

EARTH OBSERVATION SYMPOSIUM (B1)
Earth Observation Applications and Economic Benefits (5)

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THE VALUE OF SPATIAL INFORMATION TO AUSTRALIA

Abstract

Spatial information underpins most areas of the Australian economy. One of its principle sources are satellites; from remote sensing by Earth observation platforms, and from global and navigation satellite systems for positioning, navigation and timing. This paper examines the value to Australia of these information streams.

Earth observations from space (EOS) are one of the richest sources of information about the Earth system, and are informing decisions and activities across sectors as diverse as mining, community safety and healthcare. Australia's need for EOS is increasing rapidly as government and private sector decision makers come to rely on its ability to provide accurate and timely information about the natural and built environment, and downstream industry incorporates EOS into its supply and value chains.

In 2015/16, studies examining Australian EOS use found over 140 Commonwealth, state and territory government programmes were dependent on EOS to deliver their outcomes and that commercial users were increasingly using EOS to pursue business objectives. *The Value of Earth Observations from Space to Australia* (2015, ACIL Allen) report estimated the minimum economic impact of EOS on the Australian economy to be approximately \$5.3 billion per annum. As Australia's EOS use matures and expands, this impact will only increase.

In 2013, ACIL Allen Consulting estimated that Australia's real GDP was between \$2.3 billion and \$3.7 billion higher than it would have been without the accumulated productivity improvements arising from precise positioning (augmented GNSS). By 2020, projections are that real GDP could be between \$7.8 billion and \$13.7 billion higher than it would otherwise have been. Much of this value will be realised through the National Positioning Infrastructure program, a strategic investment that will equip Australia with the capability to deliver sub-decimetres accuracy nation-wide.

The paper will summarise the findings of the major Australian studies into the uptake and use of EOS and positioning, and how initiatives such as the 2026 Spatial Transformation and Growth Agenda, the Australian Earth Observation Community Plan are helping to shape the future of the spatial community in Australia.