

How does intermodal fit into shipper sustainability strategies?

The intersection of intermodal and sustainability.

A white paper in partnership with

Uber Freight +  **FREIGHTWAVES**



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Overview

Corporations are increasingly faced with pressing regulatory, public and internal responsibilities to achieve net-zero greenhouse gas emissions. Transportation is the largest greenhouse gas (GHG) emitter, contributing nearly a third of U.S. emissions according to the [Environmental Protection Agency](#). And with **70%** of the nation's freight moving via truck on an annual basis, adopting more sustainable tactics will be critical for shippers to shrink their carbon footprints.

While alternative solutions like electric and autonomous vehicles offer promising environmental advantages, wide-scale implementation is still largely out of reach due to infrastructure and technology limitations.

However, a more sustainable alternative to motor freight alone is already available: intermodal. Specifically, leveraging rail transportation as an additional mode of transportation has environmental and cost-saving benefits.

In a recent survey conducted by FreightWaves and [Uber Freight](#), two-thirds of shippers reported using intermodal to some degree. Our findings suggest that intermodal is one accessible way for companies to start reducing their emissions output.

Does your company currently utilize intermodal shipping?

Yes • **65%**

No • **35%**

In the U.S., freight rail moves around **40%** of long-distance ton miles but only **2%** of transportation's GHG emissions.

Rail is approximately **three to four times more fuel-efficient** than truckload, making it an economical way to transport long distances and in bulk. Including rail as part of a multimodal transport strategy is a more sustainable alternative to long-haul trucking alone.

But despite the significantly lower emissions output of rail, many shippers still do not prioritize rail usage

for its environmental benefits. This means that many companies are missing out on a capital-efficient and widely available opportunity to significantly reduce their carbon footprints.

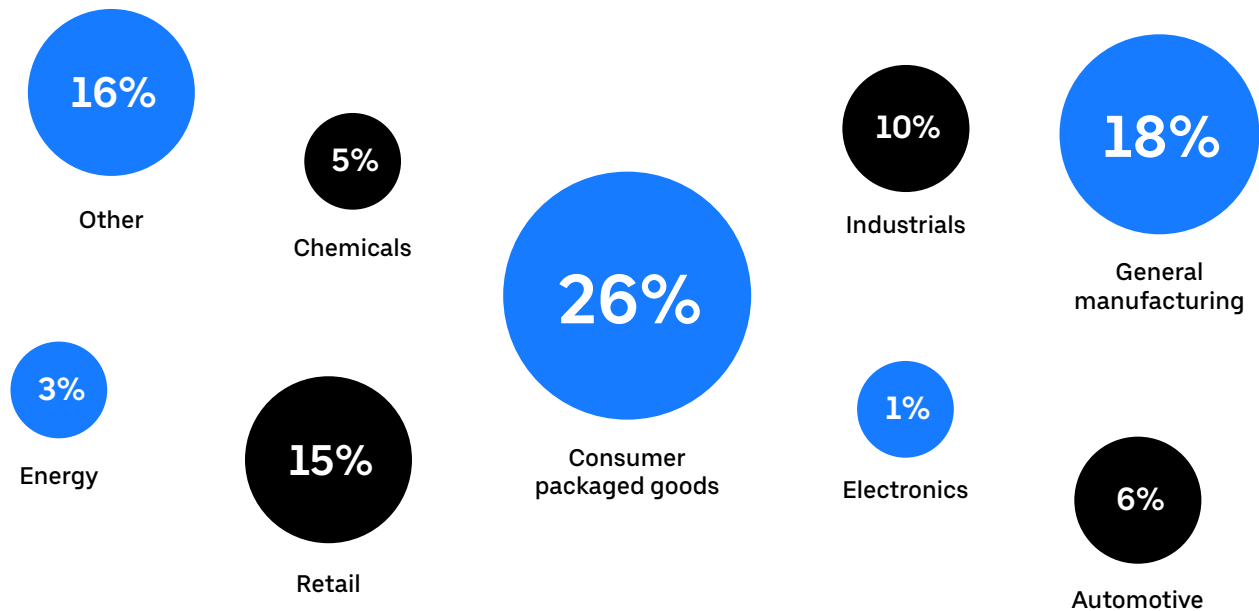
Through this survey, FreightWaves and [Uber Freight](#) set out to explore how intermodal fits into shippers' sustainability plans. This report details their views and commitments to sustainability, current usage of intermodal in regard to their environmental goals and how progressing sustainability regulations will impact their business.

