CIREC monthly NEWS

Chemical Industry Reporting for Russia, regional partners, and Central Europe

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Countries
Russia-Ukraine-Belarus-Kazakhstan-Uzbekistan-Azerbaijan
Czech Republic-Hungary-Poland-Romania-Serbia-Slovakia

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Key points from Issue 367

Central European petrochemical markets

- PKN Orlen undertaking investment plan for expansion of ethylene capacity to 1.040 million tpa
- Lummus Technology and Synthos have started collaborating to commercialize the biobutadiene technology to replace synthetic butadiene
- Polish methanol imports amounted to 237,900 tons in the first four months in 2021 from 229,000 tons in the same period in 2020 whilst exports fell from 70,600 tons to 61,500 tons
- PTA exports from Poland amounted to 127,254 tons in the first four months in 2021 against 141,100 tons in the same period in 2020; domestic consumption rising

Russian chemical production

- Russian production of chemicals and chemical products increased by 7.1% in the first four months driven by fertiliser and bulk plastics
- Russian propylene production totalled 1.063 million tons in the first four months in 2021 versus 888,500 tons in the same period in 2020
- Tatneft purchases Ekopet at Kaliningrad for $89.5 million for entry into PET market
- Russia produced 1.486 million tons of methanol in the first four months in 2021 against 1.591 million tons in same period in 2020; both Tomet lines now both operating

Russian chemical trade

- Export shipments of Russian methanol from producers totalled 642,500 tons in the first four months against 564,300 tons in the same period last year
- Russian TDI imports amounted to 19,090 tons in the first four months in 2021 against 15,088 tons in the same period in 2020
- PTA imports into Russia amounted to 85,500 tons in the first four months in 2021 versus 106,300 tons in the same period in 2020. China was responsible for all of the deliveries in 2021 tons compared to around 90% of imports in 2020
- Russian exports of synthetic rubber amounted to 372,800 tons in the first four months in 2021, up from 280,600 tons in the same period in 2020

Project news

- Installation of the main equipment and metal structures of Russia's first butane based maleic anhydride plant has been completed by 95%
- Tatneft's maleic project has been delayed by procedural irregularities, but start-up still scheduled for 2023
- Irkutsk Polymer Plant has started installing large-sized equipment in June. Delivery of 45 pieces of equipment from the port of South Korea to Ust-Kut was completed in September last year
- The Tomsk barge is delivering the largest equipment for the Amur Gas Chemical Complex to the site at Svobodny over a distance of about 5,000 km
- Gazprom neftekhim Salavat plans to build a plant for superabsorbent polymers (SAP)

CENTRAL & SOUTH EAST EUROPE

PKN Orlen-Olefin Expansion

PKN Orlen is currently assessing the options for increasing ethylene capacity at Plock from 640,000 tpa to 1,040,000 tpa. Various scenarios on how to achieve this expansion are underway. A favoured one option includes closure of the existing ethylene cracker of 340,000 tpa (Olefin 1), which was constructed forty years ago, and modernisation of the 300,000 tpa (Olefin 11) unit which started in 2005. A new cracker of 740,000 tpa would be added (Olefiny111) raising total capacity to 1.040 million tpa. The objective of Orlen's investment strategy is to increase the group's production of petrochemicals by over 1 million tpa from the current 5 million tpa.

PKN Orlen Expansion Plans		
Product	***Current***	***Projected***
Ethylene production	640,000 tpa	1,040,000 tpa
Petrochemical sales	4.0 million tpa	5.0 million tpa

The construction of the 740.000 tpa cracker together with the modernised 300,000 tpa cracker would aim to reduce CO2 emissions by around 30% per ton of product compared to current levels. The investment is scheduled to be completed in the first quarter of 2024 and production of olefins planned to start in early 2025. An area for the Olefin 111 Complex has already been designated covering almost 41 hectares. The investment could contribute around zl 1 billion per annum to Orlen's EBITDA. The primary goal is to increase the share of revenues from petrochemical sales at Płock from around 14% at present to around 19%.

PKN Orlen-hydrogen strategies

PKN Orlen are requesting bids for the process for projects in the area of hydrogen technologies and systems. PKN Orlen is set to build a hydrogen hub at Wloclawek by the end of 2021, ultimately producing up to 600 kg of purified hydrogen per hour. The project provides for the construction of a plant for the production of fuel-cell grade hydrogen, logistics infrastructure, and hydrogen refuelling stations.

