Increasing Number of OEMs involved in Truck Platooning

Many Companies in US and Europe Involved with Bringing Truck Platooning to Market
Peloton PlatoonPro: Driver Teamwork Not “Self-Driving” Trucks

- All drivers fully engaged at all times.
- Only pairs of trucks.
- Best-in-class safety systems required making each truck safer all the time.
- Driver teamwork through driver-to-driver radio link, linked safety systems & shared real-time video.
- Integrated with 3 of the 4 Major Truck OEMs in North America.
Peloton Driver-Assistive Truck Platooning System

- Platooning only when safe, where safe, and how safe
- Dynamic adjustment to conditions
- Over-the-Horizon alerts and navigation for Drivers

Peloton Driver-Assistive Truck Platooning System

- Unified
- Electronically coordinated
- Aerodynamic following

V2V Connection
- Connected braking
- Shared Video link
- Dedicated Radio link for Drivers

Real-Time Cloud Supervision
- Platooning only when safe, where safe, and how safe
- Dynamic adjustment to conditions
- Over-the-Horizon alerts and navigation for Drivers
Enhanced Driver Teamwork Improves Safety

- Trained, CDL Driver in both trucks.
- Each Driver in command and steering at all times.
- Driver-informed design and training program.
- Hands-free dedicated radio channel for teamwork.
- Shared video view of road ahead.

“A driver will feel safer behind the wheel because the truck can hit the brakes prior to a human in critical situations...”

Dave Mercer - Peloton Driver (~3 million MTD)
Robust Joint Integration and Validation with OEM Partners

- Know when to dissolve a platoon
- Manage and maintain safe following distance
- Continuous improvement process
- Exceed automotive grade safety standards
- Continue to test for edge cases
- Listen and address our customer’s safety concerns

ISO 26262
Making Aerodynamic Following Safe: V2V linked Safety

Driver Perception & Reaction Time:
2 sec

< 10\textsuperscript{th} of a sec

Faster than a Driver or Radar/ACC on a single truck
PELOTON TECHNOLOGY

Efficiency: Reducing Fleet Fuel Costs and Emissions

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 7.25% savings at 40 foot gap at 65 mph.
- Further validation by USDOE and USDOT.
- Corresponding reductions in emissions.

Peloton Provides Value to Fleets
- Economically viable with < 1 year payback for typical regional and long haul trucks.
- High-quality data for fleets.
- Fleets save fuel and enhance truck safety.
Driver-Assistive Platooning vs Automated Vehicles

**Driver-Assistive Platooning**
- Connectivity and following distance-focused
- Governed by state following distance law (no obstacles from federal laws)
- 23 States now allow platooning in some form
- 15+ States now allow commercial deployment

**Highly Automated Vehicles**
- Governed by Federal laws (NHTSA, FMCSA) and State laws (DOT, Police, DMV)
- Authorized for testing (with test driver on board) for trucks in several states
- Authorized for initial commercial deployment with safety drivers in a few states or specific localities
State Allowance of Truck Platooning

As of April 2018
Outlook

• **Pennsylvania**
  - Legislation has passed the PA House and is expected to move forward soon in the PA Senate.
  - Coordination continues with PennDOT, PA Turnpike and PSP once legislation passes.

• **Regional Developments**
  - Additional Nearby States now Allow Commercial Deployment: Joining MI and OH are IN, KY, WI and others

• **Key Activity Ahead**
  - Robust activity continues in CA as we complete OEM integrations and joint safety validation
  - Fleet truck testing continues in CA and customer activity planned in TX for 2\textsuperscript{nd} half of 2018