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MONTHLY NEWS

Chemical Industry News for Central Europe, South East Europe and Eurasia

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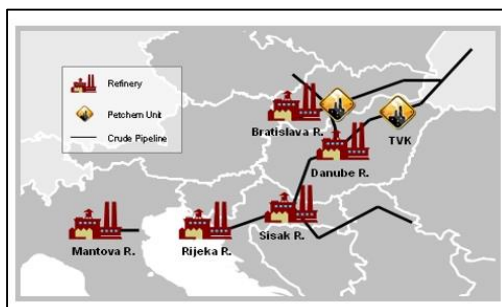
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CENTRAL & SOUTH EAST EUROPE



MOL's new strategy-focus on petrochemicals

MOL announced a new strategy in mid-October covering the next decade and up to around 2030, aimed at diversifying from fuels towards petrochemical and chemical value chains. The group has stressed that it aims to retain its integrated downstream focus. MOL has signalled plans to spend around \$1.5 billion in every five years up until 2030 on growth projects in the Central European region to expand in petrochemicals and chemicals.

MOL targets to increase its petrochemical feedstock intake to 3 million tpa and wants to enter new product groups such as synthetic rubber. Petrochemical and chemical investments are intended to be built upon existing hydrocarbon sites within MOL's refineries, mostly focused on TVK and Slovnaft in addition to the Danube refinery at Szazhalombatta. The investments should enhance MOL's current strategy of deepening its downstream integration along the value chain, whilst also moving towards semi-commodity and specialty products.

HIP Petrohemija-maintenance shutdown

HIP Petrohemija halted its cracker at Pancevo on 5 October for planned maintenance until 19 October. Closure of the cracker capacity of 200,000 tpa of ethylene impacted on the production of HDPE and LDPE, with a joint capacity of 90,000 tpa.

Slovnaft investing a further €20 million in ethylene cracker

Slovnaft is undertaking a cracker shutdown in October/November during which it will invest an additional €20 million in its further modernisation. The investment is aimed at increasing the operational reliability of petrochemical production, while reducing energy consumption. The work is planned to be undertaken in the period from 20 October to 17 November, involving about 800 employees and suppliers from Slovakia and abroad. This investment follows the construction of the LDPE4 unit, at a cost of around €300 million, raising capacity from the old unit at Bratislava from 180,000 tpa to 220,000 tpa. Slovnaft's ethylene capacity is currently 220,000 tpa and propylene 135,000 tpa.

Czech Petrochemical Imports (unit-kilo tons)

Product	Jan-Aug 16	Jan-Aug 15
Ethylene	107.1	10.0
Propylene	102.7	17.3
Butadiene	36.0	15.8
Benzene	60.4	56.7
Ethylbenzene	46.1	1.0

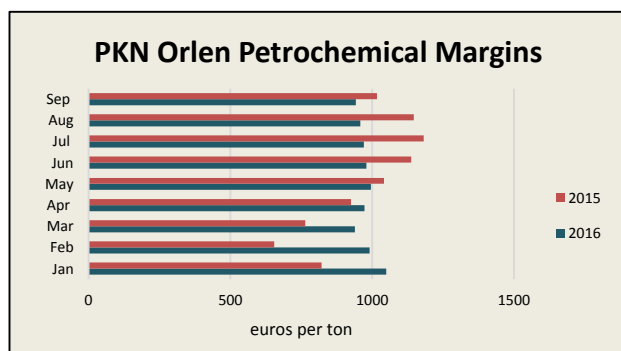
Central European refineries & petrochemical plants

Unipetrol RPA and Ceska Rafinerska have approved the merger which is part of a process of rationalizing the structure of the group Unipetrol. Formally the combination of Unipetrol RPA and Ceska Rafinerska will enter into force on 1 January 2017.

Unipetrol's model refining margin fell to \$1.6 per barrel in the third quarter, 45.2% down on the same quarter last year. The petrochemical margin was €841 per ton which is 10.8% less than in

2015, although it is still higher than the long term average. In the refinery division, Unipetrol is to resume full processing of crude at Kralupy by the end of October, which had been idle since May following an accident.

PKN Orlen's model petrochemical margin for the first three quarters this year was higher than the average level of 2015, despite extremely high numbers reported in the middle of last year. In September Orlen's model petrochemical margin was €942 per ton, 2% down on August and 7.5% less than in



September 2015 when it was €1,017 per ton. The average for the period January to September for Orlen was €977.4 per ton, 1% more than in the same period in 2015 (€965.3 per ton).

In October Iran stated that it had sold a two-million-barrel cargo of crude oil to Lotos. Other regional countries receiving Iranian oil include Hungary where MOL has been the recipient of a one-million-barrel cargo, whilst Austria and

Belarus are both interested in trade. Lotos could sign a long-term oil deal with Iran after receiving its first supplies from Iran. After the Iranian oil is refined, the refiners will have detailed results of the analysis. Poland imports most of its oil and gas from Russia, but wants to reduce that dependence. Besides Poland, Bosnia and Herzegovina has also received Iranian oil this year.



Polish gas supplies for refineries

PKN Orlen and PGNiG have entered into a new five-year contract for the sale of gas, with an estimated value of over zł 7 billion. PKN Orlen's largest user of gas in Poland is the fertiliser producer Anwil at Wloclawek.

PGNiG and Lotos have started trial deliveries of LNG; gas was transported by tank cars from the Lech Kaczynski LNG Terminal and delivered to the shipyard in Gdansk. The terminal at Swinoujscie allows PGNiG to efficiently transport LNG across the country. In mid-October, another large gas delivery was received at Swinoujscie by ship from Qatargas to be distributed in Poland via the National Transmission System.

Polish PTA Exports (unit-kilo tons)

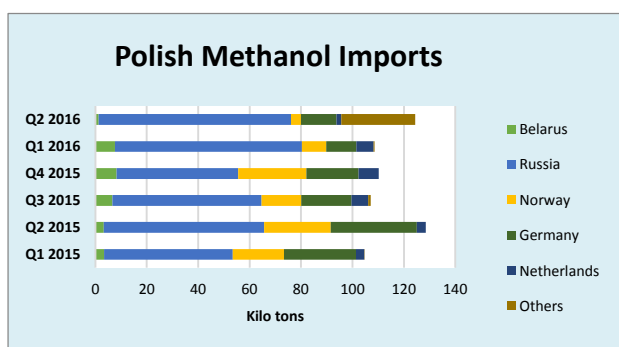
Country	Q1 16	Q2 16
Belarus	3.3	9.8
Russia	11.0	12.0
Turkey	4.2	2.7
Switzerland	0.4	0.4
Austria	0.5	0.7
Belgium	0.2	0.1
France	0.2	0.1
Netherlands	2.3	2.5
Lithuania	8.0	0.0
Germany	84.7	89.1
Romania	0.2	0.2
Slovenia	0.1	0.1
Italy	0.5	0.2
Total	115.6	118.1

Polish PTA Exports, Jan-Jun 2016

Polish exports of PTA totalled 233,000 tons in the first half of 2016 at an average price of €591/ton, falling from €635/ton in 2015 and €765/ton in 2014. The major end destination for Polish PTA exports remains Germany, accounting for 74% of shipments in the first half of the year and totalling 173,000 tons at a price of €595/ton.

Polish polyethylene trade, Jan-Jun 2016

HDPE imports into Poland totalled 132,012 tons in the first half of 2016 against import volumes of 105,623 tons. Germany and Hungary were the two largest suppliers to the Polish market. HDPE is the main category of polyethylene produced by the Orlen Group, including Unipetrol and Basell Orlen Polyolefins, whilst LDPE is not produced in the Czech Republic and only in small volumes in Poland. Imports of LDPE into Poland amount to over 400,000 tpa at present. In the first half of 2016 Poland imported 215,800 tons of LDPE, for which the major suppliers into Poland included Germany and the Netherlands.



Polish methanol imports, Jan-Jun 2016

Polish methanol imports totalled 233,000 tons in the first half of 2016, with 124,400 tons being supplied in the second quarter. Russia supplied 74,899 tons to the Polish market in the second quarter, following 72,744 tons in the first three months. Average import prices for Russian methanol amounted to €181 per ton in the first half of 2016 against the overall average of €191 per ton for Poland. More expensive methanol imports were sourced from the EU including Germany (€226/ton) and the Netherlands

(€214/ton), whilst the 13,295 tons purchased from Norway were priced at €207/ton.

Polish propylene imports, Jan-Jun 2016

Propylene imports into Poland totalled 83,000 tons in the first half of 2016 against 75,000 tons in the same period in 2015. Propylene is imported to meet the demand for oxo alcohols and propylene oxide.

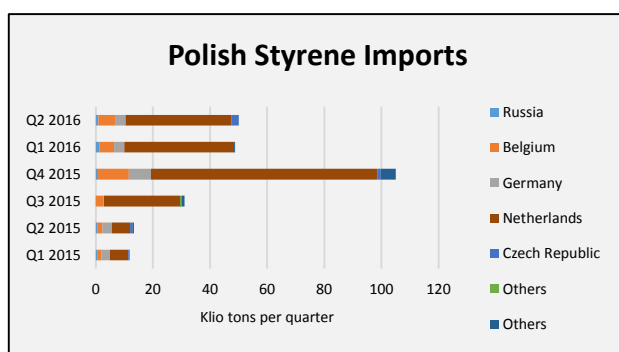
Poland Propylene Imports (unit-kilo tons)

Country	Q1 16	Q2 16
Russia	28.3	20.2
Azerbaijan	2.6	3.0
Bulgaria	0.3	0.0
Germany	9.8	13.9
Slovakia	0.0	1.3
Slovakia	0.0	1.3
Others	0.2	0.0
Total	43.2	39.6

In the first half of 2016 Russia was the largest source of imports, accounting for 28,300 tons in Q1 followed by 20,200 tons in Q2. Prices for propylene imports averaged €494/ton overall, including €450/ton for Russian supplies against €567/ton from Germany which supplied 23,700 tons to Poland in the first half of 2016.

Styrene imports into Poland rose significantly in the first half of 2016 to 98,940 tons against 25,187 tons in the same period last year. The main supplier to the Polish market was the Netherlands and the main consumer

Synthos where rubber production has risen this year following the introduction of new capacity.



Imports of styrene from the Netherlands totalled 75,430 tons in the first half of 2016, at an average of €959 per ton. The major changes in the Polish styrene market took place in the third and particularly fourth quarter in 2015.

Butadiene imports rose in the second quarter from the first quarter, increasing from 13,000 tons to 16,600 tons. MOL has been the largest supplier in 2016, accounting for 13,851 tons from its Hungarian plant. Other suppliers to the Polish market have included the Netherlands

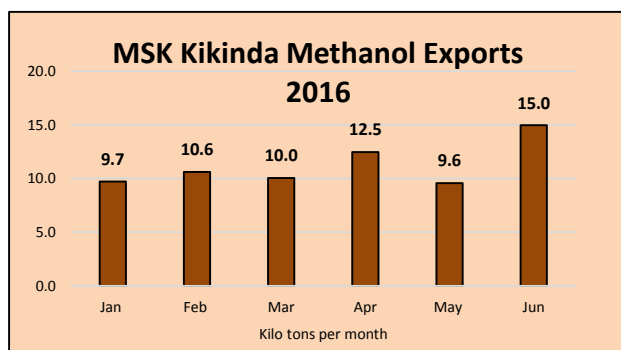
and Austria. Hungarian imports were by far the cheapest at €492 per ton on average, whilst imports from the Netherlands were priced at €544 per ton and from Austria at €720 per ton.

Polish Butadiene Imports (unit-kilo tons)

	Q1 16	Q2 16
Austria	3.2	5.8
Czech R	0.0	0.0
Netherlands	3.8	3.0
Hungary	6.1	7.7
Totals	13.0	16.6

MSK Kikinda-methanol production

Last year MSK Kikinda in Serbia restarted methanol production after four years of non-activity. After reaching agreement with Gazprom on a lower price of gas, accordingly which was to supply MSK at \$220 per thousand cubic metres, production was restarted in late 2015.



