

5. UIC, the International Union of Railways, is a non-governmental organization representing the railway industry. UIC sets and publishes standards for railway sectors, such as for wagons, railway equipment and railway stations.

UIC holds responsibility for the railway consignment note (the CIM).

UIC has developed standards for the exchange of information between railway companies and railway infrastructure operators, called TSI (Technical Specifications for Interoperability).

6. SMDG is a user group for shipping lines, container terminals and port authorities, and has developed standards for the maritime container industry, for the exchange of information of stowage plans and of individual movements of sea containers to, within, and from ports. SMDG e.V. is a registered non-profit association, run by and on behalf of companies and

organizations working in the maritime industry, like container terminals, ocean carriers and related companies and organizations.

The name SMDG originates from the late 1980-ies when a group of IT experts got together for the design of the EDIFACT message BAPLIE. The group named itself “Ship Message Design Group”, abbreviated SMDG. In 1990-ies already the scope of this group widened to definition of more EDIFACT messages for the maritime business, but due to the fact that SMDG had been established as a brand in the maritime community it was decided to continue under this name. After more than 30 years of working in standardization of EDI SMDG has been recognized as official UN/CEFACT User Group for the maritime business.

Since its inception in 1987 SMDG arranged for a multitude of international meetings and workshops all over the world. Topics include, but are not limited to standard messages. Review of business procedures and new technologies are subject of discussion. We take care that discussions remain strictly technical and pre-competitive, avoiding to become in conflict with anti-trust regulations.

## **DEVELOPMENT OF URBAN TRANSPORT**

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Whether by land or by sea, people have always sought to cross the earth and move to new places. It is impossible to imagine modern cities without public transport. Now I will tell you how public transport has developed.

The first regular vehicle was a boat. It is not by chance that Charon appears in Greek mythology — a boatman who ferries passengers across the river for money. Popular since the second half of the 19th century, the omnibus is considered the first regular public transport. It was a large horse-drawn carriage designed for 10-20 people. Some omnibuses had a second floor, the "Imperial", and travel on it was cheaper. Riding on such transport began in the middle of the XVII century: the predecessor of the modern bus appeared in Paris in 1662.

The official successor of the omnibus is the horse-drawn railway. The cars could accommodate up to 40 passengers. By the end of the nineteenth century, horsedrawn railways covered thousands of kilometers of tracks around the world. The Douglas Horse Tram is the last line of horse tram used as a public transport. There are 45 horses working there and 23 cars are serviced. In 1821, the first monorail was launched in Great Britain. The principle of operation of the monorail was the same everywhere - one rail either above the car or under it in the form of a track. Compared to the metro, monorail transport is simpler and cheaper to build, it is silent and at the same time moves faster than a tram. There are countries that still use monorails. The idea to move transport underground appeared in the XIX century, when the congestion of the streets of large cities increased. By the second half of the XIX century, a network of underground tunnels had already been created in London, through which steam trains ran. In Kiev, the construction of the metro began only by 1949. Simultaneously with the metro, a prototype of a modern tram was born. At the end of the XIX century, transport began to be massively converted to electric traction. At the beginning of the twentieth century, the first trolleybuses and electric trains appeared, trams and subways appeared. The world's first bus was powered by a steam engine and could accommodate only 8 passengers. Its creator was the British inventor Richard Trevithick. His bus resembled an ordinary carriage. In 1886, the first electric bus was created in London.

Today it is the most common type of urban transport. The first trolleybuses were considered an amazing mixture of tram and bus. In Ukraine, the first trolleybus appeared in 1935. This transport does not pollute the atmosphere. It is roomy, more maneuverable than a tram, although not as energy efficient.

#### References

- 1) <https://www.prostranstvo.media/istorija-gorodskogo-transporta-ot-lodokdo-trollejbusov/>
- 2) <https://transportgeography.org/contents/chapter8/transportation-urbanform/urban-transport-development-paths/>
- 3) <https://en.wikipedia.org/wiki/Trolleybus#History>
- 4) <https://www.ccpl.org/charleston-time-machine/omnibus-revolutions>

## **LOGISTICS MANAGEMENT SYSTEMS**

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As such a pivotal function in day-to-day operations of many businesses, logistics is still noticeably slow to change. While retail and eCommerce face disruption and keep coming out on top, 50 percent of trucks travel empty on their return journey and warehouses are either overfilled or standing idle.

Digitalization will allow warehousing and transportation operations to elevate customer experience, deliver more value to partners, and consequently –