Positioning Infrastructure: an Australian Perspective

Dr. John Dawson

Section Leader, National Geospatial Reference Systems

Earth Monitoring and Hazards Group

GEOSCIENCE AUSTRALIA

Abstract

It has been estimated that precise satellite positioning technology, if fully exploited, will add up to 2.1% to Australia's gross domestic product by 2030 through productivity gains in mining, construction and agriculture alone. This opportunity for Australia is a consequence of recent technological advances in positioning and our geographic location as one of the few countries to have full visibility of the Global Positioning System (GPS) and positioning systems being developed by Russia (GLONASS), Europe (Galileo), China (Beidou), Japan (QZSS) and India (IRNSS). Recognising these circumstances, the Australian Government has developed a National Positioning Infrastructure plan. This plan calls for additional investment in Australia's satellite tracking infrastructure and data analysis capability but also recognises the importance of international engagement and the global geodetic coordinate system, the International Terrestrial Reference Frame (ITRF). This presentation will overview the Australian Government's drivers for significant and long-term investment in positioning infrastructure and will highlight the need for the international community to work together to ensure the sustainability of the ITRF.