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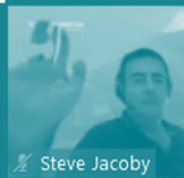
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Geoff O'Malley



Tony Wheeler



Glenn Cockerton



Melissa Harris



Wayne Patterson



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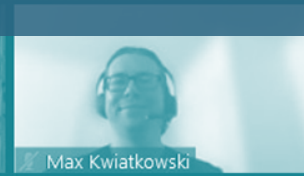
Kayelle



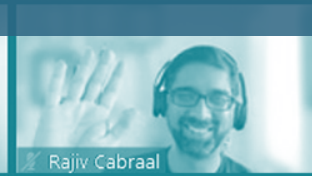
Ann Davies



Alison Rose



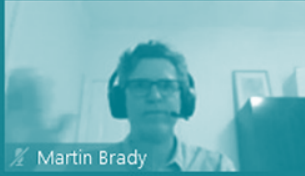
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**ANZLIC**  
the Spatial Information Council

# Strategy Workshop

Summary of discussions  
23 February 2022



## SUMMARY: ABOUT THE 2022 STRATEGY WORKSHOP

The aim of the workshop was to explore the evolving use of spatial data and services to create value and deliver better outcomes for industry, government and the community.

The virtual workshop brought together the ANZLIC Council & ICSM members to meet with representatives from key stakeholder organisations.

The strategic session built on the previous stakeholder workshop in 2019, the development of the 2020-24 Strategic Plan

and subsequent progress reports. The key stakeholder participation options included:

### PRE-SESSION SURVEY

A comprehensive online feedback form was created to enable direct candid input in advance of the session.

### ONLINE WORKSHOP 23 Feb 2022

The 4-hour online workshop featured interactive segments to discuss:

- **Emerging trends and challenges** for stakeholders over the next 2-3 years,

- ANZLIC's **value proposition** for stakeholders to create impact
- **Aligning ANZLIC's strategic priorities** to support stakeholder needs
- Where to **focus our collective efforts** in the future, and **ANZLIC's role in enabling opportunities** for collaboration.

### WORKSHOP OUTCOMES

This report by Cofluence aims to provide an initial snapshot of the key issues & ideas explored. Further reporting will follow from the ANZLIC team.



**October 2019:**  
Stakeholder workshop

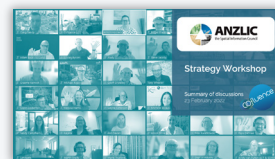
**March 2020:**  
Strategic Plan 2020-24



**December 2020:**  
Progress Update report



**December 2021:**  
Key Highlights report



**February 2022:**  
Stakeholder workshop



## SUMMARY: OBSERVATIONS AND RECOMMENDATIONS

The purpose of this workshop was to seek input from stakeholder organisations midway through the continuing current strategic plan 2020-24.

Of some 42 organisations invited, 25 provided feedback through either the pre-workshop online feedback form or the 4 hour virtual workshop.

The balance of this document summarises the key inputs from stakeholders without analysis or interpretation. Here, however, Cofluence wishes to make some high-level observations that may serve as a guide to adapting stakeholder input.

### 1. (Re)Defining the Spatial Information Council

There is a sense that the nature of ANZLIC - its mandate, role and structure - is not always clear to stakeholders. Its position in the spatial ecosystem is debated by stakeholders across a

range of overarching issues including:

- *What defines Council membership?*
- *What is the role and relationship of the secretariat?*
- *What is ANZLIC responsible and accountable for?*
- *Would calls for additional non-government 'advisory' roles - effectively a new category of membership - dilute its value as a public sector circle?*

### 2. ANZLIC's key relationships

Given the first, there is therefore observable misalignment within sector leadership around what may be reasonably expected of ANZLIC.

In particular, a recurring theme seems to emerge around ANZLIC providing a strong 'convening' role - contributing to sector development by drawing it together. For everyone to benefit, leaders may need to better understand how their organisations must actively contribute to leveraging ANZLIC's role of connecting stakeholders and hosting important policy dialogues.

### 3. Value-adding the case for resourcing

Discussions around the need to reinvigorate or restructure ANZLIC's work to be fit-for-future are typically met with calls for resourcing, without adequate re-thinking as to whether the Council could achieve its functions in new ways.

This itself is an insight around part of the 'problem'. For example, before long-term funding is sought, a strengthened value proposition is needed along with a clearer sense of vision for a future role. This means **exploring new ways of working and creating value** as a voluntary-driven public sector leadership network.

In short, while the current strategic plan is clearly an effective action plan for high-level priorities it now requires **clear articulation of its real-world response to the spatial sector's operating 'culture'** and showcasing ways of working collaboratively for collective impact.



## SUMMARY: OBSERVATIONS AND RECOMMENDATIONS

### RECOMMENDATIONS

Being halfway through the current strategic plan, **the Council should immediately commence a substantive 2-year review of ANZLIC's mandate, role and function within Australia's spatial sector.**

In particular, it needs to review how ANZLIC may strengthen its current role as the **public sector leadership organisation for the sector** - not just by default, but by design.

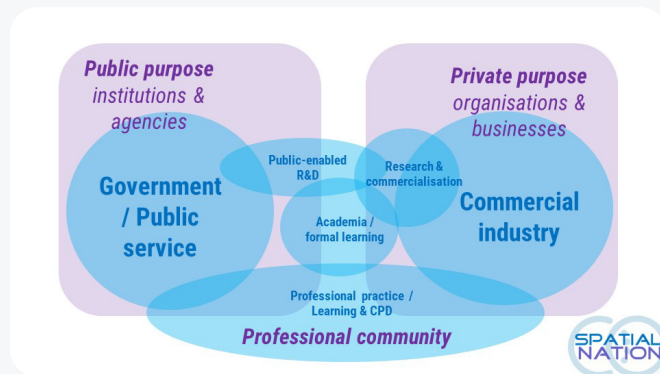
Further, in view of the emerging dynamics of the sector – new challenges, new organisations and networks - ANZLIC may also take this opportunity to embrace recent calls to widen its membership.

One way to do this without compromising the need for a dedicated public sector Council would be to consider the introduction of a multi-sectoral representative Council for:

- Private sector (industry & business)
- R&D (academia & innovation centres)
- Professional membership associations

In this case, a clearer framework of the dynamics of the sector needs to be comprehensively mapped to guide a clear and mutual understanding of ANZLIC's authentic place alongside other stakeholder organisations and interests.

This ANZLIC review should be given the timeframe of the current strategy's remaining two years to allow for adequate engagement and consultations as well as time to pilot new approaches, seek resourcing and bring the sector along on this journey.





## SUMMARY: STRATEGIC INTERVENTIONS TO ISSUES AND OPPORTUNITIES

*Workshop contributions have been clustered as follows into **seven 'strategic interventions'** - potential areas for renewed or re-framed response.*

### A. Active national representation

The role that ANZLIC can and/or should play as the national voice in Australia and New Zealand, as well as in international fora on behalf of the sector.

### B. Hosting common ground

The importance of convening spaces for the sector to interact over common issues, and to facilitate connections between sectors.

### C. Strategic positioning & function

A focused effort on communicating the spatial sector so that it is more strategically positioned with decision-makers, and clear articulation is made of the value and impact of spatial capability across all industries and markets.

### D. Enabling diverse sector interests

Recognition that there is a need for a proactive role for ANZLIC in representing and supporting the various ways in which the sector can connect and collaborate to find more sustainable and productive ways of working.

### E. Convening shared resources

A focused effort to elevate the unique role that ANZLIC plays in being able to draw together and leverage resources from across all levels of government, as well as industry.

### F. Leading on emerging opportunities

A commitment to understanding emerging trends and opportunities for sectoral growth, by creating and leading opportunities that bridge leading-edge research and development and with applied innovation.

### G. ANZLIC capacity & resourcing

A specific focus on designing a future for ANZLIC where its role and impact are more effectively enabled by the right level of capacity and resources.

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*On the following pages, the contributions from the workshop segments have been synthesised and summarised into the above 'response clusters', and then placed in a matrix to show linkages with the respective 'strategic intervention'.*

*Examples of responses to these themes and challenges have been curated by Coflucence as part of this process, with the aim to encapsulate or complement the specific ideas and initiatives proposed by participants via the survey and throughout the workshop.*



## SUMMARY: Lessons from the last two years

Themes	Examples of strategic challenges	Examples of strategic response	Strategic interventions						
			A	B	C	D	E	F	G
Major public events as drivers	<ul style="list-style-type: none"> <li>Being ready and responsive</li> <li>Being tapped in to non-spatial arenas of influence</li> </ul>	<ul style="list-style-type: none"> <li>Leveraging externally driven momentum for transformative scaling</li> </ul>			●			●	
Workforce trends	<ul style="list-style-type: none"> <li>Preparedness for change</li> <li>Adapting to new ways of working</li> </ul>	<ul style="list-style-type: none"> <li>Collective response by sector</li> </ul>				●		●	
Societal contexts	<ul style="list-style-type: none"> <li>Adapting to new perceived relevance</li> </ul>	<ul style="list-style-type: none"> <li>New sectoral narrative</li> </ul>		●			●		
Digital landscape	<ul style="list-style-type: none"> <li>Readiness and willingness to maintain pace of change</li> <li>Uptake of new tech (cost + training)</li> </ul>	<ul style="list-style-type: none"> <li>Surfing new industrial scale waves of change</li> <li>Favour as early adopters of emergent policy</li> </ul>			●	●			
New ways of working	<ul style="list-style-type: none"> <li>Legacy mindsets and practices inhibiting transformative responses</li> </ul>	<ul style="list-style-type: none"> <li>Using what we know (data sharing) to learn and embed new practices (hyper-collaboration)</li> </ul>					●		
The data economy	<ul style="list-style-type: none"> <li>Level of demand</li> </ul>	<ul style="list-style-type: none"> <li>Rising to meet the demand</li> </ul>			●	●		●	
Stakeholder impacts	<ul style="list-style-type: none"> <li>Unrealistic expectations</li> </ul>	<ul style="list-style-type: none"> <li>Shifting decision-makers from map-literacy to spatial-literacy</li> </ul>					●		
Spatial practice trends	<ul style="list-style-type: none"> <li>New &amp; rapidly evolving dimensions of spatial practices</li> <li>Some practitioners lagging behind</li> </ul>	<ul style="list-style-type: none"> <li>Tracking emergent trends for shared awareness &amp; understanding</li> <li>New learning models</li> <li>New relevance to adjacent disciplines &amp; career tracks</li> </ul>		●		●			
Beyond borders	<ul style="list-style-type: none"> <li>Balancing domestic &amp; international roles</li> <li>Limited pool of ready representatives</li> </ul>	<ul style="list-style-type: none"> <li>Highly targeted participation</li> <li>Mentoring new sector ambassadors</li> </ul>	●			●			
Cross-sector challenges	<ul style="list-style-type: none"> <li>Fragmented viewpoints</li> <li>Siloed communication</li> </ul>	<ul style="list-style-type: none"> <li>Big Picture leaders influencing for 'common good' beyond siloed interests</li> <li>A knowledge exchange facility</li> </ul>		●	●	●			

