



Space Industry
Association
of Australia

Capturing Australia's Space Potential: A Strategic Imperative

2025-2026 Pre-Budget Submission

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Space Industry Association of Australia (SIAA) is the peak body for the Space sector in Australia. We provide a collective voice on behalf of over 80 domestic and international member organisations with world-class capability across all aspects of Space activities. SIAA membership reflects a breadth and depth of capability, including launch providers, advanced manufacturing, downstream data and AI providers, and enabling capabilities such as law firms. SIAA's diverse membership includes startups, through to small-to-medium sized enterprises ('SMEs'), and aerospace primes.

We recognise significant pressures on Australia's Federal Budget, however SIAA believes that short-medium term focus and modest investment are necessary to ensure that a rare global opportunity does not pass Australia by. Australia has many natural competitive advantages including favourable geography, political stability and a highly-educated workforce which mean Australia could capture a disproportionate share of the rapidly growing Space industry.

A more ambitious and proactive approach to Space industries can deliver a broad range of outcomes which Australia needs most. There are few sectors which deliver similarly broad benefits across economic growth and productivity, enhanced defence, national security, resilience, public safety and disaster management, regional/rural development and sustainability, environmental/climate monitoring and data, STEM education and research, regional/rural development and sustainability, and international collaboration and regional influence. The economic potential is substantial. It has been estimated that each \$1 invested in space industry is likely to lead to a return of \$2-17.

The coming months and years are likely to be characterised by accelerated global investment in Space and Australia must at least ensure a clear policy and coherent information exchange/decision-making body to enable a clear and dynamic capability to harness the opportunities.

Australia is currently no more than a customer of global Space technology and initiatives, while virtually every significant peer or rival country has a clear, ambitious and coherent space policy and proactive contributors with significant enough stakes to enable certainty and sovereignty in supply of critical national and industrial requirements.

The importance of Australia's unique geography must not be underestimated as it offers an enviable platform for space activities. This is evident in Australia's global positioning which offers strategic visibility of the space domain, large open spaces suitable for launch, hypersonic testing and returns activities, a wealth of expertise in data analysis, and an advanced manufacturing sector that is well positioned to respond to increased national space investment. Simultaneously, Australia's population can critically benefit from space capability. Australians in remote and regional communities can stay connected through satellite enabled communications, space-enabled disaster management, and public safety solutions can provide key insights to support emergency services to respond to natural disasters, and key sectors such as resources and agriculture can experience enhanced productivity through increased adoption of space capability.

The Australian Space sector already employs 16,900 people in high-tech, high-value future-proof jobs and contributed 0.25% to Australia's GDP in 2019.¹ Investments in the space industry have a high rate of return with every \$1 invested estimated to offer a direct return of \$2 to \$10, and an indirect return of up to \$17.² Globally, it is estimated that the space economy will be worth \$1.8 trillion USD by 2035.³

¹ AlphaBeta, 2021. *The economic contribution of Australia's space sector in 2018-2019*

² House of Representatives Standing Committee on Industry, Innovation, Science and Resources, 2021. *The Now Frontier: Developing Australia's Space Industry*

³ World Economic Forum, 2024. *Space: The \$1.8 Trillion Opportunity for Global Economic Growth*

A coordinated national approach to space would offer Australia substantial economic, social, and geo-political benefits. To access these benefits Australia should shift from being a consumer of space capability owned by our allies, to a contributor of space capability. This will better ensure Australia's security and national resilience. A renewed focus on Space offers productive alignment with many key international allies and collaborators, especially the recent accelerated focus and investment from the United States, as well as clear and ambitious Space policies across New Zealand, Japan, India, and Europe. As allies increase their investment in space capability, develop novel space policy and increase government investment in national space agencies, Australia has a choice to participate in the critical mass of renewed focus and investment in space or risk being left behind as others push ahead.

Summary of Recommendations

1. Establish an Australian National Space Taskforce to articulate a cohesive direction for Australia's defence and civil space activities

An Australian National Space Taskforce could monitor and respond to national and global space activities and articulate a structured national approach to space.

2. Establish an Indo-Pacific Space Fund to support Australian space companies to develop capability with regional partners

The fund could encourage the creation of joint projects between Australia and Indo-Pacific countries to uplift regional space capability to address joint projects and shared challenges for Indo-Pacific nations including communications, environmental monitoring, and maritime surveillance.

3. Technology Safeguards Agreement (TSA) Activation Fund

An acceleration of spaceflight activities in Australia offers Australian companies the opportunity to upskill the Australian space supply chain to engage with United States partners on international space activities, through the creation of a modest activation fund.

