

National Industrial Transportation League Steve Boyd, Co-Founder & VP External Affairs Peloton Technology

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Presentation Roadmap



Market Overview



Peloton Driver-Assistive Truck Platooning (DATP) System: Safety and Efficiency



Leveraging Better Data Collection and Analysis



Freight Trucking Industry: Scale and Pain Points



- \$700bn+ annual revenue
- \$100bn+ annual fuel cost
- \$90bn+ annual crash costs
- ~3% profit margin



Wider List of Freight Trucking Pain Points

- Fuel Cost
- Safety / Crash Cost
- Driver Shortage
- Hours of Service & ELD Adoption
- Truck Parking
- Congestion
- Sustainability
- Increasing E-commerce parcel volumes
- Roads & Infrastructure Condition



Accelerating Global Activity in Truck Platooning



EU - Platooning Challenge - 2016



EU (Sweden) - SARTRE 2009-Present



Germany - KONVOI 2005-09



Canada - PIT 2009



US – PATH, NREL, etc. '90s and ongoing



IL-based Navistar in IN - 2015



Platooning Market Overview

Companies Connected to Commercial or Prototype Systems





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https://vimeo.com/155164547

Regulatory Picture: Platooning vs. High Automation

Platooning

- Connectivity and following distance-focused
- Governed by state following distance law (no obstacles from federal laws)
- 10 States (and rising) allow commercial deployments
- 7+ States (and rising) allow trials or testing
- Level of automation follows state's existing background law

High Automation

- Governed by Federal laws (NHTSA, FMCSA) and state laws (DOT, Police, DMV)
- Authorized for testing (with supervisor on board) in certain states
- Certain states with path to commercial deployment



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Peloton Driver-Assistive Truck Platooning





Peloton PlatoonPRO: Driver Teamwork Not DriverlessTrucks

Level 1 Driver-Assistive System:

- Drivers remain fully engaged at all times, unlike highly automated truck systems
- Provides a new, enhanced form of driver teamwork through a dedicated driver-to-driver communication system
- Only pairs two trucks together, not longer chains





Peloton Approach: Safety as a Foundation



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- Onnecting safety systems
- Incentivizing safety system adoption
- > Enhancing individual truck safety

Safety and Teamwork: Connected Braking





Efficiency: Reducing Fuel Costs

Platooning Reduces Fuel Costs

- 4.5% fuel savings for the lead truck
- 10% fuel savings for the follow truck
- Independently verified combined fuel savings of 7.5% savings at 40 foot gap at 64 mph (NACFE)

Peloton Provides Value to Fleets

- Economically viable with less than 1 year payback
- High-quality data for fleets
- \$700 billion U.S. trucking industry benefits by saving on fuel and enhancing individual truck safety





Safety: Monitoring Vehicles / Support to Drivers

Network Operations Center (NOC) limits platooning to:

- Multi-lane, divided, limited access highways
- Moderate or low traffic conditions
- High traction conditions (no heavy rain, sleet, or snow)
- Appropriate topography (grades, curvature)

NOC provides over-the-horizon alerts on roadway conditions





Richer Data for Enhanced Analytics

Network Operations Center (NOC)

- Provides fleets with cloud-based over-the-horizon alerts and data collection
- Integration with OEMs and equipment manufacturers enhances data analytics
- NOC connectivity will put fleets in a stronger position to monetize data





Collaborations to Deliver Enhanced Data Analytics

Partnership with Omnitracks

- Future collaboration to build platforms transforming data into better fleet management through dynamic routing and dispatching
- Solutions designed to seamlessly work across fleets and equipment types by integrating hardware





Following Distance Law: National Context

Numerical Minimum Following States

- A defined numeric minimum following distance in 21 states
- Platooning requires change in law

"Reasonable and Prudent" States

- A flexible, discretionary standard in 29 states
- Platooning can be legal under current law





National Context: State Platooning Laws





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Outlook

Near-Term

- Peloton's PlatoonPRO coming to market in 2018
- Driver-assistive connected technology will bring quantifiable benefits to fleets far sooner than higher automation
- Build public understanding and acceptance of connected vehicle technology

Mid-Term

- Continued collaboration with fleets and OEMs on integrations and interoperability.
- Grow data analytics partnerships working with Fleets
- Cross-fleet platooning
- Collaboration with OEMs, Fleets and Regulators on pragmatic solutions bringing higher automation into controlled settings.
- Ongoing role for freight professionals in trucks; better jobs and additional new good jobs





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