## SUMMARY: What we have learned about spatial info and data?

### Strategic interventions

Themes	Examples of strategic challenges	Examples of strategic response	A	B	C	D	E	F	G
Heightened recognition for spatial	<ul style="list-style-type: none"> <li>Keeping pace with demand &amp; expectations</li> </ul>	<ul style="list-style-type: none"> <li>Coordinated approaches to creating shared resources</li> <li>Maintaining momentum of profile</li> </ul>		●	●		●		
Speed of change	<ul style="list-style-type: none"> <li>Learning to accept and work with pace of change</li> </ul>	<ul style="list-style-type: none"> <li>Coordinate response as a sector faster than user sectors</li> </ul>		●		●	●	●	
Stakeholder value	<ul style="list-style-type: none"> <li>Learning what stakeholders actually need to know and responding accordingly</li> </ul>	<ul style="list-style-type: none"> <li>Communicate in more user-centric ways</li> </ul>		●		●	●		
Data governance challenges	<ul style="list-style-type: none"> <li>Navigating the complexity of federated data governance</li> </ul>	<ul style="list-style-type: none"> <li>Use lessons from the last two years to accelerate better cross-jurisdiction practices and agreements</li> </ul>		●			●	●	
Data trends	<ul style="list-style-type: none"> <li>Keeping pace with the real-world use of data by users</li> </ul>	<ul style="list-style-type: none"> <li>More visibility and influence in broader data and policy forums</li> </ul>		●				●	
Emerging future trends	<ul style="list-style-type: none"> <li>Widespread practitioner understanding of the implications of machine learning and AI as well as mobile</li> </ul>	<ul style="list-style-type: none"> <li>Deeper engagement with other specialist sectors and sources to share knowledge and expertise</li> </ul>		●		●		●	
User expectations & data access	<ul style="list-style-type: none"> <li>Balancing sector readiness with end-user expectations and understanding</li> </ul>	<ul style="list-style-type: none"> <li>Engage end user intermediaries (eg utilities, local government) to better understand user needs</li> </ul>		●		●		●	
Data storage & security	<ul style="list-style-type: none"> <li>Sustainable options for data storage, including cost and security considerations</li> </ul>	<ul style="list-style-type: none"> <li>Knowledge sharing and market intel on storage trends</li> </ul>		●					
People and skills	<ul style="list-style-type: none"> <li>Anticipating future needs</li> </ul>	<ul style="list-style-type: none"> <li>Reframing the suite of options and pathways for education and career building</li> </ul>		●		●	●		

## SUMMARY: How might ANZLIC help you respond? (Page 1 of 2)

### Strategic interventions

Themes	Examples of strategic challenges	Examples of strategic response	A	B	C	D	E	F	G
<b>The big picture</b>	<ul style="list-style-type: none"> <li>Leading and influencing on behalf of a fragmented ecosystem</li> </ul>	<ul style="list-style-type: none"> <li>Adopting new forms of 'leadership-by-convening'</li> </ul>		●	●		●	●	
<b>A government /public sector role</b>	<ul style="list-style-type: none"> <li>Validating ANZLIC mandate and voice within government and externally</li> <li>Lack of clarity around ANZLIC role in the sector among stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>Proactively align ANZLIC               <ul style="list-style-type: none"> <li>- within all relevant federal strategic plans and policies</li> <li>- with industry/R&amp;D stakeholder plans and strategies</li> </ul> </li> </ul>			●	●	●		
<b>Leading geospatial profile &amp; advocacy</b>	<ul style="list-style-type: none"> <li>Developing persistent, consistent and compelling messages that resonate with stakeholders and their users</li> </ul>	<ul style="list-style-type: none"> <li>Communicate in more stakeholder- and user-centric ways</li> </ul>		●	●		●	●	
<b>More &amp; clearer communication</b>	<ul style="list-style-type: none"> <li>Developing agreed definitions of ANZLIC's role</li> <li>Messaging that resonates with stakeholders and their users</li> </ul>	<ul style="list-style-type: none"> <li>Leveraging current urgency to mobilise support for better communication</li> </ul>			●		●		
<b>Enabling multi-sector collaboration</b>	<ul style="list-style-type: none"> <li>Establishing mutual understanding within a fragmented ecosystem</li> <li>Recognised role</li> </ul>	<ul style="list-style-type: none"> <li>Unique place in ANZ public sector</li> <li>Unique public sector role in wider ecosystem</li> </ul>		●		●	●		
<b>Enabling specific sectors</b>	<ul style="list-style-type: none"> <li>Establishing mutual understanding within a fragmented ecosystem</li> <li>Recognised role</li> </ul>	<ul style="list-style-type: none"> <li>Unique place in ANZ public sector</li> <li>Unique public sector role in wider ecosystem</li> </ul>		●		●			
<b>Enabling innovation</b>	<ul style="list-style-type: none"> <li>To facilitate without participating in innovation programs</li> </ul>	<ul style="list-style-type: none"> <li>Australian innovation climate calls for public sector role</li> </ul>		●		●	●	●	
<b>Standards &amp; interoperability</b>	<ul style="list-style-type: none"> <li>Affirming role as national voice in developing and promoting standards</li> <li>Clarity around ICSM role</li> <li>Communicating successes for diverse audiences</li> </ul>	<ul style="list-style-type: none"> <li>Leverage existing and past work in this space into new directions</li> <li>Re-package and communicate outcomes and agreements in new ways for new audiences</li> </ul>	●				●		



## SUMMARY: How might ANZLIC help you respond? (Page 2 of 2)

### Strategic interventions

Themes	Examples of strategic challenges	Examples of strategic response	A	B	C	D	E	F	G
<b>Supporting diversity &amp; inclusion</b>	<ul style="list-style-type: none"> <li>Visible leadership on diversity and inclusion</li> </ul>	<ul style="list-style-type: none"> <li>Actively champion and exemplify good practices</li> </ul>				●			
<b>Framing the strategy</b>	<ul style="list-style-type: none"> <li>Ensure relevance of the ANZLIC strategy in a changing context</li> <li>Clarity that the ANZLIC strategy is not a national all-sector strategy</li> </ul>	<ul style="list-style-type: none"> <li>Refresh and reframe the strategy with heightened clarity around the evolving spatial ecosystem and ANZLIC's role</li> </ul>			●	●		●	●
<b>ANZLIC capacity &amp; resourcing</b>	<ul style="list-style-type: none"> <li>Poorly understood mandate and role among funding sources</li> <li>Define ANZLIC as either a Commonwealth responsibility or a whole-of-government responsibility (ie co-investment)</li> </ul>	<ul style="list-style-type: none"> <li>Use the 2-year countdown to 2024 to engage public sector stakeholders in new ways to demonstrate value</li> </ul>			●	●			●



**ANZLIC**  
the Spatial Information Council

# Contribution capture:

## Pre-survey & workshop: 23 Feb 2022





# ANZLIC

the Spatial Information Council

ANZLIC Chair Melissa Harris and Deputy Chair Sandy Carruthers opened the workshop session with an overview of Australia's geospatial landscape and strategic progress to date.



### ANZLIC Strategic Workshop: Background and context

**Melissa Harris**  
Chair of ANZLIC  
Registrar of Titles  
Chief Executive, Land Use Victoria  
Department of Environment, Land, Water and Planning  
Victorian Government

**Sandy Carruthers**  
Deputy Chair of ANZLIC  
Executive Director and Chief Information Officer  
Strategy, Science and Corporate Services  
Department for Environment and Water  
South Australian Government

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### ANZLIC members



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### ANZLIC: 36 years of collaboration

- Provides strategic leadership and direction to achieve a standardised approach
- Promotes and advocates for spatial data priorities
- Lead collaboration and coordination on common spatial data issues
- Develops strategy and an annual program of activities
- Draws on international best practice to strengthen national level arrangements
- Improves spatial data initiatives through ICMA (ANZLIC's delivery arm)



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### ANZLIC Strategic Plan consultation



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### ANZLIC's 2020-24 strategic priorities

- Modernising foundation spatial information & data
- Engagement & collaboration
- Powerful insights & data driven decision making
- Spatial capabilities
- Future proofing - R&D & technology

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### Spatial sector priority areas



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### Digital Atlas of Australia



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### ANZLIC's 2020-24 strategic priorities



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# Emerging trends & challenges and how ANZLIC might respond

- **Workshop open dialogue sessions**
- 3 rounds of discussion



What have been the  
**biggest impacts**  
from the last 2 years for  
your organisation/ industry?