MSK set the target at the start of 2016 to produce 129,000 tons of methanol and 95,000 tons of acetic acid. Production this year allowed MSK to export 67,355 tons of methanol in the first half of 2016 against almost nothing in the same period last year. MSK started a shutdown in September which should last until November. As the plant is now active, various investors have shown interest in buying MSK, including Gazprom, Kronospan (Austria) and AzMeCo (Azerbaijan),

although no progress has been made.

Chemicals

Grupa Azoty-capital expenditure

Grupa Azoty's capital expenditure in H1 2016 totalled zł 551 million; including zł 69 million for the polyamide project at Tarnow and zł 44 million for the nitrate fertiliser unit at Tarnow, both scheduled to come online late this year or in early 2017. At Kedzierzyn, a CHP energy project is under way where zł 76 million was invested in the first half of 2016. Projects underway at Police include upgrade of the ammonia unit (zł 41 million), work on flue gas desulphurisation, and upgrade of the CHP plant (zł 11 million).

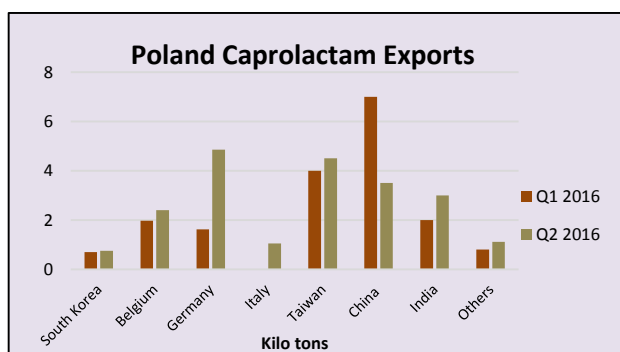
Czech Methanol Imports (unit-kilo tons)

Country	Jan-Aug 16	Jan-Aug 15
Germany	23.1	28.1
Russia	30.5	33.6
Serbia	5.2	0.0
Others	1.1	0.0
Total	59.9	61.6

Work also continued on the PDH-based propylene production project. Grupa Azoty estimates the total value of its project to build a propane dehydrogenation (PDH) unit at more than zł 700 million (\$2.693 million). The value has been estimated with the assumption that 30% will be financed by own capital and loans and 70% by lending. The final capital expenditure will be known after the contractor is selected. Grupa Azoty Police sees the PDH project as a key strategic development for the group. Raw material access for the plant at Police in northern Poland is straightforward, whilst the plant location is close to numerous waterways, which means that the products can be easily exported. Grupa Azoty Kedzierzyn is the most likely destination for domestic sales.

Grupa Azoty-Uhde polyamide project

Poland imported 45,881 tons of polyamide in the first half of 2016 against exports of only 1,568 tons. Export activity has dropped sharply this year as increased domestic consumption has restricted availability. At present Grupa Azoty is undertaking a new polyamide 6 project at Tarnow to meet increased domestic demand. Uhde Inventa-Fischer is the project manager in which the new plant is being designed to operate on a capacity of 80,000 tpa of polyamide 6, mainly for film applications and engineering plastics.



Caprolactam exports from Poland totalled 39,000 tons in the first half of 2016 at an average price of €1,088/ton. Caprolactam is produced at Azoty's two plants Pulawy and Tarnow. The major destinations for Polish caprolactam exports in the first half of 2016 included China, Taiwan and Germany. Exports have been in decline in the past few years due mainly to lower margins and opportunities in Asia, and Grupa Azoty's strategy is aimed at reducing export dependency by increasing polyamide capacity.

The new polyamide plant at Tarnow will use Uhde Inventa-Fischer's two-stage polyamide 6 process, which includes the cost-effective, feedstock-saving Overproportional Refeeding Process (OPRP®). The overall design concept enables the plant to be integrated into the existing industrial complex, thus allowing the use of existing infrastructure as well as the direct supply of the caprolactam feedstock. The project will raise the capacity to around 140,000 tpa and 30,000 tpa of composites.

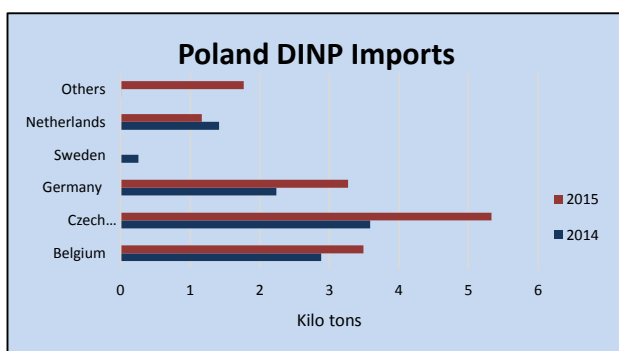
Polish plasticizer trade Jan-Jun 2016

Grupa Azoty Kedzierzyn exported 45,799 tons of 2-ethylhexanol in the first half of 2016, up from 41,793 tons in the same period in 2015. Average prices per ton dropped from €925 in the first half of 2015 to €699 in the same period in 2016. Destination countries were largely unchanged, with the three leading markets comprising the Czech Republic, Germany and France. Very little product is shipped outside of Europe.

Polish 2-EH Exports (unit-kilo tons)

Country	Jan-Jun 16	Jan-Jun 15
Czech R	7.7	6.9
Germany	8.1	6.9
Italy	4.1	6.7
France	9.3	6.0
India	0.0	4.0
Turkey	6.9	4.1
Belgium	2.5	3.3
Austria	1.6	1.3
South Korea	3.0	0.0
UK	0.7	0.4
Ukraine	1.0	0.0
Others	0.8	2.3
Total	45.7	41.8

DOP exports from Poland dropped to 4,966 tons in the first half of 2016 against 5,024 tons in the same period last year, whilst DINP exports almost doubled to 810 tons. DINP export prices averaged €1021 per ton whilst DOP exports averaged €909 per ton. The two main consumers for Polish DOP exports, mainly from the Boryszew plant, comprised Russia (1,345 tons) and Ukraine (1,138 tons). Italy was the largest EU country for Polish DOP exports, accounting for 650 tons in the first half of 2016. For DINP, Hungary was the largest destination for Polish exports in the first half of 2016, accounting for over 50% of deliveries or 411 tons.



Imports of DINP into Poland outweigh imports tenfold at present and totalled 8,633 tons in the first half of 2016, slightly up on the same period last year.

The main supplier of DINP to Poland is the Czech Republic, from Deza at Valasske Mezirici, which has increased shipments by around 50% in the first half of 2016. DINP imports into Poland rose last year to 15,031 tons from 10,392 tons in 2014 and 9,788 tons in 2013.

PCC Rokita-Thailand

PCC Rokita is looking at expanding its subsidiary IRPC Polyol Company in Bangkok. RPCP is a company belonging to the holding company IRPC, acting for 30 years in the chemical industry petrochemical products and petroleum products. IRPCP is a manufacturer and distributor of polyols in Thailand and Southeast Asia.

Product	Jan-Aug 16	Jan-Aug 15
Caustic Soda Liquid	225.6	211.1
Caustic Soda Solid	46.7	38.2
Soda Ash	819.9	705.2
Ethylene	363.6	371.5
Propylene	263.6	264.6
Butadiene	44.1	42.6
Toluene	10.7	7.3
Phenol	24.9	26.1
Caprolactam	108.3	108.9
Acetic Acid	5.9	7.2
Polyethylene	257.6	265.6
Polystyrene	37.7	27.2
EPS	61.8	52.6
PVC	199.7	216.7
Polypropylene	181.6	169.9
Synthetic Rubber	150.2	126.3
Ammonia (Gaseous)	1699.0	870.5
Ammonia (Liquid)	63.6	899.6
Pesticides	17.7	20.2
Nitric Acid	1481.0	1554.0
Nitrogen Fertilisers	1267.1	1292.0
Phosphate Fertilisers	323.7	325.6
Potassium Fertilisers	272.6	251.6

PCC Rokita has repaired and restarted its chlorobenzene plant which was stopped four months ago following a fire. In the first quarter this year PCC Rokita completed its investment in the construction of a plant for the production of pre-polymers. This installation allows the production of new products, used in industries such as construction and furniture, and also used for sports surfaces. PCC Rokita also started the first stage of the project to build a new, universal system, which will be used to produce a wide range of phosphorus products. The completion date is scheduled for mid-2017.

Spolana-chlorine conversion

Spolana is seeking to change the production of chlorine not only reduce the amount of mercury discharged, but also emissions. The company has announced a tender for the necessary modification to the production of chlorine, which still uses the so-called amalgam technology. The permit to use the technology expires in mid-2017, and thus some flexibility from the authorities may only be feasible if the company has already identified and set up a project contractor and project time-schedule. It is not yet clear how much the project

will cost at this stage.

Sector	Jan-Aug 16	Jan-Aug 15
Car Tyres	186.8	178.5
Bus & truck Tyres	135.4	130.3
Agricultural tyres	19.5	17.6
Total	341.7	326.4

Polish tyre production, Jan-Aug 2016

The tyre market in Poland recorded growth in the number of pieces produced in the first eight months in 2016 and thus higher synthetic rubber production. A total of 341,700 tons of synthetic rubber was consumed by Polish tyre plants in the first eight months in 2016 against 326,400 tons in the same period in 2015.

Global players, such as Goodyear, Michelin, Continental, Bridgestone, and Pirelli, among others are few of the prominent brands operating in Poland tyre market. Bridgestone operates two tyre manufacturing plants in the country, and Goodyear and Michelin operate one tyre plant each in Poland. Growth in the tyre market is anticipated on account of high motorization rate, growing number of greenfield projects, coupled with increasing FDI investments into the country.

RUSSIA

Russian Chemical Production (unit-kilo tons)

Product	Jan-Aug 16	Jan-Aug 15
Caustic Soda	730.6	746.9
Soda Ash	1,958.7	2,017.0
Ethylene	1,829.2	1,870.0
Propylene	970.0	1,311.8
Benzene	794.8	810.0
Xylenes	384.4	368.1
Styrene	486.4	442.5
Phenol	162.2	165.2
Ammonia	10,500.0	9,700.0
Nitrogen Fertilisers	6,278.0	5,647.0
Phosphate Fertilisers	2,325.0	2,182.0
Potash Fertilisers	5,017.0	5,394.0
Plastics in Bulk	5,120.0	4,798.0
Polyethylene	1,449.0	1,207.0
Polystyrene	363.8	343.6
PVC	524.5	580.6
Polypropylene	866.2	901.3
Polyamide	103.9	92.9
Synthetic Rubber	961.7	1,021.9
Synthetic Fibres	100.5	84.6

Russian chemical market overview

Production in the Russian chemical industry rose by an aggregate of 4.9% in the first three quarters in 2016, although consumption has trended lower close to GDP levels. The lower rouble has provided a mild stimulant to growth in chemical industry application areas but the gains have been modest and some areas of consumption are yet to see any growth.

The production of plant protection agents has been one of the most prosperous areas in the past two years, with rises in insecticides, herbicides and fungicides, whilst domestic paint production has also risen although less than expected. The pharmaceutical sector has been one of the major casualties of Russia's economic contraction over the past three years. Despite the low production costs, the manufacture of pharmaceuticals has become unprofitable for some companies due to price controls.

Russian chemical commodity prices on the domestic market have risen this year in line with feedstock costs, thus tending to erode margins for some producers. Production volumes have risen slightly in some product areas, but overall rises have been modest. The chemical market trade deficit for Russia has shown a small decline in value terms more due to lower export values than lower imports. Overall imports have

somewhat surprisingly held up against 2015. The relative stability in oil prices has provided some basis for the Russian economy, helping to slow down the decline in recent months.

Rosneft acquires government stake in Bashneft

Rosneft has bought from the state a controlling stake in Bashneft, the deal being closed on 12 October for a sum of 330 billion roubles. The sale involves 50.0755% of the shares of Bashneft and the transaction price was determined on by VTB Capital. The deal seeks to exploit the synergy potential between Bashneft and Rosneft by optimising the mutual supply of oil, transport and logistics costs, etc. Bashneft owns three refineries with a total capacity of 21 million tpa, including the main petrochemical asset Ufaorgsintez.

