



Australian Government

Office of Spatial Data Management

How to avoid collateral damage : Principles for linking data users to data providers

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Overview

- **Background**
 - Catalyst, Drivers, 'Collateral Damage', Consequences
- **How do we manage this?**
 - Spatial Data Coordination in the Australian Government, Actions, Achievements, Challenges
- **Principles for Linkage**
 - Governance, Priority Datasets, Custodianship, Data Access, Metadata, Standards, Capacity Building

Catalyst

- Cabinet Decision – September 2001
- Whole-of-government approach to lowering the barriers to access and use of spatial data
- Spatial Data Access & Pricing Policy

Drivers

- Governments, industry and the community demand integrated solutions to complex problems → sustainability and triple bottom line
- Individual agencies can no longer provide all the answers → premium on inter-agency and inter-jurisdictional collaboration
- Recognition that the legacy of project-based activities has been lost data, information & corporate knowledge

'Collateral Damage'

Where data custodianship is unclear, data discovery is difficult or access arrangements are unpredictable

... securing timely, reliable and seamless access to data can be seriously challenging

Why is this so?

- custodians are uncomfortable with providing data for multiple, unspecified and unknown purposes, e.g. possible liability exposure, 'loss of control'
- idiosyncratic and inconsistent licensing and access arrangements across agencies and jurisdictions
- custodians are concerned that errors or inconsistencies in their data may be exposed
- custodians may be concerned about potential loss of data sales revenue
- poor compliance with standards, even when these exist

Security of data supply

- With individual agencies, data supply chains may be long established and relatively stable
- Data suppliers understand and are comfortable with their role - often governed by contracts or MoUs
- With individual short-lived projects – data access can usually be negotiated, or data purchased, with few difficulties

Consequences

- delays, delays, delays
- multiple acquisition (including purchase) of data by different agencies working on the same program, not to mention different units in the same agency!
- multiple acquisition of data with the same name — but it isn't the same data (i.e. no 'single point of truth')
- data infrastructure built for one purpose not available for the next (e.g. Operation Fastball)
- data is at different scales or projections
- in general, data that should fit together doesn't ...