The expansion of the olefin complex at Płock is part of the Orlen2030 strategy, which assumes that PKN Orlen will achieve carbon neutrality by 2050. The company aims to reduce CO2 emissions by 2030 from current refinery and petrochemical assets and by around 33%.

The value of the investment is estimated at zl 13.5 billion (€2.999 billion), based on a lump-sum offer for a steam cracker related installation, as well as detailed estimates of expenses for the necessary infrastructure. Preferred bidders to date include Hyundai Engineering and Técnicas Reunidas, although other companies are expected to be added. A special purpose company Orlen Olefiny has been established that will be responsible for the implementation of the investment.

PKN Orlen Production (unit-kilo tons)		
Product	***Jan-Apr 21***	***Jan-Apr 20***
Ethylene	99.4	154.9
Propylene	96.4	141.6
Butadiene	13.3	20.5
Toluene	3.9	3.6
Phenol	16.2	17.2
Polyethylene	67.2	115.9
PVC	72.6	88.9
Polypropylene	89.9	116.6

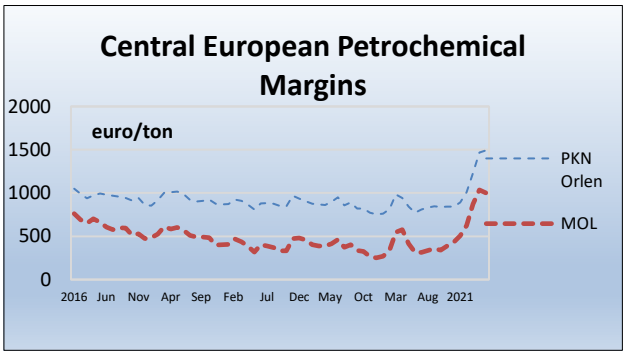
In addition to the new steam cracker with a capacity of 740,000 tpa, the complex will also include five additional production units, including a new installation for the production of ethylene oxide and glycols. The increase in phenol capacity to 100,000 tpa from the current 48,000 tpa is also important although this project has faced delays.

Assuming the merger is completed Grupa Lotos is also expected to benefit from the investment by PKN Orlen, which will supply petroleum products for the production of petrochemicals. Orlen is currently in talks with potential buyers for a 30% stake in the Lotos refinery which is a key condition set out for the merger of the two Polish oil companies.

PKN Orlen-petrochemical production Jan-Apr 2021

PKN Orlen produced 99,400 tons of ethylene at Plock in the first four months in 2021 against 154,900 tons in the same period in 2020, whilst propylene dropped from 141,600 tons to 96,400 tons. Olefin production was down due to necessary maintenance at Plock. In other areas of production PKN Orlen produced 13,300 tons of butadiene in Poland, against 20,500 tons in January to April 2020, whilst phenol production dropped slightly from 17,200 tons to 16,200 tons. Orlen's BOP jv at Plock produced 67,200 tons of polyethylene in January to April 2021 against 115,900 tons in the same period in 2020 whilst

polypropylene production dropped from 116,600 tons to 89,900 tons. Polyolefin production was affected by lower olefin availability.



For current profitability indicators PKN Orlen's model petrochemical margin rose to €1,492 a ton in May from €1,469 a ton a month earlier. Elsewhere in Central Europe MOL's group margin for petrochemicals dropped from €1,036 per ton to €1,004 in May which is still exceptionally high and measures against €412 per ton in May 2020 and €384.3 in May 2019.

Polish monomer & petrochemical trade, Jan-Apr 2021

Poland reduced benzene export shipments from 71,600 tons in January to April 2020 to 53,000 tons in the same period in 2021. Germany was the major destination for Polish benzene exports followed by the Czech Republic. The largest petrochemical exported from Poland is PTA where export shipments dropped from 141,100 tons to 127,100 tons in the same period in 2021.

Polish Petrochemical Exports (unit-kilo tons)		
Product	***Jan-Apr 21***	***Jan-Apr 20***
Benzene	53.0	71.6
Caprolactam	14.0	14.4
Propylene	15.5	3.1
PTA	127.1	141.1
Styrene	2.2	0.1
Toluene	3.7	3.9

Propylene imports into Poland amounted to 88,200 tons in the first four months in 2021 against 71,400 tons in the same period in 2020. Lower propylene production from the cracker by PKN Orlen was the cause of higher imports this year. Germany supplied 44,400 tons of propylene to the Polish market in January to April 2021, up from 38,000 tons, followed by Ukraine which was up from 17,000 tons to 23,200 tons. Import activity in propylene is expected to continue into Poland until Polimery Police starts production.

