Chemical Information Resources for East Europe and CIS

CIREC MONTHLY NEWS

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

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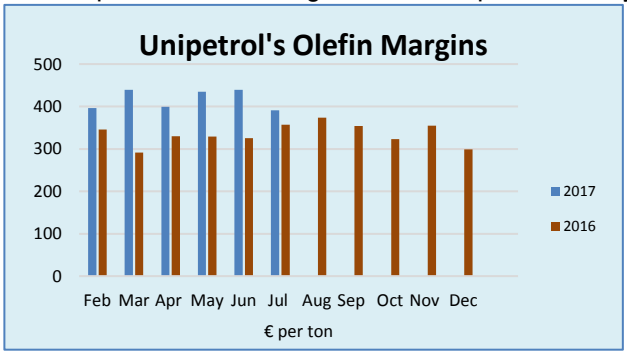
Issue 321, 14 Aug 2017

CENTRAL & SOUTH-EAST EUROPE

Central European petrochemical margins, July 2017

Petrochemical margins dropped in July for Central European producers after a solid first two quarters. Orlen's petrochemical margin fell to €920 per ton in July against €980 in June and €1017 per ton in May. In the first seven months in 2017 the average Orlen's petrochemical margin amounted to €957 per ton, which was 3% less than in 2016 (€989.6), but at the same time by 14% more than in 2015 (€841.2).



Unipetrol's olefin margin fell from €439 to €391 per ton in July whilst polyolefin margins fell from €389 to €378 per ton. MOL's petrochemical margins dropped to €511.6 per ton July against €567.1 in June and €601 in May. Central European petrochemical companies have for the past two years enjoyed healthy petrochemical margins, largely due to low or restrained oil prices and unexpected shutdowns suffered by producers in West Europe.

Central European refining margins July 2017

July 2017 was the second successive month in which PKN Orlen recorded the highest refinery margin for almost two years. Orlen's model refining margin was $7.70 a barrel in the previous month and was up 7% higher than in June ($7.20 per barrel) and nearly twice higher than a year earlier ($3.90 per barrel). In the first seven months of 2017, the average level of PKN Orlen's refining margin comprised $6.31 per barrel, 16% higher than in the corresponding period of 2016 ($5.41 per barrel).

Central European refining margins $/barrel

Produce	Q1 16	Q2 16	Q3 16	Q4 16	Q1 17	Q2 17
PKN Orlen	5.8	6.0	4.8	5.8	5.3	6.9
MOL	5.8	4.7	5.7	6.6	6.5	6.4
Lotos	6.5	6.5	6.0	8.2	7.3	7.1
Slovnaft	7.3	6.4	5.3	6.3	7.0	7.0
Unipetrol	3.6	3.1	1.6	4.0	4.0	4.3

PKN Orlen Q2 2017

Orlen's net profit dropped to zl 1.54 billion in the second quarter of 2017 from zl 1.61 billion in the same period in 2016. The EBITDA increased to zl 2.7 billion from zl 3 billion whilst the operating profit decreased to zl 2.12 billion from zl 2.49 billion in the second quarter in 2016. Group revenue in the second quarter of 2017 increased by 19.1% to zl 23 billion.

PKN Orlen Group Chemical Production (unit-kilo tons)

Product	*Jan-Jun 17*	*Jan-Jun 16*
Monomers	418	385
Polymers	246	115
Aromatics	124	118
Fertilisers	564	624
Plastics	203	206
PTA	256	341

In the second quarter last year the steam cracker at Litvinov was idle whilst in May the FCC unit at Kralupy suffered an accident, and both of these events affected results from the downstream division. In the second quarter in 2017 both the Litvinov and Kralupy plants were operating thus benefiting the downstream division for the Orlen group. Moreover, performance was helped by the refining m margin which was $1.4 up on the same period in 2016.

In Orlen's petrochemical division, monomer production increased from 385,000 tons in January to June 2016 to 418,000 tons whilst polymer production rose from 115,000 tons to 246,000 tons.

PKN Orlen PTA Sales & Production

	Q1 16	Q2 16	Q3 16	Q4 16	Q1 17	Q2 17
Sales	168	173	134	130	149	109
Production	167	174	134	126	156	100

In the PTA sector production at Wloclawek was down in the second quarter to 100,000 tons against 174,000 tons in the same period in 2016, due to a maintenance outage. As a result sales were greatly reduced to 109,000 tons against 173,000 tons in the corresponding quarter. Around two thirds of

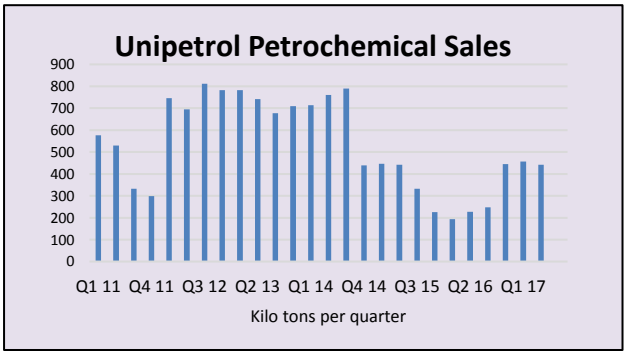
Orlen's PTA exports are sent to Germany. Paraxylene production takes place at Plock, where a record volume was produced in 2016 of 398,835 tons following 373,717 tons in 2015.

Anwil-PVC production increase for VCM/PVC
Over a thousand tons per day of VCM and PVC was produced in July 2017 by Anwil at Wloclawek Anwil. This represents a record level of output at Wloclawek. In total for July Anwil produced 31,150 tons of VCM and 31,000 tons of PVC.

PKN Orlen has reaffirmed its strategic objectives intends to develop the petrochemical division and at the same time carry out projects related to new energy sources. PKN Orlen has emphasized that the key issue for the company is to increase the efficiency of assets, including the construction of the metathesis plant at Plock, and the construction of the new polyethylene plant at Litvinov.

Unipetrol Jan-Jun 2017

Unipetrol doubled its net profit to Kc 6.39 billion in the first half of 2017 from Kc 3.081 billion in the same period in 2016. The results were helped by insurance claims related to accidents in Kralupy and Litvinov in addition to renewed production activity. Revenues for Unipetrol grew 60% in the first half of 2017 to Kc 61 billion, mainly due to higher oil prices and a resumption of the ethylene unit at Litvinov and FCC at Kralupy.



In the first half of 2017 the group recognized compensation from insurance valued at Kc 2,754 million in connection with steam cracker unit accident. In the first two quarters of 2016 the group recognized compensation of Kc 3,934 million and Kc 3,918 million respectively. In the second quarter in 2017 the group succeeded in agreeing with insurer the final settlement amount of the claim relating to the FCC nit accident at Kralupy, concerning property and mechanical damage as well as loss of business profits worth Kc 1,320 million.

Czech Petrochemical Exports (unit-kilo tons)

Product	*Jan-Jun 17*	*Jan-Jun 16*
Ethylene	28.9	0.1
Propylene	8.6	3.1
Butadiene	2.1	0.9
Benzene	10.3	4.4
Ethylbenzene	66.4	0.2

Unipetrol appears to have overcome the August 2015 fire and explosion that caused so much damage to the steam cracker. Its second-quarter net profit rose to Kc 3.57 billion on substantially higher petrochemical sales. Revenues from petrochemicals grew by 52% to Kc 31.18 billion, while the operating profit in the second quarter jumped to Kc 5.36 billion from Kc 3.77 billion in the same period last year.

Czech Polyethylene Trade (unit-kilo tons)

Exports	**Jan-Jun 17**	**Jan-Jun 16**	**Jan-Jun 15**
LDPE	40.7	33.2	33.5
HDPE	109.4	44.2	135.4
EVA	0.6	0.5	0.7
Other	6.0	11.6	7.4
Total	156.8	89.5	177.0
Imports	**Jan-Jun 17**	**Jan-Jun 16**	**Jan-Jun 15**
LDPE	80.3	79.3	81.5
HDPE	57.5	72.4	51.1
EVA	5.2	5.1	4.2
Other	14.3	16.2	6.1
Total	157.3	173.0	143.0

Unipetrol's petrochemical sales volumes grew by 120% to 500,000 tons in the second quarter, with the 544,000 tpa cracker having been operated at 89% of capacity compared to 0% in the second quarter of 2016.

Unipetrol cracker shutdown, July 2017

Unipetrol shut down the 544,000 tpa steam cracker at its Litvinov refinery on 6 July for maintenance activities. The controlled shutdown last for 10 days, during which ethylene supply reductions were made to Spolana at Neratovice and to polyethylene units at Litvinov.

Unipetrol-polypropylene expansion

Unipetrol has outlined its strategy to increase the production capacity of polypropylene at Litvinov, whilst at the same time the construction of a new polyethylene unit continues. The group has announced its intention to increase the production of polypropylene from 300,000 tpa to 350,000 tpa. Polypropylene is currently supplied

by Unipetrol to European markets and this market is seen as offering good potential Capacity will increase, but Unipetrol does not envisage changing the technology.

The new polyethylene unit, which is the largest investment in Czech petrochemicals, is undergoing construction. Large-volume pressure vessels have recently been installed. Up to mid-2017, 55% of the planned Kc 8.5 billion project funds had been invested. Completion of the construction is scheduled for the end of 2018. The new polyethylene unit is designed to replace the older one of the two units operated by Unipetrol at Záluží.

MOL, Jan-Jun 2017

The MOL Group upgraded its 2017 target following outstanding half year results. The EBIDTA was reported at Ft 371 billion ($1.3 billon) in the first half in 2017, with increased contribution from all business sectors. Downstream and consumer services posted all-time high H1 results, while the upstream division significantly increased its contribution. The net profit for MOL totalled Ft 183 billion ($639 million) for the first half of the year, the highest in ten years.

MOL's Olefin & Polyolefin Production (unit-kilo tons)		
Product	***Jan-Jun 17***	***Jan-Jun 16***
Ethylene	376	393
Propylene	194	204
Butadiene	47	25
Raffinate	68	38
Product	***Jan-Jun 17***	***Jan-Jun 16***
LDPE	94	102
HDPE	192	189
PP	272	270

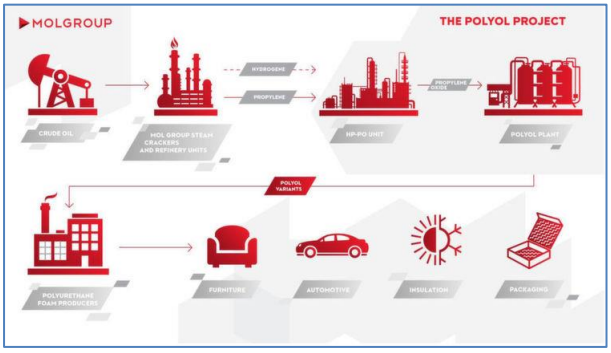
The upstream division increased its EBITDA by 45% in the first half of 2017 to Ft 128 billion ($447 million). MOL's downstream division again posted a record high half-year EBITDA, increasing 8% over 2016 to Ft 186 billion ($652 million). The downstream division was driven by stronger refinery margins and improved asset availability, which offset the lower petrochemical margins.

Ethylene production for the MOL Group, including the complexes at Tiszaujvaros in Hungary and Bratislava in Slovakia, totalled 376,000 tons in the first half of 2017 against 393,000 tons in the same period in 2016. Propylene production also fell by 10,000 tons to 194,000 tons but MOL reported rises in both butadiene and raffinate production, rising to 47,000 tons from 25,000 tons and 68,000 tons from 38.000 tons respectively.

