

TRANSPORT AND LOGISTIC CENTERS: DIRECTIONS OF DEVELOPMENT IN THE FRAMEWORK OF THE STRATEGY - 2024 IN RUSSIA

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Abstract: *The problems of development of transport and logistics centers and transport in Russia with the state support are presented. The issues of financing the project "Transport and logistics centers" for the period of 2019-2024 and the importance of this project for the lives of Russians were studied. The analysis and prospects of production and realization of various models of buses in Russia for the period 2010-2022 are carried out.*

Keywords: *Transport and logistics centers, project financing, production and implementation of buses and electric buses, prospects of development of the transport system of the country and bus transport.*

I. INTRODUCTION

According to the comprehensive plan for the modernization and expansion of the trunk infrastructure for the period until 2024 of September 30, 2018 No. 2101-r, the development of all types of transport and related infrastructure is planned in order to improve the delivery of various types of cargo to all regions of the Russian Federation.

The federal project "Transport and logistics centers" was calculated for the period from October 1, 2018 to December 31, 2024. During this period, hub cargo multimodal transport and logistics centers should be formed. It is planned to create, taking into account the synchronization plans of various departments and organizations for the development of the network of existing centers, including terminal and logistics centers - wholesale distribution centers of the Ministry of Agriculture of Russia, production and logistics complexes of the Russian Ministry of Defense, logistics centers of Federal State Unitary Enterprise "Russian Post", terminal and logistics centers of Open Joint Stock Company "Russian Railways" and others [1].

II. MAIN CONTENTS

"According to experts, Russia needs to invest in such areas of the economy as housing, provision of vehicles, durable goods and the development of transport infrastructure, i.e., where there is sufficient potential for development" [7, p. 165].

By 2024, the provision of cargo traffic along the East-West and North-South transport corridors should be provided; The total capacity of the commissioned freight multimodal transport

and logistics centers will be at least 51.6 million tons.

The amount of financial support by years of implementation of the presented strategy (2019-2024) is presented in fig 1 [1].

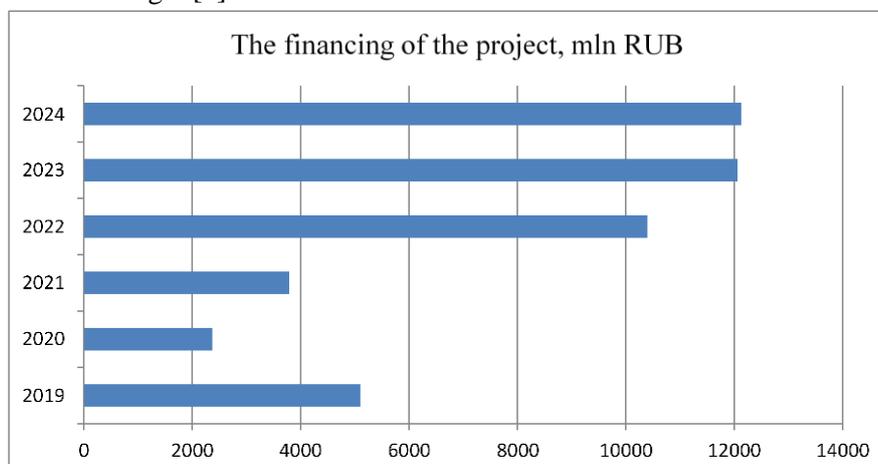


Fig 1. Financing of the project “Transport and logistics centers” for the period 2019-2024

For the entire project from 2019 to 2024, it is planned to transfer 45850 million rubles, while, as can be seen from figure 1, the project will be unevenly financed, the least will be transferred in 2020 - 2370 million rubles. or 5.17% of the total amount, and most of all in the last 2 years of the project (2023-2024). So in 2023 12060 million rubles will be transferred to this project. or 26.3% from the budget and other sources of financing, and in 2024 - 12.12 billion rubles. or 26.45%.

From the federal budget it is planned to allocate for this project a total of 9960 million rubles. or 21.7%, and from extra budgetary sources - 35890 million rubles. or 78.3%. That is, most of the funds will be allocated from extra budgetary funds.

