

Driving Sustainability



How geospatial services connect
with sustainability across sectors

Introduction

Sustainability has become a key focus for companies of all types, not just within the organizational firewall but across entire ecosystems of suppliers, partners, and customers. Geospatial services—the tools that create, display, and share geographic and location information—are an important part of the sustainability movement. These valuable resources can provide visibility into business operations and customer behaviors, influence fuel use and energy conservation, and reduce an organization’s impact on the environment.



To get a better sense of the influence of geospatial services on sustainability performance, Oxford Economics and Google Maps Platform surveyed 1,000 executives that are already using geospatial technologies to some degree. The Oxford Economics team of economists used this data to create an **impact calculator** that shows the value of geospatial services for specific use cases and which used sustainability as a key performance indicator (KPI) reported for specific geospatial technology use cases. The data shows that the extent of geospatial technology benefit on sustainability was swayed by a company’s priorities and use cases.

In fact, the use of data provided by geospatial technology correlates with successful sustainability initiatives. For example, respondents who invest in geospatial

technology are better suited to meet sustainability goals such as sustainable sourcing; two-fifths attribute significant improvement in this area with geospatial services (41% say this).

The significant forward momentum of geospatial investments is hard to understate. Our dataset indicates that first investments in geospatial services have increased tenfold—in 2013 or earlier 3.5% invested, but by 2017 or later that number had reached 38%—and there are clear applications for sustainability use cases. Executives are already seeing sustainability benefits from these applications (90% say this). But as corporate responsibility becomes increasingly central to strategy, executives must continue to leverage the power of geospatial capabilities to make sustainable business practices the standard.

Geospatial services, sustainability: Natural allies

Sustainability has become a rising corporate priority with the cost savings of geospatial services being reallocated to support sustainability initiatives.

In the three years after their first investments in geospatial services, executives have seen operating costs reduced by 18% in customer service, 14% in fleet size, and 13% in work hours per delivery. A portion of these savings has been reallocated into sustainable initiatives: Of the one-third of respondents that say geospatial services have reduced operating costs (32%), more than half

(55%) report that at least 15% of these savings have been directed to sustainable initiatives. Perhaps that explains why sustainability is a rising corporate priority. Well over three-fourths (79%) have implemented geospatial services at some level in their customer-facing operations, and nearly two-thirds (65%) have done the same for their internal operations.

Fig. 1: Geospatial services reduce costs.

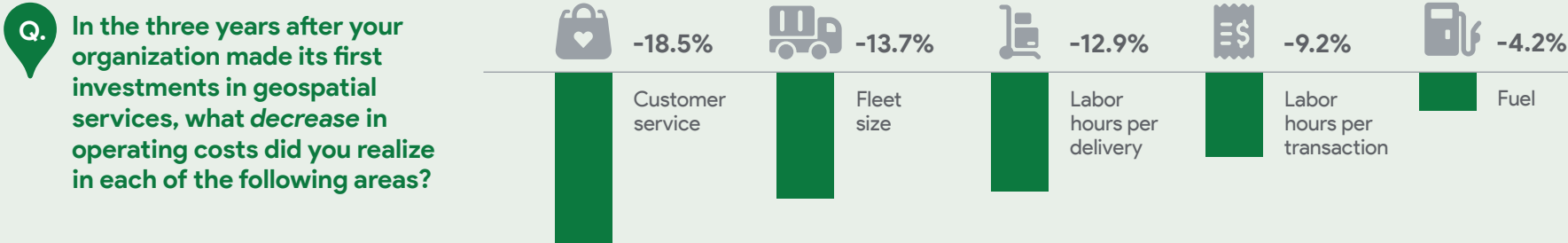
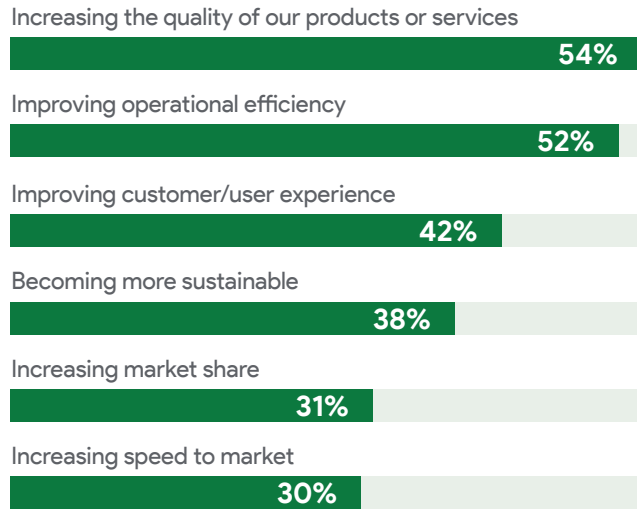


Fig. 2: Organizational goals over the next three years



Companies are still primarily focused on improving the quality of products and services (54%), operational efficiency (52%) and customer experiences (42%) over the next three years, but sustainability is closing in. More than one-third are prioritizing sustainability as a top three organizational goal—ahead of even growing market share (31%) and increasing organizational agility (30%).

