## the Edge



## The Road Now Taken

Efficiency has long been a roadblock for the transportation and logistics industry. But there's nothing like a little competition from Silicon Valley upstarts to shake things up. Tesla, for one, is working on a project to develop a longhaul, electric semitruck that can drive itself and move in "platoons" that automatically follow a lead vehicle, reported Reuters. Fellow disruption instigator Uber began working on its own project to build a self-driving truck last year. And now the company is rolling out Uber Freight, bringing its ride-hailing app model to trucking.

All that action comes at a time when the industry is poised for serious growth: In the U.S. alone, the American Trucking Associations predicts freight tonnage (across trucking, rail, air cargo, water and pipeline) will increase 37 percent to reach 20.7 billion tons by 2028. Trucking will remain the dominant freight mode, forecast to move 10.7 billion tons of freight in 2017.

The combo of increased business and increased competition is forcing legacy logistics companies and their partners to launch their own cuttingedge tech projects in analytics, machine learning, big data and real-time data exchange.

"They are applying new technology to old

systems to make things move more quickly and to reduce operational costs," says Wallace Lau, industry principal at consulting and research firm Frost & Sullivan, Toronto, Ontario, Canada.

Transportation and logistics CEOs ranked advancing digital and technological capabilities as their most important area to focus on for capitalizing

on new opportunities, according to a 2017 PwC report. That recognition is fueling investments, with the global connected logistics market slated to increase from US\$10.2 billion in 2016 to US\$55.2 billion by the end of 2025, according to research from Transparency Market Research.

A New Roadmap

At the heart of many of the new projects is the use of analytics and machine learning to streamline routes, match trucks to cargo and enable real-time shipping of on-demand goods. For example, last December, R.R. Donnelley's shipping business unit implemented a US\$200,000 machine learning project to optimize price quotes. The technology allowed the company to get a more realistic picture of costs and risks to make more accurate project bids.

"We were estimating too high because we didn't understand all the variables," CIO Ken O'Brien told InformationWeek. "So we would hedge our rates and therefore wouldn't get as many wins."

The ROI? The project paid for itself in just one month—with the success catching the attention of executives who now want to explore using machine learning in other areas of the global organization's operations.

Descartes, a global logistics software company, is taking a different path. The company recently

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Source: Transparency Market Research

completed a project to develop a bar-code-scanning app that allows truck drivers to track cartons using their smartphone cameras. User testing conducted in July showed that truckers save upward of 30 minutes per trailer using the app to scan bar codes versus older scanning devices, says Jeffrey Berichon, senior vice president, Descartes, Jacksonville, Florida, USA. By moving away from legacy systems and increasing the speed and efficiency of trailer processing, a terminal can significantly increase the total volume of cartons processed, he says.



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The idea originated from a steering committee composed of participants from the retail industry and pool distributors, who also helped with app testing. (Pool distributors are companies offering transportation and delivery services in particular geographic regions.) Support from external organizations "was essential for fine-tuning the scan application and getting it rolled into production more quickly," Mr. Berichon says.

That kind of collaboration with end users from the onset helps ensure the project solves real prob-

lems and delivers ROI. "There is so much R&D going on in this space," Mr. Berichon says. "If you don't pay attention to what customers want, the industry will pass you by."

And despite the recognized need to reboot, some smaller logistics companies are still hesitant to adopt new technologies, Mr. Lau says. "They require time, capital and system changes, and a lot of companies in the trucking industry are resistant to change." —Sarah Fister Gale

## Hong Kong's Gridlock

Hong Kong has lost its mojo. The city was once a model of high-density urban development, but political tensions between city groups and the Chinese government have hampered Hong Kong's ability to execute projects big and small.

Take the high-speed rail line linking Hong Kong to the rest of China, for instance. Several years behind schedule and more than 30 percent over its original HK\$65 billion budget, the project had to be reworked because land couldn't be obtained for construction above ground. The entire 26-kilometer (16.2-mile) line, expected to open in the third quarter of 2018, will be underground.

Political paralysis within Hong Kong's city government—where filibusters are rife—has put a wrench in projects that don't involve mainland China. The city, one of the world's most expensive places, has an affordable housing crisis. But opposition among local residents and environmentalists for proposed development projects has stymied progress.

"There's land in Hong Kong, but what we lack is developable land. We still need to seek local community support," Anthony Cheung, Hong Kong's transport and housing secretary, told *The New York Times*.

Even relatively uncontentious projects, such as cleaning up the city's picturesque Victoria Harbor, have faced major delays. "This kind of a political atmosphere will disrupt many of the initiatives that may come along," Anna Wu, a member of the territory's executive council, told the newspaper. —Jessica Boden

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