Russian petrochemical projects

Sinopec-CNPC East Siberian petrochemical projects

Sinopec and CNPC are currently in negotiations with Rosneft and the Irkutsk regional government over two potential petrochemical projects in East Siberia. In early September, Rosneft and Sinopec signed an

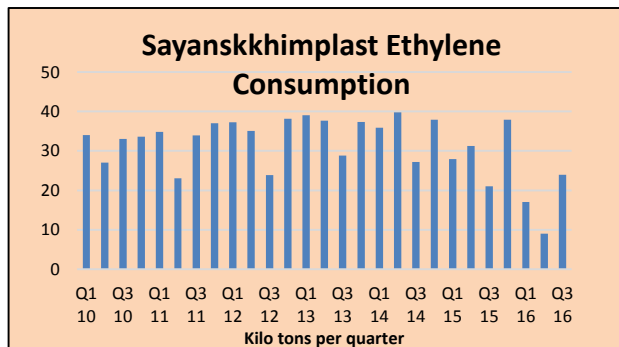


agreement on a feasibility assessment of a possible project at Boguchany in the Krasnoyarsk Kray, aimed at the production of polyethylene and polypropylene. Sinopec and Rosneft will report in 2017 on whether there are sufficient grounds for a

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The provisional capacities of the potential complex at Boguchany could include 5 billion cubic metres of natural gas per annum and up to 3 million tpa of polymers and petrochemical products. The main

intention would be for sales to be shipped to Russian and Chinese markets. The project resource base for a potential petrochemical complex at Boguchany comprises Rosneft's oil and gas fields in the Yurubcheno-Takhomsky cluster in East Siberia.

The government of the Irkutsk region and the management of China National Petroleum Corporation (CNPC) are currently in the process of discussing the creation of a processing plant, partly to support PVC producer Sayanskkhimplast. The Irkutsk government is keen to attract Chinese investment to increase access to gas supply for the region and for the development of the petrochemical industry. Sayanskkhimplast has been interested in the construction of a new complex for the production of PVC, but even current ethylene arrangements are not sufficient to operate the Sayansk PVC facilities at full capacity.



Sayanskkhimplast has waited for more than a decade for a pipeline to be constructed from the

Kovytko gas condensate field, and although Gazprom this September has agreed to build the pipeline the timing of the project has not yet been approved. As a result, Sayanskkhimplast and the Irkutsk regional government is keen to examine other opportunities, whilst Chinese companies are examining options for petrochemicals in East Siberia. Previously Sinopec has shown interest in construction of a petrochemical complex in the Ussolye-Sibirsk area of Irkutsk

Rosneft-VNKH project Nakhodka

A meeting of the Eastern Petrochemical Company (VNKH) working group took place on 11 October between Rosneft, the regional administration and Minvostokrazvitiya (Ministry of Eastern Development) to outline the current project status. As the core anchor resident of the Primorsky petrochemical TOR (territory of priority development), Rosneft's VNKH refinery and petrochemical project is expected to provide up to 3,800 jobs during the construction process.

Preparations are already underway for housing for the construction staff for the VNKH project, whilst ChemChina has confirmed its 40% stake in the project leaving Rosneft with 60%. In addition, the agreement between Rosneft and ChemChina has specified the schedule for the FEED and start the preparation of infrastructure investment, in addition to outlining a roadmap for the project. The main issue for the VNKH project to be resolved is one of gas supply. Gazprom has thus far refused to agree upon pipeline connections to the Nakhodka VNKH site.



The VNKH complex is thus to act as the anchor resident of the Petrochemical TOR in the Primorsky Krai, with the aim of attracting other investors to region to build derivative and application outlets, such as synthetic rubber, tyres, plastics, etc. TORs started to be introduced in the Russian Far East in 2014, and differ in structure from the Special Economic Zones which were established in Russia over a decade ago. The objective remains fundamentally the same which is to attract new

investment. The Primorsky Krai administration has already prepared an application for the establishment of the petrochemical TOR at Nakhodka, which will shortly be sent to Minvostokrazvitiya. Documentation on the VNKH project is now completed work on the development of project documentation, and the transfer of document for state examination is planned before the end of 2016.

ZapSib-2 fractionation column for cracker delivered and installed

The primary fractionation column for SIBUR's ZapSib-2 cracker (length 51.7 metres, 12.7 metres in diameter and weighing 866 tons), was installed in September, together with an absorber column that separates the gas mixture into components. The most difficult parts of the complex to be delivered have included the column separation for propane fraction (each 106 metres in length, 8.5 metres in diameter and weighing 917 tons).

ZapSibNeftekhim-logistics platform

SIBUR has received from Russian state organisation Glavgosekspertiz a positive conclusion for the construction of logistics platform for the petrochemical complex ZapSibNeftekhim. The object area of 12 hectares is intended for intermediate storage, packaging and shipment of finished products from the production of polyethylene and polypropylene plants. The platform will include a set of packaging, storage and shipment; - Silage production storage warehouses; three overpass pipelines; and a container deck, which will be shipped in the order of 300 rail containers of products per day.

The logistics platform will expand the geography of supplies of finished products to be carried out across Russia, as well as in Europe and Asia-Pacific countries. Also will be developed a new logistics technology for the delivery of products. SIBUR is undertaking tender procedures for the selection of service providers for the production of packaging films and trays for polymer products from ZapSibNeftekhim at Tobolsk.

In mid-September other pieces of equipment delivered to the site comprised a de-ethanizer (length of 49.2 metres, 71.8 metres in diameter and weighing 270 tons) and the separation column (length 65.01 metres, 80 metres in diameter and weighing 472 tons).

The last batch of large equipment was delivered to Tobolsk at the end of September. This batch included compressors and turbines which will be transported to the construction site ZapSibNeftekhim in September-November 2016.

Novy Urengoy Gas-Chemical Complex, October 2016

The VIS Construction Group undertook supply of large-scale process equipment from Germany to the site Novy Urengoy Gas and

Chemical Complex in September, as part of the latter stages of the project. The cargo was transported from St Petersburg to Novy Urengoy through water and road transport, involving more than 23 vehicles.



Novy Urengoy Gas-Chemical Complex

Sberbank's supervisory board approved the granting of foreign currency loans in August worth \$760 million and €240 million for completion of the Novy Urengoy project. The VIS Construction Group has managed trials recently of the gas turbine power plant built at the Novy Urengoy Gas and Chemical Complex, successful tests being made by VIS Automation with the involvement of Siemens and General Electric.

The design capacity of the gas turbine power plant is 120 MW which will be enough to supply power to the Novy Urengoy Gas Chemical Complex and also customers. Another aspect of the project involves

third-party

the tender announcement of Novy Urengoy Gas and Chemical Complex for the construction of incineration plant estimated at more than 1 billion roubles.

Russian Ethylene Production (unit-kilo tons)

Producer	Jan-Aug 16	Jan-Aug 15
Angarsk Polymer Plant	49.2	118.7
Kazanorgsintez	353.6	387.6
Stavrolen	202.5	115.0
Nizhnekamskneftekhim	392.7	405.3
Novokuibyshevsk PC	42.8	44.8
Gazprom n Salavat	211.4	165.2
SIBUR-Kstovo	264.5	236.6
SIBUR-Khimprom	57.0	32.2
Tomskneftekhim	139.2	178.0
Ufaorgsintez	86.5	91.0
Total	1799.4	1774.4

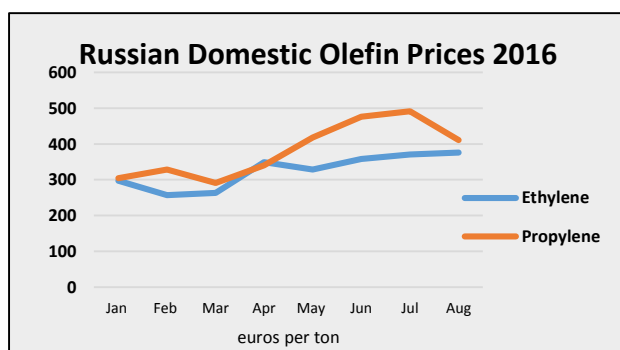
12,790 tons which was 28% up on July. Sales of propane to petrochemical plants amounted to 15,840 tons in August, 32% up on July.

Russian petrochemical producers & markets

Russian petrochemical feedstocks, Jan-Aug 2016

NGL supply to the domestic market rose 9% in September to 228,490 tons, of which 76,690 tons was sent to petrochemical plants. SIBUR-Kstovo reduced purchases by 68% in September to 14,930 tons, whilst Tomskneftekhim increased its consumption by 2.4 times to 26,630 tons.

In the first nine months of 2016 the volume of supply of NGL on the Russian market amounted to 2.83 million tons, which is 3% less than in 2015. NGL sales specifically to petrochemical plants totalled 1.026 million tons against 970,000 tons in the same period last year. Stavrolen purchased propane for the first time in August, buying 2,000 tons, whilst Kazanorgsintez purchased



Russian ethylene, Jan-Aug 2016

Ethylene prices in Russia have seen little change in rouble terms this year but due to the stronger rouble have risen from €297.3 per ton in January to €376 per ton in August. Propylene prices followed the same trend until August when oversupply led to a price reduction and are yet to recover.

increased production 5.4 times up to 23,500 tons. In addition, Angarsk Polymer Plant and Nizhnekamskneftekhim increased production of the monomer by 1.9 times to 17,800 tons and 48,600 tons respectively, and Gazprom neftekhim Salavat neftekhim by 49% to 30,300 tons. In the first eight months of 2016 1.8 million tons of ethylene were produced in Russia, similar to last year.

Russian ethylene production amounted to 251,100 tons in August, 30% up on July. After the resumption of work Tomskneftekhim

Russian Propylene Domestic Sales (unit-kilo tons)		
Producer	Jan-Aug 16	Jan-Aug 15
Angarsk Polymer Plant	16.8	46.1
Omsk Kaucuk	1.9	4.1
SIBUR-Kstovo	78.1	68.6
Akrilat	0.4	3.7
LUKoil-NNOS	137.2	136.2
Tomskneftekhim	0.8	14.9
Gazprom neftekhim Salavat	0.0	2.0
Nizhnekamskneftekhim	0.0	0.0
Stavrolen	0.0	3.2
Tobolsk-Polymer	0.0	3.2
Ufaorgsintez	0.4	11.0
Total	235.7	294.8

Russian propylene market, Jan-Aug 2016

Propylene production rose 30% in August to 153,700 tons, including a rise by Tomskneftekhim of 6.2 times over July to 11,900 tons. In addition, Nizhnekamskneftekhim doubled output from July to 22,600 tons and Angarsk Polymer Plant by 1.9 times, to 10,200 tons. For the first eight months in 2016 Russian propylene production totalled 1.1 million tons, 8% more than in 2015. Domestic propylene sales of propane-propylene fractions totalled 119,500 tons in the first eight months in 2016, 23% more than in 2015.

Nizhnekamskneftekhim has commissioned a new propylene purification unit for the production of polypropylene. It is intended to remove from the raw materials from which during the polymerisation process obtained polypropylene, trace of methanol and water, which are catalyst poisons.

Maintenance at SIBUR-Kstovo affected propylene supply in the second half September, although Russian demand was lower due to a planned outage at the country's leading merchant buyer Saratovorgsintez. SIBUR-Kstovo restarted production in mid-October.

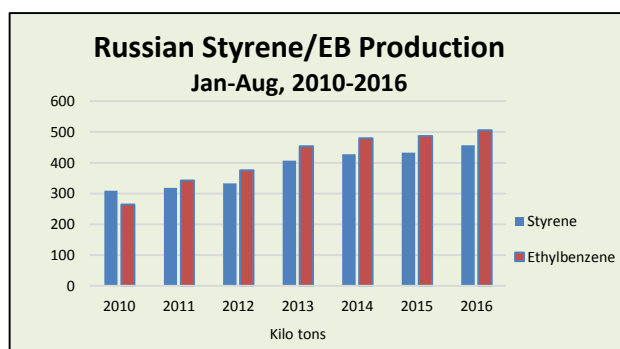
Russian Styrene Production (unit-kilo tons)		
Producer	Jan-Aug 16	Jan-Aug 15
Nizhnekamskneftekhim	198.3	202.9
Angarsk Polymer Plant	10.2	22.7
SIBUR-Khimprom	94.5	81.9
Gazprom n Salavat	116.4	99.0
Plastik, Uzlovaya	37.3	29.8
Total	456.7	436.3

In the Russian merchant market for propylene the acrylonitrile producer Saratovorgsintez remained the largest buyer in 2015. SIBUR-Khimprom, which uses propylene for oxo-alcohol production, is the second largest buyer in the Russian market. Other buyers of merchant propylene include Akrilat at Dzerzhinsk, for the production of acrylates, Samaraorgsintez for cumene, and the Plant of Synthetic Alcohol which uses propylene

for the production of isopropanol.

