

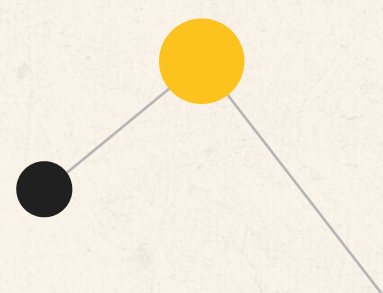


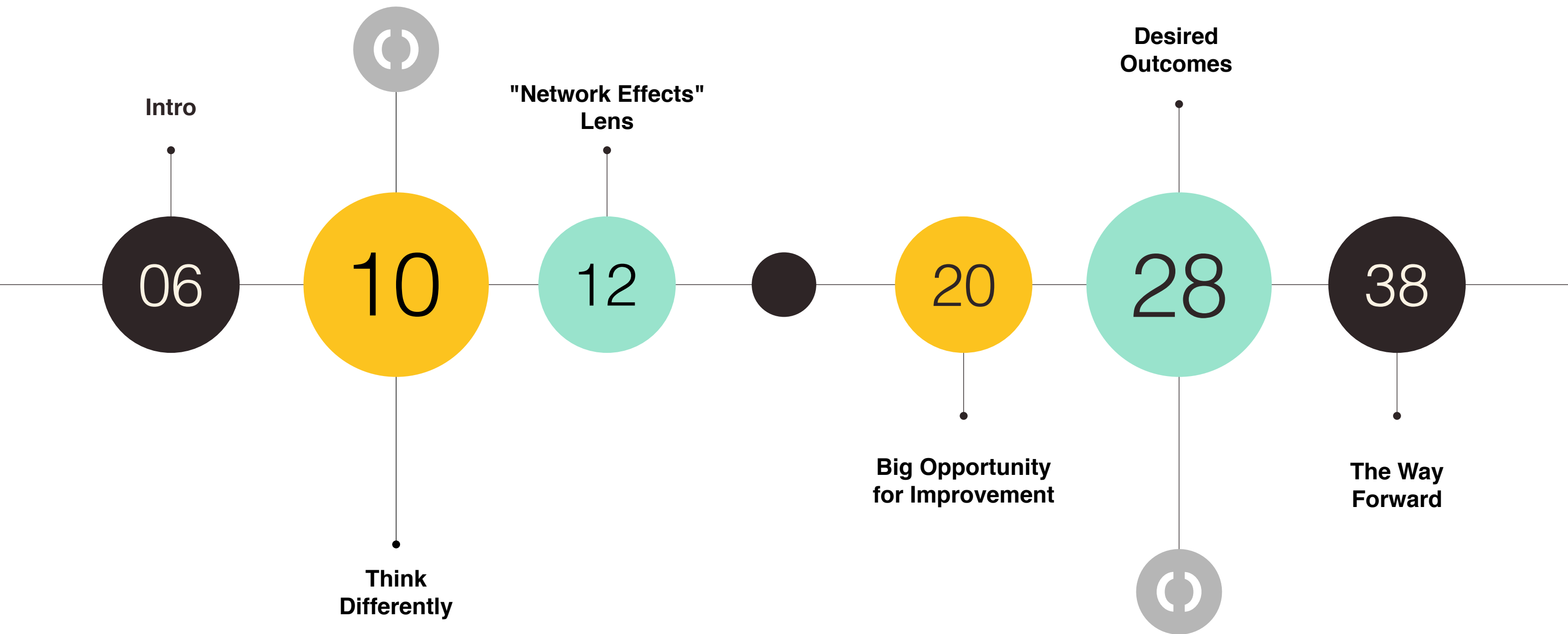
TRANSPOREON

# Trust the Network

**The Way Forward in Achieving Transportation  
Desired Outcomes**

Transportation Pulse Report 2021







I'm sure you've heard this saying often (but mistakenly) attributed to Albert Einstein:

**"Insanity is doing the same thing over and over again and expecting different results."**

From that perspective, transportation has been insane for a long time.

The symptoms of this insanity are ongoing waste and inefficiency, which manifest themselves in many different ways:

Empty Miles

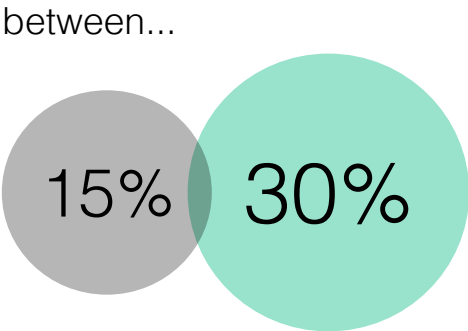
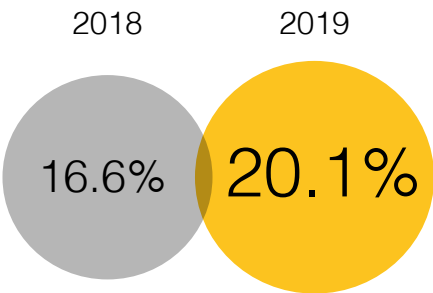
According to the American Transportation Research Institute (ATRI), trucking companies accrued over 17 billion total operating miles in 2019; 20.1% of them were empty miles (up from 16.6% in 2018). With an overall cost per mile of \$1.65, trucking companies spent \$5.64 billion driving empty miles in 2019. Similarly, according to Eurostat, most Member States in the EU fell in the range between 15% and 30% empty journeys (percentage of vehicle-kilometres recorded as empty).



US Empty Miles



EU Empty Miles



Detention/Waiting Time

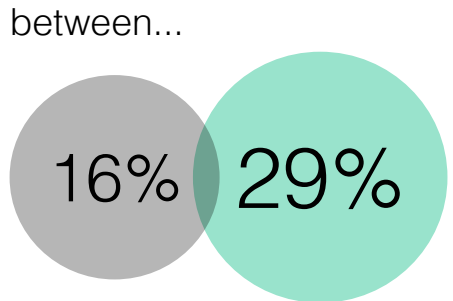
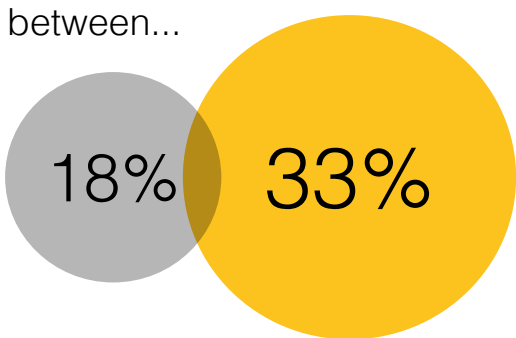
In a survey conducted by the Owner-Operator Independent Drivers Association (OOIDA) in the United States, drivers who comply with the 60-hour Hours of Service rule “spend approximately 18% to 33% of their possible compensated drive time in detention, while those complying with the 70-hour rule spend 16% to 29% of their compensated drive time in detention.” With a national average per-hour operating cost of \$65.11 reported in 2019 (per the ATRI survey), “detention can dramatically undermine the profitability of trips, possibly causing some trips to operate in the red.”



