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MONTHLY NEWS

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

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Czech Republic | Slovakia | Hungary | Poland | Bulgaria | Romania | Croatia | Slovenia | Yugoslavia | Baltic States | Russia | Belarus | Ukraine | Transcaucasus | Central Asia | Kazakhstan

Issue 324, 16 Nov 2017

Central Europe

- MOL signs contract with Thyssenkrupp for new technology licence
- PKN Orlen increases profits from petrochemical production in first three quarters
- Unipetrol reports much higher revenues in 2017 due to revived petrochemical output
- Spolana increases production in January to September 2017
- Czech exports of ethylene and ethylbenzene rise sharply in 2017
- Azoty's profits in the third quarter affected by higher gas prices
- Oltchim's petrochemical assets sold; Deza buys Blachownia from BorsodChem
- Oltchim increased sales of oxo alcohols in first three quarters in 2017
- Ethylene and propylene production in Central Europe boosted by Unipetrol in 2017
- PDH Polska expects to sign polypropylene licence by the end of 2017

Russia

- SIBUR's EBIDTA rises 15% in Jan-Sep 2017, helped by fuel segment
- Higher oil prices impact on profits for Russian petrochemical producers
- SIBUR invests in DOTP project in 2017 in addition to ZapSibNeftekhim
- Gazprom could provide SIBUR with up to 2.5 million tpa of ethane from Amur GPP
- Irkutsk Oil Company continues to evaluate chemical projects
- Nizhnekamskneftekhim seeks to start new 600,000 tpa cracker in 2022
- Kuibyshevazot reports lower profits in first three quarters despite higher production
- New polyurethane plant starts production in Nizhniy Novgorod region
- Khimprom's exports of methylene chloride to increase in 2018
- YATEK signs methanol licence with Haldor Topsoe for project in Yakutia
- Shchekinoazot aims to start methanol and ammonia project in 2018
- Metafrax signs licence agreement for Ammonia-Urea-Melamine project
- Russian PTA imports total 175,000 tons in Jan-Aug 2017 versus 110,000 tons in Jan-Aug 2016

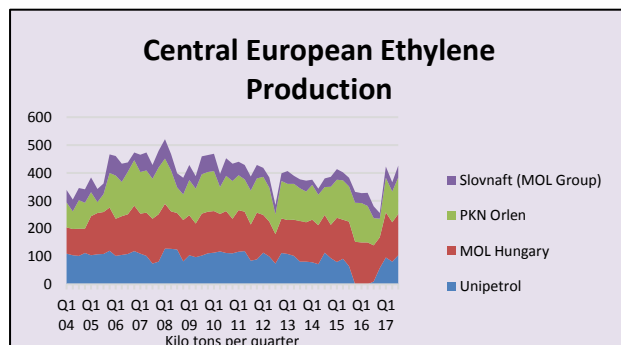
Other countries

- SOCAR produces record volume of methanol in Jan-Sep 2017
- Chemical production rises 18.1% in the first three quarters
- Kazakhstan makes progress with new polypropylene plant at Atyrau
- Belarussian PTA imports rise in first eight months in 2017
- Belarussian methanol market transformed from net exporter to next importer
- Ukrainian imports of methanol totalled 24,000 tons in Q1-Q3 2017
- Karpatneftekhim continues to export propylene and C4s

CENTRAL & SOUTH-EAST EUROPE

Central European ethylene & propylene production, Jan-Sep 2017

Ethylene production in Central Europe totalled 426,000 tons in the third quarter in 2017 against 280,100 tons in the same period in 2016. Higher production in the third quarter this year was due to the restart of the



Unipetrol cracker in the fourth quarter in 2016 after completion of the 13-month repair programme. Propylene production in Central Europe also increased this year, mainly due to resumption of operations at the Litvinov cracker. Propylene totalled 253,000 tons in the first three quarters against 191,000 tons in the same period in 2016.

Ethylene production in Central Europe has been broadly static over the past decade with no new capacity coming onstream. Production was affected after August 2015 running through to September 2016 due to the major fire at Litvinov that crippled the cracker, and requiring major re-investment. Propylene production has followed a similar trend with no new capacity having been brought onstream in the past decade. Currently two projects are underway in Poland, including the metathesis plant at Plock and the PDH plant scheduled for construction at Police.

September 2016 due to the major fire at Litvinov that crippled the cracker, and requiring major re-investment.

Unipetrol Group's Financial Statements (Kc billion)				
	Q3 16	Q3 17	Q1-Q3 16	Q1-Q3 17
Revenues	23.110	30.904	61.347	91.935
EBITDA LIFO	1.928	3.412	6.862	13.572
EBITDA	1.391	2.932	6.211	12.958
EBIT	892	2.239	4.769	10.912
Net profit	722	1.523	3.803	7.922

Unipetrol, Jan-Sep 2017

Unipetrol's revenues rose by Kc 7.8 billion or 34% in the third quarter in 2017 against the same period in 2016. Revenues totalled Kc 30.904 billion whilst the net profit rose by 111% to Kc 1.523 billion. The Unipetrol Group reported an operating profit of Kc 3.1 billion in Q3 2017, 92% higher. The results were helped by stable operations at both refineries and petrochemical plants. Unipetrol achieved 97% refining capacity utilisation in the third quarter against only 48% in the same period in 2016. Thus, Unipetrol increased the volume of processed crude oil by 104% in the third quarter to 2.1 million tons. Sales volumes of refinery products grew by 12% to 1.8 million tons.

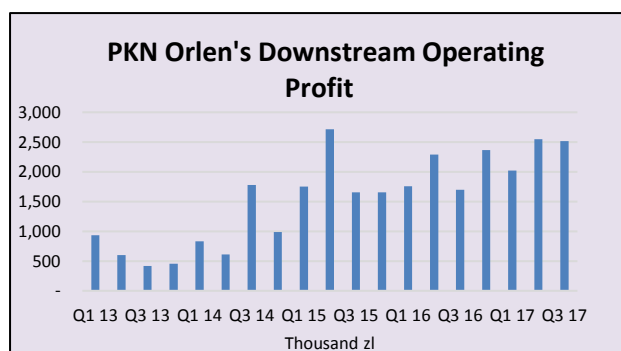
Unipetrol's steam cracker ran at 85% of capacity in the third quarter enabling an increase in sales volumes of petrochemical products by 113% to 525,000 tons. Spolana at Neratovice contributed to the overall volume for Unipetrol by selling 89,000 tons in the third quarter.

Orlen Group Utilisation %			
Refineries	Q3 16	Q2 17	Q3 17
Plock	98%	79%	100%
Unipetrol	48%	96%	97%
Orlen Lietuva	96%	89%	106%
Petrochemical Plants	Q3 16	Q2 17	Q3 17
Olefins Plock	71%	79%	87%
Olefins Unipetrol	0	89%	86%
BOP Plock	68%	67%	81%

PKN Orlen, Jan-Sep 2017

PKN Orlen's increased its group operating profit to zł 3.047 billion in the third quarter this year against zł 2.226 billion in the same period in 2016. Performance was driven by a 10% rise in sales volumes and record crude throughput from refineries in Poland, the Czech Republic and Lithuania.

In the third quarter, Orlen's model downstream margin expanded by \$2.9 per barrel while average Brent price moved up \$6 per barrel. Diesel oil consumption increased across the company's home markets, with a 14% growth in Poland. Gasoline consumption rose in Poland, Germany and Lithuania, and remained stable in the Czech Republic.



Orlen's downstream division's Q3 2017 EBITDA came in at zł 2.5 billion, an increase of zł 815 million over Q3 2016. It was achieved on the back of a 19% rise in crude throughput, leading to an 11% increase in total sales volumes, including 54% in olefins, 217% in polyolefins, 20% in fertilisers, 56% in PVC and 17% in PTA. Stronger margins on refined products, olefins and plastics were partly offset by tighter margins on polyolefins, PTAs and fertilisers, combined with the appreciation of the Polish zloty.

In line with the strategic development vision, Orlen is expanding its power generation business based on cogeneration. After the 600 MWe CCGT plant at Płock is entered commercial operation, PKN Orlen will produce about 7 TWh of electricity, which on current consumption would account for around 4.5% of Poland's total electricity output. The electricity produced at Płock will be sold to external customers, including end users, while the entire steam output will be supplied to the group's refining assets.

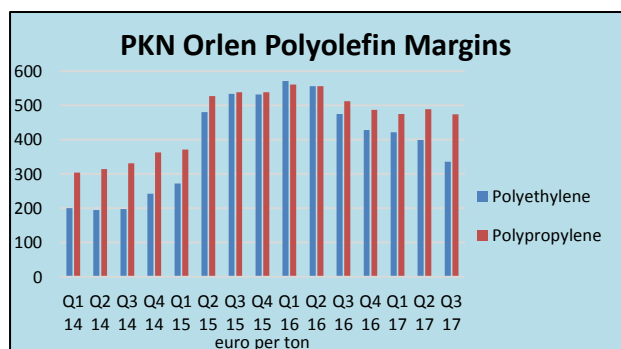
PKN Orlen Group Chemical Production (unit-kilo tons)		
Product	Jan-Sep 17	Jan-Sep 16
Monomers	665	536
Polymers	389	154
Aromatics	235	171
Fertilisers	848	841
Plastics	298	301
PTA	415	475

For the first three quarters in 2017, PKN Orlen's sales revenues amounted to zł 70.63 billion which was up 25%. Orlen's EBITDA of LIFO also increased by 25% to zł 8.43 billion and the net profit increased by almost half to zł 5.54 billion. In the third quarter alone, Orlen's revenues reached zł 24.73 billion, LIFO EBITDA of zł 3.05

billion, and a net profit of zł 1.7 billion.

PKN Orlen PTA market, Jan-Sep 2017

PKN Orlen produced 415,000 tons of PTA in the first three quarters in 2017 against 475,000 tons in the same period in 2016. For the whole of 2016 PTA exports from PKN Orlen totalled 402,500 tons against 382,500 tons in 2015. The price per ton dropped in 2016 to €600 against €628 in the previous year, due



mainly to the fall in feedstock costs. The main destination for Polish PTA in 2016 was Germany, accounting for 314,900 tons against 279,160 tons in 2015. Belarus and Russia increased shipments in 2016 to 22,800 tons and 30,900 tons respectively. Volumes to both countries increased over the previous year. Belarus paid an average of €641 per ton in 2016 whilst Russia paid €573.

PKN Orlen, PTA force majeure 10 November

On 10 November PKN Orlen declared a force majeure on PTA supply from its 600,000 tpa plant

at Włocławek. This event represents, among others, an extraordinary, unforeseen and insurmountable obstacle to supplying customers. The company has not yet provided a specific date for the plant's restart.

The plant had to be shut because of a problem in the heat exchanger, according to Orlen.

MOL's Olefin & Polyolefin Production (unit-kilo tons)		
Product	Jan-Sep 17	Jan-Sep 16
Ethylene	567	556
Propylene	292	286
Butadiene	64	38
Raffinate	98	56
Product	Jan-Sep 17	Jan-Sep 16
LDPE	156	165
HDPE	293	261
PP	404	399

MOL. Jan-Sep 2017

The MOL Group's EBITDA rose 12% in the first three quarters to Ft 520.8 billion (\$1.87 billion). The group's downstream division posted an EBITDA of Ft 70.5 billion (\$271 million) as both petrochemicals and refining sectors declined due to lower wholesale margins.