4. Develop a National Space Policy that outlines Australia's key space priorities

Australia has an opportunity to develop a coordinated approach of space interest, investment and activities across government, in alignment with the clear and ambitious space policies released by Australia's allies and key regional partners.

5. Commit to undertaking research into the role of space as a key tool for increasing Australia's national productivity across key sectors and critical infrastructure

Research into how Australia's key sectors and critical infrastructure are currently utilising space capability and space derived data would identify current gaps and opportunities to enhance these sectors and uplift productivity.

6. A) Commit to continuing to maintain baseline requirements for our Australian astronaut

Commitment to maintain baseline requirements ensure Australia's ongoing access to opportunities to contribution to international space exploration, research activities that can directly improve Australian's lives across pharmaceuticals and agriculture and support the uptake of STEM careers for future Australians.

6. B) Commit to investigating spaceflight options for our Australian astronaut and explore future Australian astronaut training opportunities

Australia has a qualified astronaut who can conduct long duration space missions, one of approximately 100 people in the world qualified for such activities. A space mission would place Australia at the forefront of international space exploration and research, further Australia's research and development activities across our academic sector and strengthen our engagement with international partners.

7. Commit to exploring a Centralised Network of Microgravity Research

An Australian Centre for Microgravity Research could leverage existing medical research facilities to drive innovation, foster scientific discovery, and position Australia as a knowledge leader in the pharmaceutical, food, security, and manufacturing sectors.

8. Exploration of Australia's next space mission of national significance

Australia is critically reliant on space capability; from weather monitoring, earth observation data, GPS, and satellite communications. While Australia's allies increase their national space investment, Australia remains a consumer of space capability owned and operated by other countries and uplift of national space technology, while we continue to be a consumer of space capability. Australia has a clear opportunity to be a contributor to space capability through an exploration of a space mission of national significance.

9. Strategic review of Australia's non-terrestrial communications strategy and capability

Establish a task force to review Australia's short, medium, and long-term communications needs and the opportunities for Australia to take a more proactive position that leverages satellite communications networks for an interoperable solution to deliver key economic, social, and security outcomes for Australia.

10. Promote greater coordination across the Australian Government's use of space-derived data across a range of key sectors to enhance national productivity

Australia is critically reliant on space-derived data and greater coordination of the Government's use of space-derived data will ensure more cost-effective procurements and streamline information sharing which will benefit Australia's critical infrastructure.

11. Explore the development of a national Australian disaster management and/or public safety solution, that leverages the Australian space industry in its supply chain

The development of an Australian-owned disaster management/public safety solution will prevent Australia from losing access to critical data affected by a natural disaster as currently all data is provided at the goodwill of international partners, which can be revoked should international partners require use of sovereign space capability to ensure their own national resilience.

1. Establish an Australian National Space Taskforce to articulate a cohesive direction for Australia's defence and civil space activities

Australia's space activities at the government level are currently fragmented, with the strategy from a previous government now several years out of date and no clear forum for coordination of interest, investment, and activities across government. By contrast, all peer nations including the “5 Eyes” as well as key regional partners have clear and ambitious space policies including Canada, New Zealand, the UK, the USA, India, and Japan. There are likely to be very substantial (and potentially unpredictable) developments in space policy and activity amongst many of Australia’s allies in coming months and years, meaning that an active integrated forum is likely to be as or more important and effective as a refreshed (but static) strategy.

While multiple federal and state government departments and agencies have significant interests in space, there is no over-arching strategic vision which sets out Australia’s level of ambition and particular areas of focus. Australia lacks a cohesive national body to coordinate and articulate a vision for Australia's future space activities across civil and defence space. There are a range of benefits to a more aligned government approach for space activities including: cohesive response to emerging space issues (such as the increasing challenge of space debris); increased positive engagement with allies and partners across space activities; streamlined development of policy and regulation related to increasing national space activity; and greater certainty around government priorities that will attract investment from private capital and industry.

A National Space Taskforce, overseen by a ministerial chair would unite key organisations that develop and engage with space capability across government. The Taskforce would be able to monitor and respond to current developments, supporting greater coordination of Australia's space activities and articulating a structured national approach to space. Key stakeholders that could engage in this Council include: Department of Industry, Science and Resources; Department of Defence; Treasury; Department of Home Affairs; Australian Space Agency; Geoscience Australia; CSIRO; Office of National Intelligence, Department of Foreign Affairs and Trade; Department of Prime Minister and Cabinet; and Office of the Chief Scientist.

