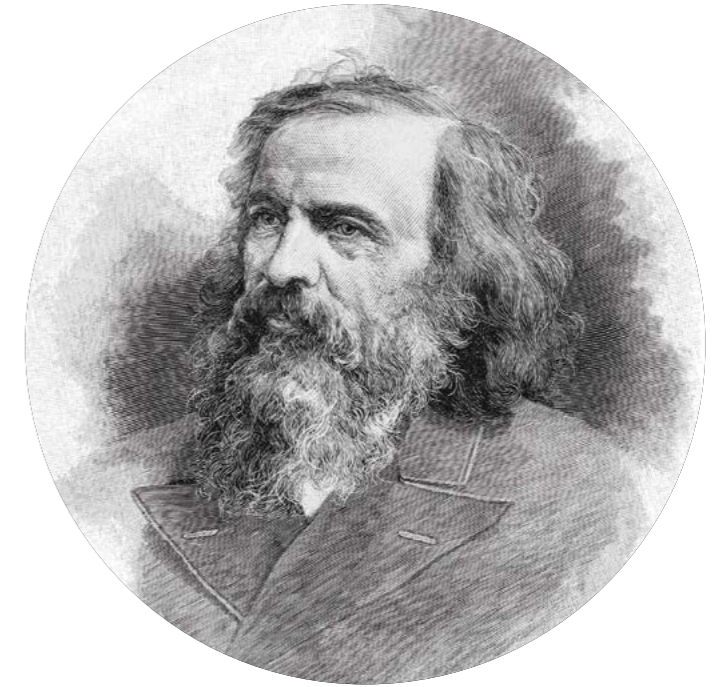




**SIBUR**

**ZAPSIBNEFTEKHIM**

2016



**Dmitri Mendeleev, who was born  
in Tobolsk, used to say:**

**“To burn crude oil is the same as to  
burn money in a stove.”**



## About ZapSibNeftekhim

ZapSibNeftekhim will become the largest state-of-the-art petrochemical complex in Russia. The project is subject to construction of an Ethylene Cracker Unit with capacity of 1.5 million tonnes of ethylene, about 500 thousand tonnes of propylene and 100 thousand tonnes of butene-butylene fraction (BBF) per annum, and units for production of various grades of polyethylene and polypropylene, to a total capacity of 2 MTA.

Implementation of the ZapSibNeftekhim project is focused on expansion of deep conversion of significant quantities

of by-products from oil and gas production in Western Siberia, including associated petroleum gas, as well as import substitution for the polymers most in demand in the Russian market.

ZapSibNeftekhim will be part of the Tobolsk Industrial Site that already combines the operating plants, Tobolsk-Neftekhim and Tobolsk-Polymer.

ZapSibNeftekhim is a logical stage in the development of SIBUR in the Western Siberia region.

In the recent 10 years, the gas fractionation capacity of Tobolsk-Neftekhim has been significantly expanded,

a NGL line from Purovsky GCPP to Tobolsk-Neftekhim has been built, the throughput capacity of Denisovka unshared station of Sverdlovsk railway has doubled.

ZapSibNeftekhim Complex envisages employment of up-to-date advanced technologies in the field of raw hydrocarbons conversion and logistics which will make it possible to ensure reliability, safety and efficacy of the investment project.

Total area of the ZapSibNeftekhim  
Construction Site 460 ha

# 736

football grounds







By the beginning of the implementation of ZapSibNeftekhim project, a NGL line from Purovsky GCPP to Tobolsk-Neftekhim had been built, the gas fractionation capacity of Tobolsk-Neftekhim had been significantly expanded, and the throughput capacity of Denisovka unshared station of Sverdlovsk railway had doubled.

