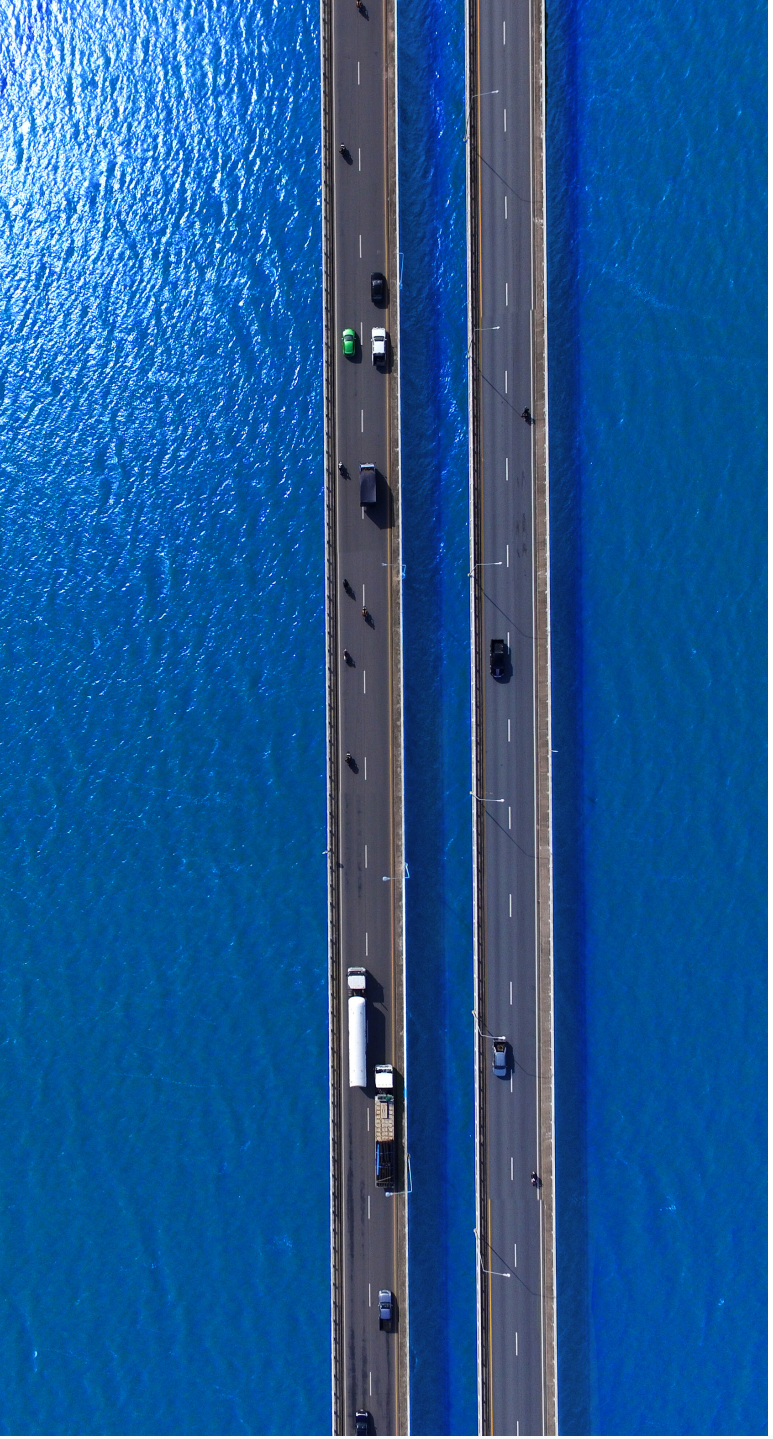
The Search for Mobility Excellence

OXFORD ECONOMICS

How business leaders use geospatial technology to enable mobility capabilities



Introduction

As geospatial services have matured, getting people, goods, and services from one point to another—our basic definition of mobility–has consistently improved. Intuitively, we know this to be true; satellites and global positioning technologies can communicate faster and more reliably than ever before, and two-day shipping, for example, has become the norm. But many have struggled to quantify the value that implementing these services can bring to a business.

Research conducted by Oxford Economics and Google Maps Platform sheds light on this topic. Using primary data collected from a global survey of 1,000 business executives across industries shows that using geospatial services in mobility-centric ways can yield significant financial results and efficiency gains. At companies where core operations and services involve the movement of people or goods, integrating geospatial services into internal operations or external customer-facing experiences yields reduced operating costs, better progress toward sustainability goals, and improved customer satisfaction.