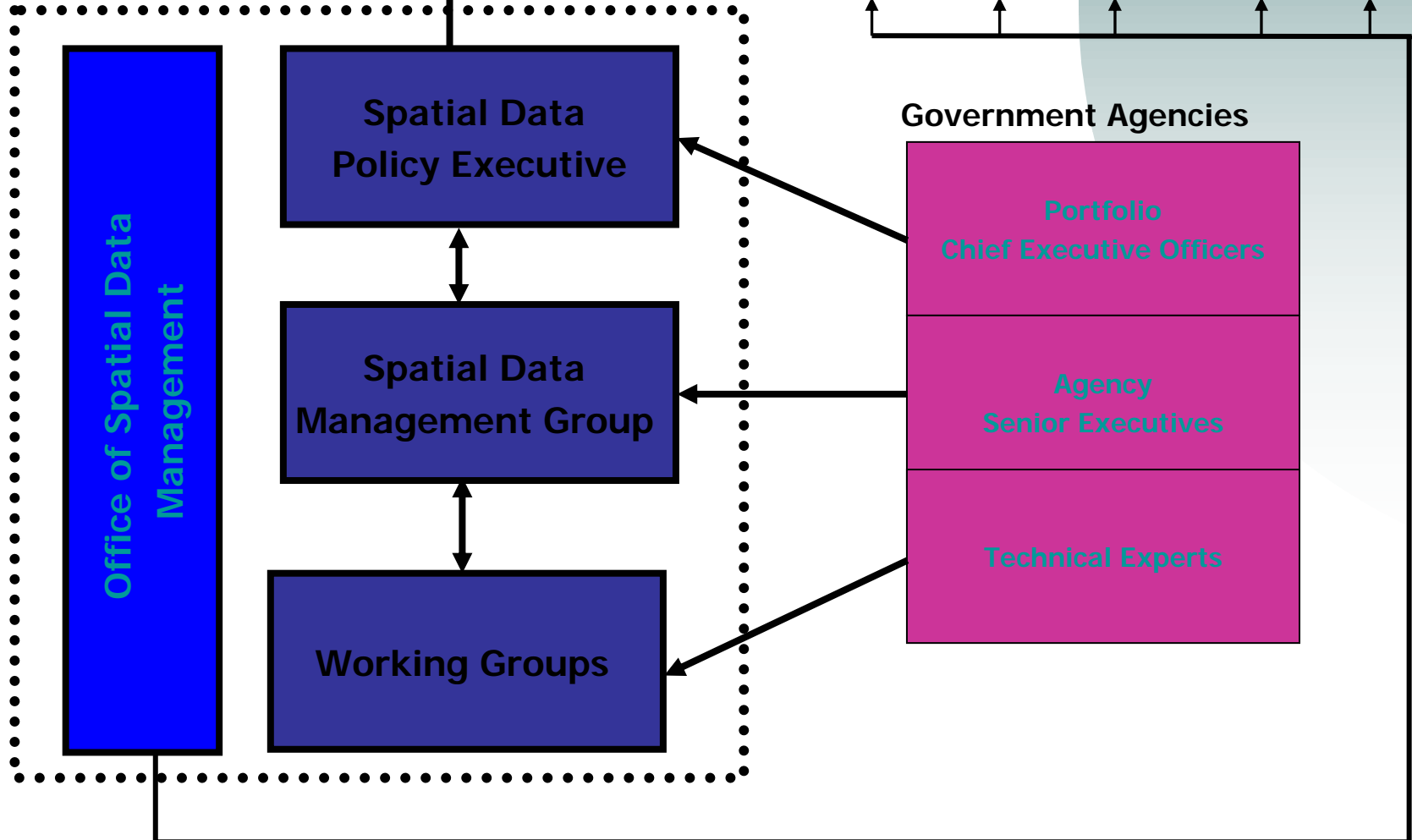


Spatial Data Coordination in the Australian Government

Policy coordination

Minister for Industry, Tourism and Resources

ANZLIC ASIBA States Standards Bodies SSI



OSDM role

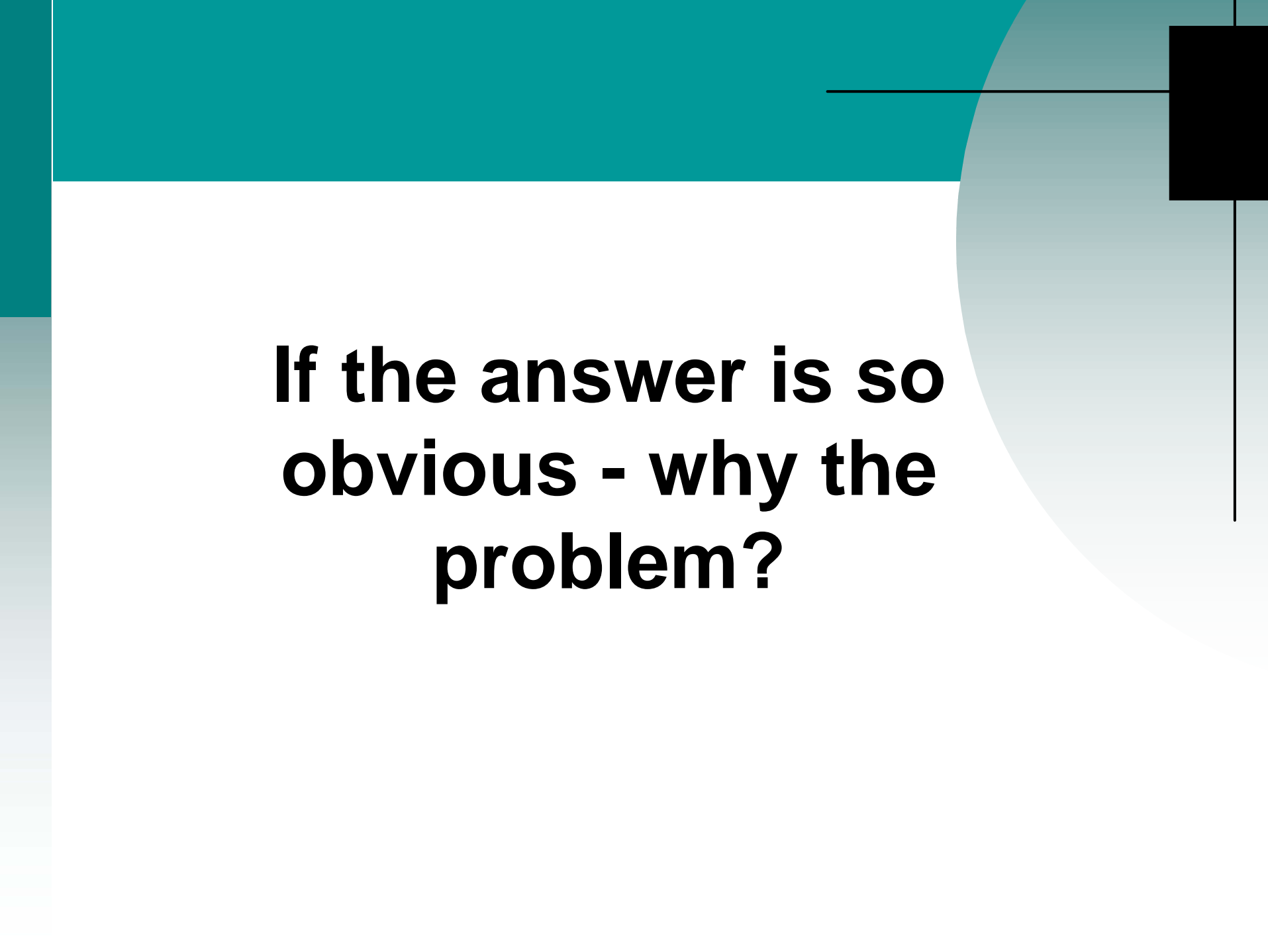
- Implement the policies and actions decided by the SDPE and SDMG
- Manage the work-plan and SDMG working groups
- Facilitate sharing of experience and expertise amongst Australian Government agencies
- Coordinate with other jurisdictions (through ANZLIC) and other informatics initiatives