2. Establish an Indo-Pacific Space Fund to Support Australian Space Companies to Develop Capability with Regional Partners

Australia is uniquely positioned to lead space activities in the Indo-Pacific region, underpinned by our close engagement with key allies and partners across the Indo-Pacific. There is clear demand from our Indo-Pacific nations to partner with Australia as they seek to accelerate the adoption of Space capability for their benefit of their nations. Reasons cited include geopolitical considerations, Australia's industry and technology strength, and economic ties. We have already seen successful regional space co-investment initiatives in the Indo-Pacific space industry in the International Space Investment (ISI) India Grants. The ISI India Grants offered \$18 million to enable Australian businesses and research organisations to conduct joint projects. Three Australian companies received funding for large scale projects that have continued to foster collaboration and capability uplift across the Australian and Indian space sectors. These include Space Machines Company (awarded \$8.5 million) to demonstrate the company's space debris management technology, LatConnect 60 (awarded \$5.8 million) to develop the company's satellite which offers insights generation by measuring key carbon emissions indicators at a very high resolution. and Skykraft (awarded \$3.7 million) to propose and validate in orbit architectures for a globally interoperable Low Earth Orbit Position, Navigation and Timing (PNT) system providing data for earth observation and weather forecasting.

As the Australian space sector continues to be underpinned by federal government investment the government has an opportunity to further grow Australian space capability and further regional cooperation through a similar framework that encourages joint projects led by Australian space companies working with partner companies in the Indo-Pacific. Joint projects can offset many shared challenges for Indo-Pacific nations including communications access in remote environments, maritime tracking and surveillance, and more sophisticated satellite imaging of our region that can increase regional productivity in key sectors like agriculture and resources and accelerate public safety and disaster management capability. Further regional collaboration also further affirms Australia's position as a technology leader and positive player in the Indo-Pacific, further aided by our regional partners and allies.

3. Technology Safeguards Agreement (TSA) Activation Fund

The signing of the US-Australia Technology Safeguards Agreement opens substantial opportunities for Australia to attract inbound Space investment in Australia from US government and industry. A modest activation fund is likely to deliver substantial acceleration of those opportunities, especially during times of a policy and project pivot which is likely to accelerate the US space industry. With the implementation of the US-Australia Technology Safeguards Agreement in July 2024 permitting the launch of US spacecraft and launch vehicles from Australian soil, Australia is likely to see a rapid increase in spaceflight activities (launch and returns) in the coming years. Spaceflight activities currently attract 29% of all total private investment in the Australian space sector, the most of any one industry segment, as measured by the Australian Space Agency.

This key growth opportunity for Australian space companies can be further bolstered through government commitment to a TSA Activation Fund that can unlock further opportunities to upskill the Australian space supply chain to engage with United States partners on innovative projects. Australia's space companies are uniquely positioned to dynamically fill gaps in the US space supply chain by supplying components and capability across the US space industry. The US industry is likely to see a substantial increase in funding, focus and ambition which the US industry alone may not be able to fulfil, opening substantial opportunities for Australian companies, which the Australian Government can drive through the TSA Activation Fund.

4. Develop a National Space Policy that outlines Australia's key space priorities

Australia's space sector is currently hindered by a key policy gap; a lack of a national space policy outlining Australia's ambition and future space priorities. The strategy from a previous government now several years out of date and there is no clear forum for coordination of interest, investment and activities across government. By contrast, all peer nations including the “5 Eyes” as well as key regional partners have clear and ambitious space policies including Canada, New Zealand, the UK, the USA, India, and Japan.

There are substantial opportunities to coordinate the range of critical space initiatives currently being delivered by multiple Australian government departments and Government Business Enterprises (GBEs) which currently lack cohesiveness and direction from government. There are likely to be substantial synergies and opportunities between and across initiatives which can be appreciated and harnessed through a coordinated National Space Policy.

Implementation of a National Space Policy will send key signals to Australian space companies and provide more certainty of the government's ambition and direction so that they can refine their capability in line with national space activities and increase private investment in space, which currently makes up 10% of all Australian space sector investment. A National Space Policy developed and delivered by the Australian Space Agency, in consultation with key government and industry stakeholders, will identify Australia's key strengths, support capability uplift in the Australian space industry, and map the future activities of the Australian space sector.

5. Commit to undertaking research into the role of space as a key tool for increasing Australia's national productivity across key sectors and critical infrastructure.