As the authors of the article, Dolina O.N. MA Zhidkova, Tatiana A. Shpilkina: “At present, a characteristic situation for the development of road and transport infrastructure is insufficient financing, and therefore it is not possible to ensure its sustainable development under the prevailing conditions. However, without the development of the road and transport system, economic growth is impossible, and, consequently, an increase in wealth. Due to the development and improvement of the country's road and transport infrastructure, it is possible to bring all sectors of the economy to a fundamentally new level of development” [4, p.4].

As expected, the implementation of the transport part of the plan will contribute to the improvement of the Transport Infrastructure Quality Index by 15.5% over 6 years in relation to the 2017 level. At the same time, the growth of transport mobility of the population in public transport from 8.2 thousand passenger-km per 1 person. per year in 2017 will increase to 9.5 thousand passenger-km per 1 person. per year in 2024.

The projected growth of such the social goods, such as freedom of movement, meets the legitimate interests of the population and will contribute to improving the quality of life of the

population, and raising the level of transport security of the subjects of the Russian Federation by 7.7% compared to 2017 will also contribute to improving the lives of Russians.

Of great importance in this project is not only the development of the road network, but also public transport, that is, including the production of buses. Despite the increase in the number of cars, most people move around the country by public transport. So, according to the data of the Ministry of Transport of Russia, in 2017, the bus passenger turnover amounted to 116 million people, while the metro transported 44 million people and the railway transport - 32 million people. [2]. Currently, the need for buses in the regions of Russia is constantly growing. This is also connected with the great interest of Russians in this type of transport, not only as more mobile and affordable, unlike rail.

The Russian bus market is currently recovering from a deep crisis. In 2016, it grew by 11.5% (to 10.4 thousand), and in 2017, sales of new buses increased by another 13%, reaching 11.7 thousand cars. According to the forecast of PricewaterhouseCoopers, sales of buses in 2018 will increase by an estimated 16%, and during 2019-2022. the sales of buses will increase and exceed the value of 2012, when sales amounted to 17.1 thousand vehicles. Data on the implementation of buses in 2010-2022, with a forecast for 2018 and 2022, are presented in fig 2 [2].

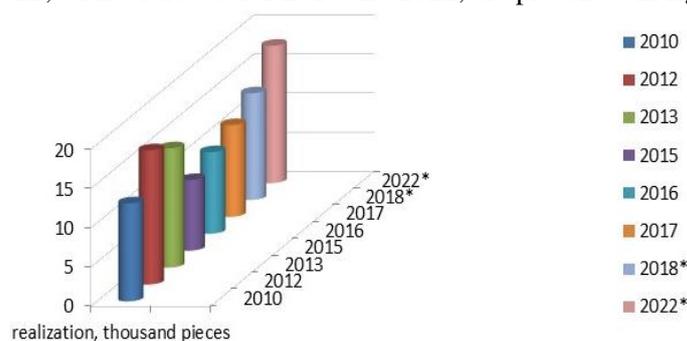


Fig 2. Dynamics of bus sales in the Russian Federation in 2010-2022

The bus market is dominated by domestic bus manufacturers: in total, they own 88% of the market. There are 5 main manufacturers in Russia now, and 3 of them belong to the GAZ group (Russian Machines Corporation of entrepreneur O. Deripaska): according to Avtostat, in 2017 the distribution by enterprise was as follows:

- 65% of sales accounted for PAZ (Pavlovsky Bus, located in the Nizhny Novgorod region, has been producing buses since 1952, is now part of the GAZ group);
- 13% of sales accounted for LiAZ (Likinsky bus in the Moscow region, began producing buses in 1959, part of the GAZ group);
- 4% - to NefAZ (the plant is located in Neftekamsk, the Republic of Bashkortostan, has been producing buses since 1981, the parent company KamAZ);
- 3% of sales belong to KAVZ (Kurgan Bus Plant, operating since 1958, part of the GAZ group);
- 3% of sales are attributable to Volgabus (Volzhskiy, Volgograd Region, the company was

founded in 2008).