MOL-polyol & propylene oxide projects

The MOL Group has entered into key contracts related to core technologies for its polyol project, which was announced in 2016 as part of MOL's 2030 long-term strategy. The contracts concern the purchase of technology licenses and process design packages for the so called HPPO (hydrogen peroxide to propylene oxide) technology of propylene oxide production. The licensor of the hydrogen-peroxide unit for captive use is Evonik, while a consortium formed by Evonik and ThyssenKrupp Industrial Solutions (ThyssenKrupp) licenses the propylene oxide unit. The contracts also contain binding offers and pre-agreements regarding the later engineering and execution phases of the HPPO units by ThyssenKrupp and the purchase of proprietary catalysts from Evonik.

MOL Group is in the final stages of selecting the licensor for polyether polyol technology as well as the contractor for the engineering of the utilities and other facilities. In addition, MOL Group has selected Fluor as project management consultant (PMC) for the front end engineering design and engineering, procurement and construction phases of the project.



The new product line will not only provide access to markets in Central and East Europe, but it will also form a logical continuation of MOL's strategy to develop the downstream value chain towards semi-commodity and specialty chemicals products.

In line with MOL's core value of sustainable development, this step has taken MOL closer to a state-of-the-art, energy-efficient technology that is free of material by-product volumes. Propylene oxide based polyols serve as raw materials for polyurethane foams, which are widely applied in the automotive, construction, packaging and furniture industries.

Polish Chemical Production (unit-kilo tons)

Product	*Jan-Jun 17*	*Jan-Jun 16*
Caustic Soda Liquid	175.4	166.9
Caustic Soda Solid	41.0	36.8
Soda Ash	205.3	413.7
Ethylene	235.2	277.2
Propylene	235.2	272.2
Butadiene	172.5	197.2
Toluene	5620.4	33.1
Phenol	1813.0	7.9
Caprolactam	3010.1	18.1
Acetic Acid	78.6	82.9
Polyethylene	8.2	4.0
Polystyrene	166.2	193.0
EPS	28.2	27.7
PVC	45.6	43.8
Polypropylene	141.5	141.0
Synthetic Rubber	131.3	135.2
Ammonia (Gaseous)	119.3	112.8
Ammonia (Liquid)	1489.0	1377.0
Pesticides	47.8	47.2
Nitric Acid	28.6	14.0
Nitrogen Fertilisers	1190.0	1196.0
Phosphate Fertilisers	1045.0	1016.1
Potassium Fertilisers	241.2	252.1

Russian Chemical Production (unit-kilo tons)

Product	*Jan-Jun 17*	*Jan-Jun 16*
Caustic Soda	616.9	540.5
Soda Ash	1,674.0	1,408.7
Ethylene	1,517.0	1,385.2
Propylene	771.0	738.4
Benzene	703.0	598.8
Xylenes	276.9	290.4
Styrene	388.5	365.4
Phenol	106.5	122.2
Ammonia	8,300.0	8,000.0
Nitrogen Fertilisers	5,061.0	4,854.0
Phosphate Fertilisers	1,681.0	1,756.0
Potash Fertilisers	4,231.0	3,655.0
Plastics in Bulk	3,906.0	3,855.0
Polyethylene	1,038.0	1,116.0
Polystyrene	274.7	274.9
PVC	487.6	378.1
Polypropylene	739.0	651.4
Polyamide	79.4	77.1
Synthetic Rubber	832.0	714.7
Synthetic Fibres	83.4	75.7

The planned new industrial complex consists of 200,000 tpa of propylene oxide and several production lines for polyether polyols, in addition to utilities and other infrastructural investments. The agreement marks an important step in the implementation of the MOL Group 2030 strategy, which will transform MOL Group into a leading chemical company in Central Europe. As a first investment step, the group will spend up to $1 billion on the polyol project.

RUSSIA

Russian chemical production, Jan-Jun 2017

Russian chemical production rose 7.4% in the first half of 2017 across the board, with the largest rises recorded in ethylene, PVC and ammonia. Ethylene and PVC production have risen in part due to the renewed activity at the Angarsk Polymer Plant, whilst caustic soda has risen 12.5% this year due largely to the resumption at Sayanskkhimplast. Benzene production rose 11.5% in the first half of 2017 to 703,000 tons, whilst xylenes fell 7.8% to 276,900 tons.

Chemical production in Russia this year has increased much greater than industrial production overall, which rose by an estimated 3.8% in the second quarter this tear.. Moreover GDP has stabilised to an extent, and forecasts for 2017 range from 1.5% to 2.3%, helping to recover some of the ground from 2015 when a 2.8% fall was recorded followed by another 0.2% decline in 2016. At the same time demand across the chemical industry shows a mixed picture. Paint and tyre production are rising due to good demand, whilst technical resin products and polyurethane markets are largely flat.

Regarding trade, imports of chemical industry products in the first half of 2017 totalled $17.0 billion against $14.3 billion in the same period in 2016. Exports rose slightly from $7.7 billion to $7.9 billion, and thus the trade deficit in chemical products has been higher this year. Russia's chemical product exports largely comprise low value commodities, whilst imports are predominantly made up of higher valued and specialised products.

In the first half of 2017 imports of polymers and rubber, in addition to pharmaceuticals both rose by around 20% over the same period in 2016, largely due to higher raw material prices but also due to a slightly stronger rouble this year which had made imports more affordable.

Exports of polymers have been largely unchanged in the first half of 2017, although in the area of organic chemicals plasticizer shipments have risen. The introduction of new acrylates production at Salavat has helped reduce the volume of butanol exports from Russia, as internal processing has increased. In the fertiliser division exports of potash fertilisers rose by 18% to 4.231 million tons whilst nitrogen fertilisers rose 4% to 5.061 million tons.

Russian Chemical Product Imports by value ($ million)		
Product Group	***Jan-Jun 17***	***Jan-Jun 16***
Organic & inorganic chemicals	2,276.4	1,953.7
Pharmaceuticals	4,841.7	3,919.6
Cosmetics	1,314.5	1,092.4
Soap and detergents	589.6	541.5
Polymers and Rubber	5,064.2	4,194.8
Others	2,943.9	2,614.0
Total	17,030.2	14,316.1

Russian chemical company performance H1 2017

Russian chemical companies have been affected in 2017 by higher production costs, eroding profit levels. Kuibyshevazot typified the performance of Russian producers in the first half of 2017, by increasing production and revenues but facing hikes in raw material prices and thus driving down net profitability. Nizhnekamskneftekhim and Kazanorgsintez both registered lower profits in the first half of 2017 as raw material and energy costs outpaced revenue increases. In the fertiliser sector, Akron increased turnover by 4% in the first half of 2017 to 26.2 billion roubles, whilst profits from sales dropped by 30% to 5.9 billion roubles. Akron's net profit dropped from 10.560 billion roubles in the first half of 2016 to 4.070 billion roubles in the first half of 2017. Evrokhim reduced its net profit by 1.7 times in the first half of the year.

Siberia & Russian Far East

ZapSibneftekhim update August 2017

By the end of the first half of 2017, ZapSibNeftekhim had completed a total of 56.6% of construction of the pyrolysis unit: at Tobolsk. The laying of pipelines of underground communications is continuing including the installation of metal and reinforced concrete structures. Installation of equipment and internal devices of technological columns is being carried out, of which more than 8,000 tons have already been installed.

The polyethylene installation was 45.8% ready by the end of June 2017. The installation of columns and beams in the reactor zones continues, whilst the concrete works on the extrusion building are underway. The polypropylene plant had reached 43.6% of installation, including pipelines, which were completed at the end of July.

ZapSibNeftekhim has started installation of silos for storage of polypropylene to the logistics platform. This type of work is scheduled for completion in the autumn of 2017. The logistics platform is intended for temporary storage, packaging and shipment of finished products. In addition to silo storage warehouses in the facility will include a complex for packaging, storage and shipment; three overpass pipelines and a container yard of 300 containers per day.

Configuration of the ZapSibNeftekhim project involves the construction of the steam cracker with a capacity of 1.5 million tpa of ethylene (Linde AG Technology Company, Germany) and 500,000 tpa of propylene and 240,000 tpa of high margin by-products (butadiene, butene-1, MTBE, pyro benzene). Also, the project envisages the construction of the production of various grades of polyethylene with a total capacity of 1.5 million tpa (INEOS technology), and the installation for the production of polypropylene capacity of 500,000 tpa (LyondellBasell technology).

Delivery of equipment to ZabSibNeftekhim-7 August

On 7 August SIBUR received a new batch of large-sized equipment for ZapSibNeftekhim, designed for processing hydrocarbon raw materials. The equipment was sent to Tobolsk by sea through the Indian Ocean and the Suez Canal, from where it passed through the Atlantic and the Arctic Ocean. The equipment was then reloaded to specialized barges for further transportation to the industrial port of Tobolsk along the Ob and Irtysh rivers. M Russian companies have been involved in the delivery of equipment, including Volga-Baltic Logistics, CNIIMF, Belfry, Sovfracht, SK Morvenna, Keystone Logistics, Doigro Projects, etc.

During the summer-autumn navigation from July 20 to September 30, more than 30 cargo barges with large-sized cargo and 300 units of equipment will arrive at the industrial port of Tobolsk. This will include the key equipment for the pyrolysis plant, four 360 ton boilers, flushing and rectifying columns, the 87th butene column, as well as extruders and columns for a polyethylene plant.

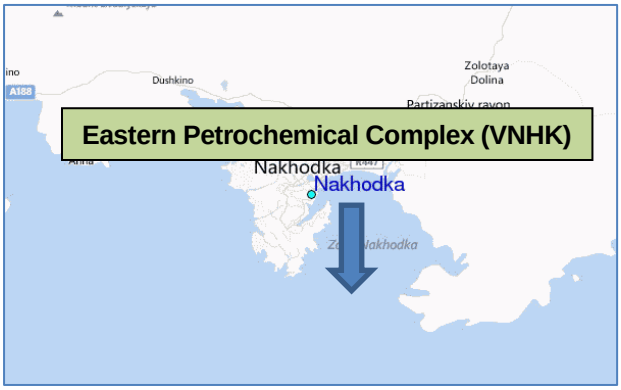
The delivery of bulky cargo for ZapSibNeftekhim began in accordance with a tight schedule of summer-autumn navigation. At present, 22 barge-towers with equipment for pyrolysis and polyethylene production facilities have been dispatched from the seaport of Sabetta to Tobolsk, 16 of which have already been unloaded in the Tobolsk industrial port. Transportation along the Northern Sea Route (SMP) through the Ob Bay is the only way to deliver such large-sized cargo to Tobolsk.

VNHK-project update and payback assessment

Rosneft aims to finish designing technical connection schemes for electricity for the Eastern Petrochemical Company (VNHK) by September this year. Connection of to the power grids will require about 2.5 billion roubles.

Rosneft has set the target for starting construction of the VNHK complex before the end of 2017. Despite continued preparations for the construction process, the Ministry of Economic Development of the Russian Federation has calculated that the VNHK project is unlikely to pay back its investment before 25 years of operation. Negative performance indicators are predicted even if state support is provided.

The Ministry of Economic Development calculated that the internal rate of return from the VNHK complex is 14.1%, which is below the discount rate of 14.8% used in Rosneft's valuation in December 2016, and also corresponds to the company's weighted average cost of capital. In effect, the project does not provide the necessary rate of return for the investor. In conclusion, the Ministry of Economic Development has recommended optimizing capital expenditures for VNKH, which is expected to lead to the project's return on investment.



