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International Transport Forum Vehicle Automation Projects

Tom Voege, Transport Analyst
International Transport Forum

Vehicle-Highway Automation Committee (AHB30), 2016

OECD

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Intergovernmental Organisation

- 57 member countries (23 non-OECD)
- Administratively integrated with OECD
- Only transport body with a mandate for all modes

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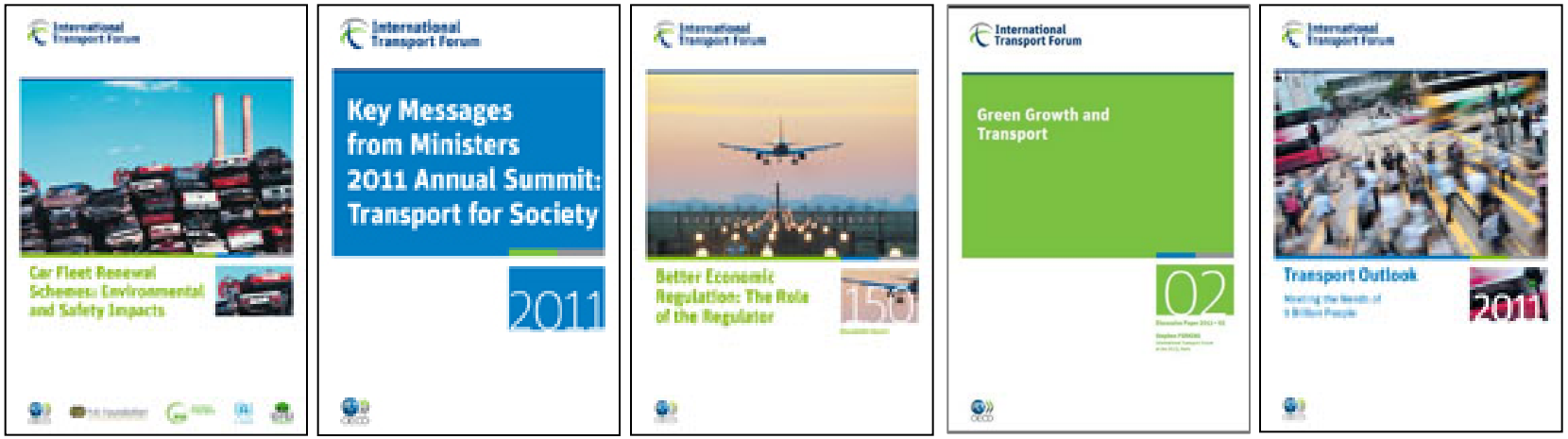

Think Tank

- Policy research and analysis, statistics and data
- Collaborative projects with renowned experts on wide range of issues
- Some outputs: Publications, Policy Briefs, Statistics Briefs, background documents for annual summits

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The Annual Summit

- Held every May in Leipzig, Germany, on a strategic theme
- Ministers are joined by business leaders, civil society, international organisations, research community
- Outputs help advance and guide transport policy for 21st Century

