

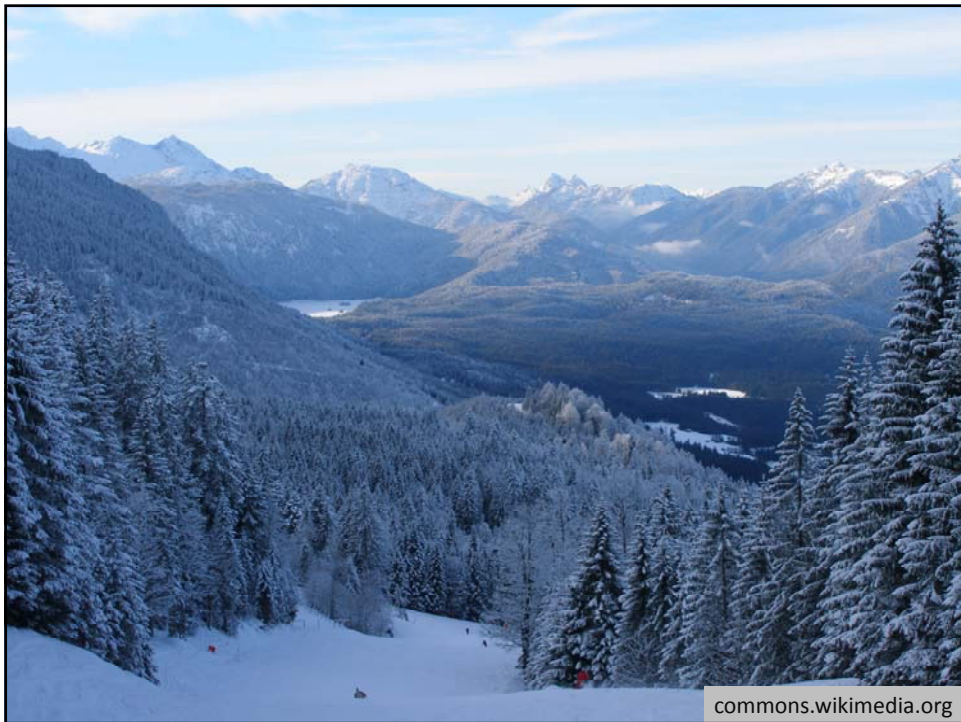
Spatially Enabled Government

Providing spatial information to
government, business & citizens in NSW



Warwick Watkins AM
Chief Executive
Land and Property
Management Authority









International Federation of Surveyors
Fédération Internationale des Géomètres
Internationale Vereinigung der Vermessungsingenieure

ABOUT FIG SEARCH FEEDBACK

Article of the Month April 2010

Spatially Enabled Government in New South Wales, Australia ¹⁾

Warwick Watkins AM and Dr. Pedro Harris, Australia

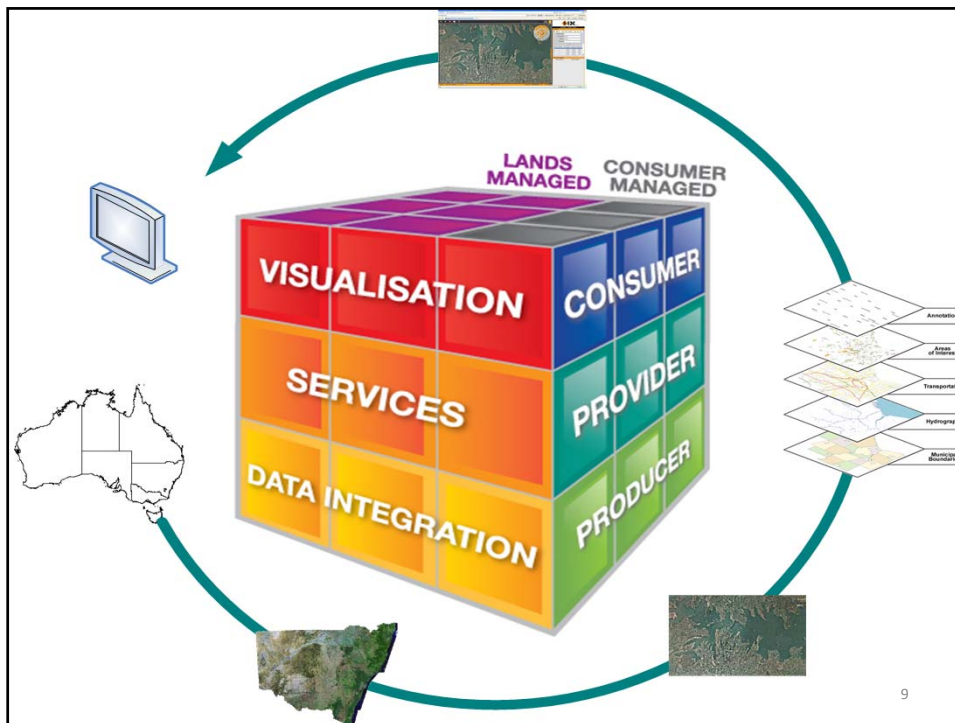


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Location Intelligence

- It is about...
 - Informed decision-making - collaboration
 - Access to shared spatial information
 - Spatial infrastructure as a service - platforms
 - Smart applications – PDA, computers, cloud
 - Enabling frameworks – access provisions – SLA
 - Real time mash-ups – people, sensors, services

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Location Intelligence

1990 – 2003

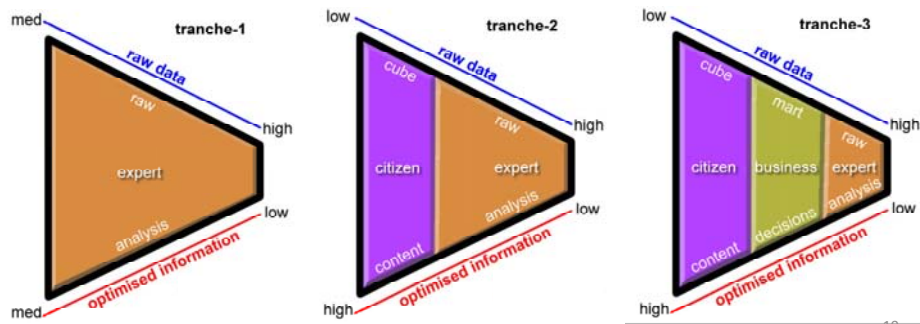
- Experts only
- Raw datasets
- Heavy analysis

