



**ANZLIC – the Spatial Information
Council’s submission to the
Productivity Commission’s Inquiry into
Data Availability and Use**

4 August 2016

Contents

| | |
|--|---|
| Executive Summary..... | 3 |
| 1. Introduction | 4 |
| 2. Foundation Spatial Data | 5 |
| 3. Value of Data Case Study – Geocoded National Address File | 6 |
| 4. Standards | 6 |
| 5. ANZLIC – the Spatial Information Council..... | 7 |
| 6. Previous work of ANZLIC – the Spatial Information Council | 8 |
| 7. Conclusion..... | 9 |

Copyright Notice

This work is licensed under a Creative Commons Attribution 4.0

International licence (CC BY 4.0)

<https://creativecommons.org/licenses/by/4.0/deed.en>



Third party copyright

Wherever a third party holds copyright in this material, the copyright remains with that party.

Their permission may be required to use the material. Please contact them directly.

Attribution

This publication should be attributed as follows:

ANZLIC – the Spatial Information Council

Other uses

Enquiries regarding this license and any other use of this document are welcome at:

ANZLIC Secretariat, Public Data Branch

Department of the Prime Minister and Cabinet

1 National Circuit

Barton ACT 2600

Email: spatial@pmc.gov.au

Executive Summary

ANZLIC - the Spatial Information Council provides this submission to the Productivity Commission's *Inquiry into Data Availability and Use* from the perspective of the combined Australian State, Territory and Commonwealth government organisations involved in the management of public sector spatial data and policy.

Spatial (including land administration) data is a major component of data generated and maintained by the public sector for a wide range of regulatory, planning and other purposes. Spatial data has been a significant contributor to the open data initiative at all levels of government and therefore a significant contributor to this inquiry into data availability and use.

A large proportion of spatial data that is aggregated into national level datasets is sourced from the States and Territories and local governments. Therefore, an analysis of the costs and benefits of availability and use of data in Australia must necessarily consider the role of the States and Territories as the legislated custodians of land title and suppliers of other information. ANZLIC should be consulted on issues and decisions about spatial data.

The Australian governments have developed policies to make public data (which includes spatial data) openly available by default unless access is restricted for reasons of privacy, public safety, security, confidentiality and compliance with the law.

Through the Foundation Spatial Data Framework, ANZLIC has defined a common view across governments in Australia and New Zealand on what foundation spatial data is and how it should be organised and accessed, or the terms under which they should be made available to users. The model for how this operates stands as an example for other information domains that transcend organisational, jurisdictional or other boundaries.



Figure 1: Foundation Spatial Data Themes

1. Introduction

ANZLIC - the Spatial Information Council provides this submission to the Productivity Commission's *Inquiry into Data Availability and Use* from the perspective of the combined Australian State, Territory and Commonwealth government organisations involved in the management of public sector spatial data and policy.

Spatial (including land administration) data is a major component of data generated and maintained by the public sector for a wide range of regulatory, planning and other purposes. Spatial data has been a significant contributor to the open data agenda at all levels of government.

A large proportion of the spatial data that is aggregated into national level datasets is sourced from State and Territory and local government. Consideration of the costs and benefits of availability and use of data in Australia must necessarily include the role of States and Territories as the legislated custodians of land title and suppliers of other information.

While this submission does not address private sector data, the private sector has traditionally built on government spatial data and relies on it for their revenue and products. This is changing rapidly, however, as the private sector is increasingly generating this data for itself through technological innovation (e.g. Google Street View) and data volunteered by individuals through apps (e.g. smartphone locations aggregated into a live traffic feed). Global business, in particular, operating as a supplier of spatial data presents a number of challenges for government from a competitive or regulatory perspective as it is able to:

- quickly raise large amounts of capital to make the required investment in technological opportunities;
- be more agile in its investment decisions;
- take advantage of local innovation and scale to the rest of the World; and
- often operate without consideration of the political encumbrance on government.

A large proportion of government process and economic activity has relied on spatial data being provided as a public good. The full impact of increasing private sector ownership of spatial data is unknown.

The Australian governments have responded to this emerging paradigm with a policy of spatial data being made available in accordance with the following principles¹:

- Principle 1 – Open by default unless access is restricted for reasons of privacy, public safety, security, confidentiality and compliance with the law.
- Principle 2 - Data will preferably be made available under the AUS/NZGOAL licensing framework.
- Principle 3 - Data will be made available at no or minimal cost, with limited exceptions.