#### Lessons from the last 2 years

- Major public events as drivers
- Workforce trends
- Societal contexts
- Digital landscape
- New ways of working
- The data economy
- Stakeholder impacts
- Spatial practice trends
- Beyond borders
- Cross-sector challenges

# Lessons from the last 2 years (page 1 of 2)

## Major public events as drivers

- Natural disasters- fires and floods - all require spatial data and analysis
- 'Black Summer' fires; new national capability projects
- Bushfires in late 2019/early 2020. Then COVID, particularly the impact on Indigenous community and population.
- COVID and other crisis have accelerated/ highlighted the need for spatial data, but challenge is expectation that is there and ready to go!
- COVID - Transformed that what and how of our business and our focus. Drove digital transformation of industry and government generally. Put geospatial to the forefront.
- Effect of COVID - significant digital opportunity available in the market
- Spatial requirements for managing borders and contact tracing in global pandemic
- Olympic Games in SE Queensland

## Workforce trends

- The focus on workforce shortages has really heightened how unprepared we are as a sector to deal with it. While government expenditure has increased substantially and continues to grow, industry growth lags that of other similar OECD nations
- Skills shortage
- Employing digitally skilled staff
- Keeping up with the demand on the workforce. Staffing issues have been the biggest challenge.
- Accelerated demand and competition for digitally and data literate staff, and how we identify and recognise geospatial skills.
- Flexible working, bigger reliance on ICT
- Being forced to work at distance has made a significant impact on the way we work - we who have for decades enjoyed face to face collaboration. However, it has demonstrated our strengths - we have found new and innovative ways of working together.

- Move to flexible work arrangements

## Societal contexts

- COVID effected all business and lives. lives and business enabled online. digitisation. Digital policy has intrinsic meaning across different portfolios. The idea of 'place' took on a new meaning.
- Reduced air travel and reducing carbon footprint!
- We all learned a little more about our local community - places, businesses, food, our neighbours. We worked from home, a lot! So 'place', for some, took on a new meaning.
- The ability for a significant amount of the workforce to WFH. What does this mean for how society organises itself going forward? Spatial information will be important for decision makers (e.g. can office buildings be repurposed for homeless accommodation)
- Climate change awareness has driven need for monitoring and reporting data

## Digital landscape

- From a national policy perspective - 'Digital by default' is now the vision (via the Australia Infrastructure Plan).
- Digitization more than ever
- Everything in the cloud, for better access
- Take advantage of digital transformation
- Recognition of and hunger for the benefits of digital transformation
- Digital economy strategy has helped promote open and accessible
- Uptake of digital transformation: Data availability and cost has driven needs in terms of interoperability and consumer use needs
- Cyber threats are rising.

*(continued over page)*



# Lessons from the last 2 years (page 2 of 2)

## New ways of working

- There is an evident and increasing appetite for digital ways of working, which has been a catalyst for digital innovation
- Collaboration - new ways of working
- Collaboration, data sharing
- Collaboration - actively collaborating around data sharing

## The data economy

- Using data for driving decisions  
Getting users (and data owners) to trust data more
- Datasets & the maintenance of 'National' datasets
- Consistency of data (collection/distribution etc)
- Demand on technology and data: Services must be fast and flexible.
- Forced to use and trust data for decision making
- Data on demand - aggregate and process

- Accessing data and making it easy to use.
- Aggregating, processing, and distributing data at the speed and scale required from users.
- Maintenance and consistency of national data, is sometimes unclear
- Greater reliance on data for decision-making

## Stakeholder impacts

- Public sector funding impacts from COVID and its impact on innovation
- Ministerial expectations on real time data and maps. Everyone now knows what a map and hotspot looks like following Covid and the bushfires.
- Spatial requirements for managing borders and contact tracing in global pandemic
- Consistency of data, from bushfires and COVID, age of data, especially to build a national data set
- More opportunities and recognition for GeoSpatial and Space sector

- Greater public expectation that data and information be available geospatially and be presented in that format in real time.
- Bigger reliance on and demand for maps in organisations
- Need cross boundary of other sectors like ICT / cyber-security
- Use cases are important.

## Spatial practice trends

- Spatial information is all going 3D
- Increased accuracy of positioning along with reduced cost
- Lack of consistent & real time data from a range of State & Territory providers
- Demand for spatial information, and for it to be accurate, up to date and fit for purpose.
- Learning how to be flexible and agile
- Digital land conveyance fast tracked
- The increase in volume of work requests. The expectation from the

consumer that everything happens digitally.

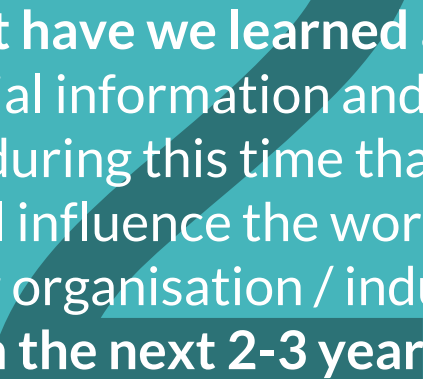
- More demand on desktop field work - hence requesting up to date data and imagery
- Big focus on standards development
- Activity around the development of standards has certainly increased!

## Beyond borders

- More international and national collaboration
- Sovereignty and geo-politics are now higher profile industry development drivers
- International trends and new policies and initiatives available (SDGs, IGIF, NUA, etc)

## Cross-sector challenges

- More communication is needed between government, academia and private sector organisations.
- Heaps of strategies & roadmaps in space & spatial



**What have we learned about spatial information and data during this time that will influence the work of your organisation / industry in the next 2-3 years?**

**What have we learned about spatial information + data?**

- Heightened recognition for spatial
- The speed of change
- Stakeholder value
- Data governance challenges
- Data trends
- Emerging future trends
- User expectations & data access
- Data storage & security
- People and skills

# What have we learned about spatial information + data? (Page 1 of 2)

## Heightened recognition for spatial

- Capitalise on recent increase of industry profile
- Ubiquitous- spatial is everywhere
- We're going to need it more and more
- Everyone wants it.
- Wide range of services by spatial information for the market, particularly in respond to COVID and helping social distancing and connectivity of multi sourced information and the role of spatial information
- According to the AlphaBeta study that was completed in 2016 Geospatial information was so ubiquitous that it impacted improvements of revenues and reduced costs of sectors that combined contribute 75% of global GDP. Even more so today
- Traditionally non-spatial audiences now wanting spatial
- It's becoming more mainstream - not just for spatial experts. Whether for

the IT sector or the public

- It's been widely adopted by non-spatial professionals
- Unforeseen / unprecedented demand for good spatial information
- Use of spatial data underpinning other sector occupational growth
- Continued investment in SDIs continues to be important and valuable
- More investment into data needed

## Speed of change

- Improvement can be achieved far faster than we previously thought
- Speed and pace enabled by spatial and virtual operations

## Stakeholder value

- The value of spatial information is foundational to many other industry opportunities for growth and development - and collaborating across industries is exciting and challenging.
- Growing appreciation across non-

spatial sector of spatial data. growing expectation of availability of data

- Increased awareness of the value of spatial information as an asset and for decision support
- Geospatial data ecosystem goes beyond SDI
- The desperate need to be able quantify the value of data and information investment to clearly inform decision makers and influence investment decisions
- How important accurate and readily accessible spatial data became for decision-making, but also how difficult it is to influence upwards - particularly for funding and resourcing.
- Industry collaboration highlighted complex nature of spatial data
- More use cases to be shared and developed over time

## Data governance challenges

- Governance of data and infrastructure is still very important

- How good some of it is and how inadequate other data sets are
- Quality control is critical
- It is essential that data must be up-to-date and accurate.
- The use and value of spatial information is limited if it is not accompanied with realistic indication of quality
- Users focused on the use and less so on the quality of the data.
- Different people have different needs - some high accuracy, other low-latency.
- Data integration challenges, from open data through to missing attributes

*(continued over page)*

# What have we learned about spatial information + data? (Page 2 of 2)

## ('Data governance challenges' continued)

- Consistency is key, but hard to come by.
- Standards for interoperability is vital - the ability to integrate different data sets to serve user needs
- Although our data is getting more and more complex stretching our capability, relative to other data domains we do have good understanding of the challenge and what it takes (opportunity)

## Data trends

- Data as a service continues
- Data is an asset
- Near real time data is desired
- Real time data assets (eg. of pedestrian movement) were some of the most sought-after data assets - they provided somewhat of a proxy for where activity/opportunity was
- Appreciation for good data during crisis
- Data provenance and traceability is a

## demand

- Emergence of Open data
- Open by default is being accepted
- Data must be able to be found independent of who you know!
- Responsible use of data
- Data ethics has been the main discussion point

## Emerging future trends

- Doing more for less - machine learning!!
- More automation of data process
- AI and biased algorithms in conjunction with spatial is a priority area going forward
- The increasing mobile applications that use spatial information.
- Personalised data needs- akin to personalised health

## User expectations & data access

- Assumption the data will just be there when you need it!

- Continuing trend to data services 'they just want to tap', partly driven by its increasing complexity
- Citizens will just expect 'it' to work. They don't realise it takes a lot of resources to make it all available
- Delivery for end user needs to be simple - complexity hidden for the experts
- The importance of removing barriers to access data simply and easily to enable services and inform the community in times of crisis.

## Data storage & security

- Big spatial data storage and compute requirements, e.g., skills, costs, etc.
- Large data volumes - computational and storage are significant challenges
- Demand on data storage
- Cloud has been transformational
- Need a safe and secure platform so that private sector data can be shared

## People and skills

- Changing spatial data science skills, shift from GUIs to APIs (programming!)
- Need a lot more skilled workforce going forward
- Need more skilled resources
- Growing/expanding careers How readily accessible data is to use for decision making - lack of understanding at the levels of influence where \$ decisions are made Remuneration for spatial low
- With the rise in use of machine learning, we need to consider the role of diversity and inclusion initiatives to ensure we don't end up with operator bias that disadvantages some parts of the community in the resulting analysis and decisions



How might ANZLIC  
work with you  
to respond to these  
challenges and opportunities?

