracy of Vicmap Property“ that will develop the parameters of a survey accurate DCDB, but it is a work in progress.
- New Zealand has already developed a survey accurate digital cadastral mapbase.



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# Further development of SDI

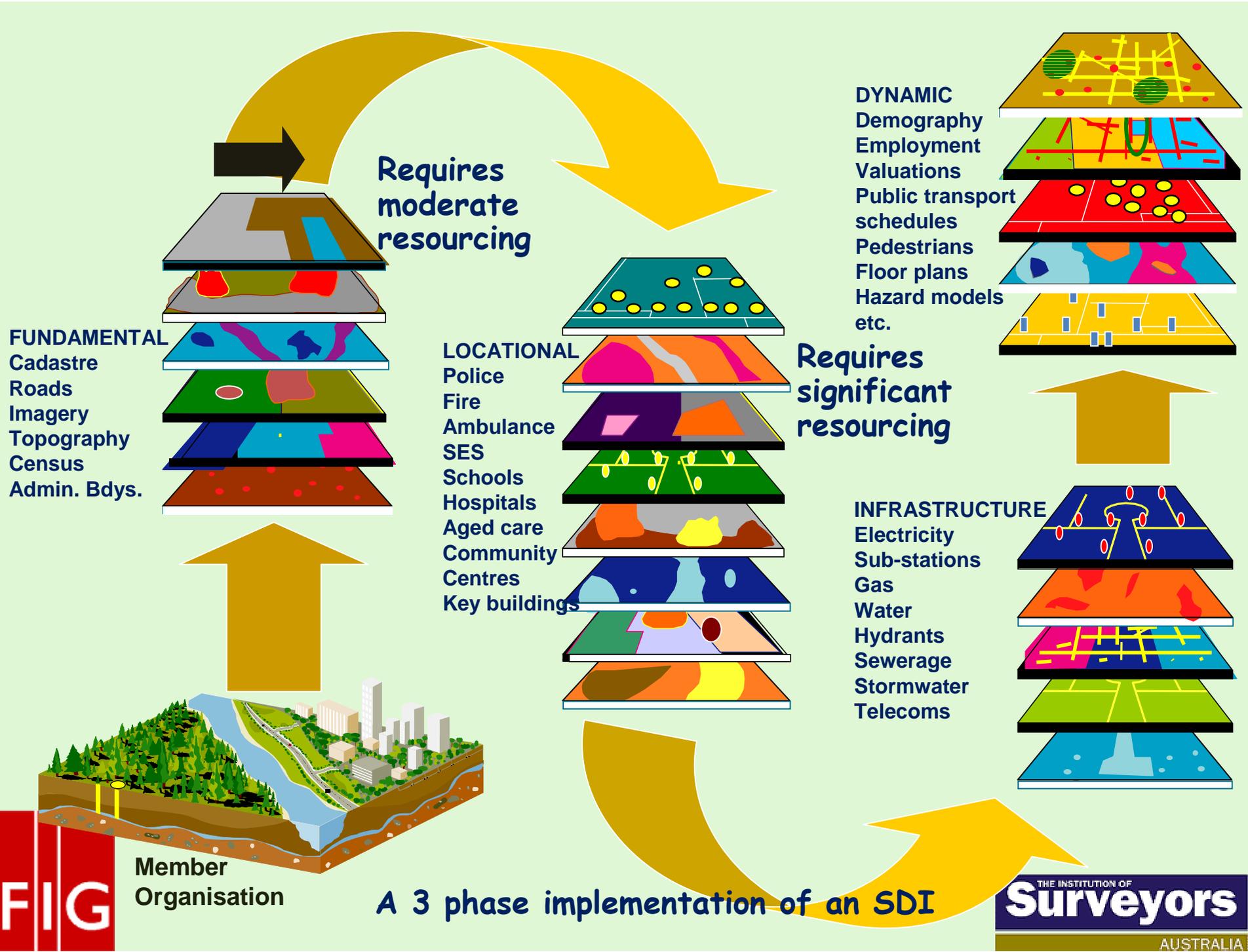
- Initial work has involved the development of key datasets such as property and road networks, and the associated ITC infrastructure.
- The next stage is representing dynamic data such as demography and property valuations, and infrastructure (e.g. Electricity, gas, water).
- This information is critical in assessing and responding to emergencies, for example.



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# Land information on the Web

- The dramatic improvement in land information available presents opportunities for land administration agencies to provide improved services to the community.
- Some examples of web-based provision of land information
  - Western Australian *SLIP Enabler*
  - The *Land Channel* in Victoria



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SLIP Portal - Win Interactive Map - Land Channel - Windows Internet Explorer

http://services.land.vic.gov.au/maps/interactive.jsp

Home | Help | Feedback | Privacy | About | Site Map

Products and Services | My Folder (0 items) | My Land.Vic Account

Street Directory On/Off

Local Council

MELBOURNE

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Contains commands for working with the selected items.

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# The role of Cadastre & Land Management in the big issues facing Australasia

- Scarce water supply
- Climate change mitigation and natural disasters
- Environmental degradation



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# Environmental degradation

- As in many countries, Australian land tenure rights and land use rights are separated.
- Institutions for natural resource management, land registration and land use planning are often separate in Australian States and Territories.
- Water conservation and management has become a significant issue in Australia and the impact of sustainable development initiatives is evident in the separation of land and water rights and the establishment of water trading.
- Moves to un-bundle property RRR have had a significant impact on LAS and a rationalisation of the manner in which property RRR are administered is under way.