¹ FSDF Spatial Information Management Policy - Access 2014, http://anzlic.gov.au/sites/default/files/files/FSDF_Spatial_Information_Policy_Access.pdf

- Principle 4 - Data will be easy to find (discoverable) and accessible in formats that promote its reuse.
- Principle 5 - Government will follow standards and guidelines relating to release of data and agency accountability for that release.

Governments' success in applying these principles can be gauged by the chart below at Figure 2 which shows the online accessibility to the national spatial datasets covering Australia. While all data can be discovered on the internet, less than 40% can be immediately used by applications in real time and without significant costs in integration.

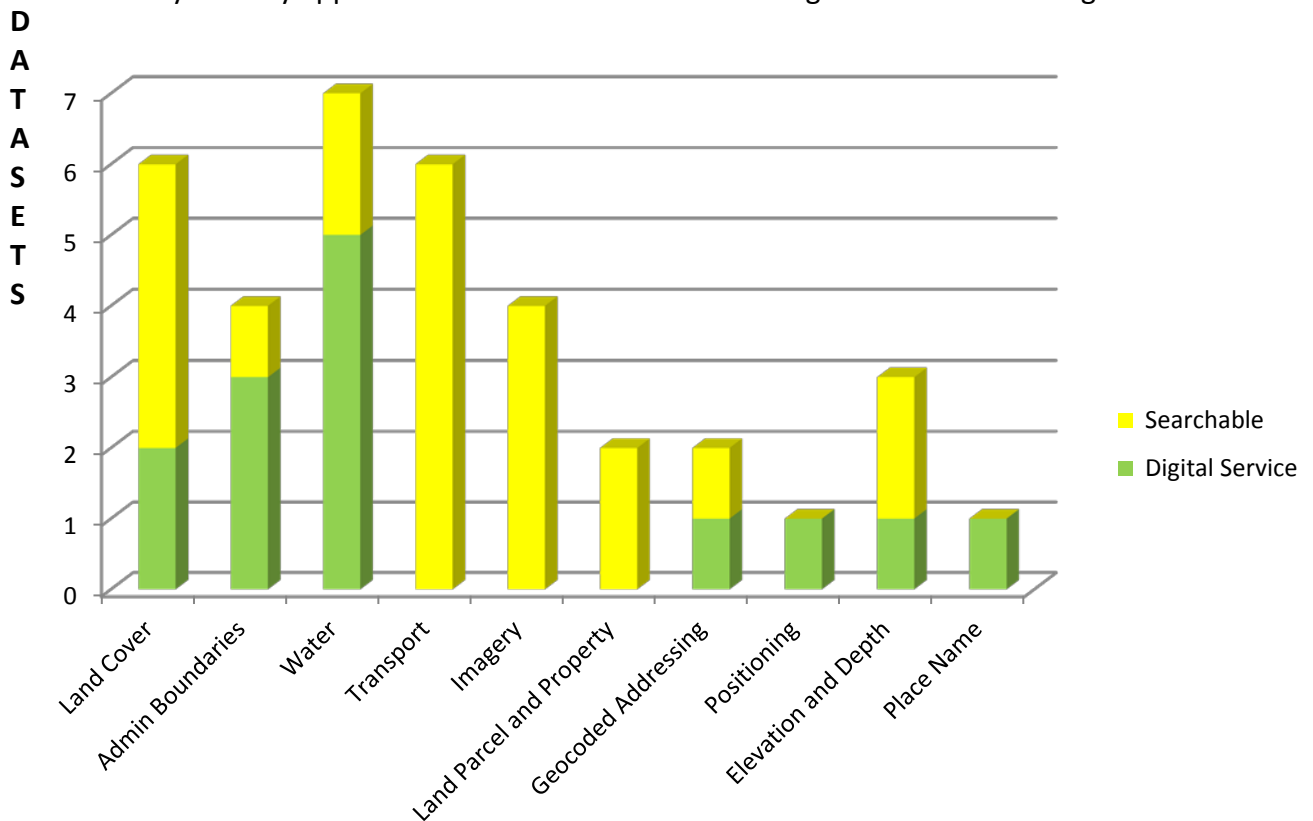


Figure 2: National spatial datasets accessible as digital services, March 2016.

