ANZLIC
the Spatial Information Council

ANZLIC'S COLLABORATION FRAMEWORK | NOVEMBER 2018

ANZLIC'S VISION

The world is better understood through spatial data and insights

SPATIAL DATA

Spatial data (or location-based data) includes administrative boundaries, elevation and depth, geocoded addressing, imagery, land cover and land use, land parcel and property, place names, positioning, transport, and water.

Access to high-value spatial data at the national level can help drive innovation in the economy. Spatial data underpins key economic activities throughout Australia and New Zealand and drives contemporary services in sectors as diverse as transport, agriculture, finance and government service delivery.

Spatial information and intelligence is becoming increasingly important to the services citizens consume every day. No longer used just for mapping and visualisation, it is now being integrated seamlessly with other data to drive the analytics and modelling that underpins decision making, policy development and service delivery.

ANZLIC'S ROLE

ANZLIC – the Spatial Information Council[1] is the cross-jurisdictional group of senior officials that develops and influences policies and strategies for maximising access to and use of Australian and New Zealand spatial information.

ANZLIC's role includes:

- Leading collaboration and sharing solutions to common spatial data matters.
- Providing leadership to achieve a standardised and harmonised approach for foundation spatial data within jurisdictions and at the national level.
- Tasking the Intergovernmental Committee on Surveying and Mapping (ICSM),[2] as ANZLIC's delivery arm, with implementation of initiatives including Cadastre 2034[3] and Elevation and Depth 2030[4] and supporting the 2026 Spatial Industry Transformation and Growth Agenda.[5]
- Engaging with political decision makers.

INFORMATION SHARING

ANZLIC Members share information with each other about what they are doing individually and collaboratively. ANZLIC shares best practice and coordinates initiatives between jurisdictions for national benefit.

ANZLIC publishes information on its website including the ANZLIC'S Collaboration Framework, progress reports on collaboration projects, and key highlights from discussion at ANZLIC meetings. ANZLIC engages via social media to promote key highlights and progress on implementation of the Collaboration Framework.

NATIONAL SPATIAL DATA INFRASTRUCTURE

Decisions are based on a knowledge of existing infrastructure and an understanding of future needs. Systems are connected by common national standards. ICSM defines National Spatial Data Infrastructure (NSDI) as *"a national framework for linking users with providers of spatial information* […] *comprises the people, policies and technologies necessary to enable the use of spatially referenced data through all levels of government, the private sector, non-profit organisations and academia."*[6] ICSM supports ANZLIC Members as jurisdictions implement the NSDI (this includes an understanding of what exists, where changes are required and development of roadmaps, etc. to guide change).

SPATIAL ECOSYSTEM

ANZLIC collaborates with a range of stakeholders to implement its Collaboration Framework including: ICSM and its committees; PSMA Australia Limited; Frontier-SI; Spatial Industries Business Association and Geospatial Information and Technology Association; Survey and Spatial New Zealand; Surveying and Spatial Sciences Institute; Data61; Australian Local Government Association; national analytic agencies; and Australian and New Zealand Space Agencies.

1. http://www.anzlic.gov.au
2. https://icsm.gov.au/sites/default/files/5.1.1-%20ICSM%20Strat%20Plan.pdf
3. https://www.icsm.gov.au/sites/default/files/Cadastre2034_0.pdf
4. https://www.icsm.gov.au/sites/default/files/Elevation%20and%20Depth%202030%20Strategy.pdf
5. https://2026agenda.com/
6. https:www.icsm.gov.au/australian-spatial-data-infrasturucture-asdi
    (described as Australian Spatial Data Infrastructure)