Polish Propylene Imports Jan-Apr 2021		
Country	***Qty (tons)***	***€ million***
Germany	44.4	38.0
Lithuania	6.5	5.9
Russia	14.1	10.4
Ukraine	23.2	17.0
Total	88.2	71.4

For other petrochemicals ethylbenzene imports into Poland rose from 29,400 tons to 45,000 tons whilst paraxylene imports increased from 9,500 tons to 15,900 tons.

Polish Petrochemical Imports (unit-kilo tons)		
Product	***Jan-Apr 21***	***Jan-Apr 20***
Butadiene	37.8	34.1
Ethylbenzene	45.0	29.4
Paraxylene	15.9	9.5
Propylene	88.2	71.4
Styrene	35.6	39.4
Toluene	7.4	8.3

Poland imported 37,800 tons of butadiene in the first four months in 2021 against 34,100 tons in the same period in 2020. Hungary supplied 15,500 tons to Poland in the first four months this year for €10.7 million whilst Austria supplied 13,600 tons for €9.6 million. The main buyer of butadiene in Poland is Synthos, as with styrene where imports amounted to 35,600 tons in the first four months.

Synthos-Lummus agreement for biobutadiene

Lummus Technology and Synthos have started collaborating to commercialize the biobutadiene technology in an effort to replace synthetic butadiene. The first step of the commercialisation includes a feasibility study for a biobutadiene plant with a production capacity of 20,000 tpa.

Polish Butadiene Imports Jan-Apr 2021		
Country	***Qty (tons)***	***€ million***
Austria	13.6	9.6
Czech Republic	0.9	0.7
Germany	7.7	5.5
Hungary	15.5	10.7
Total	37.8	26.5

Synthos is focusing on producing synthetic rubber from renewable raw materials, which can be achieved through production of biobutadiene from bioethanol. The competitive position for Synthos is underpinned by an integrated production chain, which provides access to competitively priced feedstock, but the group is attempting to use renewable raw materials in addition to producing environmentally friendlier forms of energy. The acquisition of Trinseo's rubber business has intensified the interest in securing sufficient stocks of butadiene and styrene.

Czech Petrochemical Imports (unit-kilo tons)		
Product	***Jan-Apr 21***	***Jan-Apr 20***
Ethylene	1.4	2.2
Propylene	16.4	14.3
Butadiene	28.3	13.7
Benzene	28.	27.0
Toluene	2.5	1.4
Styrene	15.7	11.4

Czech petrochemical trade, Jan-Apr 2021

Butadiene imports into the Czech Republic totalled 28,286 tons in the first four months in 2021 versus 13,667 tons in the same period in 2020. This continues the upward trend from 2020. In January to April 2021 Germany supplied 24,156 tons of butadiene to the Czech market for €16.443 million followed by Hungary with 4,129 tons for €2.838 million.

For other monomers, propylene imports in the first four months increased from 14,313 tons to 16,376 tons whilst styrene imports rose from 11,433 tons to 15,689 tons. Benzene imports increased from 27,000 tons to 28,017 tons. Regarding export activity the Czech Republic increased benzene shipments in the first four months to 7,077 tons from 15,072 tons whilst ethylbenzene exports rose from 29,423 tons to 39,089 tons. Most of the ethylbenzene is exported to Poland.

Polish Exports of PTA (unit-kilo tons)		
Country	***Jan-Apr 21***	***Jan-Apr 20***
Belarus	2.6	11.3
Germany	108.7	110.0
Lithuania	12.4	6.1
Switzerland	1.5	2.8
Turkey	0.0	1.9
Others	2.1	9.0
Total	127.2	141.1

Orlen-PTA exports & Polish consumption

PTA exports from Poland amounted to 127,254 tons in the first four months in 2021 against 141,100 tons in the same period in 2020. Shipments to Germany declined to 108,700 tons from 110,000 tons in January to April 2020. Export revenues amounted to €71.901 million in the first four months in 2021, equating to €565 per ton.