60hr Rule



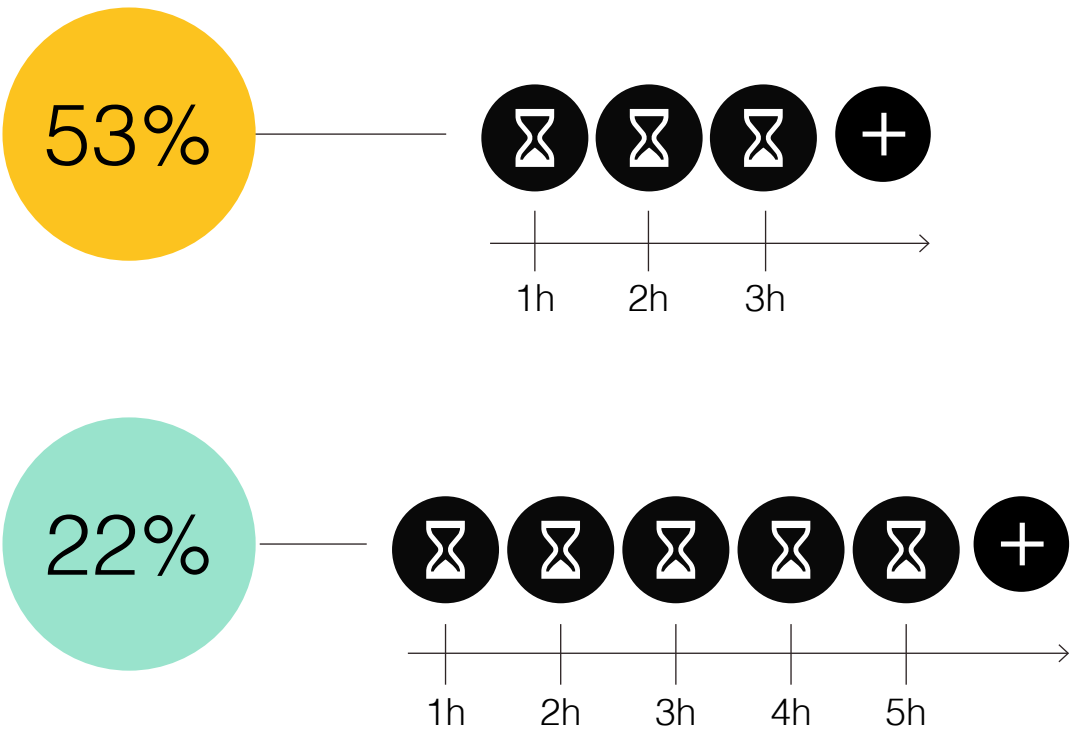
70hr Rule





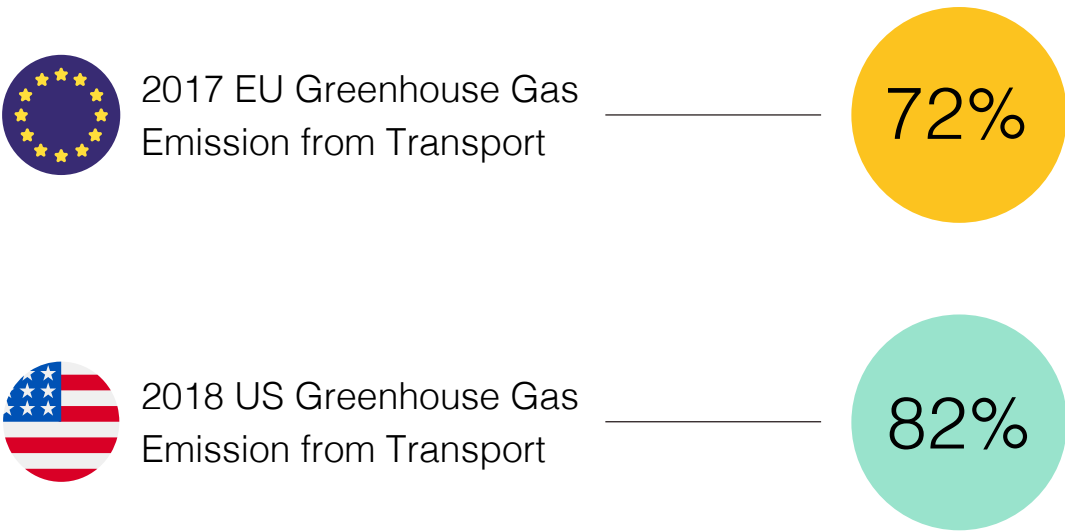
Waiting time is also an issue in Europe. In a survey conducted by Vehco, a fleet management solution provider, more than half of the carriers surveyed (53%) reported their drivers wait 3 or more hours per week on average (based on a 40-hour week), with 22% saying their drivers wait more than 5 hours per week. According to one carrier quoted in the paper, “If we did not have any waiting times at all, we would save about €10,000 each month.”

How long do your drivers wait per week on average?



CO2 emissions

In 2017, road transport was responsible for almost 72% of total greenhouse gas emissions from transport in the EU, according to the European Environmental Agency. Of these emissions, 19% came from heavy-duty vehicles. According to the U.S. Environmental Protection Agency, 82% of transportation greenhouse gas emissions in the U.S. came from road transport in 2018. Greenhouse gas emissions from freight movements accounted for 29% of transportation’s total in 2018, according to the Bureau of Transportation Statistics.



How can shippers, carriers, freight brokers, and other stakeholders in the transportation industry break away from this insanity to realize different results? In other words, what changes must the industry make to not only improve the status quo, but also drive innovation quickly in response to whatever new requirements, challenges, and opportunities tomorrow brings?



# Think Differently

The first step is arguably the most difficult one: it requires all stakeholders to think differently, to follow the advice of Robin Williams in the movie Dead Poets Society:

**“Just when you think you know something, you have to look at it in another way. Even though it may seem silly or wrong, you must try...Dare to strike out and find new ground.”**

For too long, transportation has been viewed as a highly fragmented industry. Shippers, carriers, freight brokers — they’re all fragments, thousands and thousands of them, like pieces of broken glass separated from a whole.

But what if you looked at the transportation industry differently, where the stakeholders are not separate fragments but nodes on a connected network, like dew drops on a spiderweb?

In other words, what if you viewed the transportation industry through the lens of “network effects”?



# Viewing Transportation Through the Lens of “Network Effects”

A “network effect” is an economic term defined as “a phenomenon whereby a product or service gains additional value as more people use it.”

The concept and power of network effects is not new. In fact, Theodore N. Vail, President of AT&T at the beginning of the last century, alluded to it in the company’s 1908 annual report:

“A telephone — without a connection at the other end of the line — is not even a toy or a scientific instrument. It is one of the most useless things in the world. Its value depends on the connection with the other telephone — and increases with the number of connections.”