MOL's downstream divisional profit for the first nine months remained flat at Ft 256.9 billion (\$923 million). Ethylene production from MOL's plants in Hungary and Slovakia totalled 567,000 tons in the first three quarters against

556,000 tons in the same period in 2016, whilst HDPE production rose from 261,000 tons to 293,000 tons. The MOL Group has also launched its new downstream programme which is based on three pillars including strategic transformational projects; efficiency initiatives; and increasing customer satisfaction.

MOL-Thyssenkrupp licence

The MOL Group has signed another contract with Thyssenkrupp to produce polyether polyols and propylene glycol. MOL Group has now secured all technology licenses and engineering resources for each production unit of the Polyol Project. The Polyol Project will represent the largest investment project of MOL Group in 2017-2020 period during which MOL intends to move further along the petrochemical value chain towards semi-commodity and specialty chemical products.

Main licences for MOLs Polyol Project

- Hydrogen peroxide plant-Evonik
- Propylene oxide-ThyssenKrupp
- Propylene oxide processing-ThyssenKrupp

The additional agreement signed with ThyssenKrupp Industrial Solutions (Thailand) will cover technological steps to convert propylene oxide into polyether polyols and propylene glycols. The contract concerns the purchase of technology licenses, process design packages and front-end engineering design of the production units that convert propylene-oxide into polyether polyols and propylene glycols. Front-end Engineering will be delivered from ThyssenKrupp's technology and R&D centre for Oleochemicals in Thailand. The contract also contains a pre-agreement for ThyssenKrupp to supply and install the Polyether Polyol plant.

Czech Petrochemical Exports (unit-kilo tons)		
Product	Jan-Sep 17	Jan-Sep 16
Ethylene	48.8	0.1
Propylene	18.1	3.1
Butadiene	4.1	2.2
Benzene	13.6	4.4
Ethylbenzene	92.1	0.2

At the end of October, the European Commission also approved a government investment grant of €131 million to MOL at Tiszaújváros to support construction of 200,000 tpa propylene oxide plant. The plant is expected to be completed in 2021.

Unipetrol-PE3 milestones for Q3 2017	
•	Installation of 40 high capacity silos
•	Silos will serve as a storage complex for HDPE
•	Project progress approaching 70%

Unipetrol-new HDPE project

The new polyethylene project at Litvinov is well advanced following the installation of forty high-capacity silos. The silos represent a significant part of the planned logistics terminal from which

Unipetrol plans to distribute up to 270,000 tpa of polyethylene. The construction of PE3 is was rated at 70% at the end of the third quarter with mechanical completion is expected by the end of 2018.

Oltchim-asset sale

Chimcomplex, owned by Romanian investor Stefan Vuza, will pay €127 million to buy most of the assets belonging to Oltchim, whereas the PVC profile producer Dynamic Selling Group will pay €1.9 million for a single asset. The plant should have been sold for at least €307 million, according to its reorganization plan. Chimcomplex will take over six asset packages whereas Dynamic one. Chimcomplex is in the process of collecting the necessary funds for this transaction. The goal is to create the largest Romanian chemical producer. Oltchim representatives will also have discussions with other bidders, estimating that the privatization process will end in 2018.

Oltchim Product Revenues (bil Lei)		
	Jan-Sep 17	Jan-Sep 16
Petrochemicals	434.0	359.6
Chlorine division	149.9	119.7
Oxo alcohols	105.7	53.7

Oltchim ended the first nine months of this year with a net result of 40 million lei, double over 2016 to 16,152 million lei. Gross profit increased by 33 million lei, 148% higher to 55,427 million lei. The turnover increased by 29%, to 716.3 million lei, due both to the increase in the quantities of finished products sold

and to the increase in sales prices.

Oltchim Sales Revenues (bil Lei)		
	Jan-Sep 17	Jan-Sep 16
Domestic	162.7	145.7
Exports	553,619,737	409.4
Total	716.3	555.1

Export and intra-EU sales in the first nine months of 2017 amounted to €122 million and accounted for 77% of total turnover. Intra-EU imports and acquisitions of only €21 million have resulted in a positive external balance of €101 million. Compared to the second quarter of this year, Oltchim achieved declining earnings in the third quarter partly due to maintenance starting in the latter part of August. This

included the membrane electrolysis unit for nine days, propylene oxide and polyether polyols for fourteen days, and oxo-alcohols for eleven days.

Polish Chemical Production (unit-kilo tons)

Product	Jan-Sep 17	Jan-Sep 16
Caustic Soda Liquid	260.2	246.1
Caustic Soda Solid	58.5	52.8
Soda Ash	205.3	920.9
Ethylene	364.4	380.3
Propylene	265.7	279.2
Butadiene	44.3	46.2
Toluene	16.0	11.8
Phenol	30.5	29.1
Caprolactam	123.1	122.1
Acetic Acid	17.3	6.7
Polyethylene	260.9	269.3
Polystyrene	41.5	42.7
EPS	73.2	70.9
PVC	218.9	216.1
Polypropylene	206.4	193.4
Synthetic Rubber	182.7	165.2
Ammonia (Gaseous)	2070.0	1919.0
Ammonia (Liquid)	73.2	71.8
Pesticides	39.4	20.6
Nitric Acid	1762.0	1690.0
Nitrogen Fertilisers	1552.0	1421.1
Phosphate Fertilisers	344.8	354.8
Potassium Fertilisers	322.1	295.8

Deza buys Petrochemia Blachownia

After two years of negotiations Deza has agreed to buy Petrochemia-Blachownia at Kedzierzyn Koźle from BorsodChem. Both Deza and Petrochemia-Blachownia are engaged in the processing of benzene and the production of toluene and benzene. By purchasing Blachownia, Deza wants to strengthen its position on the aromatic hydrocarbon market.

Petrochemia-Blachownia was established in Kedzierzyn-Koźle in 1952 and has been owned by BorsodChem since 2006. In 2016 Petrochemia-Blachownia achieved a turnover of €61 million of which over 60% was attributed to exports. By contrast Deza's turnover totalled €275 million in 2016. The acquisition of the Polish company will increase Deza's production capacity of benzene and toluene to 160,000 tpa of benzene and 25,000 tpa of toluene. Deza is part of the Agrofert controlled by Andrei Babis and has bought the shares from BorsodChem.

Grupa Azoty Jan-Sep 2017

The net profit of the Grupa Azoty increased to zł 67.04 million in Q3 2017 versus zł 3.46 million in the same period in 2017. Operating profit was zł 100.54 million versus zł 13.5 million in Q3 2016. Sales revenues amounted to zł 2.196 billion in Q3 2017 compared to zł 1.999 billion in the previous year.

Grupa Azoty's Sales by Region (zł million)

	Q1-Q3 2017	Q1-Q3 2016
Poland	3,770,091	3,706,349
Germany	840,893	781,907
Other EU countries	1,719,298	1,455,365
Asia	310,631	257,123
South America	90,041	109,148
Other countries	334,806	323,833
Total	7,065,760	6,633,725

In the last few months, the group has commenced the construction of the Research and Development Centre in Tarnow, opened the Polyamide Plant II, and continued in the PDH project with the first corporate decision to expand it to polypropylene production. The key factors influencing the strong results in Q3 included plastics and favourable pigment prices. Negatives included higher gas prices, the growing import of nitrogen fertilisers and high propylene prices.

In the period Q1-Q3 2017, Grupa Azoty achieved zł 402.55 million in net profits against zł 319.49 million in the same period in 2016. Sales revenues of zł 7.065 billion rose from zł 6.634 billion in the first three quarters last year. Analysis of the results of individual segments shows a clear dominance of the percentage of the plastics business, which yielded an EBITDA margin of over 16%. In the chemicals sector, the EBITDA increased by zł 10 million (EBITDA of zł 79m), while sales increased by zł 89 million (to zł 645 million).

PDH Polska-polypropylene licence

PDH Polska is in the process of selecting a technology licensee to produce polypropylene and a future general contractor for turnkey investments at a flat rate. The company already holds a license for Oleflex technology for the production of propylene by propane dehydrogenation. Police Polymers is a production complex consisting of propylene and polypropylene production plants, a port with a base of raw material tanks and ancillary and logistic infrastructure. Work on the construction of the new plant is planned for the end of 2019, and its commercialization is scheduled for 2022.

This was mainly due to the margins earned in the pigment business and oxo alcohol division with the falling results of the gas-based chemical section. As a result, the whole chemical sector generated a net profit of zł 230 million, slightly lower than last year (zł 234 million EBITDA in

2016). In the third quarter of 2017, the relatively high demand for caprolactam was boosted by rising demand in the PA6 market. The oxo alcohol division continued to be influenced by crude oil price levels. Price hikes were seen both for propylene and OXO products. Relative to Q3 2016, the prices grew 15% to 25%.

RUSSIA

Russian Petrochemical Projects

Amur GPP-key production facilities construction started

The construction of key production facilities is well underway at the Amur Gas Processing Plant (GPP) where currently, the project involves 29 contract organisations. The installation of a cryogenic gas separation unit is being managed, in addition to establishing railway communications and the construction of a berth on the Zeya River. At the peak of construction works on the project, more than 20,000 builders will be mobilized at the plant site.

Amur Gas Processing Plant Key Parameters

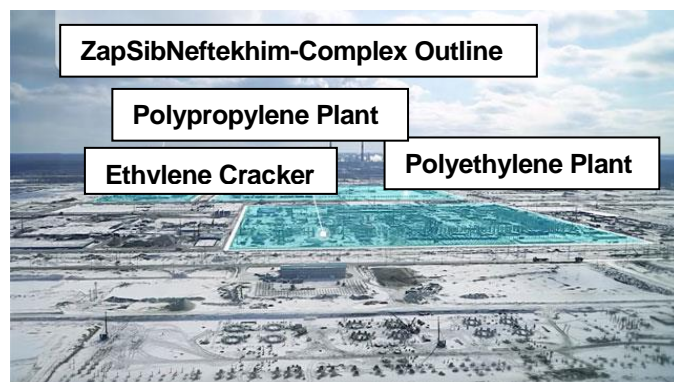
- Construction undertaken 15 km from Svobodny
- Installation of cryogenic gas separation unit is underway
- Berth constructed on Zeya River for deliveries of equipment

Construction of the Amur Gas Processing Plant is being undertaken around 15 kilometres from Svobodny in the Amur Region, on the banks of the Zeya River. The first stage of the plant

(two production lines) will be commissioned in April 2021, and full capacity utilisation is targeted by the start of 2025. The launch of the complex will allow Gazprom to produce up to 2.6 million tpa of ethane, 1.6 million tpa of liquefied petroleum gases, up to 60 million cubic metres of helium per annum.

ZapSibNeftekhim equipment and logistics 2017

During the navigation period of 2017 a total of 305 units of large-scale equipment were delivered to Tobolsk for the ZapSibNeftekhim project. More than 260 units have already been installed in pyrolysis, polyethylene and polypropylene plants. In order to reduce logistics congestion some of the equipment was consolidated and placed for temporary storage in the ports of Antwerp and Szczecin.



River transportation and unloading in the industrial port at Tobolsk were completed on 13 September 2017. The volume of supplies in 2017 increased almost threefold over 2016. Equipment was delivered directly from the manufacturing plants located in Europe and South-East Asia through the port of Sabetta in Yamal. Two routes were used through the

Suez Canal and the Kara Gate Strait, and through the Bering Strait were reloaded for specialized barges designed for the transportation of heavy cargo for further delivery along the Ob and Irtysh rivers to the industrial port of Tobolsk.