Survey demographics

Companies from a variety of industries responded to FreightWaves' and Uber Freight's survey, with the consumer packaged goods segment leading the charge.

General manufacturing made up the second-largest proportion of respondents, followed by "other" and retail.

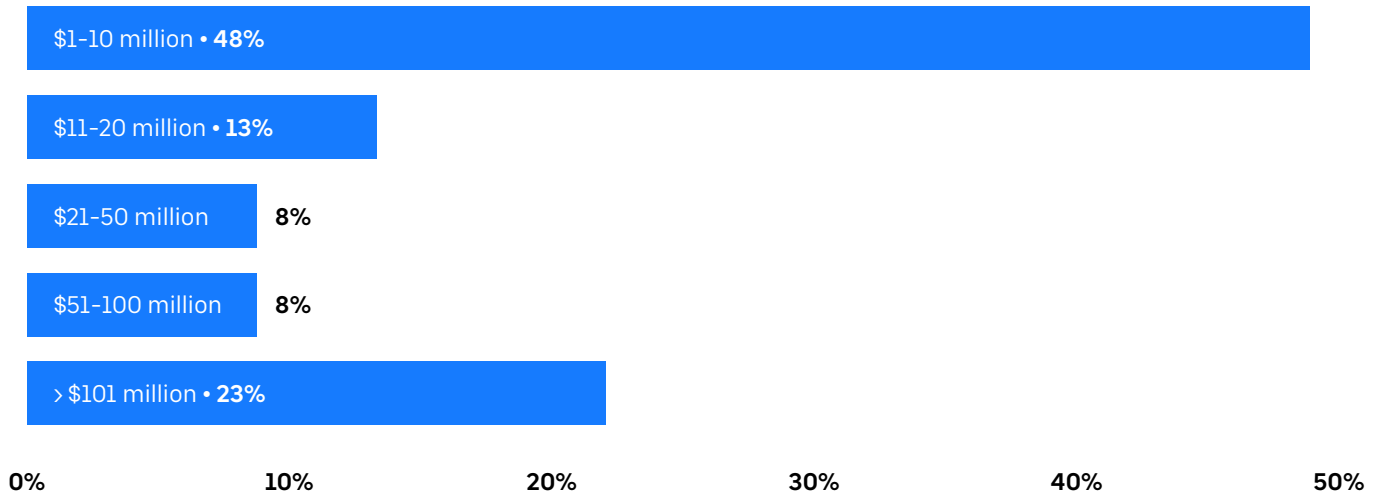
Which sector best describes your company?



Respondents gravitated toward the high and low ends of the annual transportation spend spectrum. The most common respondent works at a company that spends between \$1 million and \$10 million on transportation and

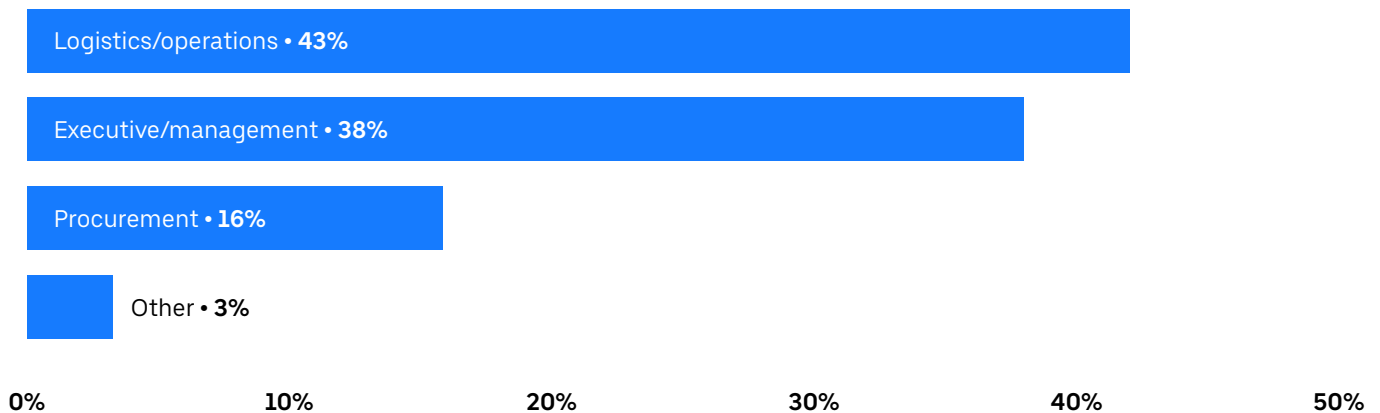
shipping every year. But there was a solid showing from the enterprise group, too. Nearly a quarter identified as such, with their businesses spending more than \$101 million on transportation and shipping.