# Carbon trading (NZ)

- Recent NZ legislation for trading carbon credits.
- Involves separate registry, inventory and trading agencies.
- The carbon units do not appear to be linked to the land or land rights (not recorded in the land registry).
- Carbon credits will be allocated for afforested areas but attached to the owner of the forest rather than directly to the land.



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# Scarce Water Supply

- Not an issue in NZ, but a big issue in Australia
- COAG facilitated water trading in Australia. Some initiatives:
  - The Victorian Water Register



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# Water

- Australia's initiatives in "unbundling" land to create separate, tradable commodities, including water titles, are now established
- Work is underway on integrating these water rights into existing land administration systems as much as possible (eg Victorian Water Register).
- No comprehensive analysis of the impact of unbundling land interests yet undertaken.

# Victorian Water Register

- The Water Register is a public register of all water-related entitlements in Victoria.
- The Water Register records water entitlements with integrity, enables proper water accounting, keeps track of the water market and produces crucial information for managing Victoria's water resources.
- Unbundling separates the traditional entitlements of water rights in districts and take and use licences on waterways into a:
  - Water share: high-reliability, and low-reliability where people have had access to sales water;
  - Delivery share in districts, or extraction share on waterways
  - Water-use licence or water-use registration for non-irrigators



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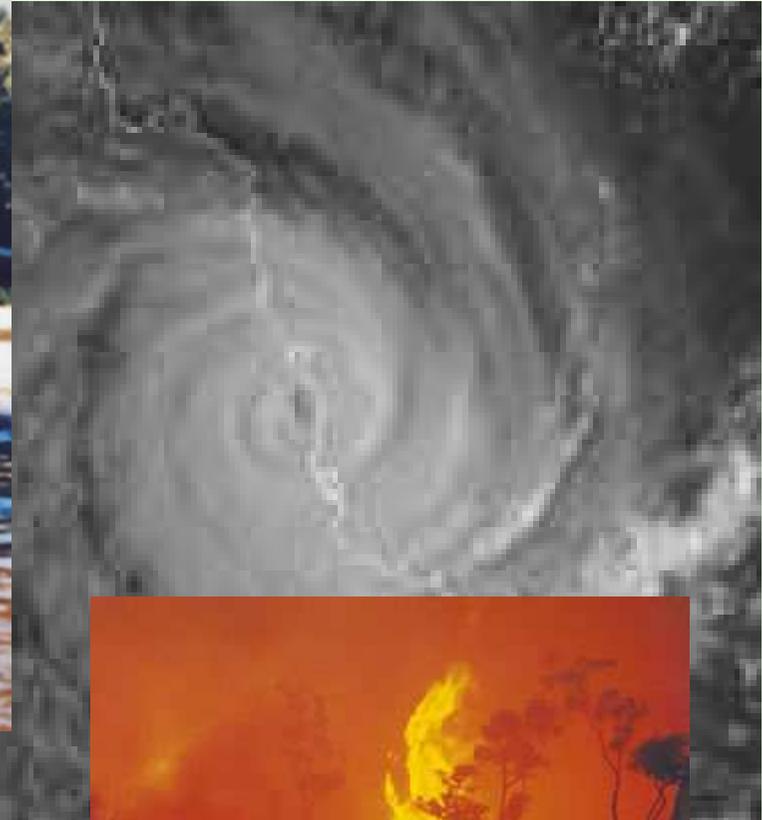
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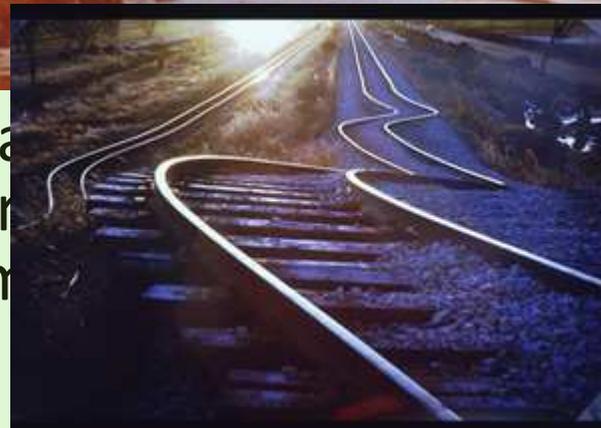
# Water shares

- Water share is a legally recognised, secure share of the water available for use in a defined water system. A water share is specified as a maximum volume of seasonal allocation that may be made against that share. Water shares may be high-reliability or low-reliability.

# Climate change mitigation and natural disasters



- Hazard mapping and land tenure of the community most vulnerable



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# Maori communal lands (NZ)

- Although the original concept was of communal ownership and individual use rights the individual interests have, over the years, been converted to individual fee simple titles by orders of the Maori Land Court.
- However many of these written orders were never followed up by survey (because of costs and in some cases difficulty in interpreting the Court Orders), so they could not be fully registered in the Land Transfer system. Some were able to be provisionally registered based on a diagram, but these could not be adequately recorded in the spatial cadastre or used for security.
- An interim process was developed to carry out a computed survey based on the Court Order fitted to the underlying survey, without any field survey work. This enabled the issue of provisional Torrens titles and also enabled their portrayal in the spatial cadastre, albeit not as necessarily as accurately as a fully surveyed parcel. The survey process make full use of the structured data base and digital lodgement.



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Thanks for listening Mate!