ZapSibNeftekhim's Finance & Logistics

- SIBUR's capital investment dropped by 29% in first three quarters in 2017
- Equipment deliveries made through the Suez Canal and the Kara Gate Strait, and through the Bering Strait

SIBUR reduced the volume of capital investments in the construction of ZapSibNeftekhim by almost 29% in three quarters of 2017. This figure amounted to 68.78 billion roubles. The decrease in ZapSibNeftekhim's financing was due to significant advances paid in the first quarter of 2016 to the planned supplies of equipment, according to the terms of the contracts, as well as due to changes in the payment schedule for EP contractors in 2017.

Irkutsk Oil Company continues to work on chemical projects

Irkutsk Oil Company (INK) remains interested in the creation of gas chemical production in Ust-Kut, but has effectively dismissed plans for developing oil refining. In May this year, INK reported that it plans to begin construction of a polymer plant as early as 2018, and it would take four years to complete the work. The company is working with technology licensors as Linde (Germany), Technip (France), and CB & I (USA). The aim is to construct a plant with 600,000 tpa of polyethylene based on ethane supplied from the gas deposits at Yarakta.

INK is engaged in geological exploration, exploration and production of hydrocarbon raw materials in East Siberia. INK has recently begun processing natural and associated gas by launching a unique plant. The

Irkutsk Oil Company (INK) Deposits



equipment allows to obtain propane-butane mixture whereas previously associated and natural gas was simply burned. The first shipment of a propane-butane mixture from INK's Yarakta oil and gas condensate field was made on 7 November. The plant's capacity is 3.6 million cubic metres per day. The mixture is supplied from the deposit to Ust-Kut, and from there it is transported to consumers by truck in 10-ton containers. In the future, delivery will be carried out through a pipeline.

Nizhnekamskneftekhim new ethylene plant to start in mid-2022

Nizhnekamskneftekhim has outlined its target to launch its new olefin complex into operation in mid-2022. The design phase of the EP-600 is expected to begin in early 2018 after the financial closure. As part of the new complex, Linde has been contracted to construct five furnaces each of 120,000 tpa capacity where the initial cycle of construction is scheduled for autumn 2018. The construction of petrochemical facilities is scheduled for early 2019 set to be completed by November 2021. Plant equipment is to be delivered on the Kama River by river barges, and then by truck to the construction site of the new complex.

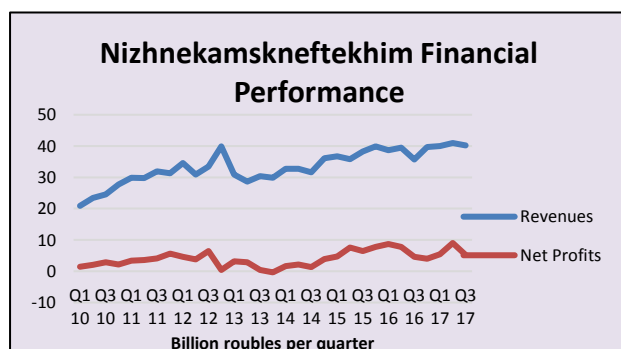
2022. The design phase of the EP-600 is expected to begin in early 2018 after the financial closure. As part of the new complex, Linde has been contracted to construct five furnaces each of 120,000 tpa capacity

Nizhnekamskneftekhim schedule for EP-600

- Design phase to start early 2018
- Construction of furnaces to start late 2018
- Construction of industrial facilities to start early 2019
- Project completion 2021
- Plant start-up 2022

Nizhnekamskneftekhim has allocated funds for the reconstruction of the existing access road to the industrial zone, and repairs are underway. Infrastructural tasks include water intake facilities, a water filtration station,

a natural gas supply system, a landfill for disposal of waste and a water disposal system. Naphtha is seen as the main feedstock for the new ethylene complex, which at full capacity would require in total 1.77 million tpa.



Russian petrochemical producers

Nizhnekamskneftekhim, Q1-Q3 2017

Nizhnekamskneftekhim reduced its net profit by 7% for three quarters in 2017 whilst revenues increased by 6.5% to 121.2 billion roubles. The

cost of sales totalled 96.8 billion roubles versus 84.29 billion roubles in the same period in 2016. According to Tatneftkheiminvest-Holding, Nizhnekamskneftekhim increased the production of marketable products by 2.9%, including the production of rubber grew by 6% to 526,000 tons.

Kazanorgsintez Production (unit-kilo tons)		
Product	Jan-Sep 17	Jan-Sep 16
HDPE	397.2	373.9
LDPE	162.9	126.4
Ethylene	450.9	392.9
Propylene	30.9	41.9
Polycarbonate	48.0	55.2
Phenol	51.2	48.1
Acetone	31.1	36.6
Bisphenol A	48.0	50.2

Polyethylene output at Nizhnekamsk fell by 2.5% in the first three quarters which was due to a reorientation of linear polyethylene grades. In the first three quarters Nizhnekamskneftekhim produced 547,000 tons of plastics, whilst 16,500 tons of alpha-olefins were produced. The loading of MEG production remained high whilst plants for trimers and tetramers of propylene remained idle. During the period under review, Nizhnekamskneftekhim received a gross profit of 24.4 billion roubles, 17.4% lower and the net profit 19.59 billion roubles against 21.015 billion roubles in 2016.

Kazanorgsintez Q1-Q3 2017

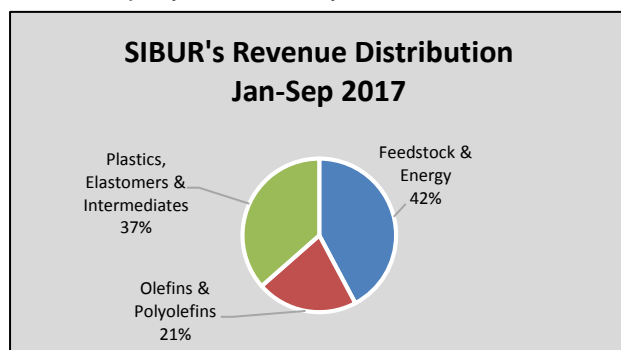
Kazanorgsintez reduced its net profit by 33% for three quarters of this year to 11.760 billion roubles, whilst revenue decreased by 7% to 53.970 billion roubles. The cost of sales of the company increased from 31.88 to 33.94 billion roubles. Kazanorgsintez produced 608,000 tons of polymers in the first three quarters which is 3.4% more than last year. The

production of polycarbonates decreased due to maintenance. Kazanorgsintez expects to produce less polycarbonate this year, dropping to 68,000 tons from 71,000 tons.

The gross profit of the company amounted to 19.970 billion roubles in the first three quarters, which is 23.6% lower than in 2016. Growth of the cost prices due to the increase in prices for hydrocarbons has impacted on Kazanorgsintez in 2017. The cost of sales increased 6.6% compared to the same period last year and thus the company derives no benefit from higher oil prices. Kazanorgsintez tried to overcome the negative factor by increasing physical volumes of output, but until the end it was not possible to level out the decline in prices.

SIBUR, Jan-Sep 2017

SIBUR increased its revenue for the three quarters of 2017 by 8.7% to 326.3 billion roubles. The total debt of the company decreased by 12.2% at the end of the third quarter to 300 billion roubles. The amount of net debt decreased by 9.5% to 254.3 billion roubles compared to 31 December 2016 due to the financing of ZapSibNeftekhim's capital expenditures from additional funds raised as a result of the sale of Uralorgsintez.



In the fuel and raw materials division, revenue increased by 3.5% to 127.6 billion roubles, mainly due to the sale of liquid hydrocarbons. SIBUR increased sales of liquefied gas by 1.2% to 3.54 million tons, whilst reducing shipments of naphtha to customers by 32.6% to 669,000 tons. For olefins and polyolefins, revenue increased by 3% to 64.4 billion roubles. The growth in sales volumes is primarily due to the growth in capacity utilisation, as well as the accumulation of inventories. These factors were largely offset by a decrease in revenues from the sale of BOPP films.

SIBUR's Monomer & Intermediate Production (unit-kilo tons)		
Product	Jan-Sep 2017	Jan-Sep 2016
Benzene	124.1	120.3
Styrene	135.5	147.4
PTA	204.3	200.1
Olefins	1088	992
Ethylene Oxide	217.6	208.6
Butadiene	202.8	182.7
Isoprene	56.9	52.2
Isobutylene	139.6	117.3
Other Chemicals	604.4	671.7

The division of plastics, elastomers and intermediate products recorded revenues of 110.2 billion roubles in the first three quarters, which is 12% higher than in 2016. In the first three quarters SIBUR sold 361,000 tons of synthetic rubber (+7.7%), 501,000 tons of MTBE and fuel components (+2%).

Russian Ethylene Production (unit-kilo tons)		
Producer	Jan-Sep 17	Jan-Sep 16
Angarsk Polymer Plant	140.7	67.8
Kazanorgsintez	450.9	392.9
Stavrolen	222.0	230.7
Nizhnekamskneftekhim	453.0	445.8
Novokuibyshevsk Petrochemical	40.5	44.6
Gazprom neftekhim Salavat	221.7	243.5
SIBUR-Kstovo	278.9	274.5
SIBUR-Khimprom	36.3	61.3
Tomskneftekhim	206.1	164.0
Ufaorgsintez	93.3	94.8
Total	2143.4	2020.0

The cost of purchasing liquid hydrocarbon raw materials for SIBUR increased by 37.5% in the first three quarters to 23.9 billion roubles. The cost of acquiring associated gas increased by 14.5% to 19.1 billion roubles following an increase in the average purchase price of 144 roubles per cubic metre.

Russian monomers

Russian ethylene-propylene production, Jan-Sep 2017

Russian plants reduced ethylene production by 24% in September to 173.800 tons. This was due to scheduled repairs at the SIBUR-Kstovo which reduced output by 3.4 times, to 9.400 tons, whilst Stavrolen reduced production 2.17 times to 12,000

tons. Gazprom neftekhim Salavat produced 30,820 tons which was up 4.1 times against August. Over the

first nine months in 2017, Russia produced 2.143 million tons of ethylene which was 4.2% up on the same period in 2016.

Russian propylene production amounted to 111,600 tons in September, down 18% versus August due mostly to the downtime. Nizhnekamskneftekhim reduced production 2.37 times to 12,000 tons, whilst SIBUR-Kstovo reduced olefin production 2.5 times to 4,470 tons. Stavrolen produced 5,300 tons of propylene in September, 2.15 times less than in August. Conversely, Gazprom neftekhim Salavat increased production by 3.7 times to 12,000 tons. In the first three quarters in 2017 Russian propylene production totalled 1.3 million tons which is 4.2% more than in the same period in 2016.

Russian propylene & propane-propylene domestic sales, Jan-Sep 2017

Domestic sales of propylene in the Russian market amounted to 14,170 tons in September. Including a 12-fold drop against August for Lukoil-NNOS to 1,600 tons due to maintenance at Saratovorgsintez. This facilitated increased exports of propylene from the Lukoil-NNOS plant from 4,300 tons to 21,800 tons.

