

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

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42 COUNTRIES EXPECTED TO HAVE LAUNCHED AN EARTH OBSERVATION SATELLITE BY  
2022

**Abstract**

The number of EO and meteorology satellites launched by civil government and commercial entities is expected to more than double over the next decade to 360 satellites, translating into \$35.8 billion in manufacturing revenues over 2013-2022, an 88% increase over the previous decade. New government and commercial entrants are anticipated, with organizations from 42 countries expected to have launched at least a first-generation EO satellite by 2022.

Although manufacturing revenues will experience a significant rise, the average cost of an EO satellite (excluding meteorology) continues to fall. This is due in the main part to a growing number of satellites being launched from more cost-sensitive emerging national programs. In total over 2013-2022, 69% of EO satellites will cost less than \$100 million (compared to 56% in the last decade). While these satellites may not have the same capabilities as higher precision systems (in terms of ground and spectral resolutions, accuracy and agility), their development fulfills a role by assisting in the advancement of a local space industry in these emerging space nations through technology transfer, while also meeting local requirements for data. Prime manufacturers providing export solutions to countries wishing to develop these satellites will be required to continue providing technology transfer and training solutions within the procurement contract. As emerging programs continue to mature, it is expected that satellite investment will increase to support the development of more advanced technologies as cost-benefit is proven.

The market for commercial EO data was valued at \$1.5 billion in 2012. Growth slowed to 7% over 2011 as a result of the stabilization of U.S. defense procurement; however North America maintains the largest market share with 55% of the total commercial data market. The U.S. NGA will also remain the first customer of commercial data in 2013 despite its reduction in data procurement, an action which led to the combination of the U.S. operators DigitalGlobe and GeoEye in 2013. The net effect of this reduced procurement over 2012 to 2013 will however result in 0% growth in the industry, a figure which disguises growth opportunities elsewhere. In particular, data sales to international defense continue to grow strongly, reaching a value of \$530 million in 2012. Sectors such as engineering, infrastructure and location-based services also continue to develop. The commercial data markets in South-East Asia, Latin America, Russia and CIS are all experiencing high growth rates.