DRIVING GROWTH WITH GIS

A Guide for Innovative Business Executives

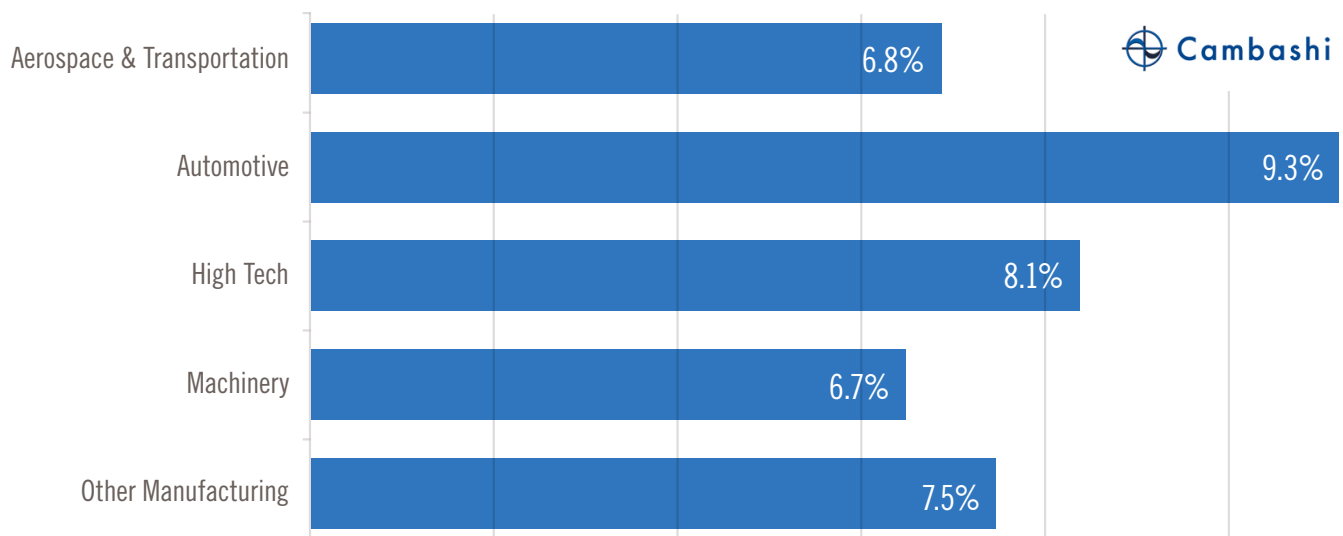# How Innovative Businesses are Driving Growth with Location Intelligence and Spatial Analytics

Today with the IoT and other big data sources, companies have more data than ever available at their finger tips. Industry innovators are finding ways to visualize that data, leveraging it to make more informed decisions. Companies who modernize their business intelligence by adding location intelligence and spatial analytics are realizing numerous benefits rapidly.

Location intelligence and spatial analytics are powerful tools for turning geospatial data into actionable information. And businesses are using this information for better market development, forecasting and decision-making. These tools

deliver unprecedented insights into market and customer dynamics as well as supply chain efficiencies. Ultimately, this is resulting in increased sales, lower risk, reduced operating costs and higher market share.

This white paper explores three common use cases of location intelligence within commercial industries, and how pairing geospatial data with the other typical data collected by organizations can lead to significant benefits. These include better business outcomes, from operations and supply chain management to new business opportunities.

Manufacturing Sees Rapid Growth in IT Investments on GIS Software in 2016

Figure 1: Manufacturers of all types are investing in GIS to gain insights in sales, marketing, service and the supply chain.

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The Rising Use of GIS Across the Enterprise

Today innovative companies are using location intelligence and spatial analytics at a rapidly rising rate to drive informed decisions. A recent Gartner reports predicts that global enterprise spending on location intelligence software will increase from $1.337 billion in 2016 to $2.563 billion by 2021. At the core of these powerful analytics is a geographic information system (GIS). GIS is a system that captures, stores, analyzes, manages, and presents spatial or geographic data. GIS gets updates through billions of real-time transactions. GIS uses data creation workflows to harness the underlying mapping database, apply additional internal or external data sources and produce different views depending on what users want.

With spatial analytics, business executives and analysts alike can map and interrogate any number of elements they wish. Some of the big data analytics power comes from combining anything with location context to analyze and visualize patterns and make decisions that drive better performance.

Companies are jumping on the GIS bandwagon due to its usability across the enterprise, as well as leveraging existing information systems.

- Executives can rapidly respond to supplier, product and customer situations.
- Sales and marketing can gain insight into market opportunities and threats.
- Procurement and production teams can use location intelligence to visualize supply chain workflows, efficiencies, and risks.
- Service and support teams can track product performance in real-time and use advanced analytics to improve utilization and mitigate downtime.

And these are just a few examples. Let's explore several use cases of how diverse organizations have applied location intelligence and spatial analytics throughout the enterprise to improve customer satisfaction and outpace competitive threats around the globe.

GIS in action at General Motors:

Driving Targeted Marketing, Sales and Service

Robust spatial analytics provides over 4,300 GM dealers insights on how to meet local demand successfully and grow the business. Understanding customer preferences also gives the company an edge in delivering excellent customer service.

Case in point: Bruce Wong, manager, Advanced Network Analytics at GM, is a big fan of GIS. His company uses it in conjunction with analytics for things like modeling performance between dealerships based on the spatial environment. This system allows GM to view local demographics, location characteristics, regional differences and even the competitive brand environment to determine how a given dealership should be performing compared to actual results.