Russian Propylene Domestic Sales (unit-kilo tons)		
Company	Jan-Sep 17	Jan-Sep 16
Angarsk Polymer Plant	48.5	16.8
Omsk Kaucuk	2.1	1.9
SIBUR-Kstovo	70.5	78.1
Akrilat	1.4	0.4
Lukoil-NNOS	138.3	137.2
Tomskneftekhim	2.8	0.0
Gazprom neftekhim Salavat	0.0	0.8
Stavrolen	2.0	0.0
Tobolsk-Polymer	1.4	0.4
Total	267.1	235.8

Due to maintenance in September SIBUR-Kstovo reduced propylene shipments by 45% to the domestic market to 5,000 tons, whilst Angarsk Plant of Polymers increased sales by 8.9% to 5,900 tons. In September, the largest propylene consumer in Russia was Tobolsk-Polymer, receiving 4,300 tons or 14% less than in August.

For the first three quarters in 2017, Lukoil-NNOS sold 140,000 tons of propylene on the domestic merchant market which was 6.6% less than in the same period of 2016. SIBUR-Kstovo reduced shipments of monomer by 16% to 70,900 tons from 85,000 tons in the first three quarters in 2016. In the Irkutsk Oblast, Angarsk Polymer Plant

increased domestic shipments to other parts of Russia by 2.1 times to 49,000 tons.

Russian consumers purchased 267,100 tons of propylene in the first three quarters against 235,800 tons in January to September 2016. At the same time sales of propane-propylene fractions dropped 10% to 122,000 tons. The Ryazan refinery sold 65,000 tons of propane-propylene fractions on the domestic market, 22% less than in the same period of 2016 whilst Slavneft-Yanos increased sales by 3.5% to 38,000 tons.

Russian Propylene Exports (unit-kilo tons)		
Company	Jan-Sep 17	Jan-Sep 16
Lukoil-NNOS	64.8	43.9
SIBUR-Kstovo	50.5	33.9
Omsk Kaucuk	2.0	0.0
Angarsk Polymer Plant	0.0	0.4
Stavrolen	6.6	11.0
Total	123.9	89.2

Russian propylene exports, Jan-Sep 2017

Russian propylene exports rose 2.3 times in September over August to 22,900 tons. Lukoil-NNOS increased shipments of propylene 4.7 times to 21,800 tons, thus providing over 90% of shipments. Maintenance at Saratovorgsintez provided availability from export shipments, whilst SIBUR-Kstovo was undergoing scheduled maintenance 4.3 times to 1,200 tons. Russian propylene Exports in September included 16,500 tons to Belarus and Poland.

In the first three quarters in 2017, Russian propylene exports comprised 140,000 tons which is 35% more than in 2016.

Exports of propane-propylene fractions also rose 35% in the first three quarters to 57,300 tons.

Russian styrene, Jan-Sep 2017

Styrene production in Russia amounted to 51,000 tons in September 12% up on August. Gazprom neftekhim Salavat increased its production of styrene to 17,260 tons, 2.8 times more than in August whilst monomer production at SIBUR-Khimprom increased 3.5 times to 10,970 tons. Despite the overall increase in production, the production of monomer at Nizhnekamskneftekhim fell 22% to 18,900 tons. In the first

three quarters in 2017, Russian plants produced 500,000 tons of styrene, 2.7% down on the same period in 2016.

Russian Styrene Production (unit-kilo tons)		
Producer	Jan-Sep 17	Jan-Sep 16
Nizhnekamskneftekhim	225.8	223.8
Angarsk Polymer Plant	25.6	13.5
SIBUR-Khimprom	85.2	111.1
Gazprom n Salavat	119.3	128.0
Plastik, Uzlovaya	44.0	38.0
Total	499.8	514.3

In September, Gazprom neftekhim Salavat was the only Russian exporter of styrene and shipped 8,330 tons which was 2.3 times higher than in August and all of which went to Finland. In the first three quarters in 2017 Russian plants exported 82,500 tons of styrene, which is 9% less than in the same period in 2016.

Styrene consumption in Russia has been boosted in 2017 due to the growth in the production of butadiene-styrene rubbers and styrene-acrylic dispersions. In 2017, Voronezhskintezkavuchuk and Sterlitamak Petrochemical Plant increased rubber production by around 10%, which proportionally affected the

purchase of styrene. The volumes of styrene processing in the segment of dispersion output increased by 9%.

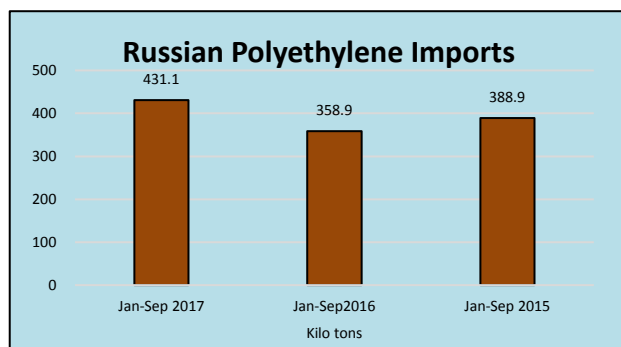
Russian HDPE Production (unit-kilo tons)		
Producer	Jan-Sep 17	Jan-Sep 16
Kazanorgsintez	397.2	373.9
Stavrolen	206.7	205.2
Nizhnekamskneftekhim	46.9	110.5
Gazprom n Salavat	64.2	79.7
Total	715.0	769.3

Bulk Polymers

Russian HDPE production, Jan-Sep 2017

HDPE production in Russia dropped 7.2% in the first nine months in 2017 to 715,000 tons versus 769,300 tons in the same period in 2016. Kazanorgsintez increased production by 7% to 397,000 tons, Stavrolen increased by 8% to 206,100 tons whilst Gazprom neftekhim Salavat reduced production by 23% to 51,500 tons to 64,200 tons.

Nizhnekamskneftekhim produced only 46,900 tons against 106,700 tons in the first nine months in 2016, due to the concentration on LLDPE. In September Nizhnekamskneftekhim switched from LLDPE to HDPE, producing 9,000 tons in the month.



Russian HDPE imports, Jan-Sep 2017

In January-September 2017 the total volume of polyethylene imports into the Russian market increased by 7% against 2016 and amounted to 431,600 tons.

Imports of HDPE totalled 167,000 tons in the first three quarters against 112,900 tons in the same period in 2016, whilst LLDPE imports dropped from 164,500 tons to 134,200 tons. LDPE imports decreased to 67,400 tons against 71,600 tons

whilst EVA imports rose by 18% to 27,200 tons and other polyethylene grades rose from 29,700 tons to 35,800 tons.

Russian Polypropylene Imports (unit-kilo tons)		
	Jan-Sep 17	Jan-Sep 16
Homopolymers	40.8	59.9
Block	32.6	24.1
Random	23.0	26.4
Other	27.4	20.0
Total	123.8	130.4

Russian polypropylene imports, Jan-Sep 2017

Polypropylene imports into Russia decreased by 5% in the first three quarters in 2017 and amounted to 123,800 tons. Russian consumers reduced polypropylene imports in September to 15,100 tons against 16,200 tons in August.

Homopolymer imports into Russia totalled 40,800 tons in January to September 2017 against 59,200

tons in the same period in 2016, whilst block copolymer imports rose from 24,100 tons to 32,600 tons.

Imports of propylene copolymers into Russia amounted to 23,000 tons in the first three quarters against 25,600 tons, whilst other grades of polypropylene rose from 21,000 tons to 27,400 tons and 15,300 tons to 19,400 tons.

SIBUR's PP Production & Sales (unit-tons)		
	Jan-Sep 17	Jan-Sep 16
Production	477,752	427,523
External sales	431,858	380,739
Domestic	249,324	220,195
Export	182,534	160,545

Polypropylene supply has been tightened by outages in September and October. Nizhnekamskneftekhim completed a five-day planned overhaul of polypropylene production in October, which it carries out every two years. SIBUR Tobolsk stopped production in early September for several days for an unplanned maintenance, whilst Stavrolen stopped production on 6

September for a period of two months and Ufaorgsintez in mid-September for 12 days. SIBUR-Tobolsk remains the overall key to the Russian polypropylene market.

Russian PVC, Jan-Sep 2017

Russian PVC production rose 15% in the first three quarters in 2017 to 652,500 tons against 565,000 tons. RusVinyl's production was unchanged at 224,600 tons, whilst Sayanskkhimplast increased production from 84,800 tons to 184,600 tons. Bashkiria Soda reduced production to 175,600 tons from 190,700 tons whilst Kaustik at Volgograd increased production to 67,700 tons from 64,800 tons. Kaustik at Volgograd resumed the production of PVC after scheduled maintenance in October after four weeks. This is the last of the planned repairs at Russian PVC plants in 2017. Kaustik's capacity amounts to 90,000 tpa; in the first three quarters in 2017 the company produced 67,700 tons against 64,800 tons in the same

period in 2016.

Imports of suspended PVC to the Russian market declined by 64% in the nine months of 2017 to 42,400 tons. China supplied 39,500 tons in the first three quarters in 2017 against 92,200 tons in the same period in 2016, European producers supplied 2,400 tons versus 5,800 tons.

Paraxylene-PET chain

Russian Paraxylene Production (unit-kilo tons)				
Producer	Location	Q1 17	Q2 17	Q3 17
Kirishinefteorgsintez	Kirishi	19.9	23.8	8.7
Gazprom Neft	Omsk	34.3	29.8	30.9
Ufaneftkhim	Ufa	29.7	16.9	18.5
Total		83.9	70.5	58.1

Russian PX-PTA markets

Russian paraxylene production dropped to 58,100 tons in the third quarter, due mainly to maintenance at Kirishi. Domestic sales of paraxylene increased in the first three quarters to 139,500 tons from 125,500 tons in the same period in 2016. Whilst Ufaneftkhim reduced domestic sales from 84,400 tons to 71,100 tons in the first three quarters,

Gazprom Neft at Omsk increased sales from 49,200 tons to 68,400 tons.

Russian Paraxylene Domestic Sales (unit-kilo tons)		
Producer	Jan-Sep 17	Jan-Sep 16
Kirishinefteorgsintez	0.0	0.0
Gazprom Neft	68.4	49.2
Ufaneftkhim	71.1	84.4
Total	139.5	125.5

Paraxylene exports from Russia increased from 51,400 tons in the first three quarters in 2016 to 75,800 tons in 2017. The major change came from Kirishinefteorgsintez which shipped 44,000 tons to foreign markets in the first three quarters in 2017 against 12,000 tons in the same period last year.

PTA imports into Russia totalled 175,300 tons in the first eight months in 2017 against 110,300 tons in the same period in 2016. The largest supplier in 2017 has been China which shipped 65,300 tons to the Russian market against 26,800 tons in the same period in 2016. India also increased shipments to Russia in 2017, rising from 1,100 tons in January to August 2016 to 28,100 tons. South Korea reduced shipments to the Russian market to 31,300 tons from 36,900 tons.

Russian PTA Imports (unit-kilo tons)

Country	Jan-Aug 17	Jan-Aug 16
Belgium	22.6	25.3
India	28.1	1.1
China	65.3	26.8
South Korea	31.3	36.9
Poland	6.6	19.8
Thailand	20.4	0.3
Turkey	1.0	0.0
Total	175.3	110.3

SIBUR-PET & PTA production and sales, Jan-Sep 2017

In the first three quarters in 2017 SIBUR produced 222,790 tons of PET against 215,071 tons in the same period in 2016. Domestic sales comprised 218,563 tons yielding 13.802 million roubles.

PTA production by Polief totalled 201,523 tons in the first three quarters against 196,758 tons in January to September 2016. Paraxylene purchasing costs for SIBUR decreased by 1.4% to 5,079 million roubles in the first three quarters, despite higher purchasing volumes.