The maturity of sustainability efforts is moving in the right direction, but there is still much to carry out before the job is done. Well over half of survey respondents have rolled out sustainability initiatives in at least some areas of the business (58%), but only a small cohort has completely implemented these initiatives and is already seeing strategic value (4%). As technology improves and organizations become familiar with the insights geospatial services can provide, we can expect this to increase over time.



Putting geospatial services to work for sustainability

The organization of tomorrow must learn to operate in a globalized world where interconnected supply chains are the norm. Gaining visibility into the inner workings of how products are created and delivered at each step of the process is an essential component to guaranteeing sustainability. Naturally, sustainable sourcing is viewed as an ideal use case for geospatial service implementation; over half of respondents (53%) have included this in their sustainability initiatives. This group of supply chain-focused organizations is seeing results, as nearly all who have prioritized sourcing cite at least moderate improvements from geospatial services (88%).

90% agree that their organization has become more sustainable since implementing geospatial services.

Creating supply chain visibility is key, but executives must expand their efforts to also cover internal operations and customer behaviors. Having access to performance metrics (e.g., deliveries made, resources used, miles driven) is the first step to improving how things work. Administrative, support, and

waste management services organizations—as well as professional and technical services firms—have seemed to pick up on this opportunity since well over half of respondents in these industries use geospatial data to help make decisions or improve operations (58%, 57% respectively). But other industries

are squandering this opportunity: Less than one-quarter of transportation and warehousing organizations and wholesale or retail trade companies have done this (24% each).

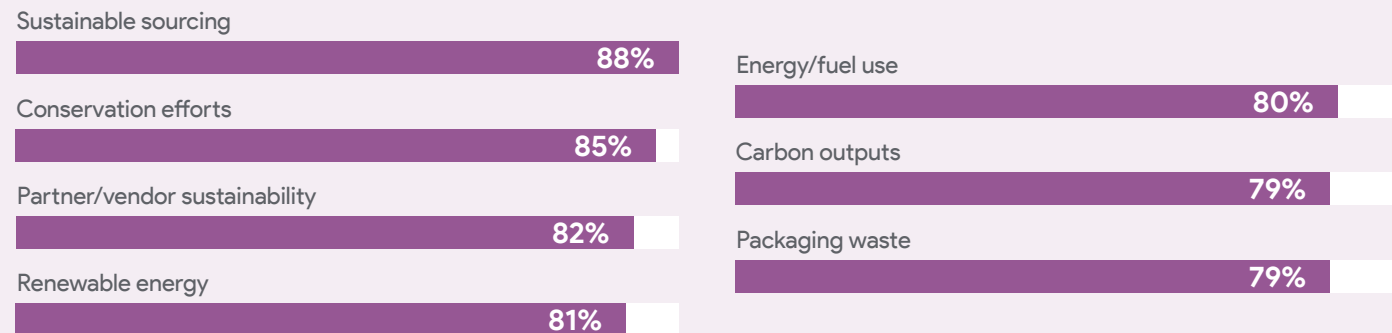
Despite these shortcomings, the sustainable impact that geospatial services deliver is

meaningful; of those that agreed or disagreed, nearly all stated that their organization has become more sustainable since implementation (90%). Nearly two-thirds of executives say geospatial capabilities have provided at least a moderate benefit by presenting efficient routes

for people and goods (63%). A slightly smaller group (32%) say geospatial capabilities have significantly improved energy and fuel use, providing much needed fuel cost reductions in a time of high energy prices, and lower greenhouse gas emissions as global warming concerns grow.

Fig. 3: Geospatial services drive sustainable performance.

Q. To what extent do geospatial services help your organization meet these sustainability initiatives?
“Moderate” and “Significant” responses only



Geospatial services benefit sustainability efforts across industries

Geospatial technology is fluid in the sense that many industries can use this technology to maximize the benefits of their business decisions. To measure return on investment, the 14 industries in our survey were grouped into six broader industry clusters and analyzed to create the impact calculator. Our modeling efforts show that meaningful value is being derived from geospatial technology in the form of sustainability.

Manufacturing

The transformation of raw materials into finished goods and products has always been a sustainability focus for manufacturing organizations. But executives may find that creating seamless movement along the supply chain can also provide sustainability benefits. Manufacturers are leading the way in this respect: They are more likely than others in all other industries in our survey to have implemented geospatial services in at least some capacity in their internal operations (81% vs 64% all others). Early results

indicate that these efforts are paying off, as manufacturers are most likely to experience significant boosts in the efficiency of the routes for people and/or goods (39% vs 29% survey average).

And to top it all off, manufacturers are not cutting corners. They keep a close eye on the impact their operations have on their surroundings through measurement, as they are almost twice as likely to have carbon output initiatives in place (64% vs 35% survey average).

Wholesale and retail trade industry

Wholesale and retail trade organizations by nature contribute to the goods and products that eventually break or become obsolete. And while executives continue to develop business models that support circular business, they are also making sustainability progress now by applying geospatial services in how they operate. More than two-thirds (68%) have already implemented these capabilities in their

internal operations to some extent, and over half include an energy or fuel use initiative in their overall sustainability plan (55% vs 45% survey average). Geospatial services have left their mark on this industry's performance: Wholesale and retail traders are most likely to say these capabilities have significantly improved their energy and fuel use (43% say this vs 31% of all others).