2004 – 2007

- Citizen participation
- Content, not data
- Specialised outputs

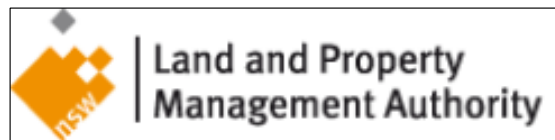
2008 onwards

- Business focus
- Data marts
- Focus on decisions

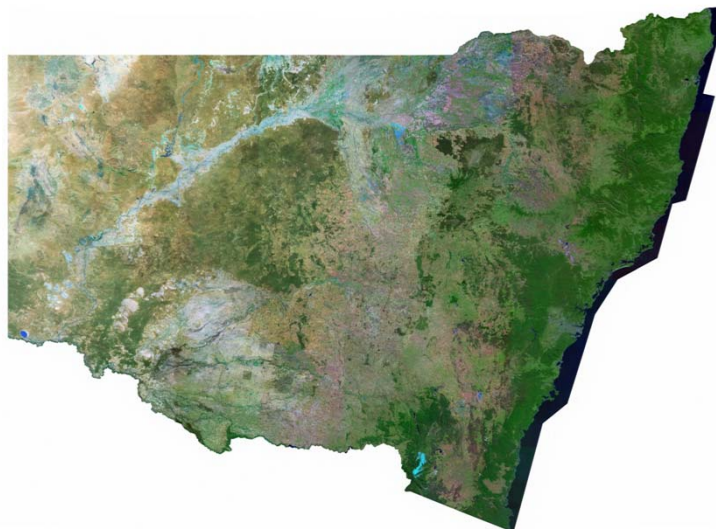




Providing spatial information to
government, business & citizens in NSW

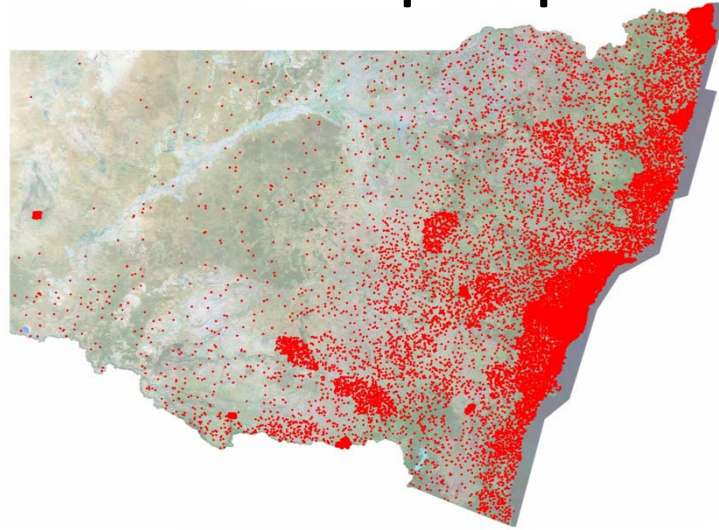


New South Wales



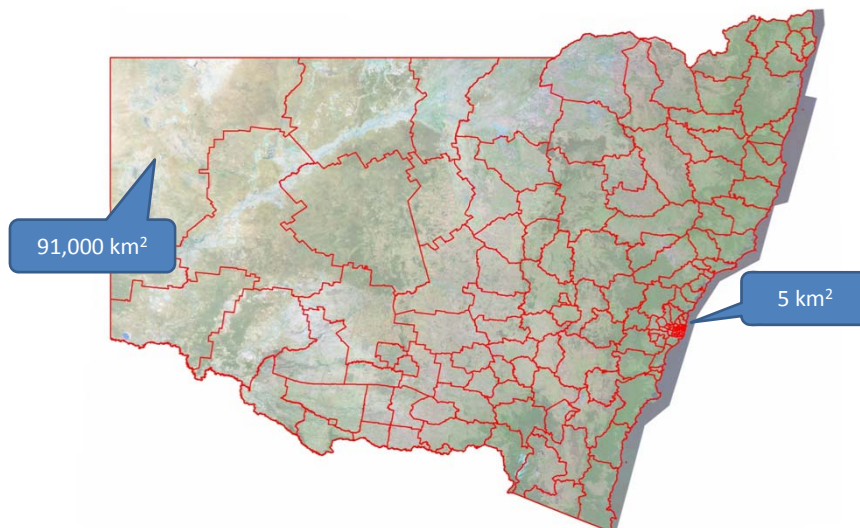
800,000 km²
(about the size of Texas)

6 million people

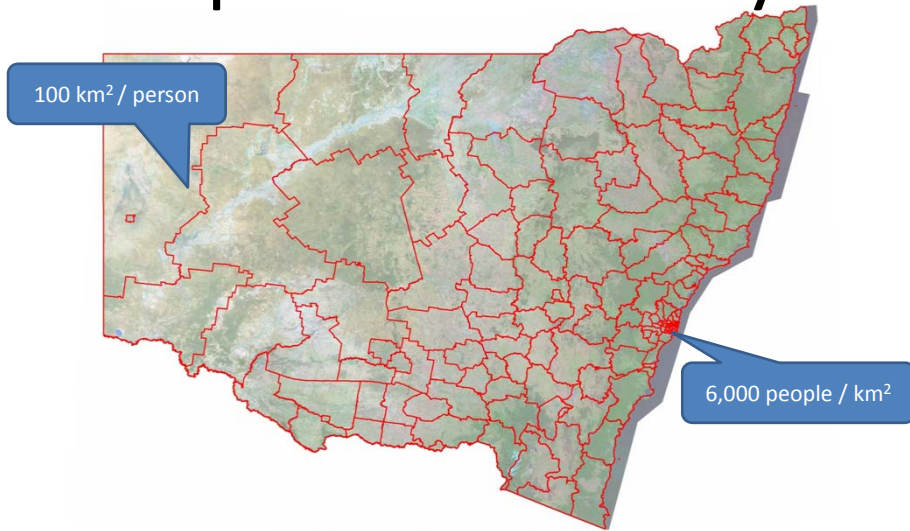


(about ¼ the population of Texas)

152 Local Councils



Population density



Surveyor General's Dept



Australian National Maritime Museum

Surveyor General's Dept

Rich Soil, Good Timber.

QUARTER ACRE BLOCKS
ONLY £8 EACH
10/- deposit, 5/- monthly.

HALF ACRE BLOCKS
ONLY £15 EACH
£1 deposit, 10/- monthly

NO INTEREST.

Most suitable for
 Vineyards,
 Poultry Farms,
 and Suburban Residences

SCANDLING SHED
 ROAD
 TORRENS TITLE

Block 32 31
 30 29 28 27
 26 25 24 23
 22 21 20 19
 18 17 16 15

1 B2

CHURCH RIVER
 OCEAN

LPMA

From parchments...