Vail adds that the Bell system had become “the nervous system of the business and social organization of the country” and “if the business had been developed by different organizations...each little system would have been independent and self-contained without benefit to any other. No one has use for two telephone connections if he can reach all with whom he desires connection through one.”

Fast forward to today and the network effect is all around us, with the internet, web, and social networks being the most pertinent examples. We are also seeing the rise of industry-specific, business-to-business networks that are enabling participants (via cloud-based software) to communicate, collaborate, and execute processes in more efficient, scalable, and innovative ways.

James Currier, General Partner at the venture firm NFX, discusses this evolution in [“From Social Networks To Market Networks”](#) (TechCrunch, June 27, 2015):

“

*First we had communication networks, like telephones and email. Then we had social networks, like Facebook and LinkedIn. Now we have market networks that combine the main elements of both networks [like Facebook and LinkedIn] and marketplaces [like eBay, Etsy, and Uber] and use SaaS workflow software to focus action around longer-term projects, not just a quick transaction.*

”



Is this happening today in the transportation industry? Absolutely, and it is being enabled by another important trend: the evolution of transportation management systems (TMS) from being “inside the four walls” applications to becoming the operating systems of large transportation networks in the cloud.

TMS were among the first enterprise applications to embrace the software-as-a-service (SaaS) deployment model. More importantly, they were also among the first to adopt a single instance, multi-tenant model. This enables multiple shippers, carriers, and logistics service providers to use a single, shared instance of the software in the cloud (much like we all use a single instance of Facebook and LinkedIn, yet we are able to communicate and transact only with the people we give permission to and accept our invitation to connect).



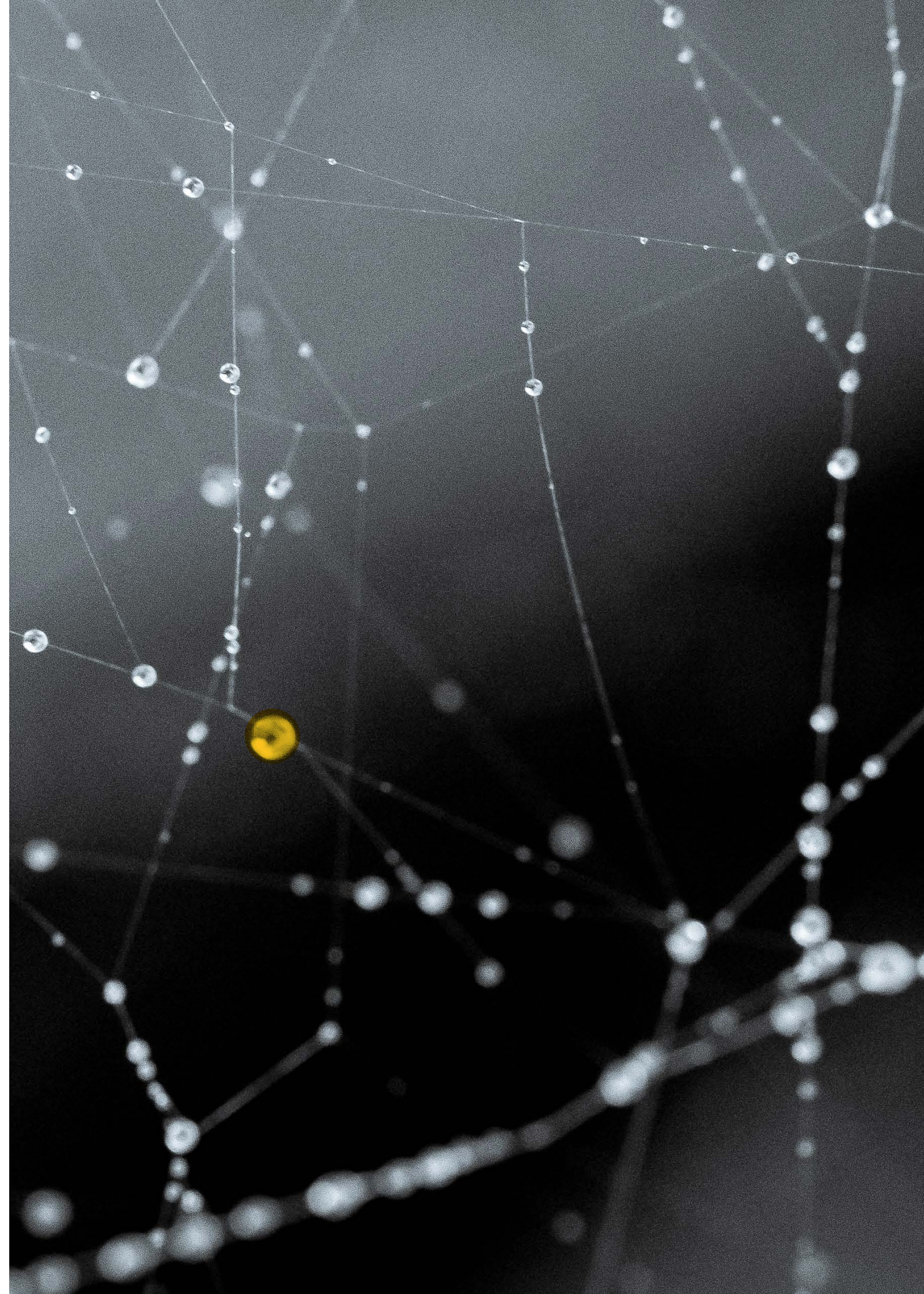
Today, cloud-based TMS have evolved even further to resemble what Currier calls Market Networks or what I call Supply Chain Operating Networks.

But TMS are not just software applications anymore. They have become fully-grown, end-to-end logistics platforms that enable value creation by facilitating transactions and building connections. They are the business equivalent of Facebook and LinkedIn; they are the “matchmakers” within the industry.

Logistics platforms enable shippers, carriers, logistics service providers and other stakeholders to conduct transactions on a set rule of standards by providing core tools, features and services.

Think of logistics platforms as a large spider web in the cloud, with thousands of dew drops on its strands, each drop a shipper, carrier, or logistics service provider, and each strand transmitting data and transactions to connected partners.