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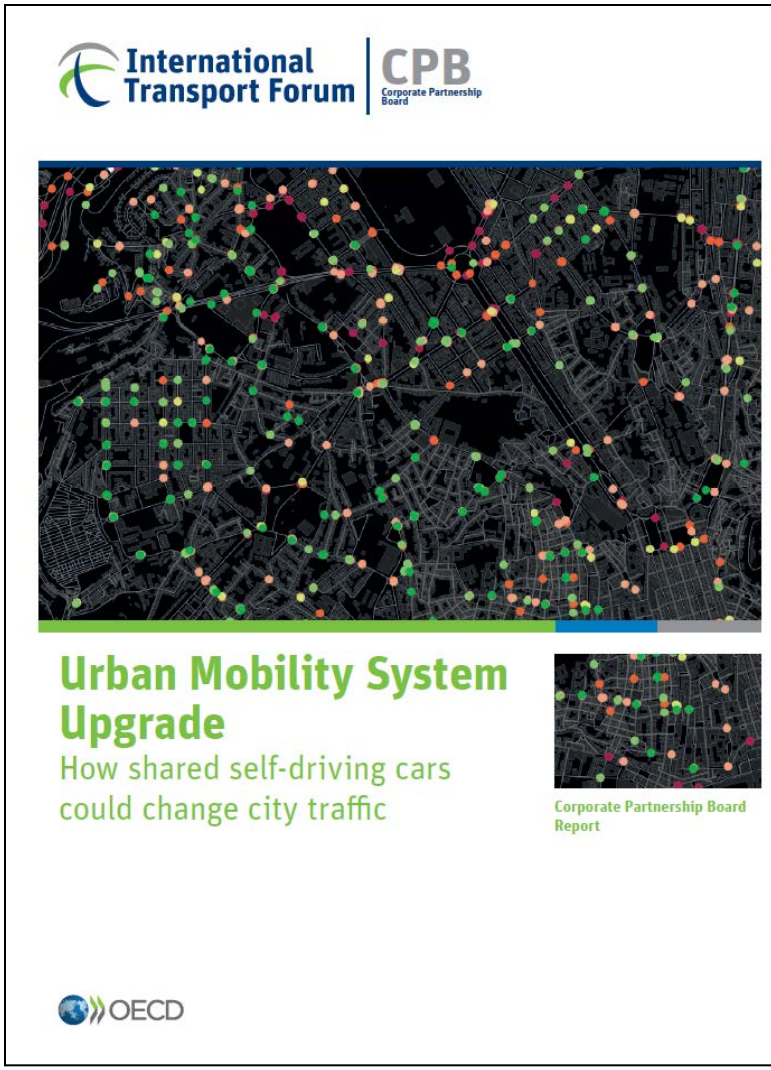
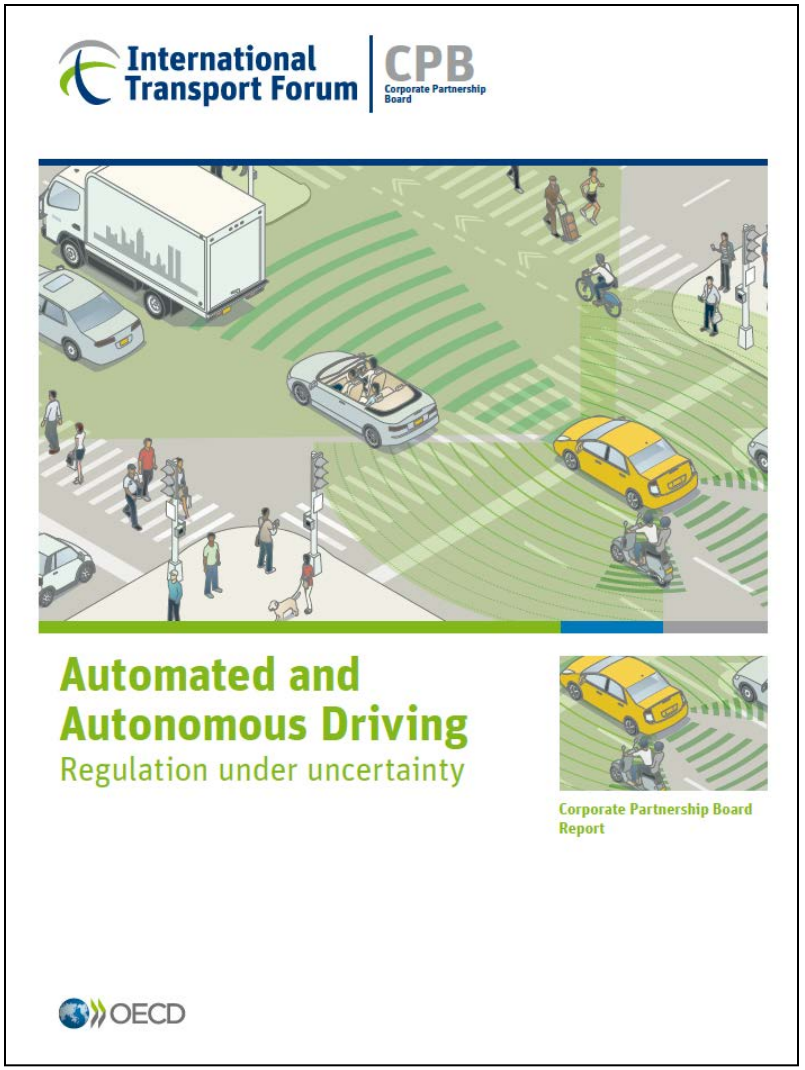
Recent ITF Studies on Vehicle Automation