AVENUE

5 6 7 8 9 10 11 12 13 14

App? **C** 10263

426-948

561-269

29

24 23 22 21 20 19 18 17 16 15

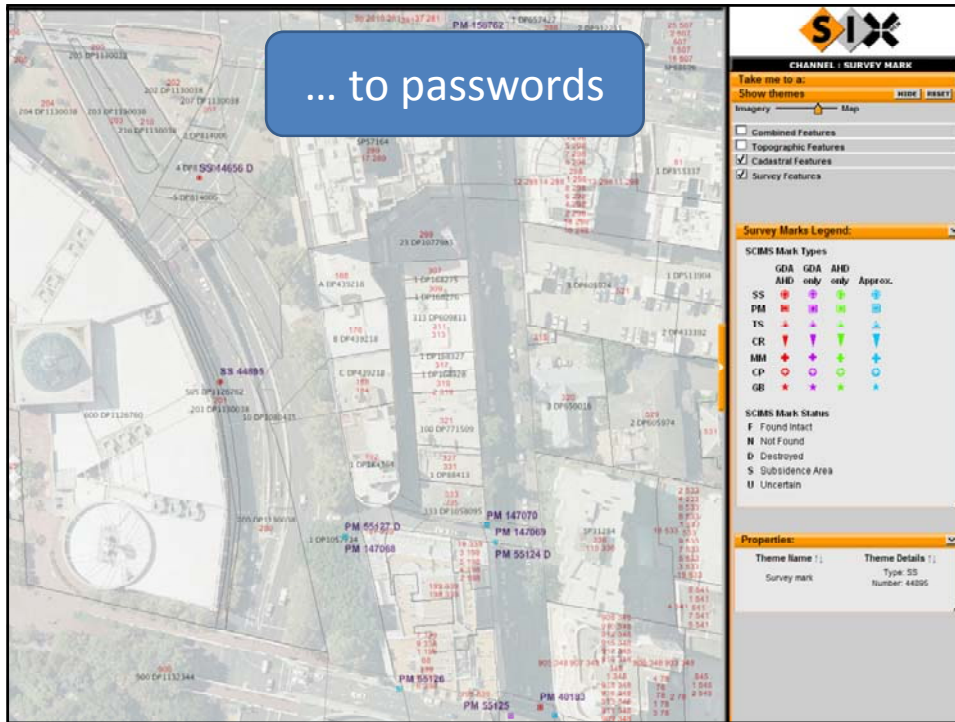
VENUE

1 2 3 4

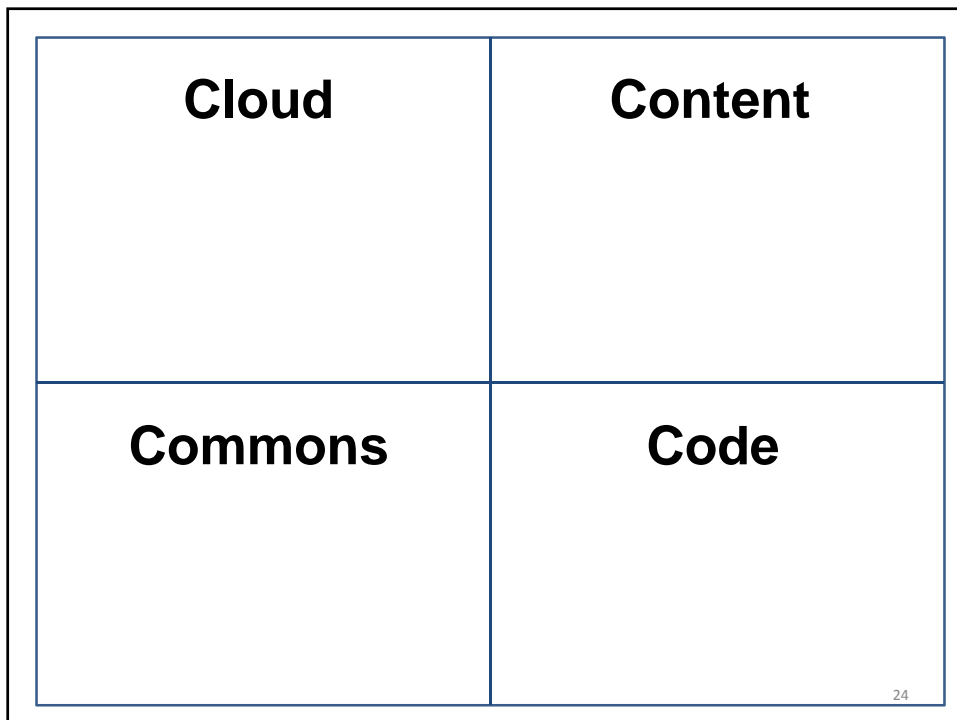
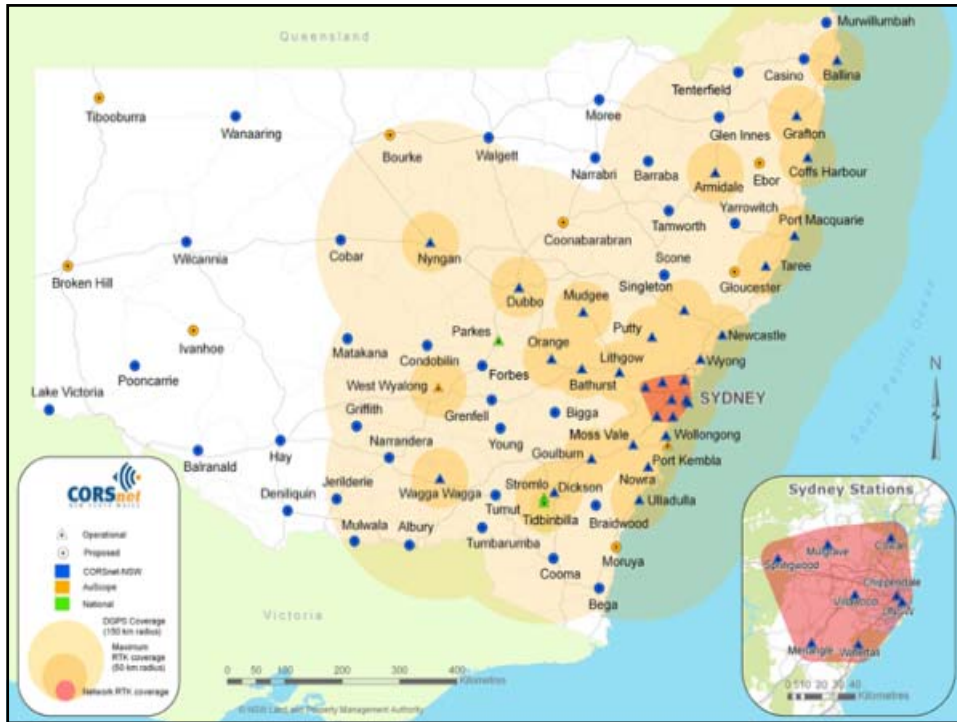
WOODS

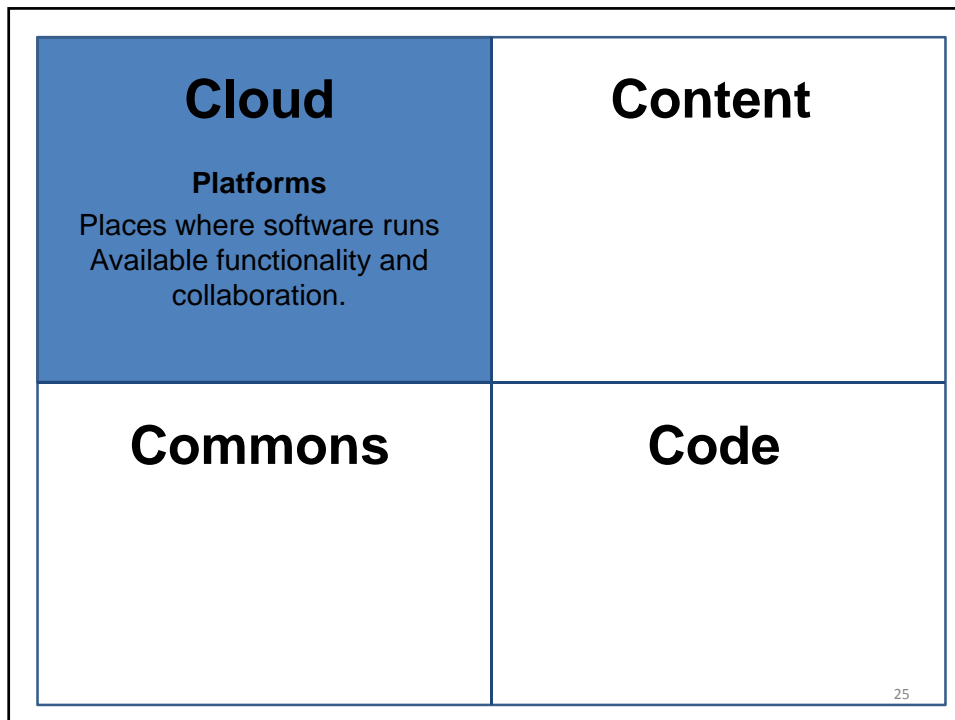
W.A. HARPER
 Licensed Surveyor
 UNDER REAL PROPERTY ACT
 Beresford Chambers
 CASTLEREACH ST

LPMA



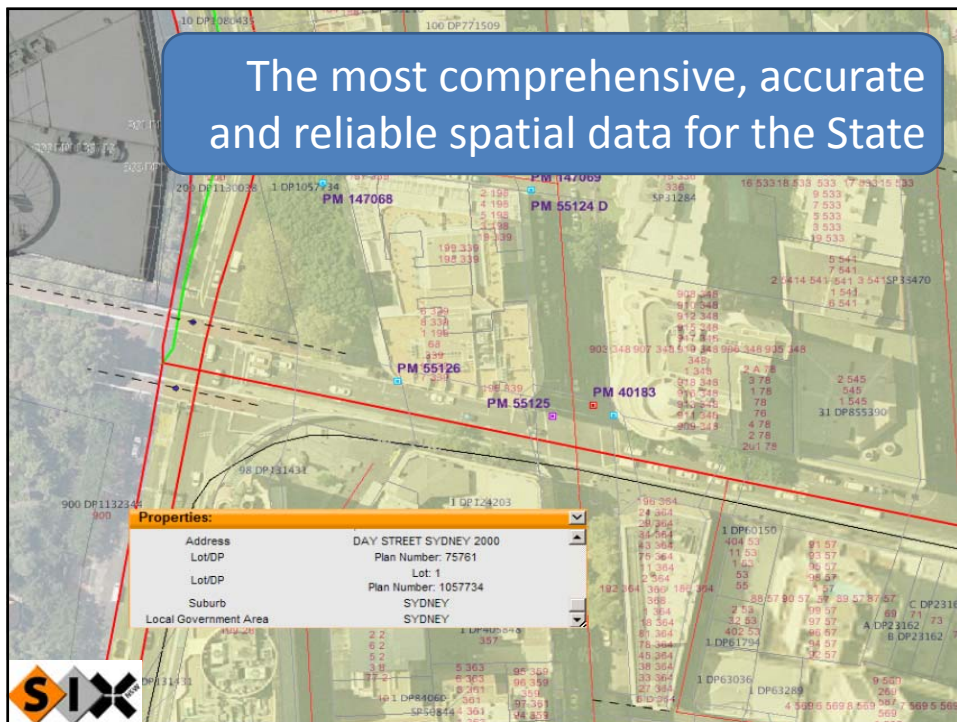
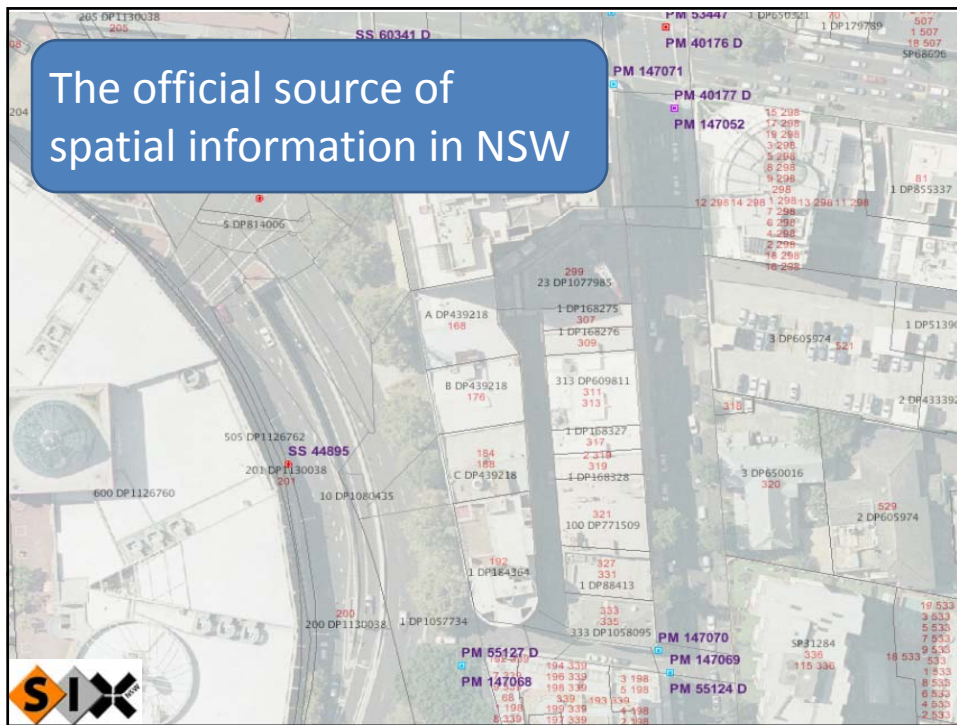






Spatial Information eXchange







Platforms



Spatial Information eXchange







The Free Wiki World Map





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SIX SPATIAL INFORMATION EXCHANGE Ask Government | Contact LPMA

HOME VIEW ONLINE SHOP EXPLORE CONNECT SUPPORT SERVICES

Welcome to SIX

The official source of NSW's geospatial information, possessing the most comprehensive, accurate and reliable spatial data for the State and we currently service the needs of many sectors within the spatial data community.