Russian styrene, Jan-Aug 2016

Russian styrene production amounted to 62,600 tons in August, 40% up over July due to plants returning from maintenance. Nizhnekamskneftekhim produced 24,300 tons of monomer, Gazprom neftekhim Salavat 17,900 tons and SIBUR-Khimprom 10,800 tons. Angarsk polymer plant produced 3,700 tons, and Plastik 5,900 tons. In the first eight months' Russian styrene production totalled 456,700 tons which was 5% up on the same period in 2015.



The restart of the Angarsk Polymer Plant at the start of the third quarter tended to soften styrene pricing on the domestic market, after large rises in the second quarter. From March to June, styrene prices rose monthly but the situation started to change after the resumption at Angarsk Polymer Plant on 30 June. Styrene exports have risen 10% this year as producers have found foreign shipments more profitable than domestic sales.

Styrene shipments on the domestic market rose 15% in September to 10,800 tons. Gazprom neftekhim Salavat shipped 4,200 tons, 20% up on August, whilst SIBUR-Khimprom nearly doubled volumes to 4,200 tons. Angarsk Polymer Plant increased shipments by 25% to 2,400 tons. In the first nine months of 2016 Russian producers shipped 73,900 tons to the domestic market, 7% up on the same period in 2015.

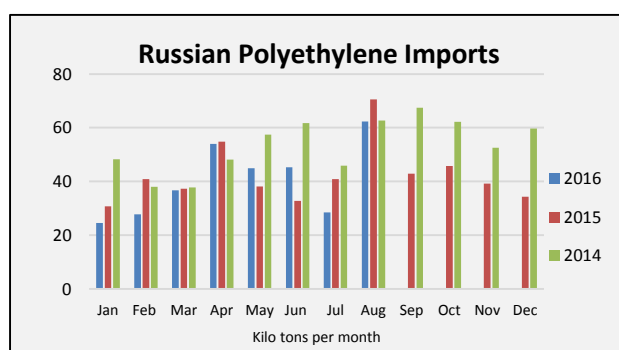
Bulk Polymers

Russian HDPE Production (unit-kilo tons)		
Producer	Jan-Aug 16	Jan-Aug 15
Kazanorgsintez	328.9	344.1
Stavrolen	180.2	102.8
Nizhnekamskneftekhim	92.5	102.1
Gazprom neftekhim Salavat	73.8	60.8
Total	675.4	609.8

Russian HDPE production, Jan-Sep 2016

Russian HDPE production rose 13% in January-August 2016 compared to the same period in 2015 and totalled 675,500 tons against 599,400 tons. Kazanorgsintez reduced production in the first eight months by 4% to 329,000 tons, Stavrolen at Budyennovsk produced 180,200 tons against 103,600 tons, Nizhnekamskneftekhim was unchanged at 92,500 tons and Gazprom neftekhim Salavat increased production to 73,800 tons from

59,600 tons. In other polyethylene categories LDPE production fell from 435,100 tons to 394,700 tons in January to August 2016, whilst LLDPE rose from 39,900 tons to 48,800 tons.



Gazprom neftekhim Salavat stopped production of HDPE on 1 October for scheduled maintenance, lasting one week. The company produced 24,400 tons of HDPE in the first eight months in 2016. Kazanorgsintez stopped production of HDPE for maintenance in late September for around three weeks. Production restarted in mid-October. For the first nine months in 2016 Kazanorgsintez produced 371,900 tons of HDPE which is 3% up on 2015.

Whilst shutdowns by Gazprom neftekhim Salavat and Kazanorgsintez were planned in advance, Stavrolen has only recently restarted HDPE and polypropylene production after an unplanned stoppage of around 20 days. For the first nine months in 2016 Stavrolen produced 205,600 tons of HDPE and 87,800 tons of polypropylene.

Russian HDPE Imports (unit-kilo tons)		
Category	Jan-Sep 16	Jan-Sep 15
Extrusion	16.4	36.8
Pipe	17.4	24.9
Film	19.3	12.9
Blow	23.4	19.3
Injection	27.7	35.1
Others	8.7	9.1
Total	112.9	138.1

Russian polyethylene imports, Jan-Sep 2016

In the first nine months of 2016 Russian polyethylene imports fell by 12%. Declines were noted in HDPE and LLDPE imports. LDPE imports rose slightly from 63,200 tons to 65,000 tons, whilst imports of ethylene vinyl acetate rose to 16,400 tons from 11,700 tons.

HDPE imports to the Russian market decreased by 20% during the first three quarters to 112,900 tons against 138,100 tons in the same period in 2015. A major reduction in imports was registered in the segments of pipe extrusion and extrusion coating of large diameter steel pipes. Imports of HDPE pipe grades in the first three quarters was reduced by a third to 17,400 tons. Higher domestic production

and weaker demand for pipes were among the main reasons for the fall in imports. Demand for injection moulding polyethylene decreased by 22.2% to 27,700 tons for the three quarters.

The supply of polyethylene for extrusion blow moulding increased by 20.6% for the nine months and amounted to 23,400 tons. Imports of HDPE film rose to 19,300 tons compared to 10,800 tons. Uz-Kor Gas Chemical from Uzbekistan, occupied a leading position in this product segment. External supply of HDPE for the other consumption sectors declined for three quarters to 8,700 tons against 9,100 tons in 2015.

Russian polypropylene imports, Jan-Aug 2016

Russian imports of polypropylene totalled 117,500 tons in January to August 2016, 14% up on the same period in 2015. The largest increase was in the supply of propylene homopolymer which rose from 45,800 tons to 56,000 tons. The lowest supply increase was recorded in the stat propylene copolymer segment due to significant growth of Russian domestic production at Nizhnekamskneftekhim, and Stavrolen Tomskneftekhim. Imports of stat propylene copolymers rose 3% to 22,400 tons, whilst block copolymer imports rose 19% to 21,000 tons.

Russian Polypropylene Production (unit-kilo tons)		
Producer	Jan-Aug 16	Jan-Aug 15
Ufaorgsintez	80.6	85.8
Stavrolen	77.3	74.9
Neftekhimya	85.5	78.3
Nizhnekamskneftekhim	144.4	145.7
Polyom	139.0	137.5
Tomskneftekhim	82.2	93.9
Tobolsk-Polymer	286.0	240.0
Total	895.0	845.8

In the first eight months' Russian polypropylene production increased by 5% against the same period in 2015, totalling 895,000 tons versus 853,100 tons. Tobolsk-Polymer produced 286,000 tons against 240,500 tons whilst Polyom increased production from 135,500 tons to 139,000 tons. Neftekhimya at Kapotnya increased production 10% to 85,800 tons, Stavrolen increased production from 74,900 tons to 77,300 tons and Nizhnekamskneftekhim produced 144,400 tons against 145,700 tons. Ufaorgsintez reduced production by 5% to 79,800 tons and Tomskneftekhim by 13% to 82,200 tons.

Russian PVC market, Jan-Sep 2016

Russian PVC production totalled 565,000 tons in the first three quarters, 2% lower than the same period last year. RusVinyl produced 224,700 tons in the first nine months in 2016 against 169,200 tons in 2015, including suspension and emulsion grade.

Russian PVC Production (unit-kilo tons)		
Producer	Jan-Sep 16	Jan-Sep 15
Bashkir Soda	190.7	176.4
Kaustik	64.8	71.6
RusVinyl	224.7	169.2
Sayanskkhimplast	84.8	161.2
Total	565.0	578.4

Bashkir Soda Company increased PVC production at Sterlitamak by 8% in January to September 2016 to 190,700 tons, whilst Kaustik at Volgograd reduced output by 9% to 64,800 tons. Sayanskkhimplast due to downtime in March and June reduced production volumes by 47.5% from 161,500 tons in the same period last year. In September, the company produced 22,000 tons of PVC,

and in August 20,000 tons.

Imports of suspension PVC into Russia totalled 115,600 tons in the first nine months of 2016, up by 78% from 67,000 tons in 2015. The unscheduled long shutdown at Sayanskkhimplast's PVC production was the main factor behind the higher demand for imports. PVC imports decreased in September to

Russian polycarbonate, Jan-Sep 2016

Russian production of polycarbonate totalled 54,200 tons in the first nine months in 2016, 11% up on 2015 when production totalled 48,500 tons. PC grades for sheet extrusion accounted for 90% from the total production in January-September, which corresponds to the structure of consumption of the Russian market.

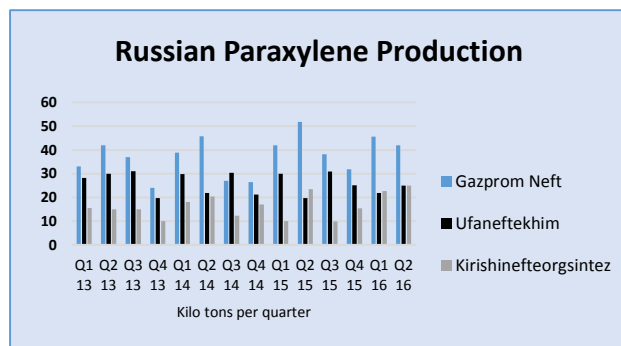
slightly over 26,400 tons on the back of weaker demand and stable operations at Sayanskkhimplast after record volumes of 30,900 tons in August.

China accounted for 94,000 tons of imports in the first three quarters in 2016 against 43,400 tons in the same period in 2015. US producers increased volumes to the Russian market from 13,700 tons to 17,600 tons in the first three quarters in 2016. Imports are expected to weaken in the fourth quarter due to the resumption of normal production volumes and lower seasonal demand.

PX-PTA-PET

Bashneft-paraxylene expansion and modernisation

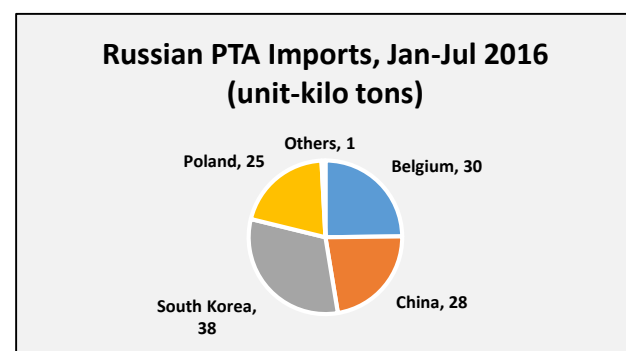
Bashneft has announced a tender worth up to 1.59 billion roubles (\$270 million) for the reconstruction of the aromatics complex at Ufaneftkhim. Assuming that the Rosneft takeover will not affect investment plans, Bashneft has signalled two stages of the project, lasting from 1 December 2016 to 30 April 2017 and from 1 May to 28 July 2017. As a result of the reconstruction process, paraxylene capacity is being increased from 160,000 tpa to 260,000.



Russian state organisation Glavgosexpertiz has already approved the project documentation for reconstruction of the aromatics complex at Ufaneftkhim. Results of the engineering survey and design documentation comply with technical regulations and other statutory requirements.