2. Foundation Spatial Data

Through the Foundation Spatial Data Framework, ANZLIC has defined a common view across governments in Australia and New Zealand on what foundation data is and how it should be organised and accessed, or the terms under which they should be made available to users. The model for how this operates stands as an example for other information domains that transcend organisational, jurisdictional or other boundaries.

Foundation spatial data constitutes data about the location and attributes of features that are on, above or beneath the surface of the earth, that are captured from primary sources and, typically, cannot be derived from other data. While there are differences between jurisdictions in the delineation of what constitutes foundation data, examples of foundation

data include topographic information, aerial photography, the cadastre and administrative boundaries.

Foundation data is an authoritative source of spatial data for public and private sector users and is a precursor for a wide range of processed (or value-added) products, applications and data services. Spatial data is dynamic in nature and datasets usually require ongoing maintenance and updating to retain their value. Foundation data is a form of public infrastructure, unlike many other forms of public sector information, such as reports and legal documents. Foundation data enable important business and policy decisions and facilitate the functions and operations of many government agencies.

Foundation data has historically been produced and maintained by government agencies as part of the core activities of the agencies. Typically, one agency within each jurisdiction has assumed a role as an aggregator of foundation data from the source agencies. The land information agency typically processes that data to a 'fit for purpose' state and acts as a 'shop front' for sale and distribution to other government and private sector users. A central element of the sale and distribution role is determining and implementing policies on the prices that the agency charges to government and private purchasers of foundation data.

3. Value of Data Case Study – Geocoded National Address File

The value of open data as a national resource to benefit economic, environmental and social outcomes is an established policy in Australia. Access to high-value data was central to the justification for the February 2016 open release of the Geocoded National Address File (G-NAF).

G-NAF is the authoritative address file, containing more than 13 million records for each physical address in Australia which can be used for a wide range of purposes, such as infrastructure planning, business planning and analysis, logistics and service planning, emergency and disaster response, personal navigation and mapping, and fraud prevention.

The address data is primarily sourced from the State and Territory Governments as part of their land management business processes. The Australian Government organised the release of G-NAF via co-operation and collaboration with key data contributors.

4. Standards

On 22 October 2013, the National Commission of Audit² identified an increase in data sharing, both within and outside government as a change required to improve government's use of data to inform policy and tailor service delivery. The Commission noted that agencies' efforts on data are rarely connected, sometimes duplicative and often of variable quality with inconsistent standards.

² The National Commission of Audit, announced by the Treasurer, the Hon Joe Hockey MP, and the Minister for Finance, Senator the Hon Mathias Cormann, on 22 October 2013.

The responsibility for implementing information standards is with domain subject matter experts, however the role is often taken as discretionary. Governance of information standards across government and the private sector remains a key objective for any attempt to increase the use of data.

Spatial information standards are viewed globally as a critical component of government process. Under its INSPIRE Directive, the European Parliament legislated an infrastructure for spatial information in Europe to support Community environmental policies, and policies or activities which may have an impact on the environment. The Directive requires that common Implementing Rules (IR) are adopted in a number of specific areas (Metadata, Data Specifications, Network Services, Data and Service Sharing and Monitoring and Reporting). These IRs are adopted as Commission Decisions or Regulations, and are binding in their entirety.

While Australia may not need to enact such stringent regulation around the use of standards, a strong approach to governance of policy implementation is appropriate.

As an example of best practice, some agencies have a good understanding of standards that apply to their business; the Australian Bureau of Statistics uses the Statistical Data and Metadata Exchange standard (SDMX) and Geoscience Australia uses the ISO 19100 series of spatial standards extensively to manage their respective data holdings. However, smaller agencies may not have any understanding of these standards even though they may need to include their use in project agreements and contracts.

5. ANZLIC – the Spatial Information Council

ANZLIC comprises senior officials from the State and Territory governments of Australia and the Commonwealth governments of Australia and New Zealand who are responsible for coordinating spatial information policy and operational matters within their jurisdiction. It coordinates the policy for collection and transfer of land related information between the different levels of government.

ANZLIC was established in January 1986 as the Australian Land Information Council (ALIC) by agreement between the Prime Minister and the heads of the State and Territory governments. It was the direct result of a 1984 national conference entitled “Better Land Related-Information for Policy Decisions”, which recommended that such a peak national coordinating council should be formed.