Russian MEG, Jan-Sep 2017

MEG sales on the Russian domestic market dropped 24.4% in September against August to 8,900 tons. SIBUR shipped 6,500 tons of MEG (72.7% of sales), which was 19.1% less than a month earlier.

SIBUR's PET Production & Sales (unit-kilo tons)

	Jan-Sep 17	Jan-Sep 16
Production	222.8	215.0
Total Sales	220.3	215.6
Domestic Sales	218.6	210.9
Exports	1.7	4.6

Nizhnekamskneftekhim delivered 2,200 tons of product (24.2%), 34.9% less than in August. Kazanorgsintez increased shipments 2.3 times to 113 tons whilst small trading companies reduced shipments to the domestic market by 1.8% to 164 tons. The fall in sales was due to scheduled repairs at SIBUR-Neftekhim and Nizhnekamskneftekhim.

Russian Benzene Production (unit-kilo tons)		
Producer	Jan-Sep 17	Jan-Sep 16
Angarsk Polymer Plant	57.9	27.3
Gazprom Neft	60.5	75.4
Stavrolen	63.5	11.9
LUKoil-Permnefteorgsintez	37.1	30.5
Magnitogorsk MK	44.2	46.8
Nizhnekamskneftekhim	154.8	155.6
Novolipetsk MK	28.1	11.0
Gazprom n Salavat	124.3	122.0
Severstal	24.1	26.0
SIBUR-Kstovo	61.7	52.8
Slavneft-Yaroslavlorgsintez	54.6	50.6
Kirishinefteorgsintez	53.4	50.5
Ryazan Refinery	24.2	26.1
Ufaneftekhim	49.3	67.2
Ural Steel	9.4	8.0
Uralorgsintez	66.2	64.2
Zapsib	40.1	55.3
Novokuibyshevsk PC	14.7	20.3
Total	968.2	901.7

Polief purchased 6,400 tons of MEG in September 0.6% less than in August. Senezh took 574 tons of MEG, 20.6% more than in August. Small trading companies increased the consumption of the product by 21.6% to 1,900 tons, 66.3% more than in August. In the first nine months of 2017, Russian plants supplied 106,400 tons of MEG to the domestic market, 4.3% more than in the same period in 2016.

Aromatics**Russian benzene production, Jan-Sep 2017**

Benzene production amounted to 85,100 tons in Russia in September 14.6% down on August. Due to the planned repairs SIBUR-Kstovo reduced benzene production 3.2 times to 1,700 tons. In addition, Nizhnekamskneftekhim reduced production 3.5 times to 5,500 tons, whilst conversely Gazprom neftekhim Salavat increased operational activity by 2.2 times to 17,400 tons. In the first nine months in 2017, Russian benzene production totalled 968,200 tons which is 8% more than in the same period of 2016.

Gazprom neftekhim Salavat-benzene expansion

Gazprom neftekhim Salavat increased benzene production by 12% in the first three quarters in 2017 to 138,600 tons, the rise due to increased naphtha processing.

Gazprom neftekhim Salavat plans to increase the output of benzene by about 50,000 tons in 2018. The rise is possible due to an increase in the processing of naphtha and a reduction in processing of NGL and ethane. Naphtha processing is favoured to tax deductions which make it more profitable than NGL or ethane.

Russian benzene domestic sales & exports, Jan-Sep 2017

For the first three quarters in 2017 benzene sales on the Russian domestic market amounted to 536,900 tons against 563,200 tons in the same period in 2016. Imports of benzene from Ukraine rose 13% in January to September 2017 to 26,000 tons of benzene to Russia. Uralorgsintez has been the largest seller on the Russian domestic market in 2017, shipping 63,400 tons in the first three quarters which was 2.4% down on the same period in 2016. Gazprom Neft at the Omsk Refinery reduced the volume of supplies by 16.5% to 59,900 tons for nine months.

In the first three quarters in 2017 Russian benzene exports from refineries and petrochemical plants totalled 80,900 tons. Together with crude shipments benzene exports from Russia rose to 125,000 tons in the first three quarters against 47,300 tons in the same period in 2016. Benzene exports have risen this year due to reduced domestic demand and higher production.

Russian Orthoxylene Domestic Sales (unit-kilo tons)		
Producer	Jan-Sep 17	Jan-Sep 16
Gazprom Neft	61.2	35.5
Ufaneftekhimi	41.9	35.5
Kirishinefteorgsintez	15.5	25.1
Total	118.6	96.1

Russian orthoxylene, Jan-Sep 2017

In the first three quarters in 2017 orthoxylene sales on the Russian domestic market rose 24% to 118,890 tons. In September, the volumes of domestic orthoxylene deliveries to the Russian market amounted to 12,340 tons, 10% less than in August.

Kamteks-Khimprom purchased 7,270 tons of orthoxylene in September, up 23%, and, Gazprom neftekhim Salavat, in September reduced the volume of purchased raw materials by 19% to 820 tons. Dmitrievsky Chemical Plant reduced purchases of orthoxylene by 45% in September to 560 tons (4%).

Russian Xylene Production (unit-kilo tons)		
Producer	Jan-Sep 17	Jan-Sep 16
Gazprom Neft	176.7	184.3
Kirishinefteorgsintez	93.8	86.4
Ufaneftekhimi	115.8	149.1
Total	386.4	419.8

Russian manufacturers of paint and varnish materials reduced the volume of orthoxylene purchases in September compared with August by 37%, to 2,350 tons (19% of total Russian consumption). Manufacturers of fuel, agrochemistry, pharmaceutical and other products purchased 1,330 tons (11%).

Russian Caprolactam Exports (unit-kilo tons)		
Producer	Jan-Sep 17	Jan-Sep 16
Kuibyshevazot	35.1	40.9
SDS Azot	35.1	73.5
Shchekinoazot	87.9	45.2
Total	158.1	159.7

Russian toluene market, Jan-Sep 2017

Toluene sales on the Russian domestic market amounted to 15,180 tons in September 7% less than in August. The shares of the main producers' included Gazprom Neft at the Omsk Refinery 47% (7,110 tons), LUKoil-Permnefteorgsintez 22% (3,290 tons), Kirishinefteorgsintez 17% (2,620 tons), Slavneft-Yanos 10% (1,510 tons), Severstal 2% (360 tons), and the West-Siberian Metallurgical Combine 1% (200 tons).

Russian Phenol Market Sales by Supplier (unit-kilo tons)		
Producer	Jan-Sep 17	Jan-Sep 16
Novokuibyshevsk PC	35.4	34.0
Kazanorgsintez	7.9	8.0
Ufaorgsintez	43.0	49.4
Borealis	4.1	0.4
Total	90.5	91.7

Manufacturers of explosives reduced purchases of toluene in September 15% to 1,070 tons (7% of total Russian consumption). Companies producing paint and varnish materials increased the volume of toluene purchases by 2%, up to 3,200 tons (21%), whilst manufacturers of motor fuels and additives increased purchases by 29%, to 6,750 tons (44%). In the first three quarters in 2017, 138,710 tons of domestic toluene were delivered to the Russian market by rail, 2% less than in

2016.

Russian phenol, Jan-Sep 2017

Russian phenol production fell in September due to reconstruction of the cumene unit at Ufaorgsintez, reducing volumes 10% to 17,000 tons. In September Novokuibyshevsk Petrochemical produced 6.700 tons of phenol, Kazanorgsintez 6.400 tons and Ufaorgsintez 4,000 tons. For the first three quarters Russian

phenol production totalled 139,000 tons versus 163,700 tons in the same period in 2016. Sales on the domestic market dropped from 91,700 tons to 90,500 tons in the first three quarters in 2017.

SIBUR-Synthetic Rubber Production (unit-kilo tons)		
	<i>Jan-Sep 17</i>	<i>Jan-Sep 16</i>
Commodity Rubber	223.4	198.1
Speciality Rubber	78.0	74.3
Thermoplastic elastomers	57.2	52.9
Total	358.6	325.4

Russian C4 Supplies (unit-kilo tons)		
<i>Supplier</i>	<i>Jan-Sep 17</i>	<i>Jan-Sep 16</i>
Angarsk Polymer	18.6	11.6
Krasnoyarsk SR	0.4	0.3
Kazanorgsintez	30.7	29.0
Stavrolen	53.1	57.6
SIBUR-Kstovo	70.8	63.4
Tomskneftekhim	61.8	42.4
Ufaorgsintez	21.6	19.1
Naftan (Belarus)	16.6	35.1
SANORS	0.1	0.1
Azerkhiymya	18.5	15.1
Shell	7.9	0.0
Iran	8.6	0.8
Turkey	3.8	0.0
Karpatneftekhim	7.8	0.0
Total	308.7	274.5

977 tons respectively.

In the first three quarters SIBUR-Kstovo supplied 67,800 tons of C4s to the domestic market which is 4% more than in the same period in 2016. Tomskneftekhim increased shipments by 21% to 62,000 tons. At the same time, Stavrolen's deliveries dropped by 8% to 53,000 tons.

SIBUR-Synthetic Rubber Domestic Sales (unit-kilo tons)		
	<i>Jan-Sep 17</i>	<i>Jan-Sep 16</i>
Commodity Rubber	84.9	78.8
Speciality Rubber	9.5	8.5
Thermoplastic elastomers	34.0	24.6
Total	128.4	111.9

SIBUR-Synthetic Rubber Export Sales (unit-kilo tons)		
	<i>Jan-Sep 17</i>	<i>Jan-Sep 16</i>
Commodity Rubber	141.0	129.0
Speciality Rubber	64.0	63.7
Thermoplastic elastomers	28.6	31.2
Total	233.6	224.0

end of October. During the planned shutdown repair, the company carried out works on modernisation and automation of production, raising the level of industrial and environmental safety. The largest amount of work was carried out in the framework of the project for the technical re-equipment of the production of isoprene.

Synthetic Rubber

Russian synthetic rubber production, Jan-Sep 2017

Russian synthetic rubber production totalled 1.170 million tons in the first three quarters in 2017 against 1.082 million tons in the same period in 2016. Nizhnekamskneftekhim increased synthetic rubber production by 6% in the first three quarters to 526,000 tons. SIBUR increased production of rubbers, including thermoelastomers at Voronezh, from 325,400 tons to 358,600 tons in January to September 2017. Commodity rubber production for SIBUR totalled 223,400 tons in the first three quarters against 198,100 tons in the same period in 2016.

Russian C4s, Jan-Sep 2017

In the first nine months in 2017, Russian plants shipped 245,300 tons of C4s to the domestic market which is 10% higher than in the same period in 2016. Imports of C4s rose in the first three quarters from 51,000 tons to 63,400 tons.

C4 shipments to the Russian domestic market decreased by 41% in September to 19,600 tons. Reduction of supplies was due to repair work at Stavrolen, where shipments were halved to 3,200 tons, and SIBUR-Kstovo which shipped 3.5 times less C4s to 2,200 tons. In addition, the shipment of the fraction from Ufaorgsintez and Angarsk Polymer Plant decreased in September by 26% and 25% to 1,970 tons and

Russian synthetic producers

Nizhnekamskneftekhim is developing a project to produce divinyl styrene rubber for tyres by 2020. The capacity of the plant under design consists of a capacity of 60,000 tpa. The company has already put into operation a special pilot plant and hopes to produce five grades of this rubber. Nizhnekamskneftekhim also plans to increase capacity to produce isoprene rubber from 270,000 tpa to 420,000 tpa. Gidromashservis (part of the HMS Group) has supplied a large batch of pumping equipment to the plant producing the isoprene monomer at Nizhnekamskneftekhim.