Location intelligence and spatial analytics make it easier for the company to isolate demand, target its marketing efforts to local preferences and position its dealerships to improve success.

"Location analytics helps us to obtain more with less," said Wong. "We use Esri's ArcGIS software to map everything. This includes a choice and convenience map for every dealership. We can bring all the data in so we can geographically use it to make better decisions, understand customers and provide better service."

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GIS in action at Cisco:

Enhancing Global Information Transparency throughout Its Service Supply Chain

At Cisco Systems, having depots in the right locations is critically important to delivering premium service. Location intelligence and spatial analytics empower the team at Cisco to visualize and understand where customer sites are in relation to depots, and enhances conversations with customers. By leveraging GIS, the staff can also identify where service gaps exist and plan improvements.

"GIS is a foundational platform for Cisco that globally aligns information transparency and enhances customer intimacy through improved location awareness," said Warner De Gooijer, a strategic analyst with Cisco Systems, Inc. The Cisco Global Service Supply Chain provides two-hour, four-hour, and next-business-day service delivery offerings to its customers. On-site field engineers and more than 1,100 depots in 128 countries are available for dispatch to make necessary hardware replacements at customers' sites. There are millions of parts on Cisco's service contracts and billions of dollars invested in the organization's spare parts inventory.

Automating Territory Planning While Removing Service Gaps

Location intelligence provides staff with an accurate visualization of Cisco's Global Service Supply Chain footprint and operational capabilities by linking into Cisco's business environment. Customer-to-service depot assignments are automated, making it more efficient to distribute the spare parts inventory. Through this improved visibility of service territories, Cisco has made significant progress in eliminating coverage overlaps, removing service gaps, and optimizing the service part delivery network.

GIS in action at Natura:

Ensuring Sustainability

As a multinational manufacturer of beauty and household products, Natura must ensure responsible sourcing practices throughout its supply chain. Sustainability is critical to Natura's success.

Natura sells through direct representatives and catalogs and has more than 1.2 million personal resellers in Argentina, Brazil, Chile, Colombia, France, Mexico, and Peru.

The company leverages maps and spatial analysis to improve traceability and transparency in the supply chain to protect biodiversity and farmers. Simple data collection in remote areas and seamless integration with SAP speeds efforts in the field and office.

"Using Esri's ArcGIS, we share the same data but with different views and tools specific to our workflows. This streamlines our workflow so we can concentrate on creating quality products and empowering local families," explained Ronaldo Santos de Freitas, sustainability manager of Natura. With location intelligence and spatial analysis, improved traceability and transparency in investments, production, and supply chain infrastructure can be delivered throughout the company from a single platform. Having detailed information and a greater ability to view the entire production chain helps Natura maintain its commitments to sociobiodiversity and environmental stewardship.
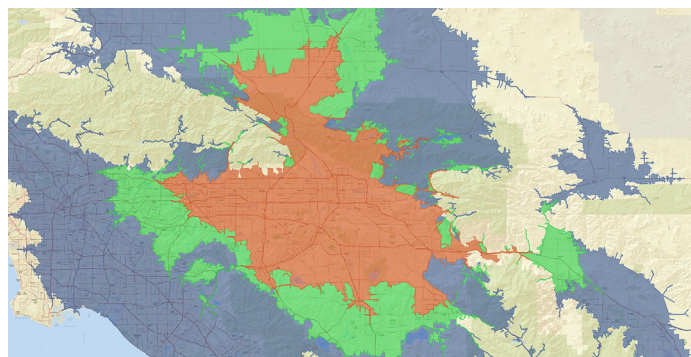

Figure 2: Drive time analysis to expand contracted services.

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Powerful Results of Leveraging GIS

Although they represent many different types of industries, the companies profiled above all share a vision for leveraging GIS to deliver powerful insights. From improved supply chain performance and visibility to stronger market development and service delivery, businesses are capitalizing on location intelligence and spatial analytics to drive improved performance and growth. Examples include:

Market Development and Analysis

- Find fast, sustainable growth opportunities
- Expand market yield and performance
- Minimize losses in underperforming markets
- More effective usage of advertising spend

Supply Chain

- Fulfill new demand effectively
- Mitigate geographic and regulatory risks
- Increase throughput across the supply chain channels
- Decrease wasted resources

Service Planning and Delivery

- Realize more value from services lifecycle
- Differentiate services offerings
- Eliminate service gaps

From operations and supply chain management to new business opportunities, the companies that modernize business intelligence with location intelligence and spatial analysis are certainly outpacing their competitors and lead the market.

Sources:

Figure 1
© 2017 Cambashi Ltd. GIS software growth by manufacturing segment

Figure 2
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Esri, the global market leader in geographic information system (GIS) software, offers the most powerful mapping and spatial analytics technology available. Since 1969, Esri has helped customers unlock the full potential of data to improve operational and business results. Today, Esri software is deployed in more than 350,000 organizations including the world's largest cities, most national governments, 75 percent of Fortune 500 companies, and more than 7,000 colleges and universities. Esri engineers the most advanced solutions for digital transformation, the Internet of Things (IoT), and location analytics to inform the most authoritative maps in the world.

Esri supports manufacturing and supply chain performance and visibility with skills, knowledge, and resources in the following:

- Mapping
- Spatial analytics
- Data-driven insights
- Real-time situational awareness and alerts
- Visualization

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