



IRU How connected vehicles will affect drivers integrity

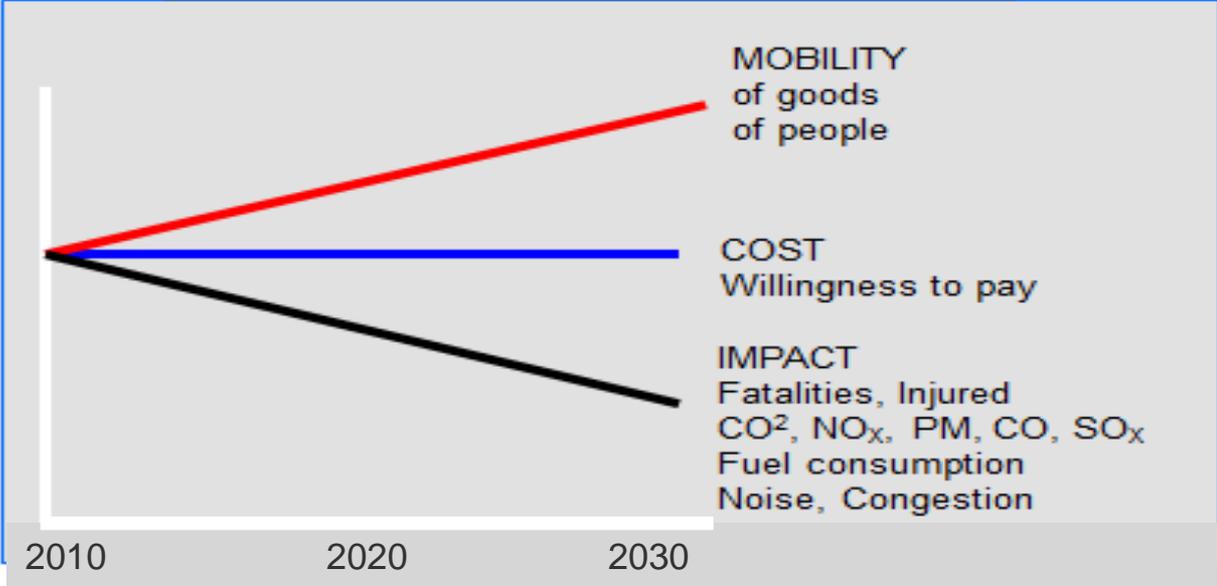
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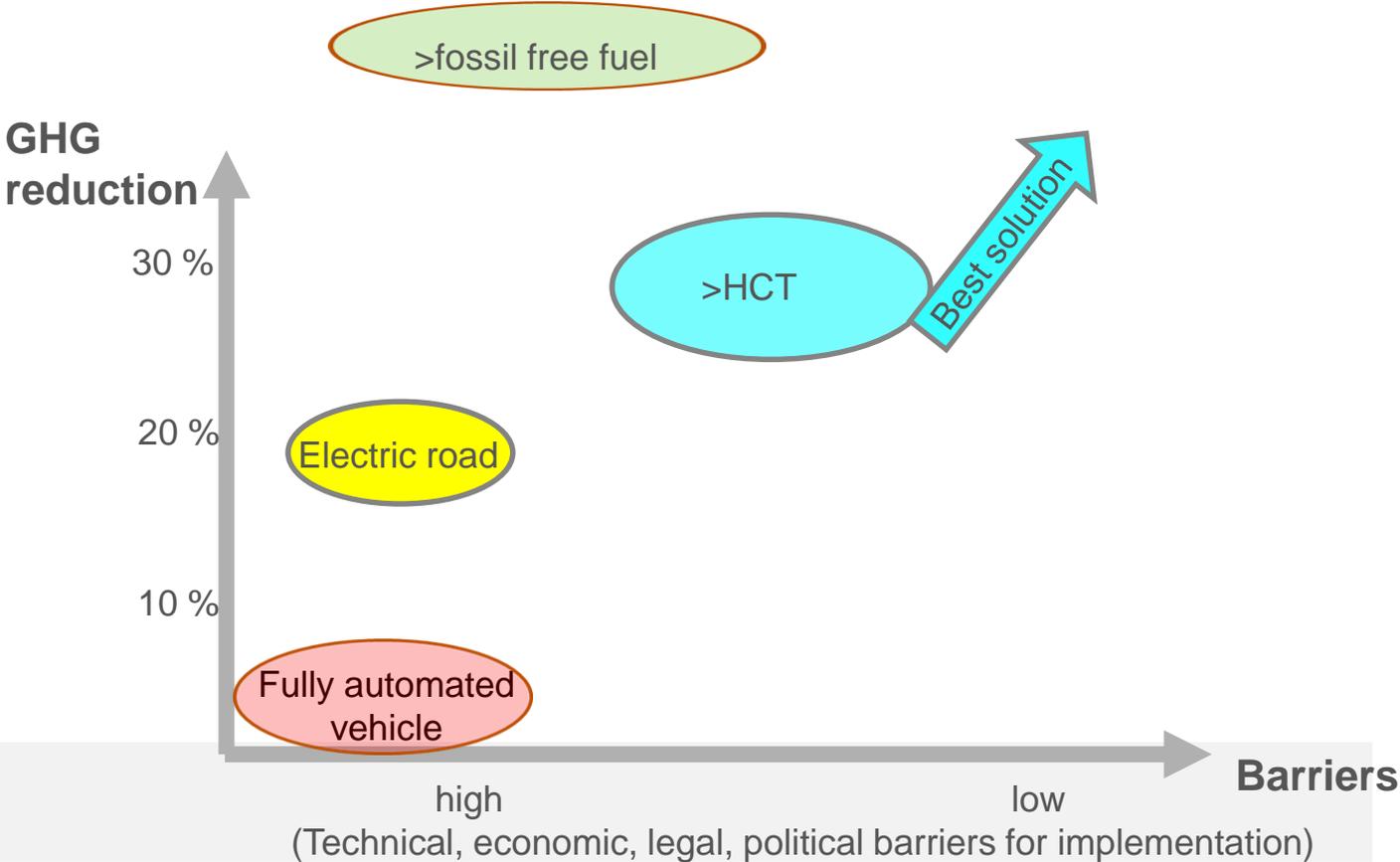
President of IRU International Commission on Technical Affairs