SIBUR Togliatti completed planned repairs in the production of synthetic rubbers and monomers at the

During the first half of 2017 SIBUR Togliatti undertook the modernisation and expansion of butyl rubber capacity increasing from 53,000 tpa to 75,000 tpa, and then isoprene monomer. In 2016 SIBUR Togliatti produced 61,000 tons of butyl rubber which is 8% higher than in 2015, whilst the production of butadiene-styrene rubbers increased by 13% and amounted to 47,600 tons. The production of raw materials for MTBE, isobutane-isobutylene fractions, increased by 21% and amounted to 130,000 tons.

Russian Synthetic Rubber Exports (unit-kilo tons)		
Category	Jan-Aug 17	Jan-Aug 16
E-SBR	25.0	20.1
Block	24.5	25.9
SSBR	6.2	5.8
SBR	54.7	56.6
Polybutadiene	157.6	168.3
Butyl Rubber	82.9	100.7
HBR	85.4	88.7
NBR	16.2	22.6
Isoprene Rubber	204.6	195.5
Others	9.1	44.8
Total	666.3	729.0

Sintez-Kaucuk at Sterlitamak is preparing for the production of a new brand of isoprene brand SKI-3. Positive results from experiments has led Sintez-Kaucuk closer to producing new grades of SKI-3 polyisoprene and in October 300 tons were produced for testing by foreign partners.

Omsk Kaucuk (part of the GC Titan) has modernised its energy system in order to reduce consumption in synthetic rubber production. It is expected that the use of an air-cooling device will allow the shop to save about 15 million roubles a year through the environmental effect and savings on water.

Russian synthetic rubber exports, Jan-Aug 2017

Russian exports of synthetic rubber totalled 666,300 tons in the first eight months of 2017 against 729,000 tons in the same period last year. Revenues jumped from \$626 million to \$945 million, thus reflecting on average price of more than double in 2017. Isoprene rubber sales totalled 204,600 tons in the first eight months of 2017 against 130,800 tons whilst polybutadiene shipments rose from 195,500 tons to 119,100 tons.

Methanol & related products

Russian Methanol Production (unit-kilo tons)		
Producer	Jan-Sep 17	Jan-Sep 16
Shchekinoazot	381.7	362.9
Sibmetakhim	641.8	584.1
Metafrax	797.0	782.5
Akron	73.6	55.3
Azot, Novomoskovsk	177.3	239.9
Angarsk Petrochemical	2.1	0.5
Azot, Nevinnomyssk	90.9	89.1
Tomet	562.2	472.8
Ammoni	157.7	84.6
Totals	2884.3	2671.7

Russian methanol production Jan-Sep 2017

Methanol production in Russia rose 16% in September against August to 323,500 tons. The rise was due largely to the resumption of operations at Metafrax where production doubled to 96,500 tons.

Akron increased production by 6%, to 7,400 tons (2% of total Russian output), and Azot at Novomoskovsk by 2%, to 21,000 tons. Sibmetakhim and Ammoni both reduced methanol production volumes in September by 4% compared to August to 82,300 tons and 17,300 tons respectively.

A less significant decrease in September was recorded by Tomet (3%) to 42,000 tons, Shchekinoazot by 2% to 46,000 tons and Azot Nevinnomyssk by 2% to 10,590 tons. Production of methanol totalled 2.884 million tons in the first three quarters in 2017 against 2.672 million tons in the same period in 2016. Azot at Novomoskovsk and Sibmetakhim at Tomsk were the only producers reporting a decline.

Russian Methanol Exports (unit-kilo tons)		
Producer	Jan-Sep 17	Jan-Sep 16
Azot Novomoskovsk	101.0	132.9
Akron	33.3	0.6
Metafrax	277.2	311.5
Sibmetakhim	303.3	344.1
Tomet	161.3	121.2
Shchekinoazot	248.5	254.5
Total	1124.6	1164.9

Russian methanol exports Jan-Sep 2017

Exports totalled 1.125 million tons in the first nine months in 2017 against 1.165 million tons in the same period in 2016. Sibmetakhim, Metafrax, Shchekinoazot and Azot at Novomoskovsk all reduced exports this year whilst increases were noted by Metafrax, Tomet and Akron. Average prices for Russian methanol exports jumped to \$281 per ton this year against \$161 per ton in 2016.

Russian Methanol Consumption (unit-kilo tons)

Consumer	Jan-Sep 17	Jan-Sep 16
Nizhnekamskneftekhim	184.4	201.6
SIBUR Togliatti	91.7	84.7
Uralorgsintez	51.2	47.4
SIBUR-Khimprom	11.1	21.6
Tobolsk-Neftekhim	38.8	32.1
Ektos-Volga	40.9	39.4
Omsk Kaucuk	64.1	48.9
Novokuibyshevsk NPZ	54.3	35.6
Uralkhimplast	16.6	14.5
Slavneft-Yanos	12.3	12.4
Others	546.0	531.3
Total	1111.4	1069.6

Omsk Kaucuk, Uralorgsintez and Novokuibyshevsk Petrochemical Company. MTBE remains the main outlet for methanol consumption in Russia, followed by formaldehyde and rubber.

Russian methanol domestic sales, Jan-Sep 2017

Methanol consumption in the Russian domestic market rose to 1.111 million tons in the first three quarters against 1.069 million in the same period in 2016. Nizhnekamskneftekhim remains the largest consumer in Russia, although purchases dropped in the first three quarters in 2017 to 184,400 tons from 201,600 tons in the same period in 2016.

Nizhnekamskneftekhim uses methanol in the production of MTBE and isoprene rubber and is expected to increase shipments following the start-up of the new formaldehyde plant. Other large consumers include SIBUR Togliatti,

Shchekinoazot methanol-ammonia project

Shchekinoazot had completed 87% of its metal structures for its new methanol and ammonia project by the start of October 2017. The installation of the primary reforming furnace has been completed, and work is underway on pipelines connecting to the main site of which about 83% has been completed. Liquid ammonia storage facilities are well advanced.

Shchekinoazot, Methanol & Ammonia Project

- Ammonia-135,000 tpa
- Methanol-450,000 tpa
- Launch Q2 2018

The launch of the new methanol and ammonia complex is scheduled for the second quarter of 2018. The design was undertaken by Ukrainian company Orgkhim at

Severodonetsk in January 2015, and project construction has been carried out by the Russian company Neftezhavodmontazh. The capacities of the complex include 1350 tons of methanol and 4150 tons of ammonia per day.

Metafrax, project Ammonia-Urea-Melamine licences

On 1 November, Metafrax signed contracts for the construction of the complex ammonia-urea-melamine (AKM) with the engineering companies NIIK and Uralenergostroy. The new complex AKM at Perm will produce up to 562,000 tpa of urea, 298,000 tpa of ammonia and 40,000 tpa of melamine based on a feasibility study developed by Jacobs Consultancy. Licensed process and the developer of the basic project is the Swiss company Casale.

Metafrax-Ammonia-Urea-Melamine Project

- Ammonia-298,000 tpa
- Urea-562,000 tpa
- Melamine-40,000 tpa
- Construction completion August 2020
- Launch 2021

The project for the construction of the ammonia-urea-melamine (AKM) complex represents the largest investment on record for Metafrax, with the cost exceeding €800 million. The completion and commissioning of the facility is planned for the first half of 2021, after which the products produced at the complex will be directed to both domestic and foreign

markets.

YATEK selects Topsoe for methanol licence

Yakutsk Fuel and Energy Company (YATEK) has selected Haldor Topsoe as licensor for its new methanol plant. The capacity of the new complex will be 1.75 million tpa of methanol.

YATEK-Methanol Project

- Capacity-1.75 million tpa
- Location Yakutia
- Licensor Haldor Topsoe
- Construction to start in 2019

Investments are primarily estimated at \$1 billion. Until the middle of next year, the company intends to decide on a strategic investor, which will be offered 30-35% of the project. Negotiations are underway with a view towards starting construction in 2019 and starting production in 2022. The

project is planned to be implemented through attraction of project financing with the participation of export credit agencies.

YATEK supplies gas to the central region of the Republic of Sakha (Yakutia). The company's share in the production of natural gas on the territory of the republic is about 86%, while the company provides 100% of the total needs of Yakutsk. The natural gas reserves of the company's C1 and C2 fields are estimated at 203 billion cubic metres, oil and gas condensate at 14 million tons. Local opposition against the construction

of the methanol plant is very strong under the view that any profits will not be reinvested in the region and yet at the same time the construction of a large plant on the banks of the Lena River will only create environmental harm.

Fosagro Production (unit-kilo tons)		
Product	Jan-Sep 17	Jan-Sep 16
Ammonia	951.5	884.3
Urea	817.5	767.5
Phosphate fertilisers	4,913.9	4,347.8
Nitrogen fertilisers	1,173.1	1,088.9
Ammonium nitrate	355.2	321.4
Aluminium fluoride	34.9	34.4
Phosphoric acid	1,877.5	1,730.5
Sulphuric acid	4,047.4	3,020.8
Sodium Tripolyphosphate	54.6	68.3

Fosagro, Jan-Sep 2017

Fosagro increased fertiliser production by 19% in first three quarters of 2017 to 6.09 million tons including 1.17 million tons of nitrogen fertilisers and 4.9 million tons of phosphorus-containing fertilisers. In the third quarter, production by these groups increased by 31.9% and 15.9% respectively. Sales of fertilisers in the reporting period increased by 11.3% to 6.09 million tons.

Over the first nine months, 1.2 million tons of nitrogen fertilisers and 4.89 million tons of phosphorus fertilisers were sold, up 13% and 11%, respectively. The company notes that the Russian market still remains a priority.

Organic chemicals

Russian Butanol Production (unit-kilo tons)		
Producer	Jan-Sep 17	Jan-Sep 16
Angarsk Petrochemical	36.2	1.5
Azot	11.7	12.5
Gazprom n Salavat	54.8	92.7
SIBUR-Khimprom	57.5	65.7
Total	160.1	172.5

Russian butanol domestic production Jan-Sep 2017

Butanol production in Russia amounted to 17,340 tons in September 91% more than in August. In the first nine months in 2017 Russian butanol production totalled 160,100 tons which was 5% down on the same period in 2016.

In September the share of n-butanol in production comprised 64%. Following maintenance Gazprom neftekhim Salavat increased production 3.1 times to 5,690 tons and SIBUR-Khimprom by 3.6 times to 5,550 tons. Angarsk Petrochemical reduced production 5% in September to 4,360 tons whilst Azot increased production by 55% to 1,740 tons.

Russian N-butanol Exports (unit-kilo tons)		
Producer	Jan-Jul 17	Jan-Jul 16
Gazprom n Salavat	3.2	38.5
SIBUR-Khimprom	3.8	3.5
Angarsk Petrochemical	1.6	0.5
Azot Nevinnomyssk	1.4	0.2
Dmitrievsky Chemical Plant	1.2	0.8
Total	11.2	43.5
Russian Isobutanol Exports (unit-kilo tons)		
Producer	Jan-Jul 17	Jan-Jul 16
Gazprom n Salavat	4.4	4.6
SIBUR-Khimprom	6.1	10.4
Angarsk Petrochemical	0.3	0.0
Dmitrievsky Chemical Plant	0.1	0.1
Total	10.7	15.0

Russian butanol exports, Jan-Sep 2017

Sales of butanols to the Russian market amounted to 5,860 tons in September 17% more than in August. The share of n-butanol in gross sales in September 2017 was 87%, and isobutanol 13%. SIBUR-Khimprom increased sales 2.3 times to 2,760 tons (47% of the total Russian volume) as compared to August.

