2026 Spatial Industry Transformation and Growth Agenda

Action Plan

Summary of key initiatives and roadmap to drive the future of the Australian spatial sector

29 March 2017

For Release
Location technology and spatial information underpin the modern Australian economy, providing essential support for everything from road and maritime navigation to fire and flood monitoring. Almost every sector of the Australian economy benefits from the use of location technologies, often without realising how important these technologies are in helping industries to thrive.

The power of location technologies is growing rapidly and they are poised to play a central role in transforming the Australian economy. By leveraging the enormous potential of spatial information, we can accelerate the growth of both traditional and emerging markets and industries – location services can transform industries as diverse as autonomous transport and artificial intelligence.

The National Innovation and Science Agenda (NISA) sets the scene for Australia to become a leading digital nation fostering innovation and entrepreneurship through collaboration. The 2026 Spatial Industry Transformation and Growth Agenda (2026Agenda) provides the vision and direction to enable the spatial industry to deliver national and global services that will support the NISA.

The 2026Agenda sets out a coordinated suite of initiatives for the next decade that will foster a new era of cooperation between industry, government and academia. It aims to expand the spatial sector’s impact right across the economy and to equip all Australians with future-ready skills.

I encourage the spatial sector, and the broader community, to take this 2026Agenda forward and become a leading example of innovation and leadership for the nation.

Foreword by the Co-Chairs of the 2026 Agenda

The spatial sector adds significant economic value to the Australian economy. It has been singled out as one of the key industry growth sectors in which Australia has a global competitive advantage. The rapid advances in location-related technologies are quickly redefining the sector and its players; we are facing a great opportunity to take advantage of this transformation while limiting risks associated with inaction.

This Action Plan is one of the key outcomes of the 2026 Spatial Industry Transformation and Growth Agenda (2026Agenda). It has been developed through national consultation with over 400 people who work with, and benefit from, spatial and location technologies.

This Action Plan is the beginning of the transformation. It presents the vision, initiatives and scheduling that collectively will contribute to the accelerated growth of spatial technologies in Australia and to the further development of location-based industries and their impact right across the Australian economy and our broader society.

We have an exciting challenge ahead of us, and we want to take this opportunity to ask spatial businesses, academia and government agencies to take a leadership role in implementing this plan.

If you have not had the opportunity to participate in this conversation, we welcome you to do so. The 2026Agenda is a rolling plan that will be constantly receptive to include new ideas to ensure we are at the forefront of the spatial developments.

Glenn Cockerton
Immediate Past Chairman
SIBA

Peter Woodgate
CEO
CRC for Spatial Information
The 2026Agenda Framework

The 2026 Spatial Industry Transformation and Growth Agenda (2026Agenda) is a whole-of-sector initiative of business, government, research, academia and spatial-user organisations. It sets out the roadmap to drive accelerated growth that will transform the Australian spatial sector and location-dependent industries over the next 10 years. It will influence the economy Australia-wide and our broader society.

**Vision:**

Australia will excel in the development of location-related technologies, services and skills that deliver value to businesses and communities.

**KEY PILLARS OF THE TRANSFORMATION**

These pillars provide the framework for the 34 key initiatives that are the engine of the transformation:

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<tr>
<th>A</th>
<th>Public Infrastructure and Analytics</th>
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<tbody>
<tr>
<td>Accelerate provision of coordinated, open access, nation wide, public spatial information and analytic tools that are easy to use, and facilitate data mining and interpretation for the benefit of all users</td>
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<th>B</th>
<th>Innovation and Entrepreneurship</th>
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<tr>
<td>Foster spatial innovation and entrepreneurial skills, capitalising on technological advances, developing creative business models to open up new markets and opportunities</td>
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<th>C</th>
<th>Outreach</th>
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<td>Raise the profile of the spatial sector, clearly communicating the value and contribution that location intelligence brings to the economy and society</td>
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<th>D</th>
<th>Research and Development</th>
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<tr>
<td>Create a nation wide, coordinated, collaborative and focused spatial R&amp;D agenda that meets changing national needs and continues to grow linkages between research, innovation and commercialisation</td>
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<th>E</th>
<th>Education, Training and Capacity Building</th>
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<tr>
<td>Introduce location-related training at all education levels, nation wide, including regional communities, to develop a well prepared and diverse workforce that benefits from fundamental spatial skills</td>
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<th>F</th>
<th>Representation</th>
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<td>Unify and consolidate representative spatial bodies to speak with one voice, and provide effective leadership and advocacy for spatial</td>
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TRANSFORMATION AND GROWTH INITIATIVES

The Australian spatial sector has determined that this suite of high priority initiatives will make an essential contribution to the transformation and growth of the Australian economy. And, over the next decade, accelerate the realisation of benefits to the wider community.