What is your estimated annual spend on transportation and shipping?



Many respondents work in their company's logistics/operations department, while nearly two-fifths are in the executive/management rung.

What best defines your role in your company's supply chain decision-making process?



Sustainability goals and commitments of shippers

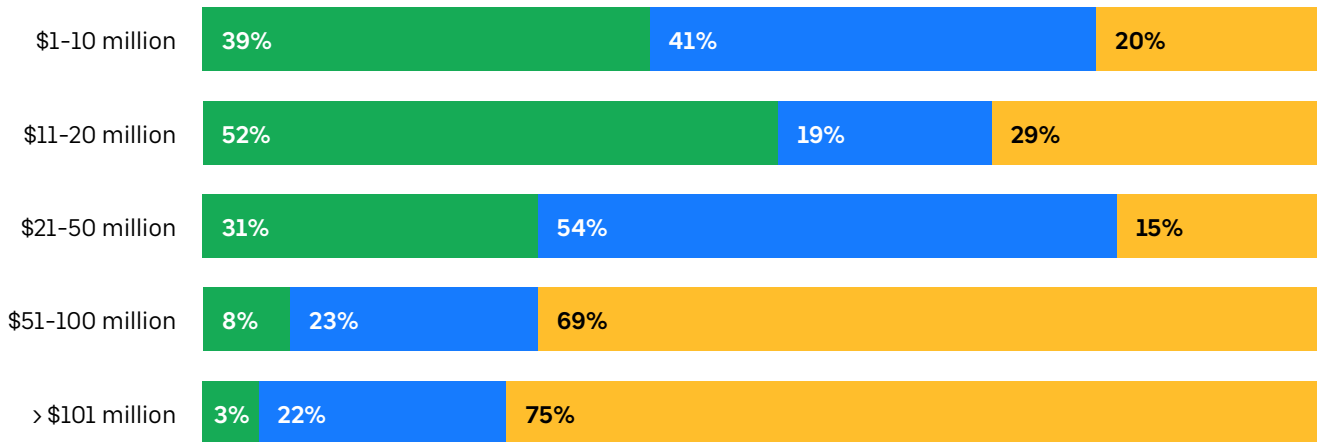
The devastating impacts of climate change impact everyone on Earth. As [The National Climate Assessment](#) reports the average global temperature has increased by approximately 1.8 degrees Fahrenheit from 1901 to 2016. The need to decarbonize now is more critical than ever.

Corporations, especially enterprise-level companies, are being urged from all angles to take actionable steps to reduce carbon emissions, which directly contribute

to rising temperatures. Investors and shareholders, consumers and governments are putting pressure on businesses to acknowledge their impact and commit to lowering and offsetting carbon emissions.

Many large corporations have answered this call. More than 75% of enterprise-level respondents have sustainability goals and public commitments in relation to freight transportation – only 3% have neither.

Does your company have any sustainability goals or public commitments related to freight transportation?



● We do not have any sustainability goals or public commitments

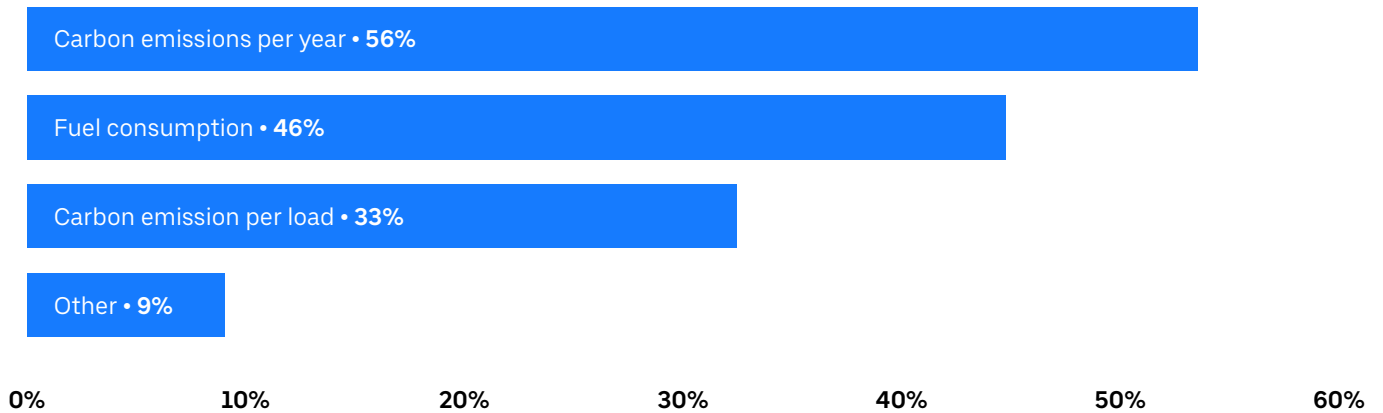
● We have sustainability goals, but no public commitments