In March 2017, Rosneft sent a financial and economic model of the Eastern Petrochemical Company for approval to the government. Investments were estimated at 658.7 billion roubles, of which the cost of infrastructure facilities (water, electricity, gas, rail and automobile transitions) are estimated at 129.3 billion roubles.

As part of the VNHK complex, petrochemical plants are part of the second stage of development. This includes a total complex capacity of 3.4 million tpa, which will allow the production of monoethylene glycol, linear alpha-olefins, polyethylene and polypropylene.

Rosneft-Linde, Boguchany polyolefin project

Linde has been commissioned by Rosneft to work on the development of a preliminary feasibility study of a gas chemical complex in East Siberia at Boguchany near Krasnoyarsk. Rosneft chose Linde as a developer of the preliminary feasibility study of the project for processing associated and natural gas in polyolefins. The configuration of the project should include a full cycle of gas processing to the final product, with the exception of infrastructure facilities. The Linde project should contain a full feasibility study (with an accuracy of +/- 30%) and a preliminary FEED (pre-FEED) for facilities located within the boundaries of the complex.

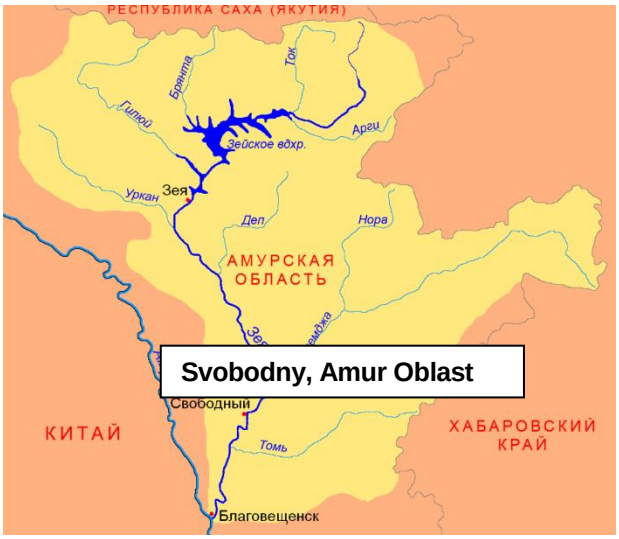
Pre-processing capacity is estimated at 5 billion cubic meters of gas per year. The resource base of the project will be the oil and gas fields of Rosneft of the Yurubchensky cluster.

In September 2016, Rosneft and Sinopec entered into a binding agreement in preparation for the preliminary feasibility study of the complex project in East Siberia. The plans included the creation of an integrated project team that will consider options for the use of modern technologies in the field of gas processing.

Amur Gas Processing Plant-construction start and customs zone for equipment deliveries

Construction the Amur Gas Processing Plant (GPP) started officially on 3 August. Delivery of equipment to the project site has been the first primary challenge. The main peak for equipment deliveries will take place in 2018-2019, when the delivery of gas drying and gas fractionation plants will be supplied. Six zones of temporary customs control will be created at the facilities of the Amur Gas Processing Plant: five within the main site and one in the temporary pier on the Zeya River.

The need for a separate customs zone was caused by the remoteness of the construction site from the nearest customs post (200 km). Otherwise the logistics would have been considerably complicated and would require a long period of time for equipment to reach the site. The Amur Gas Processing Plant is an important link in the technological chain of supply of natural gas to China along the eastern route. The plant is to receive gas from the Yakutsk and Irkutsk gas production centres through the Power of Siberia gas pipeline which is under construction.



Svobodny, Amur Oblast

Amur GPP-Zeya River dredging

Work has started on the dredging of Zeya's fairway in the Amur region to help transportation of goods for the construction and delivery of equipment to the Amur Gas Processing Plant (GPP) in the Svobodny district. The current fairway limits the draft of ships and the volume of cargo transportation. In addition, specialists intend to turn to hydropower, in order that Zeya HPP will let more water into the river in low-water periods. The Zeya HPP will be asked to put water into the river for passage of barges to Amur GPP.

Currently the Zeya fairway in the Amur region allows the usage of barges with a draft of 1.1-1.3 metres for transportation, but barges of this type in the Amur region are not sufficient to deliver the large pieces of equipment. Dredging will thus allow to use ships with a draft of up to 1.7 metres which is considered necessary to supply the equipment to the gas processing site.

Gazprom & SIBUR to sign agreement on ethane supply from the Amur Gas Processing Plant-

Gazprom and SIBUR can be expected to sign an agreement in September on the supply of ethane from the Amur Gas Processing Plant to the Amur Gas-Chemical Complex. According to Gazprom there are many factors associated with mutual obligations, not only the price, but also the volumes of supplies, etc. Gazprom needs the economy of selling ethane, and SIBUR needs to buy so there is almost inevitably a large contract in the making assuming SIBUR proceeds with the Amur Gas-Chemical Complex. The final decision is expected in early 2018 in order to allow Gazprom to make the necessary decisions regarding technical adaptation to the fourth unit of the gas processing plant.

Amur Gas Processing Plant-energy

Gazprom plans to put into operation a power plant for the Amur Gas Processing Plant (GPP) under construction. The capacity of the station is determined to be 150 MW (first stage), and now the group is planning to put the plant into operation by 2021. SIBUR's petrochemical complex would be linked to the same power station. The company will start nine plants: six for gas processing, three for the separation of helium and nitrogen. The capacity of the GPP will be 42 billion cubic metres of gas per year and 60 million cubic metres of commercial helium.

Other Russian petrochemical projects

Nizhnekamskneftekhim-Linde

In the past few months TAIF has been in close talks with Linde regarding petrochemical investments in Tatarstan, including signing a memorandum in June which defines the main areas of joint activity until 2025. The memorandum implies a number of contracts for both gas separation and technical gases, and most importantly for the four stages of the ethylene complex of Nizhnekamskneftekhim. The initial stage of the Memorandum was a basic agreement for the design and commissioning of the first stage of an olefin complex with a capacity of 1,200,000 tons of ethylene-a new production of EP-600.

Nizhnekamskneftekhim will provide financing whilst from the German side it is necessary to receive confirmation of financing from the credit expert agencies. After that, the design work will begin. Nizhnekamskneftekhim is to develop a project package of documentation and working design. In parallel, the development and delivery of equipment will be conducted. Traditionally Nizhnekamskneftekhim has worked closely with Lummus Global, particularly in the 1990s when the cracker was being upgraded and modernised,

TAIF-energy plant

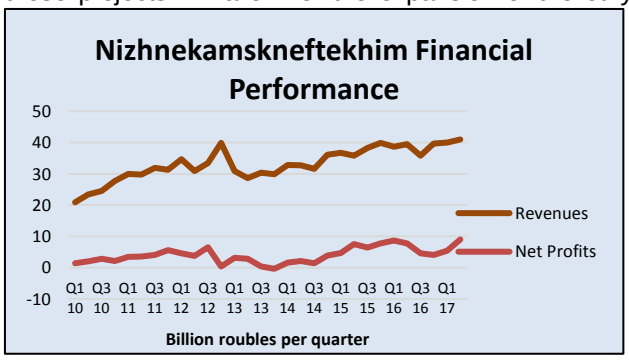
TGC-16 (part of TAIF Group) has launched a new gas turbine unit (GTU) at Kazan CHPP-3. The electric power of the gas-turbine plant is 405.6 MW, the thermal power is 455 Gcal / h. The new unit was installed turbine equipment by General Electric. In the development of technology of HA class turbines, the company invested $2 billion. The generation of electric power in the combined cycle at CHPP-3 will increase, as a result of which the reliability of the power supply of the largest industrial enterprises in the region will increase.

Kazanorgsintez-Linde

The memorandum between TAIF and Linde from June also gives impetus to building a gas processing plant in Tatarstan for serving feedstock to Kazanorgsintez. The gas processing plant will provide raw materials for a new production of ethylene with a capacity of 1 million tpa at Kazanorgsintez, although it is unclear if the company's traditional engineering partner Technip would take responsibility for this project. The gas from the new processing plant will be sourced by pipeline to Kazanorgsintez. From the fatty gas, hydrocarbons will be produced, from which ethylene and will be further processed into high and HDPE at existing and new polyethylene plants.

The ethane feedstock deficit for Kazanorgsintez is currently estimated at 120-150,000 tpa. Tatneft supplied 187,000 tons of ethane from the Minnibayevo gas processing plant to Kazanorgsintez in 2016 for ethylene production, 16,700 tons up on 2015. Tatneft supplies around 30% of ethane requirements for Kazanorgsintez, supplementing the main source of supply from Gazprom's Orenburg gas processing plant. Kazanorgsintez wants to construct a new cracker based on a proposed gas processing plant with a capacity of processing up to 27 billion cubic metres of gas per annum. This would yield 2 million tpa of ethane, and more than 800,000 tpa of hydrocarbons and natural gas liquids. Construction is expected to a new complex to produce ethylene and ethylene derivatives.

In October 2016, Kazanorgsintez and Technip signed an EP-contract for the reconstruction of the production of ethylene. Technip will be responsible for engineering and supply of three pyrolysis furnaces operating on licensed SMK ™ technology. Project support will provide Technip office in Zoetermeer (The Netherlands). It will also be responsible for the commissioning of the equipment, which is scheduled for 2018. Undertaking these projects will allow for the expansion of the ethylene capacity to 1 million tpa. Producing its own benzene will allow Kazanorgsintez to reduce costs in the production of cumene through to polycarbonate.



Russian feedstocks & petrochemicals

Nizhnekamskneftekhim, Jan-Jun 2017

Nizhnekamskneftekhim reduced its net profit by 12% in the first half of 2017, whilst the company's revenue increased by 3.7%. The company achieved revenues of 80.96 billion roubles in the first half of 2017, whilst the cost of sales increased by 14% to 63.73 billion roubles. The gross profit of the company amounted to 17.23 billion roubles against 22.23 billion roubles a year earlier. The profit from sales decreased by 36.4% to 9.77 billion roubles. The profit before tax amounted to 18.23 billion roubles, and net profit 14.42 billion roubles. In the first half of this year Nizhnekamskneftekhim increased the production of rubber by 5.5%, largely due to rises in output of isoprene rubbers and halobutyl rubber. Full production data for Nizhnekamskneftekhim for first half of 2017 and earlier is available on CIREC's Statistical Database at www.cirec.net.

Kazanorgsintez reduced its net profit by 29% for the first half-year

Kazanorgsintez reduced its net profit by 29% for the first half of 2017, whilst the company's revenue decreased by 4.2%. In January-June 2017, Kazanorgsintez achieved revenues of 36.83 billion roubles against 38.43 billion roubles in the same period in 2016. The cost of sales of the company increased by 9.6%, amounting to 22.8 billion roubles.

