

AG/GE6303/JHU

Geneva, 12 November 2018

## IRU Position on the digitalisation of road transport

*Unanimously adopted at the IRU General Assembly on 6 November 2018, in Muscat, Oman*

### IRU Position on the digitalisation of road transport.

#### I. ANALYSIS

Digitalisation is currently one of the most prominent words used in the road transport sector worldwide. A frequently used definition states: *“Digitalisation is the use of digital technologies to change a business model and provide new revenue and value-producing opportunities; it is the process of moving to a digital business.”*<sup>1</sup>

The transport industry has endorsed numerous aspects of digitalisation in the past two decades. On the one hand, digitalisation has enabled travellers to gain better visibility of transport options, more efficient travel planning, and enabled simplified payments. On the other hand, transport operators have gained the opportunity to perform more efficient planning and to optimise execution of transport operations, including invoicing. At the same time, the speed of digital developments, which has outpaced developments and the further evolution of regulatory frameworks, has led to cases where new entrants have gained unfair market advantages by identifying legal loopholes.

The most important market changes, however, have taken place in the past few years, fuelled by the introduction of smartphones, the availability of faster communication networks, and the wide availability and affordability of the Internet. These market changes have resulted in the emergence of Big Data, where multiple digital platforms have succeeded in providing added value services and “monetising” data. Ultimately, these market changes have also launched an introduction of electronic transport documents, for both passenger and goods transport.

Looking back, one of the first benefits of digitalisation was the wide-scale availability of real-time and dynamic traffic information. This step provided customised and situation-aware traffic information to travellers and drivers through nomadic devices, in-vehicle information systems, and connected roadside infrastructure.

On the passenger transport side, early waves of digitalisation saw the introduction of websites and smartphone applications with route and timetable information for public transport. The introduction of hailing apps for taxis and the emergence of ride hailing companies, which base their solutions entirely on digital platforms for bookings, payments and ratings, while the transport services are provided by independent drivers, is making a substantial impact on the industry around the globe and on businesses in numerous cities. Smartphone applications also play an increasing role in bus and coach services, causing the emergence of new business models such as digitally driven mobility service providers in partnership with traditional local bus and coach operators.

Digitalisation has also enabled the concept of Mobility-as-a-Service (MaaS), where travellers can use any mode of transport within a single app and single account. Furthermore, the concept allows for a variety of pricing models, for example a monthly

---

<sup>1</sup> Gartner IT Glossary: <https://www.gartner.com/it-glossary/digitalization>

subscription for various mobility modes. Several cities have already endorsed and implemented MaaS solutions, enabling true door-to-door multimodal transport.

A good example of an innovative, intermodal solution is digital TIR, which facilitates trade across borders and transport modes. TIR and other intermodal solutions are improving cooperation between transport modes, making intermodal transport quicker, simpler and safer. Finally, digital TIR provides increased security and transparency between transport operators and authorities, in this case customs authorities.

Simplification of payments and the removal of manual money handling have contributed to higher transparency of transport operator costs. For example, one of the payment services benefiting both coach and truck movements in Europe is the European Electronic Tolling System (EETS), whose objective is to ultimately enable the use of a single on-board unit and a single contract for transport operators across the EU.

Both passenger and goods transport are facing considerable changes, with a multitude of new digital platforms and services emerging. Transport operators can now have full visibility of their fleets, drivers, and operations through control towers, and fleet and transport management solutions. The growth of e-commerce and consumer demand for faster service is driving the uptake of digital solutions for planning, optimising, and executing transport.

However, despite the progress made on adopting new platforms for fleet and transport management, transport is to a large extent still based on paper documents such as consignment notes, customs declarations, vehicle registration, roadworthiness and authorisation documents. Virtually all of these documents have been considered for digitalisation, where electronic CMR (e-CMR) and the digitalisation of TIR procedures could be highlighted for goods transport.

Introduction of vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) data sharing and cooperation enables a broad range of new services, such as collision warning and traffic light information, as well as features for vehicle automation, starting with vehicle platooning. All of these novel services aim to contribute to increased road safety and transport efficiency.

New technologies and concepts such as Blockchain and the Internet of Things (IoT), the Physical Internet, and vehicle automation are all promising further improvement of transport systems, but they still need to be taken up on a wide scale before their impact can be fully realised.

In addition to providing benefits for end-users and for companies operating such services, digitalisation is also high on the global political agenda. Introduction of electronic freight documents and digital/smart tachographs in Europe; electronic invoices and consignment notes in Brazil and Mexico; the recent introduction of Electronic Logging Devices (ELD) in the US; and plans for digitalisation of all customs declarations in the Russian Federation by 2020 are a few examples of how authorities are pushing for global digitalisation of road transport.