We also identified a select group of respondents who are seeing greater business benefits from their geospatial service use. These executives—we call them Geospatial Leaders—report seeing at least four business benefits (out of a possible seven). As we explored the behaviors of these executives, we uncovered a pattern that proves these extended benefits are not a fluke. These benefits correlate with use of mobility-focused applications across the business—and they provide a strong blueprint for how others in search of mobility excellence can achieve their goals.

Setting the stage: Improving mobility is a priority

Moving people or goods is mandatory for the operations of many companies. This is true whether the core business model requires pickups or deliveries, or if it is just one component of operations. Boosting mobility operations then can come in a variety of forms. Executives in our survey prioritize increasing the quality of products and services (54%), making internal operations more efficient (such as transportation of goods and delivery of products and services, 52%), or making it easier for a customer to access what they need in the physical world (42%).

Over the past three years, organizations have turned to geospatial technologies to improve how mobility solutions are applied in both customer-facing interactions and internal operations. Over half (55%) invested in geospatial technologies in the hope of creating new customer experiences, and 50% invested in geospatial technologies to improve internal operations.

But while geospatial investments are under way, progress is uneven and organizations vary in their maturity. Less than one-fourth describe their current implementation as "heavy" or have a holistic strategy in place for geospatial uses in their customer-facing operations (22%), and just 7% have that level of implementation in their internal operations. Most organizations are still in the "some implementation with early benefits" phase, with 58% for internal operations and 57% for customer-facing operations.

Specific mobility use cases

Mobility can have many meanings, depending on the organization. For the purposes of our survey, we identified five use cases that aim geospatial services at business areas focused on mobility. These include the actual movement of people or products from one place to another (middle-mile deliveries, last-mile deliveries, on-demand deliveries or rides) and behind-the-scenes monitoring and logistics responsibilities associated with mobility (offering efficient routes for people and/or goods, enabling dynamic asset tracking).

Fig. 1: Geospatial services support mobility

Q. How are you using geospatial services within your organization? | *Select all that apply.*

Not all industries will use geospatial services to improve mobility, as the type of work an organization carries out may not demand it. We do see, however, that sectoral trends may reveal why specific use cases are more common in some industries than others.

Agriculture organizations (57%), *manufacturing* firms (55%), and *administrative/support/waste management/remediation* companies (55%) rely on moving goods efficiently to avoid spoilage, deadlines, or even radioactive decay. It makes sense, then, that they are more likely to use geospatial services to offer **efficient routes for people and/or goods** than companies from other industries (vs. 36% all other industries).

Delivering a product to its final location is not every organization's main business. However, geospatial services are used more frequently to make **last-mile deliveries** by *transportation and warehousing* firms (68%) and *accommodation and food services* organizations (56%, vs. 32% all others).

While efficiency of routes as a whole is key, some industries are more highly focused on moving products to a partner in the middle of the supply chain. Making these **middle-mile deliveries** are a key geospatial service use case for *wholesale and retail trade* (50%), *transportation and warehousing* (49%), and *agriculture* (47%, vs. 31% other organizations).

While few organizations in our survey use geospatial services to power **on-demand rides and/or deliveries**, some respondents are using it more heavily. For example, we see that *transportation and warehousing* organizations (48%) and *manufacturing* firms (43%) are more likely than most to use geospatial services in this way (vs. just 18% all others).

Using geospatial services to enable **dynamic asset tracking** is more commonly seen among *real estate, rental, and leasing* firms (40%), *administrative/support/waste management/remediation* companies (40%), and *non-profit organizations* (40%, vs. 26% all others).

The value of geospatial services is noticeable, but one size does not fit all—that is, the value generated by each use case may vary depending on industry.

Regardless of industry, those who have applied geospatial services to drive **middle-mile deliveries** are more likely to say these investments resulted in greater visibility into operations (62% vs. 51% survey average). However, when looking specifically at *agriculture* companies and *wholesale/retail trade* organizations—each of which are using the middle-mile use case more frequently than other industries—we find that their investments instead have **improved operational efficiency** (57%, 56% respectively, vs. 48% survey average).

Organizations that operate in the *administrative/support/waste management/remediation* sector and *manufacturing* companies have both heavily invested in **creating more efficient routes** for people and/or goods—and respondents from these industries claim that their investments have gotten them **greater visibility into their operations** (63%, 58%, vs. 49% all others).

Real estate, rental, and leasing firms and *administrative/support/waste management/remediation* companies each use geospatial services to **enable dynamic asset tracking** more frequently than other industries (total) and are more likely than others to see **improved customer acquisition rates** (61%, 60% respectively, vs. 49% total). Those with this use case in place today, on average, are more likely to realize reduced operating costs (39% vs. 32% survey average).

Boosts along the supply chain

Certain use cases may yield specific results based on business needs, but companies see the overall value of geospatial services on mobility regardless of these qualifiers. These services improve the many interactions with external partners that support organizations as they move products and services—interactions that are critical to success.