Kazanorgsintez Production (unit-kilo tons)

	Jan-Jun 17	*Jan-Jun 16*
HDPE	269.5	237.5
LDPE	111.9	92.9
Ethylene	297.3	249.5
Propylene	19.5	30.5
Polycarbonate	33.0	37.2
Phenol	38.3	38.5

The gross profit decreased by 20.5% to 14 billion roubles, whilst commercial expenses amounted to 1.5 billion roubles against 1.09 billion roubles a year earlier. The profit before tax decreased by 28% to 10.6 billion roubles. Net profit amounted to 8.35 billion roubles against 11.75 billion roubles a year earlier. Kazanorgsintez increased polyethylene production in the first half of 2017, based on higher ethylene production. Full historical production data for Kazanorgsintez for first half of 2017 is available on CIREC's Statistical Database at www.cirec.net

Russian Ethylene Production (unit-kilo tons)

Producer	*Jan-Jun 17*	*Jan-Jun 16*
Angarsk Polymer Plant	105.5	21.9
Kazanorgsintez	297.3	249.5
Stavrolen	154.4	147.9
Nizhnekamskneftekhim	321.6	318.1
Novokuibyshevsk Petrochemical	29.8	33.7
Gazprom n Salavat	183.4	160.8
SIBUR-Kstovo	204.1	198.4
SIBUR-Khimprom	26.2	28.6
Tomskneftekhim	137.5	130.0
Ufaorgsintez	63.5	66.3
Total	1523.2	1355.3

Russian ethylene production Jan-Jun 2017

Ethylene production in Russia dropped 3% in June against May to 252,00 tons. Angarsk Polymer Plant reduced ethylene production by 46% to 10,600 tons after stopping for maintenance on 18 June, whilst SIBUR-Kstovo reduced production by 8% to 32,300 tons. For the first six months in 2017, Russia produced 1.52 million tons of monomer, 10% more than in the same period in 2016.

Russian Propylene Exports (unit-kilo tons)

Company	*Jan-Jun 17*	*Jan-Jun 16*
Lukoil-NNOS	33.5	34.2
SIBUR-Kstovo	41.8	24.7
Omsk Kaucuk	2.0	0.0
Angarsk Polymer Plant	0.0	0.4
Stavrolen	5.0	6.8
Total	82.3	66.1

Russian propylene exports, Jan-Jun 2017

Exports of Russian propylene fell by 16% in June to 12,800 tons, due largely to a fall of 34% by SIBUR-Kstovo to 4,600 tons. In addition, there were no overseas supplies of the monomer produced by Stavrolen and Titan at Omsk. On the other hand Lukoil-NNOS increased exports by 9% in June to 8,200 tons. In the first half of 2017, Russian propylene exports totalled 82,300 tons against 66,100 tons in the same period in 2016. For propane-propylene fractions Russian exports increased 35% in the first half of 2017 to 43,500 tons.

Russian Propylene Domestic Sales (unit-kilo tons)

Company	*Jan-Jun 17*	*Jan-Jun 16*
Angarsk Polymer Plant	38.5	8.3
SIBUR-Kstovo	45.3	60.4
LUKoil-NNOS	101.7	105.6
Others	7.2	2.1
Total	192.8	176.5

Russian propylene sales Jan-Jun 2017

Propylene sales on the Russian domestic market totalled 192,800 tons in the first six months in 2017 against 176,300 tons in the same period last year. Angarsk Polymer increased shipments over last year due to its repairs necessary following the cracker accident in February 2016, whilst SIBUR-Kstovo reduced merchant sales whilst increasing exports at the same time. Saratovorgsintez remains the largest merchant buyer of propylene in Russia, using it for acrylonitrile production of which it mostly exports.

Polyom at Omsk has reconstructed the separation columns for the production of propane-propylene fractions, including the replacement of heat exchangers. This is expected to increase capacity for the

production of propane-propylene fractions, where current capacity stands at 250,000 tpa, in addition to 210,000 tpa for polypropylene.

Russian Styrene Production (unit-kilo tons)		
Producer	***Jan-Jun 17***	***Jan-Jun 16***
Nizhnekamskneftekhim	153.5	152.2
Angarsk Polymer Plant	18.8	4.2
SIBUR-Khimprom	60.1	71.9
Gazprom n Salavat	95.8	93.6
Plastik, Uzlovaya	31.1	27.5
Total	359.4	349.4

Russian styrene sales Jan-Jun 2017

Russian producers of styrene reduced sales by 19% in June against May to 10,860 tons. The main supplier of the monomer is Gazprom neftekhim Salavat, which in June shipped 3,490 tons versus 5,740 tons in May due to maintenance, SIBUR-Khimprom sold 3,100 tons in June against 2,970 tons of monomer in May.

Angarsk Plant of Polymers reduced the supply of styrene by 33% to 1,200 tons, whilst Plastik reduced sales by 57.5% to 362 tons. In the first half of 2017 sales of styrene on the Russian domestic market totalled 52,430 tons, 9.5% more than in the same period of 2016.

Bulk Polymers

Russian HDPE Production (unit-kilo tons)		
Producer	***Jan-Jun 17***	***Jan-Jun 16***
Kazanorgsintez	269.5	157.3
Stavrolen	142.3	89.3
Nizhnekamskneftekhim	37.1	47.8
Gazprom neftekhim Salavat	51.5	36.2
Total	500.4	330.6

Russian HDPE production, Jan-Jun 2017

HDPE production in Russia fell by 0.4% in the first six months in 2017 to 500,400 tons. Kazanorgsintez increased production of HDPE by 14% to 269,500 tons. Stavrolen increased its production by 8% to 142,300 tons, whilst Gazprom neftekhim Salavat reduced production of polyethylene by 8% to 51,500 tons. Nizhnekamskneftekhim has produced only 37,100 tons in the first six months, against 77,400 tons in the same period in 2016 having focused more on LLDPE production.

Russian Polypropylene Production (unit-kilo tons)		
Producer	***Jan-Jun 17***	***Jan-Jun 16***
Ufaorgsintez	63.2	58.1
Stavrolen	59.8	57.5
Moscow NPZ	42.5	64.0
Nizhnekamskneftekhim	108.5	109.3
Polyom	106.6	102.2
Tomskneftekhim	70.7	66.6
SIBUR Tobolsk	264.5	232.4
Total	715.8	690.1

Russian polypropylene, Jan-Jun 2017

In the first six months of 2017 Russian polypropylene production totalled 715,800 tons, 4% higher than in the same period in 2016. SIBUR Tobolsk produced 264,500 tons in January to June this year, up 14%, whilst Polyom increased by 4% to 106,600 tons in the first half of 2016. Ufaorgsintez increased production by 9% to 63,200 tons whilst Stavrolen increased by 4% to 59,800 tons. Tomskneftekhim and Neftekhimya (Moscow) produced 70,700 tons and 42,500 tons of propylene polymer which were down due to repairs. Nizhnekamskneftekhim reduced the production of polypropylene by 1% to 108,500 tons.

Imports of polypropylene into Russia amounted to 75,900 tons in the first half of 2017, 5% down on the same period in 2016. The reduction in external supplies was recorded for homo and propylene copolymers (PP-Random), while imports of block copolymers of propylene (PP block) increased.

Russian Polypropylene Imports (unit-kilo tons)		
	Jan-Jun 17	***Jan-Jun 16***
Homopolymers	26.2	39.6
Block	20.4	15.7
Random	13.6	14.3
Other	15.7	13.1
Total	75.9	82.7

Imports of propylene homopolymers decreased to 26,200 tons against 36,900 tons, random copolymers fell from 14,300 tons to 13,600 tons, whilst imports of propylene block copolymers increased to 20,400 tons against 15,700 tons. External supplies of other propylene polymers amounted to 15,700 tons against 13,100 tons in the first half of 2016.

Russian PVC, Jan-Jun 2017

Russian PVC imports amounted to 32,200 tons in the first half of 2017, 18% less than in 2016. Low demand from the domestic market and growth in domestic production volumes have become the main reason for the reduction of external supplies. imports from China amounted to 30,200 tons against 31,300 tons in the first half of 2016, whilst imports from Europe decreased to 1,700 tons against 2,500 tons.

Russian PVC Production (unit-kilo tons)		
Producer	***Jan-Jun 17***	***Jan-Jun 16***
Bashkir Soda	130.0	125.9
Kaustik	45.7	44.8
RusVinyl	155.8	173.3
Sayanskkhimplast	136.3	35.3
Total	467.8	379.3

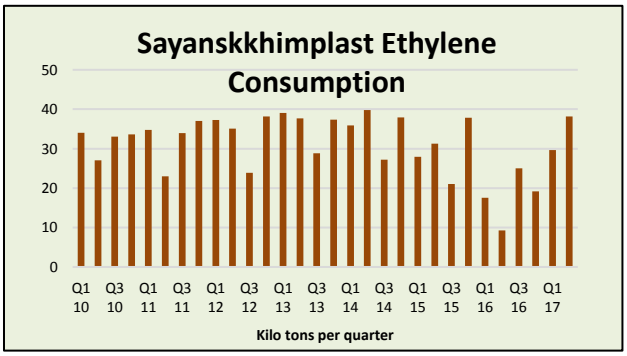
PVC production in Russia rose 30% in the first half of 2017 to 467,700 tons. Sayanskkhimplast produced 136,300 tons in the first six months against 35,900 tons, which was the most important factor in the rise this year whilst RusVinyl increased production by 1% to 155,800 tons. In June RusVinyl produced 27,800 tons, of which 2,200 tons was emulsion grade.

Bashkiria Soda produced 21,600 tons of suspension PVC in June, against 22,300 tons in May. During the first half of the year, resin production at the Bashkir plant amounted to 130,000 tons against 126,700 tons in January to June 2016. The other Russian producer Kaustik at Volgograd, produced 45,700 tons in the first half of 2017 against 44,800 tons in the same period in 2016. Overall Russian PVC production totalled 467,800 tons in the first half of 2017 against 379,300 tons in the same period in 2016.

Sayanskkhimplast started a planned shutdown at the PVC plant on 24 July, which was scheduled for completion in the second half of August. In June, complex tests were completed at all Sayanskkhimplast production facilities, which confirmed the possibility of producing 350,000 tpa of PVC, 216,000 tpa of caustic soda and 183,600 tpa of chlorine. The company plans to create its own hydrocarbon base to ensure stable operation of increased capacity.

Sayanskkhimplast 2016

Sayanskkhimplast finished in 2016 with a net loss of 87.7 million roubles against a loss of 1.72 billion roubles in 2015. The enterprise was forced to stand idle for several months. As a result the company's revenue decreased by 23.5% to 8.73 billion roubles. The cost of sales decreased by 8.4%, amounting to 6.45 billion roubles. Revenue from sales fell 1.9 times to 2.28 billion roubles.



Sayanskkhimplast successfully tested new equipment in June, raising PVC capacity to 350,000 tpa in 2018. The company's management is working to create its own site to ensure the production of its own hydrocarbon raw materials, but it largely depends on Gazprom. The five month outage at Angarsk in 2016 showed that the company's own raw materials base is a necessary condition for the plant's stable operation and the guarantee of its progressive development.

Russian Paraxylene Exports (unit-kilo tons)		
Producer	***Jan-Jun 17***	***Jan-Jun 16***
Gazprom Neft	21.6	31.9
Kirishinefteorgsintez	35.7	10.0
Ufaneftekhim	0.0	0.0
Total	57.3	41.9

Paraxylene-PET Chain

Russian paraxylene, Jan-Jun 2017

Paraxylene exports from Russia totalled 57,300 tons in the first half of 2017 against 41,900 tons. Whilst Gazprom Neft reduced exports from 31,900 tons in January to June 2016 to 21,600 tons in the same period in 2017, Kirishinefteorgsintez increased shipments from 10,000 tons to 35,700 tons. Domestic sales also increased in the first half of 2017 to 96,900 tons from 87,900 tons in the same period in 2016. Ufaneftekhim reduced sales to Polief slightly from 53,900 tons to 51,900 tons, whilst Gazprom Neft increased paraxylene sales from 34,000 tons to 45,000 tons.

