

COMMERCIAL TRANSPORT DISRUPTIVE **INFLUENCERS**





WHAT'S THE FUTURE OF FLEET?

How can transportation professionals prepare for economic uncertainty, industry consolidation, and evolving competition while remaining profitable? Pressure is growing from additional regulation, underutilized capacity, and heightened e-commerce expectations. Fleet management must also evaluate the onslaught of technology developments to determine what will best address safety and cost concerns. Concurrently, the sheer amount and value of data is growing exponentially as is a battle over ownership, sharing, monetization, and security, leading to more confusion.

Through our **Freight Transportation & Logistics Service, ABI Research** takes a critical look at the industry trends that most impact fleets in 2020 and beyond. Our subject-matter experts provide both the data required and the insights needed to cut through the hype and add value to your operations and longer-term strategies.

The first step is to understand the evolution of the transportation industry, which includes verticals, geographies, and technologies that matter to your business.





11 BIG TRENDS TO WATCH

Many industry-wide trends are set to shape the future of the fleet market. Here are the 11 most pressing trends.

- One-day delivery and seven-day-a-week deliveries
- Regulations range from Electronic Logging Devices (ELDs) and drug/alcohol registries to diesel bans 2
- Increasing shortages of drivers, mechanics, and fulfillment centers 3
- The need to trace End-to-End (E2E) and gather near-real-time data on drivers, cargos, and vehicles across modes
- "As-a-Service" expansion from freight optimization and trailers to parking and fulfillment location optimization
- New last mile delivery form factors, including autonomous delivery pods, drone and cargo bikes 6
- Uneven gains in electrification and hybrid technologies and the need for both price parity and infrastructure support
- 5G buzz with limited near-term availability and 3G sunsets 8
- Continued data breaches across multiple industries and municipalities 9
- 10 First Society of Automotive Engineers (SAE) Level 2 heavy-duty vehicles to market
- Consideration of the transparency, efficiency, and financial impact of reverse logistics

MARKET OPPORTUNITIES FOR INTELLIGENT TRANSPORTATION



S	
ghly automated commercial hicles hicle-to-Everything (V2X) ree-dimensional (3D) printing parts w battery technologies for EVs	LARGE
mote control "piloting" of nins and maritime vehicles ssible hyperloop mmercial driver biometrics uman-Machine Interface MI]) ain-to-computer interface	LIMITED

OPERATIONAL INSIGHTS

E-Commerce and Last Mile/Yard

E-commerce sales growth and percentage of total sales continue to grow significantly across global regions. Consumer expectations for delivery timing and visibility are also at an all-time high, paving the way for autonomous trials of newer form factors. Cost remains a prime mitigator in full adoption, both in comparison to standard freight and with regard to reverse logistics. Amazon also looms large as a potential entry into the third-party logistics market, where the company reigns in scale and profitability.

Electrification and Hybrids

Lower fuel and maintenance costs are key considerations favoring adoption of electric and hybrid options. Drivers also prefer to operate newer vehicles and welcome the opportunity to contribute to greener efforts. Limited infrastructure and restrictions in technology (e.g., battery, extended operating range) have narrowed early adopters to larger enterprises. Multiple original equipment manufacturers are forecasted to take on more electric and hybrid vehicles well into the 2020s.



OPERATIONAL INSIGHTS

Advanced Driver Assistance Systems

With a shortage of long-haul drivers and frequent turnover within the industry, companies are exploring the use of autonomous operation. While addressing driver shortage, autonomous operation software can also help lower operating costs, often in conjunction with electrification, and operate efficiently under controlled environments such as shipping ports, airports, and universities. SAE Level 2 commercial shipments are expected to surpass 27 million in 2019, with early adoption expected for more advanced levels within five years. See the figure below for an example of ABI Research's forecast.

Commercial Vehicle Shipments by SAE Level



World Markets: 2014 to 2030

ABIresearch for visionaries

(Source: Commercial Telematics Market Data [MD-COMT-120])

OPERATIONAL INSIGHTS

Monitoring and Verification

- Safety and liability are primary considerations for adopting monitoring and verification. •
- Increased vehicle monitoring directly correlates with a decrease in insurance rates as well as enhanced safety • of drivers and cargo.
- The estimated time of arrival can also be more accurately determined. •
- Drivers are wary of the perception that "big brother" is present, potentially leading to increased turnover. ٠
- Lack of integration for many fleets has impacted optimization, and Transportation Management Solutions • (TMS) are viewed as a rapidly-growing platform that can help boost efficiency.

Transportation Management Revenues by Type World Markets Forecast: 2013 to 2023









CONCLUSIONS AND RECOMMENDATIONS

Final mile/yard needs to incorporate multiple automated options and machine learning with security and ease of use and with flexibility for the recipient, location, type, and value of good. Ultimately, supply chains need to be integrated across systems and vendors to allow transmissions from e-commerce to enterprises using secured access as well as from producer to warehouse to last mile. Full electrification of commercial vehicles will continue to vary by country, regional regulation and benefits, and use case until both the battery technology itself, the required infrastructure (charging stations and power grids), and financials make a compelling case to fleets.

Greater autonomous adoption of commercial vehicles is highly dependent on government regulations, security of those systems, testing, and resolving driver (commercial and passenger) hazards. Links to infrastructure, including tollbooths and weigh stations as well as fulfillment and charging centers, are also needed. Most likely, the environment outside of a closed course or specific highways will be restrictive and iterative for the foreseeable future with machine-to-human handoff required for in-town operations.

Supply chain, transportation, and logistics providers should consider the impact of different technology solutions to better achieve cost and safety performance goals. Value-added hardware, software, and service options can support bottom-line improvements. Monitoring options and the impact on drivers and cargo cannot be undersold. It is important to understand the benefits and limitations of vehicle electrification and to comprehend options for vehicle automation and their impact on safety and liability. As time lines continue to shrink and expectations grow for e-commerce, speed, transparency and flexibility are mission critical. Finally, all providers need to determine who owns what data, how to secure the data, and how to share this data and for how long.

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These findings are part of our **Freight Transportation & Logistics Research Service**. As a leading source of next-generation commercial transportation and logistics market intelligence, **ABI Research** provides technology influencers with prescriptive insights to help future-proof their business models by examining industry trends in emerging form factors, robotics and drones, electrification, ADAS/autonomy and prognostics.

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