



Space + Place

Unlocking Regional Potential: Pilot Report Part 1: Priority Regional Opportunities 2025

An initiative of Regional Development Australia



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About this report

The 'Space + Place: Unlocking regional potential' pilot was commissioned by Regional Development Australia Moreton Bay and Sunshine Coast (RDAMBSC) in partnership with the Australian National University Institute for Space (InSpace) and Institute for Infrastructure in Society (I2S), and Gungahdjii Aerospace, Australia's only indigenous owned and operated aerospace company. The pilot project represents RDAMBSC's leadership in setting strategic pathways for the future growth and socio-economic wellbeing of the region, incorporating the City of Moreton Bay, Sunshine Coast and Noosa Local Government Area. The 'Space + Place' Report (Part 1) identifies emerging leadership, business, industrial, jobs and skills, and educational training opportunities in one of Australia's most exciting new sectors. It links with a number of concurrent RDAMBSC investigations, including 'Shaping the Future' and 'Carving Brighter Blue-Line Innovation' reports. The Report was prepared in advance of the 2025 International Astronautical Congress to provide RDAMBSC with guidance and opportunities for engagement with leaders from across the world's space sector.

This report is the first in a two-part 'Space + Place' series. Part 2, 'Social Licence and the Aerospace Sector' investigates the current levels of public acceptance for the aerospace sector, internationally, in Australia and locally. It offers evidence-based advice on the key considerations that will help best to support the Region's aerospace sector development, in relation to local business and industry support.

The information and advice delivered in this report reflects the combined activities of leading researchers from ANU InSpace, I2S and Gungahdjii Aerospace. Our team completed extensive desktop research, integrated decades of professional industry experience, and interviewed diverse industry and government stakeholders in Queensland and the region to inform the evidence and advice provided. The project was completed between November 2024 and October 2025.

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Space + Place: Executive Summary

Australia's regions are poised for transformation through strategic investment in the aerospace industry. By 2030, the Australian Space Agency aims to triple the space-related sector's value to AUD \$12 billion. This initiative aligns with national goals and leverages regional strengths to create resilient, thriving communities.

KEY OBJECTIVES

- **Enhance Decision Making:** Provide actionable recommendations for regional infrastructure planning, informed by best practices and Indigenous perspectives.
- **Connect Capabilities:** Link regional capabilities with national space infrastructure to foster growth.
- **Promote Inclusivity:** Encourage participation from underrepresented groups within the space sector and embed space-derived benefits within communities.

IMPACT AND BENEFITS

Participation in the space sector offers numerous benefits, including:

- **Economic Growth:** Attract aerospace businesses and investments, boosting the local economy.
- **Innovation:** Drive technological advancements that improve daily life, from satellite navigation to environmental monitoring.
- **Community Engagement:** Strengthen community involvement and support for space industry initiatives.

PILOT OUTCOMES

The Space + Place Initiative aims to deliver:

1. **Economic Potential:** Identify and explore opportunities related to the International Astronautical Congress 2025 (IAC25).
2. **Social Licence:** Understand community needs and perceptions to build a strong social licence for regional space industry development.
3. **Jobs and Skills:** Develop strategies to enhance the STEM workforce pipeline and attract aerospace businesses.
4. **Infrastructure:** Leverage existing regional infrastructure to support space-related activities.

RECOMMENDATIONS

The Space + Place pilot findings demonstrate that the City of Moreton Bay, Sunshine Coast and Noosa Local Government Area are primed to play a central role in Australia's emergence as an aerospace sector leader. In order to achieve this potential, the region requires an evidence-informed and highly targeted strategy for aerospace industry investment and development. These recommendations home in on three immediate, priority sector opportunities that leverage the existing workforce skills, locational benefits and technology environments unique to the area. Key regional opportunities for priority investment and growth are:

Downstream aerospace sectors:

1. **Data analytics and digital infrastructure:** Transforms satellite data into actionable insights using AI, cloud computing and cybersecurity, supporting regional monitoring and resource management. Leverages existing regional infrastructure and capabilities.
2. **Geospatial and satellite data services:** Uses remote sensing and GIS for disaster management, precision agriculture and climate adaptation with early-warning systems and environmental monitoring. Leverages existing regional infrastructure and expertise, including in universities, government and industry.

Upstream aerospace sectors:

3. **Advanced manufacturing for micro/nanosatellites:** Focuses on precision engineering and additive manufacturing for small-scale satellite production, strengthening local industry and national defence supply chains. Leverages regional strategies for technology industry growth, with a focus on advanced manufacturing. Opportunities to expand manufacturing to incorporate a range of payloads.

Australia's Space Potential

The International Space Sector

The international space industry has experienced remarkable growth and transformation over the past few decades. Traditionally dominated by governmental agencies and large aerospace contractors, the sector has seen a significant influx of private investment and innovation. In 2021, private-sector funding in space-related companies reached an all-time high of over US\$10 billion, marking a tenfold increase over the past decade. This surge in investment has been accompanied by projections of substantial economic expansion. A report by McKinsey & Company estimates that the global space economy will grow from US\$630 billion in 2023 to US\$1.8 trillion by 2035. This growth encompasses both traditional applications, such as satellite communications and Earth observation, and emerging sectors like space tourism and mining.¹

International organizations have recognized the strategic importance of space, and they are actively shaping policies to address emerging challenges. The United Nations has established treaties and principles to govern activities in outer space, emphasizing the non-appropriation of space by any one country, arms control, and the freedom of exploration (UNOOSA). The United Nations (2025) introduced a new Space Treaty aimed at promoting the peaceful use of outer space.² Similarly, NATO (2019) has developed an overarching space policy, acknowledging space as an operational domain and committing to the peaceful use of outer space in accordance with international law, and in 2025 NATO declared that its approach to space will remain in line with international law.³

As the space industry continues to evolve, collaboration between governmental entities, international organizations, and private companies will be crucial in ensuring a secure development of the sector. The establishment of clear regulations and frameworks will play a critical role in managing the increasing activities in space, addressing concerns such as satellite traffic, and the prevention of an arms race in outer space.

An Australian Space Industry

Australian participation in space exploration, research and development throughout the decades has been pragmatic, evidenced by the government seeking tangible benefits on Earth for any investment.⁴ The (typically large) expense of space endeavours has been weighed against three considerations at the federal level: national security, technological and commercial benefits, inspiration and values.⁵

The Australian space industry has experienced significant growth over the past decade, emerging as a vital contributor to the nation's economy, innovation ecosystem, and international collaborations. While the industry is relatively young compared to the other global leaders, Australia's unique geographic advantages, strategic policy initiatives, and a growing network of public and private stakeholders have positioned it as an important player in the global space economy.

Current efforts in the Australian space industry are centred on several key areas, including satellite technologies, earth observation, and space communications.⁶ These activities underpin essential applications, such as environmental monitoring, agriculture, disaster management, and national security. The development of space exploration capabilities, including partnerships with international missions, has also become a priority, with Australia contributing through expertise in robotics, autonomous systems, and advanced manufacturing.