Russian PTA Imports (unit-kilo tons)

Country	*Jan-May 17*	*Jan-May 16*
Belgium	19.1	12.0
India	15.4	0.0
China	37.6	10.6
South Korea	10.3	14.3
Poland	0.0	9.3
Thailand	9.0	0.3
Turkey	1.0	0.0
Total	92.4	46.5

PTA customs rate to stay zero until end of 2019

A decision has been taken by the Eurasian Customs Union that the zero rate of the import customs duty on PTA is to be extended for a period of two years. Thus, the rate of import duty will remain zero for the period from 1 January 2018 to 31 December 2019.

The decision is due to the need to preserve the competitiveness of the products of Russian producers of PET by preventing the growth of production costs due to the 5% import customs duty on PTA.

The last time the import duty on PTA was revised in 2015 where the zero rate was maintained for the period from 1 January 2016 to 31 December 2017. Polief is the sole producer of PTA in Russia with a capacity of 269,000 tpa, in addition to a capacity of 210,000 tpa for PET. Imports of PTA play an important part in providing the raw materials for domestic PET producers, and new projects that are in the planning stages at Vichuga in the Ivanovo region and Nalchik in the Kabardino-Balkaria region.

In the first five months in 2017 Russian PTA imports totalled 92,400 tons against 46,500 tons in the same period in 2016. China supplied 37,600 tons in the period January to May 2017 against 10,600 tons in 2016, whilst another 19,100 tons were supplied from Belgium and 15,400 tons from India.

Russian MEG Exports (unit-kilo tons)

Destination	*Jan-Jun 16*	*Jan-Jun 16*
Belarus	43.2	32.1
Lithuania	18.0	7.7
Kazakhstan	1.2	0.5
Netherlands	3.3	1.5
Uzbekistan	0.7	0.0
Turkey	6.2	3.9
Others	5.7	24.4
Total	78.3	70.0

Russian MEG, Jan-Jun 2017

Exports of MEG in June rose 19.5% over May to 13,760 tons. SIBUR-Neftekhim exported 9,600 tons, 31% up on May, whilst Nizhnekamskneftekhim reduced shipments by 3.7% to 3,900 tons. Belarus accounted for 7,500 tons of Russian MEG exports in June, 8.2% up on May, whilst Lithuanian consumers increased shipments 2.4 times to 4,600 tons. Kazakhstan increased Russian MEG purchases by 3.1 times over May to 601 tins and Ukraine increased purchases by 3.2 times to 443.4 tons. Exports of Russian MEG totalled 78,300 tons in the first half of 2017, 9.2% up on the same period in 2016.

MEG imports into Russia dropped 60% in June against May to 2,000 tons, all of which went to TD Ecopolymer and all of which came from Saudi Arabia. In the first half of 2017 MEG imports into Russia totalled 23,900 tons which is up 20.3% against the same period in 2016.

Russian MEG Domestic Sales (unit-kilo tons)

Company	*Jan-Jun 16*	*Jan-Jun 16*
SIBUR-Neftekhim	49.0	55.4
Nizhnekamskneftekhim	21.6	8.8
Others	1.9	1.9
Total	72.5	66.0

Domestic sales of MEG amounted to 16,200 tons in June, 15.6% more than in May. SIBUR-Neftekhim shipped 8,450 tons, up 1.7% on May, whilst Nizhnekamskneftekhim increased deliveries by 34.7% to 7,350 tons. Of the smaller producers Kazanorgsintez resumed MEG production on 8 August after a maintenance shutdown.

PET producers Polief purchased 7,300 tons which was up 2%, whilst Senezh purchased 2,900 tons after being idle in May. Of the other consumers Obninskorgsintez reduced shipments by 21.4% to 2,200 tons. In the first half of 2017 MEG sales on the domestic market totalled 72,570 tons which was 5.9% up on the same period in 2016.

Russian PET trade, Jan-Jun 2017

Russian PET exports totalled 20,900 tons in the first six months in 2017, 56% up on the same period in 2016. Most of the exports were undertaken by Alko Naphtha from Kaliningrad. Imports of PET in Russia for January-June 2017 amounted to 19.29% of total consumption, which is 2% less than the same period in 2016.

In total for January-June 2017, 57,400 tons of PET granules were imported which was 23% down on the same period in 2016. Production of PET in Russia totalled 288,000 tons in the first half of 2017 which was 7% down against last year.

Alko-Naphtha 2016

Alko-Naphtha achieved a net profit of 66 million roubles in 2016 against a loss 2.3 billion roubles in 2015. The company's revenue for the past year doubled up to 723.1 million roubles, whilst the cost of sales decreased by 2.2% to 726.05 million roubles. Results were helped by lower PTA prices. In May 2017 ZAO Alko-Nafta was reorganized into a joint-stock company, and on June 26 it was renamed Ekopet. The company is based on the territory of the free economic zone of the Kaliningrad region, including a capacity for the production of PET of 220,000 tpa.

Ivanovo polyester project-fund available for infreastructure

For the Ivanovo Polyester Plant 441.5 million roubles has been allocated over period of three years to create the infrastructure in the Vichuga district to support construction of the project. The funds will be spent on the construction of energy facilities, engineering networks, roads and other structures. It is planned to build an access road to an industrial site near the village of Staraya Golchikha, as well as engineering networks for an industrial park.

Aromatics

Russian Benzene Consumers (unit-kilo tons)

Consumer	*Jan-Jun 17*	*Jan-Jun 16*
Kuibyshevazot	83.6	56.3
Azot Kemerovo	50.9	47.0
Shchekinoazot	28.1	24.6
Kazanorgsintez	31.5	34.9
Zapsib	17.5	22.6
SIBUR-Khimprom	47.5	59.3
Promsintez	8.3	7.8
Uralorgsintez	38.1	39.1
Others	46.9	32.9
Exports	104.2	34.5
Total	456.6	359.0

Russian benzene production, Jan-Jun 2017

Russian benzene production dropped in June by 9% to 96,700 tons, the reduction was due to several shutdowns. Angarsk Polymer Plant reduced production by 54% to 3,740 tons, whilst Ufaneftekhim reduced production by 63% to 2,600 tons. Following the completion of maintenance in May, Gazprom Neft at the Omsk refinery increased production from 3,160 tons to 6,470 tons. Most of the extra benzene went to Azot at Kemerovo for the production of caprolactam. In the first half of 2017, the production of benzene for synthesis and nitration in Russia increased by 11% to 630,600 tons.

Benzene sales, including both domestic and export, have increased sharply this year. Domestically the main factor has been the larger purchases made by Kuibyshevazot, taking 83,600 tons in the first half of 2017 against 56,300 tons in the same period in 2016.

Benzene exports from Russia dropped 17% in June to 11,100 tons. Slavneft-Yanos reduced supply to the world market by 3.2 times to 464 tons, whilst Kirishinefteorgsintez reduced shipments by 32% to 2,700 tons, and Gazprom neftekhim Salavat by 13% to 3,900 tons. I At the same time, Stavrolen increased exports of benzene by 36% to 4,000 tons. Whereas last year most of the export conducted by coal base producers, this year volumes have been boosted by shipments from refineries and petrochemical plants. Despite the rise of export activity, imports continue to flow inwards from Kazakhstan. the second quarter of 2017, Russian companies purchased 6,900 tons of benzene on the world market, which is 11% more than in the same period of 2016. Kuibyshevazot was the only importer of benzene in June, taking 628 tons from the Atyrau refinery (Kazakhstan).

Russian Orthoxylene Domestic Sales (unit-kilo tons)

Producer	*Jan-Jun 17*	*Jan-Jun 16*
Gazprom Neft	37.7	28.9
Ufaneftekhim	30.8	22.2
Kirishinefteorgsintez	14.3	17.2
Total	82.8	68.3

Russian orthoxylene sales, Jan-June 2017

Russian refineries sold 15,240 tons of orthoxylene on the domestic market in June against 17,650 tons in May.

Ufaneftekhim shipped 4,640 tons versus 8,330 tons in May, Gazprom Neft shipped 8,390 tons against 6,990 tons, and Kirishinefteorgsintez 2,340 tons from Kirishinefteorgsintez. Kamteks-Khimprom reduced the purchase of orthoxylene to 8,930 tons in June against 10,830 tons in May whilst Gazprom neftekhim Salavat increased purchases by 2.7 times 970 tons. At the same time, the Dmitrievsky chemical plant increased purchases by 52% to 970 tons. In the first half of 2017, the volume of domestic orthoxylene sales to the domestic market of Russia to 83,070 tons which is 22% more than in the same period last year.

Russian orthoxylene exports, Jan-Jun 2017

Exports of orthoxylene amounted to 2,880 tons in June, 73% less than in May. Kirishinefteorgsintez shipped 2,520 tons, whilst the other refineries were preoccupied with maintenance. In the first half of 2017, the volume of exports of Russian orthoxylene was 52,870 tons which is 9% less than in the same period last year.

Russian Orthoxylene Exports (unit-kilo tons)

Producer	*Jan-Jun 17*	*Jan-Jun 16*
Gazprom Neft	20.8	34.5
Kirishinefteorgsintez	14.1	9.4
Ufaneftekhim	18.2	13.1
Total	53.1	57.1

Russian phenol production, Jan-Jun 2017

Phenol production in Russia in June decreased by 25% in June against May to 13,400 tons. This was due to a stop scheduled repair at the Novokuibyshevsk Petrochemical Company which produced only 650 tons. Kazanorgsintez and Ufaorgsintez in June also reduced production in June, albeit marginally, falling 2% and 4% respectively to 6,400 tons and 6,300 tons. Russian imports of phenol increased in June to cover an outage at the Novokuibyshevsk plant. Borealis supplied 2,900 tons to Russia in June, of which 55% was delivered to company Astat and 16% to Metadynea.

Russian Market Phenol Sales by Supplier (unit-kilo tons)

Producer	*Jan-Jun 17*	*Jan-Jun 16*
Samaraorgsintez	22.9	26.7
Kazanorgsintez	6.4	4.6
Ufaorgsintez	31.2	32.6
Borealis	3.2	0.4
Total	63.8	64.2

Rosneft plans to launch a modernized production of cumene at Ufaorgsintez by the end of the year, and start-up operations should begin in the third quarter. The commissioning of the facility is to be completed by 31 December 2017. At present the company is conducting a tender for the selection of a contractor for commissioning works.

The capacity of the plant for the production of cumene is 170,000 tpa. The licensor of the project is the North American company Badger Licensing. Project documentation was developed by the State Unitary Enterprise Bashgiproneftekhim, as a general contractor for construction and installation works, Globalstroy-engineering was selected.

Kuibyshevazot-Production (unit-kilo tons)

Product	*Jan-Jun 17*	*Jan-Jun 16*
Polyamide-6	73.4	70.6
High Tenacity Tech Yarns	5.9	6.2
Caprolactam	94.4	97.8
Ammonia	324.3	322.1
Urea	172.9	171.9
Ammonium Nitrate	315.5	311.0
Ammonium Sulphate	241.4	252.8

Kuibyshevazot, Jan-Jun 2017

Kuibyshevazot increased sales volumes of commodity products by 8.7% in the first half of 2010. Following the results of six months Kuibyshevazot sold commodity output for 21.1 billion roubles. Net profit amounted to 2.7 billion roubles against 3.1 billion roubles in the same period in 2016. The company is capable of producing 660,000 tpa of ammonia, 360,000 tpa of urea, 610,000 tpa of ammonium nitrate, 560,000 tpa of ammonium sulphate, 210,000 tpa of caprolactam, and 150,000 tpa of polyamide-6.