● We have any sustainability goals and public commitments

Measuring carbon emissions per year is the most common way respondents tracked sustainability metrics. CO2 is the main greenhouse gas, trapping heat in the atmosphere and contributing to global warming. Fuel consumption — predominantly burning fossil fuels — is the second most commonly tracked data point.

Companies are aware of how their actions, especially in relation to freight transportation and shipping, impact the environment. And many mid- to large-size companies have set goals to improve.

If yes, what metrics does your company use to measure its sustainability goals (please select all that apply)?



Intermodal as an emissions reducer

Rail is beneficial and commonly used for transporting commodities long distances. In fact, the [AAR claims](#) it is the most fuel- and cost-efficient way to transport goods over land. According to an analysis from the [Federal Railroad Administration](#), a freight train's fuel efficiency ranges from 156 to 512 ton-miles-per-gallon, which is significantly greater than a truck's 68 to 133 ton-miles-per-gallon.

"If 25% of the truck traffic moving at least 750 miles were transported by rail instead, annual fuel savings would be some 1.2 billion gallons with a corresponding reduction of greenhouse gas emissions of approximately 13.1 million tons," the AAR stated in a 2020 [report](#).

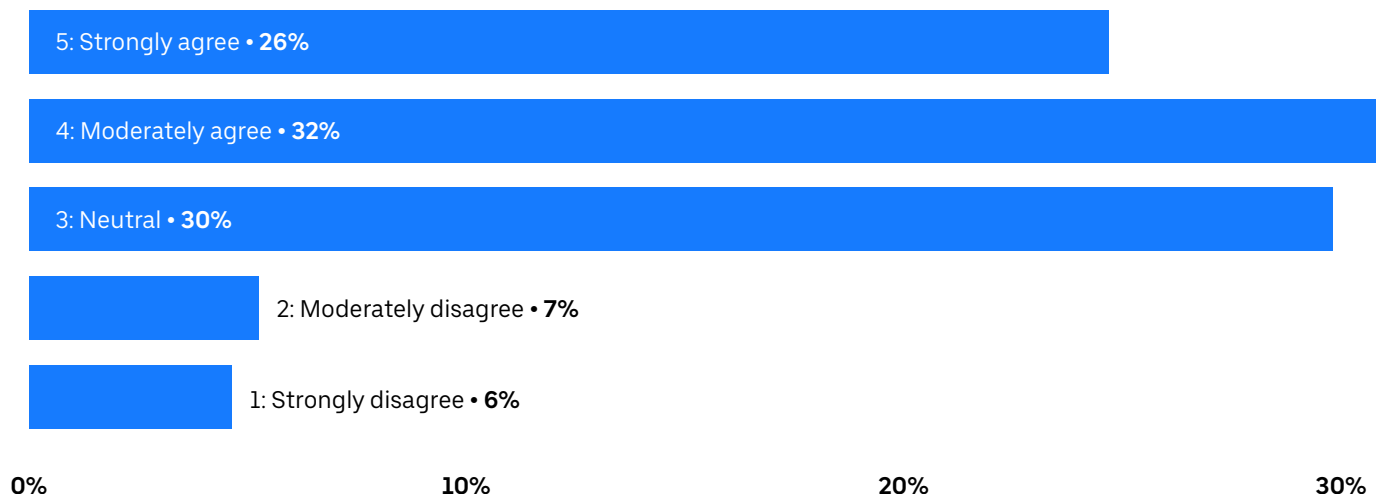
Of the respondents that use intermodal freight transportation, approximately 60% agreed with the statement that it is more cost-effective and sustainable than traditional truckload. However, only 30% of respondents who don't use intermodal agree.

This could suggest a potential education gap for respondents not using intermodal today. They may not have a complete understanding of how beneficial intermodal shipping could be compared to truckload alone.