The Australian Space Agency (ASA), established in 2018, serves as the cornerstone of the nation's space efforts, providing strategic leadership, coordinating civil space matters, and fostering international

partnerships.ⁱ The Commonwealth Scientific and Industrial Research Organisation (CSIRO) plays a complementary role by advancing research and innovation in space-related fields. State governments, particularly in Queensland, South Australia and Western Australia, have also demonstrated strong support for the industry, investing in regional infrastructure and targeted programs. In the private sector, companies, such as Gilmour Space Technologies, Southern Launch, and Fleet Space Technologies, have gained recognition for their innovative approaches to satellite development, launch systems, and data services.ⁱⁱ Queensland-based Gungahlin Aerospace is Australia's first and only Indigenous owned and led aerospace consultancy, providing defence, aviation and aerospace advice, research and development while pursuing the aligned mission of fostering the capabilities of Aboriginal and Torres Strait Islanders to contribute to Australia's sovereign capabilities.ⁱⁱⁱ

The Australian Government has implemented several policy initiatives to support the growth of the space industry. It has set a goal to increase national space revenue to AU\$12 billion and create an additional 20,000 jobs over the next decade to 2035.⁷ The Civil Space Strategy (2019–2028) provides a roadmap to triple the size of the national space economy by 2030, with a focus on building capabilities in communication technologies, earth observation, positioning systems and space situational awareness.^{iv} The Moon to Mars initiative, which includes collaboration with NASA, seeks to strengthen Australia's role in global space exploration efforts while fostering technological innovation and local industry growth.^v Additionally, the Modern Manufacturing Initiative has allocated funding to support the development of advanced manufacturing capabilities critical to the space sector.^{vi}

The potential for development and expansion in the space industry spans multiple sectors. Precision agriculture, enabled by satellite data and Internet of Things (IoT) technologies, holds promise for enhancing productivity and sustainability in the agricultural sector.⁸ The mining industry is leveraging space-based technologies for resource exploration and remote monitoring.⁹ The mining sector is also rapidly developing more widespread critical minerals mining, extracting the elements necessary to aerospace and other advanced technologies.¹⁰ Meanwhile, emerging industries including space tourism¹¹ and renewable energy systems, including space-based solar power,¹² are gaining traction as future opportunities.

Geographically, Australia's vast landmass and remote locations provide unique advantages for the space industry, including access to optimal launch sites and minimal interference for ground stations. Queensland, in particular, has positioned itself as a leader in the sector, with regional hubs such as Toowoomba, Rockhampton, and Gladstone being developed to support launch activities, ground station operations and research facilities. These efforts are complemented by investments in workforce development and the promotion of regional economic growth.

The expansion of the space industry has created a strong demand for skilled workers, particularly in areas such as engineering, robotics, data analytics, and advanced manufacturing. The literature highlights challenges in addressing workforce gaps, however, particularly in attracting and retaining talent in regional and rural areas.¹³ Collaborative efforts between government, industry, and educational institutions are essential to developing a sustainable workforce pipeline and ensuring that the benefits of the space industry are distributed across the country. This includes work by RDAMBSC to establish an innovation ecosystem through smart specialisation, including knowledge, skills and industry development focused on smart manufacturing, the digital and cyber industries and deepened connections with the ASEAN region.¹⁴

The economic opportunities associated with the space industry extend beyond its direct contributions. The sector has the potential to catalyse growth in allied industries such as telecommunications, defence, and aerospace, creating a multiplier effect that benefits the broader economy. International

ⁱ [About the Agency | Australian Space Agency](#)

ⁱⁱ [Gilmour Space Technologies | Launching rockets and satellites to orbit from Australia](#)

ⁱⁱⁱ [Gungahlin Aerospace](#)

^{iv} The Civil Space Strategy (2019–2018). Available at: <https://www.space.gov.au/sites/default/files/media-documents/2023-11/Advancing%20Space%20Australian%20Civil%20Space%20Strategy.pdf>

^v [Moon to Mars initiative: Launching Australian industry to space | Department of Industry Science and Resources](#)

^{vi} [The Modern Manufacturing Initiative opens funding for National Manufacturing Priority areas | Department of Industry Science and Resources](#)

partnerships, especially throughout ASEAN, further enhance these opportunities by integrating Australian businesses and research institutions into global supply chains and collaborative projects.

The literature indicates that while the Australian space industry faces challenges, including workforce development and competition from more established global players, its potential for growth and innovation is substantial.¹⁵ Continued investment in research and development, infrastructure, and policy will be critical in realising national potential and positioning Australia as a competitive force in the global space economy.

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A Queensland Space Industry

Queensland is emerging as a pivotal player in Australia’s rapidly growing space industry, capitalizing on its geographic advantages, regional strengths, and government support. The state’s involvement in the space sector spans a variety of critical areas, underpinned by a combination of strategic policy initiatives, active engagement by public and private stakeholders, and an emphasis on fostering innovation and regional development. Queensland is also host to Australia’s only indigenous-owned and led aerospace consultancy, Gunggandji Aerospace, demarcating it as a leader in indigenous entrepreneurialism.

The current scope of Queensland’s space industry work is diverse, with a strong focus on satellite technology, earth observation, and launch services. Satellite-enabled applications in agriculture, environmental monitoring, and disaster management are central to the state’s contributions, reflecting Queensland’s commitment to leveraging space technology for economic and societal benefits. The region also supports advanced manufacturing and research in robotics and autonomous systems, areas that are critical to both national security and international collaborations in space exploration.

Queensland’s progress in the space industry is bolstered by several key agencies and organizations. The Queensland Government has prioritized the sector, offering funding and infrastructure support to encourage growth. Public institutions such as the University of Queensland, the University of the Sunshine Coast (UniSC) and Queensland University of Technology are instrumental in driving research and workforce development. UniSC, for example, is host to the Space to Sea Accelerator, a major initiative to support entrepreneurs integrating geospatial intelligence with a variety of emerging technologies, including AI, drones and robotics.^{vii} Private companies, including Gilmour Space Technologies, a leader in hybrid rocket technology, and Black Sky Aerospace, specializing in launch systems, are vital contributors to the state’s reputation as a hub for aerospace innovation.

Policy initiatives at both the state and federal levels play an integral role in shaping Queensland’s space industry. The Queensland Government’s Aerospace 10-Year Roadmap and Action Plan explicitly identifies space as a critical area for investment and development, with a focus on creating a thriving aerospace ecosystem. This complements the Australian Space Agency’s national Civil Space Strategy, which aims to grow the industry to AU\$12 billion by 2030. In particular, the collaboration between the state government and the Australian Space Agency highlights the importance of Queensland as a key regional player.

Most recently, the Queensland Sovereign Industry Development fund announced the intention to invest almost AUD \$181 million in priority industries, including aerospace.^{viii} The Queensland Government is

^{vii} [UniSC Space to Sea Accelerator](#)

^{viii} [Queensland Government, State Development, Infrastructure and Planning: Sovereign Industry Development Fund](#)

also investing heavily in upstream components of the aerospace sector, especially critical minerals. The 2025 Critical Minerals Prospectus, for example, aims to secure billions of dollars in investments that will grow mining operations for the elements essential to a wide variety of aerospace technologies.¹⁶

Regional and rural areas in Queensland are central to the state’s space industry aspirations. Locations such as Toowoomba, Rockhampton, and Gladstone are being developed as hubs for launch activities and ground station operations, thanks to their geographic advantages and existing infrastructure. These developments not only bolster the state’s industrial capabilities but also drive regional economic growth by creating jobs and attracting investment. The nascent space tourism industry also holds promise, with Queensland’s proximity to the equator and its regional launch facilities positioning it as a potential gateway for future tourism ventures. A July 2025 rocket launch attempt by Gilmour Space in Bowen, for example, proved also to be a boost for local tourism with ‘people flocking to the town to see the rocket’.¹⁷

Queensland also boasts growth and investment in technologies and related businesses that are elemental to a successful aerospace sector. This includes the undersea data cable landing station at Maroochydore, the co-location of data centres and advanced manufacturing potential. The co-location and close interworking of advanced technology with the aerospace sector is vital. The growth of regional data centres, including NextDC’s planned expansion in Maroochydore, supports critical infrastructure and industry potential necessary for the national defence force, including potential development of ‘dark desks’ and secure environments.

The expansion of Queensland’s space industry underscores the need for a skilled workforce capable of supporting its growth. Demand is growing for expertise in engineering, data analytics, advanced manufacturing, and robotics. There is a recognized gap, however, in the availability of skilled labour, which necessitates focused efforts on education and training programs, alongside initiatives to attract international talent.¹⁸ Collaborative efforts between government, academia, and industry are critical to addressing these workforce challenges.

