

Industry Commentary

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Geospatial Analytics Drives Growth of C4ISR Spending

Strategic acquirers and financial sponsors are aggressively targeting companies that can convert imagery and data into actionable insights for military, governmental, and commercial users.

Rapid advancements in sensor technology, the expansion of the internet of things and artificial intelligence, and the proliferation of satellites, unmanned aerial vehicles (UAVs), and other sensor-equipped aircraft have resulted in a massive increase in the amount of imagery data available to militaries and intelligence agencies around the world. This has created a surging demand for companies that can analyze this data for militaries, governmental agencies, and companies, and turn it into insights and actionable intelligence that enhance situational awareness and improve decision-making.

Growing demand for geospatial analytics, along with increased U.S. defense spending under the Trump administration, has led to an uptick in M&A activity involving companies with these highly specialized and strategically important capabilities. We analyze the trends that are driving the growth of the geospatial analytics industry and look at the dynamics in governmental and commercial markets that are causing strategic acquirers and financial sponsors to aggressively pursue geospatial analytics companies.

Macro Trends Driving the Growth of C4ISR and Geospatial Analytics

Geospatial analytics is just one aspect of the broader command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) systems that serve as the central nervous systems of militaries and governmental agencies around the world. The C4ISR market is expected to reach \$136.5 billion by 2020, representing a compound annual growth rate of 3.78%, according to TechNavio. In addition to increased demand for situational awareness and interoperability among systems, the growth of the C4ISR market is being driven by increased defense spending in the Asia-Pacific region and the United States in response to mounting geopolitical tensions.

Much of this spending will be directed toward geospatial analytics, as militaries and governments look to convert massive amounts of imagery and other data into actionable intelligence. According to TechNavio, the global geospatial information systems market is expected to grow at a compound annual growth rate of 10.3% from 2017 to 2022, reaching \$17.2 billion globally.

Creating detailed, current maps of various terrains—ranging from urban settings with ongoing construction to remote jungles with thick tree canopies—is essential to modern warfare and intelligence operations. This work also requires processing and analyzing massive amounts of data. While much of the analysis of the images gathered by UAVs or satellites is done by ex-military or ex-intelligence individuals with security clearance, increasingly the work of drawing conclusions from the data is performed by sophisticated algorithms. As the amount of input data grows, companies with the ability to automate this process will become increasingly important strategically.

Militaries and governmental agencies have been the early adopters and heaviest users of geospatial analysis, but the technology has vast commercial and public utility applications as well. One such use is providing fast, accurate measurements of roofs, siding, and solar projects to help facilitate insurance claims and construction projects, which is a service provided by EagleView Technologies. William Blair advised

on EagleView's sale to Vista Equity Partners in 2015. The rapid growth of EagleView is indicative of the growth in the geospatial sector.

Recent Geospatial Analytics Transactions

In response to the growing demand for geospatial analytics, as well as increased defense spending around the world, strategic acquirers and financial sponsors have intensified their pursuit of companies with these capabilities. Since October 2017, there have been seven acquisitions of geospatial analytics and geographic information system companies, including MacDonald, Dettwiler and Associates' (MDA's) \$3.5 billion acquisition of DigitalGlobe, the leader in high-resolution optical satellite imagery. With the acquisition, MDA rebranded as Maxar Technologies.

William Blair advised MAG Aerospace on its acquisition by New Mountain Capital in June 2018. MAG Aerospace, based in Fairfax, Virginia, is a leader in providing and enabling real-time situational awareness to help its customers make the world smaller and safer. MAG delivers manned and

unmanned full-spectrum ISR services (training, operations, UAS services, sensor services, and intelligence support) and other specialty aviation services to federal, international, civilian, and commercial customers around the world. Throughout the process, William Blair articulated MAG's exceptional organic growth, strength of its management team, asset-light business model, contract diversification, and highly differentiated technical capabilities and service offering. Other aspects of MAG Aerospace's business that contributed to generating significant interest from potential buyers included an employee base with exceptional processing, exploitation, and dissemination of data analysis capabilities and a balanced mixture of technical, tactical, and intelligence expertise.

