



# 2026 Spatial Industry Transformation and Growth Agenda Action Plan – Accelerating Change

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

02 April 2019

FOR RELEASE

## Foreword from the Co-Chairs of the 2026Agenda

Year on year the spatial sector continues to provide ever greater value to the Australian economy. Since the 2017 release of the 2026Agenda: Action Plan, the spatial sector has enjoyed significant increases in funding for the provisioning of foundation spatial infrastructure designed to benefit every sector of the Australian economy and every element of Australian society. The Action Plan is now increasingly reflected in the long term strategies of government agencies across the country, and the private sector is realising more and more of the growth potential first identified through our consultations in 2016.

However, much more needs to be done. Australia is at a cross-roads in developing and provisioning fundamental, next generation spatial infrastructure, data stores and enabling systems. Users are demanding precision data and services delivered in near-real time, customised to their needs at any location. At stake is our national ability, across all sectors of the economy and community, to put in place fully integrated supply chains that can realise optimum value creation at the national level for systems managers and end users.

In 2019 we are releasing an updated 2026Agenda Action Plan. This update reflects the efforts of the many contributors over the past two years who have made a significant difference to the size, diversity and impact of the industry. It also frames the challenges before the industry in staying the course so that we can leverage ever greater value through a more systematic and collaborative approach to the laying down of the nationwide infrastructure and capabilities that we need.

The 2026Agenda is not an organisation, it is not a funding mechanism, nor does it exist in isolation. 2019 is the year for a refresh in the number and breadth of organisations and individuals willing to drive change through their organisations, stakeholders, clients and networks. This year we can capitalise on recent national spatial infrastructure investments to achieve new things, build on the emerging Australian space sector, enter new markets, and deliver on our ideas. It is a year to research the next generation of technology, to launch or transform your business, and to re-examine how to harvest the best of government, business and academia and researchers to solve national challenges together.

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

**Glenn Cockerton and Peter Woodgate**  
Co Chairs – 2026Agenda Leadership Group

## The road to 2026 so far

The past two years have seen major progress against a number of key initiatives from the 2017 Action Plan, resulting in a significant change in the awareness and impact of spatial technologies across both new and existing application industries. Most notably over the last year, the funding of the National Positioning Infrastructure Capability, the Satellite Based Augmentation System, and Digital Earth Australia has drawn significant focus to the Public Infrastructure pillar of the Agenda. While implementation of this pillar's initiatives has primarily been within the government sector, both the private sector and academia have welcomed the greater certainty and long-term nature of these major infrastructure investments, and many have moved to capitalise on these to develop new ideas and services.

2018 saw the establishment of the new Australian Space Agency, an agency focused on developing and growing both the upstream "design, build and launch" sector of space, as well as the downstream "storage, analysis and use" of space-based data, a role the Spatial industry leads for the nation. A key outcome will be the streamlining of data supply chains from space to spatial and the opening up of new supply chains. Importantly, the Agency will focus on inspiring the Australian community and the next generation of Space and STEM entrepreneurs. This focus creates an ideal opportunity for the outreach, education and innovation pillars of the 2026Agenda.

The Locate conference continues to be a strong forum for future focused spatial organisations to meet to discuss new ideas, and celebrate previous successes. Importantly, this conference has been evolving significantly to focus on impacts, outcomes and applications, and has seen a greater variety of delegates, presentations and organisations attend each year. Diversity has also been a key focus, with the Spatial & Surveying Diversity Leadership Network (S&SDLN) formed in February 2018, seeking improved diversity and inclusion in the spatial sector. Currently comprising around 30 members from government, industry and academia, the network has developed a joint vision, focus areas and an action plan and is coordinated by SIBA|GITA with support from the Victorian Department of Environment, Land, Water and Planning.

In November 2018, ANZLIC – the Spatial Information Council published its Collaboration Framework which outlines priorities for inter-jurisdictional collaboration projects. These include the transition to 3D/4D cadastral systems, development of collaborative approaches for access to elevation and imagery data, and the transition to GDA2020.