Russian Caprolactam Exports (unit-kilo tons)

Producer	*Jan-Jun 17*	*Jan-Jun 16*
Kuibyshevazot	23.5	24.3
SDS Azot	23.5	40.5
Shchekinoazot	59.1	28.2
Total	106.2	92.9

Russian caprolactam market, Jan-Jun 2017

Russian caprolactam exports totalled 106,200 tons in the first six months in 2017 against 92,200 tons in the same period in 2016. Although Kuibyshevazot increased shipments slightly to 23,300 tons from 24,300 tons, and SDS Azot dropped from 40,500 tons to 23,500 tons, a major increase was recorded by Shchekinoazot which shipped 59,100 tons in the first six months, up from 92,900 tons in the same period in 2016.

Azot at Kemerovo has received equipment worth over 80 million roubles from Kemerovohimmash intended for construction of a hydrogen pressure swing adsorption plant for manufacture of caprolactam. Shchekinoazot is close to completion of its investment programme for the past year on caprolactam plant modernisation. However, in the production of cyclohexanone the company still faces bottlenecks that require additional work, ensuring an increase in the circulation of cyclohexane. Primarily, this reconstruction of internal devices stripper cyclohexane. To increase the capacity of caprolactam Shchekinoazot will undertake the reconstruction of hydroxylamine separation.

Russian Synthetic Rubber Exports (unit-kilo tons)

Category	*Jan-May 17*	*Jan-May 16*
E-SBR	17.1	15.2
Block	18.1	14.2
SSBR	4.2	2.4
SBR	36.1	38.0
Polybutadiene	102.5	90.6
Butyl Rubber	53.4	65.1
HBR	57.6	47.9
NBR	10.9	13.1
Isoprene Rubber	128.6	108.5
Others	14.5	43.6
Total	443.0	438.4

Synthetic Rubber

Russian synthetic rubber exports, Jan-May 2017

Synthetic rubber exports from Russia rose slightly in the first five months to 443,000 tons against 438,400 tons in the same period in 2016, whilst revenues rose from $529 million to $814 million. Average prices per ton have risen this year although recently have started to show signs of weakening. By product category, isoprene rubber exports have seen the largest rise in volume this year, totalling 128,600 tons against 108,500 tons in the same period in 2016. Export sales of halogenated butyl rubber also increased, rising from 47,900 tons to 57,600 tons, whilst butyl rubber shipments fell from 65,100 tons in January to May 2016 to 53,400 tons.

Russian Chemical Commodity Exports

	Jan-May 17	*Jan-May 17*	*Jan-May 16*	*Jan-May 16*
Product	*Kilo tons*	*$ Mil*	*Kilo tons*	*$ Mil*
Ammonia	1045.5	236	1,466	386
Methanol	685.5	189	607	109
Nitrogen Fertilisers	4995.9	927	4,973	945
Potash	3461.3	641	3,863	863
Synthetic Rubber	443.2	814	438.4	529

Regarding export destinations, China and Poland were the two largest markets for Russian rubber shipments in January to May this year. China imported 55,789 tons and Poland 55,561 tons. Other major markets included Hungary where Russia export 37,563 tons and India where 36,121 tons were shipped. Central and East Europe remains the largest geographical area for Russian synthetic rubber exports.

Russian Methanol Production (unit-kilo tons)

Producer	*Jan-Jun 17*	*Jan-Jun 16*
Shchekinoazot	241.2	250.4
Sibmetakhim	388.0	416.8
Metafrax	559.0	560.0
Akron	51.0	35.1
Azot, Novomoskovsk	115.2	166.3
Angarsk Petrochemical	1.9	0.4
Azot, Nevinnomyssk	57.8	54.8
Tomet	397.6	340.5
Ammoni	104.0	58.1
Totals	1915.6	1882.4

Methanol & related products

Russian methanol production, Jan-Jun 2017

Methanol production in June amounted to 287,000 tons, 2% less than in May. Metafrax accounted for 33% of Russian methanol production in June (94,000 tons), followed by Tomet 25% (71,200 tons), and Shchekinoazot 16% (45,000 tons). Sibmetakhim produced only 7% (20,600 tons) of Russian production in June due to a maintenance outage. Other producers included Azot at Novomoskovsk which accounted for 6% (17,800 tons), Nevinnomyssk Azot 4% (11,200 tons), Akron 3% (9,300 tons) and Ammoni 6% (18,100 tons).

Azot at Novomoskovsk resumed production in June after repair and increased production 2.5 times over May. Ammoni increased production by around a half over May. Ammoni's capacity at Mendeleevsk is 238,000 tpa, with natural gas consumption of about 1 billion cubic metres. Moust of the methanol from Ammoni is shipped to Nizhnekamskneftekhim due to geographical proximity of around 60 km. In late July Shchekinoazot completed a series of repairs at its production facilities, including both methanol and caprolactam. Repair work was also carried out in the production of concentrated low-methanol formaldehyde and urea-formaldehyde concentrate.

Russian Methanol Domestic Sales (unit-kilo tons)

Producer	*Jan-Jun 17*	*Jan-Jun 16*
Azot Nevinnomyssk	14.5	10.6
Azot Novomoskovsk	39.9	43.4
Metafrax	192.2	190.4
Sibmetakhim	180.0	166.1
Tomet	241.9	199.4
Shchekinoazot	23.1	49.7
Ammoni (Mendeleevsk)	56.6	45.1
Others	2.7	21.7
Total	750.9	721.2

Russian methanol production totalled 1.916 million tons in the first half of 2017 against 1.882 million tons in the same period in 2016. Ammoni at Mendeleevsk recorded a rise from 58,100 tons in the first half of 2016 to 104,000 tons in the same period in 2017. Tomet also increased production significantly from 340,500 tons to 397,600 tons. Metafrax was down slightly by 1,000 tons to 559,000 tons whilst Sibmetakhim at Tomsk reduced production from 416,800 tons to 388,000 tons and Azot at Novomoskovsk from 166,300 tons to 116,000 tons.

Domestic merchant sales of methanol increased to 750,900 tons in the first half of 2017 from 721,200 tons in the same period in 2016. The largest supplier to the domestic market was Tomet, shipping 241,900 tons to domestic consumers against 199,400 tons last year. Nizhnekamskneftekhim is the largest individual buyer of merchant methanol on the Russian market, taking 137,400 tons in first half of 2017 against 117,200 tons in 2016, followed by SIBUR Togliatti which bought 62,700 tons in January to June this year. Both Nizhnekamskneftekhim and SIBUR Togliatti produce MTBE, which is the main domestic application for Russian methanol, whilst also producing synthetic rubber where methanol is used in the production process for isoprene.

Russian urea projects

Fosagro at Cherepovets hopes to start its third unit for urea production in September 2017, with a capacity of 500,000 tpa and following the start of the new ammonia plant of 760,000 tpa. Kuibyshevazot is considering the possibility of implementing a new investment project for the construction of granulated urea production. The facility's capacity could be 1,500 tons of products per day, with project costs estimated at €158 million.

Fosagro Production (unit-kilo tons)

Product	*Jan-Jun 17*	*Jan-Jun 16*
Ammonia	587.4	607.9
Urea	505.4	534.9
Phosphate fertilisers	3,230.0	2,919.3
Nitrogen fertilisers	784.8	800.0
Ammonium nitrate	262.2	239.9
Aluminium fluoride	23.0	23.3
Phosphoric acid	1,236.5	1,137.7
Sulphuric acid	2,648.8	2,555.4
Sodium Tripolyphospahe	31.4	45.9

Fosagro, Jan-Jun 2017

The Fosagro group increased production of mineral fertilisers and feed phosphates by 8.8% in the first half of the year. The volume of production in the second quarter increased by 15.7% to 2.04 million tons. At the same time, the nitrogen fertilizer group registered a decline of 1.8% to 767,600 tons whilst phosphate fertilizer production increased by 11.6% to 3.23 million tons. The total sales volume for the first half of the year amounted to 4.07 million tons. Over the half year, Fosagro has increased the sales of mineral fertilizers in the Russian market by more than 20%. Also the group has increased sales of fertilizer supplies to Brazil, which added almost 60% in the first half of the year, and almost a twofold increase in the volume of supplies to the CIS market.

Kuibyshevazot together with Maire Tecnimont S.p.A plans to launch production of granulated urea in the Samara region, the share of participation in the jv of the Russian company is 68% and the Italian company 32%. The contribution of Maire Tecnimont taking into account the attracted and equity capital may amount to €11 million. The capacity will comprise 525,000 tpa based on licensed technology from Stamicarbon.

At Gubakha, Metafrax is undertaking construction of the Ammonia-Urea-Melamine complex which it hopes to complete by 2020. The intention is to ship urea from Gubakha for export through the Finnish port of Kotka. The new production will be technologically connected with the methanol unit and its material flows of raw materials and energy is resources. Most of the products are planned to be used for the company's own production of urea-formaldehyde concentrate and synthetic resins. Metafrax is using technology from Casale for the project involving capacities of 460,000 tpa for urea, 330,000 tpa for ammonia and 44,000 tpa for melamine.

Shchekinoazot-methanol, ammonia & ether projects

Shchekinoazot has completed storage facilities for its new ammonia project, 135,000 tpa, whilst the 450,000 tpa methanol project is progressing on schedule. The general designer of the two plants Orgkhim at Severodonetsk has finished the bulk of the working documents, in conjunction with the general contractor is

Neftezavodmontazh at Volgograd. Shchekinoazot has started the final phase of installation works at the methanol and ammonia production complex M-450/A-135.

As of the beginning of August, more than half of the main equipment was installed at the new production site. The pipelines are being installed, whilst the contractors have completed the assembly of ball tanks, and performed their heat treatment, hydrotesting, etc. The warehouse of liquid ammonia has the highest degree of readiness from all facilities. The launch of the complex is planned for the second quarter of 2018.

Shchekinoazot has begun to prepare the site for construction of the production of dimethyl ether perfume quality. ThyssenKrupp Uhde Engineering Services GmbH has been chosen as the licensor and developer of the project. Investment in the 20,000 tpa plant for dimethyl ether was estimated previously at 1.33 billion roubles. Dimethyl ether is expected to supply manufacturers of cosmetic products in aerosol cans, manufacturers of polyurethane foam.

Organic chemicals

Russian butanol production, Jan-Jun 2017

Russian butanol production dropped 19% in June against May to 17,550 tons. The share of n-butanol in butanols production in June 2017 was 63%, and isobutanol 37%. Gazprom neftekhim Salavat stopped for maintenance in May and was restarted in June, thus increasing production by 80% to 4,590 tons.

Russian Butanols Market
Jan-Jun 2017

- Production up 5%
- Exports down 2.9 times
- Domestic merchant sales drop 20%

In total for the first half of 2017, butanol production in Russia amounted to 123,930 tons which was 5% more than for the same period in 2016.

Russian N-butanol Exports (unit-kilo tons)

Producer	*Jan-Jun 17*	*Jan-Jun 16*
Gazprom n Salavat	3.2	38.5
SIBUR-Khimprom	3.0	3.5
Angarsk Petrochemical	1.0	0.5
Azot Nevinnomyssk	0.9	0.2
Dmitrievsky Chemical Plant	1.2	0.8
Total	9.3	43.5

Russian Isobutanol Exports (unit-kilo tons)

Producer	*Jan-Jun 17*	*Jan-Jun 16*
Gazprom n Salavat	3.5	4.6
SIBUR-Khimprom	6.1	10.4
Angarsk Petrochemical	0.1	0.0
Dmitrievsky Chemical Plant	0.1	0.1
Total	9.7	15.0

Russian butanol sales, Jan-Jun 2017

Exports of butanols from Russia amounted to 2,210 tons in June against 3,160 tons in May and 9,110 tons in June 2016. N-butanols comprised 84% of exports in June and isobutanol 16%. SIBUR-Khimprom shipped 1,850 tons of butanols in June (84% of the total Russian exports), Nevinnomyssk Azot 180 tons (8%), and the Angarsk Petrochemical Company 20 tons (1%). Gazprom neftekhim Salavat did not export butanol in June.

