

**IMPORTANT ISSUES OF INTRODUCTION OF INNOVATIVE  
TECHNOLOGIES IN TRANSPORTATION**

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The introduction of various innovative technologies has a strong impact on the development of transport processes, increases the efficiency and interest of customers of transport and logistics companies. Modern innovative technologies in the field of transportation are transforming our world, making it more convenient, safe and efficient. From the development of autonomous vehicles to smart logistics management systems, technology is changing the way we think about the transportation of goods and passengers. In this article, we will look at how innovations in transportation can affect logistics operations and our lives in general.

Transport innovations are the introduction of new knowledge, the improvement of technologies aimed at solving social and environmental problems, increasing productivity and reducing production and time costs in the transport system.

The goals of transport innovation:

1. The transition of the transport system to a more advanced technological level of freight and passenger transportation, including competitive automation and informatization of all departments of the transport system.

2. The transition from automation of individual processes to absolute automation in order to reduce the cost of manual labor and time costs. Ignoring this task reduces profits and reduces competitiveness due to low labor productivity.

3. Improving efficiency and reducing the cost of transportation.

4. Creation of environmentally friendly transport with the potential for high-speed traffic is one of the priority areas.

The first interesting development I want to introduce is called hyper-loop. The idea was voiced by the owner of SpaceX and Tesla Corpora-

tion, Elon Musk. The appearance of the transport resembles a capsule. The movement and braking is provided by electromagnetic cannon.

The vacuum train can move without air resistance, which ensured the development of exorbitant speeds. This was achieved thanks to a magnetic or air cushion. The lack of friction of the rail wheels reduced the load on the entire structure and acted as an “accelerator”. But, unfortunately, the project was closed due to some reasons. If the project had been launched, the locomotive would have accelerated faster than an airplane and easily overtook the fastest trains.

The next innovative development is called autonomous transport. Autonomous vehicles are the biggest innovation of the future for many car manufacturers. Self-driving cars can significantly change logistics, primarily by automating and improving the efficiency of transportation processes. Some of the major changes that may occur include: increased safety, save time and resources, increasing the flexibility and scalability of logistics companies.

Despite all of the above advantages, it will take a lot of time and money to implement self-driving cars. A whole infrastructure should be implemented, starting from specially designed and marked roads, ending with processing and responding to non-standard situations. Nevertheless, many processes in modern cars are already automated.

In conclusion, the introduction of innovative technologies in the field of transport logistics is an important issue for the further development of the industry and increasing the competitiveness of companies. Many logistics companies have already started actively researching and implementing self-driving cars. This will help to reduce costs, increase the speed of delivery and improve the quality of customer service. Also there are also negative sides, such as the risk of unemployment, mass layoffs of an employee. But this process cannot happen instantly, but only gradually. This is a very long implementation process, during which many other changes will occur, due to which most of the negative consequences will not affect society and the world around it.

## References

1. Top 10 Transportation Industry Trends & Innovations in 2024 [Electronic resource] – Mode of access: <https://www.startup-insights.com/innovators-guide/transportation-trends-innovation/#av>. – Date of access: 24.03. 2024.