In 2018/19, the advancement and application of R&D in Australia received a boost through two major developments. First, FrontierSI was launched as an ongoing entity to continue and evolve the successes seen within the CRC for Spatial Information. FrontierSI continues to be a connection point and collaborative model for organisations to work together to solve shared challenges. Second, an exciting proposal for the new SmartSatCRC was submitted for approval by the Australian Government. The SmartSatCRC proposal comprises over \$200m AUD applied research effort, with 82 participants (national and international) so far with

more than 65% from the private sector. If successful, it will be Australia's biggest ever nationally coordinated ecosystem of space research-industry collaboration. The proposal includes a dedicated program in satellite based Earth Observation and Analytics as well as plans for the development and launch of dedicated satellites.

Across the spatial industry, support for the aims and vision of the 2026Agenda is very high. The implementation of this ambitious plan continues to be a challenge, but one the spatial industry is more than capable of overcoming together.

## 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 and application of location-related data, infrastructure, technologies, services and skills that deliver value to businesses, communities and the environment.**

## KEY PILLARS OF THE TRANSFORMATION

These pillars provide the framework for the 32 key initiatives that are the engine of the transformation:

### A Public Infrastructure and Analytics

Accelerate the realisation of location-related ideas by providing all Australians with open access to nation-wide coordinated public spatial information and analytic tools that are easy-to-use, and facilitate data mining and interpretation

### B Innovation and Entrepreneurship

Foster innovation and entrepreneurial skills in the spatial sector, capitalising on technological advances, developing creative business models to open up new markets and opportunities

### C Outreach

Raise the profile of the spatial sector, clearly communicate the value and contribution that location intelligence brings to the Australian economy and society

### D Research and Development

Create a nation-wide, coordinated, collaborative and focused spatial R&D agenda that meets changing national needs and continues to grow linkages between research, innovation and commercialisation

### E Education, Training and Capacity Building

Introduce location-related training at all education levels, nation-wide, and with special impetus on enabling regional communities, to develop a well-prepared and diverse workforce that benefits from fundamental spatial skills

### F Representation

Unify and consolidate representative spatial bodies that speak with one voice, and provide effective leadership and advocacy for the sector

## TRANSFORMATION AND GROWTH INITIATIVES

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

*Note, initiatives that are highlighted below in bold are considered a high priority for 2019/20.*

### A. Public Infrastructure and Analytics

- A1. Develop and publish a nation-wide framework and roadmap setting out all major public spatial infrastructure developments, prioritising the collection of, and access to, public datasets of national importance, and supporting analytical capabilities for the next eight years, including:
  - **National Positioning Infrastructure (NPI) and Satellite Based Augmentation System (SBAS)**
  - **Digital Earth Australia**
  - Transition to 3D/4D
  - National Elevation Data Framework (ELVIS)
  - **Nation-wide Spatial Data Infrastructure (NSDI)**
- A2. Complete the implementation of the development of the dynamic datum including the move to 3D by 2023
- A3. **Publish the plan, priorities and framework for implementing an ecosystem of Digital Twins**
- A4. Development of a National Spatial Analytics Capability (NSAC) to provide government 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, the built environment. The natural environment should also be given special consideration**
- B2. Create nation-wide location innovation ecosystems that allow entrepreneurs, start-ups 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 a pilot exercise with one jurisdiction or organisation that is already offering an innovative procurement program so that the benefits of the new procurement approach 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. Promote the adoption of digital location information (replacing traditional analogue map-based information) in legislation wherever possible

### C. Outreach

- C1. **Grow relationships and partnerships with peak industry bodies from the priority growth sectors (B1), allied industries (e.g. IoT, telecommunications, robotics) and with key international organisations**
- C2. **Develop mechanisms for the spatial sector to connect with the emerging space sector in Australia, needed to enable an end-to-end supply chain**
- C3. Arrange for the spatial peak bodies and their members to specifically target conferences and forums in the priority growth sectors (B1) and to ensure a spatial presence

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- C4. 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

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  - C5. Regularly publish information about the size, composition, impact and value of the spatial sector in Australia

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  - C6. Create a LocationYoung Professionals Engagement Program targeting spatial and STEM graduates

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  - C7. Continue to evolve 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. Refine and update the nation-wide, nation-building research agenda that set out the major spatial challenges in the short, medium and long term

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

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

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- 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 management of education, training and capacity building (K1-12, TAFE and universities), comprising:**
  - A nation-wide plan to maintain high priority spatial disciplines at the tertiary education level including geodesy, surveying, remote sensing, spatial analysis and new future-fit competences including business and IT 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, machine learning and artificial intelligence)
  - Scaling up the nation-wide spatial curriculum in primary and secondary schools