Poland accounted for 54% of Russian butanol shipments in June, followed by the Netherlands (20%), Ukraine (11%) and Turkey (8%). Russian butanol exports amounted to 18,820 tons in the first half of 2017, 2.9 times less than for the same period last year.

Russian Butanol Domestic Sales (unit-kilo tons)

Producer	*Jan-Jun 17*	*Jan-Jun 16*
Gazprom n Salavat	2.8	11.0
SIBUR-Khimprom	17.6	19.1
Angarsk Petrochemical	5.5	1.2
Azot Nevinnomyssk	1.1	2.8
Others	0.0	0.0
Totals	27.0	34.1

Domestic merchant sales of butanols totalled 27,000 tons in the first half of 2017, against 34,100 tons in the same period in 2016. Due to the start-up of the new acrylates plant in January this year Gazprom neftekhim Salavat reduced merchant sales on the domestic market from 11,000 tons to 2,800 tons. Only Angarsk Petrochemical Company increased merchant sales in the first half of 2017, rising from 1,200 tons to 5,500 tons. The impact of the new Salavat acrylates complex has thus been to reduce availability on the merchant market in addition to lower exports.

Russian DOP Trade (unit-kilo tons)

	Jan-Jun 17	*Jan-Jun 16*
Exports	1.2	0.251
Imports	1.1	1.386

Russian plasticizer alcohols, Jan-Jun 2017

In June, exports of dioctyl phthalate (DOP) from Russia amounted to 336 tons, all of which went to Uzbekistan. The Ural Plasticizer Plant delivered 226 tons and Kamteks-Khimprom 109 tons. In the first six months in 2017 Russian exports of DOP totalled 1200 tons against 251 tons in the same period in 2016.

DOP imports rose to 521 tons in June against 210 tons in May and 310 tons in June 2016. In June 2017, Korean companies Aekyung Petrochemical and Hanwha Corporation supplied 378 tons and 120 tons respectively whilst the Polish company Boryszew supplied 22 tons. In the first half of 2017 Russian imports of DOP amounted to 1,100 tons which was 26% less than in the same period in 2016.

Russian Phthalic Anhydride Production (unit-kilo tons)

Producer	*Jan-Jun 17*	*Jan-Jun 16*
Gazprom neftekhim Salavat	4.6	3.9
Kamteks	50.5	38.4
Total	55.1	42.3

Russian production of phthalic anhydride totalled 9,540 tons in June, unchanged from May of which Kamteks-Khimprom supplied 8,780 tons and Gazprom neftekhim Salavat 760 tons. In the first half of the year 2017, phthalic anhydride production volumes in Russia totalled 55,090 tons which is 30% more than in the same period last year.

Phthalic exports rose 45% in June to 5,160 tons over May. India took 39% of supplies, followed by Turkey (11%), Tunisia (10%), Finland (9%), Poland (7%) and Uzbekistan (5%). In the first half of the year 2017, phthalic anhydride shipments from Russia abroad amounted to 21,210 tons which is 14% more than the same period in 2016.

Russian Organic Chemical Exports

Product	*Jan-May 17*	*Jan-May 16*
N-Butanol	7.2	33.2
Iso-butanol	9.4	13.1
2-EH	14.0	20.5
Pentaerthyitol	4.7	3.5
Phenol	2.2	3.3
Ethylene Oxide	7.1	8.3
Formaldehyde	9.4	11.8
Acetone	18.9	25.8
Acetic Acid	14.4	0.0
VAM	18.9	9.6
Butyl Acetate	10.7	13.1
Butyl Acrylate	14.5	13.1
Phthalic Anhydride	25.9	5.7

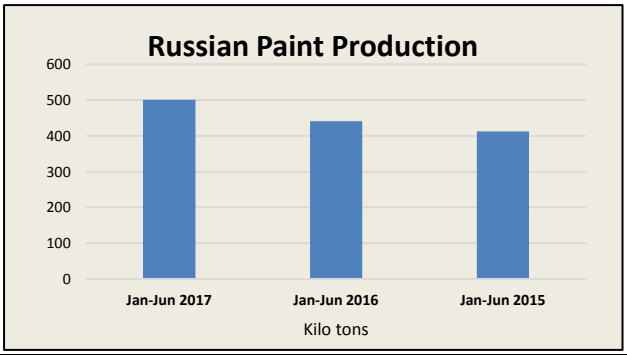
Metafrax-pentaerythitol, Jan-Jun 2017

Metafrax produced 12,150 tons of pentaerythritol in the first half of 2017, 5% more than for the comparable period of 2016. Metafrax is investing around a billion roubles into the modernisation of the pentaerythritol plant, which is expected to be completed in 2018. The concept provides for the modernisation of production in three phases.

Russian paint production, Jan-Jun 2017

The production of paint and varnish materials in Russia totalled 1.3 million tons in 2016, the highest volume since 2010. The positive dynamics of the market is connected with the reduction in the volume of imports and the replacement of its products produced domestically, as well as with the expansion of geography and exports of paint and varnish materials. The largest manufacturers include OOO Tikkurila, ZAO San Chemical, Empils, BASF Vostok and Akzo Nobel Decor.

Production of paints in Russia increased by 8.8% in the first half of 2017 over 2016 to 501,000 tons. Demand has been boosted this year from the military sector. As a result a number of companies and regions have been able to report rises in production. Paint production in the Altai Territory rose 17.5% in the first half of 2017 to 3,120 tons.

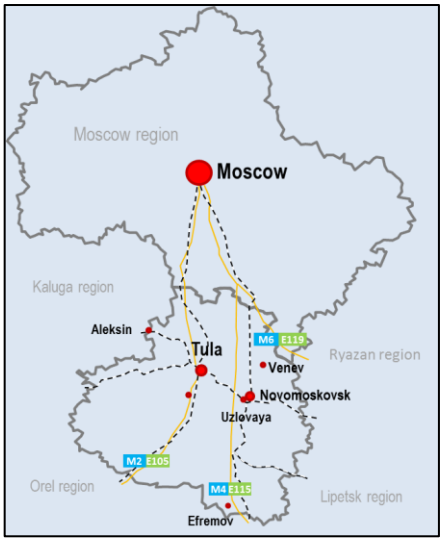


Russian Paints at Yaroslavl increased production of paint materials by 4.5% in the first half of 2017 to 19,231 tons. Sales of decorative coatings increased by 16% compared to last year. The second quarter accounted for most of the growth this year, comprising 11,421 tons against 7,810 tons in the first quarter. Norwegian company Jotun in August officially launched a plant for the production of paints, in the industrial park Fedorovskoye in the Leningrad region. The plant was completed in 2014 but was unable to start

selling products company as it could not obtain approval from the State Construction Supervision Committee of the Leningrad Region. By the end of 2017, Jotun plans to reach a capacity of 12 million litres of paint and 3,600 tpa of powders.

Finnish company Tikkurila is building a plant in the Greenstate industrial park, two kilometres from St. Petersburg. Annually the plant will be able to produce 30 million litres of paint. The total investment is estimated at around €30-35 million. Construction will begin in late 2018, with the first production starting in 2020. The plant will be oriented to the decorative and industrial segments. Russian company Orgsintez ProLab is to build a factory for the production of acrylic dispersions in the Dzerzhinsk region. rise will be located on the territory of Dzerzhinsk. The document provides for the construction of a new enterprise, which will create 250 jobs. It is expected that the total investment will exceed 3 billion roubles.

Other products



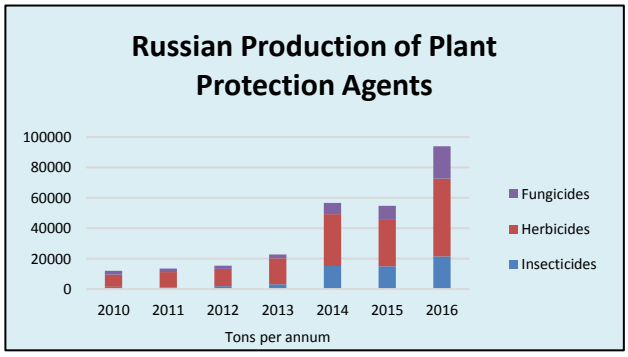
MDI & propylene derivatives Tula

Evrokhim and ChemChina signed a memorandum in June concerning joint chemical projects at Novomoskovsk, including MDI and propylene oxide. The Azot complex at Novomoskovsk in the Tula region is considered suitable for investments comprising new plants for higher added value products with a combined capacity of 200,000 tpa. Azot currently produces methanol and fertilisers.

The working group formed between Evrokhim and ChemChina is required to assess the technical feasibility of the project and conduct a comprehensive financial and legal examination. The new production facilities can become a catalyst for new technological chains, and the spectrum is very wide. Azot plans to produce propylene oxides, including propylene glycol and polyols. The second group of substances that can begin to produce in Russia are isocyanates, including MDI and TDI where imports are required to meet demand.

Russian plant protection agents

Russian production of plant protection agents has increased over the past few years displacing imports from the domestic market, although foreign products continue to play a key role. Production has risen sharply since 2014, since the weakening of the rouble, and domestic companies continue to see opportunities for new facilities. For example, Soyuzagrohim has started constructing a new plant for crop protection chemicals in the Alabuga special economic zone in Tatarstan.



The capacity of the plant is intended to produce 5,700 tpa which is targeted for mid-2019. Kaustik at Volgograd has recently completed a new plant in July with a production capacity of 2,135 tpa. The plant includes nine types of preparations of chemical plant protection products. Further projects and expansion plans can be expected in the next couple of years.

Ukraine

Ukrainian polyethylene imports, Jan-Jun 2017

Ukrainian imports of polyethylene fell by 12% in the first four months in 2017 to 76,800 tons, including 17,500 tons in April against 19,500 tons in March. HDPE imports declined to 7,700 tons from 9,000

tons in the first four months in 2016 whilst LDPE imports dropped 10% to 20,400 tons. LLDPE imports saw a rise from to 19,000 tons. Imports of EVA totalled 5,400 tons against 3,000 tons in January to April 2016.

Ukrainian Polymer Imports (unit-kilo tons)

Product	*Jan-Jun 17*	*Jan-Jun 16*
PVC	48.0	55.4
LDPE	31.0	31.5
LLDPE	31.3	28.3
HDPE	52.8	62.7
Ethylene Vinyl Acetate	7.7	2.5
PP	57.1	57.6

Most of the imports of polyethylene are sourced from European producers. Borealis appears to be suspended from selling in the Ukrainian market for the next few months at least, as it has angered the Ukrainian cabinet in selling plastics into the rebel controlled areas of Donetsk and Lugansk in the east.

Ukrainian polypropylene imports, Jan-Jun 2017

In the first half of 2017 the total import volume of polypropylene into Ukraine fell by 1% to 57,100 tons from 57,600 tons in the same period last year. Homopolymer imports fell to 43,800 tons in January to June 2017 from 44,700 tons in 2016. In response to demand from pipe manufacturers block copolymers rose to 6,100 tons from 5,500 tons. Imports of stat-copolymers fell from 6,400 tons to 6,000 tons.