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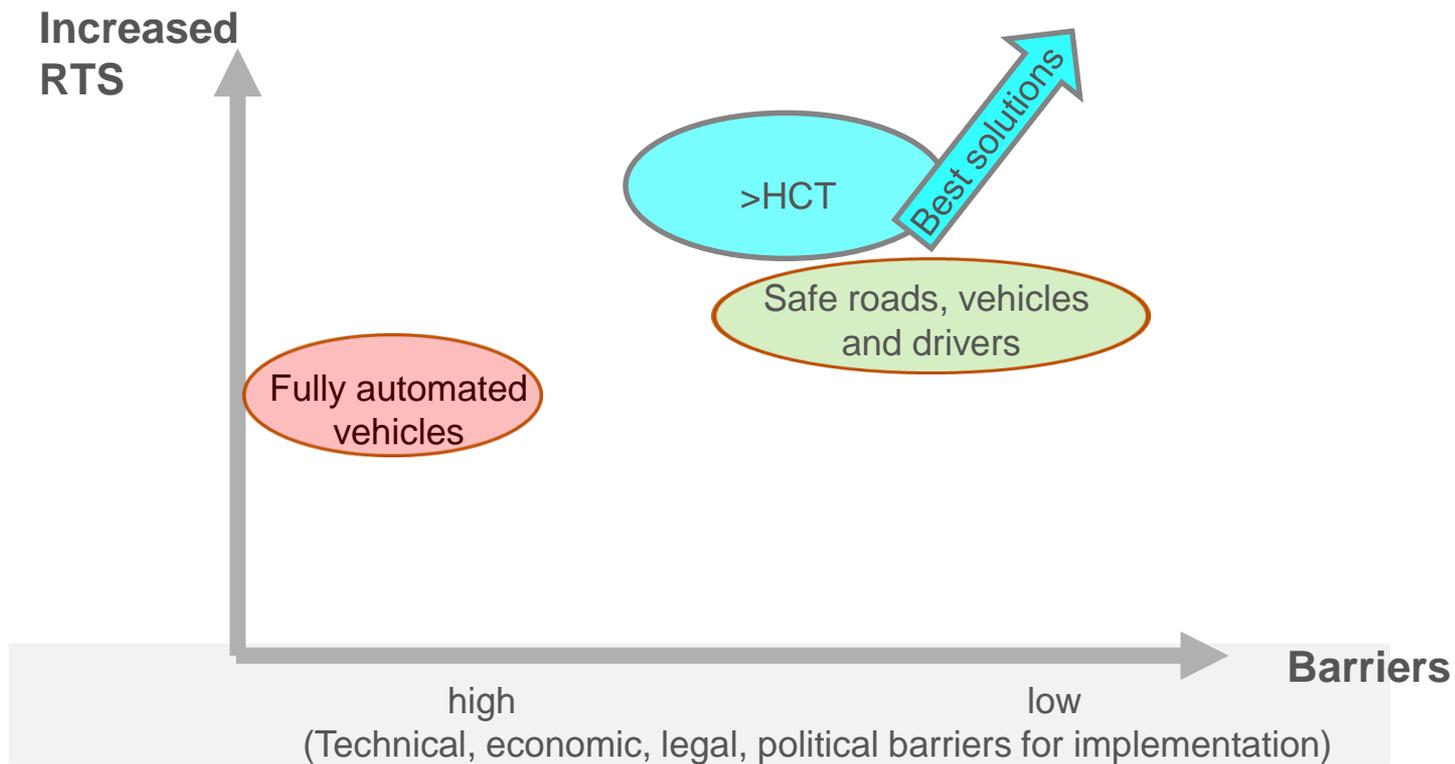
The Challenge



