



AUTONOMOUS DISRUPTION

Developments in Autonomous driving, Google, Uber and others have made a significant disruptive imprint on the way we think about automobile travel. Autonomous fork lifts (robots) are disrupting warehouse operations and staffing. Now, take a minute and think about the disruption that a partially or fully autonomous truck will have.

The advent of the digital truck will completely transform how freight is managed, moved and stored. Drivers of fully autonomous trucks will be able to handle administrative tasks or they will eventually be eliminated. Digitally connected trucks combined with the digital supply chain present a huge opportunity for improved communication, much like airlines have today. They can digitally broadcast their ETA, so that dock space is available, they can identify the goods they are transporting, and can even coordinate their next optimal dispatch. While still a decade away, we should not be surprised to see truck manufactures ultimately moving into the transportation management business.

For a carrier, the primary benefits of autonomous vehicles will be reduced expenses for drivers and fuel, and improved safety. There will also be opportunities for incremental savings from reduced maintenance and insurance costs. Projects have identified that autonomous driving could save close to \$1.70 per mile compared to traditional trucks.

According to the Society of Automotive Engineers, the level of vehicle automation ranges from zero to five. A basic truck with no automation is Level 0.

- Many trucks today are at Level 1, which offers a basic level of driver assistance such as adaptive cruise control, but the driver is still gripping the wheel. Electronically linked truck platooning can be achieved at Level 1 because both drivers remain responsible for steering the trucks.
- Level 2 offers partial automation but the driver is still fully engaged.

- At Level 3, the driver may not have hands on the wheel and feet on the pedals at all times but can quickly resume control when needed.
- Full automation comes at Level 4, in which the driver is not expected to monitor road conditions during automated mode.
- At Level 5, an onboard driver may not be necessary, as the fully automated truck can handle complex operating conditions such as bad weather on its own.

Today, concept vehicles like Freightliner's Inspiration Truck rank at Level 3 on the autonomous vehicle scale because they can operate autonomously, but require driver oversight. The Mercedes-Benz prototype of the semi-autonomous truck is scheduled for release in 2025. This model's computer won't completely replace the driver, but it'll allow them to perform other tasks inside the cabin. Mercedes-Benz officials have also stated that this model will make long-haul logistics cheaper, safer and more environmentally friendly. IHS Automotive analysts' estimate that annual sales of autonomous heavy-duty trucks could reach 600,000 units annually by 2035, beginning with several thousand deployed in 2020. McKinsey & Company projected that by 2025, at least one of every three new heavy trucks will have high-level automation technology, which will be a big factor in the trucking industry seeing revenues increase 50 percent over the next decade.



While drivers today represent 35% of transportation costs, in the future, self-driving trucks will just be a set of wheels, a frame, an engine and a computer. This makes for a very compelling and attractive business models for long-haul trucking.

Disruptive action in the transportation market place can be healthy for those early adapters who can harness change to their benefit. At Data2Logistics our Professional Services team is comprised of thought leaders who apprise and support clients with a Comprehensive Logistics Assessment that advise you how to reduce costs and improve your supply chain operations. To learn more contact Harold B. Friedman via e-mail at Harold.Friedman@data2Logistics.com or +1 609 577 3756.