Ukrainian Polypropylene Imports (unit-kilo tons)

Category	*Jan-Jun 17*	*Jan-Jun 16*
Homo	43.8	44.7
Block	6.1	5.5
Random	6.0	6.3
Other	1.2	1.1
Total	57.1	57.6

In the first half of 2017 imports of PVC into Ukraine fell by 13% to 48,000 tons against 55,300 tons. The demand for slurry from the local producers of profile-moulded products has seriously decreased, while the demand for resin from the producers of plasticized PVC has increased. Imports from the US in the first half of 2017 amounted to 17,400 tons against 34,700 tons in January to June 2016, whilst imports from Europe increased to 21,300 tons against 16,500 tons. Russian imports rose from 3,800 tons in the first half of last year to 8,900 tons.

Ukrainian PVC Imports (unit-kilo tons)

From	*Jan-Jun 17*	*Jan-Jun 16*
US	17.4	34.7
China	0.0	0.0
Europe	21.3	16.5
Russia	8.9	3.8
Others	0.4	0.4
Total	48.0	55.4

In the first half of 2017 imports of polyethylene into Ukraine decreased by 4% to 122,700 tons against 128,000 tons in the same period in 2016. HDPE imports declined from 62,700 tons to 52,800 tons, whilst LDPE imports dropped 1% to 31,000 tons. By contrast LLDPE imports rose from 28,300 tons to 31,200 tons, and other polyethylene categories rose from 5,600 tons to 7,700 tons.

Karpatneftekhim restarting export activity

Karpatneftekhim shipped 5,149 tons of products for export in July, where deliveries were made to Poland, Russia, Belarus, Turkey and Moldova. Around 4,000 tons of propylene were shipped by rail to Poland and other markets, whilst smaller volumes of polyethylene and C4s (120 tons and 60 tons respectively) were supplied to Russia. Karpatneftekhim intends to strengthen its position in the Turkish market, increasing supplies to local processors of polyethylene and PVC.

Karpatneftekhim Exports July 2017 (tons)

Country	*Product*
Poland	4,000 tons of propylene
Russia	909 tons of C4s
Russia	120 tons of HDPE
Moldova	60 tons of HDPE
Turkey	60 tons of HDPE

Karpatneftekhim's capacity for the production of ethylene is 250,000 tpa, 300,000 tpa of PVC, 200,000 tpa of caustic soda and polyethylene 100,000 tpa.

Supplies of raw materials to Karpatneftekhim in June amounted to 50,000 tons the bulk of which was provided by Lukoil's Volgograd and Perm refineries. Lukoil's enterprises shipped 44,300 tons of stable gasoline last month to Karpatneftekhim. About 4,000 tons of diesel fuel was supplied by the Samara refineries of Rosneft. Also, 900 tons of Butane of Tuymazinskoye GPP (Bashneft) and 100 tons of isobutane fraction of Novokuibyshevsk NHK (Rosneft) were shipped to the company through Belarus. Karpatneftekhim resumed production in June 2017.

Theoretically, Karpatneftekhim can also purchase a non-hazardous wide fraction of light hydrocarbons and benzene, which is exported by Shebelinsky GPP, which belongs to the leader of Ukrainian gas production.

Ukrainian methanol, Jan-Jun 2017

In June, imports of methanol to Ukraine declined to 810 tons from 4,000 tons in May. The main reason was the stop for repairs at Grodno in Belarus as well as several Russian enterprises supplying methanol to Ukraine. In June Shchekinoazot supplied 70% of imports, whilst the main buyer was KarpatSmol which took 380 tons. The share of domestic gas producers in June was 43% (345 tons). The average cost of methanol purchased by Ukrainian consumers abroad in June decreased relative to May by 12%. By the end of the month, the average price of the product imported into the country was $360 per ton of the DAF border Ukraine, $410 per ton in June. In the first half of 2017 Ukraine imported a total of 17,346 tons of methanol.

Ukrainian imports of phthalic anhydride/DOP

Imports of phthalic anhydride to Ukraine amounted to 462 tons in June against 585 tons in May and in June 2016 456 tons. In June 2017, the Belarusian company Lakokraska at Lida delivered 299 tons to Ukraine (65% of the total supplies to the country), Kamteks-Khimprom 145 tons (31%) and the Taiwanese company Nan Ya Plastics 18 tons (4%). The main buyers in Ukraine included Polikem, which bought 168 tons, and Lizinvest which purchased 40 tons. In the first half of 2017, the import of phthalic anhydride amounted to 2,090 tons which is 9% less than in the same period in 2016.

Ukrainian Imports of Phthalic Anhydride & DOP (unit-kilo tons)

Product	*Jan-Jun 17*	*Jan-Jun 16*
Phthalic Anhydride	2.1	2.3
DOP	1.7	1.8

DOP imports into Ukraine rose in June to 542 tons against 228 tons in May, and 479 tons in June 2016. In June Deza supplied 55% of imports, Boryszew (36%) and the US company Teknor Apex (9%). In total for the first half of the year 2017 the import of DOP to Ukraine amounted to 1,700 tons which is 5% less than for the same period of time last year.

Belarus

Belarussian chemical production, Jan-Jun 2017

Methanol production at Grodno totalled 37,000 tons in the first half of 2017, 40% up on the same period in 2016. In June, Belarus produced 9,900 tons of benzene, 5% more than in May. For the first six months of 2017, Naftan produced 53,400 tons of benzene which is 19% lower than the same period of 2016. Grodno Azot increased production of caprolactam 1.5 times in June to 11,500 tons bringing the total for the first half of 2017 to 58,300 tons against 56,500 tons in January to June 2016. In June due maintenance Naftan reduced propylene production by 2.1 times to 1,900 tons, and ethylene by 2.3 times to 2,800 tons.

Belarussian Acrylonitrile Exports (unit-kilo tons)

Product	*Jan-May 17*	*Jan-May 16*
Russia	0.6	1.9
Hungary	1.1	4.0
India	2.0	0.0
Iran	2.8	0.4
Netherlands	10.4	4.0
Romania	0.0	0.3
Turkey	6.1	10.1
UAE	0.1	0.0
Total	23.2	20.6

Belarussian organic chemical trade

Belarussian acrylonitrile exports totalled 23,200 tons in the first five months in 2017 against 20,600 tons in the same period in 2016. The two largest destinations for Belarussian exports were the Netherlands with 10,400 tons and Turkey with 6,100 tons.

Belarussian Organic Chemical Exports (unit-kilo tons)

Product	***Jan-May 17***	***Jan-May 16***
Acrylonitrile	23.2	20.6
Caprolactam	4.7	6.5
Phthalic anhydride	9.1	10.7
Methanol	3.3	17.2

In other areas of chemical trade, methanol shipments fell from 17,200 tons in January to May 2016 to 3,300 tons in the same period in 2017. Caprolactam exports dropped to 4,700 tons in the first five months to 4,700 tons from 6,500 tons whilst phthalic anhydride shipments dropped slightly to 9,100 tons from 10,700 tons.

Regarding imports, PTA and MEG are two of the main chemical products required by Belarus for usage in the production of polyester/PET. Imports of PTA in the first five months totalled 24,300 tons against 19,400 tons in the same period in 2016. The main supplier of PTA to Belarus in January to May 2017 was South Korea with 18,500 tons against only 6,000 tons in the same period last year. MEG imports into Belarus amounted to 29,613 tons in the first five months in 2017, of which Russia supplied 29,547 tons, against a total of 24,400 tons in January to May 2016.

Belarussian PTA Imports (kilo		
Country	*Jan-May 17*	*Jan-May 16*
Poland	3.7	11.3
Russia	1.1	0.0
South Korea	18.5	6.0
Portugal	0.0	1.0
Thailand	0.0	1.1
Turkey	1.0	0.0
Others	2.0	0
Total	26.3	19.4

Belarussian polymer imports, Jan-May 2017

PVC imports into Belarus rose 43% in the first five months in 2017 to 11,400 tons. Russia supplied 74% of imports. Polypropylene imports increased by 5.5% compared to the same indicator in 2016 and amounted to 38,000 tons.

In May, the volume of imports of polypropylene in the Republic of Belarus rose to 8,300 tons against 7,800 tons a month earlier; local companies increased the volume of purchases of all types of polypropylene.

In general, in January-May 2017, the total volume of imports of propylene polymers reached 38,000 tons against 36,000 tons a year earlier. Only demand for all types of polypropylene grew, but the greatest increase was seen in copolymers of propylene which rose to 12,400 tons, while a year earlier this figure was 10,800 tons.

Belarussian Polymer Imports (unit-kilo tons)		
Product	*Jan-May 17*	*Jan-May 16*
PVC	11.4	7.9
Polypropylene	39.4	33.1
LDPE	31.5	29.2
HDPE	18.6	16.2

Central Asia/Caucasus

Kazakh polymer imports, Jan-Jun 2017

In the first six months of the year, imports of polyethylene to Kazakhstan increased by 28% compared to the same period of 2016 and amounted to 62,900 tons. HDPE imports rose 30% to 48,000 tons, whilst LDPE rose 24% to 11,800 tons and LLDPE rose from 2,600 tons to 3,100 tons. Imports of unmixed PVC to Kazakhstan increased by 10% in January-June compared to the same period in 2016 and amounted to 25,200 tons against 23,000 tons for the same period in 2016.

Kazakh Polymer Imports (unit-kilo tons)		
Product	*Jan-Jun 17*	*Jan-Jun 16*
HDPE	48.0	37.0
LDPE	11.8	9.3
LLDPE	1.8	2.4
PVC	25.2	23.0
Polypropylene	14.2	9.9

Azerbaijan-ethylene, propylene and polyolefin projects

Azerbaijan is set to increase the capacity of propylene production by 2.5 times later in 2017 from 60,000 tpa to 150,000 tpa. The modernisation of the ethylene-polyethylene plant at Sumgait is being undertaken in several stages aimed for completion in mid-2019. Technip has thus far provided only an indicative timetable.

Azerbaijan Chemical Exports (unit-kilo tons)		
Product	*Jan-Jun 17*	*Jan-Jun 16*
Polyethylene	47.9	52.5
Propylene	19.2	22.2
Isopropanol	5.8	7.4
C4s	13.2	15.3

SOCAR Polymer will launch new production lines by early 2018. It is planned to open up polypropylene production line with a capacity of 180,000 tpa based on Canadian technology and a production line for HDPE with a capacity of 120,000 tpa based on Austrian technology.

SOCAR Polymer was founded on 16 July 2013 in order to reinforce the development of the chemical industry of the country. The company's production facilities consisting of polypropylene and high density polyethylene plants are under construction within the territory of the Sumgaiit Chemical Industrial Park.

SOCAR Methanol, Jan-Jul 2017

SOCAR Methanol produced over 140,000 tons of methanol for the period January-July of 2017. At the same time, research is underway to produce new products for end consumers in Azerbaijan on the basis of the production of SOCAR Methanol. The maximum capacity of the Azerbaijan methanol plant is 650-700,000 tpa, and in 2017 the plant plans to produce 250,000 tons of methanol. Taking into account the regular growth in demand for methanol imports in world markets, the company aims to bring the production capacity up to 500,000 tons of methanol a year in the medium term. The products produced at the methanol plant are exported mainly to Turkey, the countries of West Europe and the Mediterranean.

Relevant Currencies

Czech crown. Kc. $1= 20.852. €1 = 27.444: Hungarian Forint. Ft. $1 = 229.253. €1 = 310.141: Polish zloty. zl. $1=3.016. €1 =4.14 Ukrainian hryvnia. $1 = 22.9 €1 = 24.9: Rus rouble. $1 = 65.2 €1= 73.70

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