Challenges in Geospatial Policy Formulation & Institutional Arrangements *

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An Australian Government Perspective

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The “bottom up” approach... what we have always done!!
256 Local Governments
11.5 million people
$6 billion NDRRA assistance
Australian Government: Geospatial

- We did not share well
- We were not fully aware what each agency was doing. We were effectively ‘disconnected’
- We did not link location information to our spatial data
- We were not using authoritative fundamental base data
- Data discoverability, access and governance was minimal
- There was an expectation that accurate, real-time, high resolution imagery and mapping existed, and could be accessed when and where needed
- Significant gap in ‘thinking’ between policy/decision making and the geographic based evidence
Geospatial information challenges

Is the right assistance getting to the right people in a timely manner?

Commonwealth assistance

State emergency response operational information

Community reality
Why do we continue to have these challenges?

- No policy or governance
- No institutional arrangements
- No structures or mechanisms to engage
- No agreed frameworks and/or principles
- No understanding of the value that GI could offer
- Based on informal networks - who knew who
- Limited understanding of what was needed
- We could not get the dynamic, high value ‘fit for purpose’ data to the users

But we have been working on it.....
The “top down” approach... what has been missing!!
What Government wants to know

- How do you understand the risk to infrastructure?
- How do you increase the resilience of the community?
- Where do you rebuild for the future?
- How do you reduce the financial impacts?
Government is facing a number of key issues and challenges today and into the future.
Location – 4\textsuperscript{th} driver for decision making

Why?
Revenue/ Benefit

When?
Time

Where?
Location

What?
Cost

DECISION MAKING

Linking information to location
The value proposition for Government

Linking Government information agenda and national priorities to location
**Australian Government information is linked to a location, improving decision making and service delivery, and increasing innovation and productivity**

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<th>OUTCOMES</th>
<th>Sustainable Environment</th>
<th>Innovative &amp; Productive Economy</th>
<th>Safe &amp; Secure Australia</th>
<th>Social Inclusion</th>
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<td>STRATEGIC GOALS</td>
<td>Inform policy development &amp; decision making</td>
<td>Drive service delivery</td>
<td>Engage &amp; inform the public</td>
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<td>NATIONAL DRIVERS</td>
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<td>Workforce</td>
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**PRINCIPLES**

- **Good Governance**
  - Establish a policy lead
  - Develop & implement a governance structure
  - Leadership to build & sustain

- **Fundamental Location Data**
  - Identify framework datasets
  - Geocode information to location
  - Consistent & maintained datasets

- **Stewardship & Custodianship**
  - Accountable data management practices
  - Recognised custodial responsibilities
  - Delivery of consistent data

- **Access & Sharing**
  - Promote information sharing principles
  - Improved access & availability of data
  - Consistent data catalogues

- **Standards & Interoperability**
  - Agreed standards & guidelines
  - Develop standard geographies
  - Consistent metadata
  - Interoperability principles defined

- **Licensing & Investment**
  - Appropriate licensing
  - Commitment to Creative Commons licensing
  - Invest in life-cycle data management

- **Capacity & Capability**
  - Build skills & knowledge resources
  - Improve & standardise capability across agencies
  - Improve analytical capabilities
Location information framework

Geocoded unit level data
25 Smith St = x,y: 35.5676, 135.6587

Location information at address level
Aggregated to suburb or postcode
Aggregated to LGA or higher

Analysis and aggregation across geographies
Australia’s framework datasets

- Positioning (Geodetic)
- Address (GNAF)
- Cadastre (Tenure)
- Names (Gazetteer)
- Water (Hydrology)
- Administrative Boundaries
- Transport
- Bathymetry (Hydrography)
- Land cover (Vegetation)
- Elevation
- Imagery
Summary: For UN-GGIM consideration

- Target the value proposition
  - Informed policy development
  - Evidence based decision making
  - Improved service delivery
- Loosely coupled approach
  - Frameworks and principles - start with strategic
  - Standards and interoperability are the glue
  - Make the information available and sustainable
  - Understand the role of authoritative data & custodianship
  - Fundamental datasets are the core building blocks
- BUT...remember
  - The developing nations require people/funding support
  - The objective is more than just mapping & geography - consider everything!