How might ANZLIC help you  
respond?

- The big picture
- A government /public sector role
- Leading geospatial profile & advocacy
- More & clearer communication
- Enabling multi-sector collaboration
- Enabling specific sectors
- Enabling innovation
- Standards & interoperability
- Supporting diversity & inclusion
- Framing the strategy
- ANZLIC capacity & resourcing

# How might ANZLIC help you respond? (Page 1 of 2)

## The big picture

- Think big; aim big
- Spatial championing!
- Uniting fragmented geospatial sector and niches
- Facilitating conversation between the spatial sectors
- Too much fragmentation at the moment - need to be more cohesive to develop national policies and capabilities
- Leadership focus on bringing together universities, industry, governments to grow opportunities
- Creating value for users by providing greater insights into the data or supporting the user to solve the big questions.

## A government /public sector role

- Provide leadership (from a government perspective) and transparency about government plans/initiatives
- Relationships at the equivalent level

- Greater influence with Federal government
- Provide opportunities for collaboration with the States/Territories to reduce duplication of effort
- Influence government decision makers regarding the need to resource spatial data and capabilities adequately
- Convince (nudge, coalesce) the federal government to take a data leadership role. e.g. where is Australia's National Digital Twin Strategy?
- Political influence
- Develop strong relationships with key custodians, aggregators, and distributors of FSD data

## Leading profile & advocacy

- Leadership to help quantify economically the value of geospatial data investments, and to sell that to decision makers and advocate for investment.
- Taking leadership in messaging the

value of spatial data and applications - particularly quantifying the value (financial, resource value and other benefits) to key stakeholders and industry.

- Advocate for the need for spatial skills and capabilities going forward

## More & clearer communication

- Communicate more about what ANZLIC does and its role
- Communicating / disseminating the importance of spatial data and what ANZLIC does
- Raise profile of spatial data, and need for access to it
- Help us advocate for spatial information and our capabilities
- Assistance in explaining how important spatial data is.
- Frequency of interaction between the government, (research &) academia and private sectors
- Increase frequency of similar meetings

## Enabling multi-sector collaboration

- Continue to promote collaboration opportunities across gov /industry/ research & academia.
- Stronger links to state-based bodies for better collaboration
- Working bottom up / top down and integrating across local/state/fed levels
- ANZLIC can encourage interjurisdictional collaboration with program delivery - funds to cover the costs of teams to deliver
- ANZLIC members help coordinate actions across ICSM, ABARES, space, smart cities etc.
- Collaboration with other industries - Planning Institute Australia, infrastructure, Data& Digital Council.
- Encourage open collaboration
- More collaboration but how?

(continued over page)



# How might ANZLIC help you respond? (Page 2 of 2)

## Enabling specific sectors

- Formation of Australian Geospatial Commission with Private Sector, Academia, Civil Societies, NGOs, other sectors to be a sounding board for ANZLIC
- ANZLIC to take a stronger advocacy role and be a voice for private sector data (not just public)
- Collaborate closely with Industry
- Collaborate with us
- Push to make ALL government geospatial information freely available to drive innovation and delivery in the private sector
- Facilitating collaboration between space and spatial sectors.
- Develop better links with space sector
- Support for not-for-profits to be funded for initiatives
- Enabling innovation
- Opportunities to consider innovation and collaborative programs
- Coordination of innovation and info

sharing across jurisdictions to work together on big and shared problems

- More focus on innovation (similar to Geovation from Ordnance Survey)
- Build and develop and maintain contacts for Digital Twin use cases, in each jurisdiction

## Standards & interoperability

- Ensuring the technology & standards jigsaw is put together for users to understand & use.
- Promotion and activity in interoperability governance and standards to lift and promote broader use of data
- Encouraging consistency/standardisation
- More of this kind of collaboration especially re: standards and policies
- Encourage development of standards
- Encouraging data accessibility
- Being a voice for open access to, and sharing public and private sector data
- Actively promote relevant standards

- Develop and promote standards for spatial data interoperability
- Focus on good metadata for key datasets
- Standardise metadata management
- Raise the profile of the ICSM metadata working group and value of metadata in unlocking interoperability for digital twins etc

## Supporting diversity & inclusion

- Keep encouraging more Diversity & Inclusion eg. indigenous people, cultural diversity, disability as well as gender
- Continue to be a visible leader on diversity and inclusion. Starting with the ANZLIC council members, commit to panel pledges, advance Diversity & Inclusion in your own organisations.

## Framing the strategy

- Elevate strategic plan to strategic and eliminate the more operational very specific activities
- Strategy may be 'old' in this fast-moving environment

- ANZLIC strategy or National strategy?
- Develop one national geospatial roadmap & policy
- Build awareness of adoption of UN-GGIM - has FSDP had its day?

## Capacity & resourcing

- Issue with ANZLIC capacity to deliver programs. Funding issue - need to negotiate greater government funding to deliver programs of work
- More adequately resource ANZLIC so it can properly support, drive, develop, advocate spatial



# Ensuring alignment of ANZLIC's strategic priorities

- *Pre-survey:* **Stakeholder key priorities**
- *Pre-survey:* **ANZLIC key priorities**
- *Workshop:* **Overcoming blockages**

# Pre-survey: Stakeholder key priorities

## THEMES

Construction | Water | Forestry | Transport | Infrastructure  
| Urban Water | Resilience & Climate Change

## WORKFORCE DEVELOPMENT

- Supporting workforce development
- Workforce planning
- Increased participation of ASTI people and people under 30 in our sector
- Increased opportunity for women to participate and stay in our workforce
- Increased inclusion for people with disability, including tapping into the neurodiverse advantage
- Sector growth and definition
- Career development strategies across the entire workforce
- Spatial data skills and capabilities

## DATA

- Digital Twins
- National Digital Twin
- Investing in 3D/4D data sharing spatial capability to benefit from digital twins
- EO - federating data stores to ease accessibility to data
- Open data clarity & support and aligning with national expectations for data sharing & access
- Data collaboration platforms
- EO + RS research & development
- Data availability & ingestion
- Governance of Indigenous data
- Data interoperability across all agencies.

## SERVICE DELIVERY

- Ensuring scalable & interoperable services
- Cloud & web based geospatial technology
- Digital transformation of business processes

## SPECS & STANDARDS

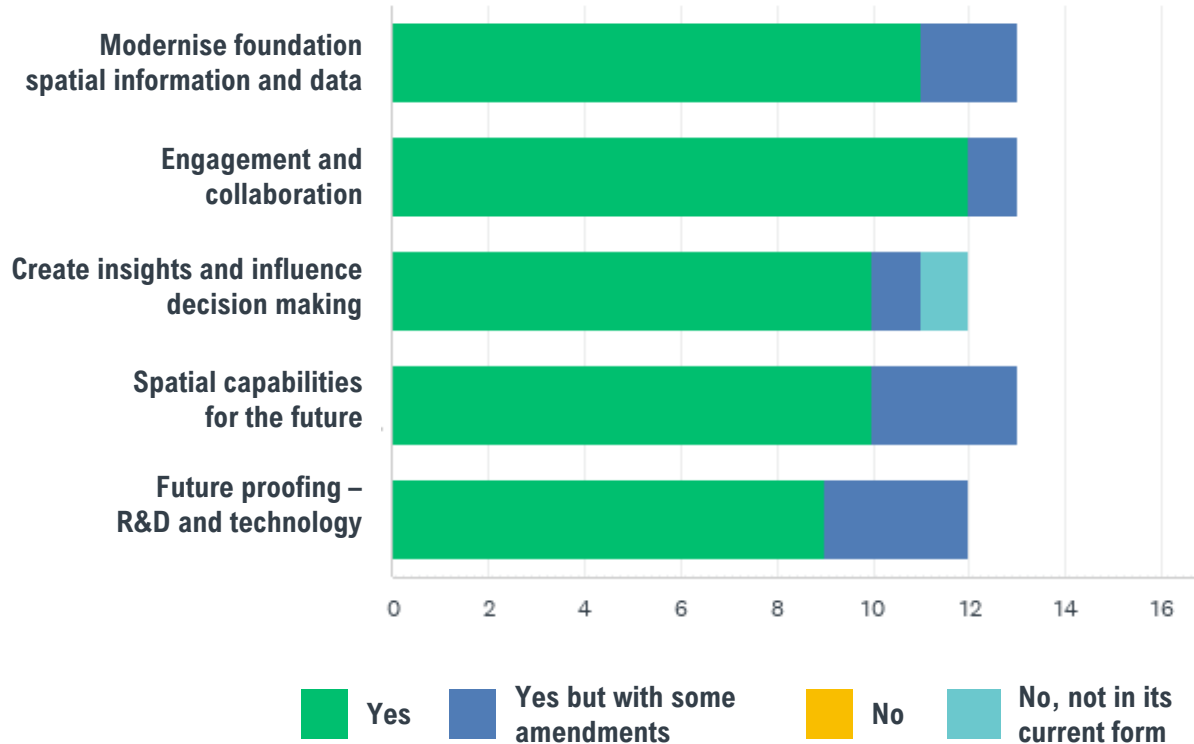
- Collaboration & development of specifications
- Continued support for standards

## SPECIAL PROJECTS

- 2032 Games
- Delivery of Digital Atlas of Australia

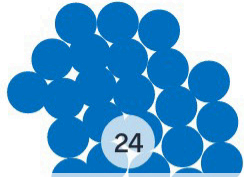
# Pre-survey: ANZLIC priorities

Q8 Do the 5 current priorities outlined in the strategic plan still represent the right priorities for the next 2-4 years?

