



CLUSTERS AS POCKETS OF GROWTH

While the global energy sector is going through global transformation, Russian companies are pushing to be international market players. Participants of the Russian Energy Week international forum have discussed challenges faced by the industry clusters at the session “Identifying a Strategy to Succeed on the Global Petrochemical Market”.

THE EU COUNTRIES HAVE OVER 2,000 CLUSTERS, PROVIDING JOBS FOR 38% OF THE WORKFORCE. 100% OF THE DANISH, FINNISH, NORWEGIAN AND SWEDISH INDUSTRIAL FACILITIES OPERATE IN CLUSTERS.

The session focused on three key strategic goals for Russia’s petrochemical industry development. They include bringing petrochemical products consumption in line with industrial countries, launching new efficient facilities that could provide Russian companies with a long-term competitive edge in the international market, and finally, monetising the hydrocarbon feedstock through its processing.

“These industry development principles are best implemented particularly in petrochemical clusters,” believes Mikhail Karisalov, Chairman of the Management Board and CEO of SIBUR.

With ca. 50% of leading countries actively involved in cluster development, this trend has become quite relevant for most of the world's economies.

According to experts, it is cluster that becomes a point of growth for innovation-driven economies.

Petrochemical clusters are no exception. They started to shape up back in the 1980s and 1990s on the back of cheap oil in the Middle East and government programmes for the chemical sector development in Singapore, China and India.



Mikhail Karisalov and Wenzhi Zou at the “Identifying a Strategy to Succeed on the Global Petrochemical Market” session. Source: photo.roscongress.org.

IN THE US, THE CLUSTER FRAMEWORK IS USED BY OVER HALF OF THE NATION'S FACILITIES ACCOUNTING FOR OVER 60% OF THE GDP.

“Chemical clusters typically emerge near sources of feedstock, sales markets or intersections of feedstock and finished products logistics routes,” says Alexey Kozlov, member of the Management Board and Managing Director at SIBUR. “In the Middle East, clusters formed on the basis of naphtha and ethane, in the USA – shale gas, while in Brazil – biological feedstock and bioethanol.”

Unlike other emerging markets, Russia is lagging far behind the global leaders. It was already the USSR that saw the negative effects of that, when clustering principles were only partially applied to set up major production facilities. As a result, we need to catch up with the global leaders now.

Cluster policy in Russia started to receive actual government support not so long ago. Since 2010, a large-scale industrial and innovative cluster support programme has been introduced. From 2016 onwards, a priority project Development of Innovative Clusters – Leaders in World-Class Investment Attractiveness is in effect, generating dozens of industry-specific clusters ranging from IT to the petrochemical sector.



Petrochemical clusters started to shape up in the 1980s and 1990s driven by cheap oil in the Middle East. Source: [facebook.com/Sadara-Chemical-Company-330243077139866](https://www.facebook.com/Sadara-Chemical-Company-330243077139866).

Clustering in Siberia

“Currently, SIBUR is actively developing the West Siberian Petrochemical Cluster – one out of the six regional clusters in Russia,” says Mikhail Karisalov. “It is based on the natural gas liquids and associated petroleum gas (APG and NGL) transportation and processing infrastructure (the most mature one in Russia), covering vast territory of western Siberia.”

SIBUR Tobolsk is the heart of the cluster. Its production capacities include NGL fractionation trains, production of LPG, butadiene, isobutylene, PP and MTBE.

The cluster's further development will be driven by the construction of a deep hydrocarbon conversion facility – ZapSibNeftekhim. Not only is it SIBUR's large-scale project in the Tyumen Region, but also the largest petrochemical plant in Russia, which is set to provide feedstock for almost all industries across the country.



The development of the West Siberian cluster is fuelled by the construction of ZapSibNeftekhim.

A BRIGHT EXAMPLE OF THE LARGEST GLOBAL CHEMICAL CLUSTER IS JURONG ISLAND CHEMICALS HUB LOCATED ON THE SAME-NAME ISLAND IN SINGAPORE. BY 2018, JURONG HAS ATTRACTED ABOVE USD 50 BN OF INVESTMENTS. TODAY, IT IS A CUTTING-EDGE HIGHLY INTEGRATED INFRASTRUCTURE AND ECOSYSTEM, WHICH CREATES PRODUCTION SYNERGIES AND SAVES CORPORATE FUNDS.

SIBUR's new facility successfully contributes to the nation's polyethylene (PE) import substitution and export strategy. While in 2017 PE imports accounted for 28%, it the product is expected to be fully localised in the long run after ZapSibNeftekhim is put in operation. What is more, half of that will be sold in the domestic market, whereas the other half will be exported to Europe and Asia.

Evidence suggests that a cluster has both macroeconomic effect and impact on its base region, provided there is sufficient infrastructure for clustering. "It does not draw enough attention yet," says Wenzhi Zou, member of SIBUR's Management Board and Deputy Head of the Foreign Affairs Department at China Petrochemical Corporation. "With the essential infrastructure in place, clusters can not only form industrial areas but shape the industry's entire ecosystem."

Particularly, SIBUR is a strategic partner in the development of the Tyumen Region.

"SIBUR benefits from active and balanced development of Tobolsk as a convenient city for life and work," says Mikhail Karisalov. "The Company is running a large-scale investment programme to build sports and cultural facilities, and redevelop the city. We have already drawn up the renovation and new construction projects. Importantly, it is not about building a separate neighbourhood – the programme will redesign the urban environment."

On top of the West Siberian cluster, SIBUR is also looking into the development of the Far Eastern cluster based on Amur GCC construction project, with China as the key market.

"These projects and the development of petrochemical clusters cannot do without support from the government," says Alexey Kozlov. "Only close cooperation between the state and business can yield an effective, competitive and forward-looking economy."



Russian Energy Week 2018 was held in Moscow in early October. Source: photo.roscongress.org.

TODAY, RUSSIA IS PLANNING 200 INNOVATIVE CHEMICAL PROJECTS FOR OVER RUB 1 TN. SINCE THE BEGINNING OF 2018, WE HAVE COMPLETED 10 PROJECTS FOR OVER RUB 2.8 BN OF INVESTMENTS.

According to Alexey Kozlov, success of a cluster requires three key stimuli: feedstock subsidies, project financing, and support of exports. “We work closely with the Ministry of Energy, Ministry of Industry and Trade and government to develop the support initiatives,” says Andrey Slepnev, General Director of the Russian Export Centre.

“Among these is taxation and treatment of processing for LPG, ethane and other elements in the product range. Absence of these measures could delay the project.”

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“We have identified key priorities for the chemical industry until 2030,” summarises Viktor Evtukhov, State Secretary and Deputy Minister of Industry and Trade, “and these are: moving away from commodity exports, chemicalisation of Russian products, and cluster approach.”