



PETROCHEMICALS



Gazprom Neft PJSC is a major Russian manufacturer of a number of basic petrochemical products: aromatic hydrocarbons (benzene, paraxylene, orthoxylene, and toluene) and propane-propylene fraction products (propylene liquefied petroleum gas). Basic petrochemical products are manufactured at all Gazprom Neft oil refineries (Omsk, Moscow, and Yaroslavl).

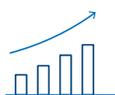
The production of petrochemical products for further stages of added value (polypropylene) takes place at integrated enterprises – Neftekhimiya NPP (Moscow) and Poliom LLC (Omsk). In 2017, polypropylene production amounted to 103,000 tonnes at Neftekhimiya NPP and 205,000 tonnes at Poliom LLC. In addition, Neftekhimiya NPP switched the production of polypropylene to phthalate-free catalysts for the first time in Russia in 2017, making it possible to manufacture products that are recommended for use in the production of medical goods.

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A decrease in the sale of petrochemical products (except polypropylene) to 1.3 million tonnes in 2017 was due to a reduction in its output as a result of repairs at the process units of the Moscow Oil Refinery.

Multi-agent technologies

Technology D.3



+40%

GROWTH IN DELIVERIES
TO THE NOVOPORTOVSKOYE FIELD IN 2017



4

YEARS
PAYBACK PERIOD OF THE PROJECT

Multi-agent technologies involve the use of artificial intelligence for the operation of complex systems in an ever-changing environment.

They are particularly effective in logistics. In a multi-agent system, each programme participant in the logistics chain, including suppliers, warehouses, transport, customers, etc., is assigned a software agent – a digital twin that is assigned a specific operational logic. Software agents seek to solve problems by obtaining and utilizing resources as efficiently as possible and they do it much faster than people without experiencing fatigue and nervous tension.

The organization of supplies to the Novoportovskoye field during the summer navigation period of 2017 served as a pilot project for their use at Gazprom Neft. The multi-agent system made it possible to reduce losses from the underloading of transport, reduce employee labour costs, ensure the transparency of purchases, and monitor supplies. The next stage will consist of disseminating the technology to the whole process of logistics support for Gazprom Neft-Yamal as part of the Smart Logistics project.