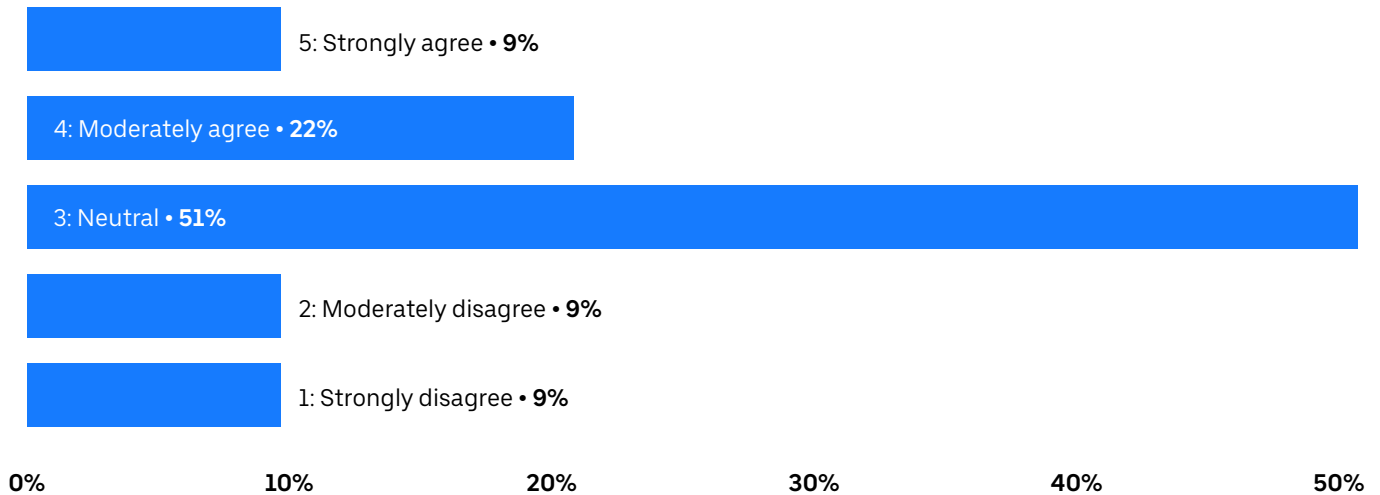
Even among those who do use intermodal, however, there is a disparity in opinion between larger and smaller companies. Around 85% of enterprise shippers agree that it has sustainability and cost benefits — 32% moderately and 53% strongly agree.

The strength in agreement drops when removing enterprise shippers and only looking at smaller companies' responses. The plurality, 40%, are neutral about its sustainability and cost benefits while 31% moderately agree and 13% strongly agree.

Yes: "Intermodal shipping is a more sustainable and cost-effective shipping option compared to traditional truckload."



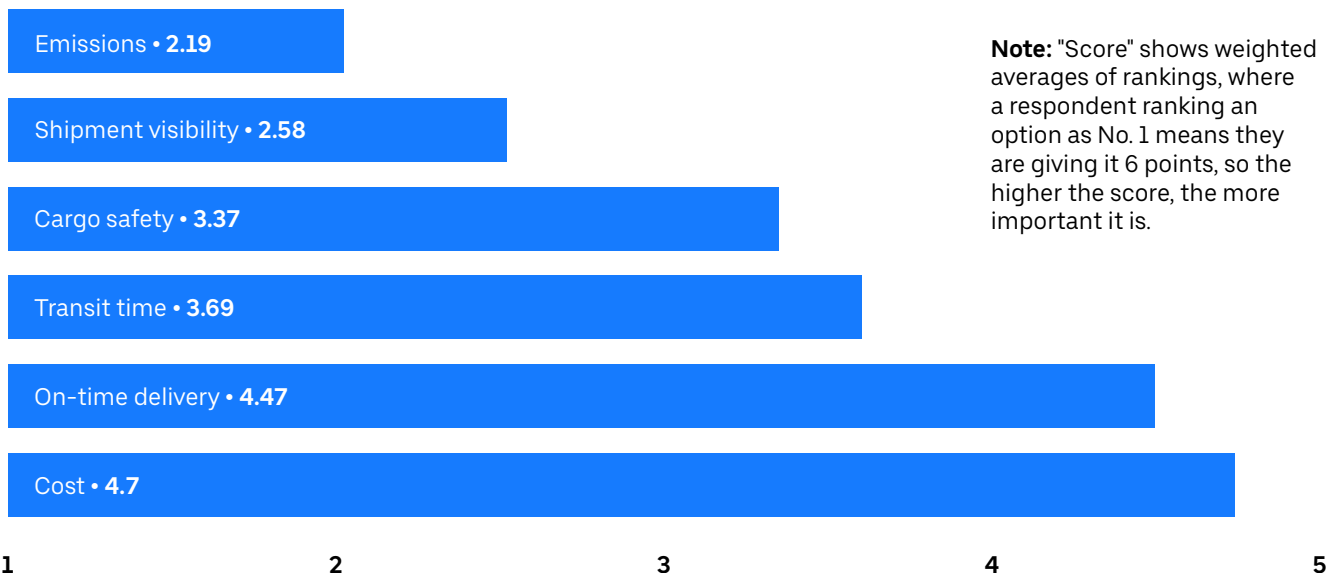
No: "Intermodal shipping is a more sustainable and cost-effective shipping option compared to traditional truckload."