Login access to SIX Portal is provided to Government users, rating authorities, survey sector clients and authorised Land Valuers. Login arrangements are detailed in [Support](#)

Aerial/Satellite Imagery and Spatial Information

LOGIN TO SIX

User Name:

[Forgotten Password?](#)

HAVE YOU SEEN?

- LPMA Aerial Photography Flight Schedule
- PIXel provides easy access to maps and plans
- SIX LITE - Public access to NSW spatial information
- SIX Viewer - Access to advanced tools & rich data
- Town Imagery February 2010
- GNS reference station network

GET THE SIX VIEWER

[SIX Viewer](#)

View enables users to integrate and view a wide selection of NSW spatial datasets, including property, cadastral and topographic information, satellite

Online Shop provides direct access to various online searches such as land title searches, valuation services and image and plan services.

Explore enables users to search, access and view LPMA's metadata, as well as to contribute to the NSW Spatial Data Infrastructure (SDI) hosted by LPMA.

[Click here to explore LPMA's Metadata](#)

Connect provides details about the electronic delivery channels available to customers wanting to access and apply LPMA's key spatial datasets within their own applications.

[Click here to connect to LPMA's webservices](#)

Support provides access to the latest information on LPMA Spatial developments as well as help and support contacts, privacy statement and the terms of use of the information contained here.

[Click here for more information](#)

SIX Portal online

SIX SPATIAL INFORMATION EXCHANGE Ask Government | Contact Lands

HOME VIEW **SIX-ONLINE** EXPLORE CONNECT SUPPORT

Welcome Danny Savic | Log Out | SIX ONLINE > Search Shopping Cart

- > My Account
- > Torrens / OS Services
- > Inquiries
- > Doc/Img Req.
- > Land Value
- > Cadastral
- > Utilities

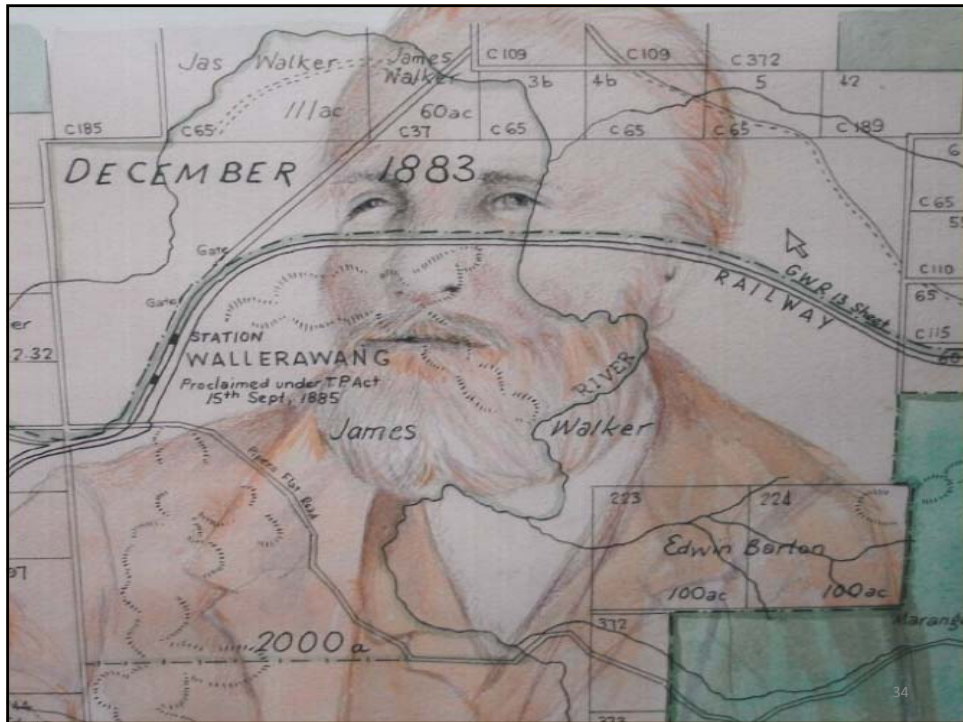
Property > Search Results Help?

[Back to search](#)

LPMA records for (1 Little Lane, Sydney, NSW 2000)

Service	Cost	Samples
<input type="checkbox"/> Title Search	11.00	View sample
<input type="checkbox"/> Historical Search	11.00	View sample
<input type="checkbox"/> Plan Image	11.00	View sample
<input type="checkbox"/> Land Value	11.00	View sample
<input type="checkbox"/> CRE Request	FREE	View sample
<input type="checkbox"/> Mini Map	N/A	View sample
Total		\$100.00

Online shop

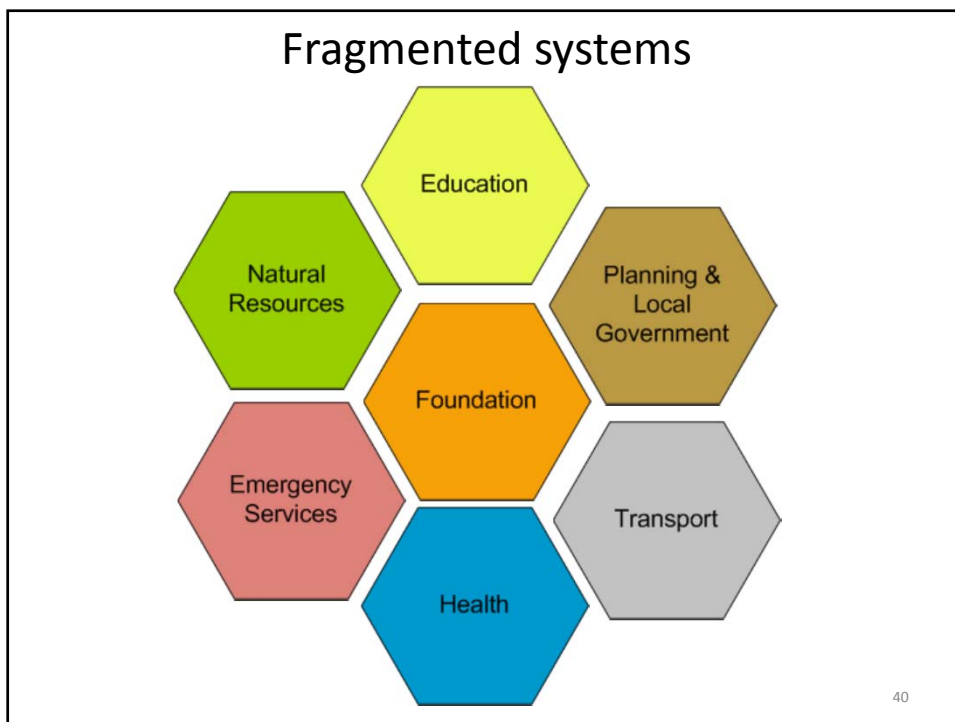
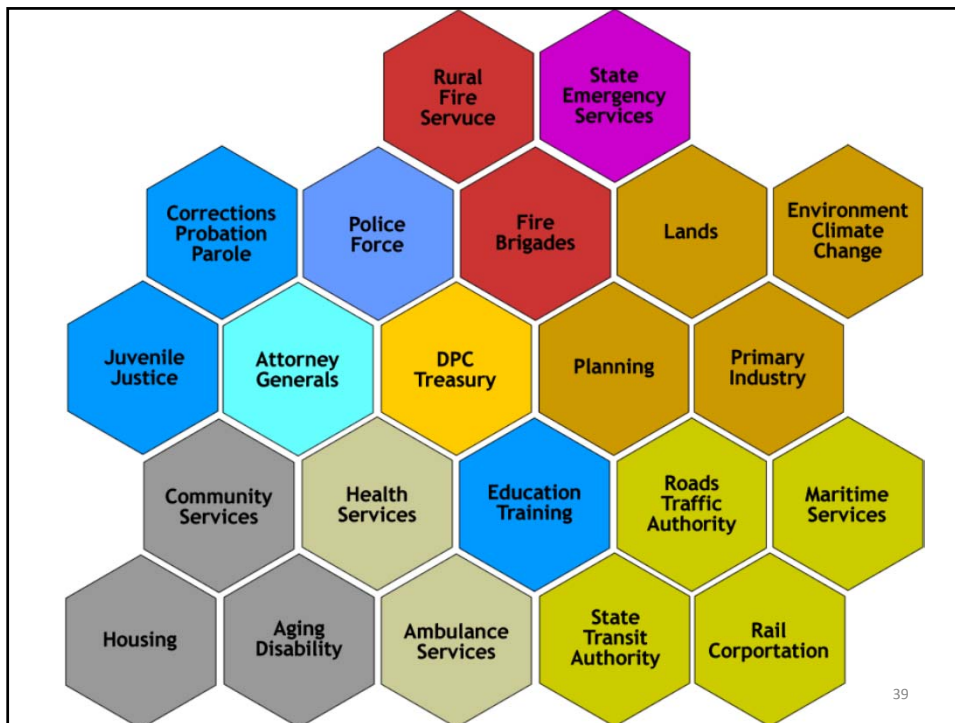


