# ABBOT POINT Launch Site Investigation

The Queensland Government is supporting economic growth and recovery for Queensland industries by investigating the potential for Abbot Point to host a space launch facility.

# Queensland's launch opportunity

Queensland's clear skies, open coastline and proximity to the equator, means that the state's ideal location can support launch into more orbits than any other place in Australia.

- Rockets are generally required to launch along a coastline to avoid flying over populations.
- ✓ Launching eastward is preferable as it allows rockets to accelerate with the Earth's rotation to leave the atmosphere.
- ✓ Proximity to the equator means that launch vehicles can gain up to an additional 460 metres per second of speed from the Earth's spin, which further reduces costs.

Queensland is home to all of Australia's leading launch and propulsion companies that are developing low cost access to space. Companies such as Gilmour Space Technologies, Black Sky Aerospace, Hypersonix and Valiant Space are well-placed to service the global small satellite launch market that is forecast to grow to US\$42.8 billion by 2028.

To fully understand Queensland's potential opportunity, the Queensland Government is delivering a key action under its *Queensland Space Industry Strategy 2020-2025*, which is to conduct a business case for an orbital launch facility.

## Why Abbot Point?

From late 2018 to the middle of 2020 the Department of State Development, Tourism and Innovation (DSDTI) has been working with an advisory team led by PwC Australia consultants to identify locations in Queensland that could support launch activities.

PwC examined both the operational capability for launch as well as the environmental characteristics of locations across Queensland. Out of this assessment, an area that is largely within the Abbot Point State Development Area (SDA) was selected as best meeting the technical and environmental criteria for a potential space launch facility.



### Abbot Point launch site investigation

This first step of this investigation is to consider the extent to which space launch is possible from Abbot Point. This due diligence investigation will focus on environmental and technical considerations.

Outputs from this investigation will inform whether the business case for the site proceeds to the next steps, which will be identifying market interest and community opportunities in developing a potential site.

There will be some initial consultation with key stakeholders during the due diligence phase. However, if the business case is progressed following this initial investigation then wider consultation will occur.

What will the investigation entail?

The Abbot Point launch site investigation will be a technical and environmental analysis to identify the potential for space launch from Abbot Point.

This initial investigation will include an analysis of Abbot Point's:

- operational capability to cater for different space launch trajectories and satellite orbits
- environmental characteristics and how these can be protected
- capacity to avoid any impact to offshore areas through launch trajectory analysis
- technical suitability to cater for space launch (such as safety, air traffic and topography)

The type of facility considered for investigation would initially be small in scale and comparable to New Zealand's Māhia Peninsula launch site. However, consideration will be given to the site's capacity to grow in the future.

### Opportunities for the region

From precision agriculture, navigation and satellite communication to bushfire mapping and analysing water quality in the Great Barrier Reef, Australians are increasingly relying on satellite-derived services and the ability to look back at Earth. These services are only made possible by satellites and the ability to launch them into space. Queensland companies are looking to meet this growing demand through new technology developments and low-cost access to space.

According to Deloitte Access Economics, a launch site and space-related infrastructure would be catalytic for the space industry, providing more research, development and market opportunities for Queensland. With the right industry enablers, Queensland's space economy could directly add \$3.5 billion to \$6 billion to the state economy and support 4000 to 6000 high-skilled jobs by 2036.

Space launch could be an opportunity for the region to benefit from a highly skilled industry centered around the Abbot Point area. This could support new business opportunities as well as a local supply chain to service them.

If the outcomes of this technical and environmental analysis are positive, part of further business case development will be to understand how an Abbot Point launch site could benefit the local community.

# Technical and environmental due diligence area



The due diligence process will look to identify a suitable site within the investigation area, which is largely within the Abbot Point SDA.

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