While many companies have external and internal motivations to meet sustainability targets, emissions do not rank higher out of the listed factors affecting their decision to use intermodal versus truckload transport alone. People working inside shipper logistics say cost and on-time delivery are the most important factors when choosing intermodal or truckload. Shipment visibility and emissions come in last.

Shifting current sentiments would require an improvement in intermodal level of service and cost, or, shipper perception of intermodal service and cost. More education surrounding the environmental benefits of rail is the first step in changing shippers' perspectives.

Please rank how your company prioritizes these factors when deciding between intermodal shipping and traditional truckload (where No. 1 is most important).



View of impact of regulation

Emissions-based regulations are becoming more prevalent today as legislators take steps toward sustainability. Take, for instance, [California's Advanced Clean Fleets](#). Passed in April, the legislation will require the phase-out of traditional medium- and heavy-duty combustion truck sales by 2036 and a path to 100% zero-emissions vehicles on the roads by 2045. About 40% of [total](#) U.S. containerized cargo imports and 30% of exports pass through California's ports, making it a critical shipping corridor.

Additionally, the U.S. Securities and Exchange Commission's proposed [Climate Disclosure](#) rule would

require all publicly traded companies in the U.S. to disclose certain climate-related information, such as greenhouse gas emissions, risks and impacts on business, as well as climate goals and plans.

In spite of these new and proposed regulations, respondents do not view them as impactful on their company's plans to embrace sustainable intermodal options in the future. Sixty-one percent said it will not have an impact on their businesses. The results are similar when isolated to enterprise-only companies. Approximately 64% of enterprise-level companies believe this legislation will have no impact.

How do new emissions-based regulations (such as California's Advanced Clean Trucks or the SEC's proposed Climate Disclosure Rule) impact your company's plans to embrace more sustainable intermodal options in the future, if it all?



Enterprise only: How do new emissions-based regulations (such as California's Advanced Clean Trucks or the SEC's proposed Climate Disclosure Rule) impact your company's plans to embrace more sustainable intermodal options in the future, if it all?



Conclusion

Shippers are much more likely to use intermodal options than electric or autonomous vehicles, which are still emerging solutions. When asked how their company is thinking about alternative transportation moving forward, most answers leaned toward intermodal.

The weighted averages, in which a lower number indicates a higher likelihood of current or near-term

implementation, are as follows:

- Autonomous vehicles: 3 (“not considering but would in the future”).
- Electric vehicles: 2.6 (“not considering but would in the future,” though it’s nearer to rounding down to “considering today”).
- Intermodal options: 1.9 (“considering today”).

Please characterize how your company is thinking about alternative transportation moving forward.

Autonomous vehicles



Electric vehicles



Intermodal options



- **1: Use today** ● **2: Considering today** ● **3: Not considering but would in the future** ● **4: Not considering and would not in the future**

Though intermodal transportation is a common part of many companies’ shipping strategies, many do not intentionally leverage it to support their sustainability goals and commitments. Diverting even a portion of the shipments from long-haul truck transport to rail can help large companies reduce their carbon footprints and achieve cost savings.

Backed by a suite of solutions and services grounded in innovative marketplace technology, [Uber Freight](#) transforms entrenched practices around pricing and booking freight across a variety of modes, including rail, and brings unprecedented reliability, flexibility and

transparency to the movement of goods and reshaping global logistics for shippers and carriers of all sizes.

Uber Freight partners with shippers to understand transportation goals and commitments in regard to cost, service and sustainability. And through access to an expansive network of carriers, including relationships with the nation’s largest rail providers and direct access to over 70,000 containers, Uber Freight is able to identify the best rates and routes and move required volumes and, in doing so, help shippers grow closer to net-zero greenhouse gas emissions targets.