

## **Appendix to Section 3.2.**

### **Detailed description of the strategic project No. 2. "Digital Platform for the International North-South Transport Corridor"**

Creation of a digital logistics platform as a tool for ensuring the effective development of the North-South ITC, improving the quality of service for consumers of logistics services, integrating into global logistics systems, as well as forming a digital twin of the transport corridor (a dynamic mathematical model that allows developing scenarios for the development of a transport corridor in the logic of "The Greater Caspian Region", as well as individual territories, logistic routes).

The operation of the created digital platform will be carried out not only by the subjects of the Russian, but also the world economy, within the framework of the North-South corridor (India, IR Iran, China, the EU and other countries).

The port special economic zone in the Astrakhan region will be the industry logistics operator. For reference: within the framework of the development project of the port SEZ, investments of 25 billion rubles have been announced by residents who are ready to implement investment projects for the construction and operation of the seaport infrastructure, as well as in the areas of logistics and production. Resident companies will create about 1,000 jobs.

The international logistics operator will be selected as part of the interaction with the key stakeholders in the strategic project.

A feature of the digital twin of the transport corridor will be the implementation of a system that will allow to take into account in real time more than 10 thousand indicators, including infrastructure, transport, logistics, economic, environmental, etc. This will provide a comprehensive assessment of the feasibility of investment and infrastructure projects in the Caspian Sea, their impact on the dynamics of the development of the "Greater Caspian Region", the impact of the regional economy on Russia's GDP.

In turn, the implementation of SEPZ development plans is interconnected with the University's strategic project to create a digital platform for the North-South transport corridor.

The strategic project involves the development and testing of a digital platform, a system of business process management based on innovation, digital and intelligent technologies. Currently, the Russian part of the Caspian region, which is part of the North-South ITC (ports of Makhachkala, Astrakhan, Volgograd) has no analogues of the proposed digital platforms.

Achieving the goal of the project contributes to solving the problem of satisfaction of consumers of logistics services, strengthening the transit potential of Russia, maximum consolidation of transit flows, development of transport infrastructure in the region, the influx of financial flows into the regional budget.

The project is implemented in accordance with the goals and objectives of Presidential Decree No. 204 of 07.05.2018. "On the national goals and strategic objectives of the development of the Russian Federation until 2024" in terms of the development of the digital economy, a comprehensive plan for the modernization and expansion of the main infrastructure, "Strategies of development of sea port infrastructure in Russia until 2030", the Russian Government Decree "On the establishment in Astrakhan region of the port special economic zone and the Caspian Cluster", "Strategies of socio-economic development of Astrakhan region for the period up to 2035". The Russian part of the Caspian cluster includes Astrakhan region, Republic of Dagestan, and Volgograd region.

Successful implementation of this project closely correlates with the main activities of the university and will lead to the following systemic effects in the development of a set of university policies:

- in the field of educational policy through the development, opening and implementation of new practice-oriented educational programs in the field of logistics and frontier areas.

Scientific and scientific-technical results of the project will form the basis for new innovative practice-oriented additional educational training and retraining

programs for the economy of the region and beyond. Expansion of the pool of educational programs for continuing education in the field of logistics will allow to form a crowd-sourcing community around the university, which will be the nucleus of the creation of educational and methodological associations of educational institutions of the Caspian region in the transport and logistics sector.

- in the field of research and innovation policy, commercialization of the results through scientific research on the creation and operation of a digital logistics platform.

The increase in the number of young scientists, the system of incentives to engage in R&D, their retention in science and education, career and social elevator will lead to systemic effects in the development of youth policy and human capital management policy. This project will form a new type of educator - a researcher-innovator, who, in turn, will prepare not a specialist with a basic education, but a unique cross-industry specialist in the field of global logistics.

### ***Groundwork done for the strategic project***

ASU is the first university in the Southern Federal District, which, since 2010, has trained logisticians in Logistics and Supply Chain Management. In 2018, Astrakhan State University created on its basis the Consortium of educational institutions of the Caspian region in the transport and logistics sphere, which includes representatives of Astrakhan, Volgograd, Moscow, Rostov, Stavropol regions as well as Republic of Dagestan.

Since January 2020, the University has been operating a "mirror engineering center", which is part of the ecosystem of the SPbPU NTI Competence Center "New Manufacturing Technologies". The structure is focused on solving technological and science-intensive problems in the interests of the Caspian region.

### ***Structure of key partners***

The key partners for the implementation of the project are SEZ "Lotos" and "Special Economic Port Zone". They represent resources for approbation of research projects. Consortium of educational institutions of the Caspian region in the transport and logistics sector provides a solution to the personnel problem of

the SEZ Olya, synchronizes educational programmes, increases the mobility of students and university staff.

To implement the project in terms of developing a digital twin of the North-South Transport Corridor, cooperation will be carried out with the Center for the National Technological Initiative in the "New Manufacturing Technologies" area at the Institute of Advanced Manufacturing Technologies at Peter the Great St. Petersburg Polytechnic University . And also with Russian and international logistics operators with experience in implementing digital platforms in transport, including OOO "Rusatom Cargo", AO "RZD Logistics", Dubai Worlds Ports, Cosco, the German Logistics Association, etc.

Stakeholders of the project are PLC "Caspiy", the German logistics company "Martrade," AO "SEZ Lotos".