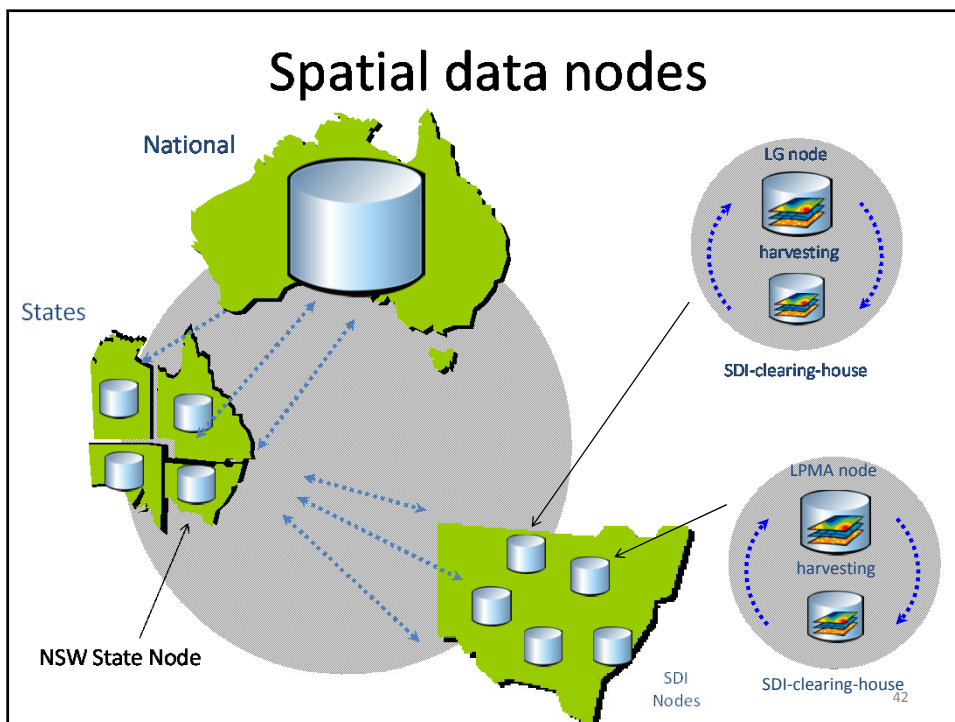
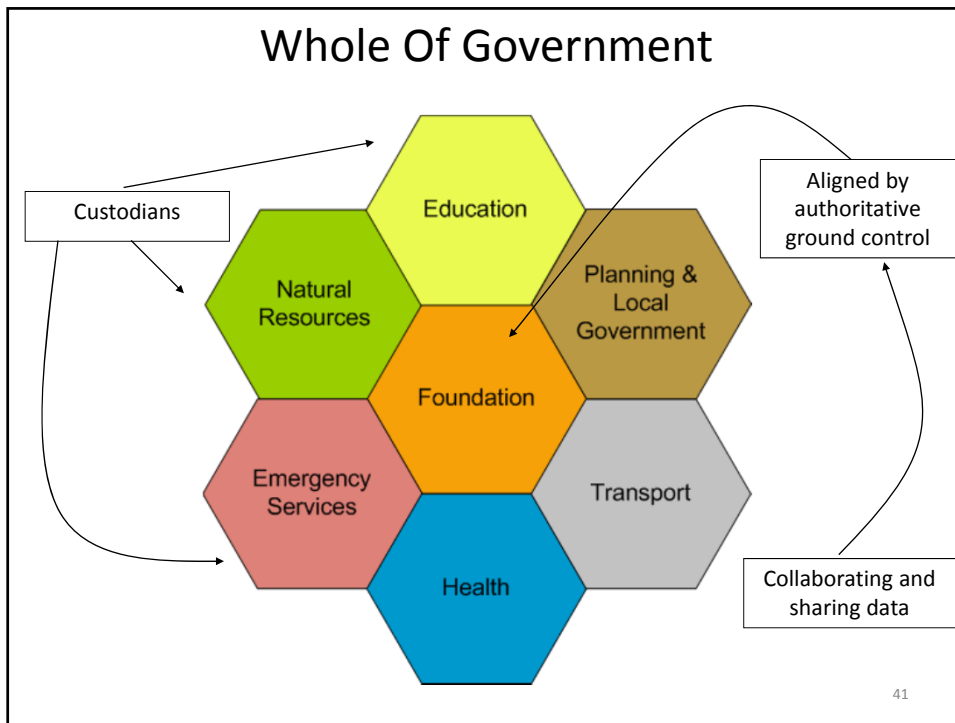




<p style="text-align: center;">Cloud</p> <p style="text-align: center;">Platforms</p> <p style="text-align: center;">places where software runs, available functionality</p>	<p style="text-align: center;">Content</p> <p style="text-align: center;">Data</p> <p style="text-align: center;">fundamental Spatial Data Infrastructure</p>
<p style="text-align: center;">Commons</p>	<p style="text-align: center;">Code</p>

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Spatial Data Infrastructure

- Cadastre
- Topography
- Survey
- Census
- Admin boundaries

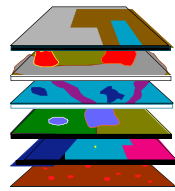


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Support multiple perspectives

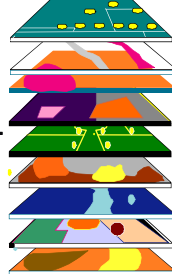
FUNDAMENTAL

Cadastre
Roads
Imagery



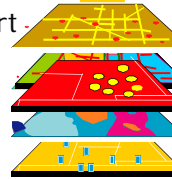
LOCATIONAL

Schools
Hospitals
Police



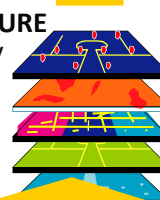
ECONOMIC & RISK

Public transport
Demography
Employment



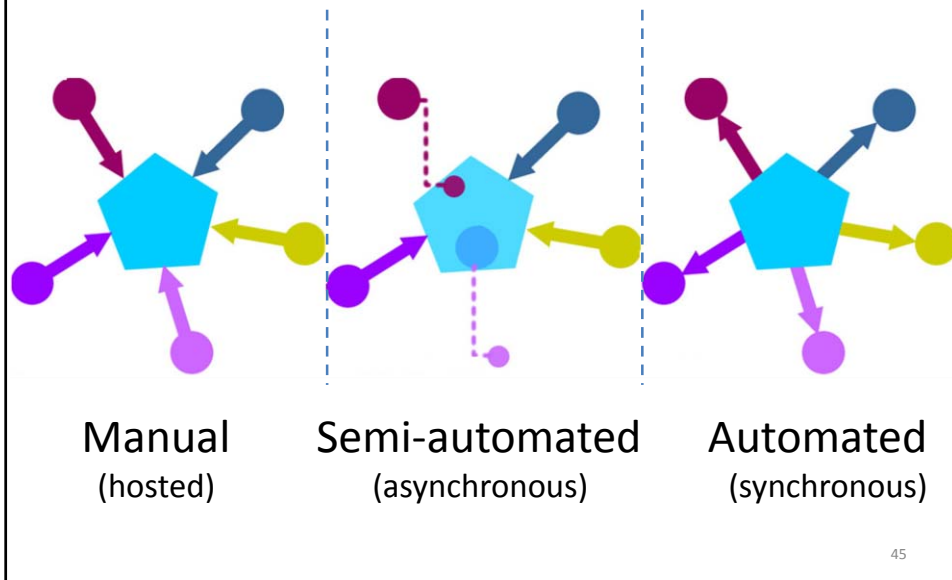
INFRASTRUCTURE

Electricity
Gas
Water



44

Custodian options to expose data



<p>Cloud</p> <p>Platforms</p> <p>places where software runs, available functionality</p>	<p>Content</p> <p>Data</p> <p>fundamental Spatial Data Infrastructure</p>
<p>Commons</p>	<p>Code</p> <p>Software</p> <p>libraries, widgets and code that operate across platforms</p>

