

Session on ITS and Eco-Driving

Summary of the ITF Roundtable on Truck Automation and Platooning (with FMCSA)

Tom Voege, Policy Analyst
International Transport Forum

Expert Workshop on Decarbonising Road Freight, 28-29 June 2018

Background

- Various on-board safety systems for commercial vehicles
- More innovative ITS-based solutions are being tested, including
 - Stability control
 - Lane departure warning
 - Driver drowsiness monitoring
- Current research involves studying
 - Collision avoidance effectiveness of wireless communication of safety information between heavy vehicles and light vehicles
 - Cost effective after-market stability control systems for both tractor and trailer-only systems
 - Identification of trailer characteristics from within the tractor in a cost-effective and reliable manner
- US proposal to realign the RT to cover platooning and full automation of heavy goods vehicles (HGV) on motorways



Key Issues

- What specific technologies for automation exist, covering different platooning (two or more vehicles) concepts and full automation?
- What are specific implications of the range of technology options on infrastructure requirements and human factors?
- In what way can such a system interact with manually operated passenger cars and manually operated HGV not part of scheme?
- How can the potential wider societal and economic benefits be locked in, without risking other additional negative effects?
- How do these systems need to be regulated in order to allow safe operation; should this be driven by industry or governments?
- What are the policy implications; how are liability, security and privacy concerns being addressed?



Roundtable Overview

- Chair: Peter Sweatman, CAVita Partners
- Location: US DOT Conference Centre, Washington D.C.
- Date: 5-6 January 2017

- Discussion Papers:
 1. Peter Sweatman, CAVita Partners, **“Evolution of Technology for Commercial Vehicle Safety”**
 2. John Woodrooffe, University of Michigan (UMTRI), **“Enablement of Management and Logistics”**
 3. Mårten Blix, Research Institute of Industrial Economics, **“Structural Change and the Freight Transport Labour Market”**
 4. Christopher Poe, Texas A&M Transportation Institute, **“Commerce-Ready Infrastructure and Urban Environment”**



Key Insights

- Many technologies to enter the market in the short term represent only incremental change, they assist rather than replace drivers
- Regulations rely on presence of driver engaged in the driving task, flexible to incorporate with limited modification, not disruptive
- Increasing automation likely to require high V2X data connectivity, funding key issue, need to specify roles of public/ private sector
- SAE level 3 allows driver to monitor rather than drive, but as it still continues to require human driver, not severely disruptive
- Business case for industry is based on relaxing driver regulations due to reduced workload, revision relies on government oversight
- SAE level 4 automation completely substituting driver in a specific ODD, such as highway pilot technology, will be disruptive
- Very data-rich space with high data connectivity likely to emerge, enabling novel data-driven regulatory approaches



Contact Information

Tom VOEGE

Policy Analyst

International Transport Forum

Tel: +33 (0) 1 45 24 97 24

Fax: +33 (0) 1 45 24 13 22

tom.voege@oecd.org

www.internationaltransportforum.org