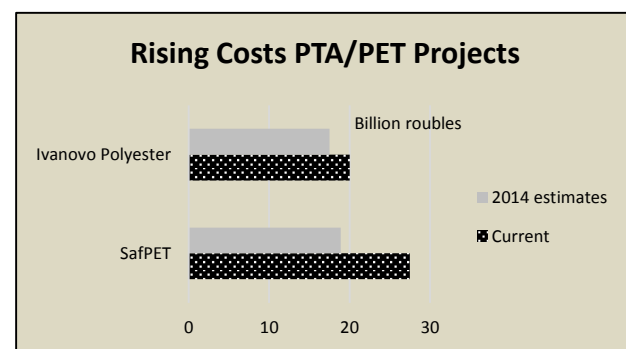
Ufaneftkhim is located at Ufa in Bashkortostan and started production in 1982. The refinery site area comprises 9.1 hectares, where 11 process units operate for the production of gasoline, naphtha and aromatics. In August this year, Bashneft and SIBUR agreed commercially on the supply of at least 120,000 tpa of paraxylene to be supplied from Ufaneftkhim to Polief up until 2037. SIBUR is reported to be willing

to consider an increase in the consumption of paraxylene, if Bashneft is successful in expanding production capacity at Ufaneftkhim. Ufaneftkhim produced 112,050 tons of paraxylene in 2015, 46,420 tons of orthoxylene.

**Russian PTA imports, Jan-Jul 2016**

PTA imports into Russia totalled 122,000 tons in the first seven months in 2016 against 116,000 tons in the same period in 2015. This year shipments have been divided largely four ways between China, Belgium, South Korea and

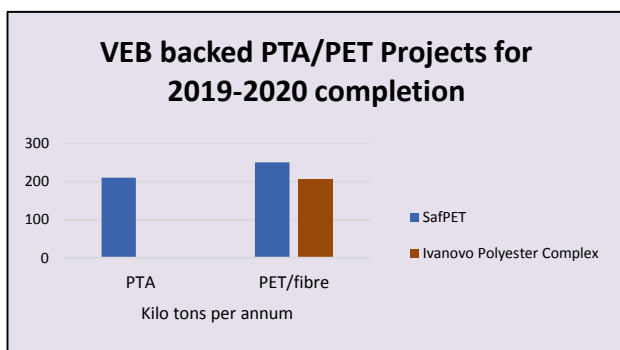
Poland. Alko-Nafta in the Kaliningrad region is a main buyer of PTA from China and recently held talks with Chinese company Hengli Petrochemicals over future supply. TD Ecopolymer, which is the exclusive distributor of PET produced in Kaliningrad, has signed a number of contracts with Chinese suppliers.

**VEB support for Russian PET projects**

Russian bank Vnesheconombank (VEB) is currently involved in assessing and financial loans for the production of PET in the Ivanovo region and the PTA/PET project at Nizhnekamsk.

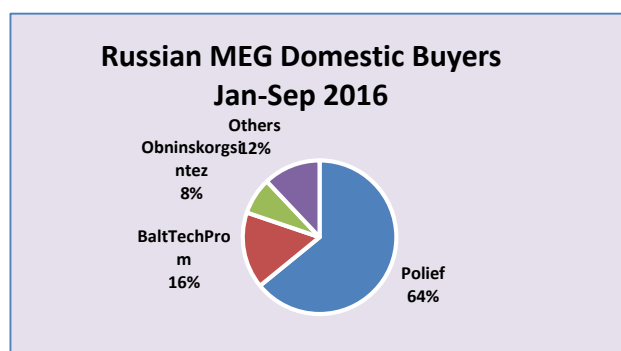
Expenditure on the Ivanovo project has risen to around 20 billion roubles from 17-18 billion roubles estimated in 2014. This is due to the rouble depreciation and delays in construction which now can only start in 2017 at the earliest.

In terms of funding shares in the Ivanovo project, 80% is being sought from VEB and the remaining 20% through private investors. In March 2016 Ivanovo Polyester Complex (IPK) signed a contract with the Czech company Unistav Construction to supply working documentation, and the supply of auxiliary equipment for other facilities, construction and installation and commissioning. The capacity of the plant was originally planned to produce up to 170,000 tpa of staple fibre and up to 30,000 tpa of textile industry granulate, but these plans have been altered on several occasions and currently staple fibre capacity could attain 205,000 tpa.



The VEB bank is also active in the SafPet project in Tatarstan, where project documentation is to be sent for state examination before approval can be given. A site area of around 20 hectares has been designated for the proposed complex, and to date the contractors and licensors have been identified as Chemtex International and La Seda de Barcelona SA. Project investment costs for SafPet have risen in the past year from 18.6 billion roubles to around 27.5 billion roubles, most of which is expected to be financed through VEB, if the project is approved.

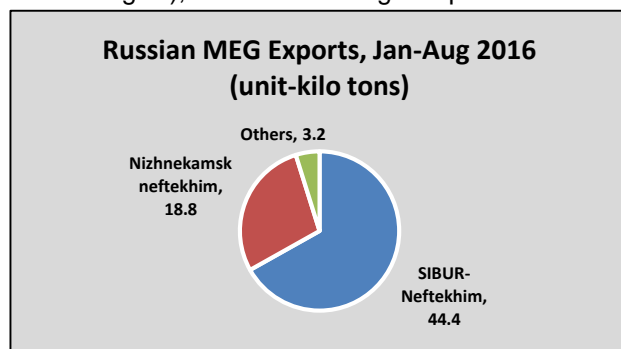
The project capacity for SafPet comprises 210,000 tpa of PTA, 250,000 tpa of PET, including 87,500 tpa of fibre and 25,000 tpa of film. Paraxylene is to be purchased from Tatneft when the new aromatics complex is constructed for Taneko at Nizhnekamsk, thus providing the full production chain. Provisional agreements on MEG supply have already been made with Nizhnekamskneftekhim. Final project costs will depend primarily on the exchange rate, since a substantial portion of the capital costs is from imported equipment.



There is currently no production of PET film in Russia and thus the SafPet project's plans to include 25,000 tpa of capacity for this product area could be profitable.

Russian MEG, Jan-Sep 2016

MEG sales on the Russian domestic market fell 38% in September to 7,500 tons of which SIBUR-Neftekhim supplied 6,400 tons. The remaining 15% share was divided between producers Nizhnekamskneftekhim, Kazanorgsintez and small trading companies. Nizhnekamskneftekhim reduced the supply of MEG by rail by 79% to 630 tons, whilst Kazanorgsintez shipped 112 tons (33% less than in August), and small trading companies 406 tons (down 28%). Polief bought 4,900 tons of MEG in September, accounting for 66% of consumption. In the first three quarters in 2016 sales of MEG on the domestic market totalled 101,800 tons.



MEG imports amounted to 3,000 tons in August, the same as July, all of which was supplied from Saudi Arabia. Russian company TD Ecopolymer imported 21,900 tons in the first eight months in 2016, 3.5 times more than in the corresponding period in 2015. MEG exports totalled 66,467 tons in the first eight months in 2016 against 69,946 tons in the same period last year.

Aromatics

Russian benzene market, Jan-Sep 2016

The export duty on aromatic hydrocarbons rose by 14.8% in October to \$36.6 per ton from September, returning to the August level. Benzene, toluene, xylenes in September were exported at \$32 per ton in September. Benzene production totalled 800,300 tons in Russia for the first eight months in 2016 against 805,200 tons in the same period in 2015. The major changes involved Angarsk Polymer Plant which reduced production from 45,200 tons to 20,500 tons whilst Gazprom neftekhim Salavat increased production from 79,900 tons to 108,500 tons.

Stavrolen restarted production in August after a break since January 2016, whilst after the extended maintenance Angarsk Polymer Plant doubled its production in August against July. Nizhnekamskneftekhim increased production 1.6 times to 14,700 tons and Gazprom neftekhim Salavat by 37% to 16,400 tons.

Leading Russian Benzene Consumers (unit-kilo tons)		
Consumer	Jan-Sep 16	Jan-Sep 15
Kuibyshevazot	77.7	110.7
Azot Kemerovo	62.3	74.3
Shchekinoazot	35.2	34.9
Kazanorgsintez	46.0	49.2
Nizhnekamskneftekhim	29.2	50.7
SIBUR-Khimprom	79.2	52.2
Uralorgsintez	46.3	51.3
SANORS	31.9	42.6
West Siberian MC	34.1	31.5
Uralorgsintez	46.3	51.3
Others	37.2	14
Total	525	567

Sales of benzene on the Russian domestic market totalled 525,300 tons in the first three quarters in 2016 against 562,700 tons in the same period last year. The decline was largely due to the reduction in benzene purchases for caprolactam primarily by Kuibyshevazot and to a lesser extent Azot at Kemerovo. Kuibyshevazot purchased more phenol in the first half of 2016, although that trend seems to have slowed down in the third quarter. SIBUR-Khimprom was the only consumer to report a significant rise in purchasing. Regarding suppliers, the Atyrau refinery in Kazakhstan supplied its first shipment of benzene to the Russian market in September, sending 1,156 tons to Kuibyshevazot.

Shchekinoazot and Rosneft have come to an agreement on the supply of benzene from the group refineries, including Ryazan. Shchekinoazot purchased 35,200 tons of benzene in the first three quarters in 2016 against 34,900 tons in the same period last year.

In Tatarstan Kazanorgsintez purchased 46,000 tons of benzene in the first three quarters in 2016 against 49,200 tons in 2015, whilst Nizhnekamskneftekhim reduced purchases from 50,675 tons to 29,210 tons in the period January to September 2016. The company plans to carry out reconstruction of the reactor block of the second hydrogenation stage to expand its own production of benzene.

Russian orthoxylene , Jan-Aug 2016

Orthoxylene sales on the Russian domestic market amounted to 87,140 tons in the first eight months in 2016, 2% up on the same period in 2015. Kamteks-Khimprom increased purchases in August by 27% to 3,790 tons, Gazprom neftekhim Salavat increased 2.1 times to 1,000 tons and Dmitrievsky Chemical Plant increased purchases by 8% to 770 tons.

Russian Orthoxylene Exports (unit-kilo tons)		
Producer	Jan-Aug 16	Jan-Aug 15
Gazprom Neft	38.4	53.4
Kirishinefteorgsintez	13.5	32.2
Ufaneftekhim	16.8	4.0
Total	68.7	89.6

In August, exports of orthoxylene from Russia amounted to 6,590 tons which is 24% more than in July. Kirishinefteorgsintez shipped 2,580 tons, Ufaneftekhim 2,030 tons and the Omsk Refinery 1,810 tons. Also in August Dmitrievsky Chemical Plant exported 150 tons. More than 50% of exported Russian orthoxylene in August went to Finland (3,320 tons), 30% to the

Netherlands (1,990 tons), Turkey (980 tons or 15%) and Ukraine (270 tons, or 4%). From January to August 2016 exports of orthoxylene from Russia totaled 70,100 tons which is 31% up on 2015.

Russian Market Phenol Sales by Supplier (unit-kilo tons)		
Producer	Jan-Sep 16	Jan-Sep 15
Omsk Kaucuk	0.0	0.0
Novokuibyshevsk PC	26.7	35.1
Kazanorgsintez	4.6	11.6
Ufaorgsintez	32.6	32.4
LUKoil-VNPZ	0.4	0.5
Borealis	3.1	2.6
Total	67.3	75.3

Russian phenol, Aug-Sep 2016

Phenol production in Russia rose 10% in August against July to 15,300 tons. Kazanorgsintez increased production after maintenance by six-fold to 6,500 tons, whilst Novokuibyshevsk Petrochemical Company reduced production by three times to 2,200 tons. Ufaorgsintez produced 6,500 tons in August unchanged from July. September production volumes are higher due to the resumption at Novokuibyshevsk Petrochemical Company.

Phenol sales on the domestic market amounted to 8,028 tons in September which is 10% less than in August. Ufaorgsintez shipped 5,616 tons to domestic customers,

Novokuibyshevsk Petrochemical reduced the shipment of phenol to the domestic market by 70% to 865 tons and Kazanorgsintez reduced sales by 19% to 1,547 tons. Domestic sales in September went primarily to manufacturers of phenol-formaldehyde resins, 78% or 7,700 tons, whilst another 17% or 1,700 tons was bought by Kuibyshevazot for caprolactam production. Another 4% went to Nizhnekamskneftekhim for alkylphenols or 420 tons of phenol. For the first three quarters sales of phenol on the domestic market totalled 67,300 tons against 75,300 tons in the same period in 2015.