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SIX Viewer

CHANNEL : STATE FIRST

Take me to a:

- Suburb
- Electoral District
- City / Town / Suburb
- 100k Map Sheet
- SPOT 5 Scene
- Local Government Area
- Walking Tracks

Suburb: bondi

Show themes **SHOW** **RESET**

Imagery **Map**

- Combined Features
- Topographic Features
- Cadastral Features

Display images **SHOW** **RESET**

Best available Transparency:

- Sydney - Newcastle Aerial photos (High Resolutio
- 1943 Sydney suburbs - Ausimage © SKM 2007 fr
- East Coast Aerial Photos (Med-High resolution) - 4
- Colour Satellite imagery (Med resolution) - via Ray

47

Properties:

Theme Name ↑↓	Theme Details ↑↓
Address	136 BRIGHTON BOULEVARD NORTH BONDI 2026
Lot/DP	Lot: 20 Section: 7 Plan Number: 786
Suburb	NORTH BONDI
Local Government Area	WAVERLEY

Department of Lands **HELP GUIDE**

Latitude : -33.891551 Longitude : 151.284235 Scale : 1:563 Progress : 100% STATUS

Search Gazetteers

Customised for the user

CHANNEL : SURVEY MARK

Take me to a:

- Address
- Lot/DP
- Suburb
- Local Government Area
- City / Town / Suburb
- Survey Mark

Trig Station

Trig Station Name: ora

CHANNEL : ABORIGINAL COMMUNITIES

Take me to a:

- Address
- Aboriginal Community
- Lot/DP
- City / Town / Suburb
- Suburb
- Local Government Area

Community: b

CHANNEL : PEOPLE FIRST

Search

Address Place names Lot / DP

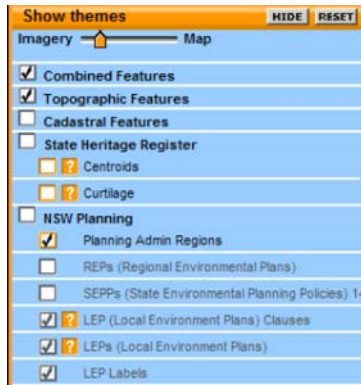
Name: rosev

Results ↓

- ROSEVILLE
- ROSEVILLE CHASE

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Data from multiple sources



- Cadastre
- Roads
- Boundaries
- Agency-specific data
- Live data
 - current bushfires
 - current weather

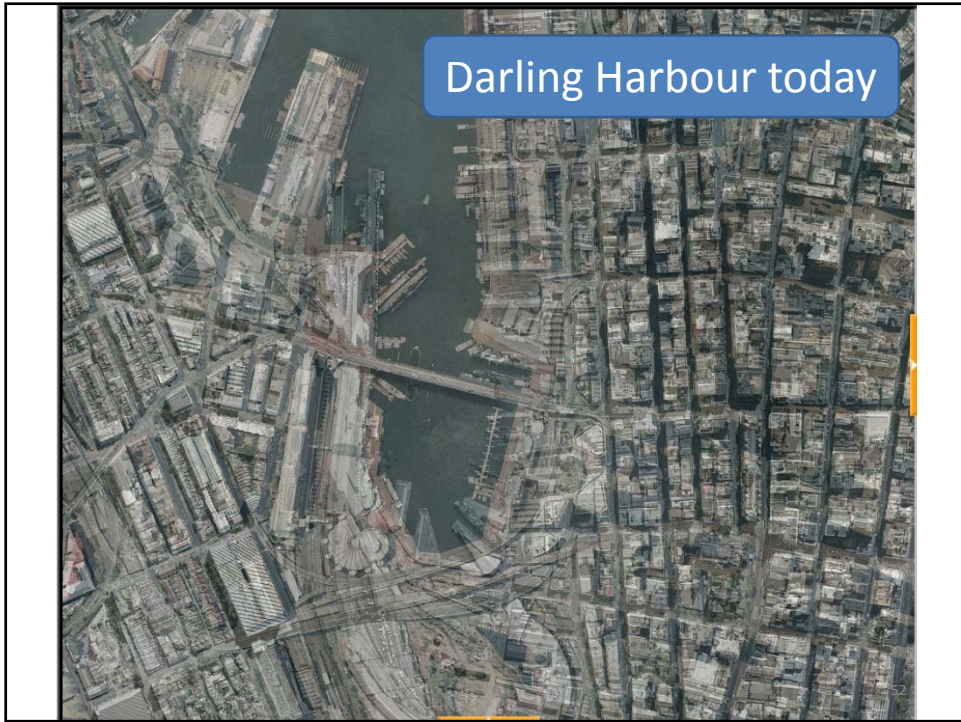
49

Imagery

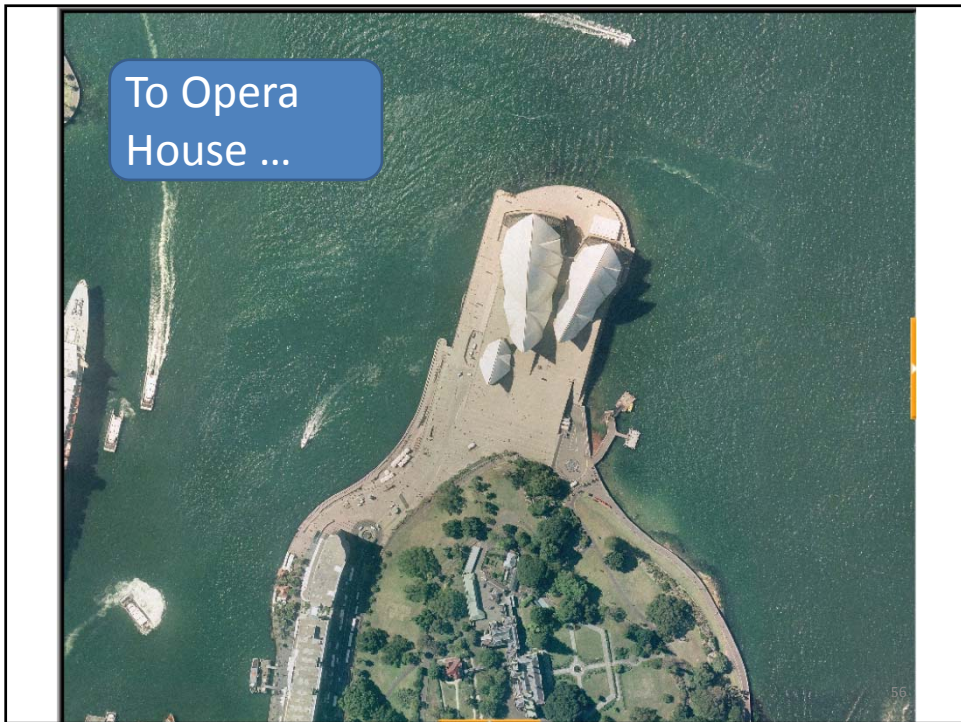
- Satellite imagery
- Aerial photos
 - floods, bushfires
- Historical imagery
- Topographic maps