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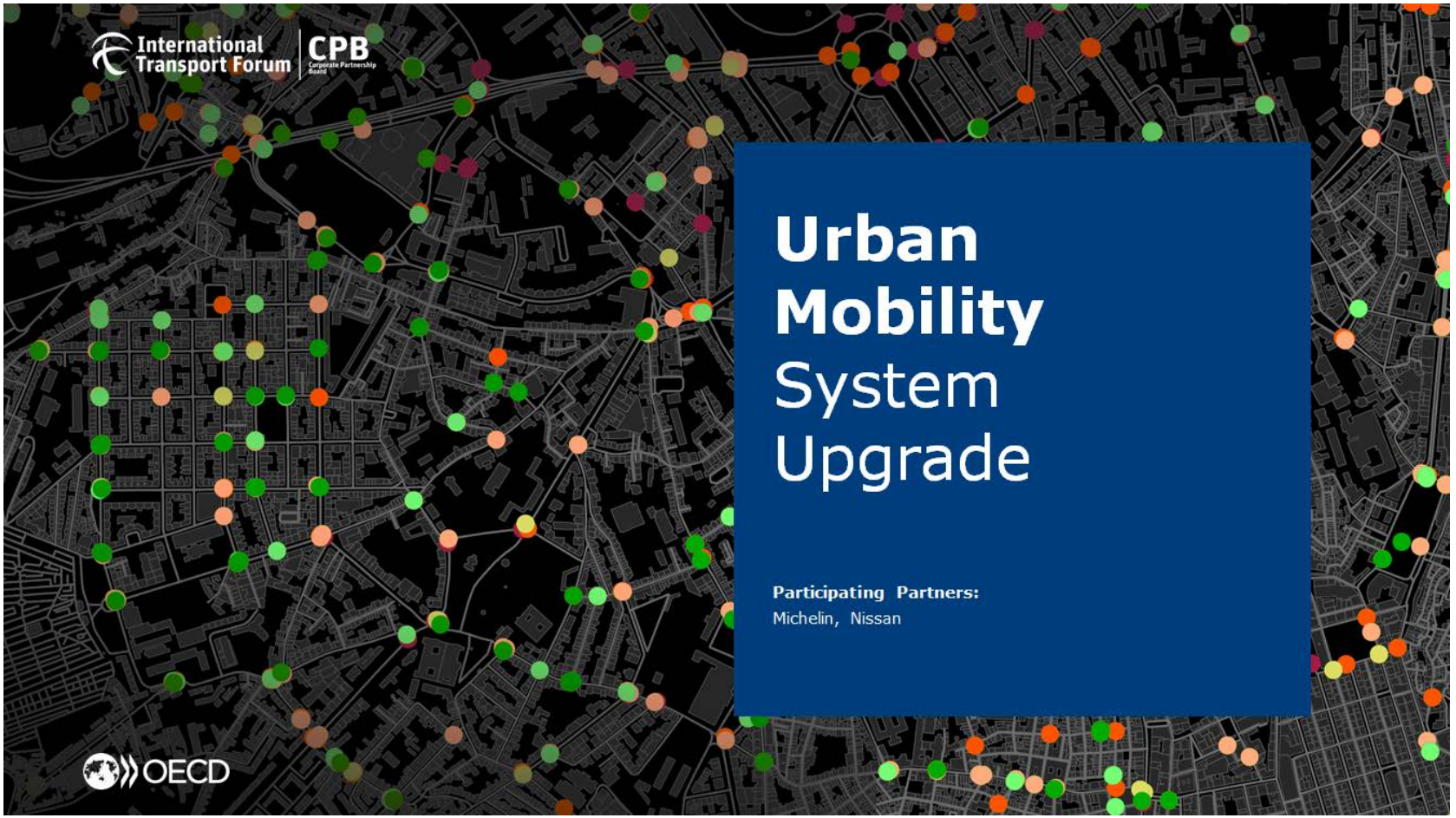
Urban Impacts of Vehicle Automation



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Key Findings

- Nearly the same mobility can be delivered with 10% of the cars
- Impacts on congestion depend on system configuration
- Reduced parking needs will free up significant public& private space
- Ride sharing replaces more vehicles than car sharing
- Size of the fleet influenced by the availability of public transport
- Managing the transition will be challenging

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Policy Insights

- Self-driving vehicles could change current public transport, but active management is needed to lock in the benefits of freed space
- The potential impact of self-driving shared fleets on urban mobility is significant, shaped by policy choices and deployment options
- Improvements in road safety are almost certain, the environmental benefits will depend on vehicle technology
- New vehicle types and business models will be required and public transport, taxi and urban transport governance have to adapt
- Mixing fleets of shared self-driving vehicles and privately-owned cars will not deliver the same benefits but it still remains attractive