Sustainability initiatives are comprised of many sub-components, and each industry will focus on what most fits their needs. Agriculture executives, for example, are most concerned with sourcing resources like fertilizer, seeds, and fair labor sustainably (67% vs 53% survey average). With these concerns in mind, sourcing has become even harder due to global turmoil (e.g., Ukrainian wheat production, regional droughts and natural disasters), and keeping track of shifting vendors and suppliers in this market can be a daunting task. Geospatial services can help to highlight these areas of much needed improvement and perhaps provide opportunity for this industry.



Financial services and information

For organizations that depend on processing transactions and keeping massive computing processors fully operational, finding affordable and sustainable power sources can make or break success. Finding ways to harness regenerative and sustainable energy sources could become one of the most important tasks our world faces. While they are no more or less likely to include

a renewable energy component to their sustainability initiatives (43% vs 42% total), they are much more likely to credit success in these areas to geospatial services: exactly half of executives in these industries say geospatial services have provided significant improvements to their renewable energy efforts (vs 34% all other industries).

Agriculture

The agricultural industry is more likely than others to prioritize sustainability as a core strategic focus (62% say this vs 38% survey average). And although the sector is slightly behind other industries in sustainability initiative deployment—just 41% have fully deployed an initiative in at least some areas of the business—their efforts suggest they are acting on their strategic priority: Nearly two in five

have entered the piloting stage of their plans (38%). Meeting packaging waste goals is also on the minds of agricultural executives—30% have sustainability initiatives for this—and they, alongside transportation and warehousing executives (44%), are more likely to have realized benefit from geospatial services in meeting this goal (39% vs 28% survey average).

Conclusion

The societal benefits of sustainability efforts may compel executive investment—but at the end of the day, being sustainable is a smart business decision. Geospatial services and the many capabilities they enable will continue to play a role in sustainability initiatives going forward; the efficiency benefits, improved quality of products and services, and boosts to customer satisfaction they bring will help create a strong reputation among an increasingly conscious customer base.

To maximize how geospatial services can improve sustainability at your organization, we suggest looking at the following actions:

- **Uncover new geospatial use cases.** The benefits of geospatial services are wide-reaching, and many still have room to grow in their journey. Wherever people or products are moving, efficiency can be improved—and when efficiency improves, energy and resources don't get wasted. Find new areas where geospatial services can improve your business.
- **Find new ways to capture sustainability data.** Metrics are critical, but useless unless leadership can see what's going on. Establishing processes to track the time and resources it takes to carry out business tasks is a great launching point for sustainability-minded executives to optimize how work gets done.
- **Innovate for your industry.** Sustainability success is unlikely to take a one-size-fits-all form for any organization. Business leaders must take a close look at the inherent advantages and challenges their line of work presents and go from there. Whether it's product design, energy use, or route optimization will vary from sector to sector—but the opportunity is out there.

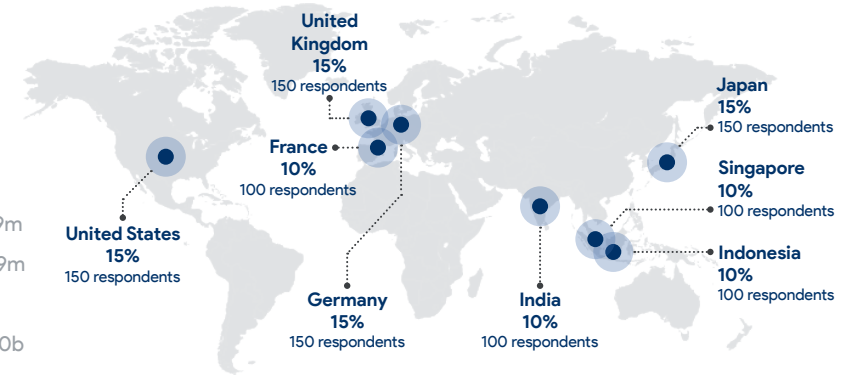
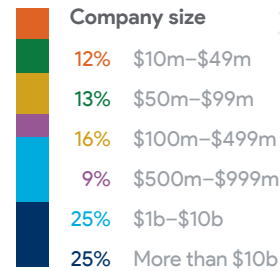


About the research

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.



About Oxford Economics

Oxford Economics is the world's foremost independent economic advisory firm. Covering over 200 countries, over 100 industrial sectors and 8,000 cities and region, we provide insights and solutions that enable clients to make intelligent and responsible business decisions faster in an increasingly complex and uncertain world. For more information, visit <https://www.oxfordeconomics.com>.



About Google Maps Platform

Google Maps Platform helps organizations and developers create better experiences and improve operations through detailed geospatial data for more than 250 countries and territories. Our rich mapping products and solutions help everyone build with the familiar Google Maps interface used by more than a billion users every month. For more information, visit <https://mapsplatform.google.com>.

Driving Sustainability

Copyright 2023 - Oxford Economics and Google Maps Platform. All rights reserved.

Published February 2023