Economic opportunities arising from the space industry in Queensland extend beyond direct employment. The sector has the potential to drive significant innovation across allied industries such as aerospace, telecommunications, and defence. This interdependence creates a multiplier effect, whereby advancements in one area fuel growth in others. Additionally, partnerships with international space agencies and corporations further integrate Queensland into the global space economy, enhancing its competitive position.

The literature suggests that Queensland’s space industry is poised for sustained growth, provided that strategic investments and collaborative efforts continue. Future research and policy should focus on enhancing regional inclusion, addressing workforce development gaps and identifying niche markets where Queensland can excel. With its combination of geographic advantages, policy support, and innovative spirit, Queensland is well-positioned to be a leader in Australia’s space industry.

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Key Opportunities for Regional Australia

The development of the space industry presents significant opportunities for regional and rural Australia, with the potential to transform local economies and create long-term benefits for communities. As the space sector expands, regional areas are uniquely positioned to leverage their geographic and environmental advantages, enabling them to play a central role in the growth of this high-tech industry.

One of the most apparent opportunities for regional Australia lies in industry development. Many regions, due to their low population densities and minimal radio frequency interference, are ideally suited for the establishment of space infrastructure, such as ground stations, satellite tracking facilities and launch sites. These facilities provide a foundation for both national and international collaboration, as well as opportunities for local businesses to engage in global supply chains. Areas such as Queensland's Toowoomba and Rockhampton are emerging as hubs for space industry activity, supported by government and private investments. The City of Moreton Bay, Sunshine Coast and Noosa Local Government Authority region offer relatively untapped potential with solid foundations necessary to support an emerging aerospace sector.

Aligned industries are also likely to thrive along with the space sector, creating a multiplier effect that benefits regional economies. For instance, aviation, telecommunications, and defence industries, which are closely connected to the space sector, can find new opportunities for expansion in regional areas. This interdependence helps to “future-proof” local economies by creating a diversified economic base less susceptible to external shocks.

The space industry also has the potential to address critical challenges related to jobs, skills, and training in regional Australia. The sector requires a diverse range of expertise, from engineering and data analytics to robotics and advanced manufacturing. Regional communities can benefit from targeted training programs and partnerships with educational institutions to upskill local workers, creating pathways for meaningful, high-paying employment. For the City of Moreton Bay, Sunshine Coast and Noosa Local Government Area, these approaches can be supported through smart regional innovation that leverages ‘existing or new regional activity...and has a bottom-up approach as it works with stakeholders in place, to produce social and economic benefits to the region.’¹⁹ Moreover, the establishment of space-related industries in these areas can reduce the reliance on traditional sectors, such as agriculture and mining, which are often vulnerable to economic and environmental shifts.

The socio-economic benefits of the space industry extend beyond direct employment. By attracting high-tech businesses and investment, regional Australia can experience a revitalisation of local economies, with increased demand for housing, education, healthcare, and other services. This can contribute to population growth and greater demographic diversity, as professionals and their families relocate to regional centres. While population growth in the region is already apparent,²⁰ *strategic* growth not only stimulates the local economy but also enriches the cultural and social fabric of these communities.

Regional Australia's involvement in the space industry also enhances its influence both nationally and internationally. By hosting critical infrastructure and supporting cutting-edge research, these areas position themselves as key players in a globally competitive sector. This not only raises their profile but also opens avenues for international partnerships and investments, further reinforcing their economic and strategic importance. For the City of Moreton Bay, Sunshine Coast and Noosa Local Government Authority, proximity to the ASEAN region—including the expected development of Asia-Pacific aerospace endeavours in Indonesia, Malaysia and Japan—continued establishment of the region as a landing site for subsea data cables and strategies to make more effective use of the region's littoral domain (the area one kilometre offshore to one kilometre onshore) all hold potential to boost the region as an aerospace industry hub.

Key Challenges for Regional Australia

While the development of the space industry offers significant opportunities for regional and rural Australia, including the City of Moreton Bay, Sunshine Coast and Noosa Local Government Area, it also presents a range of challenges that could hinder its potential benefits. These challenges highlight the complexity of integrating a high-tech industry into regions often shaped by traditional economic activities and cultural dynamics.

One of the primary challenges is competition within the industry itself. Regional Australia must compete with established global players and more developed urban centres for investment, expertise, and market share. On-ground satellite stations offer a good example of this situation. To date, the majority of major satellite ground stations in Australia are located outside of Queensland, with Western Australia widely recognised as a leader in satellite ground stations.²¹ This means that investors must see a very clear

value-add or demonstration of success to influence a decision to base their stations in new regional locations. Smaller regional hubs also often lack the infrastructure, resources, and international visibility necessary to attract large-scale space projects or partnerships, placing them at a disadvantage in a highly competitive global market.

The lack of a skilled workforce is another critical barrier. Many regional areas face shortages of workers with the specialized skills needed for space industry roles, such as engineers, data scientists, and advanced manufacturing experts. Training programs and education initiatives often struggle to keep pace with industry demand, creating gaps that may limit the ability of regional areas to fully capitalize on space industry opportunities. This challenge is compounded by the difficulty of attracting and retaining skilled workers in rural locations, where social and professional amenities are often more limited than in urban centres.

Socio-economic development challenges are also evident, particularly in balancing the influx of investment with local community needs. While population growth and economic diversification can bring benefits to the community, rapid changes may also create social tensions or exacerbate inequalities. For example, the arrival of new industries and workers can drive up housing costs, strain infrastructure, and create cultural divisions between long-standing residents and new arrivals. Some communities may resist demographic changes, perceiving them as a threat to local identity or way of life. For regional Australian communities, it is also important to consider the potential impacts on indigenous communities, including their direct and meaningful engagement in socio-economic development opportunities.

The establishment of space-related infrastructure, such as launch sites and ground stations, can also pose threats to aligned industries and create competing demands for resources. Agricultural land, for instance, may be repurposed for industrial use, creating potential conflicts with farming communities and reducing the availability of arable land. Similarly, industries such as tourism or conservation may face challenges if space projects alter local landscapes or disrupt various ecosystems, leading to environmental trade-offs that can provoke community opposition. Indigenous Australians' rights and concerns are also central to ground infrastructure considerations, including the importance of protecting cultural heritage and land access, upholding Native Title and preventing or mitigating negative impacts on indigenous lands as a result of the aerospace sector.

Environmental changes and impacts are another concern associated with the space industry in regional areas. Rocket launches, for example, can produce significant emissions, noise pollution, and potential risks to local ecosystems. The need for large-scale infrastructure projects may require clearing land or altering natural habitats, raising questions about sustainability and long-term environmental stewardship. These trade-offs can be particularly contentious in regions where environmental values are deeply embedded in the community's identity, cultural heritage and economic activities.

Moreover, reliance on the space industry as a driver of economic growth can create vulnerabilities if the industry fails to deliver on its promises or faces unexpected downturns. Over-dependence on a single sector, especially one subject to international market fluctuations, politics and technological disruptions, may expose regional economies to significant risks. Communities that pivot away from traditional industries toward space-related activities may struggle to maintain resilience if the expected benefits are delayed or diminished.

The space industry holds transformative potential for regional Australia, its success depends on addressing these challenges through comprehensive planning, community engagement, and sustainable investment strategies. Without careful management, the risks associated with industry competition, workforce shortages, social tensions, and environmental trade-offs may outweigh the potential benefits, limiting the long-term viability of the sector in regional and rural contexts.

Physical Infrastructure: Regional readiness

Queensland's City of Moreton Bay, the Sunshine Coast and the Noosa Local Government Authority occupy a strategically critical position in Australia's emerging aerospace economy, presenting unique opportunities to leverage existing infrastructure assets whilst developing targeted capabilities that serve both regional economic development and national space industry objectives. This section of the report examines the physical infrastructure specific to the region, with particular emphasis on earth observation capabilities, data processing infrastructure, and strategic positioning for ASEAN market integration. This consideration of the region's existing and imminent regional infrastructure, including but not limited to the Japan-Guam-Australia South (JGA-S) and Google subsea cables and Brisbane 2032 Olympics infrastructure, provides an important advantage. When combined with established aviation/aerospace supply chains and skilled workforce pools, the region stands ready to capture high-value downstream processing activities that could generate substantially more economic benefit than raw satellite data transmission alone.²² This context situates the priority sector investment recommendations to follow.