**Now that is thinking differently! And when you do, what new ground can you find?**



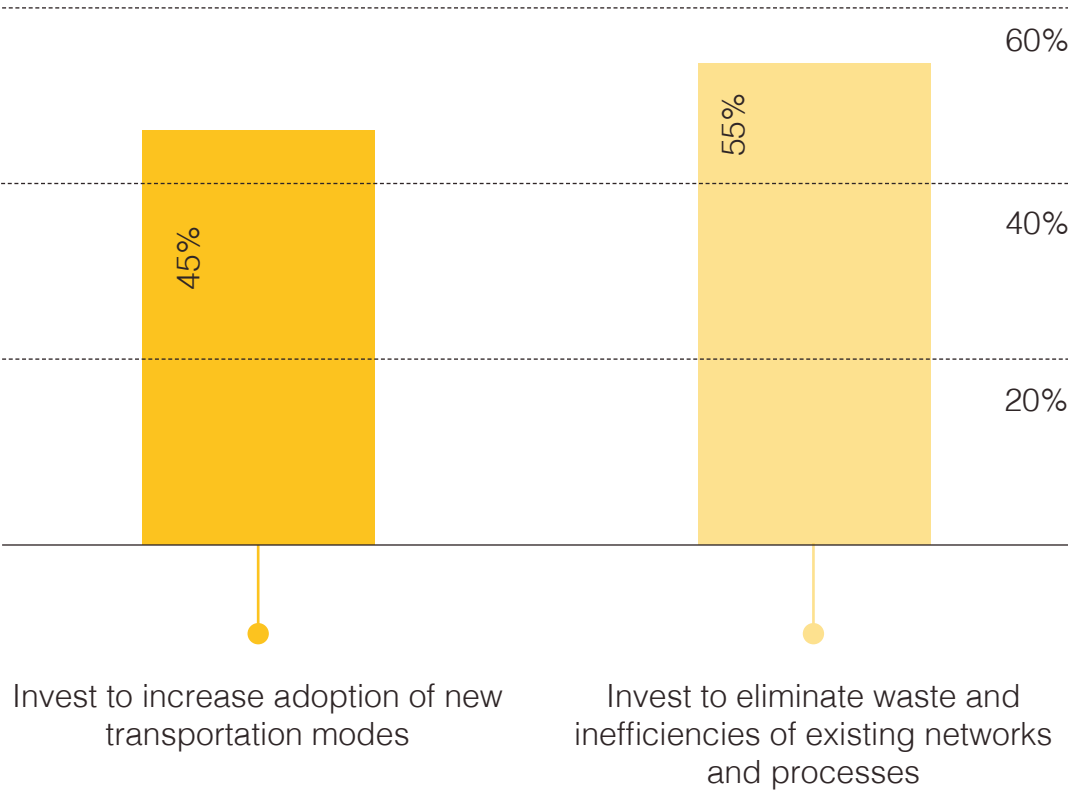


# Big Opportunity for Improvement

For many, the tendency is to focus on shiny new things like drones, driverless trucks, delivery robots, and hyperloops. While these innovations may (or may not) deliver business benefits in the future, there are plenty of opportunities to realize significant business benefits today through better planning and execution using existing technologies.

In fact, in a November 2020 survey of Indago members (a research community of supply chain and logistics practitioners from manufacturing, retail, and distribution companies), a majority of the respondents (55%) believe that “investing to eliminate waste and inefficiencies in existing transportation networks and processes” will deliver greater business benefits in the next ten years than “investing to increase the adoption of new transportation modes” like drones.

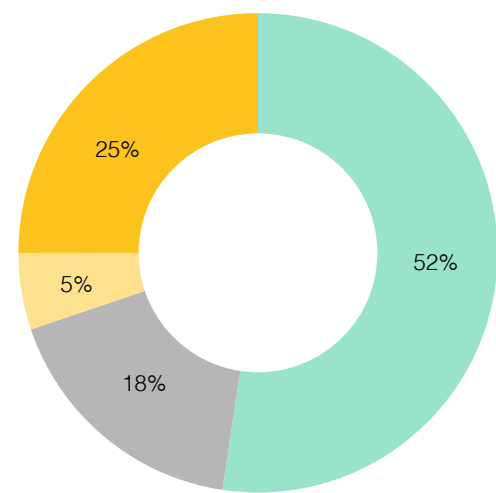
Which of the following options do you believe would deliver the most business benefits in 10 years?



Based on these results, we conducted another survey to explore two additional questions: How much room for improvement do you believe still exists in current transportation management processes? What are your top desired outcomes from future improvements in transportation processes?

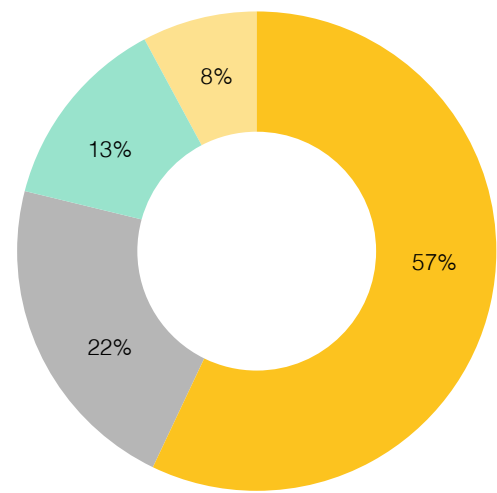
We received 310 responses from shippers, carriers, and logistics service providers from around the world.