## Western Siberian Petrochemical Cluster



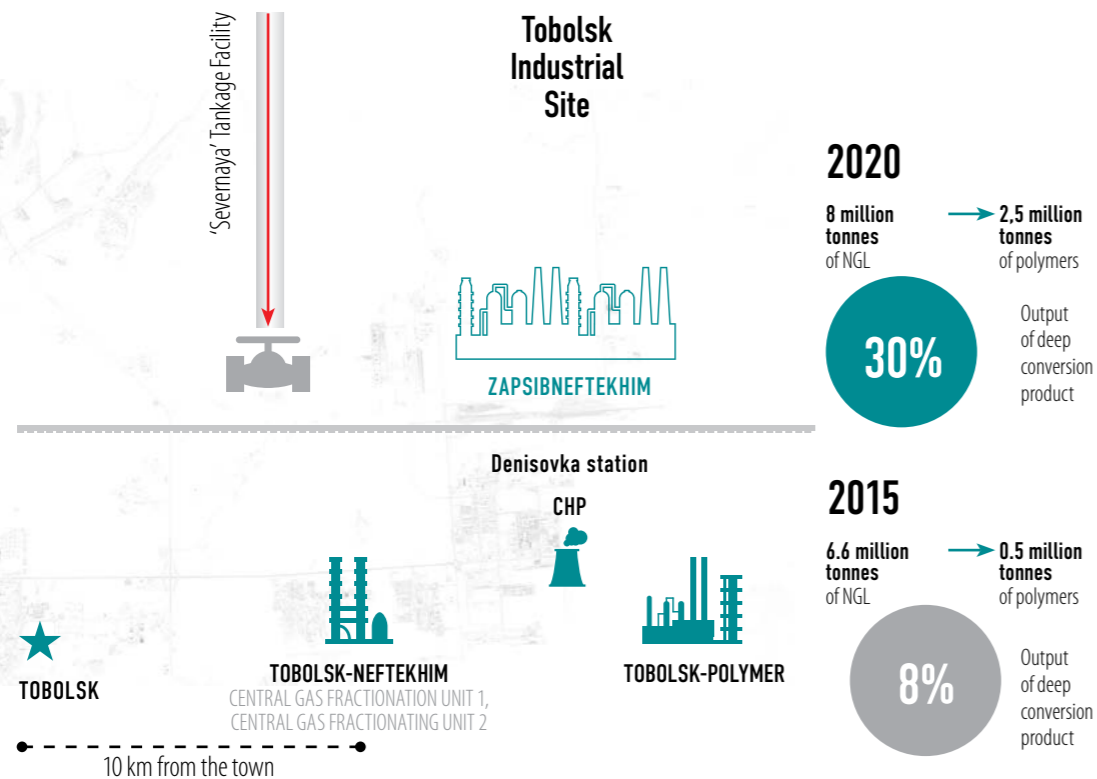


# ZapSibNeftekhim: Project relevance

The amount of light hydrocarbons converted into petrochemical products with high added value becomes significantly greater.

Cost for transportation of intermediate products reduces..

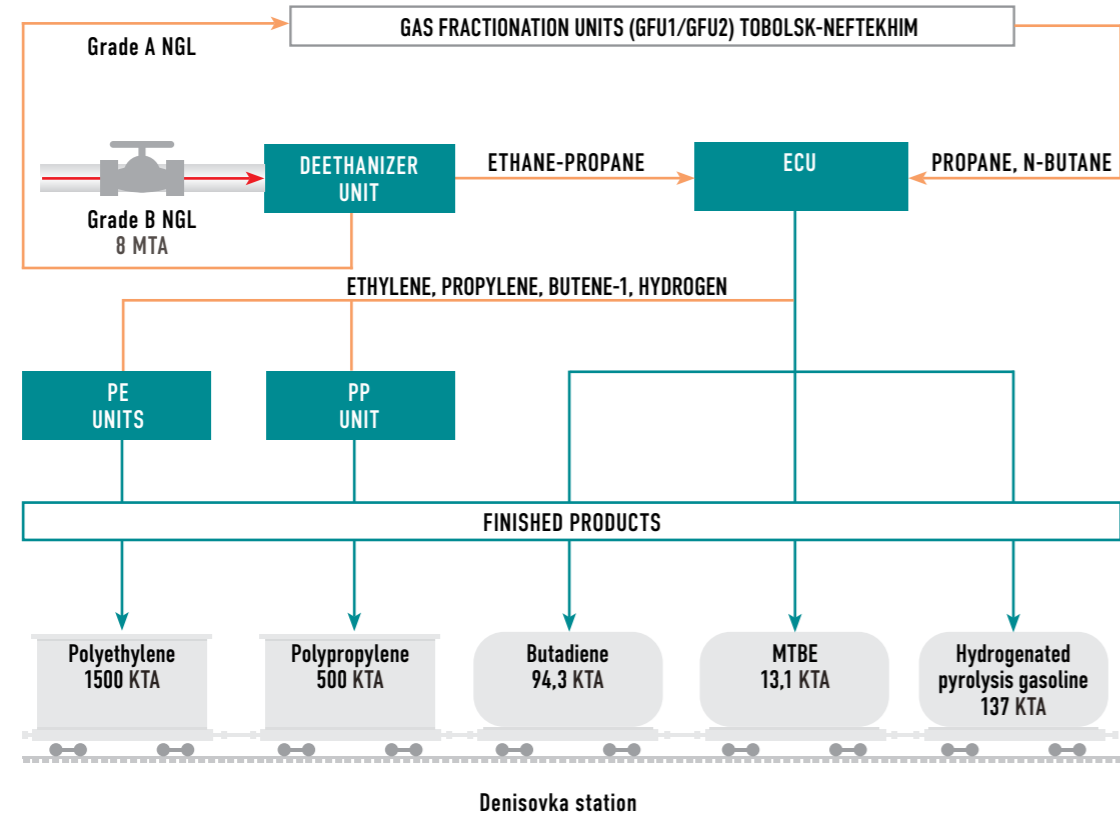
Phasing out of imported polypropylene and polyethylene is ensured.