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- 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

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- E3. Develop and facilitate opportunities to co-locate professionals across government, business and academia to enhance collaboration and knowledge sharing

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

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- 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

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- E6. Identify, facilitate and implement initiatives that improve diversity in the spatial sector workforce

#### F. Representation

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

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

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  - 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

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  - F4. **Coordinate a thought leadership group to drive the 2026Agenda, with the key responsibility to promote and develop leadership across all areas of the spatial sector, across all age and gender profiles, in innovative ways**
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## 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 focused 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 5G networks, 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, engaging more than 400 individuals then including representatives of priority sectors including agriculture, health, transport and energy amongst others. About 100 additional individuals provided input and feedback to the 2019 update through a series of interviews and online surveys.

The values of the 2026Agenda, and those of the organisations and individuals involved in its implementation remain:

- **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 8 years. It has strong linkages to: the *Australian Earth Observation Community Plan* (2016) issued by the Earth Observation Australia (EOA), 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* and *Collaborative Framework* (November 2018), and the *SSSI Strategic Roadmap 2018-2021*.

The implementation of the 2026Agenda is driven by contributors across Australia, and includes the convening of a leadership group with members drawn from both spatial and application industries. A list of the members of this group can be found at [www.2026Agenda.com](http://www.2026Agenda.com)

## About this document and the full report

This is the second 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 consultation's methodology, technical details and acronyms.

In addition to the original process, the 2026Agenda Executive Team undertook a range of interviews and online consultation on the first release of the 2026Agenda: Action Plan, reaching approximately 100 people to effectively update and improve the plan to effectively continue to develop the Australian market.

## Acknowledgments

The 2026Agenda Executive Team (Phil Delaney and Eva Rodriguez Rodriguez) and the 2026Agenda Leadership Group (published at 2026agenda.com) would like to thank all those who have participated in these initiatives so far, for the many great ideas and contributions that have so willingly been provided.

## Call for action

The 2026Agenda sets the vision and roadmap encouraging spatial organisations to take a leading role in the future of our sector.

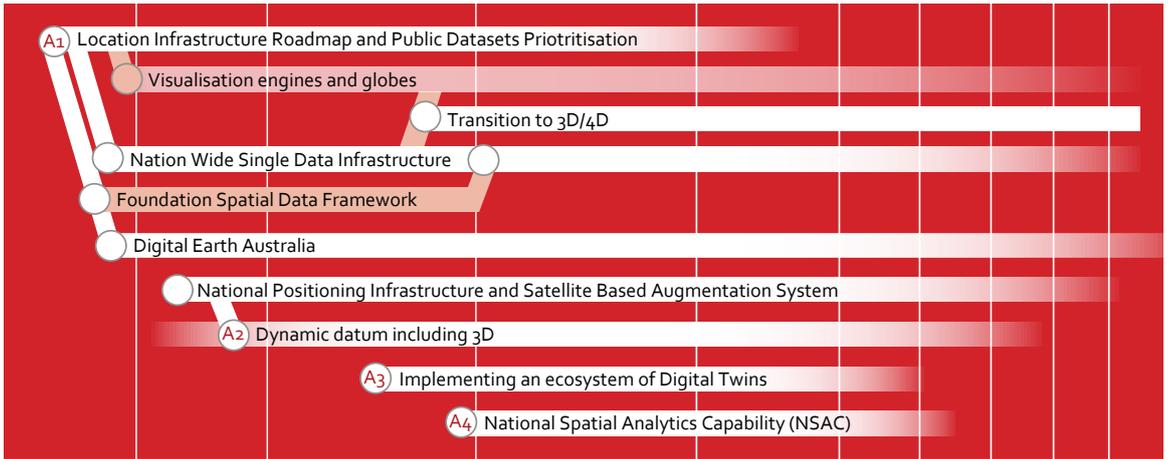
If you or your organisation want to help drive this transformation:

- Get involved by taking ownership of implementing individual initiatives
- Update us on your thoughts and progress at [info@2026agenda.com](mailto:info@2026agenda.com) to be linked to like minded individuals
- Discuss the action plan within your organisation to align your organisations strategy to parts of this plan
- For more details, and to consult the supporting documentation, please visit the 2026Agenda website: [www.2026agenda.com](http://www.2026agenda.com)