The intention was to “provide a forum for debate on land information policies at the national level, and to explore the scope for adoption of compatible policies and standards.” Links with industry and academia were also encouraged.

ALIC was composed of the respective chairpersons of the various land information councils from most of the jurisdictions, and was advised by a Technical Committee. Queensland and the Australian Capital Territory attended as observers for the first time in 1989 and were subsequently accepted as full members. New Zealand was represented on ALIC from 1987,

and formally became a full member in 1991, at which point the council was renamed ANZLIC. The Council was restructured in 1999 incorporating policy responsibility for any spatial information produced by government and adopting the title “ANZLIC – the Spatial Information Council”.

ANZLIC meets three times a year, rotating around State capitals. A Chair is elected every two years, and can serve a maximum of two terms. Council members nominate individuals in each jurisdiction to act as ANZLIC Contact Officers, to answer enquiries and advocate for ANZLIC policies and projects.

ANZLIC has long-standing relationships with bodies such as PSMA Australia Limited (PSMA), the Cooperative Research Centre for Spatial Information (CRC-SI), the Spatial Industries Business Association (SIBA) and the Geospatial Information & Technology Association (GITA).

6. Previous work of ANZLIC – the Spatial Information Council

ANZLIC has successfully completed a range of projects, including:

- A 1995 draft National Agreement on the Transfer of Land Related Data, designed to facilitate the coordination of intergovernmental arrangements (including appropriate financial arrangements) and provide mechanisms to make the data more accessible across all levels of government and the private sector. This draft agreement led to the publication of the Spatial Data Access and Pricing Policy and other publications including the Guidelines for Custodianship and the Privacy Guidelines for spatial information.
- The publication in 1996 of the Metadata Implementation and Transfer Protocols, a necessary precursor to the introduction of a National Metadata Directory System called the Australian Spatial Data Directory (ASDD).
- ANZLIC was involved with the 1997 resolution for the adoption of the Geocentric Datum of Australia (GDA94) and the development and implementation of the Spatial Information Industry Action Agenda 2001.
- In 1999 ANZLIC issued the Policy Statement on Spatial Data Management, which included a set of benchmark principles for jurisdictions to manage their spatial data.
- From 2005 to 2010 ANZLIC and ICSM contributed to the development of an Australasian All Hazards Symbology set. The aim was to implement consistent map hazard symbols to aid emergency response agencies across Australia and New Zealand.
- Publication of Economic Assessment of Spatial Data Pricing and Access, November 2010

- The establishment of the ASDD necessitated the development of the ANZLIC Metadata Guidelines and a Metadata Entry Tool (MET), which were last updated in 2006. Active cooperation with various international and national bodies for the development of standards, policies and guidelines then led to further upgrades to the ASDD to take advantage of progressions in technology and collaboration.
- ANZLIC developed the Geographic Extent Name (GEN) Register. The GEN Register is an on-line resource that contains the geographic extents of thousands of geographic objects. These objects range from maps sheets, navigational charts, oceans and rivers, through to States, Territories and Local Government Areas.
- Since 2012, ANZLIC has sponsored the development of the Foundation Spatial Data Framework (FSDF) to provide a common reference for the assembly and maintenance of Australian and New Zealand foundation level spatial data in order to serve the widest possible variety of users. This is expected to deliver a national coverage of the best available, most current, authoritative source of foundation spatial data, standardised and quality controlled.

7. Conclusion

A large proportion of public data is spatial data sourced from the State, Territory and local governments and aggregated into national level datasets. Any consideration of the availability and use of spatial data in Australia must necessarily consider the role of States and Territories as the legislated custodians of land title and suppliers of other information.

Having a framework for spatial information at the national level provides clarity on the role of government in producing data in a fast changing environment where private sector entities are increasing the amount of publically available (but not open/free) data.

Through the Foundation Spatial Data Framework ANZLIC has defined a common view across governments in Australia and New Zealand on what foundation data is and how it should be organised and accessed. The model for how this operates stands as an example for other information domains that transcend organisational, jurisdictional or other boundaries.

Information standards governance remains a core government function and is mitigation against the risk of market failure to provide information services vital in the digital economy.