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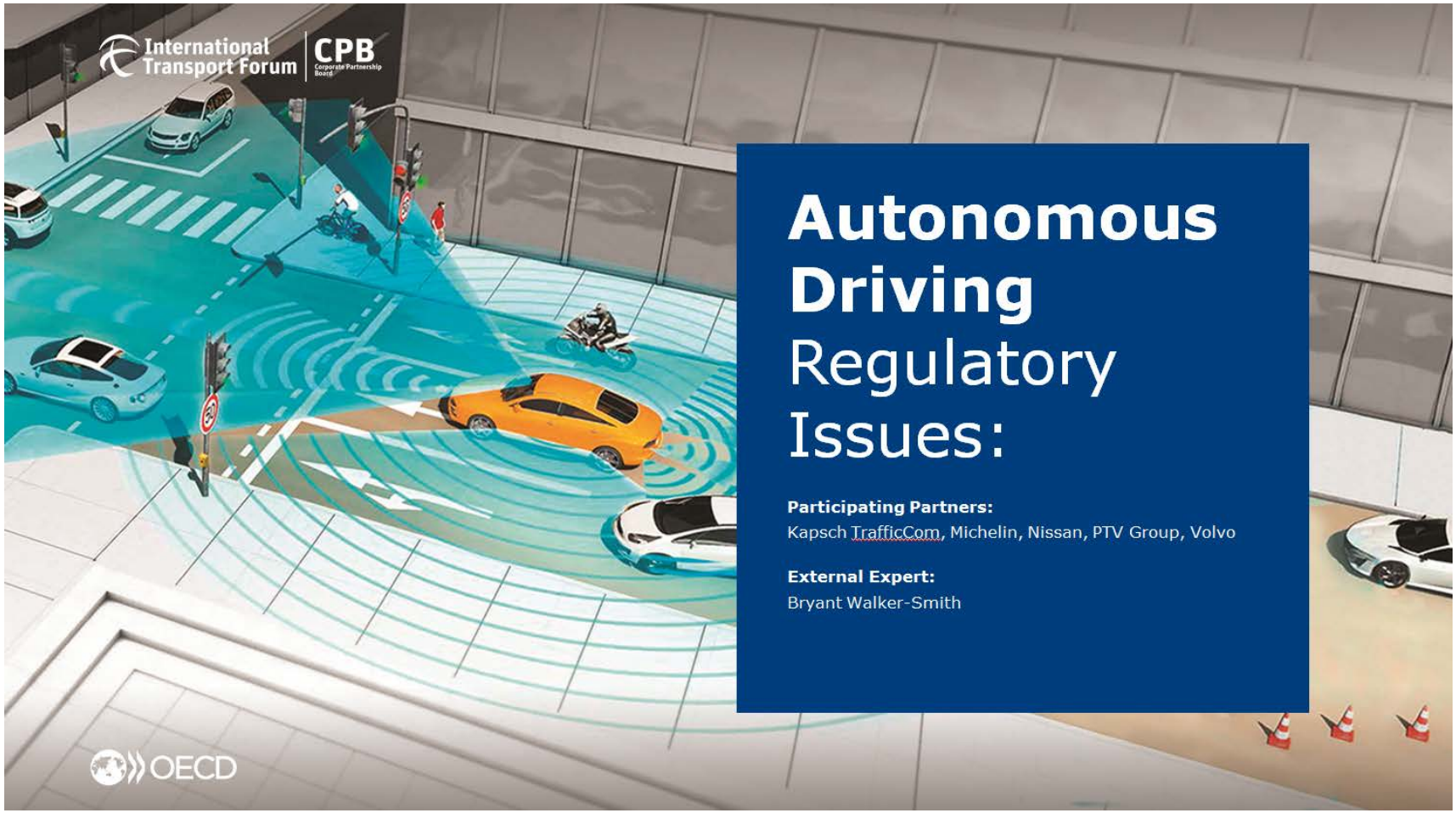
Regulatory Issues for Vehicle Automation



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Key Findings

- Automated driving technologies are mostly mature and some autonomous driving is here already
- Self-driving cars seem a near-term possibility, but their range of capabilities is unclear
- Many possible technological configurations for autonomous driving, use and business cases are closely linked to automation pathways
- Some regulatory frameworks are being developed for prototype testing, but not yet for future use cases

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Policy Insights

- Automated driving comprises a diverse set of emerging concepts that must be understood individually and as part of broader trends toward automation and connectivity
- Uncertainty on market deployment strategies and pathways to automation complicates the regulatory task
- Incrementally shifting the driving task from humans to machines will require changes in insurance
- The shift from human to machine may have an impact on what product information developers and manufacturers of autonomous vehicles share and with whom

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Development of Vehicle Automation

WHERE?

WHO?

HOW?

WHEN?

WHY?

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Source: Paul Noth for The New Yorker

"Does your car have any idea why my car pulled it over?"

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Future ITF Activities on Vehicle Automation

- Roundtable on Cooperative Systems and Automated Driving
- Development of the CPB Work Programme
- Development of the JTRC Work Programme
- Country-specific projects (Case Specific Policy Analysis)
- Overlap with other ongoing topics
  - Big data/ open data
  - Shared mobility concepts (including vehicle automation)
  - Heavy vehicle safety (including HGV automation)
  - Smart use of roads/ optimising urban spaces

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