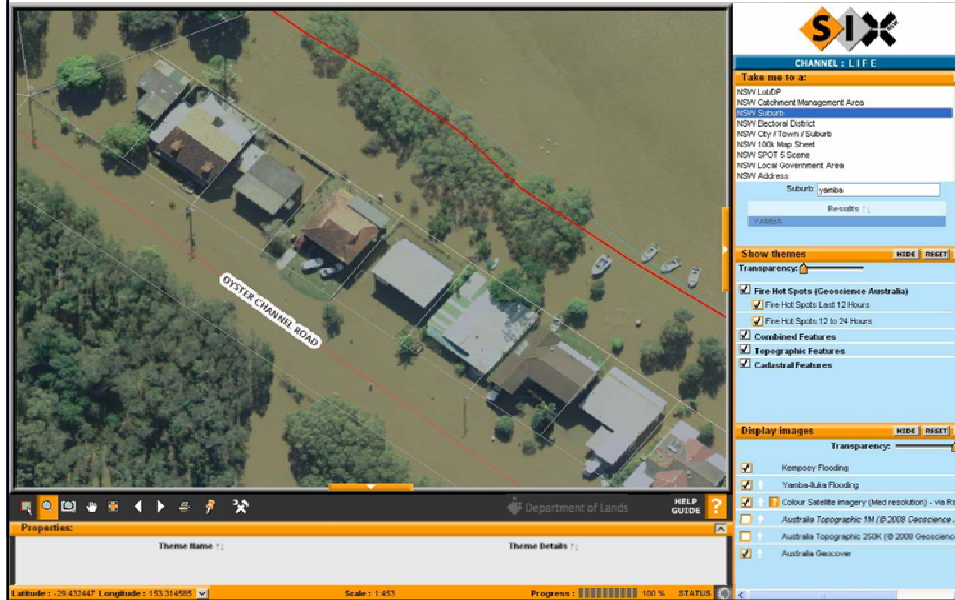
50





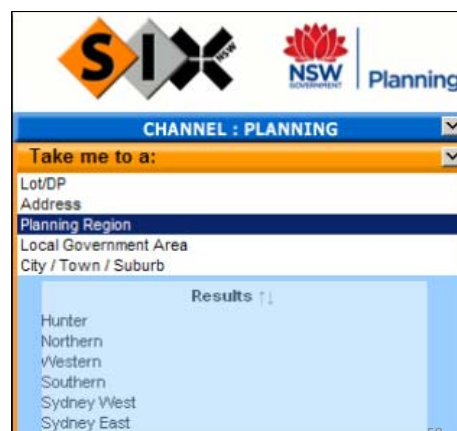


To flood imagery captured in emergencies

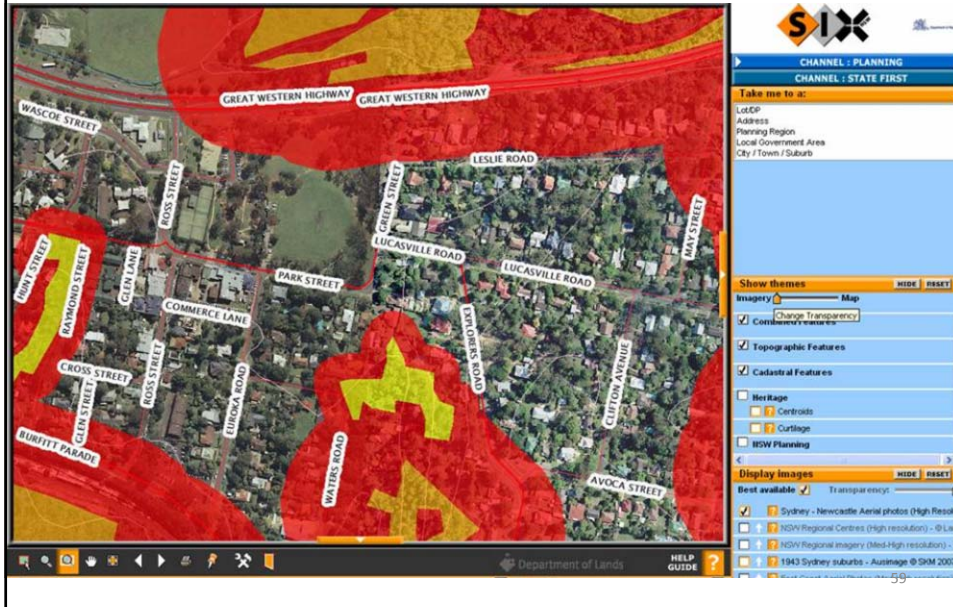


SIX Viewer Channels

- Secure access to customised “channels”
- Agency-specific:
 - datasets
 - searches
 - functionality