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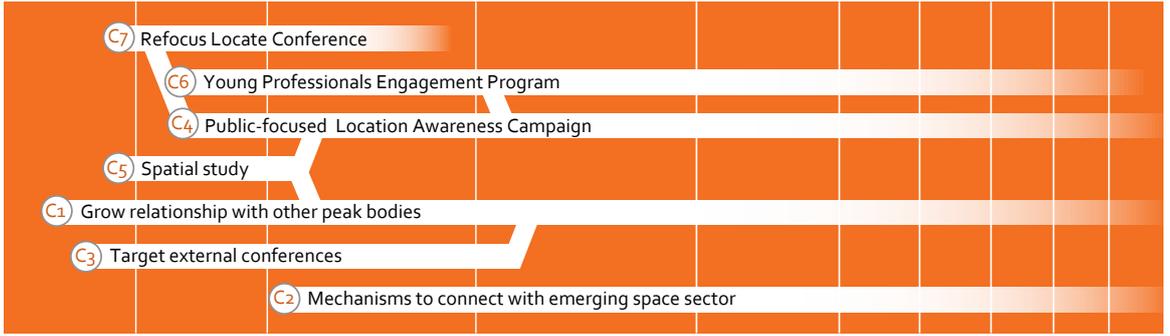
**A. Public Infrastructure and Analytics**



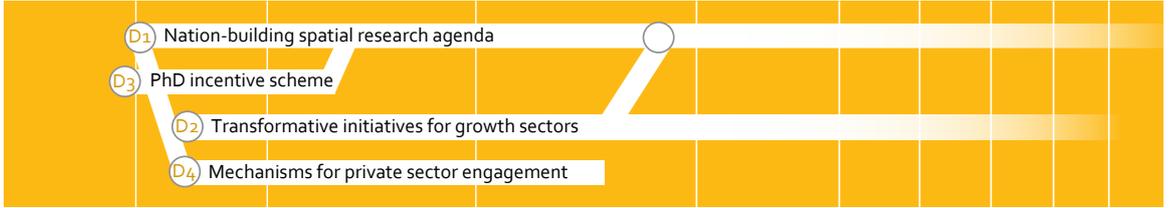
**B. Innovation and Entrepreneurship**



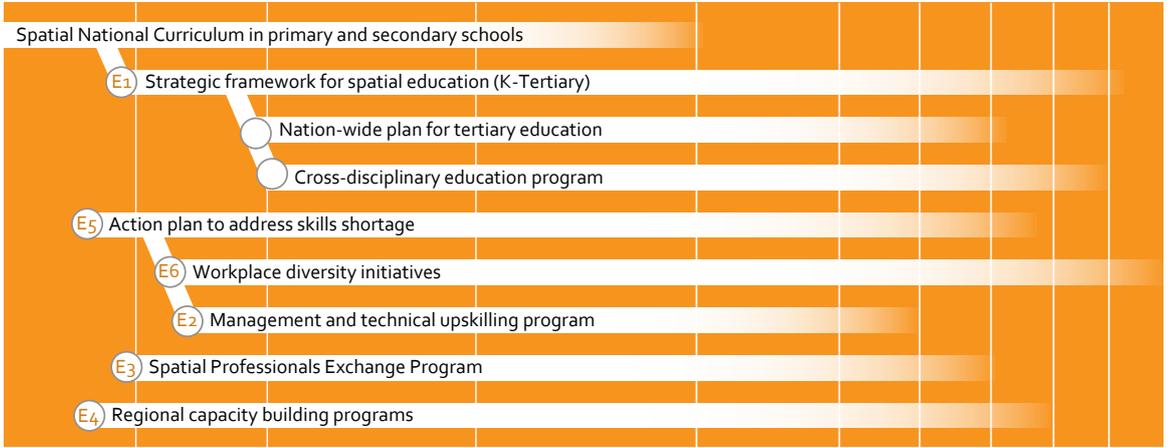
**C. Outreach**



**D. Research and Development**



**E. Education, Training and Capacity Building**



**F. Representation**



2017 2018 2019 2020 2021 2022 2023 2024 2025 2026