

Savvy businesses are achieving digital transformation with GIS

By [Brian Civin](#), issued by [AfriGIS](#)

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How real-time location intelligence is transforming raw location data into actionable insights for vastly improved decision-making.



As technology has become an integral part of nearly every aspect of our lives, businesses today have access to vast amounts of data. Forward-thinking companies understand that by effectively analysing this data, they can allocate resources to maximise impact and gain competitive advantage in the marketplace.

Realtime location intelligence, the ability to derive insights and knowledge from geographic or location-based data, combines geographic information systems (GIS) technology, data analysis tools, and business intelligence software to transform raw location data into actionable insights that inform decision-making.

GIS technology is unique among digital technologies as it connects data with location, bringing digital transformation to businesses across many sectors for a variety of applications. By connecting seemingly unrelated data, GIS can help organisations better understand spatial patterns and relationships

The advantages of a location strategy

Any business that needs to manage information based on location can benefit from the implementation of the right GIS solution. Geospatial analytics, used to add location and timing to conventional types of data, creates effective data visualisation, including graphs, maps, and statistics, that reveal past and present movements. Large-scale geographical data gathered in a GIS can help business leaders to make strategic decisions to reduce costs and enable profitable growth.

Companies that use GIS technology today are in industries ranging from supply chain management to agriculture, urban planning, financial services, healthcare and media – basically any organisation that can benefit from geographically determined business intelligence.

Location and geospatial services are making a significant impact on the banking industry. Banks, for example, can use a GIS platform to see where their clients are located, where their most profitable ATM locations are, what they buy, how much they spend, and their demographic information. This data can be used to determine which financial products and services will best fit customers' needs in different areas. It also empowers sales and marketing to target selected products and services at specific segments of the customer base.

In agriculture, the application of geospatial information enables farmers to map field data, organise and analyse it, and monitor crops remotely. GPS, robotics, drone and satellite monitoring have all contributed to farm automation and data collection.

Globally, executive teams are realising that they can save money, and make better decisions if they start thinking geographically. One of the key ways that geospatial information is driving digital transformation is by serving as a building block for linking unconnected datasets. Geospatial information can be used to connect and integrate diverse datasets from various sources, such as satellite images, weather forecasts, traffic data, and social media feeds. By linking these datasets, businesses can gain valuable insights into consumer behaviour, market trends, and other critical factors that can help them make informed decisions.

Consider a logistics company that needs to optimise its delivery routes. With a GIS platform, the company can identify the optimal routes based on factors such as traffic, road conditions, and delivery locations. This can lead to significant cost savings, increased efficiency, and improved customer satisfaction.

Moreover, geospatial information is essential for developing sophisticated algorithms and models that underpin many digital transformation initiatives, such as predictive analytics, machine learning, and artificial intelligence. By integrating geospatial data into these models, businesses can improve their accuracy and effectiveness, enabling them to make better decisions and improve their operations.

Another critical application of geospatial information in driving digital transformation is in urban planning. City planners are using geospatial information to create detailed 3D models of cities, including buildings, roads, parks, and other features. This helps them to design and optimise urban infrastructure and services, such as transport systems, emergency services, and utilities.

With the right GIS solution, manufacturers can track the location of machines and equipment, and identify potential problems before they occur. This predictive maintenance enables them to perform maintenance and repairs proactively, minimising downtime and reducing costs.

During natural disasters or emergencies, geospatial information can be used to identify areas that need immediate attention. Emergency responders can use this information to identify the location of people in need of assistance and plan their response accordingly.

Geospatial information and GIS platforms are playing a crucial role in driving digital transformation across various industries. Location intelligence allows organisations to visualise and analyse data in a geographic context, revealing patterns, trends, and relationships that are apparent in tabular or non-spatial data. As this evolution continues to accelerate, location strategies will become increasingly important for businesses looking to stay competitive and innovative.

ABOUT THE AUTHOR

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