SIBUR subsidiary Aktilat, using n-butanol in the production of butyl acrylate, increased purchases in September by 93%, up to 2,100 tons (36% of the total Russian volume of purchases). At the same time, the Dmitrievsky Chemical Plant reduced the

volume of purchased raw materials in September by 32% to 1,470 tons (25% of the total Russian volume of purchases). In addition, large quantities were purchased by Volzhskiy Orgsintez (740 tons, or 13%), the Plant of Synthetic Alcohol t (230 tons, or 4%), and Sintez-Kaucuk at Sterlitamak (230 tons,

or 4%). In the first three quarters in 2017 butanol sales on the Russian domestic market amounted to 43,000 tons, dropping 11% against 2016.

Russian butanol domestic sales Jan-Sep 2017

The butanol market in 2017 has been characterized due to a lack of availability from Gazprom neftekhim Salavat. In the third quarter supply was also affected by downtime at SIBUR-Khimprom in August for maintenance whilst Angarsk Petrochemical has helped fill the void by exporting less butanols and selling more on the domestic market. Thus, the fall in butanol supplies from Salavat created a window of opportunity for the Angarsk Petrochemical Company which is located in the Irkutsk Oblast and closer to the Chinese border rather than the domestic market. Until 2016 the plant's production was almost entirely exported.

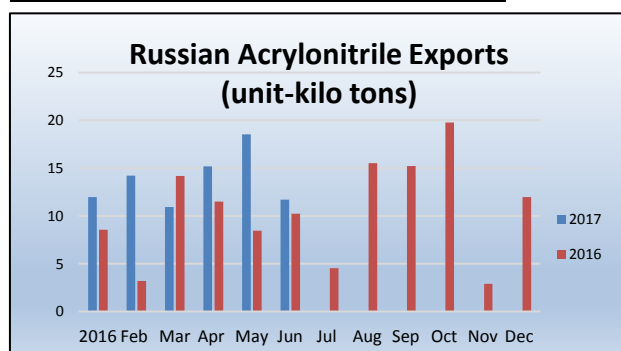
Producer	Jan-Sep 17	Jan-Sep 16
Gazprom n Salavat	6.4	18.9
SIBUR-Khimprom	24.1	27.4
Angarsk Polymer Plant	10.5	1.4
Azot Nevinnomyssk	2.0	3.7
Others	0.0	0.0
Totals	43.0	51.4

However, not only the reduction of supplies from Salavat has created an opening for sales on the domestic market but also the development of production of capacity in China has affected export opportunities. In the first nine months in 2017 Angarsk Petrochemical produced 36,100 tons of butanols, of which only 1,700 tons was exported. Domestic consumers have adjusted purchasing to Angarsk despite the high cost of shipping from the Irkutsk region. Due to the launch of Acrylic Salavat in 2017 the consumption volumes of butanols in the domestic market of the Russian Federation increased by 67% in the first half of 2017 to 104,100 tons.

Producer	Jan-Sep 17	Jan-Sep 16
Gazprom n Salavat	6.9	6.4
Kamteks-Khimprom,	68.7	55.8
Total	75.7	62.2

Russian phthalic anhydride, Jan-Sep 2017

Phthalic anhydride production fell in September due to maintenance at Kamteks-Khimprom where only 290 tons was produced, and superseded by Gazprom neftekhim Salavat which produced 1,070 tons. In the first three quarters in 2017 Russian production of phthalic anhydride totalled 75,650 tons which is 22% more than in the same period in 2016.



In 2017 the Russian phthalic anhydride market has witnessed increased domestic consumption due to the increase in domestic production of plasticizers at the expense of imports. DOP production rose more than 38% in the first half of 2017, increasing domestic sales of phthalic anhydride by 1.5 times to 28,900 tons whilst imports dropped 17% to 4,800 tons. Longer term the market is likely to be affected by SIBUR's plans for a new production unit of plasticizer DOTP. The new plant of 100,000 tpa will have a significant impact on the Russian market as DOTP is based on PTA rather than phthalic. Domestic consumption of phthalic could thus start to fall in 2019 and 2020 when DOTP production starts.

Russian DOP imports, Jan-Sep 2017

DOP imports amounted to 1,990 tons in September against 1,530 tons in August and 134 tons in July. Korean company Aekyung Petrochemical supplied 1,260 tons in September, followed by 730 tons Polish company Boryszew. In the first three quarters in 2017 DOP imports into Russia amounted to 5,650 tons which is 2.7 times more than in 2016. In the first half of 2017, the reduction in DOP imports into Russia made it possible to significantly increase the processing of phthalic anhydride in Russia. However, the increase in imports in the third quarter and expected trend in the fourth quarter has taken effect on domestic demand for phthalic anhydride.

The main challenges for phthalic anhydride thus include the transition to PTA plasticizers and the change in the paints industry towards water based products leading to reduced phthalic consumption. In terms of trade export opportunities in South East Asia are expected to rise based on increased usage, whilst demand in Europe is expected to fall.

Kamteks-Khimprom 2017

In Kamteks-Khimprom accounted for 89% of production of Russian phthalic anhydride and 63% of DOP production. The volume of production of phthalic

anhydride by Kamteks-Khimprom in 2016 was 75,316 tons (including crystalline 50,145 tons) at 83.7% capacity utilisation.

Russian pentaerythritol, Jan-Sep 2017

The production of pentaerythritol at Metafrax amounted to 1,500 tons in September 25% less than in August. In the first three quarters in 2017 the production of pentaerythritol amounted to 17,700 tons which is 1% more than in the same period last year.

Production of DOP totalled 46,000 tons in 2016, up 58.9% over 2016. In the first nine months in 2017 Kamteks-Khimprom increased DOP production by 6.3% over January to September 2016 to 32,430 tons.

Russian Organic Chemical Exports (unit-kilo tons)		
Product	Jan-Aug 17	Jan-Aug 16
N-Butanol	11.4	48.4
Iso-butanol	11.0	17.4
2-EH	16.8	25.4
Pentaerythritol	7.4	5.6
Phenol	3.0	5.0
Ethylene Oxide	11.1	12.2
Formaldehyde	13.9	19.4
DEG	15.7	0.0
MEG	39.0	41.0
Acetone	26.2	41.1
Acetic Acid	22.5	15.0
VAM	26.2	20.5
Butyl Acetate	17.1	22.7
Butyl Acrylate	24.5	7.8
Phthalic Anhydride	41.4	36.3

Russian Chemical Production (unit-kilo tons)		
Product	Jan-Sep 17	Jan-Sep 16
Caustic Soda	900.5	819.8
Soda Ash	2,568.0	2,220.7
Ethylene	2,137.0	2,085.0
Xylenes	386.4	420.4
Styrene	499.8	545.4
Phenol	124.5	183.2
Plastics in Bulk	5,776.0	5,766.0
Polyethylene	1,512.0	1,619.0
Polystyrene	405.2	409.0
PVC	682.6	594.0
Polypropylene	1,080.9	991.2
Polyamide	117.8	116.6
Synthetic Rubber	1,170.0	1,082.7
Synthetic Fibres	126.4	112.4

In July and September 2016, catalyst replacements were made in the reactors which allowed Kamteks-Khimprom to increase capacity utilisation. December 2016 remains the record month for production at 8,814 tons. In the first nine months in 2017 Kamteks-Khimprom produced 68,491 tons which was 22.7% higher than in the same period in 2016. In May 2015, the company launched an additional scheme for plasticizers allowing an increase in production of DOP by 50 tons a day.

Russian paints market, Jan-Sep 2017

Russian production of paints totalled 269,000 tons in the third quarter, 10.6% less than in the second quarter. Organosoluble paints production dropped from 146,900 tons in the second quarter to 116,900 tons in the second quarter whilst water based products dropped from 155,000 tons to 153,000 tons. In Profit margins for paint manufacturers have been affected by lower demand than expected, thus preventing price rises despite high raw material costs. Some manufacturers have been able to compensate for low domestic activity by exporting more product. Raw materials where costs have risen include titanium dioxide and solvents.

Other Products

Polyplastik-new composite line at Engels

The composite division of the Polyplastik Group has launched a modernized production line on the site at the Engels site in the Saratov region, resulting in an increase of capacity by 2,000 tpa. Italian equipment was installed on the production line. The Engels plant is a major supplier of composite materials for manufacturers of white equipment: Indesit, Electrolux, LG, Samsung, Beko, Vestel, Candu, etc.

Fosagro-fourth nitric acid unit

Fosagro-Cherepovets intends to construct a fourth unit for the production of nitric acid in the production of complex mineral fertilisers. Investments in the project will exceed 1 billion roubles. The commissioning of a new production facility will additionally produce 150,000 tpa of ammonium nitrate.

The existing capacities of the plant for the production of ammonium nitrate make it possible to produce this product much more than the current 500,000 tpa, for which it is necessary to ensure the production of a sufficient volume of nitric acid. The construction of a new plant will solve this problem. The complex executor of the project is NIIK, which has already begun to develop project documentation. Trest Koksohimontazh will carry out construction and installation works. Commissioning of the plant is scheduled for 2019.

TechnoNikol invested in the production of additives for concrete

TechnoNikol has commissioned the production of additives for concrete at the industrial site at Voskresensk (Moscow region). The capacity of the new enterprise will be 80,000 tpa which will be able to meet the requirements for concrete additives in the Moscow region, as well as a number of areas of the European part of Russia. As a raw material for the production of additives, polycarboxylate esters, the most advanced plasticizers for concrete, will be used. It is expected that this will reduce the consumption of cement during production, will allow to produce concrete with increased flow and life cycle of cement mortar.

Khimprom-chloromethane expansion

Khimprom (Novocheboksarsk, managed by Orgsintez Group) has increased production of chloromethanes by 10%. Investments in the project amounted to 24 million roubles. The existing equipment was modernised and new devices were installed, which raised the production capacity for chloromethanes up to 26,800 tpa. Chloromethanes produced at Khimprom's site are mainly used as solvents for the production of refrigerants and about 60% of production is exported.

Khimprom has increased exports of chloromethanes by 40% in the past two years. The increase in export volumes became possible due to the modernisation of production facilities. In 2015 13,500 tons of methylene chloride and chloroform were exported which is expected to rise to 19,200 tons in 2017. Exports of chloroform for two years increased from 8,000 to 10,300 tons, and exports of methylene chloride from 5,800 tons to 8,900 tons. In the past two years, chloromethane production has risen by 23% and is projected to total 26,800 tons in 2017. The increase in production volumes was made possible through the modernisation and expansion of the company's facilities.

Khimprom-chloromethanes

- Production forecast 26,800 tons in 2017
- Exports of methylene chloride 8,900 tons in 2017
- Exports of chloroform 10,300 tons in 2017

Synthesis OKA to launch the production of polyurethanes

A new project Oka-Polyurethane Synthesis was launched to diversify the product portfolio of the Synthesis OKA Group of Companies and the company's entry into the polyurethane market. The production chain of the company allows the production of a wide range of products, ranging from simple polyesters to finished PPU products. The total production capacity is 18,500 tpa. The volume of investment in the project is 350 million roubles.