There is a pressing need to identify initiatives which would finally accelerate Australia's productivity. Space industry offers a wide range of productivity-enhancing benefits, especially "low hanging fruit" from better pooling and use of space-derived data. The space sector is also one of the earliest and most effective developers/adopters of Artificial Intelligence and quantum technologies, ensuring that investments in the space sector are likely to have profoundly positive ripple effects across the technology supply chain and digital transformation.

There is currently a lack of data on how key sectors and critical infrastructure across Australia utilise space capability and space-derived data, with many in these sectors not understanding the unrealised opportunities that can result from utilising space capability. Research into how Australia's key sectors and critical infrastructure are currently utilising space capability and space derived data would identify current gaps and opportunities to enhance these sectors. By further incorporating space-derived data and capability, key sectors will see an uplift in productivity, and the robustness of Australia's critical infrastructure will be enhanced. This includes the resources sector, which is reliant on space-enabled communications capability to undertake activities in remote location and required to meet strict emissions monitoring criteria, which can be more accurately measured with space-derived data. In the agriculture sector, space-enabled solutions can allow farmers to better manage crops and livestock, including through livestock eartags with satellite connectivity that can provide accurate, real-time reporting on livestock position and health or apps that utilise space derived data to share satellite imagery of farms which integrates historical data points to determine optimal times for crop planting and harvest.

6a. Commit to continuing to maintain baseline requirements for our Australian astronaut

Australia has already invested significant resources into training the first Australian-flagged astronaut, in partnership with the European Space Agency. Commitment to maintain baseline requirements will continue to allow Australia to have the option to send our only qualified astronaut to space to undertake activities of national significance, including research activities that can only be done in a microgravity environment, inspiring future generations of Australians to pursue careers in STEM. These baseline requirements are not extensive, with an annual medical, baseline training, and Russian language classes. Maintaining our astronaut's ability to travel to space will support positive relations between Australia and the Europe, who offered Australia a highly unique opportunity to have an Australian train to be an astronaut at their European astronaut training centre in Cologne, Germany.

6b. Commit to investigating spaceflight options for our Australian astronaut and explore future Australian astronaut training opportunities

Australia has a unique opportunity in that we currently have a qualified astronaut who can conduct long duration missions aboard the International Space Station or in a cislunar orbit, one of approximately 100 people in the world qualified for such activities. These missions of multiple months to years will place Australia at the forefront of international space exploration and research. This will directly benefit Australia, as our Australian astronaut will be able to undertake experiments on behalf of Australian research institutes, universities, and organisations. This will further Australia's research and development activities across our academic sector, advancing knowledge in materials science, medicine, pharmaceuticals, biotechnology, and manufacturing. A commitment to explore spaceflight options for our Australian flagged astronaut would strengthen our engagement with international partners, including the United States and Europe. A further commitment to explore future astronaut training opportunities would further galvanise the Australian public behind our national astronaut, who will inspire generations of Australians to pursue advanced careers in the STEM fields.

7. Commit to investigating a Centralised Network of Microgravity Research

An Australian Centre for Microgravity Research could leverage multiple established, well-funded medical research facilities across Australia. This centre would drive innovation, foster scientific discovery, and position Australia as a knowledge leader in the pharmaceutical, food, security, and manufacturing sectors. Microgravity environments provide unique opportunities to advance knowledge in fields like materials science, medicine, and biotechnology, enabling breakthroughs such as advanced drug development, tissue engineering, and novel manufacturing techniques. This will directly support research that can uplift Australia's national productivity across multiple key sectors. With global investments in space research surging, Australia risks falling behind if it does not build its own expertise and infrastructure in this critical domain. A dedicated centre would not only attract international collaboration and investment but also nurture homegrown talent, creating high-tech jobs and boosting Australia's competitiveness on the global stage.

8. Exploration of Australia's next space mission of national significance

Australia is critically reliant on space capability; from weather monitoring, earth observation data, GPS, to satellite communications. All current Australian space infrastructure and services are acquired from overseas, presenting a key challenge for Australia's strategic autonomy and national resilience. At this critical juncture, Australia is seeing allies increase their investment and uplift of national space technology, while we continue to be a consumer of space capability. In an uncertain geopolitical context, Australia must consider if it can continue to rely on international partners to access critical space infrastructure and consider the impact on Australia's security and resilience should this access be denied. Australia has a clear opportunity to be a contributor to space capability that directly supports and protects the Australian population through an exploration of a space mission of national significance. The mission can address identified challenges unique to Australia and the Indo-Pacific region such as; disaster management; maritime surveillance; and/or communications. Australia's existing space industry is well positioned to meet this challenge, which will be further enhanced through cooperation with large multi-national space companies. The broader technological uplift that will result from the exploration of a space mission of national significance will likely produce a "snowball" effect whereby investments in various components and technology required for the mission can have broader medical, defence, and commercial applications. In developing a sovereign solution that leverages the Australian space supply chain, we can ensure Australia has assured access to space-derived data, ensuring Australia's national resilience. The investigation can be led by the Australian Space Agency and undertaken in consultation with key government partners and the Australian space sector.