Executives appear aware of these benefits and are responding accordingly: Most (85%) say they use geospatial services moderately or significantly in **integration with business partners**.

While our survey cannot draw a causal relationship between geospatial service investment and business performance, it does capture the extent to which business leaders attribute their success to it. With this in mind, geospatial services are certainly adding value to supply chain interactions: one out of five respondents estimate that geospatial services positively influenced supply chain optimization by at least 20%—and when reducing this estimate of influence to 15%, the number of respondents who agree more than doubles (45% say this).

Where external partners are involved, monitoring and tracking information naturally comes into play. Organizations are better able to deliver information to partners along the supply chain when they know where people and products are, and over two-thirds of respondents (67%) say they use geospatial services to track deliveries to at least a moderate extent. This not only provides transparency to customers, but also yields useful data on how goods get to the customer. Access to this data may have an impact on operations; respondents can increase their business when they know what capacity is available—and about two in five (42%) say their geospatial service applications have directly helped increase productive capacity by at least 15%.

SIDEBAR:

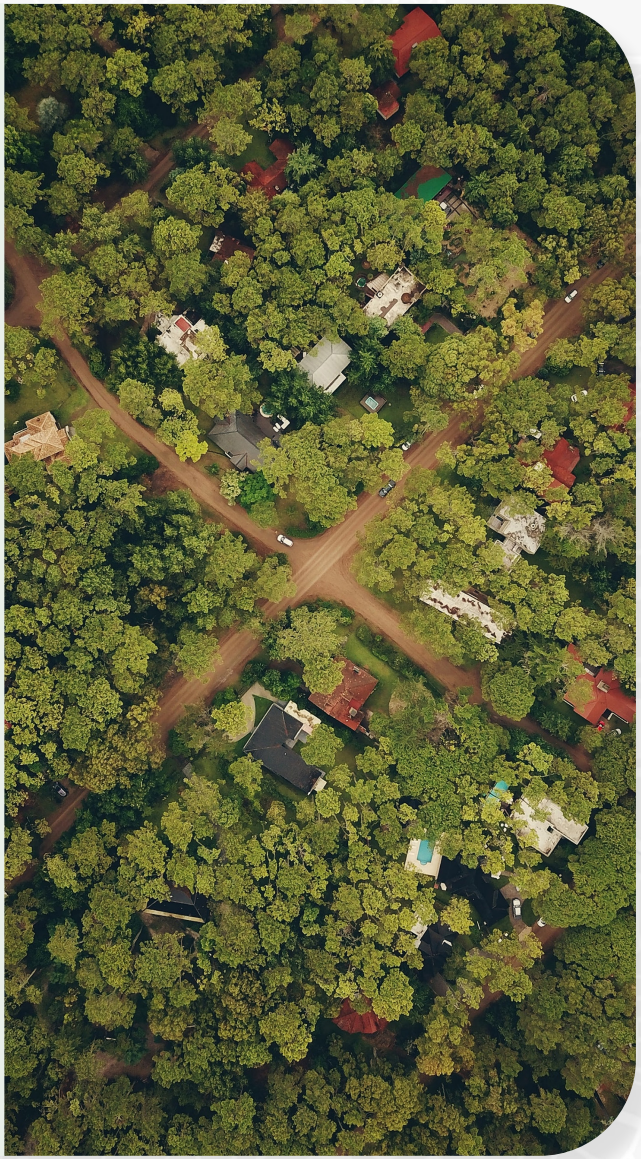
Leaders see greater benefits from geospatial efforts

We identified a select group of respondents who get more value from their geospatial investments. To qualify as a Geospatial Leader, executives must report seeing at least four of the following seven business benefits:

- Greater visibility into operations
- Greater visibility into customer behaviors
- Reduced operating costs
- Improved operational efficiency
- Increased customer acquisition
- Increased customer retention
- Increased rate of repeat business.

Leaders draft a clear blueprint for achieving these benefits. For example, they are significantly more focused on improving operational efficiency than their peers (72%, vs. 50% of others) and are more likely to have fully deployed business initiatives that increase speed to market (54% vs. 24%) or improve customer and user experiences (40% vs. 17%).

Leaders are slightly more likely to have invested in geospatial technologies that create new customer experiences (60%, vs. 54% of others) or that boost delivery and pick-up capabilities (48% vs. 39%). They specifically use geospatial services to **power on-demand rides and/or deliveries** (76%) but are also more likely than non-Leaders to use it in ways that **offer efficient routes for people and/or goods** (66% vs. 59%) or to **make middle-mile deliveries** (47% vs. 34%).