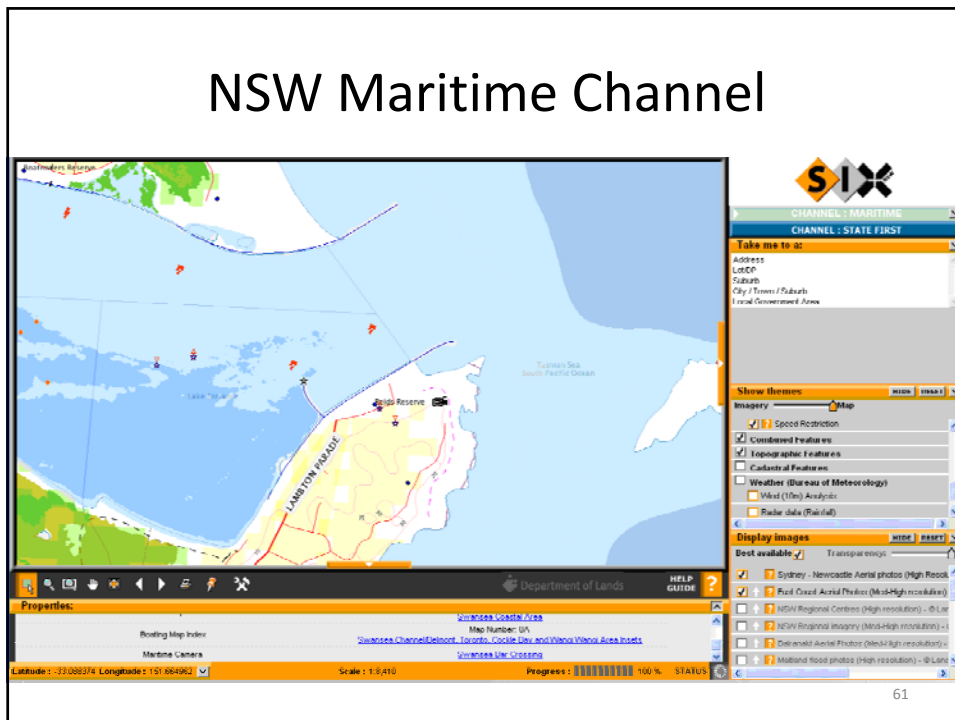
NSW Planning Dept



Game Council

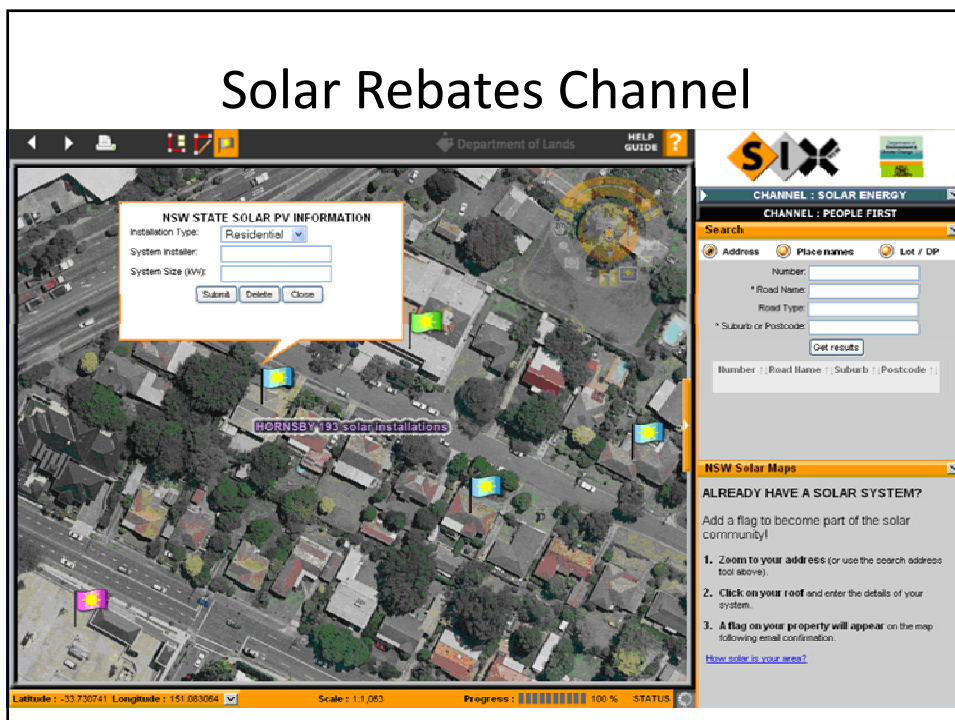


NSW Maritime Channel

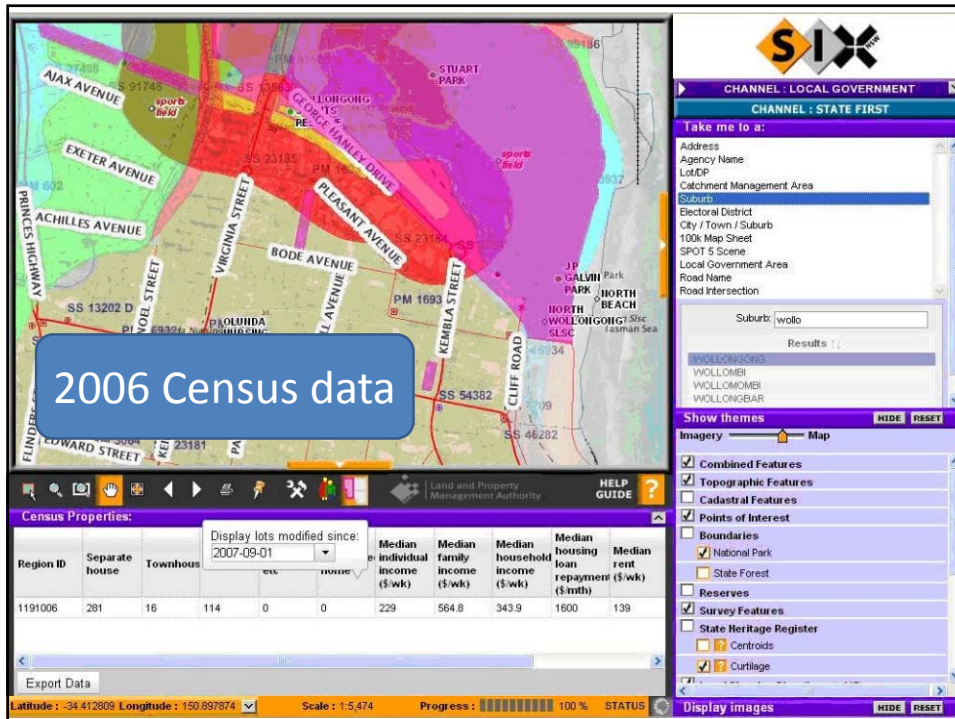


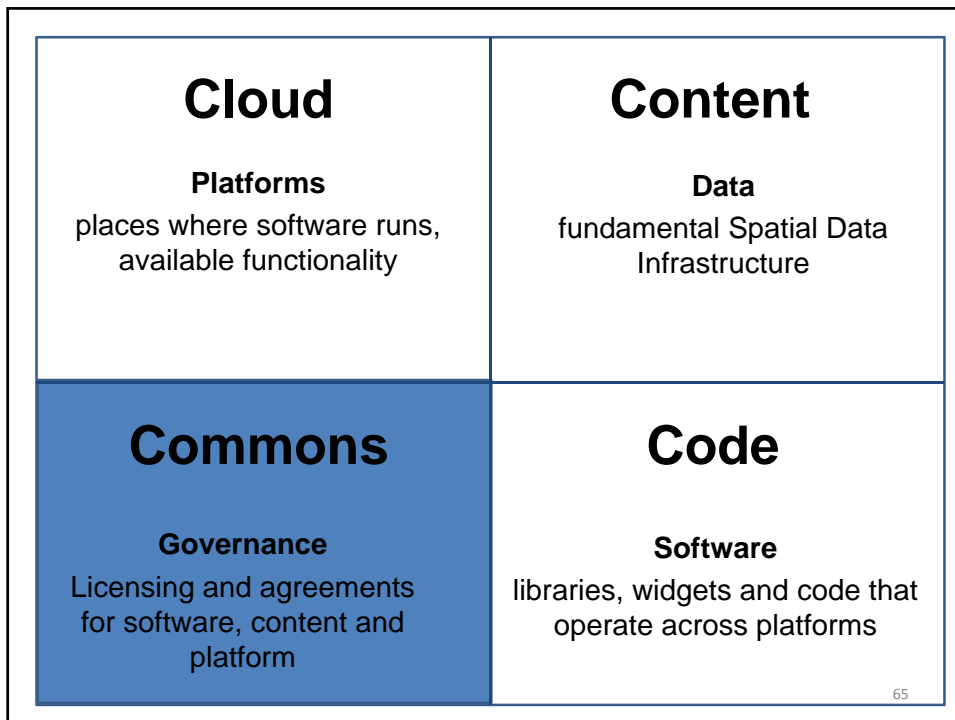
61

Solar Rebates Channel

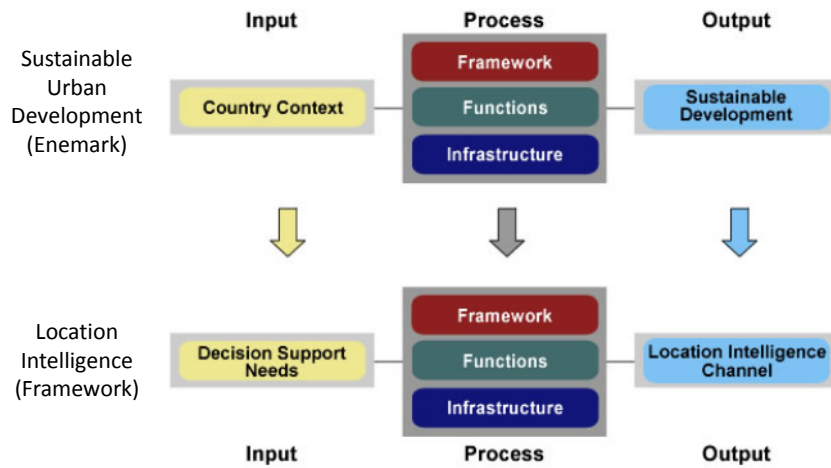


Local Government Channel



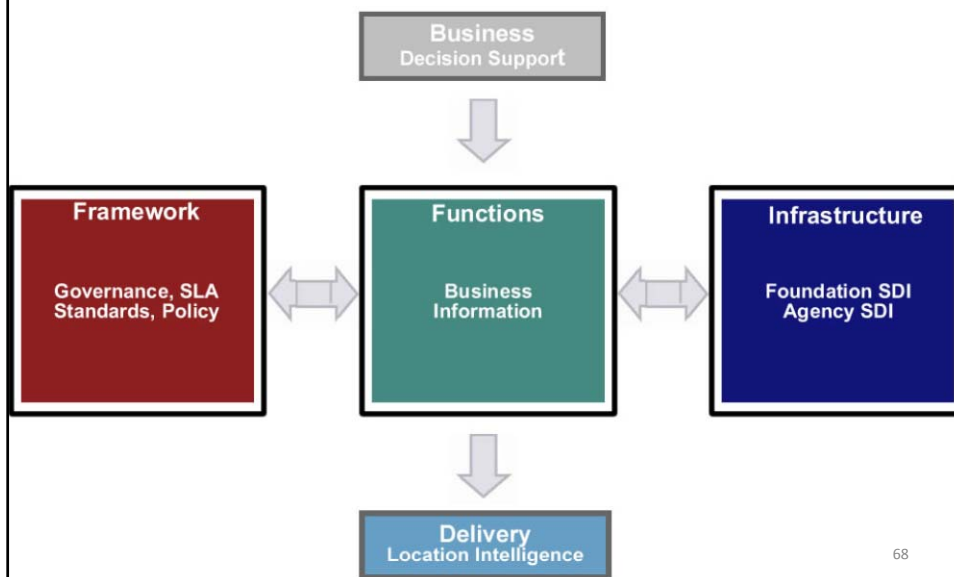


Adapting Frameworks

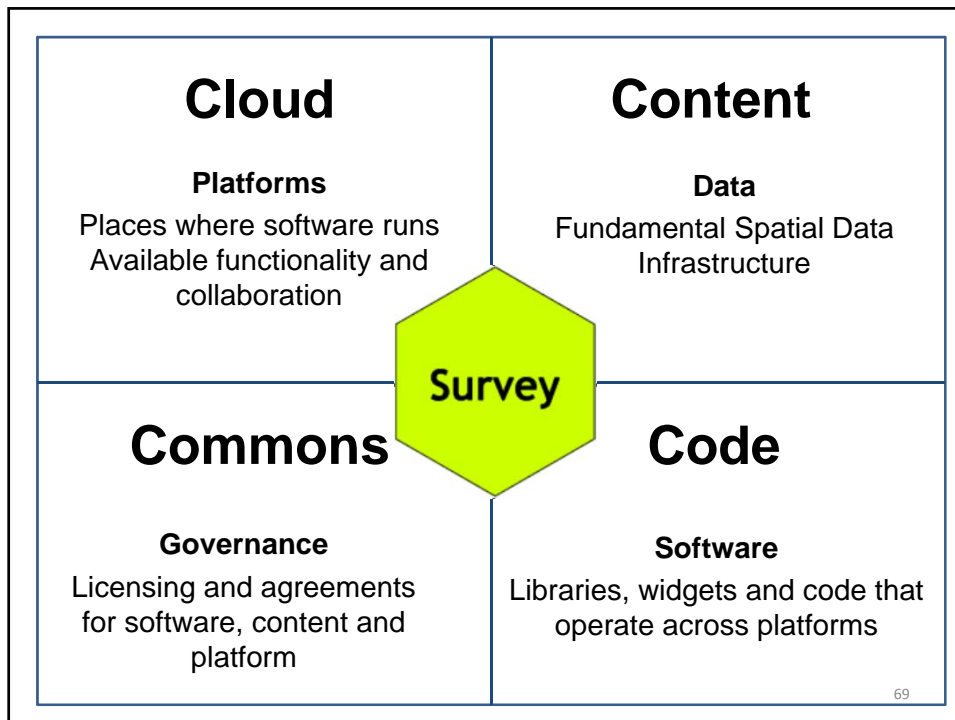


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Framework used to spatially enable NSW



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Spatially Enabled Government

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Chief Executive
Land and Property
Management Authority