Location, Location, Location: Region's Position as Competitive Advantage

Before detailing the region's physical infrastructure readiness to support Australia's aerospace sector, it is helpful to understand how the region's geographic positioning and topography plays a foundational role in its appeal and potential for aerospace industry development.

Geographic Suitability for Aerospace Industries: Onshore and Littoral Domain

Australia's geographic location in the southern hemisphere provides significant advantages for earth observation ground systems, including appropriate conditions for ground station calibration and validation with low noise, clear skies and low light interference.²³ The City of Moreton Bay, Sunshine Coast and Noosa Local Government Authority region benefits from these national advantages whilst offering strategic connectivity through submarine cable systems to Asia-Pacific markets, whilst the subsea cable landing at Maroochydhore provides direct Asia-Pacific connectivity for real-time data distribution.²⁴

The region is situated within a low seismic hazard zone as classified by the 2023 National Seismic Hazard Assessment, providing stable foundations suitable for ground station and data processing infrastructure.²⁵ The region's coastal location adjacent to Moreton Bay and the Pacific Ocean may provide a favourable radio frequency environment with reduced interference from offshore directions.. Concurrent work by RDAMBSC to strategically develop the region's littoral domain offers further opportunities to use its ideal coastal location to greater benefit of a growing aerospace industry. The subsea digital cable landing site at NEXTDC SC1 Maroochydhore, for instance, creates a unique convergence of satellite ground systems capabilities with high-speed international connectivity, enabling real-time earth observation data processing and distribution that cannot currently be replicated elsewhere in Australia.²⁶

Submarine Cable Infrastructure: Established and Growing

The region is rapidly developing as a major hub for submarine data cable connections. Submarine data cables, also known as submarine communications cables, make contemporary global connectivity possible. Just under 500 fibre-optic cables currently transmit more than 95% of the world's data between all continents (see, Figure 1). Reliance on these cables is now so deeply embedded in societies, an entire field of submarine cable studies now exists, ranging from technical to national security considerations. As a group of Australian researchers explain, 'as individuals and businesses increasingly rely on the cloud to perform basic functions, reliable access to that cloud is not merely important– it is critical, and that access for many States relies upon submarine cables.'²⁷

The JGA-S cable system's existing direct connectivity to Japan and Guam, combined with domestic capacity to Brisbane, creates unparalleled opportunities for real-time satellite data processing and distribution across the Asia-Pacific region.²⁸ The JGA-S submarine cable system represents the region's most significant (current) competitive advantage, especially for data processing and analytics, and geospatial and satellite data services for earth observation applications. Landing at the NEXTDC SC1 facility in Maroochydore, the cable provides 7,000km of direct connectivity to Japan and Guam, with onward connections throughout the Asia-Pacific region.²⁹ QCN Fibre has activated 35 terabytes per second capacity from Brisbane to the landing station, providing the fastest Asia-Pacific connectivity available from Australia.³⁰

Google recently committed to land its Tabua submarine data cable in Maroochydore.³¹ Connecting to NextDC's SC1 data centre, the cable will provide high speed connection to the West Coast of the United States via Fiji, linking the region directly to the research, development and innovations hubs of Stanford University, University of California Berkeley and Silicon Valley.

This infrastructure enables real-time earth observation data processing capabilities essential for disaster management, agricultural monitoring, and maritime surveillance across ASEAN markets.³² The cables' capacity and speed advantages create opportunities for processing services that cannot be effectively delivered from other Australian locations due to latency and bandwidth constraints.³³

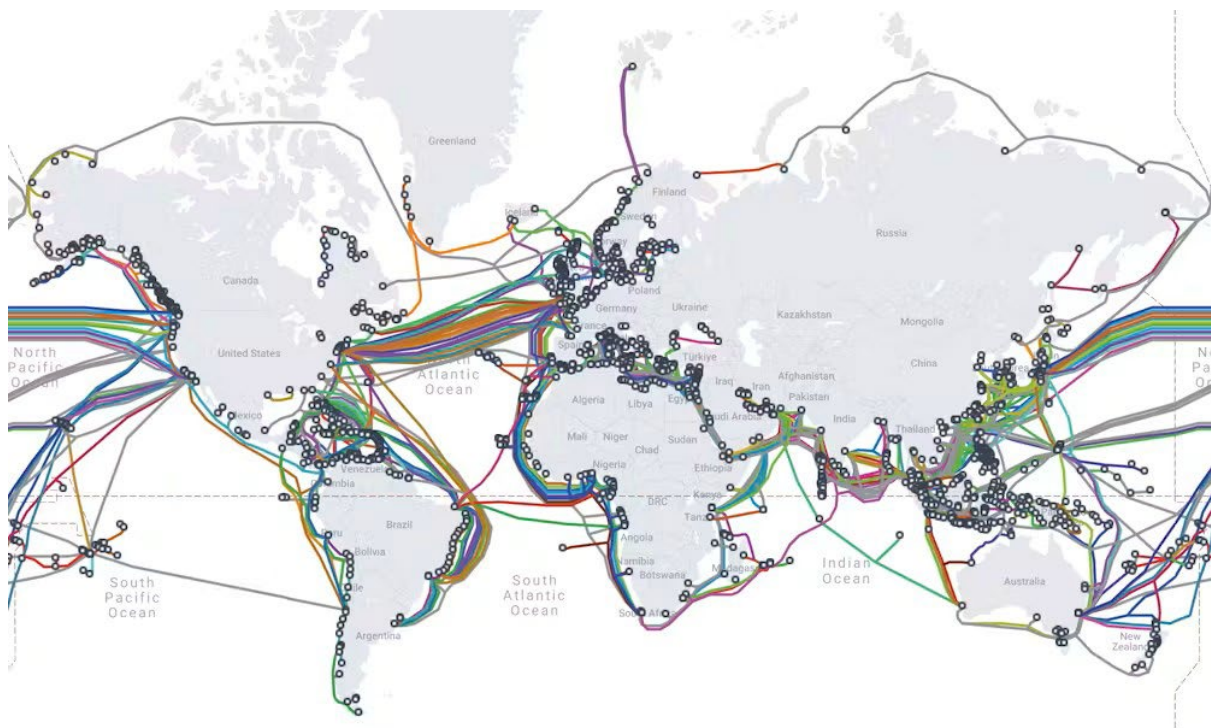


Figure 1: Undersea Data Cables Global Map as of 2024. Source: TeleGeography CC BY-SA

Digital Infrastructure Integration: Further Strengths and Areas for Improvement

Regional digital infrastructure provides comprehensive capability for aerospace applications, including earth observation operations, beyond the subsea cable system. Fibre optic networks extend 2,400 kilometres across both regions, with National Broadband Network coverage reaching 98% of premises to support distributed earth observation operations.³⁴

The region's mobile communications capability, including the 5G network is another important component of regional digital infrastructure integration. At present, this is an area for improvement. The Sunshine Coast is among the nation's top five regions lodging the most complaints to Australia's Telecommunications Ombudsman.³⁵ Local planning schemes have been critiqued for restrictive practices that have limited telecommunications companies' abilities to establish new mobile towers, including those that will equip the region for next-generation mobile connectivity.³⁶ Planning policy changes and improved regional mobile connectivity represent an opportunity for communications policy and infrastructure improvements that would further boost the region's offering for aerospace investors.