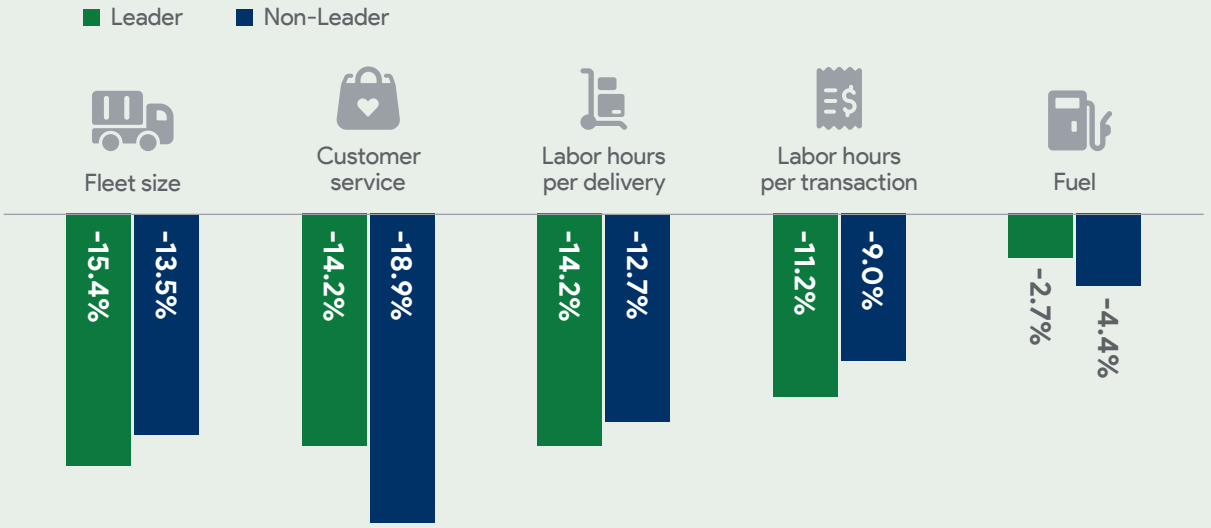
SIDEBAR: LEADERS SEE GREATER BENEFITS FROM GEOSPATIAL EFFORTS

(continued)

As a result of their geospatial service implementation, Leaders see more significant results than non-Leaders. They estimate that, as a percentage, the influence geospatial services has on key metrics is higher than others—including transactions per year (15.1% vs. 11.2%), new business opportunities (15% vs. 11.4%), and customer retention (15.0% vs. 12.6%).

Leaders also are more likely to see a significant reduction in operating costs in some critical areas of mobility—and while they do not see reduced costs in all business areas, even small changes can add up to large financial advantages.

Q. In the three years after your organization made its first investments in geospatial services, what *decrease* in operating costs did you realize in each of the following areas?



Conclusion

Innovators will find new ways to implement technologies that help move and track products and services along the value chain. Executives will have to keep their eyes open for these opportunities and adopt them quickly to stay ahead of competitors—but there is enough room for improvement today for them to work on. Decision-makers must take a deeper look at the way the business operates, where and why goods and services move from one place to another, and how enhanced visibility into mobility performance through geospatial capabilities can improve how work gets done.

To catch up to Geospatial Leaders, executives should consider the following actions:

- **Keep mobility in mind.** For organizations that depend on moving goods and people, the power of geospatial capabilities must make movement easier. Whether that means transporting a customer via train, plane, automobile, or bike—or moving a product to various locations before reaching its final destination—will depend on the company. But wherever resources are moved, geospatial technologies can help.
- **Reassess potential use cases.** Geospatial services don't belong in every single area of your business, but it is likely that untapped opportunities exist. Look at how the organization operates internally and with vendors and partners across the supply chain; examine what your customers need and how you deliver it.
- **Develop metrics to monitor success.** Implementing geospatial technologies will improve operations and customer satisfaction, but timely and accurate insights from data collection must be the driving force behind follow-up actions. Use this information to adjust how employees interact with vendors, customers, and each other to maximize efficiency.

To find out how geospatial services are impacting businesses like yours, view our **Impact Calculator**.

About the research

Google Maps Platform and Oxford Economics partnered to survey 1,000 executives at organizations of varying sizes across countries and industries. The respondent base is represented by organizations from eight countries, and all had at least $10m in annual revenue.

For the purposes of this research, we grouped respondents into 14 industry clusters, including accommodation and food services; real estate and rental and leasing; administrative and support and waste management and remediation services; finance and insurance; transportation and warehousing; wholesale and retail trade; manufacturing; arts, entertainment, and recreation; agriculture; professional, scientific, and technical services; non-profit; media and entertainment; telecommunications; and software and internet.

Results are not intended to be representative of Google Maps Platform customer results.

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Google Maps Platform

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