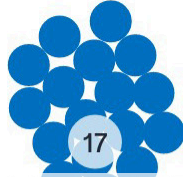


- “The power of ANZLIC in realising these priorities should be its **ability to influence** State and Federal policy re priorities and funding”
- “There needs to be a **clearer linkage** between the **5 priorities** and the **10 initiatives**”
- “**Priorities** seem appropriate but need to be **better linked to the roadmap**”
- “**Enabling** rather than creating insights”
- “Metrics and concrete steps re the **success measures /benefits realisation** for **Future proofing R&D + Engagement** require an update and further thought - not refined enough”
- “Regarding **Future proofing R&D** - ANZLIC to have a prominent position but **allow the private sector** to take the lead”
- “**Future proofing R&D + Technology** could be split into 'R&D' and 'technology' - as they are different things”

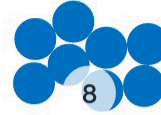
# Current challenges or blockages to sector development?



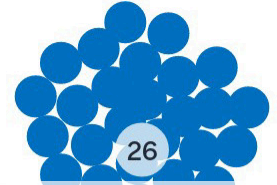
Spatial remains a fragmented 'small' industry sector; disaggregation of bodies representing the industry



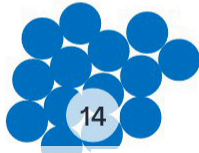
Coordinated activities around Australian workforce; attraction, recruitment, retention, diversity.



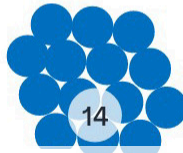
Spatial policy maturity (compared to other jurisdictions)



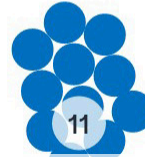
Consistency and coordinated agendas, strategies, investment across government (Fed/State/Local)



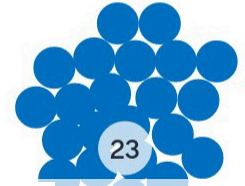
Inability to make the (compelling) case for investment in spatial-based initiatives



Budgetary constraints in a post-pandemic world



A viable R&D sector linked to government



Digital disruption, and the spread of it, is a challenge for industry

# What are the key interventions that will shift these blockages? (Page 1 of 2)

## Active national representation

- ANZLIC be more active at the international level
- Increased participation in geospatial activities on the global stage
- Stronger influence in ISO and OGC to achieve standards for spatial information to support the agenda and FSDF

## Providing common ground

- An approach to working across all sectors and all organisations.
- Clear leadership with help to connect the many exciting activities going alone

- Coordinated enabling national digital infrastructure
- More cross-jurisdictional collaboration
- Actively coordinate each jurisdiction to implement common standards
- National geospatial policy
- One national geospatial policy
- National geospatial capability as well as coordinated & collaborative industry development plans and policies
- Capacity plan with inputs from jurisdictions
- 'National' (incl NZ) collaboration on all aspects of SDT & FSDF - this

requires investment for increased capacity in government plus working with relevant industry groups

- National views and opinions on societies big questions, social housing, climate change, impacting poverty etc

## Strategic positioning & function

- Position ANZLIC to be a key participant across national cabinet and whole-of-government executive (treasury)
- Three-tiered government in Australia. (Two tiers in NZ)
- Need to be careful in terms of managing expectations of what

ANZLIC actually is. At the moment it's a collaboration across jurisdictions at the senior level.

- ANZLIC needs to stay strategic and not get bogged down in individual technical challenges.
- Fewer initiatives, making it easier to coordinate/collaborate, and progress faster.
- Could the partnership between the Location IDC and ANZLIC be stronger?

*(continued over page)*



# What are the key interventions that will shift these blockages? (Page 2 of 2)

## Enabling diverse sector interests

- Geospatial industry development plan
- Integrated industry development program
- Land Information New Zealand makes all its geospatial data available at no cost which has enabled the private sector to develop customer focused solutions. Is the cost of government data an inhibitor in Australia?
- A coordinated workforce strategy
- Let's start with a comprehensive

environmental scan of the sector that measure skills, number of professionals, capability by organisation and overall revenue

- One, integrated professional body with sub-disciplines
- Merger of industry bodies
- Formation of a National Geospatial Commission

## Convening shared resources

- Broad economic and general valuation of ROI from geospatial investment to inform decision makers, adaptable to individual projects.
- Shared approaches to business case development for government

funding for geospatial projects/investments

- Nationally coordinated use cases to support investment at national and jurisdictional level
- ANZLIC could share some of experiences; cost benefits; testing, sharing and promoting knowledge and use cases in a coordinated way, sharing networks.

## Leading on emerging opportunities

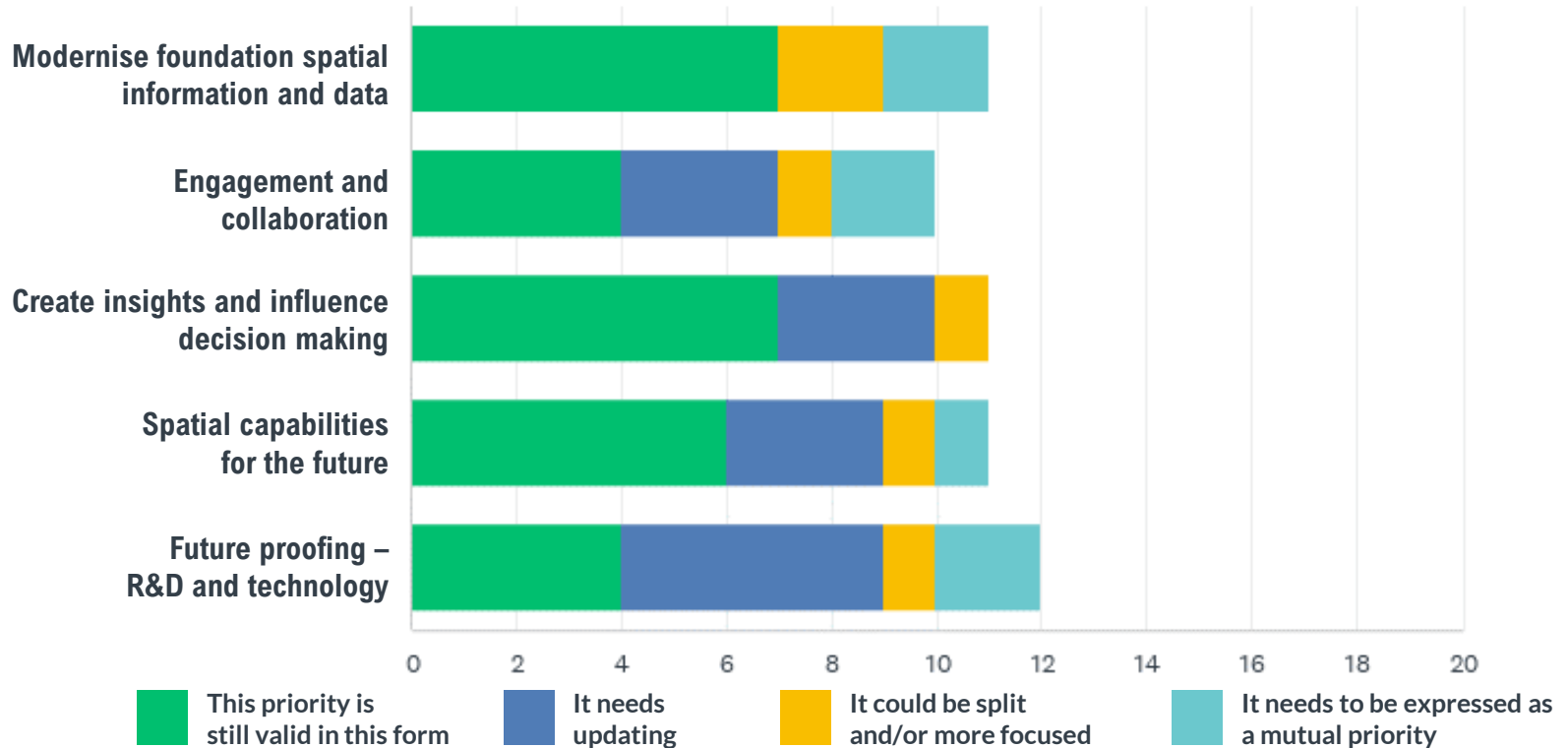
- Leadership on new technologies to help lead/align
- Opportunity to leverage of ELVIS and Digital Earth Australia to bring data together.

## ANZLIC capacity & resourcing

- ANZLIC needs good funding model to deliver programs
- Need significant funding for ANZLIC to deliver programs- digital infrastructure
- A much more adequately resourced ANZLIC function will assist
- ANZLIC to be better resourced - both secretariat having spatial skills and contractors

## Pre-survey: ANZLIC priorities - improvement

Q9 In view of your answers above, HOW might the 5 current priorities in the ANZLIC strategic plan be IMPROVED for the next 2-4 years?