Leveraging Airport Infrastructure

Sunshine Coast Airport emerges as a transformative asset for the aerospace industry, especially when it comes to earth observation industry integration. Current infrastructure is specifically designed to accommodate emerging aerospace activities whilst leveraging subsea data cable connectivity advantages.³⁷ The airport's \$334 million runway expansion provides a 2,400-metre runway capable of wide-body freighter operations essential for earth observation equipment transport.³⁸

There is an immediate opportunity to benefit from unused capacity at the airport. Current capacity utilises only 35% of available runway movements, providing substantial headroom for greater usage by the aerospace industry. For example, earth observation-related aircraft operations could take advantage of available capacity whilst also maintaining proximity to the subsea digital cable landing facility.³⁹ For the earth observation sector, the airport's location 15 kilometres from the Maroochydore cable landing station enables integrated earth observation operations combining satellite data reception, processing, and international distribution.⁴⁰ Similar synergies could benefit advanced manufacturing, in terms of both importation of materials and export.

The Sunshine Coast Airport's master plan prioritises aerospace industry development, reserving 25,000m² for aerospace activity, specifically suitable for earth observation ground station installations requiring both aircraft access and subsea data cable connectivity.⁴¹ Existing apron areas provide immediate deployment opportunities for mobile earth observation systems supporting disaster response and emergency management applications.⁴² Ground stations at Sunshine Coast Airport would be further enhanced through integration with the local subsea data cable system to them to provide real-time earth observation data processing and distribution services to Asia-Pacific markets, creating unique competitive advantages unavailable at other Australian locations.⁴³

Human capital: Workforce readiness

The region holds further potential for aerospace industry development through its existing and potential workforce. RDAMBSC's ongoing work to build jobs and skills capacity is an important component linking up the employment base necessary for a successful aerospace sector to a broader vision for regional development and growth. Building human capital through a focus on aerospace sector development will support strategic aims to shift the region from tourism to technology and open new investment, employment and lifestyle opportunities up and down the coast.

Population and Workforce Demographics

The combined population of 680,000 residents in the region provides optimal demographic conditions to support an emerging aerospace sector. Geospatial and satellite data services, including earth observation, for example, would be well serviced by a population that can readily balance workforce

availability with operational space requirements.⁴⁴ Workforce demographics demonstrate exceptional alignment with space industry requirements, hosting 8,500 professionals in engineering and technology fields directly applicable to data processing and analytics and geospatial, satellite data services and earth observation, all benefitting from subsea data cable connectivity, as well as advanced manufacturing of targeted payloads, including microsattellites.⁴⁵

Educational attainment statistics show 45% of residents hold post-secondary qualifications, exceeding Queensland and national averages whilst providing foundation skills for earth observation data analysis careers.⁴⁶ The University of the Sunshine Coast's engineering and technology programs and initiatives like the Space to Sea Accelerator, combined with TAFE Queensland's advanced manufacturing capabilities, provide immediate workforce pipeline development for earth observation operations.⁴⁷ Private sector initiatives in the region, including NextDC data centres (the NextDC S2 data centre is planned for development in 2026^{ix}) and the Peregian Digital Hub^x offer further infrastructure, professional networks and development opportunities to upskill local talent.

Approaches to workforce development noted here align with RDAMBSC's 'Carving Brighter Blue-line Innovation' work, the advice from which should support the insights noted here. In particular, the aerospace sector will require and benefit from the development of a Regional Innovation Architecture, the focus on Selected Priority Innovation Areas and workforce approaches that deploy smart specialisation to support curation of select industries.

STEM Workforce Pipeline Exploration

Strategic positioning

The City of Moreton Bay, Sunshine Coast and Noosa Local Government Authority region is strategically positioned to become Australia's premier Earth observation workforce development hub, leveraging existing educational infrastructure and the international submarine cable landing at Maroochydore. With the University of the Sunshine Coast's established engineering programmes and TAFE Queensland's advanced manufacturing capabilities, the foundation for space industry workforce development already exists. The industry can be advanced through targeted course modifications rather than wholesale institutional creation.⁴⁸

Leveraging Existing Educational Infrastructure

The fundamental workforce development advantage lies in existing institutional capacity requiring strategic enhancement rather than greenfield development. The University of the Sunshine Coast currently graduates engineers with directly transferable skills, evidenced by Michael Tedge's seamless transition from mechatronics to CSIRO space robotics.⁴⁹ This demonstrates that foundational technical education already produces space-ready graduates when appropriate industry connections exist.

TAFE Queensland delivers advanced-manufacturing training and state-level facilities (e.g., Robotics & Advanced Manufacturing Centre, Smart Factory Lab) accessible to Sunshine Coast industry, alongside local Sunshine Coast campuses in engineering and trades. Precision manufacturing, quality assurance systems, and automation technologies form the technical foundation for Earth observation satellite component manufacturing and ground systems maintenance. Again, the challenge lies not in creating new capabilities but in contextualising existing programmes for space applications through targeted curriculum enhancements and industry partnerships. The Australian Youth Aerospace Association (AYAA), for example, is based in Brisbane and runs annual early career (ASTRA, ages 18-36) and secondary school student development programs (Australian Youth Aerospace Forum, Years 10 and 11).^{xi}

Strategic Educational Modifications Required

UniSC's engineering programs should consider incorporating Earth observation specialisation modules covering satellite data processing, remote sensing principles, geospatial analysis and space-grade

^{ix} [NextDC Sunshine Coast data centres.](#)

^x [Peregian Digital Hub.](#)

^{xi} [Australian Youth Aerospace Association.](#)

electronics. These additions would leverage existing mechatronics and software engineering foundations while creating direct pathways to Earth observation careers. The Advanced Materials and Manufacturing cluster requires space-grade materials focus, particularly for satellite components and ground station infrastructure.

TAFE programmes will also need satellite operations modules, space-grade quality systems training, and Earth observation equipment maintenance curricula. These modifications would build on existing precision manufacturing and electronics programmes while creating technician pathways for the growing Earth observation sector.

Finding your space in the space industry

The global space industry is generally divided into two main segments: the **upstream sector**, which involves the design, manufacture, assembly and launch of space hardware, such as satellites and rockets, and the **downstream sector**, which relates to space-related commercial products and services.⁵⁰ While upstream activities are more capital-intensive, and highly specialised, downstream activities offer more immediate opportunities for regional economies. A regional focus on the downstream sector aligns with research into building Queensland's space economy⁵¹ and into region-specific innovation systems and priority projects.⁵² Both activities are essential for the success of the space sector.^{xii} They are characterised by lower entry barriers, strong connections with existing industries, and broader potential for workforce participation.

Space economy: Downstream Sector Opportunities

For the Sunshine Coast, the downstream sector presents the most viable pathway for capturing space-related economic benefits and integrating them into the region's development agenda.

The downstream space economy includes a wide range of applications such as Earth observation, navigation, satellite communications, and data-driven services.⁵³ Within this broad scope, three subsectors are particularly promising for the Sunshine Coast: **data analytics and digital infrastructure; geospatial and satellite-enabled data collection; and advanced manufacturing for microsatellites and payloads.** Each of these areas aligns with local strengths in research, technology, agriculture, and manufacturing, while also offering opportunities to build export-oriented industries and strengthen Australia's regional partnerships.

Data analytics and digital infrastructure transform raw satellite data into actionable insights for business, government and communities. This sector depends on expertise in artificial intelligence, cloud computing, and cybersecurity, areas where Queensland's digital innovation ecosystem is already developing. Applications include monitoring coastal erosion, predicting crop yields, and managing water resources. Building local capacity in this field would not only generate high-value employment opportunities but also strengthen the Sunshine Coast's role in regional data services, with potential links to ASEAN data-sharing and resilience initiatives.

Nationally, Australia's current data centre infrastructure, necessary to support the type of data analytics recommended here, encompasses eight facilities with combined capacity of 12MW, though none currently achieve Tier III certification required for mission-critical earth observation processing.⁵⁴ This represents an immediate development opportunity leveraging Maroochydoore's subsea data cable connectivity for enterprise-grade earth observation data centres.