A. Public Infrastructure and Analytics

A1. Develop and publish a national framework and roadmap setting out all major public spatial infrastructure developments and supporting analytical capabilities for the next five years, including:
   - National Positioning Infrastructure (NPI)
   - Foundational Spatial Data Framework (FSDF) and Location Intelligence Knowledge Platform (LINK)
   - Nation wide Spatial Data Infrastructure (NSDI)
   - Australian Geoscience Data Cube/Digital Earth Australia (DEA)
   - Land Registries Reform
   - Visualisation Engines and Globes

A2. Prioritise the collection of, and access to, public datasets of national importance to focus investment and publish the plans for their maintenance, upgrading and availability

A3. Complete the implementation of the development of the dynamic datum including the move to 3D

A4. Publish the plan for future improvements to the National Elevation Data Framework

A5. Develop a National Spatial Analytics Capability (NSAC) to provide government, business and consumers with a simpler, coordinated and collaborative means to access, process and add value to open data

B. Innovation and Entrepreneurship

B1. Open location technologies and services to new sectors through the analysis of their problems, challenges and value chains
   - The high priority growth sectors are: transport, agriculture, health, defence and security, energy, mining and the built environment. The natural environment should also be given special consideration

B2. Create national wide location innovation ecosystems that allow entrepreneurs, startups and researchers to access real world data for fast prototyping and development of business expertise to facilitate the transition from idea-to-commercialisation

B3. Establish and grow relationships between the spatial sector and the investment community, including the venture capital industry and growth funds

B4. Publish information about existing programs and organisations that can support the export of products and services from Australian based spatial businesses

B5. Undertake pilot exercises with jurisdictions and/or organisations that are already offering innovative procurement programs so that the benefits of new procurement approaches can be showcased using spatial and location examples

B6. Create a program to develop and deploy low-cost dedicated Australian earth observation sensors and satellites to supply nation-critical data

B7. Implement a pilot international exchange program for professionals who can accelerate Australian based spatial innovation

B8. Promote the adoption of digital location information in legislation to progressively replace the use of analogue map-based information in current legislation

B9. When the time is right, develop a bid to create a Space and Spatial Growth Centre

C. Outreach

C1. Grow relationships with peak industry bodies from the priority growth sectors (B1) and with key international organisations

C2. Arrange for the spatial peak bodies and their members to specifically target conferences and forums in the priority growth sectors (B1) to ensure a spatial presence
C3. Develop and run an awareness campaign promoting the benefits to the economy and society provided by location-related technologies, ensuring the message and language are accessible to the Australian public

C4. Regularly publish information about the size, composition, impact and value of the spatial sector in Australia

C5. Create a Location Young Professionals Engagement Program targeting spatial and STEM graduates

C6. Re-purpose the Locate Conference to: 1) include streams specifically focused on the priority growth sectors (B1) to promote cross-sectoral participation, 2) report on progress with the implementation of this Action Plan, 3) seek advice on improvements and updates to the Action Plan

D. Research and Development

D1. Develop a nation-wide, nation-building research agenda that sets out the major spatial challenges in the short, medium and long term

D2. Identify, implement and showcase at least one transformative R&D initiative for each priority growth sector (B1)

D3. Publish a plan setting out the incentives that will ensure the supply of industry-ready spatial PhDs for the next decade

D4. Publish information on available mechanisms and benefits that can reward businesses that invest in spatial R&D

E. Education, Training and Capacity Building

E1. Develop a strategic framework to coordinate the management of education, training and capacity building (K-12, TAFE and universities), comprising:
   - A nation-wide plan to maintain high priority spatial disciplines at the tertiary education level including geodesy, surveying, photogrammetry, spatial analysis and new future-fit competencies including business subjects
   - A plan to include fundamental spatial knowledge in cross-disciplines where location-related technologies and skills are gaining importance (e.g. data science, ICT, statistics)
   - Scaling up the nation-wide spatial curriculum in primary and secondary schools

E2. Implement a program of training offering up-skilling opportunities in spatial disciplines to existing employees in the workforce, including both technical and management streams

E3. Develop and facilitate a spatial professionals national exchange program across government, business and academia

E4. Establish and grow relationships with Regional Development Australia and the Regional Australia Institute, among others, to grow location-related regional capacity

E5. Design and implement a nation-wide action plan to mitigate the forecasted shortage of surveyors and geospatial specialists in Australia over the next 10 years

E6. Identify and facilitate the implementation of initiatives that will improve diversity in the spatial sector workforce

F. Representation

F1. The two peak bodies (SSSI and SIBA) to form one spatial organisation

F2. Align strategies and roadmaps of representative organisations in the spatial sector

F3. Prepare and publish a single explanatory statement of the roles of the key peak bodies across the spatial sector and how they complement each other

F4. Consolidation of a group to drive the 2026Agenda, with the key responsibility to promote and develop innovative leadership across all areas of the spatial sector
About the Spatial Sector

The spatial sector has been identified as one of the key industry growth sectors in which Australia has a global competitive advantage. Traditionally, the spatial sector has focussed on positioning, measuring and mapping the Earth’s surface; including areas such as cadastral surveying, geodesy, engineering and mine surveying, remote sensing, GIS, and cartography. In recent times however, the use and generation of location data has expanded rapidly to other areas of the economy.