National spatial data priorities

Digital Twin – Smart Cities

State and territory governments are being challenged to provide access to 3D/4D cadastral data for integration with building models and other property data to form an integrated digital built environment (referred to as a Digital Twin). This will provide an information environment required to support our Smart Cities and other urban areas of the future.
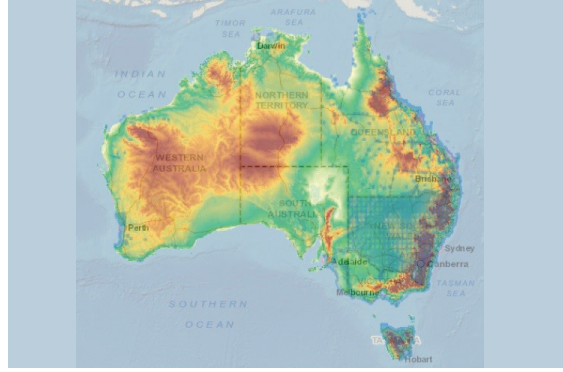
Elevation Information System

Natural disasters do not stop at state borders. Access to critical location data needs to be seamless for end users. National elevation data provided through the Enhanced Location Value Infrastructures (ELVIS) is an initiative of the ICSM.
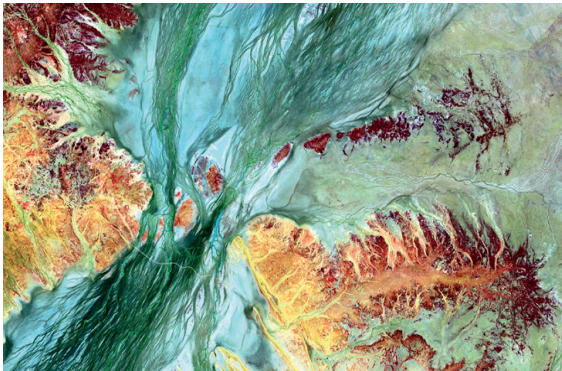
National Imagery System

Imagery is fundamental for decision-making across public safety, environmental management, business opportunities and economic development. Businesses and governments can benefit from advances in continental scale imagery collection, access and analysis through collaboration on Earth Observation data from satellites and airborne platforms, such as Digital Earth Australia.

Positioning

Businesses, citizens and governments rely on accurate location information more than ever before. Everyday activities will be enabled by highly accurate satellite positioning services, such as data-enabled agriculture to enable food production in the future.

Strategic Focus

NATIONAL AND REGIONAL PRIORITIES

Spatial data and capabilities can be used to assist in managing and responding to national and regional priorities such as:

- National disaster mitigation and resilience (climate change)
- Space utilisation
- Energy management
- Water quality and security
- Housing affordability
- Smart cities
- Digital agriculture and mining
- Digital service delivery

DIGITAL TRANSFORMATION

Areas of digital transformation that can be further enabled and realised through access to and use of high-value spatial data include:

- Digital twin
- Autonomous vehicles and mobility
- Real-time data and rapid analytics
- Artificial intelligence
- Robotics and process automation
- Internet of Things and sensor data
- Augmented and virtual reality
- Application Programming Interface APIs
- Blockchain

ANZLIC inter-jurisdictional collaboration projects

Collaboration

	Project	Lead + Others
Actively Progress	**Digital Twin – Smart Cities** Transition to 3D/4D cadastral systems (enables integration with Building Information Modelling (BIM), use cases include Brisbane Cross River Rail and Western Sydney Smart City Deal), requires: • integrating the Geocentric Datum of Australia 2020 (GDA2020) • upgrading from 2D graphical cadastres to numeric cadastres • implementing the Survey Marks Enquiry Service (SMES)	**Lead:** QLD, NSW + VIC, NT (re: SMES), ICSM **Others:** Data61, Frontier-SI
	Elevation Information System – national approach for access to elevation data	**Lead:** Geoscience Australia, NSW, QLD, TAS, ACT **Others:** WA, VIC, ICSM
	Imagery – collaboration across ecosystems (including globally, e.g. Earth observation) and acquisition of satellite imagery on a collaborative basis	**Lead:** Geoscience Australia **Others:** NSW, QLD, Frontier-SI, ICSM
Maintain Interest	**Positioning** – Satellite-Based Augmentation Systems and National Positioning Infrastructure Capability	**Lead:** Geoscience Australia, ICSM **Others:** Frontier-SI
	Whole of government address validation – spatially enabling data at first point of entry into government (e.g. NSW Point)	**Lead:** NSW, ACT **Others:** Commonwealth, PSMA
	Digital transformation of property transactions – online, seamless end-to-end property development transactions	**Lead:** NZ, NSW **Others:** QLD
	Transport – prioritise the definition, collection and publishing (via webservices) of national roads data to support emerging needs such as autonomous vehicles	**Lead:** ICSM
	Deliver ANZLIC's Foundation Spatial Data Framework • make foundation spatial data openly available in standardised formats with metadata • realise the NSDI – data as a service	**Lead:** Geoscience Australia, All, ICSM
	Common globe, standards and code	**Lead:** NSW, QLD **Others:** Geoscience Australia, Data61