Respondents by Seniority



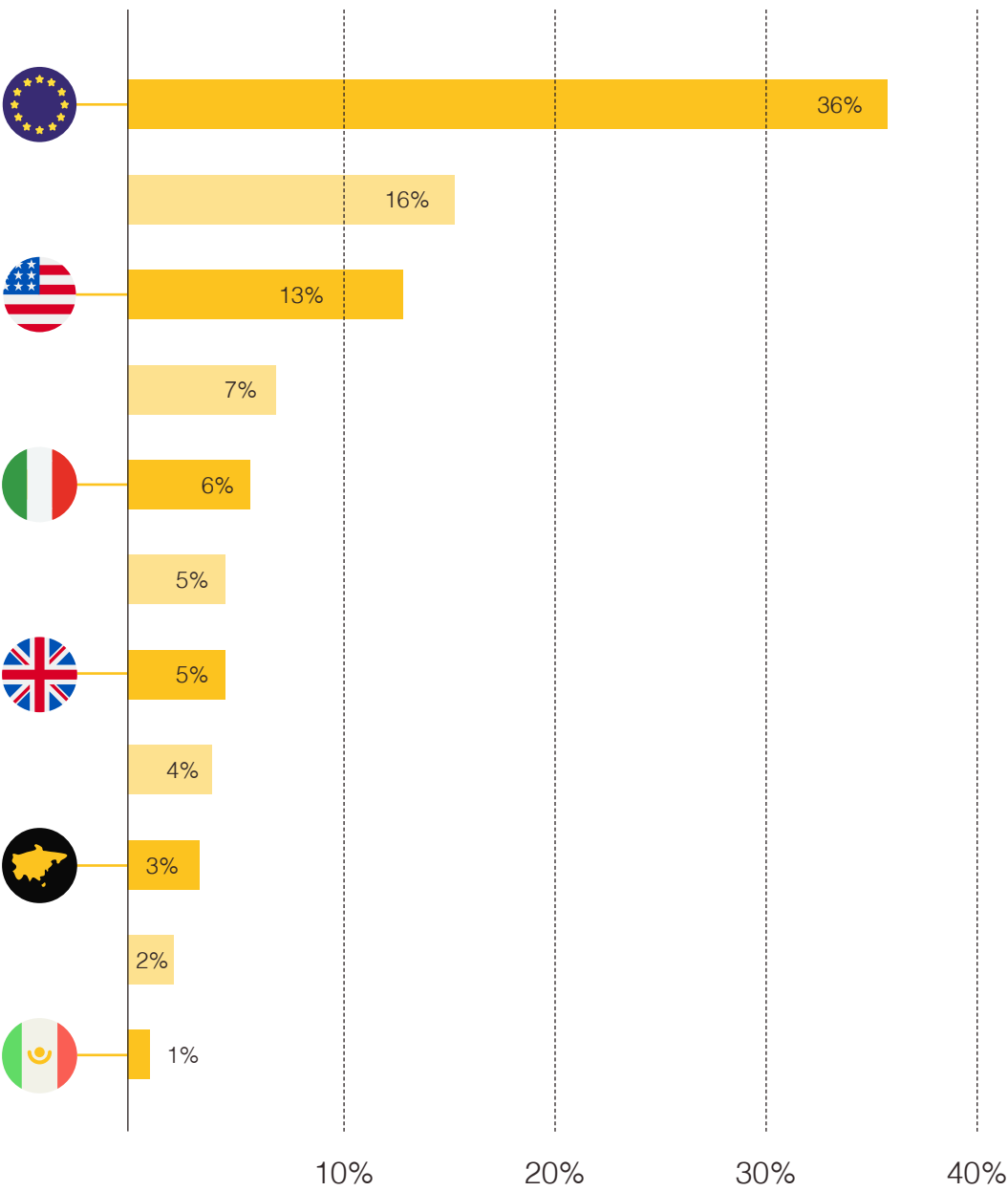
- Manager
- VP
- Director
- Other

Respondents by Industry



- Shipper
- Carrier
- 3PL
- Other

Respondents by Country/Geography

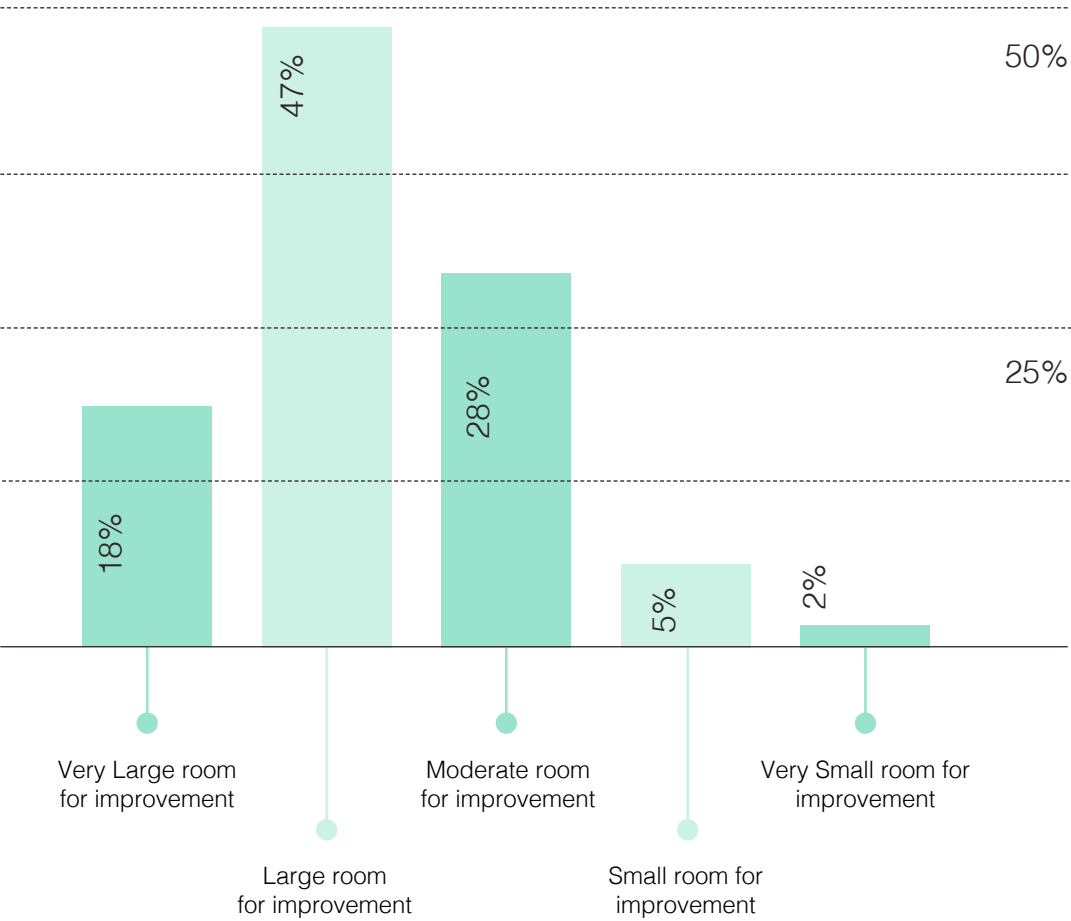






Almost two-thirds of the respondents (65%) believe that there exists a “Large” or “Very Large” room for improvement in the way transportation processes are currently designed and managed. Only 7% believe there is a “Small” or “Very Small” room for improvement.

**When you consider the current way transportation processes are designed and managed — everything from procurement through planning, load tendering, track and trace, appointment scheduling, freight audit and pay, etc. — how much room for improvement do you believe still exists overall?**