Value Drivers in Geospatial Analytics M&A

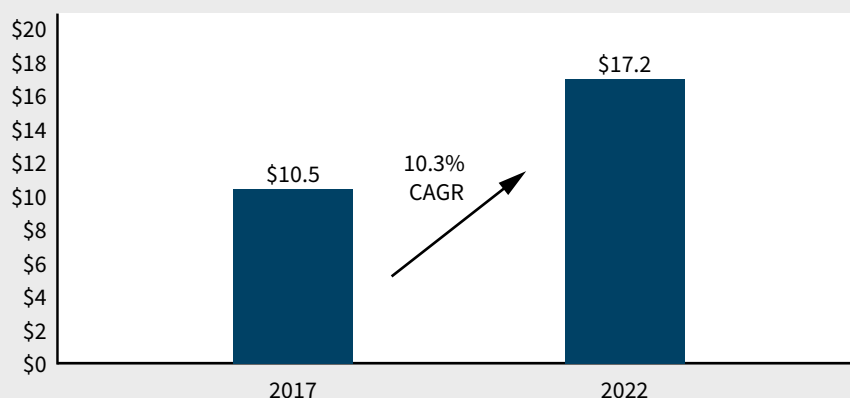
When evaluating geospatial analytics companies, financial and strategic buyers have shown a willingness to pay premium valuations for companies with one or more of the following characteristics:

- **Focus on analysis rather than collection:** The collection of imagery and other data via satellites, UAVs, and other aircraft has become largely commoditized in recent years. As a result, the analysis of the data has become the most valuable part of the supply chain. Acquirers are looking for companies that, like MAG, both collect and analyze the data or simply focus on analysis—specifically the processing, exploitation, and dissemination of data.
- **Diverse client base:** In addition to assessing the size and duration of a company's contracts, buyers also seek businesses with customer, contract and geographic diversification. It's especially

Growth of the Geospatial Analytics Market

Spurred by surging demand to convert imagery data into improved situational awareness, the defense industry is driving the rapid growth of the geospatial analytics industry. In addition to being an essential tool for militaries and governmental agencies around the world, geospatial analytics also have widespread commercial and public utility applications.

Global Geospatial Analytics Market (in billions)



Source: TechNavio

valuable if the target company has an established relationship with a particular customer (e.g., intelligence agency) in which the buyer is looking to establish a foothold. Contracts with military and intelligence agencies that have more consistent deployment, such as Special Operations Command, are viewed much more favorably by buyers than contracts that largely depend on ongoing conflicts and troop levels (i.e., OCO funded contracts). Lastly, international diversification helps to expand the addressable market and reduce the dependency on U.S. government-based customers.

- **Ownership of intellectual property:** Companies that have developed proprietary analytical software and systems, as opposed to using another vendor's off-the-shelf technology, are able to command higher margins and enjoy better customer loyalty.
- **Sensor-agnostic software:** Buyers favor analytics-focused companies that use software to process data from any type of sensor and are technology agnostic—a characteristic that increases the size of the company's total addressable market.
- **Commercial applications:** Companies with products and services that provide commercial applications, as well as defense, are more attractive to investors. The commercial angle increases the addressable market and further diversifies the business away from government contracts.
- **Experienced team with high levels of security clearance:** When evaluating firms that rely largely on individuals rather than software to analyze the data, buyers look for teams with

deep military and intelligence experience, high levels of security clearance, and low turnover.

Outlook for Geospatial Analytics M&A

M&A activity and consolidation in the defense and government services industry has accelerated over the past two years, as strategic acquirers and financial sponsors look to benefit from increased defense spending under the Trump administration. In the last three months alone, there have been five acquisitions by strategic buyers, headlined by General Dynamics' \$9.9 billion acquisition of IT services provider CSRA. Simultaneously, financial sponsors are looking to roll up acquisitions into a platform that will garner a robust multiple from a strategic buyer.

These trends, along with surging demand for generating actionable intelligence from imagery data, should lead to continued high levels of M&A activity in the geospatial analytics industry. Product-focused aerospace and defense companies tend to be among the most aggressive acquirers of geospatial analytics companies today. These companies realize that products are increasingly becoming commoditized; they view expanded services capabilities as a way to build stronger relationships with clients and generate recurring revenue.

To learn more about trends that are shaping dealmaking activity in the aerospace and defense industry, please do not hesitate to contact the William Blair Aerospace, Defense, and Government Services (ADGS) team.

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