Russian Toluene Domestic Sales (unit-kilo tons)

Producer	Jan-Sep 16	Jan-Sep 15
Novopiletsk MK	0.2	1.5
Slavneft-Yanos	17.4	21.8
Severstal	5.3	5.6
LUKoil-Perm	21.6	11.2
Gazprom Neft	68.7	35.5
Zapsib	2.2	3.1
Kinef, Kirishi	25.8	20.9
Gazprom Neftekhim Salavat	0.3	0.1
Others	0.0	0.9
Total	141.4	100.7

Source: Chem Courier

Russian toluene market, Aug-Sep 2016

Toluene sales on the Russian domestic market amounted to 13,280 tons in September, 32% less than in August this year. Over the month, explosives manufacturers reduced purchases of toluene by 3.4 times to 510 tons, whilst paint manufacturers reduced the volume of purchased raw materials by 13%, to 2,510 tons. Manufacturers of motor fuels and additives reduced toluene shipments by 28% to 5,810 tons, whilst another 290 tons was bought by companies that use it as a solvent for rubber. From January to September 2016 toluene deliveries to the domestic market totalled 141,150 tons which is 43% more than the same period of 2015.

Toluene production amounted to 35,550 tons in August, 5% up on July. Gazprom Neft produced 11,470 tons, the Ryazan refinery 5,750 tons and Slavneft-Yaroslavlnefteorgsintez 5,330 tons. Production for January-August 2016 amounted to 253,960 tons which is 12% more than in the same period in 2015.

Omsk Kaucuk investment aims

Russian Industrial Development Fund (EDF) conducted a preliminary assessment of applications to attract concessional loan for the project of modernization of capacities at Omsk Kaucuk. The maximum loan amount for which participants can apply for the program is 700 million roubles. Upgrading capacity Omsk rubber primarily involves technical re-equipment of production of phenol-acetone plants, which is scheduled for completion in the third quarter of 2017 and is expected to start commissioning the fourth quarter. The project provides for an increase in capacity in addition to the introduction of new technologies the alkylation of benzene, thereby increase production efficiency.

Also, the company intends to give up the aluminium chloride as a catalyst. The transition to the zeolite catalyst will allow Omsk Kaucuk to reduce costs in the production of phenol and acetone. Further company development plan involves the development of new products, including bisphenol-A and polycarbonate. In the rubber division Omsk Kaucuk has resumed production of latex and try to set up production to 2,500 tpa although the capacity exists to produce 5,000 tpa.

Sterlitamak Petrochemical Plant-insurance

Russian SOGAZ insurance company has insured Sterlitamak Petrochemical Plant for 130.6 million roubles. The insurance contract will last two years; it covers 971 pieces of equipment installed in the plant. The contract of insurance covers the risks of fire, water, natural forces and disasters, external influences, unlawful acts of third persons. In 2015 SNHZ achieved a net profit of 80.1 million roubles against 138.530 million roubles in 2014. The company's revenue increased by 15% and amounted to 7.39 billion roubles. Sterlitamak Petrochemical Plant is the only enterprise in Russia for the production of phenolic antioxidants Agidol. The synthetic rubber sector provides 80% of the company's revenues and MTBE 5%. Around 50% of production is exported. The company sells around 2,000 tons per month of butadiene polymerisation grade.

Synthetic Rubber

SIBUR Togliatti launches new SKMS product

SIBUR Togliatti (Togliattikaucuk) has launched a new brand of copolymer rubber, emulsion grade SKMS 30 ARKM-27, which have been successfully homologated with foreign consumers.

The new brand has a high molecular weight polymer and a high content of plasticizer oil. This grade is used for production of tyres and rubber products. The successful development of the production of new rubber stamps technology was made possible by the joint efforts of

specialists of industrial, technological, metrological services of the enterprise and the central laboratory. Togliattikaucuk produces three types of rubber including butyl rubber, copolymers and isoprene rubbers.

Russian C4 sales, Jan-Sep 2016

C4 sales to Russian synthetic rubber producers totalled 277,200 tons in the first three quarters in 2016 against 295,300 tons in the same period in 2015. Nizhnekamskneftekhim increased purchases from 111,700 tons from 117,600 tons, whilst Togliattikaucuk or SIBUR Togliatti increased from 113,000 tons to 114,600 tons. Due to lower rubber production Omsk Kaucuk reduced C4 purchases from 66,000 tons in the first three quarters last year to 42,600 tons in 2016.

Russian C4 Purchases (unit-kilo tons)		
Consumer	Jan-Sep 16	Jan-Sep 15
Omsk Kaucuk	42.6	66.0
Nizhnekamskneftekhim	117.6	111.7
SIBUR Togliatti	114.6	113.0
Sterlitamak Petrochemical	2.4	4.6
Efremov SR Plant	0.0	0.0
Others	0.0	0.0
Total	277.2	295.3

Source: Chem Courier

C4 sales from Azerbaijan were not shipped in August and September due to scheduled maintenance, whilst Naftan in Belarus encountered some technical difficulties which reduced volume imports into the Russian market over those two months. SIBUR-Kstovo undertook a shutdown in August limiting C4 sales to Togliattikaucuk and Voronezhskintezkaucuk. In the first nine months' Russian imports of C4s totalled 54,200 tons which is 6.5% less than in 2015.

Russian synthetic rubber exports, Jan-Jul 2016

Russian exports of synthetic rubber increased from 567,300 tons in the first seven months in 2015 to 583,900 tons in the same period this year. The biggest fall was recorded in SBR volumes, which declined from 51,300 tons to 38,300 tons whilst the largest rise was seen in isoprene rubber from 155,300 tons to 169,100 tons. Prices have fallen across the board since the early part of 2015, averaging \$1470 per ton for the whole of last year against \$1250 in the first seven months in 2016. The highest value product category exported from Russia is halogenated butyl rubber (HBR), which averaged \$1935 per ton in the period January to July 2016 against \$2463 per ton in the whole of 2015.

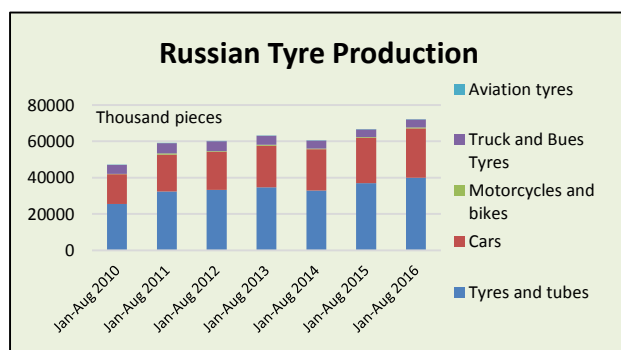
Russian Synthetic Rubber Exports (unit-kilo tons)		
Category	Jan-Jul 16	Jan-Jul 15
E-SBR	17.4	20.2
Block	23.6	21.2
SSBR	5.3	4.5
SBR	38.3	51.3
Polybutadiene	141.3	129.7
Butyl Rubber	76.5	82.2
HBR	70.9	65.9
NBR	18.3	18.4
Isoprene Rubber	169.1	155.3
Others	23.2	18.6
Total	583.9	567.3

on domestic production is expected to fall to 23 million units in 2016 against 26.3 million units in 2015 and 27.1 million in 2014. Last year, imports declined to 19.5 million units against 28.2 million units in 2014.

Russian tyre market

Consumption of tyres in the Russian market, based on domestic production is expected to fall to 23 million units in 2016 against 26.3 million units in 2015 and 27.1 million in 2014. Last year, imports declined to 19.5 million units against 28.2 million units in 2014.

Bridgestone opened its first unit for car tyre production in Russia in September, at Ulyanovsk. The production of radial tyres for passenger cars will be sold on the national market. Investment in the project amounted 12.5 billion roubles and has resulted in the construction of a plant capable of producing 2 million tyres per annum, with the ability to rise to 4 million. The leaders on the Russian tyre market include the Nokian Tyres (17 million per annum), Nizhnekamskshina (12.6 million), and Yaroslavl Tyre Plant (5 million).

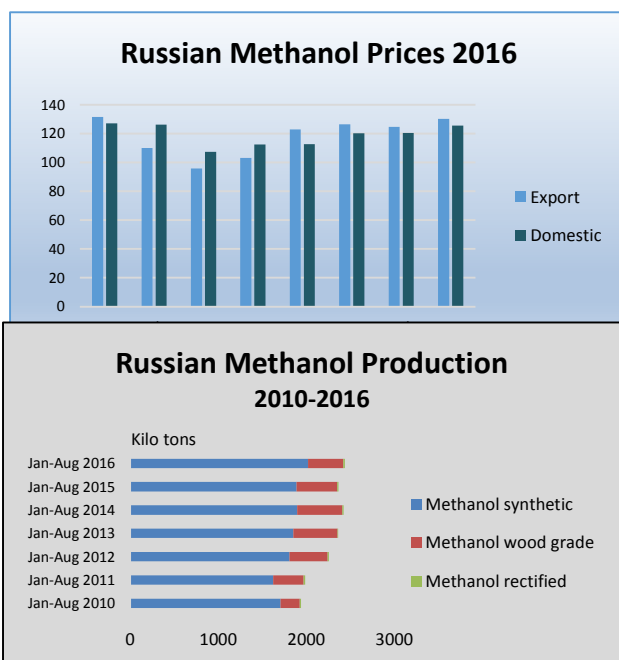


Russian economy and the car market in particular. Yokohama R.P.Z. was founded in 2008 for the production of automobile tyres at the SEZ Lipetsk. A total of 80% of the share capital in Yokohama R.P.Z. invested by The Yokohama Rubber Company whilst 20% is owned by ITOCHU Corporation.

Methanol

Russian methanol, Jan-Aug 2016

Russian methanol production amounted to 286,100 tons in August, 3% up on July. Tomet increased production 2.5 times over July to 44,000 tons, whilst Azot at Novomoskovsk increased by 4% to 25,000 tons and Akron rose by 50% to 7,700 tons. Shchekinoazot was unchanged at 42,000 tons whilst Ammoni at Mendelevsk produced 7,467 tons, which was 40% down on July due to maintenance. Metafrax reduced



production by 15% to 78,500 tons due to an outage, whilst Sibmetakhim's outage starting in later August meant a 7% reduction to 70,000 tons. Azot at Nevinnomyssk produced 11,400 tons in August which was 3% lower than in July.

Methanol sales on the domestic market totalled 113,600 tons in August, 2% up on July. Azot at Novomoskovsk shipped 9,100 tons, Tomet 32,600 tons, Sibmetakhim 24,000 tons and Azot Nevinnomyssk 3,800 tons. Other producers included Ammoni in Tatarstan which shipped 3,600 tons, Shchekinoazot 6,700 tons and Metafrax 33,700 tons. MTBE producers accounted for 46% of domestic sales in August, whilst formaldehyde producers took 36%. In September Metafrax returned to full production after a scheduled shutdown in August.

Methanol exports amounted to 124,000 tons in August, 5% down on July mainly due to the Metafrax outage. Metafrax dropped export shipments by 25% to 24,000 tons, whilst other exporters included Sibmetakhim (47,000 tons), Shchekinoazot (27,000 tons) and Azot (16,200 tons).

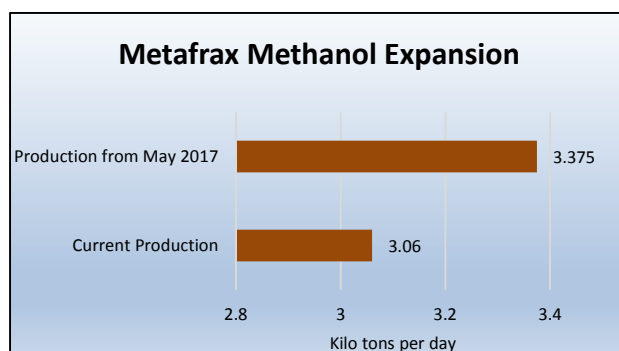
Russian Methanol Exports (unit-kilo tons)		
Producer	Jan-Aug 16	Jan-Aug 15
Azot Nevinnomyssk	0.0	0.0
Azot Novomoskovsk	127.1	119.2
Akron	0.0	0.1
Metafrax	263.9	155.7
Sibmetakhim	330.0	263.3
Tomet	105.9	122.0
Shchekinoazot	239.8	215.9
Total	1066.8	876.2

Source: Chem-Courier

Finland accounted for 58% of Russian methanol exports in August (71,500 tons), followed by Poland (16,000 tons), Romania (7,400 tons) and Slovakia (13,400 tons). The cost of the exported methanol in August on average amounted to about \$170 per ton DAF Russian border.