Data analytics and digital infrastructure: Value proposition

Real-time satellite data processing capabilities enable immediate response applications for disaster management, agricultural monitoring, and environmental surveillance. Maroochydoore's direct Asian connectivity creates opportunities for processing services that cannot be effectively delivered from other Australian locations. This infrastructure advantage, combined with Australian technical standards and political stability, creates compelling value propositions for international Earth observation companies, including data processing and analytics, seeking Asia-Pacific operations.

Secure data processing environments meet government and commercial requirements for sensitive Earth observation applications while maintaining rapid regional connectivity through the JGA-S cable. Military, intelligence and critical infrastructure monitoring applications require secure processing with appropriate sovereignty protections, creating opportunities for Australian-based operations serving allied nations with optimal Asian connectivity.

^{xii} [Explainer: Downstream Space Economy.](#)

Distributed processing architectures can leverage JGA-S connectivity to provide resilient, high-capacity Earth observation services across multiple Asian markets simultaneously. Regional weather monitoring, agricultural surveillance, and environmental compliance applications benefit from distributed processing capabilities with direct Asian market access through the subsea data cable system.

Regional data centres supporting Earth observation processing can leverage the NEXTDC SC1 facility at Maroochydore, where the cable landing station provides high-capacity processing for sensitive applications.⁵⁵ There are further opportunities possible here, including for more secure defence operations and through the planned expansion of data centres. Government and commercial clients throughout Asia-Pacific require secure, reliable Earth observation data processing with appropriate sovereignty protections, this includes defence which is a recently named priority sector for the Queensland Government's investment and development.

Cloud-based Earth observation analytics platforms can also serve regional markets while building on existing technical expertise and subsea data cable infrastructure advantages. Software-as-a-Service applications for agricultural monitoring, urban planning, and environmental management create scalable revenue opportunities with optimal connectivity to Asian markets. Important work of societal benefit, including natural disaster management and relief, is also possible here, and should be included.

Data analytics and digital infrastructure: Market Development Opportunities

Geospatial and satellite-enabled data services is a high-growth area. This subsector draws on remote sensing, GIS mapping, and environmental science to deliver critical services for disaster management, infrastructure planning, as well as precision agriculture production. It offers particularly good value for climate adaptation, providing early-warning systems for floods and bushfires, modelling rainfall variability, monitoring weather and ocean conditions, and improving land-use planning.^{xiii} For agriculture in the region, geospatial applications can support productivity on cotton, sugar and tropical fruit farming by optimising irrigation, monitoring soil moisture and forecasting pest and disease risks. Such technologies also enhance the resilience of bee populations, which are essential for pollination and regional food security.

Agricultural monitoring services for domestic and Southeast Asian markets leverage both technical capabilities and local connectivity advantages. Precision agriculture applications require real-time data processing and rapid communication with field operations, creating competitive advantages for regional services with direct Asian connectivity. Precision agriculture offers an especially strong linkage to regional and state-wide industries that are globally recognised as producing highest quality agricultural goods, and which underpin a substantial export market.

Urban development monitoring for rapidly growing Asian cities provides yet another notable market opportunity. This type of monitoring requires high-resolution imagery analysis and rapid reporting through subsea cable connectivity. Regional governments and private developers require timely, accurate information for planning and compliance purposes.

Environmental compliance monitoring for multinational corporations operating throughout Asia-Pacific creates ongoing revenue streams while building regulatory expertise and market relationships. Mining, oil and gas, and manufacturing companies require regular environmental monitoring and reporting, with assessments increasingly incorporating Earth observation data and integrating AI into analysis.

Natural disaster prediction and management

Emerging approaches to bushfire and flood prediction, mitigation and management via Earth observation are increasingly of interest to governments and insurers looking for improved reliability and decision-making in an environment of more frequent and severe weather events.

A strategic approach to the specific opportunities outlined above leverages existing educational infrastructure, maximises data cable economic potential, and positions the region as the premier

^{xiii} [Earth Observation can help solve these key global challenges | World Economic Forum](#)

destination for Earth observation workforce development and services throughout the Asia-Pacific while building sustainable competitive advantages through targeted capability enhancement rather than wholesale infrastructure development.

Geospatial and Satellite Data Services – Earth Observation

Together, the region's combination of submarine cable landings (established and under delivery), advanced manufacturing capabilities and proximity to research institutions positions it as an ideal candidate for establishing Australia's premier earth observation data processing hub.⁵⁶

The earth observation market is currently valued at approximately \$5 billion and is projected to exceed \$8 billion by 2033. Asia-Pacific represents the fastest-growing regional market, with North America and Europe currently holding the largest market shares.⁵⁷ The Sunshine Coast's JGA-S submarine cable infrastructure positions the region to capture value-added earth observation services, which represent the fastest growing segment of the global market. Value-added analytics services, including agricultural monitoring, environmental compliance, and maritime surveillance, command significant premiums over raw data transmission and are projected to comprise more than one-third of the global earth observation market by 2030.⁵⁸ Australia's space applications sector, which includes earth observation services, generated approximately \$1.4 billion in revenue in 2018-19 and is targeted to grow substantially as part of the Australian Government's goal to triple the national space sector to \$12 billion by 2030.⁵⁹ The value already being delivered via the JGA-S submarine data cable will be further expanded following the landing of Google's Tabua subsea cable at Maroochydore in November 2025, with commercial operations expected in 2026.⁶⁰

Currently, the convergence of the JGA-S submarine cable capacity and Earth observation capabilities creates unprecedented economic opportunities for data processing and analysis services. The JGA-S cable provides 36 terabits per second capacity, creating direct connectivity from the Sunshine Coast to Guam and onwards to Asia and the United States, bypassing Sydney entirely.⁶¹ This infrastructure advantage positions the Sunshine Coast as the optimal location for real-time Earth observation data processing serving Asia-Pacific markets. When combined with further cables under delivery and anticipated, the potential for this sector is unmistakable.

Geospatial and satellite data services: Market development opportunities

Employment in earth observation and satellite data operations varies considerably depending on facility type and function. Australia's space sector employed approximately 15,247 workers nationally in 2022, with forecasts to grow to 25,000 by 2028-29⁶². Adelaide-based Myriota, a satellite IoT company, currently employs approximately 70-100 staff with plans to create an additional 100 positions following recent investment.⁶³ Global earth observation companies such as Planet Labs (approximately 600 employees)⁶⁴ and ICEYE (approximately 650 employees)⁶⁵ demonstrate that satellite data analytics operations require skilled workforces in software engineering, data science, satellite operations, and geospatial analysis distributed across multiple facilities. It should be noted that these global companies distribute their workforce across multiple international offices and facilities; for instance, Planet Labs maintains offices in San Francisco, Berlin, and Washington D.C., meaning these figures represent company-wide headcounts rather than employment at any single location.

Industry clustering effects amplify long-term economic benefits through earth observation ecosystem development combining satellite data reception, processing, and distribution capabilities utilising subsea cable infrastructure.⁶⁶ Tourism opportunities associated with earth observation operations could provide additional revenue streams, with existing educational and eco-tourism programs related to the Great Barrier Reef, for example, annually attracting an estimated 2+ million visitors who contribute an average \$1,724 per person per night to the regional visitor economy.⁶⁷

Geospatial and satellite data services: Earth Observation value proposition

Regional businesses can process satellite imagery for agricultural monitoring across Southeast Asia, utilising the submarine cable for rapid data transmission and local expertise for analysis. Disaster response applications provide critical capabilities for cyclone, flood, and fire monitoring across the Asia-Pacific region, where rapid data processing and communication are essential for emergency management.

Environmental monitoring services for mining, agriculture, and urban development across ASEAN markets also create sustainable revenue streams while building regional expertise (see, details, below). The combination of Australian technical standards, regional market access and superior connectivity creates competitive advantages for Earth observation service providers.

Maritime domain awareness represents a significant opportunity given the region's strategic position and submarine cable connectivity. Ship tracking, port monitoring, and ocean surveillance services for ASEAN nations leverage both satellite capabilities and regional expertise while generating substantial economic returns. Starboard Maritime Intelligence (Wellington, New Zealand) are seeking to establish an Australian footprint and this could be an opportunity for the region. Improved understanding of the region's littoral domain will further advance knowledge to support such initiatives.