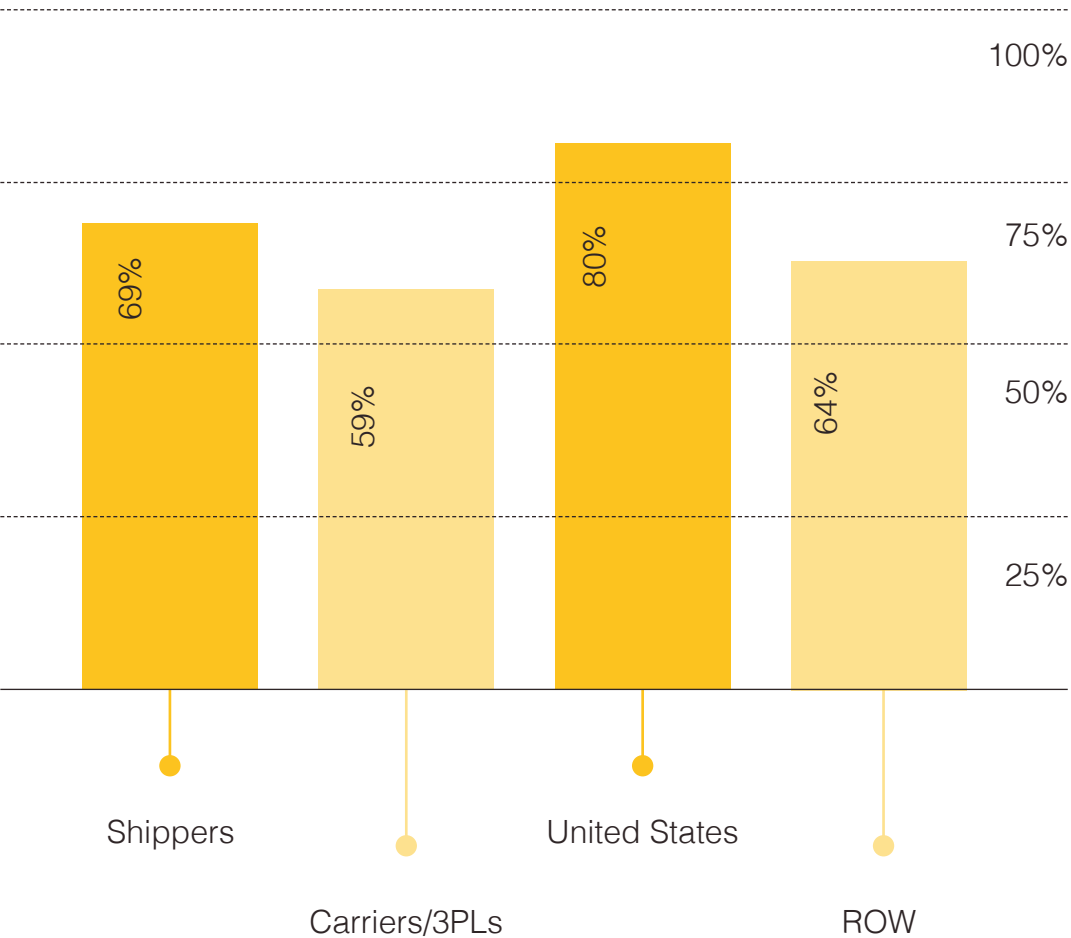


Overall, a greater percentage of Shippers (69%) believe there is a “Large” or “Very Large” room for improvement compared to Carriers/3PLs (59%). Similarly, a greater percentage of respondents from the United States (80%) believe there is a “Large” or “Very Large” room for improvement compared to respondents from the Rest of the World (64%).

(Note: the sample size from the United States was much smaller than the Rest of the World. However, if you compare the United States responses with those from Germany, which had a similar sample size, the percentage difference was about the same — 80% for US vs. 67% for Germany).

**When you consider the current way transportation processes are designed and managed — everything from procurement through planning, load tendering, track and trace, appointment scheduling, freight audit and pay, etc. - how much room for improvement do you believe still exists overall?**

Percentage of respondents who still see a "Large" or "Very Large" room for improvement within Transportation Processes.