Actions

- SDMG and working groups – encourage interagency cooperation
- ‘Important’ datasets added to Schedule
- Raise awareness of custodianship rights & responsibilities
- Implement data access policy & data licenses
- Metadata profile - data discovery and use
- Standards - especially for interoperability

Recent Achievements

- Schedule – 291 datasets (77% hyperlinked)
- Data Audit – benchmarking using ASDI criteria
- Single Licence and OSDM Licence Registration Service (>25,000 downloads mid Feb-end June)
- Profile of 19115 Spatial Metadata Standard
- Interoperability, Metadata and Standards Workshops
- >30 agencies represented on SDMG



**If the answer is so
obvious - why the
problem?**

Challenges

- Poor agency and jurisdictional coordination
- Awkward user/provider relationships
- Existing data is difficult to discover
- Confusing policies on data access and use
- Difficulties in assessing 'fitness-for-purpose'
- Inefficient use of current technologies

Solutions

- Governance and partnership building
- Improving access to data
- Ensuring infrastructure meets priority needs
- Identifying priority data, tools and technologies
- Lowering barriers to sharing of information
- Documenting data quality
- Interoperability (across agencies and themes)
- Integratability (everything fits together!)

Actions

- Facilitate interagency cooperation
- Decide on 'important' datasets, tools, etc.
- Raise awareness of custodianship rights & responsibilities
- Implement data access policy & data licenses
- Metadata - for data discovery and use
- Standards - especially for interoperability



Principles for Linkage

Governance

- Who is responsible for articulating the need for data / tools / technologies
- Who is going to lead / be responsible for / contribute what
- Are all stakeholders appropriately involved
- Can we identify and mobilise the necessary skills and knowledge

Governance

National :

ANZLIC – the Spatial Information Council

Australian Government :

the Office of Spatial Data Management

Other jurisdictions : QSIIS, WALIS, etc.

Other themes :

numerous coordinating bodies and mechanisms

Priority datasets

- What are the 'most important' datasets
- What are the key analysis and display tools
- Where (and how) can we find them
- Who is the custodian
- Is there adequate metadata
- Can we assess whether they are 'fit for purpose'
- Do they comply with standards - especially for interoperability

Custodianship

For each dataset / tool:

- Who is the custodian ('single point of truth')
- Does Intellectual Property need to be clarified among owners, custodians and contractors
- Do custodians understand their obligations as well as their rights over the data
- Is there adequate metadata
- Is there an adequate data management plan
- Does it comply with standards - especially for interoperability

Data Access

- Is data readily discoverable (metadata)
- How do I negotiate access
- Are there any data sensitivities (security, commercial confidentiality, privacy, ...)
- Are the access conditions appropriate
- Is there a cost

Metadata

- Is data readily discoverable
- Can I rapidly assess whether it is 'fit for purpose'
- Does it comprehensively and accurately describe all the data elements that I need to use
- Do I need a specific metadata profile / standard

Standards

- What standards does the data comply with
- To what extent does the data actually comply
- Is the data accurately described in the metadata ('truth in labelling')
- Is the data comprehensive, up-to-date, internally consistent, ...

Capacity Building

- Do agency executives understand and support involvement
- Do all stakeholder agencies have appropriately trained and skilled staff
- Are there any skills gaps
- What education / capacity building actions are required

Options for moving forward

- **business as usual?**

hack our way forward on a project-by-project, issue-by-issue basis – repeating previous mistakes and losing data, project expertise and corporate knowledge ...

- **Or adopting a principle-based approach to improving the links between data providers and users?**



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Thank you!

For ideas, interest or updates...

www.osdm.gov.au