Tobolsk Industrial Site. January 2015. Tobolsk-Polymer  
General view of the Propylene Facility.



# Production Configuration



Denisovka station was expanded in 2015.





Up-to-date technologies guarantee the closed-loop utilization of resources, energy efficiency, minimum quantity of raw materials for maximum quantities of the product, and minimum waste generation.

## Basic Technologies

ECU

technology  
**LINDE**



Within the limits of Litvinov  
(Czech Republic)

technology owner  
**LINDE, Germany**

EP contractor  
**LINDE, Germany**

PE  
UNITS

technology  
**INNOVENE G/INNOVENE S**



Within the limits of Cologne  
(Germany)

technology owner  
**INEOS, Great Britain**

EP contractor  
**TECHNIP, France**

PP  
UNIT

technology  
**Spheripol**



Within the limits of Plock  
(Poland)

technology owner  
**LyondellBasell, Netherlands**

EP contractor  
**ThyssenKrupp, Germany**

## Construction quantities

**16.000**

workforce on site during the peak period of construction



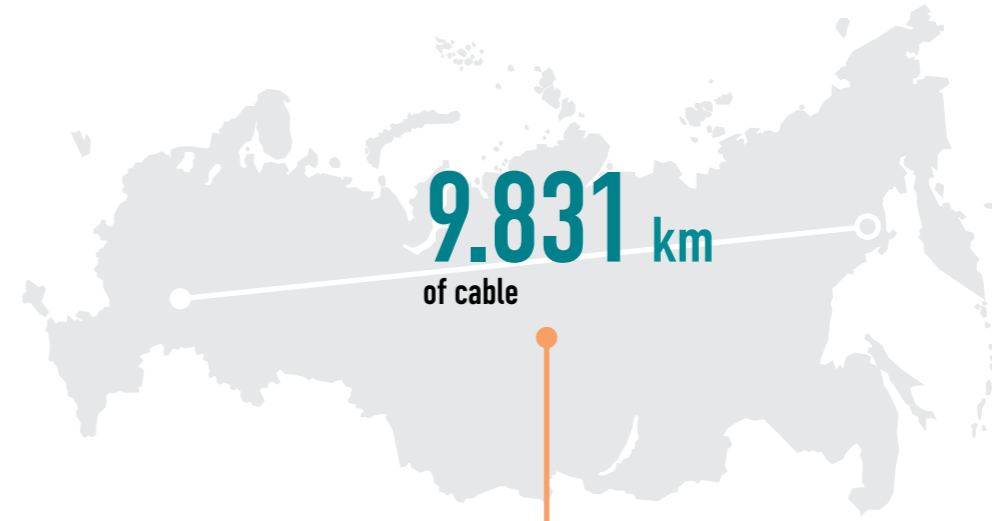
**513.000 m<sup>3</sup>**

of concrete (including precast concrete « 67 thousand m<sup>3</sup>)



**9.831 km**

of cable

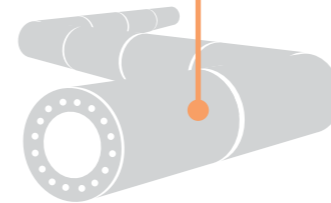


The approximate distance between Moscow and Magadan.

approx  
**1.300 km**  
of piles  
(more than 99.000 pcs)



approx  
**1.400 km**  
of overhead pipelines



**102.000**  
tonnes of steel structures

This quantity would be enough to erect 50 radiotowers, 350 m high.