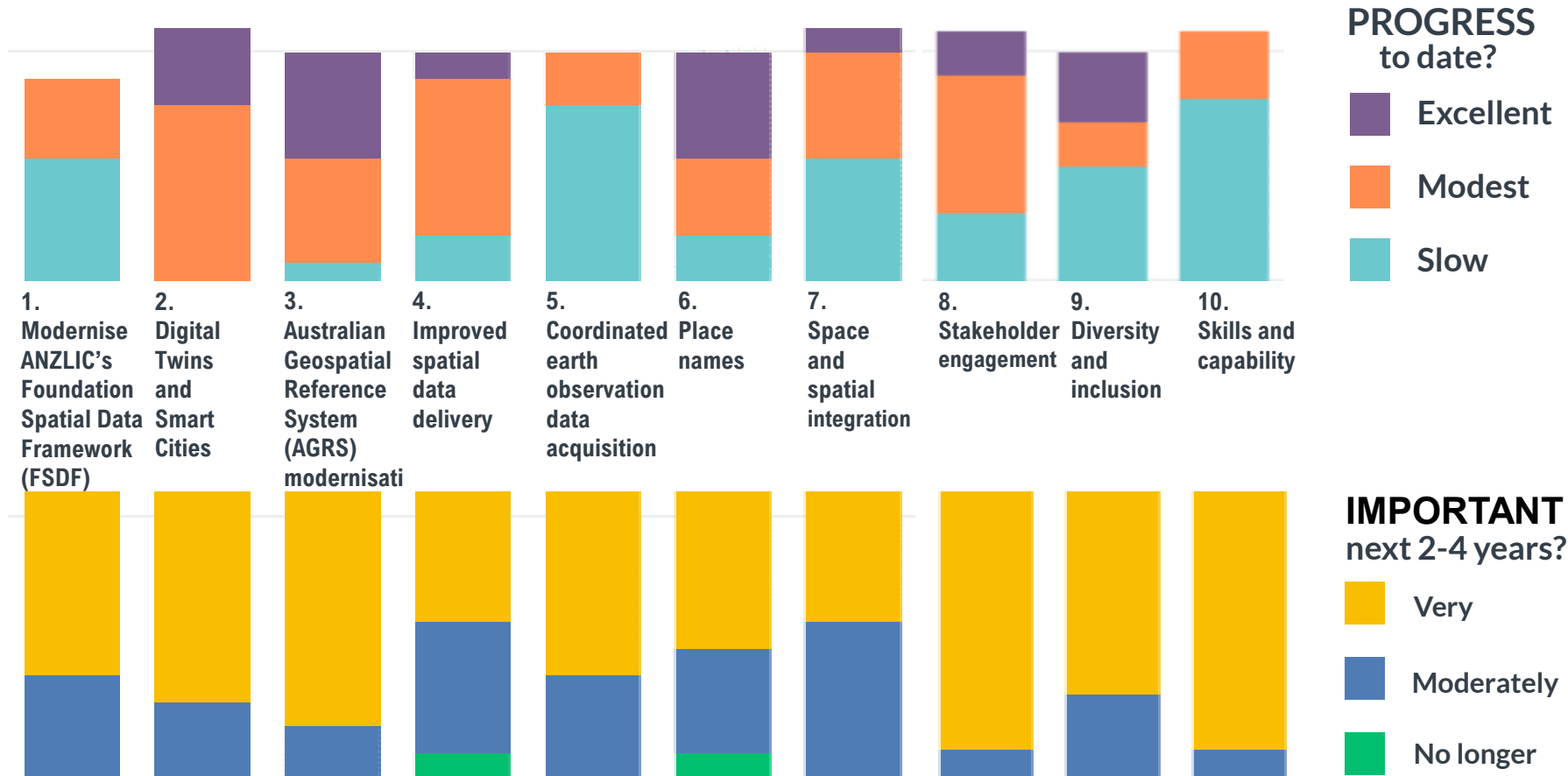


# Reviewing 10 strategic initiatives

- *Pre-survey: Rating the 10 ANZLIC initiatives*
- *Workshop: Review + update (5 groups x 2 initiatives)*

# Pre-survey: ANZLIC initiatives

Rating the **10 major initiatives** in the ANZLIC strategic plan



## 1. Modernise ANZLIC's Foundation Spatial Data Framework (FSDF)

Strengthen external relationships (outside of the sector)

Clear definition of themes with, e.g. schemas, that have agreement from local/state/fed to facilitate a coordinated approach to the delivery of valuable foundational data (relates to comment above)

Could be strengthened by a clear definition of what modernisation means (data, process, distribution). Can we learn from other countries regarding definition of modernisation.

## 2. Digital Twins and Smart Cities

Advance standards and definitions & interoperability

Strengthen external relationships (outside of the sector)

Clear links (strategy and technical) between federally funded smart city programs and local/state based DTs

Dynamic Digital Twins also important

Different approaches to DT exist (real time and strategic planning) and understanding this is important. This understandable given this is an emerging area

### 3. Australian Geospatial Reference System (AGRS) modernisation

Good progress made - not seen as a major issue

Not a problem for the Spatial Industry... but for others?

Need some work on articulating role out towards dynamic datum

### 4. Improved spatial data delivery

Feels like this problem is not the highest priority

Future data delivery will require championing standards and ensuring interoperability to enable uptake (think 3GPP). ANZLIC can play a role in endorsing /affirming this potentially.

There is always room to customise delivery for a user set

To encourage broader use working within broader accepted standards



## 5. Coordinated earth observation data acquisition

Many challenges, and demands on this data is making these challenges more acute

Fragmentation, delivery program, challenges for secured funding

Need to the national coordination, whole of economy licencing issues

Integrating small scale projects, how do we incorporate these

The data itself is getting more complex, and heavy - how to store and deliver this information.

At ICSM, trying to turn the bigger challenge into achievable 'bite size chunks'

How can the funding it receives be used to try and address these challenges?

Definition of Earth Observation - satellite, aerial, UAV and resolution?

Acknowledgement that EO is not just imagery - it can be elevation, depth etc - so not a single product.

Link with Earth Observation Government Network

## 6. Place names

Place names working group do great work,

Indigenous naming, link to the language

Changing names is an important process, perhaps benefit from great engagement

Engagement to the share learnings between jurisdictions may be a benefit

Consider linking to Diversity & Inclusion? Perhaps there is a link, eg consideration for agenda of gender in placing names for eg benefit from linking

## 7. Space and spatial integration

Critically important but a bit of **black hole of effort**

*[Note: workshop participants did not manage to discuss this item in detail but noted that the significant work being undertaken to progress the [Space and Spatial Industry Growth Roadmap 2030](#) covers this initiative adequately]*

## 8. Stakeholder engagement

Should be rebranded **strategic relationship management** - ANZLIC should define their engagement objectives for key stakeholders and have a relationship lead (i.e. ANZIC members to share the load of engagement) and each lead meet regularly with stakeholders

Shift **anzlic to ANZLIC** - formalise ANZLIC's role to one that has direct cross-jurisdiction ministerial interest and authority, with industry support.

ANZLIC work from the top down to ensure awareness and linkage of geospatial initiatives. Through to **local level engagement and conduit**.

How does ANZLIC resource/achieve effective engagement?

- leverage current funded projects to achieve this?
- How does ANZLIC use ICSM effectively to do this?
- leverage and connect to local ecosystems and network to communicate and engage.

Can ANZLIC **establish a formal mechanism** to gain greater/more regular engagement/ partnership with broader set of stakeholders? - SSSI, academia, other govt stakeholders  
- fragmentation of bodies can be an issue here (hopefully being addressed)

Should ANZLIC engage more **directly with the Aust Govt Location IDC**? E.g. geospatial policy/strategy/roadmap, other mutual projects.

## 9. Diversity and inclusion

Developing students knowledge of spatial/surveying industry

Having 'open days' for high school students

As an agency (NIAA) we could investigate an opportunity to initiate an Indigenous Australians Geospatial cadetship

All ANZLIC members (to/do) have a Diversity, Equity and Inclusion policy/plan?

How can we target people on the spectrum.

## 10. Skills and capability

Having ANZLIC 'direct; universities, etc to keep spatial / surveying courses open / going

ANZLIC support to industry bodies development of needed courses

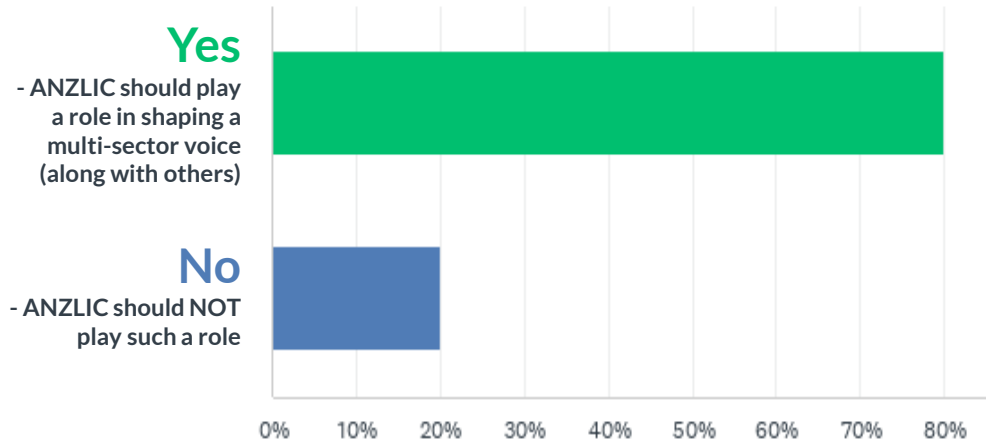


## ANZLIC's role

- *Framing: The geospatial ecosystem*
- *Pre-survey: ANZLIC role in strategic development*
- *Workshop: ANZLIC roles (polling)*

## Pre-survey: ANZLIC role in strategic development

To simplify and escalate strategic development in the coming 2-4 years **does ANZLIC need to consider how might we contribute to stimulating and supporting such a multi-sector "unified voice"?**



- “Collaborative approach to develop **a national geospatial strategy** for Australia”
- “Both **SSSI/SIBA** have committed to a merger roadmap - would welcome stronger collaboration/engagement with ANZLIC”
- “There is **no single forum to ensure alignment, and growth** - thought leadership needs to be backed by priority short and long term initiatives, **with whole-of-sector buy in**”.
- “ANZLIC has a long history, a strong presence and passionate advocates for spatial information who provide **balanced, pragmatic and experienced advice**”.
- “Explore a Spatial Commission as **a sounding board to ANZLIC** representing internal and external stakeholders”.
- “ANZLIC needs to be engaging with **Commonwealth and Local Government proactively** to bring all government voices together”.
- “ANZLIC is an important strategic body that should sit **outside of industry but be connected to it.**”
- “**Industry peak bodies should lead this**; ANZLIC can collaborate and engage with stakeholders.”