Metafrax methanol expansion 2017

Metafrax forecasts that it can complete the reconstruction of its methanol unit at Gubakha in the first half of 2017. The company will begin commissioning in the first quarter before production is expected to start in May. The result of ongoing reconstruction will increase the capacity of the methanol plant from 3.06 tons per day to 3,375 tons. Part of the project was undertaken during the maintenance outage which took place in August and September.



are estimated at around 2.5 billion roubles (\$400 million).

The main task of revamping the unit has already been completed; including necessary fittings installed and is ready to connect supply lines to new hardware without interrupting current production activity. The second phase of the reconstruction includes connecting the equipment installation to the partial oxidation of natural gas. In early September, production equipment continued to arrive for installation. Investments in the reconstruction project for the methanol plant

Metafrax ammonia project

Public discussions were held in September regarding the new Metafrax project to build a complex for ammonia-urea-melamine. The licensor process and developer base of the project has already selected as Casale (Switzerland). Contractors and subcontractors to undertake the project are yet to be determined.

The design project comprises capacities of 562,000 tpa of urea, 293,000 tpa of ammonia and 40,000 tpa of melamine. Products will be sent to internal processing by Metafrax for the production of urea-formaldehyde resins and synthetic resins, in addition to supplying domestic and foreign markets. The project cost is estimated at over €500 million.

Ekozon-methanol project Leningrad region

Polish company Ekozon agreed with the Government of the Leningrad region on the construction of a methanol plant in the region. As a possible site for the location of production the Poles consider Pikalevo as the better option as Kingisepp exhausted the limit on gas. The potential capacity under consideration is 1.6 million tpa which would be mostly export-oriented.



Shchekinoazot-modernisation programme

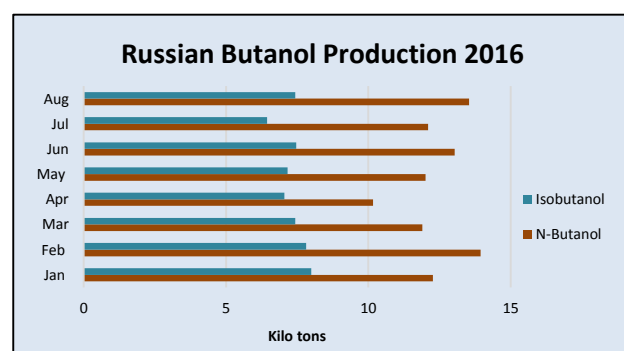
Shchekinoazot estimates that investment in the construction of new methanol and ammonia plants will cost around €270 million and construction should be completed by 2018. Consumption of natural gas in the new methanol plant will amount to 830 cubic metres per ton against 859 cubic metres per ton at present.

In other investment areas the company intends in 2017 to start the installation for ammonium sulphate with a capacity of 160,000 tpa, as well as to complete the construction of a new sulphuric acid plant with a production capacity of 200,000 tpa. Both projects will require investments of about \$33 million.

Russian Chemical Commodity Exports				
Product	Jan-Aug 16	Jan-Aug 16	Jan-Aug 15	Jan-Aug 15
	Kilo tons	USD Mil	Kilo tons	USD Mil
Ammonia	2,256	575	2,285	900
Methanol	1,015	165	810	225
Nitrogen Fertilisers	8,456	1,503	6,978	1,679
Potash	5,892	1,248	8,303	2,225
Mixed Fertilisers	6,229	1,855	5,979	2,199
Synthetic Rubber	656	830	643	960

Compressor equipment for the methanol and ammonia plants at Shchekino has been supplied by Mitsubishi from the ports in Japan and Korea. Also the company has received shipment of the primary reformer furnace from China. The general Designer of the new complex is the Severodonetsk company Orgkhim in East Ukraine. Working documents have already been issued to the customer.

Organic chemicals



Russian sales of butanols, Jan-Sep 2016

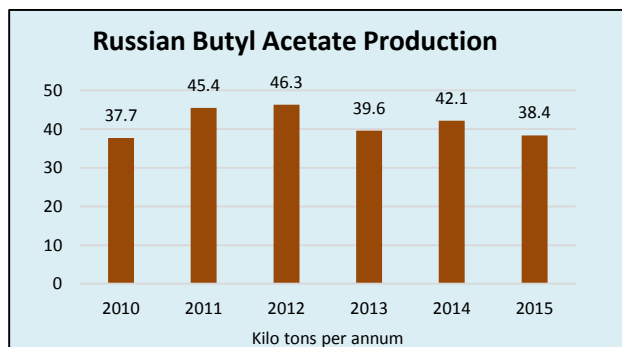
Sales of domestic butanols on the Russian market amounted to 7,180 tons in September, 5% more than in August. The proportion of n-butanol in the gross sales volume was 87%, and isobutanol only 13%. SIBUR-Khimprom shipped 3,650 tons in September, Gazprom neftekhim Salavat 3,070 tons the Angarsk refinery 270 tons and Azot at Nevinnomysk 190 tons.

Akrilat purchased 2,130 tons of butanols in September, 14% down against August, whilst

Dmitrievsky Chemical Plant, increased purchases in September by 37% to 3,130 tons. Other consumers in September included the Plant of Synthetic Alcohol at Orsk with 340 tons, Volzhskiy Orgsintez 250 tons and Roshalsky Plant of Plasticizers 230 tons. Overall, in the period from January to September 2016 sales of butanols on the domestic market totalled 55,580 tons which was 7% higher than in 2015.

Domestic consumption could rise significantly in 2017 after the start-up of the new acrylate complex at Salavat, which is expected at some stage. In view of the declining export opportunities in the Chinese

market, the start-up of the Salavat project and subsequent switch to internal processing instead of exports represents a key factor for Russian butanol production.



Of the current butanol consumers, Akrilat is the largest followed by the Dmitrievsky Chemical Plant which is the major producer of butyl acetate in Russia.

This year Dmitrievsky Chemical Plant has mastered a new direction in the production of polymer for road construction to replace asphalt, and is assessed as more durable than current products. The new material has been coated on an experimental section of a road in St. Petersburg, as well as part of the territory of the company which is located in

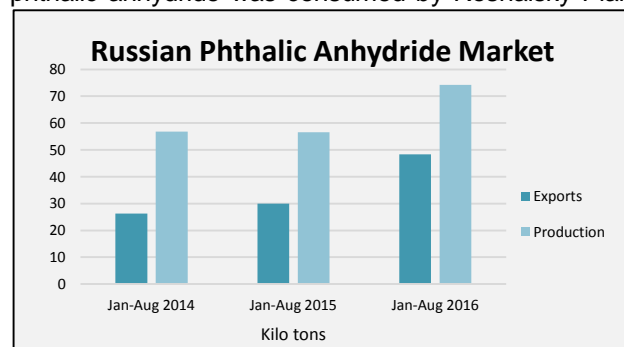
the Ivanovo region.

Russian Organic Chemical Production (unit-kilo tons)		
Product	Jan-Aug 16	Jan-Aug 15
Acetic Acid	122.4	115.4
Butyl Acetate	28.9	26.1
Phthalic Anhydride	77.5	84.2
N-Butanol	99.0	101.5
Isobutanol	58.8	59.2

Russian plasticizer alcohols, Jan-Aug 2016

Phthalic anhydride production in Russia amounted to 8,310 tons in August, of which Kamteks-Khimprom accounted for 7,220 tons. Production totalled 56,870 tons in the first eight months in 2016, 8% down on the same period in 2015.

The resumption of commercial shipments from Kamteks-Khimprom to the Neftekhimprom group restarted last year for the Roshalsky and Ural Plant of plasticizers. Consequently, nearly half of all phthalic anhydride was consumed by Roshalsky Plant of Plasticizers in the first eight months this year. Belarus is the main importer into the Russian market, but volumes are quite small.



DOP imports into Russia amounted to 224 tons in August, bringing the full total for January to August to 1,950 tons which was 2% up on 2015. Boryszew and Deza are the main suppliers to the Russian market. Metafrax produced 17,440 tons of pentaerythritol in the first three quarters in 2016, 2% up on the same period last year. Metafrax exported 7,200 tons in January-August 2016.

Russian Maleic Anhydride Imports (unit-tons)		
Country	Jan-Jul 16	Jan-Jul 15
Belgium	12	0
Bosnia-Herzegovina	215	105
Bulgaria	1	0
Germany	420	251
Indonesia	90	0
Malaysia	0	14
China	1,098	2,369
South Korea	320	300
UK	2	0
Taiwan	1,222	116
Japan	2	0
Total	3,382	3,094

SIBUR-maleic anhydride project

SIBUR signed an agreement on 12 October with the company Conser for the acquisition of a license for the technology for the production of maleic anhydride. The plant is intended for location at SIBUR's Tobolsk petrochemical site in the Tyumen Oblast. Engineering institute NIPIGas is expected to be involved in the project. The maleic anhydride process offered by CONSER is a gas phase catalytic oxidation process, using normal butane as feedstock.

The capacity of new production unit at Tobolsk is provisionally estimated at 45,000 tpa, based on butane supplied by Tobolsk-Neftekhim which fractionates NGLs supplied from the Yamal region.

Currently, maleic anhydride is not produced in Russia although Tatarstan has previously stated that it was considering a plant. Domestic demand is very small at around 5,000 tpa which is met by imports largely from Asia. SIBUR's intention is to be able to export maleic anhydride to international markets, either in solid or liquid form although the latter is more technically challenging.

Other products

Russian Inorganic Chemical Production (unit-kilo tons)

Product	Jan-Aug 16	Jan-Aug 15
Pigments and dyes	61.0	69.2
Chlorine	314.1	310.3
Liquid chlorine	186.0	190.0
Bromine	3.0	0.0
Carbon black	585.5	547.8
Boric acid	65.9	49.3
Calcium hypochlorite	699.5	718.6
Calcium carbide	47.1	47.8

investment in the project amounted to 3.5 billion roubles. SIBUR-Neftekhim's capacities at Dzerzhinsk include 300,000 tpa of ethylene oxide, 34,200 tpa of acrylic acid, 43,600 tpa of butyl acrylate and 10,000 tpa of methyl acrylate.

Linde Gas-Dzerzhinsk

Linde Gas Rus opened a new industrial gas unit at Dzerzhinsk on 22 September, the main consumer of which is intended SIBUR-Neftekhim. Delivery will be made to other customers of industrial gases from the Dzerzhinsk petrochemical unit in addition to the sale of products in the Nizhny Novgorod region and other regions.

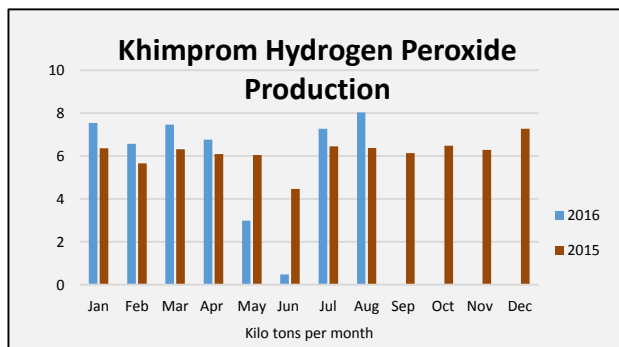
The capacity of new production capacity is 30,000 cubic metres per hour of oxygen gas, whilst

NikoMag exports magnesium hydroxide

Volgograd based NikoMag, which opened a magnesium hydroxide plant last year, exported its first shipment of 300 tons in September by sea to customers in South Korea. Other shipments have been sent to customers in China, Germany, Portugal, France, Holland and Denmark, whilst magnesium oxide sold successfully in the Czech Republic and France. The capacities for the facilities include 25,000 tpa for nanostructured magnesium hydroxide and 30,000 tpa of magnesium oxide.

In 2015 NikoMag produced 1,065 tons of magnesium hydroxide and is expects to exceed 10,000 tons in 2016. The product is used as a highly toxic fire retardant, filler and smoke-suppressive additive in the

manufacture of almost all types of plastics and polymers, as well as in additives for lubricants, pharmaceuticals, food industry and many other industries.



