

ITF Work on Cooperative Mobility Systems and Automated Driving

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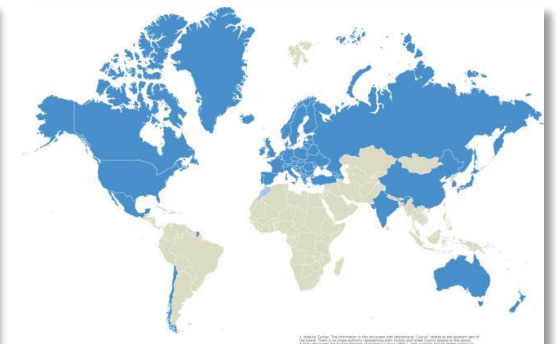
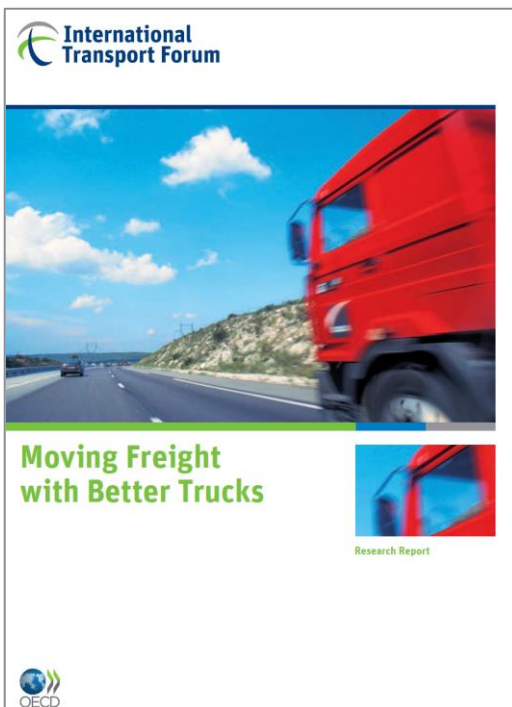
Transport Innovation Forum, Stockholm, 09.02.2017

The International Transport Forum at the OECD

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Background and Introduction

- Vehicle automation a clear trend
- But varying experts opinions on:
 - Projected time scales
 - Technology options
 - Use cases/ services
- Necessary for policy makers to prepare their responses to this development
- Positive and negative are scenarios possible

Positive View on Vehicle Automation

- Many potential benefits of vehicle automation are being quoted:
 - Improved road safety levels
 - Decreased emissions
 - Increased network capacity
- Emergence of related mobility services also holds the promise for even larger benefits:
 - For society as a whole
 - On the city level

Negative View on Vehicle Automation

- But at the same time some negative effects could also be envisaged:
 - Network capacity gains leading to induced traffic
 - Ability of using travel time more productively leading to longer trips as people move further away from centres
 - This in turn then leads to further urban sprawl
 - Potentially huge fleets of empty vehicles running errands and generating much larger congestion levels
 - Wider labour market effects

The Perspectives of Government vs. Industry

- Governments investing in R&D & demonstration of near market-ready systems, showcasing their ambitions for leadership in this space
- Emerging companies with much stronger IT focus in technical background and leadership mentality aggressively pushing into the market
- Vehicle automation thus part of the concepts of:
 - Sharing economy
 - Disrupting technologies

The Question of Government Intervention

- Policy makers to manage the transition period
- Lock-in benefits while avoiding potential risks
- Key tools are legal and regulatory frameworks
- Often seen as a barrier to wider implementation
- Technology-led discussion overly optimistic
- Technology mature for many types of use cases
- Leadership from policy makers is essential

Regulatory Frameworks for Automated Vehicles

- Discussion about regulation in the context of AV typically centres on the vehicles
- Work is on-going on many levels here nationally and internationally:
 - Updates to the texts of the agreements under UNECE WP.29
 - Concepts of “driving tests” for automated vehicles
 - Test tracks simulating various real-life scenarios
 - Governments amending their legal frameworks in order to allow testing on public roads

Regulatory Frameworks for Transport Services

- Regulating the automotive aspect of automated vehicles of course is key
- But likely implementation of this technology as enabler for shared mobility concepts
- Therefore regulation of mobility services needs to be considered in parallel
- Direct competition with legacy transport services, which are often heavily regulated and protected

Current Issues surrounding AV Regulation

- Disrupting effects of technologies and services are already very visible
 - In the case of Transportation Network Companies (TNCs) such as Uber, Lyft, Didi, BlaBlaCar, etc.
 - But also with functionalities of automated vehicles on public roads, e.g. the Tesla Autopilot
- This is because of increasing time gap between innovation and the related regulatory responses

Big Data in Transport - A Way Forward?

- Policy makers under increasing pressure to strike a balance between administrative oversights and enabling innovation
- The advent of big data and its application to the transport sector can solve this dilemma through flexible data-led regulatory approaches
- Key policy objectives to cover here include:
 - Vehicle/ traffic safety
 - Personal security (driver)
 - Minimum mobility levels

Related ITF Work on AVs and Big Data

- The ITF has carried out and is continuing to a large body of work in these areas through its Corporate Partnership Board, including
 - Scoping study on “Automated and Autonomous Driving - Regulation under uncertainty” in 2015
 - On-going work stream on modelling the impacts of shared mobility concepts in urban areas
 - Recent publications on “Data-Driven Transport Policy” and “App-Based Ride and Taxi Services: Principles for Regulation”
- Also ITF-OECD Working Group on Big Data and Open Data in Transport

ITF Reports on Vehicle Automation



Urban Mobility System Upgrade

How shared self-driving cars could change city traffic



Corporate Partnership Board
Report



Automated and Autonomous Driving

Regulation under uncertainty



Corporate Partnership Board
Report

ITF Reports on Big Data for Transport



Big Data and Transport

Understanding and assessing
options



Corporate Partnership
Board
Report



Data-Driven Transport Policy



Corporate Partnership
Board
Report

Thank you for your attention!

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