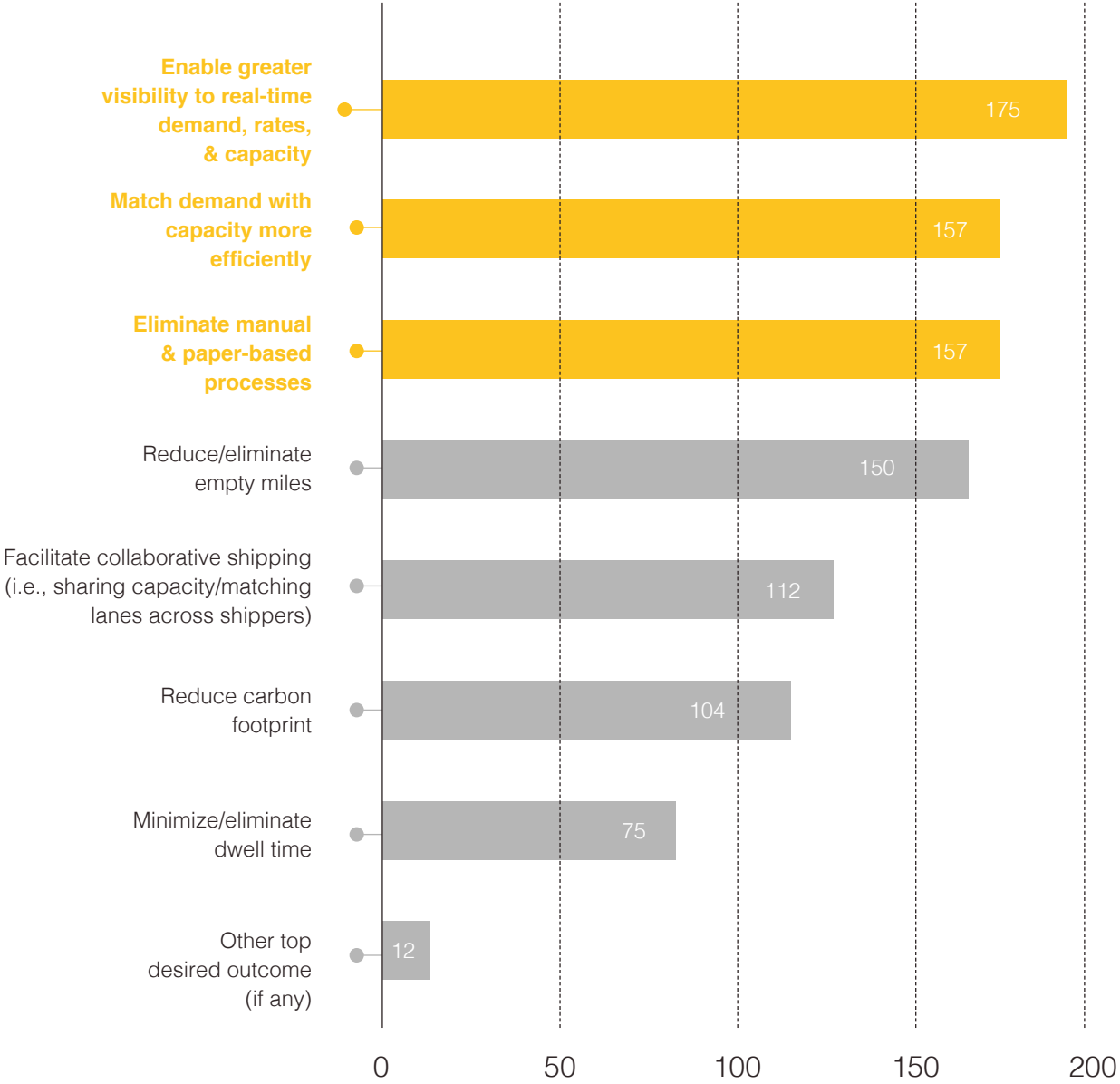
**Desired  
Outcomes**





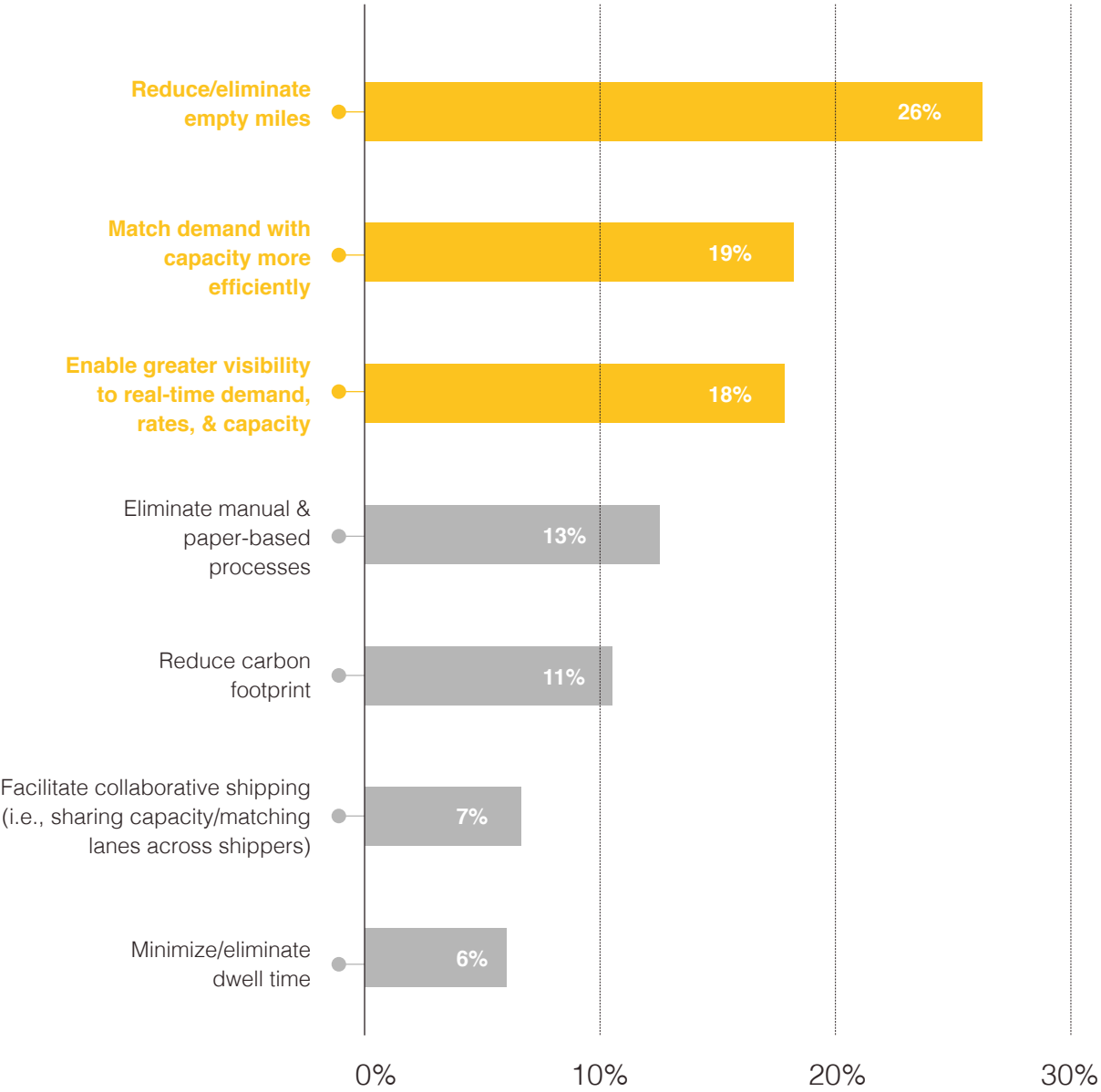
In terms of desired outcomes from redesigning or enabling new transportation processes, **“Enable greater visibility to real-time demand, rates, and capacity”** received the most votes overall (175), followed by **“Match demand with capacity more efficiently”** (157) and **“Eliminate manual & paper-based processes”** (157).

If you could redesign or enable new transportation processes, what would be your top three (3) desired outcomes from the list below?