# Workshop: ANZLIC role in strategic development

**ANZLIC roles (from 2019 workshop):**  
Rank the importance towards 2024





## Shared focus & collaboration

- Next 12 months
- Something tangible
- What? Who? How?
- [ who??? ] +ANZLIC

### 1. WORKFORCE:

#### **Coordinated activities:**

attraction + recruitment +  
retention + diversity

### 2. R&D:

**Collaboration for a  
viable, future-proofed  
R&D sector** responsive  
to rapid change

### 3. DEVELOPMENT:

**Aligning the sector -  
what do we need to do  
differently?**

# SPRINT: Shared focus & collaboration

1

## WORKFORCE

- Next 12 months
- **Something tangible**
- **What? Who? How?**
- **[ ??? ] +ANZLIC**

### COLLAB SPRINT for 2022:

What are the opportunities around competency?  
Frameworks, national alignment, microcredentials

What is the labour strategy we need to address the pipeline challenge (can we learn from the US?) <https://www.fgdc.gov/ngac/ngac-geospatial-workforce-development-paper-final.pdf>

New jobs

Do we need to differentiate between surveying and spatial?

A good starting point is the FIG definition of a Surveyor  
[https://www.fig.net/news/archiv/news\\_2003/FIG\\_definition\\_of\\_surveyor\\_2003\\_fin.asp](https://www.fig.net/news/archiv/news_2003/FIG_definition_of_surveyor_2003_fin.asp)

What can we learn from NZ who have high course participants in surveying?

Alignment with the space and spatial strategy recommendations

We need ICT and Geospatial expertise

ANZLIC should advocate for the future skills people need

Microcredentials

The Australian Skills Commission publish a list of skills shortages - this is where priority focus and resources will be allocated. How do we get on this list? Why are we not on this list?

The Nat'l Commission of Vocation Education has placed surveying second on the list of priorities

What is the role of the university sector?  
Geography is not seen as a thing anymore. So what is it?

How should ANZLIC engage with the university sector? Do we need to stem the flow of courses being scrapped?

Universities like to specialise e.g. geodesy. How might we sell this to future candidates as an industry?

Curtin Spatial Science are offering their 'subjects' to help other disciplines/course

We need strategic planning and influence to bring other industries along - GIS as a core subject in other disciplines

We need to increase our profile

How do we exploit the remote working revolution?

How does ANZLIC work with a reset peak body who see workforce capability as it's core role? Workforce taskforce?

**Coordinated activities:**  
**attraction + recruitment**  
**+ retention + diversity**

*SURVEY QUOTE: "Workforce is a key challenge faced by all, and yet there is no mechanism to discuss, debate & agree joint programs of work to ameliorate the issue."*

ONGOING to start in 2022 --->

(nil)



# SPRINT: Shared focus & collaboration

2

R&D

Collaboration for a viable,  
future-proofed R&D sector  
responsive to rapid change

*SURVEY QUOTE: "[We need] metrics  
and concrete steps re the success  
measures / benefits realisation for  
future-proofing R&D"*

- Next 12 months
- Something tangible
- What? Who? How?
- [ ??? ] +ANZLIC

R&D in Australia is largely under-  
developed, relative to other  
similar countries

Procurement is an inhibitor, and  
shifts risk to the supplier

Close and continuous  
collaboration

Lots of unique bespoke R&D  
happening, but not so well  
coordinated

Maintaining relevance to current  
issues is critical

Create open ways for  
researchers, government and  
industry to contribute

COLLAB SPRINT for 2022:

Publishing list  
of R&D  
opportunities

Scan  
international  
R&D landscape

Align ideas  
with  
community  
needs

Identify/remove  
duplication of  
R&D

R&D is a shared responsibility

Mutual understanding what are  
clear areas for research,  
development vs. implementation

ANZLIC should be more forward  
in identifying areas of R&D and  
innovation opportunities

ONGOING to start in 2022 - ->

Reinvigorate a CRC-SI with clear rules and contribution opportunities for gov, academia and industry

# SPRINT: Shared focus & collaboration

3

## SECTOR DEVELOPMENT

- Next 12 months
- Something tangible
- What? Who? How?
- [ ??? ] +ANZLIC

### COLLAB SPRINT for 2022:

**Working Group to clarify roles & develop model for ANZLIC going forward:** How it operates; how it is funded; how funds are allocated.

### ONGOING to start in 2022 ---->

Data & platforms coming together

Jurisdictions are largely aligned on data and digital strategies

ANZLIC create stronger linkages with other government levels

ANZLIC was previously more adequately resourced - to help drive strategic engagement. What can we do to find more resources going forward to help drive collaboration and outcomes?

**Aligning the sector - what do we need to do differently?**

Spatial underpins everything / many other sectors

Need a program that enables collaboration

Industry peak bodies can be influential

On the cusp of real change

Industry engagement and leadership to connect with ANZLIC

*SURVEY QUOTE: "There is no single forum to ensure alignment & growth - thought leadership needs to be backed by priority short & long term initiatives, where whole-of-sector buys in."*

ANZLIC members have a role in their jurisdictions to connect and provide leadership

ANZLIC's role in developing a roadmap with some tangible outcomes, and helping seed pieces of that roadmap with industry, government and others. Focus on the 'what gets done' rather than only on the roles. e.g. CSIRO's missions - provides a good model

### **Sector-wide representative working group: ANZLIC + (industry + prof assocns) + R&D/educ community**

- Role of ANZLIC representatives in representing their tier of Government
- Consider new operating model (including benefits in terms of delivery)
- ANZLIC resourcing and role of ANZLIC office
- ANZLIC consider options for involvement of R&D & Industry with the aim to introduce broad sectoral thought leadership & advice
- Review international best practice
- Understand each sectors interest/input to ANZLIC work program



**ANZLIC**  
the Spatial Information Council

# Participants

- *Workshop: 23 February 2022*

# ANZLIC strategic workshop participants: Feb 2022

## ANZLIC members

**Melissa Harris (Chair)**, Registrar of Titles, Chief Executive, Land Use Victoria, Local Infrastructure, Department of Environment, Land, Water & Planning, VIC

**Sandy Carruthers (Deputy Chair)**, Executive Director, Strategy, Science and Corporate Services, and Chief Information Officer, Department for Environment and Water, SA

**George Cilliers**, A/g Executive Group Manager, Statutory Planning, Environment Planning and Sustainable Development, ACT

**Alison Rose**, Chief of Place, Space and Communities Division, Geoscience Australia, Commonwealth

**Wayne Patterson**, A/g Executive Director, Spatial Services, NSW & Lead - ICSM Telco Data Working Group

**Aaron Jordan**, Chief Digital Officer, Toitū Te Whenua Land Information New Zealand, NZ (proxy for Jan Pierce, Kaihautū Customer Delivery)

**Richard Smith**, Senior Director, Land Information, Department of Infrastructure, Planning & Logistics, NT

**Steve Jacoby PSM**, Executive Director, Land & Spatial Information, Department of Resources, QLD

**Michael Giudici**, Surveyor General of Tasmania and A/g General Manager, Land Tasmania, Department of Primary Industries, Parks, Water & Environment, TAS, and ICSM Deputy Co-Chair

**Trish Scully**, A/g Chief Executive, Landgate, WA

## Intergovernmental Committee on Surveying and Mapping (ICSM)

**Craig Sandy**, Surveyor General of Victoria and ICSM Chair

**Anselm Haanen**, Surveyor General of NZ & Lead - ICSM Cadastre Working Group

**Annaliese Walster**, Director Location Intelligence, Landgate, WA, ICSM Deputy Co-Chair & Lead - ICSM Addressing Working Group

**Robert Sarib**, Surveyor General of NT and Lead - ICSM Place Names Working Group

**Bradley Slape**, Chair, ICSM Cadastre Working Group

**Kristy Van Putten**, Spatial Information Manager, Statutory Planning, Environment, Planning and Sustainable Development Directorate, ACT & Chair of the ICSM Elevation, Depth & Imagery Working Group

**Lesley Waterhouse**, Executive Officer ICSM

## ANZLIC secretariat

Commonwealth Department of Industry, Science, Energy and Resources

**Kayelle Drinkwater**, General Manager, Data Policy Branch

**Judi Dawton**, Manager, Data Strategy & Location Services

**Ann Davies**, Project Officer, Data Strategy & Location Services

**Australia and New Zealand Land Information Council (ANZLIC or the 'Spatial Information Council')** is the cross-jurisdictional group of senior officials that develops and influences policies and strategies for maximising access to and benefits of Australian and New Zealand spatial information.