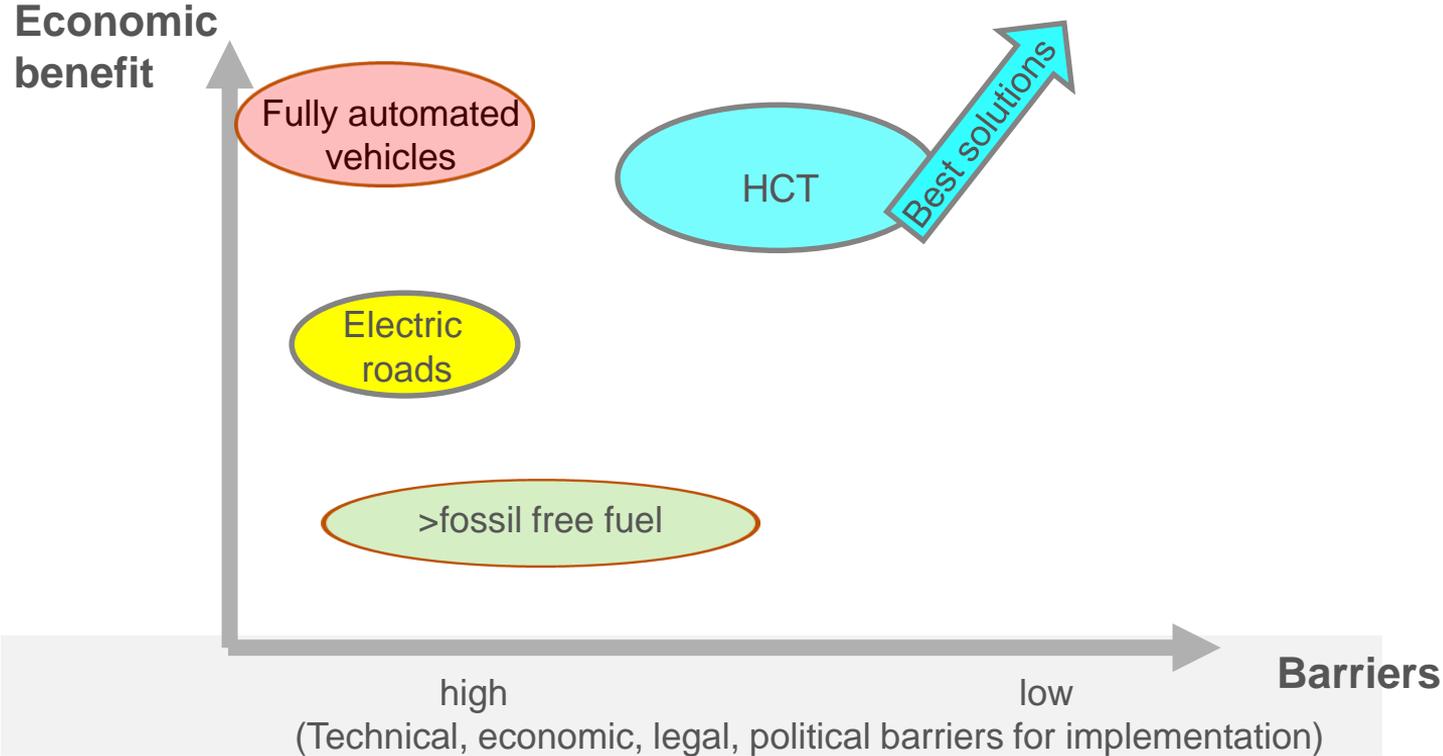
ENVIRONMENTAL BENEFIT



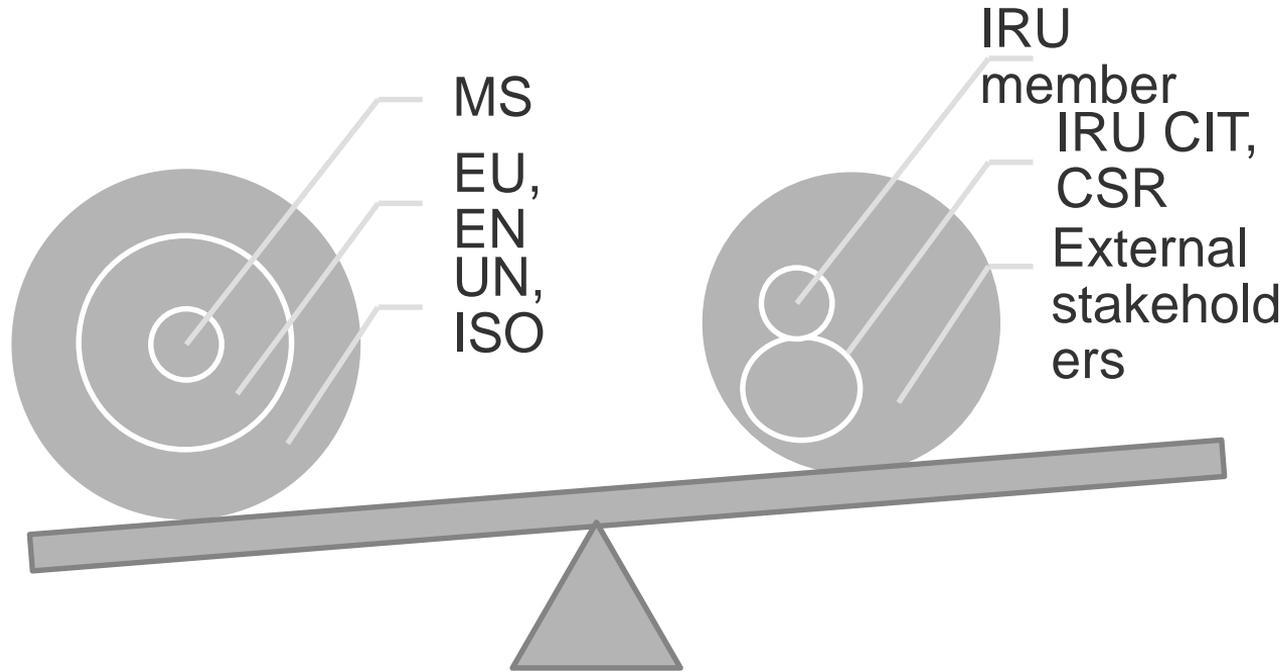
ROAD SAFETY



ECONOMIC BENEFIT



Decision makers



Automation



- Coming gradually, but will not be a major disruptor in the coming 4-5 years.
- Large-scale use not before 10-15 years