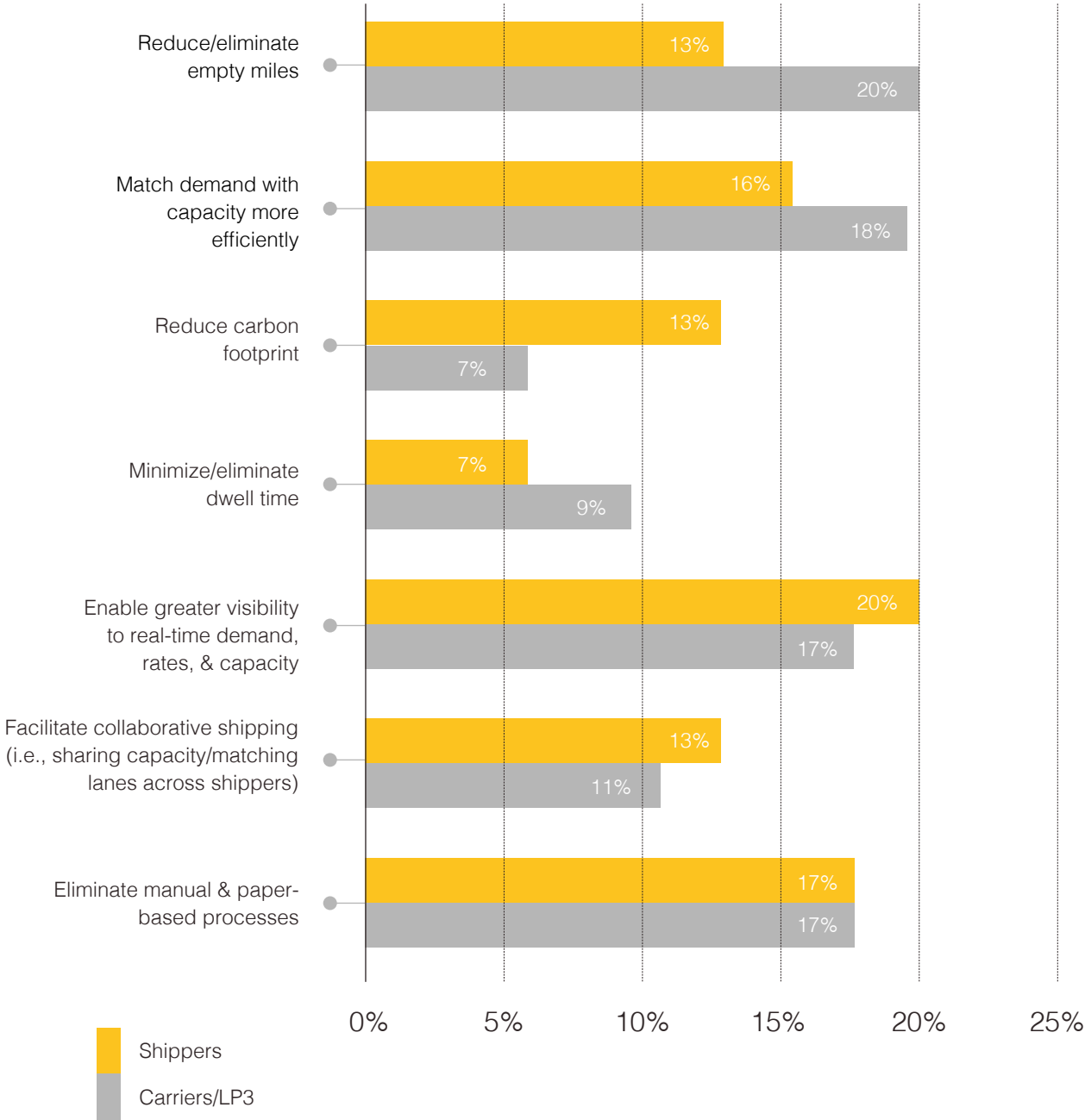




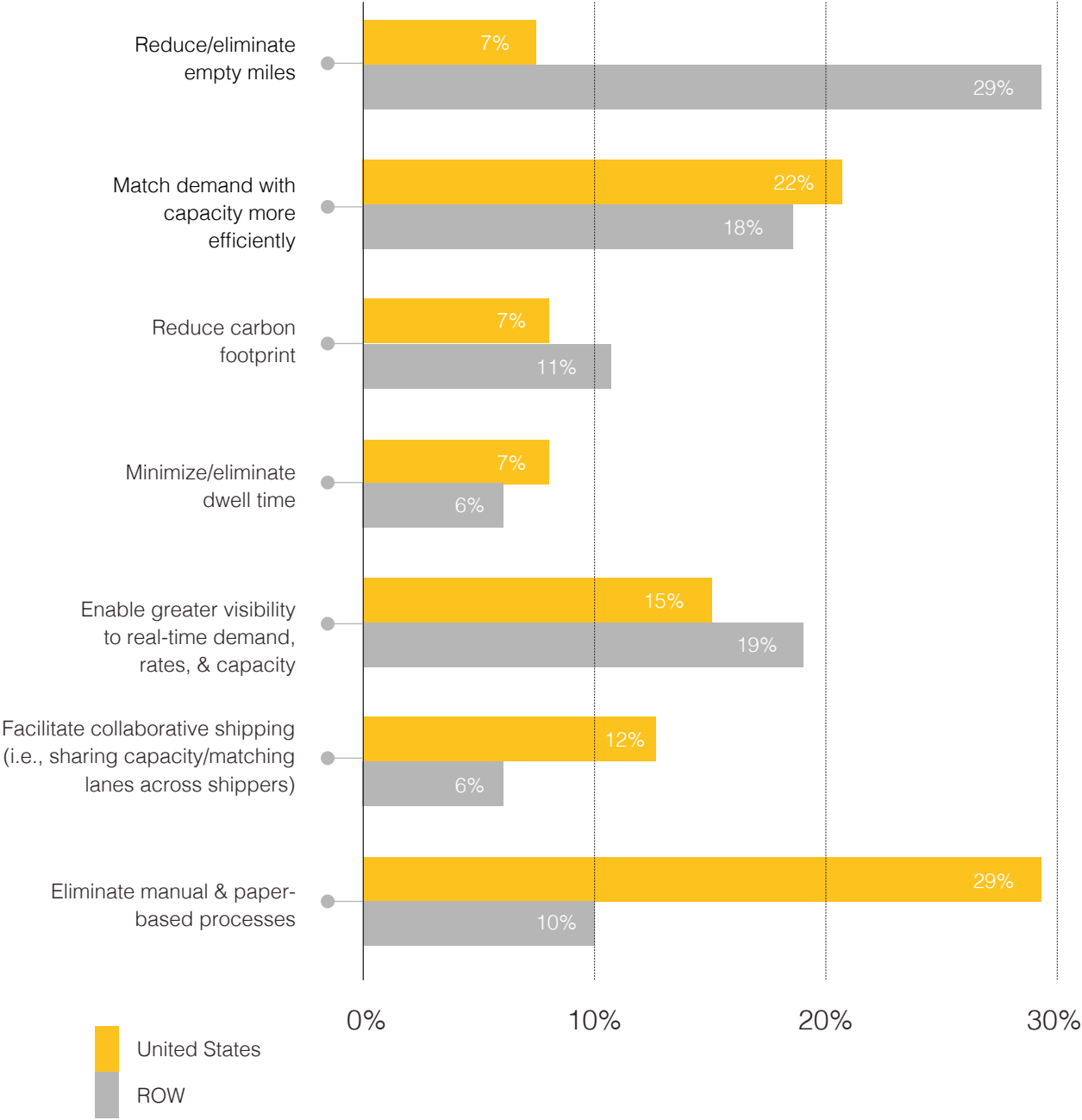
However, even though it ranked fourth overall in terms of total votes received, **“Reduce/eliminate empty miles”** received the highest percentage of “#1 Desired Outcome” votes (26%).



There were notable differences between Shippers and Carriers/3PLs, and between US and Rest of the World (ROW) respondents too. For Shippers, “Enable greater visibility to real-time demand, rates, and capacity” received the highest percentage of “#1 Desired Outcome” votes (20%), while “Reduce/eliminate empty miles” topped the list for Carriers/3PLs (20%).



For US respondents, “Eliminate manual & paper-based processes” received the highest percentage of “#1 Desired Outcome” votes (29%), while “Reduce/eliminate empty miles” topped the list for ROW respondents (29%).



*Additional research is required to fully understand these differences, but overall, it is clear from the survey results that shippers, carriers, and other stakeholders in the transportation industry around the world believe there is a lot of room for improvement in the way transportation processes are currently planned and executed. Their desired outcomes are also clear.*





“While transportation-related technology is transforming rapidly, the challenges today aren’t much different than the challenges 10 years ago,” said one of the survey respondents. “Demand/capacity mismatches and severe swings, lack of collaboration, short term focus on relationships and rates, etc. There has to be a paradigm shift with shippers and carriers to fully unlock the efficiencies new technologies can bring.”

Another respondent added, “I am confident that significant improvements can be achieved in reducing waste (e.g., empty miles, capacity/demand matching, etc.) through the use of improved systems/technology, data sharing, real-time visibility, and collaboration.”

Going back to the Einstein quote, insanity is believing that you can achieve these improvements and desired outcomes by sticking with “the way we’ve always done things.”

**It is time for the insanity to stop.**



# THE WAY FORWARD

As discussed, the way forward begins by changing our perspective of the transportation industry and transportation management systems.

From fragmented participants to connected networks. From “behind the four walls” applications to network operating systems.

The way forward will be predictive instead of reactive, powered by real-time visibility, analytics, optimization, and automated workflows.

It will also give new meaning to the “C” in CRM, where companies will not only focus on Customer Relationship Management, but also on Carrier Relationship Management.

And through the power of network effects, the concept of TEAM (“Together Everyone Achieves More”) will be truly realized.

I’ll explore these topics in more detail in future posts, but as we begin 2021, I am optimistic about the way forward in transportation management, about our willingness to “dare to strike out and find new ground,” and our ability to stop the insanity and make progress toward achieving our desired outcomes.

Adrian Gonzalez,  
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Founder of Talking Logistics