Earth Observation currently provides $500 million in direct benefits to Australia and is projected to grow to $1.7 billion by 2025. Precise positioning was estimated to have added over $2.3 billion to Australian GDP in 2012, and is projected to exceed $8 billion in 2020. These technological advances are aligned with estimates of current global growth of 30% per annum for geo-services and at 54% compound annual growth rate (CAGR) for location-based services.

In addition, over the next five years, we will see hundreds of new and higher-resolution imaging satellites and a near-doubling of the global and regional navigation satellite systems. The capability to effectively store and analyse ‘Big Data’ will allow a new level of insight across entire value chains.

These new and more efficient technologies will be improved by developments in the telecommunications domain – such as the National Broadband Network (NBN), including terrestrial and satellite based communication systems, mobile technologies such as G5 networks and applications (apps), autonomous aircraft and vehicles and a proliferation of sensor systems contributing to the Internet of Things (IoT).

This evolving landscape presents a unique opportunity for the Australian spatial sector to accelerate the growth of the Australian economy and provide far greater benefits to society. Our key task is to ensure the right national coordination of our existing capabilities. This is what the 2026Agenda is all about.

About the 2026Agenda

The 2026 Spatial Industry Transformation and Growth Agenda (2026Agenda) is a whole-of-sector initiative of business, government, research, academia and spatial-user organisations. Work on the 2026Agenda started in July 2016, and has since engaged more than 400 individuals through a combination of Leadership Forums across Australia and one-on-one interviews with representatives of priority sectors including agriculture, health, transport and energy amongst others. This initial national consultation has identified the values of the 2026Agenda, and those of the organisations and individuals involved in its implementation:

- **Collaborative:** working together to leverage our complementary skills, establishing partnerships to maximise impact
- **Innovative:** individually and collectively, to be an exemplar in innovation for the nation
- **User-focussed:** communicating in the language of current and future users, seeing our users’ needs through their eyes
- **Adaptive:** foreseeing change and being agile in response, forward looking and ready to embark on new challenges to help foster growth
- **Rigorous:** being evidence-based with a strong sense of quality in all that we do

The 2026Agenda will be developed further over the next 10 years. It aligns with the National Innovation and Science Agenda (NISA) and has strong linkages to: the Australian Earth Observation Community Plan (2016) issued by the Australian Earth Observation Community Coordination Group (AEOCCG), the Future Growth of the Spatial Industries Position Paper (October 2016) issued by the Spatial Industries Business Association (SIBA) and the Australian and New Zealand Land Information Council (ANZLIC) Strategic Plan 2016-2019. All 2026Agenda activities to date have been coordinated by a working group jointly chaired by representatives of SIBA and the CRC for Spatial Information, and including representatives of ANZLIC, AEOCCG, Data 61 (CSIRO), Landgate, Geoscience Australia, the Queensland Department of Natural Resources and Mines, and the Department of Prime Minister and Cabinet.
About this document and the full report

This is the first iteration of the 2026Agenda Action Plan, presenting the high priority initiatives that will drive the spatial sector’s transformation and growth.

This Action Plan is accompanied by a comprehensive resources document including: 1) detail, rationale and ideas for implementation of the 2026Agenda framework and initiatives, 2) detailed feedback from the national consultation including the barriers to growth, the needs and the many suggestions that have led to the development of the vision and 3) an explanation of the consultation’s methodology, technical details and acronyms.

Acknowledgments

The 2026Agenda team and the working party would like to thank all those who have participated in this initiative so far, for the many great ideas and contributions that have so willingly been provided.

Call for action

The 2026Agenda team is coordinating the implementation of initiatives, which will commence in 2017.

We are seeking participants willing to take a leading role in this next phase.

If you or your organisation want to help drive this transformation:

- Get involved in the implementation of initiatives by contacting us: info@2026agenda.com

- Contribute to the existing ideas in the pipeline, or propose your transformational initiative: www.2026agenda.useresponse.com

- For more details, and to consult the supporting documentation, please visit the 2026Agenda website: www.2026agenda.com

Supporting documents

2026Agenda: Insights Report
Summarises interviews with leaders of the spatial sector, and identifies barriers to growth and areas for transformation.

2026Agenda: Ideas Paper
National consultation discussion paper. Includes draft vision and needs statements that served as input for the generation of specific ideas and initiatives.