

DIGITALIZATION OF LOGISTICS PROCESSES

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Information technology (IT) that uses digital platform of the transport complex will ensure the rapid development of digitalization in the fields of transport and logistics.

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The electronic trading platform for freight transportation and its integration with the automotive complex will accelerate the provision of multimodal services to terminal and warehouse complexes, financial services and insurance, which will become the basis of the country's transport and logistics platform. The government will take on a unifying role to create a single secure digital space for the transport complex.

Uzbekistan is developing standards for digital interaction of transport market participants. Under the new conditions, the economic competitiveness of the country will be largely determined by the presence of intelligent transport and logistics systems, since, according to experts, the logistics component in each final product of the economy of Uzbekistan is no more than 20% but depending on the specific type of logistics costs vary from negligible shares for purely digital products sent over the Internet, up to 60% for energy. Infrastructure of projects for digital transformation of transport will have a huge impact on logistics in the coming years. The digital railway will become the basis of digital transport in the world: innovative technologies will increase the capacity of existing and new railways by at least 50% and halve the cost of transportation.

According to foreign experts, the digital railroad will become the basis of digital transport in the world: innovative technologies will increase the capacity of existing and new railways by at least 50% and halve the cost of transportation. As stated by the digital economy, companies will have to develop new cost-effective logistics solutions in advance. From this point of view, DLT (Distributed Ledger Technology) technology or block-chain may be of interest to domestic entrepreneurs, which are increasingly being used in countries such as the USA, Australia, Great Britain, and New Zealand. *One of the main advantages of this technology is the ability to track shipment in real time, view the stages of cargo movement on a single electronic map, etc. Currently, the US Postal Service is experimenting with block-chain which is the country's main logistics company for small and medium-sized companies, coordinating with a wide range of clients, contractors and other stakeholders including customs, delivery partners, long-distance truck drivers, postal shippers, recipients, etc. Using the block-chain to manage interactions between these subjects allows for faster delivery, especially international side. The US Postal Service is testing the automatic payment of invoices at arrival of the goods; in the future it is assumed that each postal item (parcel or letter) will be equipped with a built-in sensor,*

which the block-chain will be track the entire delivery chain including payment and customs clearance.

In the USA according to the strategic plan for the development of the transport industry for the period 2018-2022, four components have been delivered: transport logistics-safety, infrastructure, innovation and manageability. In terms of innovation at the US Plan Transportation Strategic it is focused on guiding the development and implementation of innovative practices and technologies that improve the safety and efficiency of the transportation system.

In Singapore on the project of Smart Mobility it is clearly seen that options for solving the problem of transport digitalization on the agenda. In particular, the document spelled out the need for analytics in three basic areas, which relate to operational planning, resource optimization, and the availability of relevant information in real time. In particular, it is proposed to use ground sensors, demand management, simulations, predictive and multimodal analytics. The basis of the digital transport system in Singapore according to the strategy will be unmanned trains, robotic loaders, autonomous convoys of trucks, autonomous taxis, car and bicycle sharing, devices for personal mobility, and autonomous buses. The anticipated challenges in the Smart Mobility project include security, as well as anonymization and re-identification and aggregation.

The French framework of the profile strategy are presented plans for the development of transport infrastructure, which include investment programs for the future (IAP). Two of them involve significant financial investments (in the form of redeemable advances) in new aircraft designs of the Airbus Group. IAPs include support for R&D projects. In particular, in the space sector, investment programs have contributed to the funding of research related to the development of next-generation launchers as well as new telecommunications satellites.

The Program of "Vehicle of the Future", in turn, mobilized automobiles, sea and rail transport with the aim of technological structuring of the relevant industries are related, in particular, to the production of starting mechanisms (thermal, hybrid or electric), as well as weight reduction and the development of autonomous Vehicle.

In addition, the program of "Vehicle of the Future" in the context of the IAP made a significant financial contribution to the creation of an electric fueling system for cars and modernization of the ferry fleet in France.

In addition of the program should receive road, rail and sea modes of transports, as part of the implementation of the concept of smart mobility and logistics, assistance in research and joint testing facilities; support for joint development projects; supporting intelligence research through research organizations; aids related to the production process as part of the industrial production modernization program towards the "Factory of the Future".

The technology roadmaps for the above sectors are part of the New Industrial France: Environmental Mobility and Transport of Tomorrow program, which promotes R&D projects and includes the following points: Continuation of research and development work in the field of research and development programs for key players (large automakers and suppliers, shipbuilders and railroad workers) to manufacture vehicles in the context of increased technical requirements, including smart vehicles (autonomous and connected); continued targeted support for innovation by SMEs; continued support for vehicle testing and deployment of infrastructure for autonomous vehicles.

Significant research is devoted to trends in the development of the transport system in Australia. In particular, technological innovations in the transport sector will help increase the efficiency, productivity and safety of transport, and reduce its negative impact on the environment. Expanding access to big data is already enabling more sophisticated analysis for public and private collaboration.

For example, traffic cameras and sensors provide efficient infrastructure management by detecting congestion and road works, sending warnings to motorists, and re-routing. This helps to reduce travel times, reduce fuel and energy consumption, and make better use of existing infrastructure. By the way, Rio Tinto's self-driving trucks have already transported over 100 million tons of land in Pilbara. One of the main tasks in the strategy for the development of transport infrastructure in the UK is to increase the level of WI-FI coverage of passenger transport. It is assumed that by 2018 about 90% of passenger vehicles in Foggy Albion will have WI-FI access.

In addition, there is significant cellular coverage on highways in the UK, which accounts for about 97% of voice coverage provided by incumbent operators. However, in the long term, it is necessary to carry out appropriate work to improve the quality of the connection, in particular, so that consumers can quickly receive messages about problems on the road, as well as for the proper functioning of new technologies, such as connected and autonomous vehicles, and intelligent motorways.

Abroad at the level of strategic plans, sufficient attention is paid to the development of the transport sector in the context of the digital transformation of the economy. Therefore, it is necessary to carefully study international experience and use the best practices with us. The new requirements that the digital economy makes to the transport industry in the Russian Federation are expressed in the strengthening of personalized, distributed (in accordance with geographic specificity) consumption. Thus, in order to meet the new realities, logistics must become digital and, as a result, predictive [1, 2].

Moreover, digital logistics must develop simultaneously and in conjunction with other industries. One of the drivers of the rapid development of digital logistics is e-commerce. In the past few years, its volume has been growing very rapidly, both in Russia and around the world, which poses new challenges that the transport infrastructure must solve as soon as possible.

It is important for our specialists in Uzbekistan to choose for the digital development of the country precisely those technologies that can be effectively and economically implemented in the conditions of the domestic economy. The main question that will arise in connection with the new format of socio-economic development for our companies is how quickly they can adapt to the uncertainty created by new technologies and business models. Uzbekistan is at the very beginning of industrial transformation, and as a result of the development of the digital economy, global scientific and technical solutions in logistics will appear.

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