Whole of government address validation

Government agencies currently operate multiple systems to collect and manage the address details of businesses and citizens. A single address validation system would achieve efficiencies and provide opportunities to collect other information for data analytics. This would provide insights into community needs for improving service delivery.

Digital transformation of property development transactions

Advances in distributed register technology have enabled the secure linking of transactions in the property development industry. Property is fundamental to the Australian and New Zealand economies, and the digital transformation of paper-based information systems will enable digital economy outcomes.


Transport

The transport network provides the means for moving people, goods and freight, and other services from one location to another. In countries as remote and relatively sparsely populated such as Australia, having effective transport systems is crucial for maintaining competitive and sustainable trade, business and recreation activities. Nationally consistent and accessible location data on these transport networks are fundamental to intelligent transport systems such as autonomous vehicles.


Smart infrastructure

Australia's growth as a knowledge based economy is inter-dependent on the growth of our cities and regions. Knowledge based industries rely on the successful integration of physical and digital systems operating in the built environment. Location data helps organise our information about our cities to support productive citizens and make our cities more liveable.
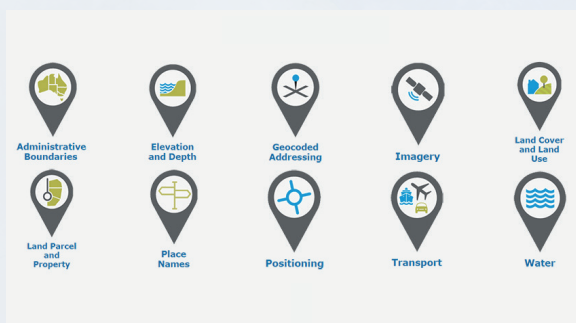
ANZLIC's Foundation Spatial Data Framework

ANZLIC's Foundation Spatial Data Framework provides 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. It will deliver open, accessible, affordable and usable national coverage foundation spatial data.
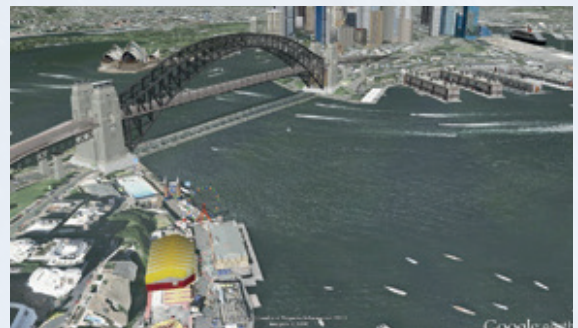
Common globes, standards and code

Participating in standards development and sharing source code achieves efficiencies. Collaboration across jurisdictions has enabled the development of globe platforms that provide free and easy access to view imagery, address, terrain and boundary information.

ACT Government

Australian Government

NSW GOVERNMENT

Northern Territory Government

AUDAX AT FIDELIS
Queensland Government

SOUTH AUSTRALIA
Government of South Australia

Tasmanian Government

State Government Victoria

GOVERNMENT OF WESTERN AUSTRALIA

Land Information New Zealand
Toitū te whenua