INNOVATIVE PERSPECTIVE OF TRANSPORT AND LOGISTICS

Summary

In last years innovative processes in transport in highly developed countries have been accelerated and intensified, what brought many successful ideas and allowed to introducing new generation transport vehicles on the market. Innovations consisting in replacing traditional exhaust propulsion by electric, hydrogen or hybrid drive are the most important. Moreover, prototypes of electric cars have already emerged and after creating hydrogen refuelling network also the production and exploitation of hydrogen cars and buses will be possible. Alternative sources of propulsion are also implemented in other transport modes: on passenger ships, in urban transport and even in air transport (first hydrogen airplanes are constructed). Besides this innovation stream, there are new ideas arising of vehicles construction which occupy less area, are safer, electronically operated and better adjusted to intermodal transport.

Additionally, innovative achievements in construction and infrastructure exploitation should be taken into consideration. The most important ones can be enumerated as: • recycling materials in road construction, • new materials complementing traditional asphalt, concrete or asphaltic concrete (geo-textiles, geo-synthetic materials, composite materials, polymers and others), • skid-resistant road surfaces, • de-icing the road surface in winter, • new noise-absorbing road surfaces, • systems of satellite navigation and road traffic control, • systems of controlling parking spaces, • underground infrastructure construction for freight road transport.