The remaining 12% of the market was distributed among foreign companies: this is the Belarusian MAZ (occupies 3% of the market), followed by Chinese manufacturers Yutong, Higer, King Long, Zhong Tong , etc. - they accounted for 9% of the market (see fig 3) [2, pp. 28-29].

The growth in bus sales is largely due to the fact that the fleet of buses is outdated and needs to be replaced. So, according to Avtostat, 400 thousand buses are currently used in Russia, and 46% of them are over 15 years old. In the development of the bus market the role of state support is great, which largely determines the dominance of domestic producers.

The sales volume of buses in 2017, %

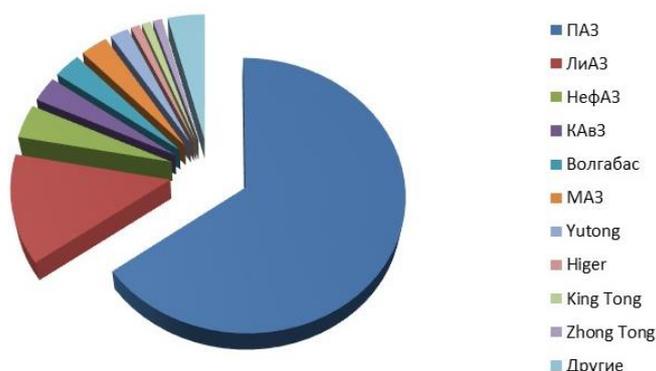


Fig 3. Sales volume of buses in 2017, in%

“Tatiana Arabadzhi, director of research company Russian Automotive Market Research, explains that sales growth is associated with the implementation of the following programs:

- With the subsidization of the purchase of cars for housing and communal services that run on gas-engine fuel (in 2018 it is planned to sell under this program about 2500 units of equipment, mainly buses);

- Federal program “School bus” (planned sales volume - 1300 units);

- State program of preferential automobile leasing (sales plan in 2018 - 4000 units) [2, p. 28].

It is important to understand that “Financing and sources of investment in a particular project require careful analysis, whether it be Russian or long-term foreign capital raising” [6, p. 92].

In general, the Russian machinery has traditionally dominated the bus market, since a significant number of municipal parks and private carriers need equipment with an inexpensive purchase price and affordable cost of ownership (repairs, spare parts). In addition, support measures

First of all, they are applied to Russian-made equipment, and since July 16, 2014, it is prohibited to purchase imported buses to meet state needs” [2].

Despite the state support of Russian bus companies, sales of imported buses have increased significantly this year, especially in recent months. These are buses manufactured in China: according to Avtostat, this year, Chinese brands of buses Yutong, Higer, King Long, Zhong Tong

show an increase of 2-2.5 times. This mainly concerns the segment of tourist buses, where there is less government procurement, and where, in terms of price and quality, they successfully compete with Russian and western manufacturers.

We can agree with the opinion of Glinkina O.V., that in modern conditions it is necessary to implement the following areas of support for enterprises: "... support of competition in the industry, assistance in promoting domestic companies to foreign markets for acquiring new technologies, establishing high educational standards and introducing new education methods, promoting the development of cooperation between companies and research institutions for the early commercialization of new knowledge, the development of basic infrastructure, Adding stringent environmental and technical standards "[3, p. 394].

Russian bus manufacturers, however, intend to compete with Chinese bus manufacturers, and continue to dominate, for this they are developing new types of buses. For example, Pavlovskiy Bus Plant is launching a new Vector bus on the market, the length of which has been significantly increased (from 7.6 to 8.8 meters). Due to this, the bus became more spacious and comfortable, the Likinsk Bus Plant, in turn, introduced a new, roomy bus LiAZ-621367. This bus has a length of 18.85 meters and can accommodate more than 200 passengers, while it is equipped with a gas engine (YaMZ-53604, capacity of 312 hp) meets the environmentally friendly requirements of "Euro-5", and from one refueling can travel up to 400 km. [2].