9. Strategic review of Australia's non-terrestrial communications strategy and capability

We are witnessing a once-in-a-generation transformation of global communications capability with the proliferation of new capability from non-terrestrial communications networks. Multiple Low Earth Orbit (LEO) satellite constellations are being deployed which offer not only standalone strategic capability, but also an increasing set of options to combine low, mid and geo-stationary orbit systems to provide ubiquitous communications coverage and capability. Australia, with a dispersed population across remote and regional areas, has more to gain from this transformation than virtually any other country. However, Australia is largely a passive observer of these developments, with the National Broadband Network merely tendering for supply of wholesale services from existing international networks.

Non-terrestrial networks, especially LEO constellations, offer a vast range of capability and applications for Australia, including regional, rural, remote, and First Nations communications and digital inclusion, critical inputs for future-proof public safety and emergency/disaster initiatives including Public Safety Mobile Broadband (PSMB) and Cell Broadcast National Messaging System (CBNMS), and secure government and defence communications capabilities. There are likely to be substantial synergies and opportunities in examining these often disparate areas in a coordinated and strategic initiative.

Peer countries such as Canada and the United Kingdom have taken a proactive approach, negotiating direct stakes in the Telesat and OneWeb satellite constellations. This provides them with an influential role in ensuring that the design and deployment of systems are fit for purpose and providing long-term sovereignty and certainty over networks and services. We are not suggesting that Australia should deploy its own satellite constellation, as this is likely to be expensive and take many years, with multiple constellations in various stages of deployment which are likely to offer incremental opportunities. The Federal Government should establish an inter-departmental Task Force including Department of Infrastructure/Communications, Department of Defence and Department of Home Affairs to seriously examine Australia's short, medium, and long-term needs and the opportunities for Australia to take a more direct and proactive role in ensuring that these transformational capabilities deliver the economic, social and security outcomes Australia needs and deserves.

10. Promote greater coordination across the Australian Government's use of space-derived data across a range of key sectors to enhance national productivity

Australia is critically reliant on space-derived data to provide key insights to the Australian government and commercial users. Currently, over 170 government programs are dependent on Earth observation data.⁴ Greater coordination of the Government's use of space-derived data will ensure more cost-effective procurements and streamline information sharing. This can be of great assistance to Australian commercial users, such as during the recent string of Qantas flight delays due to their flight paths being through the potential reentry area of SpaceX's Starship vehicle. Government and commercial providers of space situational awareness data can offer the government solutions to address this challenge of monitoring the increasing threat of space debris, and these solutions should be used across government. This will only be possible through coordination of the Australian government's use of space derived data.

⁴ Earth Observation Australia, 2024. *Continuity of Earth Observation for Australia: Risk Reports Released*

11. Explore the development of a national Australian disaster management and/or public safety solution, that leverages the Australian space industry in its supply chain

Australia has an opportunity to investigate the development of an Australian owned and operated satellite capable of providing data to assist with national disaster management. Currently, Australia does not have sovereign space capability that can deliver space-derived Earth Observation (EO) data, making us reliant on international partners. The risks in this model are obvious and real: during the 2020 Black Summer bushfires Australia asked a close international partner to position its weather-monitoring satellite to monitor the evolving bushfire threats that were devastating Australia's landscape and communities since Australia did not have a sovereign EO capability. A natural disaster of that partner nation then prompted that nation's government to reposition its satellite from monitoring Australia to monitoring their own country, to Australia's detriment. An Australian-owned solution will prevent Australia from losing access to critical data during periods where the country is affected by a natural disaster as we will no longer be entirely reliant on international partners. The Californian bushfires show the likely rapid increase in global disaster monitoring and management requirements, and call into question whether the current global collaborations can continue in the face of increasingly simultaneous disasters which will draw shared resources away from Australian needs. An Australian solution would further complement large-scale space projects on which Australia cooperates with international partners.