# Areas of application of polymeric products

## SIBUR

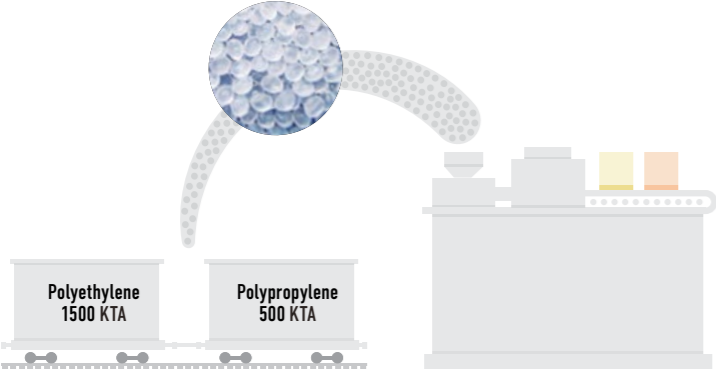
After ZapSibNeftekhim is put into operation








## CONVERSION COMPANIES

Producers of polymeric products

## FINISHED PRODUCTS

Areas of application of polymeric products



- ➔  Medical products
- ➔  Containers
- ➔  Film
- ➔  Parts for vehicles
- ➔  Construction materials
- ➔  Cable products
- ➔  Hygienic products



Field of Application:  
Construction materials



# Industrial Safety Policy

1

The maximum Industrial Safety solutions have been adopted in the plant's design

- HAZOP
- Sealed equipment
- 100% capacity redundancy
- Production automation
- Protected premises for workplaces
- Soil protection
- Automated control, interlocks

2

Personal responsibility of each employee

- Emergency response plans developed
- Multistage monitoring
- Personal protection equipment
- Process hazards analysis
- Safely designed processes
- Training and drills
- Mechanical integrity management

3

It takes only one button to press to stop the plant

STOP



Process facility control room



# Environmental Protection



Lobaria pulmonaria is extremely sensitive to air purity – is extremely sensitive to air pollution, to its hydrocarbons content, and grows only in ecologically clean forests. It is listed in the Red Data Books of the Tyumen region, Russia and the world.

## Eco Path

1.47 km



ZAPSIBNEFTEKHIM

The plant will use up-to-date gas treatment systems with 99.9% efficiency



Denisovka station

CHP



TOBOLSK-POLYMER



20.000.000 m<sup>3</sup>

Closed loop of water circulation



TOBOLSK

TOBOLSK-NEFTEKHIM

CENTRAL GAS FRACTIONATION UNIT 1,  
CENTRAL GAS FRACTIONATING UNIT 2

10 km from the town



**DACTYLORHIZA MACULATA.** Orchidaceae family, Orchids  
Scarcity category II. Red Data Book of the Tyumen Region Listed in the Red Data Books of Ukraine, Latvia, Tatarstan, and Moscow Region. It grows on the Eco Path near the Tobolsk Industrial Site.





During clearing of the site, a pine tree was kept intact by the construction contractors at its north-west end. Having checked against the construction plan that it was not an obstruction to anything, they decided to keep the full-grown beautiful tree.

## Environmental monitoring tools



During the plant construction and operation phases, regular environmental audits are carried out involving an independent observing consultant.

The following are regularly performed under the Environmental Monitoring Program:



Vegetation condition monitoring



Wildlife monitoring



Ambient air monitoring



A monitoring lab:



Quality of water supply and sewage



Ambient air quality



Noise level



Waste handling



## Social importance of the project

**SIBUR**



**ZAPSIBNEFTEKHIM**



**700**

people will work at  
the plant



**3 000**

people will work at  
service companies

Taxes



Tyumen Region

Subsidies from the Region's budget



Tobolsk

During implementation of the ZapSibNeftekhim project, SIBUR re-registered itself in Tobolsk and pays taxes to the Tyumen Region's budget.



Dmitri Konov, the General Director of SIBUR, and Vladimir Yakushev, the Governor of the Tyumen Region, at the formal ceremony of driving the first pile for the ZapSibNeftekhim project.





The Kremlin of Tobolsk,  
17th century

## SIBUR and Tobolsk: long-term partnership

SIBUR is building strong and trusted relationship with the administration of the region and the town. The company has recently agreed an extension for another 10 years (up to year 2024) of the tripartite investment agreement between the Government of the Tyumen Region, the Administration of Tobolsk, and SIBUR, under which the Holding being supported by the region's and town's authorities has performed a major modernization and extension of the Tobolsk Site.

The Tobolsk Industrial Site is the largest production complex of SIBUR. It accommodates Tobolsk-Neftekhim and Tobolsk-Polymer plants, a large railway hub Denisovka station that handles the bulk streams of raw materials and finished products of the Site. In 2014, SIBUR finished construction of the linear part of the product line from Purovsky GCPP to Tobolsk-Neftekhim.

The ZapSibNeftekhim project under construction will strengthen the status of Tobolsk as the center of the Western Siberian Petrochemical Cluster and one of the largest industrial centers of the country.



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