But the most striking trend of this year are the electric buses. In September 2018, the Baulin Motors Group company (BMG, Volgabus bus brand) introduced a new electric bus model (electric bus) - a car in an unusual light-gray color for the bus market with a 300 km power reserve in one charge cycle, weighing 13.5 tons and holds 90 people.

According to A. Bakulin, the president of the company, there is no bus on the Russian market with the same parameters. In the near future, the electric bus must pass European certification tests, as it is banned to export this bus to foreign countries.

According to experts, the share of the market in the bus market of the BMG in 2018 is about 3.1% (in 2017 it was 3% and in 2016 it was 2.7%). But if we take only the market in which BMG operates, and this is a category of particularly large, large and medium buses, from 10 to 18 meters, then here its share is already 15% (this is A. Bakulin's estimate). It is about the market in 6-7 thousand buses. Bakulin intends to occupy more than 50% in this market in the next 3 years, then he plans to produce 5 thousand buses a year and from them 1 thousand to export. Now export deliveries are minimal: in the United Arab Emirates, Africa and the CIS countries, but subject to the implementation of their plans, they will grow [5, p. 23].

Given the demand for electric buses, they began to actively produce other factories. So, KamAZ has already delivered 100 electric buses to Moscow (model Kam-6282), as many electric buses were transferred to the capital by LiAZ (model LiAZ-6274) [2, p. 29].

While electric buses are a new phenomenon on the market, they work in experimental mode. But in the future, an increase in the number of such buses is expected. The difficulties lie in static

charging, and only Moscow can afford it so far, the replacement of batteries is needed every 3-4 years. It is quite expensive. According to the calculations of the International Association of Urban Electric Transport Enterprises, each replacement will cost 6-10 million rubles. with a life of electric buses with a slow charge of 14 years [5, p. 25]. Nevertheless, many bus factories have already paid attention to electric buses and are actively improving them.

If we generally talk about the bus market, it is expected that in the future, Russian bus manufacturers will focus on demand, produce buses of different models, constantly improving them, taking into account the various preferences of consumers. It will be, most likely, as buses on the gas engine, and electrobuses.

III.CONCLUSION

Thus, the implementation of the project “Transport and Logistics Centers” as a whole will contribute to the improvement of the “Transport Infrastructure Quality Index”, increase the level of transport provision for the constituent entities of the Russian Federation and will improve the lives of Russians.

References

- [1]. Comprehensive plan for the modernization and expansion of the trunk infrastructure for the period up to 2024 // Government Decree of September 30, 2018 No. 2101-p - access mode: <http://www.static.government.ru> - Government of Russia website (in Russian) (consulted 05.06.2018).
- [2]. *Grammatchikov A.* Next stop // *Expert*. 2018. No. 45 (1096). - p. 28-29 (in Russian)
- [3]. *Glinkina O.V.* Organizational and economic mechanism for the implementation of the cluster approach to improve the competitiveness of domestic industries // In the collection: KNOWLEDGE CIVILIZATION: RUSSIAN REALITIES. Proceedings of the Seventeenth International Scientific Conference. 2016. - p. 390-395. (in Russian).
- [4]. *Dolina ON, Zhidkova MA, Shpilkina T.A.* Sovereign funds for financing the transport infrastructure of Russia // *Bulletin of the Moscow State Automobile and Highway Technical University (MADI)*. - 2018. - № 3 (85). - p. 2-5 (in Russian).
- [5]. *Kolerov V.* Buses want to get into the network // *Expert*. 2018. No. 38 (1089). - pp. 22-25 (in Russian).
- [6]. *Frolova V.B.* Diversification of sources of financing by optimizing alternatives // *The twenty-first April economic readings: Materials of the international scientific-practical conference.* / Ed. Doctor of Economics, prof. V.V. Karpova and Doctor of Economics, Professor A.I. Kovalev.- Omsk. 2015 - p. 90-94 (in Russian).
- [7]. *Shpilkina T.A.* Analysis of crisis phenomena in the modern world and in Russia // *Bulletin of Omsk University, Omsk State University im. F.M. Dostoevsky* 2014. - №1 (71). - P.164-166 (in Russian).