Background



- Connected vehicles: pre-requisite for autonomous vehicles
- Wireless communication: V2V, V2I and V2X
- Liability issues, role off the driver, new types of competition, general awarness of all road users
- Policy instruments to ensure positive impact on society: efficiency, road safety, environment

Legal liability -automation

- Vehicle manufacturer
- Vehicle owner
- Vehicle user
- Driver remote control, can drive one or many vehicles
- Vehicle remote control, can have one or many drivers

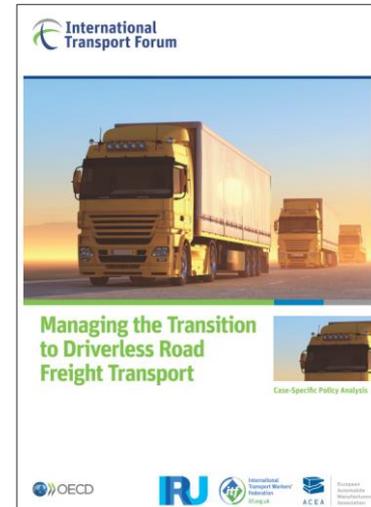
Why will driverless trucks be taken up?



- Labour costs / addressing labour shortage
- Decarbonisation of transport
- Improvement of road safety
- Digitalisation of transport operations
- Operating times

Impact of automation

- Need to welcome benefits automation brings (e.g. increased safety and efficiency)
- Also need to identify potential risks (and find mitigation actions for those).
- IRU's study with ITF and ACEA on vehicle automation impact on driver jobs.



Main threats



- Hacking into vehicles: security and safety issues
- Access to commercially sensitive data
- Access to personal data (GDPR)

The screenshot shows a BBC News article. At the top, there is a navigation bar with 'NEWS' in large letters and various category links like 'Home', 'Video', 'World', 'UK', 'Business', 'Tech', 'Science', 'Stories', and 'Entertainment & Arts'. Below this, the article title 'Fiat Chrysler recalls 1.4 million cars after Jeep hack' is displayed, along with the date '24 July 2015' and social media sharing icons. The main image is a red Jeep Grand Cherokee driving on a road. A caption at the bottom of the image reads 'Jeep's Grand Cherokee is one of the recalled cars'.

The screenshot shows a MailOnline article. The title is 'Hacker, 23, who cost British Airways £100,000 after disabling their website admits to a series of high-profile cyber attacks against the police and businesses'. Below the title, there is a list of bullet points: 'Paul Dixon, 23, caused mayhem when he took down British Airways website', 'Other targeted websites included Police Scotland and Durham Constabulary', and 'Dixon, of Seaham, County Durham, is due to be sentenced on May 4'. The article is attributed to 'By HARVEY DAVY FOR MAILONLINE' and includes publication and update dates. There are social media sharing icons and a '298 shares' counter. At the bottom, there is a small image of a person wearing a blue hoodie and glasses, talking on a mobile phone.

What can operators do?

- Not sit and wait for automation to arrive
- Operators need to take steps towards improving their current operations to prepare themselves for the future through digitalization.
- Route planning, fleet management, electronic documents, connection to freight exchange platforms.
- These steps will go hand-in-hand with increased automation of vehicles.

Security



- Risk of **cyber-attacks** need to be minimised
- Ensure **data security**
- Respect **privacy**
- Address ethical questions of road safety
crash avoidance systems
- Passenger perception of automated mobility
- Other roadusers

Cybersecurity



- Cybersecurity, will be essential for increasingly automated and ultimately fully autonomous vehicles.
- Cybersecurity needs to be ensured for all other digital logistics solutions and processes.

Terrorist threats



- Threat of terrorism is an important aspect to consider.

IRU 3 "S" strategy for managing transition to autonomous vehicles



Safety



Security



Sustainability

Conclusion



- Increased automation of vehicles and digitalisation of logistics processes promises to bring significant road safety and efficiency benefits
- However, this also raises multiple new questions, around employment, liabilities, etc.
- Cyber security needs to be ensured for increasingly connected and automated vehicles, but is equally essential for all parts of logistics operations

Thank you!