Geospatial and satellite data services: Aerospace business attraction

The City of Moreton Bay, Sunshine Coast and Noosa Local Government Authority region offers unparalleled opportunities for Earth observation business attraction through the convergence of the submarine cable infrastructure, established educational institutions, and strategic Asia-Pacific positioning. Direct connectivity to Asian markets, combined with existing aerospace capabilities at Caloundra Aerospace Park, creates unique competitive advantages for companies requiring high-speed data processing and regional market access. **Rather than competing broadly across aerospace sectors, the region should focus strategically on Earth observation downstream applications, satellite data processing, and ASEAN market services where current and anticipated connectivity provides decisive competitive advantages.**

Downstream Sectors: Target business attraction strategy

Commercial satellite imagery companies including Planet Labs, Maxar Technologies, and Airbus Defence and Space, require regional processing facilities to serve Asia-Pacific markets effectively through JGA-S connectivity. These companies face increasing demand for real-time processing and analysis services that cannot be efficiently delivered from North American or European facilities due to latency constraints that the JGA-S cable eliminates.

Agricultural technology companies utilising satellite imagery for precision farming applications represent high-growth opportunities aligned with regional expertise and JGA-S market access. Companies like Climate Corporation, Farmers Edge and regional agricultural technology providers require processing infrastructure for serving Southeast Asian agricultural markets through direct connectivity.

Government services contractors providing Earth observation analysis for defence, intelligence and civilian agencies offer stable revenue opportunities while building regional expertise. Companies supporting disaster response, environmental monitoring and maritime surveillance applications also require regional processing capabilities with direct Asian connectivity through JGA-S infrastructure.

Downstream sectors: Further value proposition development

Cost advantages encompass 30-40 per cent lower operational costs compared to Sydney or Melbourne operations while maintaining superior connectivity to Asian markets. Lower real estate costs, competitive workforce expenses and government incentives create compelling economic advantages for Earth observation processing operations.

Connectivity advantages through submarine cable infrastructure provide two to four times faster data transmission speeds to major Asian markets compared to alternative Australian locations. Processing

operations requiring real-time or near-real-time delivery capabilities cannot be effectively located elsewhere in Australia while maintaining competitive service levels.

Workforce capabilities through existing educational institutions and targeted programme modifications provide immediate access to qualified personnel without extended recruitment timelines. Engineering graduates from UniSC and technical specialists from TAFE Queensland offer appropriate technical foundations with Earth observation specialisation training. There is a medium-term opportunity to establish a 'research anchor' in the region, making it a research and development hub, with longer-term views to the founding of science and technology parks.

Upstream Sector: Advanced manufacturing

For the City of Moreton Bay, Sunshine Coast and Noosa Local Government Authority, **advanced manufacturing for microsatellites (10kg to 100kg), nanosatellites (1kg to 10kg) and payloads** offers a third priority opportunity. While upstream satellite manufacturing is less accessible to regional economies, small-scale and specialised production of microsatellites, cube satellites, or payload components offers a viable niche. This activity relies on expertise in precision engineering, additive manufacturing, and electronics, areas where the Sunshine Coast can build on its existing industrial base. Beyond generating skilled employment, advanced manufacturing in space technologies links directly to the national defence supply chain, reinforcing Australia's sovereign capability in surveillance, communications, and cybersecurity. Potential links to Defence that are possible through targeted, upstream advanced manufacturing are strategically important to the region. This opportunity links to existing regional initiatives concerning sovereign capability, including printed circuit board manufacturing.

Manufacturing contributes approximately \$2.5 billion in value-added annually across the Moreton Bay, Sunshine Coast and Noosa region, representing 6.6% of total regional economic output⁶⁸. The region's manufacturing sector is transitioning toward advanced manufacturing, with emerging capabilities in robotics, automation and Industry 4.0 technologies, particularly through initiatives such as The Mill at Moreton Bay.⁶⁹ The region is developing aerospace capabilities through the Sunshine Coast Aerospace Precinct at Marcoola, which supports aerospace research, aviation services and technological advancements. Local companies such as HeliMods provide aerospace engineering solutions for helicopter and aircraft customisation, including medical and emergency response applications.⁷⁰

While many upstream space activities are likely beyond the immediate reach of regional economies, the City of Moreton Bay, Sunshine Coast and Noosa Local Government area is well placed to capitalise on downstream opportunities and *highly targeted* upstream opportunities. Data analytics and digital infrastructure, geospatial services, and advanced manufacturing with a focus on micro/nanosatellites and related payloads, stand out as sectors that align with local strengths and offer tangible community benefits. They also provide the basis for strategic contributions to national defence, climate resilience, agricultural productivity and international engagement, making them an integral part of a sustainable regional development agenda. Future development activities could include development of an export economy for Australian manufactured micro/nanosatellites or similar payloads, particularly into the local region where economies, including Indonesia, are expanding their space sectors.

Leadership through engagement

This Pilot Report (Part 1) shows that the City of Moreton Bay, Sunshine Coast and Noosa Local Government Authority region has immediate opportunities to demonstrate domestic and international leadership through targeted, strategic development of the space industry. The majority of the existing space industry, internationally, is based in urban centres. While this is also currently true for Australia, regional and rural communities hold major potential for boosting the space sector and enriching national growth and development. The region can showcase the potential of local and rural areas that can be unlocked to support the nations' emerging space sectors.

Regional international engagement and industry development

ASEAN Market Development: Regional Market Opportunities

Indonesian maritime surveillance requirements create substantial opportunities for satellite-based ship tracking, port monitoring, and ocean surveillance services. With over 17,000 islands and extensive maritime boundaries, Indonesia requires comprehensive surveillance capabilities that leverage both satellite imagery and real-time processing infrastructure.

Malaysian agricultural monitoring applications offer significant market potential for precision farming services using satellite imagery and data analytics. Palm oil, rubber and rice production monitoring creates ongoing revenue opportunities while building regional agricultural expertise and market relationships.

Thai disaster management applications require real-time satellite imagery processing for flood, drought and storm monitoring across the country's diverse geographic regions. Government and commercial requirements for rapid response capabilities create competitive advantages for Sunshine Coast-based processing operations. Thailand's agricultural monitoring requirements and growing space capabilities offer further collaboration opportunities in precision agriculture applications using Earth observation data. Regional partnerships can leverage Sunshine Coast data processing capabilities with Thai agricultural expertise through high-speed subsea cable connectivity.

Singapore financial services applications increasingly utilise satellite imagery for commodity trading, supply chain monitoring, and risk assessment purposes. Alternative data applications for investment analysis and trade finance create high-value opportunities for sophisticated Earth observation analytics services.

ASEAN Engagement Strategy

Malaysia's growing space programme and established manufacturing capabilities create partnership opportunities for joint Earth observation projects and workforce exchanges. The Malaysian Space Agency's focus on satellite data for agriculture and disaster management aligns directly with Sunshine Coast capabilities and JGA-S cable advantages.

Singapore's position as a regional technology hub provides market access opportunities for Earth observation services while offering partnership potential for advanced data analytics and artificial intelligence applications. The Sunshine Coast's connectivity advantages complement Singapore's technological sophistication through the subsea data cable connection.

Indonesia is one of Australia's strongest regional partners. AusTrade, DFAT and ASEAN missions in Jakarta all offer connection points for direct engagement.

Partnership Development Strategy

ASEAN government partnerships through direct engagement with national space agencies and disaster management organisations will also create market entry opportunities and long-term revenue potential.

Technical cooperation agreements can provide foundation for commercial service delivery while building governmental relationships.

Regional university collaborations for Earth observation research and training programmes could create workforce development pipelines while establishing institutional relationships supporting commercial expansion. Joint research projects and student exchange programmes build long-term partnerships supporting market development objectives. The Australian National University Crawford School of Public Policy, for example, is currently working with DFAT/Australia Awards International on a program to strengthen Indonesia's higher education system.