Digitalisation will play an important role for governments and enforcement authorities, which could lead to a more intelligence-led efficient enforcement and eventually reduce the loss of time incurred during roadside checks by many transport operators. For example, the European Commission has placed a high emphasis on the use of electronic documents during enforcement and in May 2018 tabled legislation which would make it impossible for Member States to refuse the use of electronic documents and evidence. This could open up new opportunities for the EU to fully implement the e-Protocol of the CMR Convention and other digital documents.

While digitalisation has numerous proven benefits, specifically in increasing transport efficiency, there are a number of aspects that need to be considered for all implementations, such as:

- Cybersecurity
- Digital identification of involved counterparts and legally binding digital signatures

- Data privacy, control and ownership
- Social impacts and level playing fields
- Competition and unfair competition
- Liability tracing throughout the full commercial transport cycle
- Increasing costs and solutions for covering additional costs

## **II. IRU POSITION**

The road transport industry reaffirms its interest and willingness to drive continued participation of all stakeholders involved in the digitalisation of road transport operations.

The road transport industry is ready to support governments, local authorities, and technical/legal experts in defining the right policy combination, defining required standards and developing best practices to be applied in the entire transport sector.

The road transport industry embraces innovation and is in favour of adopting digital solutions that allow for safer, more secure and sustainable operations, whilst respecting the following principles:

### **Safety**

- Technical standards for safety-related digital features using V2V and V2I data sharing and cooperation must be harmonised and interoperable.
- All digital solutions intended to interface with the driver and with other vehicles in traffic must be designed in a way that does not distract the driver from the primary task of operating the vehicle. Where applicable, such systems should provide assistance to the driver in their operational tasks.
- Specific safety aspects in the context of highly automated or fully autonomous vehicles must be considered, such as interaction with vulnerable road users and other human-operated vehicles.
- Training of drivers must be ensured in order to provide safe operation of digital services while executing transport operations.
- The balance between costs and the added value of new features should be carefully considered. Where relevant, financial support for increased costs, including in cases of retrofitting, mandatory reporting to or other data exchange with authorities and multimodal interoperability, should be discussed and agreed with regulators.

### **Security**

- Cybersecurity of both the vehicle and the entire transport operation must be ensured by vehicle manufacturers, fleet and transport solution providers, and all other providers of digital services used in road transport.
- Data privacy of people and businesses must be ensured, and must be in line with relevant national, regional, and international regulations.
- While data sharing between relevant stakeholders is encouraged for the purpose of efficiency, data control and ownership of transport operator generated data must remain with the transport operator, subject to applicable regulation(s).
- Data sharing with relevant authorities must be secured from both technical and operational perspectives in order to avoid data misuse, for example by criminal elements and redundancy of data sharing within the different authority sections needs to be avoided.

## Sustainability

- Digital solutions must be used in line with applicable laws and regulations and new regulations should be considered in case of legislative loopholes where existing legislation no longer covers new business circumstances, in line with the “same service, same rules” principle.
- Governments across the world need to allow the use of the latest digital solutions by establishing adequate legal frameworks. This needs to cover all other driver, vehicle, and transport related documents, enabling transport operators and other commercial transport stakeholders to fully digitalise the transport process, in cases where this is economically justified. Such frameworks need to be enforced, ensuring an equal and fair playing field between all providers of digital services, following the “same job, same rules” principle.
- All governments need to accede to the e-CMR Additional Protocol by the UNECE and to allow usage of digital TIR.
- Governments and authorities can benefit greatly from receiving certain data from the private sector. In such cases, governments and authorities should provide incentives to owners of such data, often transport operators. Data sharing between industry stakeholders, and with authorities, must follow clear agreements. Received data must be used only for purposes already agreed upon between stakeholders and not be used for new purposes that have not been agreed upon. Digital services used for such data exchange have to ensure the integrity of data and traceability of its use by any agreed authority or other designated party.
- Seamless interoperability of various systems, registers as well as legal and commercial processes handling transport related data is a key success factor for economically sustainable digitalisation of road transport industry. To facilitate efficient machine-to-machine data exchange and reuse of once digitalised data, it is important to agree on common standards for both; commercial data itself and the means and format of data exchange. This will allow creating, storing and exchanging data by and between a wide range of stakeholders.
- Where possible automated interfaces for the data exchange (APIs) should be developed for all new information systems in this field. Both the standardised data and data messages will facilitate the development of various services in the digitalisation of transport field.

Finally, IRU calls on governments to undertake the necessary steps to make the use of transport-related electronic documents (both goods and people) fully legally acceptable, and to introduce the required legislative and non-legislative tools and measures to enable this. IRU encourages innovation and the use of best legislative and operational practices in international transport digitalisation.

\* \* \* \* \*