MDI/TDI Imports for Eurasian Customs Region (unit-kilo tons)

	Jan-Aug 17	Jan-Aug 16
MDI	83.6	85.3
TDI	26.6	25.9

The main activity of the company is the production of chemical raw materials for the polyurethane market. OOO Sintez OKA-Polyurethane became the sixth production unit of the chemical complex of the group of companies. The founders of the company Synthesis OKA-Polyurethane, entered the SBK Uranium (a subsidiary of Sberbank Capital).

Kuibyshevazot-Production (unit-kilo tons)

Product	Jan-Sep 17	Jan-Sep 16
Polyamide-6	109.1	106.8
High Tenacity Tech Yarns	8.6	9.3
Caprolactam	142.2	146.0
Ammonia	411.1	355.6
Urea	214.5	214.0
Ammonium Nitrate	450.3	456.7
Ammonium Sulphate	345	362.4

Kuibyshevazot, Jan-Sep 2017

Kuibyshevazot increased sales volumes of commodity products by 11% for three quarters of this year to 31 billion roubles, and achieved a net profit of 2.2 billion roubles against 3.281 billion roubles. Polyamide-6 recorded an increase in production, rising 2.2% to 109,100 tons, whilst cord impregnated fabric rose by 57.5% to 12 million running metres.

In the first three quarters Kuibyshevazot reduced production of mineral fertilisers dropped by 7.2% to 330,100 tons, ammonia by 15.6% to 411,100 tons. Caprolactam production dropped 2.5% to 142,000 tons, and technical and cord yarns by 7.4% to 8,600 tons. Kuibyshevazot's projects include a for the construction of the fifth plant for the production of polyamide-6, whilst an ammonia JV with Linde is in commissioning mode.

Belarus**Azot Grodno, Jan-Sep 2017**

Azot at Grodno Azot increased the production of fibres and chemical threads by 7% to 28,500 tons in the first three quarters in 2017. The production of mineral fertilisers from January to September decreased by 1.2%, whilst Azot increased urea production by 0.6% to 798,700 tons, whilst dropping ammonia by 1.8% to

Azot Grodno Production (unit-kilo tons)

Product	Jan-Sep 17	Jan-Sep 16
Methanol	61.2	48.7
Caprolactam	82.4	83.3
Polyamide primary	74.7	76.5
Polyamide filled	9.1	8.5
Ammonia	818.5	833.2
Urea	798.7	793.6
Fertilisers	586.6	593.2
Fibres	28.4	26.6

818,500 tons of ammonia. Methanol production at Grodno increased in the first three quarters by 25.4% to 61,200 tons whilst caprolactam production dropped by 1.2% to 82,400 tons.

Polymir-LDPE production, Jan-Sep 2017

Benzene production in Belarus rose 10% in September to 6,530 tons. At the same time, propylene production fell by 3%, to 3,870 tons, and ethylene by 3% to 6,490 tons. In the first nine months of 2017, Belarusian plants produced 32,930 tons of propylene, 75,270 tons of benzene, and 52,640 tons of ethylene. In the first three quarters LDPE production dropped by 40% to 45,200 tons from 75,700 tons. The main reason for the reduction in output was the fire at the end of June 2016 at

one of the ethylene plants, which led to a two-fold reduction in olefin production. At the beginning of October, Polymir stopped part of the facilities for preventive maintenance for around a month.

Belarussian Methanol Market (unit-kilo tons)

	Jan-Aug 17	Jan-Aug 16
Production	53.3	41.4
Exports	7.0	21.7
Imports	30.1	10.6
Balance	76.4	30.3

Belarussian methanol market, Jan-Sep 2017

Russian methanol exports to Belarus increased five-fold in the first eight months after the start-up of the Kronochem urea-formaldehyde plant at Mogilev. Current requirements of Kronochem include 4-4,500 tons of methanol per month. In 2017, the company has purchased only Russian-produced methanol.

Besides demand from formaldehyde plants, demand for methanol in Belarus was bolstered with the start-up of the MTBE plant at the Mozyr oil refinery. Demand for methanol at the refinery is estimated at around 5,450 tons per month, from a total country requirement of 10,000 tons per month. Azot is not able to meet full demand of 120,000 tpa from its 80,000 tpa plant.

Belarussian Organic Chemical Exports (unit-kilo tons)

Product	Jan-Aug 17	Jan-Aug 16
Acrylonitrile	32.8	24.9
Caprolactam	7.4	6.5
Phthalic anhydride	13.9	16.1
Methanol	7.0	22.2

Belarussian PTA Imports (kilo tons)

Country	Jan-Aug 17	Jan-Aug 16
Belgium	4.874	0
Poland	10.3	18.1
Russia	4.0	2.1
South Korea	25.5	17.0
Portugal	0.0	1.0
Thailand	0.0	1.1
Turkey	1.0	0.0
Others	2.0	0
Total	47.7	39.3

Mogilevkhimvolokno PTA imports

Mogilevkhimvolokno imported 47,300 tons of PTA in the first eight months in 2017 against 39,100 tons in the same period in 2016. South Korea supplied 25,500 tons in January to August this year versus 17,000 tons in 2016. The company's strategy is aimed at reducing DMT in the production process for polyester fibres and increasing PTA which needs to be imported. Mogilevkhimvolokno can currently produce 138,250 tpa of DMT, 105,000 tpa of PET for the textile industry and 80,000 tpa food PET. The capacity for production of polyester fibres is rated at 67,000 tpa.

Belarussian polymer imports, Jan-Aug 2017

Imports of polypropylene into Belarus totalled 63,800 tons in the first eight months in 2017, 5.1% up on 2016. The demand for all types of polypropylene rose in 2017, with the greatest increase was in copolymers of propylene. Imports of homopolymers amounted to 42,700 tons against 41,200 tons in January to August 2016, of which Russia supplied around 88%. Imports of copolymers in the period January to August 2017 rose to 21,000 tons from 19,400 tons in 2016.

Belarussian Polymer Imports (unit-kilo tons)

Product	Jan-Aug 17	Jan-Aug 16
PVC	22.3	18.8
Polypropylene	63.8	60.5
LDPE	25.8	15.1
LLDPE	25.8	24.4
HDPE	30.5	29.6

PVC imports in Belarus totalled 22,300 tons in the first eight months in 2017 against 18,300 tons in the same period in 2016. The main reason for the rise has been in the increase demand from window manufacturers. Belarussian polyethylene imports decreased by 2.2% in

the first eight months of 2017 to 82,000 tons against 83,700 tons in January to August 2016. LDPE imports rose from 19,300 tons to 25,800 tons, HDPE imports rose 3.1% to 30,500 tons whilst LLDPE imports fell from 34,900 tons to 25,800 tons.

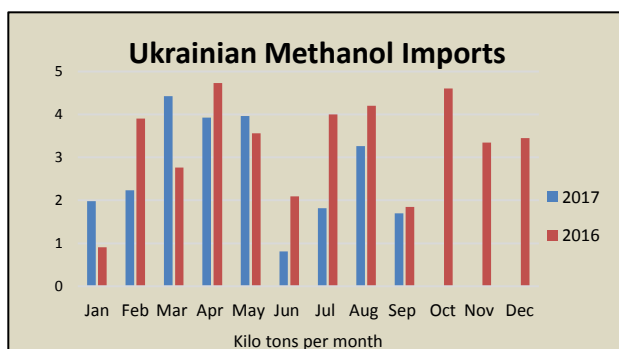
Ukraine

Karpatneftekhim-feedstock supply

Lukoil's refineries have delivered the bulk of the raw materials to Karpatneftekhim since the plant restarted in May, amounting to 204,100 tons from Volgograd, Perm and Nizhny Novgorod.

The Belarusian gas processing plant supplied 5,230 tons of feedstocks to Kalush, and another 4,000 tons was supplied by Rosneft's Samara refineries by pipeline. Karpatneftekhim has capacities for the production of ethylene 250,000 tpa, for PVC 300,000 tpa for caustic soda 200,000 tpa and for polyethylene 100,000 tpa.

first three quarters in 2017, 90% up on 2016, all of which was supplied by Polikem at Kalush. The products were exported to Belarus (75%) and Moldova (25%).



Ukrainian methanol imports, Jan-Sep 2017

Methanol imports into Ukraine dropped to 1,700 tons in September from 3,300 tons in August. The Belarusian producer, Grodno Azot, reduced methanol supplies to Ukrainian consumers by 12% to 495 tons and Russian suppliers by 55% to 1,200 tons.

Domestic gas companies bought 690 tons of methanol in September, increasing volumes compared to the previous month by 3%. Ukratnafta purchased 510 tons. The domestic

producer of formaldehyde and its derivatives KarpatSmol acquired 29% of all methanol imported to the country (495 tons), which is more than twice lower than in August. The average cost of the product imported into the country was about \$388 per ton DAF border of Ukraine against \$330 per ton DAF in August. Ukrainian imports of methanol totalled 24,000 tons in the first three quarters in 2017 against 28,000 tons in the same period in 2016.

Azerbaijan Chemical Production (unit-kilo tons)

Product	Jan-Sep 17	Jan-Sep 16
Ethylene	66.7	71.1
Polyethylene	64.8	66.9
Propylene	34	36.6
Isopropanol	9.349	7.352
C4s	20.7	14.9
Methanol	221.5	117.9

Central Asia/Caucasus

Azerbaijan-chemical production, Jan-Sep 2017

Chemical production in Azerbaijan rose by 18.1% in the first three quarters in 2017 against the same period in 2016. Isopropanol production rose 25% to 9,349 tons, methanol by 87.9% to 221,500 tons, and paint and varnish production by 41.1% to 8,315.8 tons.

Iodine production fell by 6.3% to 146.5 tons, polyethylene by 6% to 64,800 tons, propylene by 7.3% to 34,000 tons, ethylene by 6.2% to 66,700 tons, and other organic composite solvents by 17.6% to 8,315 tons. SOCAR Methanol achieved \$30.5 million in methanol sales in the first three quarters in 2017, of which 95% was derived from export activity. Production is forecast by the company to total 250,000 tons in 2017.

Kazakhstan-polypropylene project

Kazakhstan intends to begin construction of polypropylene production in the Atyrau region in 2017.in the near future. Contracts are expected to be signed for the supply of equipment worth \$200 million for the production of polypropylene and construction could start in 2018. Up to 90% of polypropylene from the 500,000 tpa plant is planned to be sold on foreign markets.



The operator of the first phase of the project is Kazakhstan Petrochemical Industries Inc. LLP (KPI Inc.), controlled by United Chemical Company LLP (51%) and ALMEX PLUS Firm LLP (49%). Investments will amount to about \$2.6 billion. China's State Development Bank (CBRC) has already approved a loan for the construction of polypropylene production in the amount of \$2 billion. The loan will be 100% financed by the EPC contract signed in December 2015 with the Chinese CNCEC for \$1.795 billion (excluding VAT). The rest of the financing will be provided at the expense of the organisers of the project.

At the second stage of creating a gas chemical complex, polyethylene and butadiene production are to be established but these investments are further behind polypropylene. According to the Ministry of Energy of Kazakhstan, United Chemical Company continues to search for a strategic partner. At the same time, according to the press service of the head of the republic, Kazakhstan expects that the South Korean company will remain

among the participants of the project.

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=226.4 €1=29.6: Rus rouble. \$1=61.2 €1=69.0

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