Commercial partnerships with regional telecommunications and technology companies can also provide market access channels while leveraging existing business relationships and technical capabilities. System integration partnerships could establish comprehensive service offerings while reducing market entry barriers and operational complexities.

ASEAN Regional Hub Development

The Sunshine Coast's positioning as Queensland's ASEAN space hub requires strategic engagement with Southeast Asian educational institutions and government agencies. Existing university partnerships provide foundation for expanded collaboration, while the cable infrastructure offers practical advantages for real-time collaboration and data sharing with Asian partners. Regional Hub development also aligns with potential for establishment of Science and Technology Parks, which are a larger and longer-term opportunity, and which would centre and cement the region as a research and development hub.

International Astronautical Congress Strategic Engagement

The IAC Sydney 2025 presents critical opportunities for showcasing the City of Moreton Bay, Sunshine Coast and Noosa Local Government Authority's potential contributions, including through advancing regional Earth observation capabilities via targeted engagement with key stakeholders. Strategic conversations should focus on organisations and individuals capable of advancing the Sunshine Coast's position as a regional Earth observation hub, incorporating data processing and analytics. Upstream opportunities, especially targeting microsatellite or similar payload advanced manufacturing should also be canvassed.

Priority Engagement Targets

International Space Agencies

European Space Agency representatives managing Copernicus Earth observation programmes offer partnership opportunities for data processing and distribution.

NASA Earth Science Division personnel provide access to Landsat and other Earth observation programmes requiring regional processing capabilities.

Commercial Earth Observation Companies

Planet Labs, Maxar, and Airbus Defence and Space representatives offer potential partnerships for regional data processing facilities. These companies require distributed processing capabilities to serve Asia-Pacific markets effectively, creating opportunities for Sunshine Coast-based operations.

Asia-Pacific Government Representatives

ASEAN nation space agency representatives, particularly from Malaysia, Singapore, Thailand, and Indonesia, offer market development opportunities and partnership potential. Australian Space Agency personnel provide domestic coordination and policy alignment opportunities.

Educational Institution Leaders

Representatives from regional universities with Earth observation programmes offer collaboration opportunities for joint degrees, research partnerships, and student exchanges. International university partnership opportunities create pathways for ASEAN student recruitment and programme development.

Investment and Development Organisations

Asian Development Bank (ADB) and regional development finance institutions provide funding opportunities for Earth observation infrastructure and capability development. Regional venture capital and private equity representatives offer commercialisation support for Earth observation service companies.

IAC Sydney Strategic Engagement

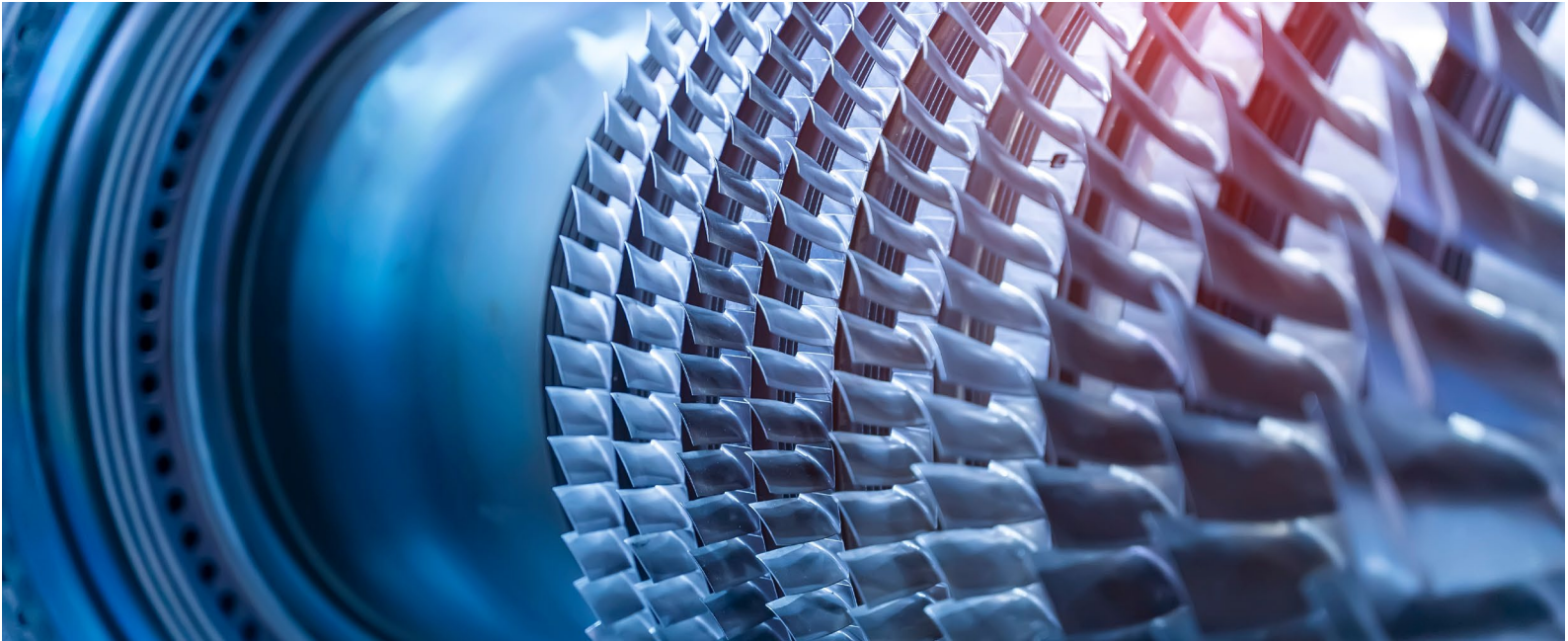
The International Astronautical Congress Sydney 2025 provides critical opportunities for establishing the Sunshine Coast as a recognised Earth observation hub through targeted stakeholder engagement and strategic positioning initiatives.

Earth Observation Industry Leaders: Engaging with senior executives from major Earth observation companies including Planet Labs CEO Will Marshall, Maxar Technologies leadership, and Airbus Defence and Space representatives provides direct access to decision-makers for regional facility discussions and partnership negotiations.

ASEAN Government Representatives: Direct engagement with Malaysian Space Agency leadership, Indonesian National Institute of Aeronautics and Space representatives, and Thai Geo-Informatics and Space Technology Development Agency personnel create opportunities for government-to-government cooperation agreements and market access arrangements.

Investment Community Representatives: Discussions with space-focused venture capital and private equity representatives including Space Capital, Bessemer Venture Partners, and regional investment funds create opportunities for supporting Earth observation company establishment and expansion in the Sunshine Coast region.

Academic and Research Leaders: Engagement with international Earth observation research leaders including representatives from European Space Agency Earth observation programmes, NASA Earth Science Division, and leading university Earth observation programmes creates opportunities for collaborative research and training programme development. This focused approach leverages the region's unique infrastructure advantages while building on existing educational and business foundations to create sustainable competitive advantages in the high-growth Earth observation sector serving Asia-Pacific markets.



Appendix A: Successful Aerospace Hub Characteristics

Key Characteristics of Successful Aerospace Hubs:

Highly Skilled Workforce: Presence of specialized skilled engineers, technicians, and R&D experts

Strong Research and Development (R&D) Ecosystem: Proximity to research institutions and universities focused on aeronautics and other related areas.

Advanced Manufacturing Infrastructure: Facilities for precision machining, composite materials, and avionics.

Efficient Government Support and Incentives: Right policies and incentives fostering innovation, and tax incentives

Proximity to supply chains: Close links to raw material suppliers, component manufacturers, and logistics networks.

Global Connectivity: Well-connected air, sea, and land transport systems for parts and finished products.

Innovation ecosystem: Presence of start-ups and collaboration between government, private, and academic sectors for related technologies

Defence and military presence

Regularity framework and safety standards

Cluster and networking opportunities.



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