For further information or to provide any additional feedback please contact:

ANZLIC Secretariat

Data Strategy and  
Location Services Section,  
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and Resources

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# ANZLIC strategic workshop participants: Feb 2022

## Stakeholder representatives

### Dean Capobianco

CEO, Geoscape Australia

### Dr. Marie Truelove

CSIRO's Data61

### Martin Brady

Australian Bureau of Statistics (ABS)

### Jennifer Mitchell

Data Services Manager, Bureau of Meteorology (BOM)

### John Bally

Business Manager, National Council for Fire & Emergency Services (AFAC)

### Narelle Underwood

CEO, NSW Telco Authority

### Paul Digney

President, SSSI National

### Tony Wheeler

CEO, SIBA/GITA

### Michelle Blicavs

Consulting Surveyors National & Association of Consulting Surveyors (NSW)

### Amelia Davies

Chair, Space, Spatial & Surveying Diversity Leadership Network

### Glenn Johnstone

Geospatial Advisor, National Indigenous Australians Agency

### Adam Ellison

Data Advisor, National Indigenous Australians Agency

### Prof Stuart Barr

Director, Australian Urban Research Infrastructure Network (AURIN)

### Michael Rigby

Australian Urban Research Infrastructure Network (AURIN)

### Prof. Abbas Rajabifard

CSDILA, University of Melbourne

### Graeme Kernich

CEO, FrontierSI

### Prof Andy Koronios

CEO, SmartSat CRC

### Glenn Cockerton

Dep Chair, Steering Committee, Space+Spatial Industry Growth Roadmap

### Alistair Byrom

President, SIBA/GITA

### Zaffar Sadiq Mohamed-Ghouse

UN-GGIM-Private Sector Network (Asia-Pac)

### James Cameron

Australian Construction Industry Forum (ACIF) and Australasian BIM Advisory Board (ABAB)

### Adam Beck

Executive Director, Smart Cities Council ANZ

### Laura Baker

President, Australian Smart Communities Association (ASCA)

### Danika Bakalich

Connection Point Advisory

## ANZLIC observers

### Jeremy Palmer

Director Data, Toitū Te Whenua Land Information New Zealand, NZ

### Dione Bilick

Project Director, Spatial WA, Landgate, WA

### Roger Fraser

Chief Geospatial Scientist, Department of Environment, Land, Water & Planning, VIC

## Workshop design, facilitation & reporting



### Allison Hornery

### John Wells

PARTICIPANT STAKEHOLDER	SUMMARY
<a href="#"><u>Geoscience Australia</u></a>	The nation's trusted advisor on the geology and geography of Australia. Applies science and technology to describe and understand the Earth for the benefit of Australia.
<a href="#"><u>Geoscape Australia Limited</u></a>	A company jointly owned (in equal shares) by Australia's Commonwealth, state and territory governments that provides authoritative national-level spatial data as public good supported by commercial activity.
<a href="#"><u>CSIRO's Data61</u></a>	Australia's data innovation network that transforms existing industries and creates new ones through the application of science and technology.
<a href="#"><u>Australian Bureau of Statistics (ABS)</u></a>	Informs Australia's decisions by partnering and innovating to deliver relevant, trusted, objective data, statistics and insights.
<a href="#"><u>Bureau of Meteorology</u></a>	The Bureau of Meteorology is Australia's national weather, climate and water agency. Its expertise and services assist Australians in dealing with the harsh realities of their natural environment, including drought, floods, fires, storms, tsunami and tropical cyclones.
<a href="#"><u>NSW Telco Authority</u></a>	Leading & driving reform of radio telecommunications across the NSW public sector. The Telco Authority supports NSW Government agencies that use operational telecommunications for critical and non-critical purposes.
<a href="#"><u>Surveying and Spatial Sciences Institute (SSSI)</u></a>	The peak body advocating for professionals in the spatial information industry and spatial science community in both the national and international arena.
<a href="#"><u>Consulting Surveyors National</u></a>	Represents surveyors at the national level on issues affecting the interests of consulting surveyors and allied professions.
<a href="#"><u>Association of Consulting Surveyors (ACS NSW)</u></a>	Leads the surveying profession through advocacy and research, providing support to its member firms to build strong and thriving businesses through education, ensuring the future and longevity of the surveying profession for the NSW economy.
<a href="#"><u>Space, Spatial and Surveying Diversity Leadership Network</u></a>	SSS-DLN is an initiative in response to the <a href="#"><u>2026 Spatial Industry Transformation and Growth Agenda</u></a> , bringing together leadership from business, government and education to provide visible advocacy for diversity & inclusion within the professions of space, spatial & surveying.
<a href="#"><u>National Indigenous Australians Agency</u></a>	Committed to improving the lives of all Aboriginal and Torres Strait Islander peoples. The NIAA team includes people across Australia who work closely with communities to ensure policies, programs and services address these unique needs.
<a href="#"><u>Australian Urban Research Infrastructure Network (AURIN)</u></a>	Provides data, tools and infrastructure for researchers, government and industry to make evidence-based decisions about our towns, cities and communities.

PARTICIPANT STAKEHOLDER	SUMMARY
<a href="#"><u>National Council for Fire &amp; Emergency Services (AFAC)</u></a>	The Australia and New Zealand National Council for fire and emergency services.
<a href="#"><u>Centre for Spatial Data Infrastructure and Land Administration (CSDILA)</u></a>	Based in the University of Melbourne School of Engineering CSDILA undertakes research in a variety of areas relating to spatial data infrastructures, spatial enablement and land administration.
<a href="#"><u>FrontierSI</u></a>	A not-for-profit company that delivers benefits to governments, industry and the community through deep expertise in spatial mapping, infrastructures, positioning, geodesy, analytics and standards.
<a href="#"><u>SmartSat CRC</u></a>	A consortium of universities and research organisations, partnered with industry and funded by the Australian Government to develop know-how and technologies in advanced telecommunications and IoT connectivity, intelligent satellite systems and Earth observation next generation data services.
<a href="#"><u>Space + Spatial Industry Growth Roadmap 2030</u></a>	A national coalition of leading organisations exploring the industry opportunities for Australia at the intersection of 'space' and 'spatial'.
<a href="#"><u>Spatial Industries Business Association / Geospatial Information Technology Association ANZ</u></a>	SIBA/GITA is the peak industry body for the spatial sector which drives use of spatial information to underpin digital transformation in Australasia.
<a href="#"><u>UNGGIM Private Sector Network (Asia Pacific)</u></a>	UNGGIM-PSN supports the aims of the UN Committee of Experts on GGIM as UN-GGIM sets the agenda for the development of global geospatial information & promotes its use to address key global challenges.
<a href="#"><u>Australian Construction Industry Forum (ACIF)</u></a>	Facilitates and supports an active dialogue between the key players in engineering, construction, building, other industry groups, and government agencies.
<a href="#"><u>Australasian BIM Advisory Board (ABAB)</u></a>	ABAB is a peak body comprised of the <a href="#"><u>Australasian Procurement and Construction Council (APCC)</u></a> and the <a href="#"><u>Australian Construction Industry Forum (ACIF)</u></a> , together with the key standard-setting bodies, <a href="#"><u>NATSPEC</u></a> , <a href="#"><u>buildingSMART</u></a> and <a href="#"><u>Standards Australia</u></a> . ABAB links industry leaders and expertise from government, industry and academia, and promotes best practice and consistent approaches to BIM practices, standards and requirements.
<a href="#"><u>Smart Cities Council Australia and New Zealand</u></a>	A network of companies advised by researchers and standards bodies envisioning a world where digital technology and intelligent design have been harnessed to create smart, sustainable cities with high-quality living and high-quality jobs.
<a href="#"><u>Australian Smart Communities Association (ASCA)</u></a>	Having started as a collaborative coalition of local government, Regional Development Associations (RDAs) and Regional Organisations of Councils (ROCs), ASCA have established themselves as the peak industry association in Australia for the rapidly developing digital, sharing and interconnected communities.

## The stakeholders on this page were invited but unable to participate in the workshop

INVITED STAKEHOLDER	SUMMARY
<a href="#">Department of the Prime Minister and Cabinet</a>	Commonwealth department supporting the Prime Minister, Cabinet, Portfolio Ministers and Assistant Ministers.
<a href="#">Australian Space Agency</a>	The public service agency of Australia responsible for the development of Australia's space industry, coordinating domestic activities, identifying opportunities and facilitating international space engagement.
<a href="#">Australian Geospatial Intelligence Organisation, Department of Defence</a>	Provides geospatial intelligence from imagery and other sources in support of Australia's defence and national interests.
<a href="#">Department of Education, Skills and Employment (DESE)</a>	The Commonwealth Department for education, skills and employment. DESE contributes to Australia's economic prosperity and social wellbeing by creating opportunities and driving better outcomes for people, through education, skills and employment pathways.
<a href="#">Department of Agriculture, Water and the Environment</a>	Designs and implements Australian Government policy and programs to protect and enhance agriculture, the environment, water and heritage.
<a href="#">Australian Climate Service</a>	The service is a partnership, made up of world leading science, information and expertise from the Bureau of Meteorology, Geoscience Australia, CSIRO and Australian Bureau of Statistics. It brings the Commonwealth's extensive climate and natural hazard information into a single national view.
<a href="#">Australian Hydrographic Office, Department of Defence</a>	The Australian Hydrographic Office is the Australian Commonwealth Government agency responsible for providing hydrographic services that meet Australia's obligations under the SOLAS convention and the national interest; enabling safe navigation, maritime trade and supporting protection of the marine environment.
<a href="#">Australian Local Government Association (ALGA)</a>	The national voice of local government, representing 537 councils across the country. ALGA is a federation of state and territory local government associations.

INVITED ORGANISATION	SUMMARY
<a href="#">Planning Institute of Australia</a>	The national body representing planning and the planning profession to create better communities.
<a href="#">Australasian Spatial Information Education and Research Association (ASIERA)</a>	ASIERA is an association of the tertiary education institutions in Australasia that have a focus on spatial information education and research.
<a href="#">Australian Urban Design Research Centre (AUDRC), UWA</a>	An independent, interdisciplinary research centre, and part of The University of Western Australia's (Global Top 100) School of Design, with Postgraduate courses in Urban Design.
<a href="#">Engineers Australia</a>	Australia's principal engineering association serving and representing professionals at every level, across all fields of practice.
<a href="#">Australian Institute of Architects</a>	Peak body for the architectural profession in Australia. The Institute works to improve the built environment by promoting quality, responsible, sustainable design.
<a href="#">Infrastructure Australia</a>	Provides independent research and advice to governments, industry and the community on the infrastructure investments and reforms to benefit all Australians.
<a href="#">Locus Charter</a>	Shared ethical principles to improve clarity, trustworthiness and trust, and help to realise greater overall benefits from the use of geospatial data technologies.