Khimprom, hydrogen peroxide production

In the first eight months in 2016 Khimprom at Novocheboksarsk produced 47,083 tons of hydrogen peroxide against 47,723 tons in the same period last year. In August this year, after completed modernisation, production of hydrogen peroxide exceeded 8,000 tons for the first time.

Khimprom's priority challenges include increasing rouble prices on products sold on the domestic markets;

to switch from imported raw materials and equipment to the domestic counterparts and to increase the share of payments denominated in foreign currencies (\$, euros), as part of the marketing of products for export.

Bashkir Soda stake for sale

The Ministry of Land and Property Relations of Bashkortostan has put up for sale state-owned shares (38.27%) in Bashkir Soda. The package plan is to transfer the stake to the Regional Fund but the transaction does require approval from the Federal Antimonopoly Service (FAS). Bashkir Soda is a major producer of soda ash, caustic soda and PVC, including plants at Sterlitamak and Berezniki. The main issue facing Bashkir Soda is raw material supply for soda ash production. The current source from the Shahtau mine is expected to have been exhausted by 2020, but alternative source from the Tratau field is protected by statutory law. Other sources in the area are being investigated.

Belarus

Belarussian polymer imports, Jan-Jul 2016

In the first seven months of 2016 Belarussian PVC imports dropped 20% and totalled 12,800 tons. The main reason for the decline is a fall in export sales of finished products.

Polypropylene imports rose by 14.3% in the first seven months to 52,500 tons. The largest increase occurred in the external supply injection moulding propylene copolymers, whilst overall the largest type of polypropylene imported was homopolymer which rose to 36,100 tons compared to 32,900 tons in 2015. In January-July 2016, the total import volume of propylene copolymers amounted to 16,400 tons against

13,000 tons in the same period in 2015. Polyethylene imports into Belarus increased by 26.3% in the first seven months of this year to 70,600 tons against 55,900 tons in 2015. LDPE imports totalled 45,800 tons against 33,800 tons in January to July 2015, whilst HDPE imports rose 12.3% to 24,800 tons.

Belarussian Organic Chemical Exports (unit-kilo tons)		
Product	Jan-Jul 16	Jan-Jul 15
Acrylonitrile	22.9	19.0
Caprolactam	6.5	18.1
Phthalic anhydride	14.5	16.9
Methanol	21.0	40.4

Azot Grodno-Linde

Linde has been awarded a contract by Azot at Grodno for the construction of two air separation plants. The contract provides for the provision of engineering services and equipment procurement (EP-contract). The capacity of each plant will comprise 9,000 cubic metres per hour. The plants are scheduled to be operational in the first half of 2018.

Belarussian PET Raw Material Imports (unit-kilo tons)		
Product	Jan-Jul 16	Jan-Jul 15
Paraxylene	9.6	4.9
PTA	31.8	31.4
MEG	36.3	35.2

At the end of 2015 Azot began construction of a new plant for the production of nitric acid with a capacity of 1,200 tons per day. Equipment for the project has been supplied from the Czech Republic, Germany, and Finland. Work on the project is scheduled for completion in December 2018. The volume of investments is estimated at \$200 million.

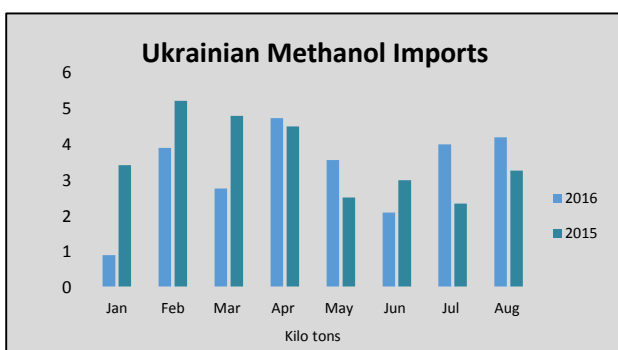
Ukraine

Ukrainian Polymer Imports (unit-kilo tons)		
Product	Jan-Aug 16	Jan-Aug 15
LDPE	45.0	42.9
LLDPE	38.2	28.9
HDPE	81.1	60.1
Other Polyethylene	9.0	6.5
PP	79.3	58.8

Ukrainian polymer imports, Jan-Aug 2016

In the first eight months of 2016 Ukrainian imports of polypropylene rose by 35% against the same period in 2015, and amounted to 79,300 tons against 58,800 tons. Homopolymer imports rose to 61,200 tons from 45,400 tons in 2015, block copolymers rose from 6,100 tons to 7,500 tons whilst pipe grade rose from 5,800 tons to 9,000 tons. The total volume of deliveries of other propylene copolymers amounted to about 1,600 tons.

Polyethylene imports into the Ukrainian market increased by 26% in the first eight months. LDPE and LLDPE imports rose from 138,200 tons to 173,500 tons, whilst HDPE imports amounted to 81,100 tons against 60,100 tons in the first eight months in 2015. LDPE imports amounted to 45,000 tons which is 5% up against January-August 2015, whilst LLDPE imports rose from 28,900 tons to 38,200 tons.



Imports of other types of polyethylene amounted to slightly more than 9,000 tons against 6,500 tons in the same period in 2015.

Ukrainian methanol, August 2016

Methanol imports into Ukraine amounted to 4,200 tons in August, 20% more than in July. In August supplies were received from Qatar though the company Muntajat, in addition to Russia and Belarus. Russian suppliers include Shchekinoazot and Azot at Novomoskovsk. Trade and gas companies accounted for 45% and 41%

respectively of purchases in August, 1,900 tons and 1,700 tons. The Ukrainian manufacturers of formaldehyde and its derivatives purchased 10% or 435 tons. Average prices (DAF Ukrainian border) in August amounted to \$235 per ton against \$235 per ton in \$225 per ton in July,

Lukoil seeking partners for Karpatneftekhim

Lukoil is interested in attracting Ukrainian companies to support restored production at Karpatneftekhim. Although it was reported in July that Lukoil was seeking a buyer for Karpatneftekhim, energy now seems focused finding partners with which to cooperate and to remain in the Ukrainian market. Karpatneftekhim includes capacities for ethylene at 250,000 tpa, PVC 300,000 tpa, caustic soda 200,000 tpa, and HDPE 100,000 tpa.

Azot Severodonetsk restarts nitrate production

Holding Ostchem has restored production at Azot Severodonetsk at several units, although methanol and acetic acid are not included at this stage. Plants for nitric acid, ammonium, potassium and sodium nitrate, are operating at around 80% of capacity. Production is restricted by the supply of electricity in the Lugansk region and operate on merchant ammonia, which is produced by other companies of the holding. Building its own cogeneration plant is one of the steps aimed at the resumption of ammonia production.

Karpatneftekhim has repeatedly stopped production in the past decade due to unfavourable market conditions. In April 2013, the Cabinet of Ministers of Ukraine and Lukoil signed a memorandum on a series of measures to bring the company to profitable production levels. However, changes in the political landscape in 2014 threw previous agreements into disarray and as result production capacities for polyethylene and PVC have since remained idle.

Central Asia

Sumgait olefin plant resumes production after maintenance

Following maintenance which started in August, Azerkhiymya restarted ethylene and propylene production at Sumgait in mid-September. The plant is aiming to produce around 104,000 tons of ethylene in 2016, similar to 2015. Last year Azerkhiymya exported 92,000 tons of polyethylene, mostly to countries Bulgaria, Germany, Switzerland, China, Russia, Ukraine and Turkey.

Sumgait Chemical Industrial Park

A plant for the production of flat glass will be built in Azerbaijan, having agreement been reached in October 2016 between AzerFloat, a resident of the Sumgait Chemical Industrial Park and German company HORN Glass Industries AG. HORN Glass Industries AG will carry out the design of the enterprise for the production of glass boards, as well as to equip the enterprise with modern equipment and technology.

The production capacity of the plant will be eight million square metres of various glass boards per annum. Currently, the country's demand for flat glass is provided through imports. The Sumgait Chemical Industrial Park was established in 2011 and covers an area of 167.66 hectares. The Park is able to accommodate 35-40 companies. Residents include Azertexnolayn, SOCAR Polymer, AzerFloat, Azerbaijan Fibro Cement, SIKA company, and Baku Non-Ferrous Metals & Ferroalloys Company, MST Engineering LLC.

SOCAR Polymer to complete polyolefin projects by 2018

SOCAR Polymer, created for the construction of the production of polyethylene and polypropylene, plans to complete both projects in 2018. Investments are estimated at \$750 million, and the amount of the expected export revenue \$400 million. The new plant for the production of polypropylene at Sumgait is expected to be ready to begin testing by November 2017 and start-up is scheduled for February 2018. The latest schedule states that commissioning for the HDPE plant is planned for August 2018.

Both projects are being implemented in the Sumgait Chemical Industrial Park in Sumgait. Polyethylene production capacity is being designed to produce 120,000 tpa and polypropylene 180,000 tpa. Raw materials will be supplied from the Baku Oil Refinery Heydar Aliya.

Currently, more than one thousand people are engaged in the project, and the number will rise to 2,500 in 2017. Around 40% of the funding of \$750 million is being provided by shareholders, and the remaining 60% by Gazprombank.

Kazakh polypropylene project

United Chemical Company has set 2020 as a deadline for the construction of a polypropylene plant at Atyrau in 2020. The project has been postponed on several occasions, but Kazakhstan Petrochemical Industries (KPI) has entered into a loan agreement for the \$2.0 billion with the State Development Bank of China which has provided the bulk of the construction finance. KPI reports that it has already agreed on the sale of polypropylene, when production starts, to a US company.

Atyrau Petrochemical Technology Park	
Product	Capacity (kilo tpa)
Polyethylene	800
Polypropylene	500
Butadiene	125 rising to 354
Polymer Film	15

investors or partners are sought, include 800,000 tpa of polyethylene in addition to butadiene and synthetic rubber.

The polypropylene project is to be located in the Special Economic Zone (SEZ) National Industrial Petrochemical Technology Park. Other projects intended for Atyrau, for which

Polymer-Atyrau

Polymer Production at the Free Economic Zone (FEZ) in the Atyrau region of Kazakhstan is expanding its

Armenian rubber plant

Slovak holding entitled EU-ASIA Business Finance Centre is reported to be interested in investing around \$20 million and up to 150 million euro in the Armenian rubber plant Nairit. EU-Asia Business Finance Centre was registered in Bratislava was registered in April 2016 as the rendering consulting services in the field of business and management. If agreements can be reached with the Armenian Ministry of Economy the Nairit rubber plant could be restarted by April 2017 at the rate of 8-10,000 tpa.

BASF epoxy product plant opened in Kazakhstan

BASF Central Asia opened a new plant in October for the production of epoxy materials in Kazakhstan. The Astana plant will produce commercial and industrial floor coatings, repair and protective materials for concrete and grout solutions for the installation of equipment and metal structures, etc. Until now these products were imported from Europe, Turkey and the United Arab Emirates. Thus, the Astana production will significantly reduce logistics costs.

usage of polypropylene from about 400 tons per month, at present, to 900 tons per month by mid-2017. The plant includes capacities for 14,100 tpa of BOPP and 4,200 tpa of polyethylene film. The line for BOPP film was launched in March 2016; the first commercial products were released in June, and in July the company sold 100 tons. Polymer supplies are largely imported and is complicated by the large number of intermediaries, resulting in the final consumer price often becomes too high.

In an effort to solve the problem of polymer supply in Kazakhstan an association has been created for the petrochemical industry, including large, medium and small domestic processors of polymer raw materials. The total volume of consumption in Kazakhstan is estimated at about 50,000 tpa of polyethylene and 20,000 tpa of polypropylene. Imports are sourced largely from the Russian Federation, South Korea, Iran, Saudi Arabia, and Turkmenistan.

Relevant Currencies

Czech crown. Kc. \$1= 20.852. €1 = 27.444; Hungarian Forint. Ft. \$1 = 229.253. €1 = 310.141; Polish zloty. zł. \$1=3.016. €1 =4.14 Ukrainian hryvnia. \$1= 26. €1 = 28; Rus rouble. \$1= 63. €1= 69

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