Other destinations for Polish PTA include Lithuania and Belarus, with volumes rising in 2021 to Lithuania and dropping for Belarus. The political situation in Belarus has affected chemical trade this year. Whilst exports of PTA from Poland have declined in 2021 imports of PTA have been rising indicating an increase in domestic Polish consumption of PTA. Imports of PTA rose to 22,100 tons in the first four months in 2021 against 3,300 tons in the same period in 2020. PTA is used in Poland not only for PET production but also in the production of plasticizers.

MSK Kikinda Exports (unit-kilo tons)		
Product	***Jan-Mar 21***	***Jan-Mar 20***
Methanol	28.6	20.1
Acetic Acid	22.5	16.1

Central European methanol trade, Jan-Apr 2021

Methanol exports from MSK in Serbia amounted to 28,600 tons in the first three months in 2021 versus 20,100 tons in the same period in 2020, followed by a rise in acetic acid exports from 16,100 tons to 22,500 tons. MSK runs its own fleet of rail wagons and uses the port of Bar in Montenegro.

Polish Methanol Imports (unit-kilo tons)		
Country	***Jan-Apr 21***	***Jan-Apr 20***
Belarus	1.3	3.2
Finland	25.0	0.0
Lithuania	2.7	3.9
Germany	27.0	2.4
Netherlands	25.6	0.0
Norway	4.3	13.9
Russia	141.5	180.3
Others	10.5	25.3
Total	237.9	229.0

Polish methanol imports amounted to 237,900 tons in the first four months in 2021 from 229,000 tons in the same period in 2020 whilst exports fell from 70,600 tons to 61,500 tons. As a non-producer Poland re-exports methanol to Austria, the Czech Republic and Germany.

Czech Methanol Imports (unit-kilo tons)		
Country	***Jan-Apr 21***	***Jan-Apr 20***
Germany	5.3	4.8
Norway	0.0	0.3
Russia	16.4	10.4
Poland	8.4	13.7
Others	0.5	0.3
Total	30.7	30.0

Russia is the major supplier to the Polish market and reduced shipments from 180,500 tons in January to April 2020 to 141,500 tons in the same period this year. Shchekinoazot is one of the main suppliers of methanol to the Polish market which it ships by rail through Belarus. Prices of methanol have risen sharply this year averaging €293 per ton in the first four months, almost double the average prices recorded in 2020.

Methanol imports into the Czech Republic amounted to 30,700 tons in the first four months in 2021 against 30,000 tons in same period in 2020. Russian shipments into the Czech Republic rose from 10,400 tons to 16,400 tons, whilst at the same time volumes from Poland dropped from 13,700 tons to 8,400 tons.

Central European isocyanate imports, Jan-Apr 2021

The strong demand for polyurethanes in Central Europe is helping to drive the market for isocyanates where costs have been much higher this year. MDI imports into the Czech Republic totalled 15,173 tons in the period January to April 2021 up from 8,710 tons in the same period in 2020. Import costs rose in the first four months this year to €31.530 million against €12.638 million in the period January to April 2020. TDI imports into the Czech Republic dropped from 2,044 tons in January to April 2020 to 2,537 tons in the same period in 2021.

Czech MDI Imports (unit-kilo tons)		
Country	***Jan-Apr 21***	***Jan-Apr 20***
China	1.1	1.0
Belgium	4.3	2.4
Germany	6.1	3.7
Hungary	2.5	0.7
Netherlands	0.6	0.5
Others	0.6	0.3
Total	15.2	8.7

TDI imports into Poland amounted to 26,961 tons in the first four months in 2021 against 24,400 tons in the same period in 2020. Costs of imports totalled €71.372 million, equating to €2647 per ton. Germany and Hungary were the two largest suppliers providing 8,340 tons and 13,330 tons in January-April 2021 respectively.

Polish TDI Imports (unit-kilo tons)		
Country	***Jan-Apr 21***	***Jan-Apr 20***
Germany	8.3	8.1
Netherlands	2.4	3.5
Hungary	13.3	10.5
Belgium	0.4	0.1
Saudi Arabia	0.9	1.7
Others	1.5	0.5
Total	27.0	24.4

MDI imports into Poland amounted to 50,656 tons in the first four months in 2021 for a total cost of €99.0 million. Average prices per ton for the whole of 2020 amounted to €1364 but have risen to €1964 per ton in the first four months in 2021. Major MDI suppliers to the Polish market this year so far include Germany, Hungary and Belgium.

Sale of Fortischem plant in Slovakia

Czech group Kaprain has bought the indebted Fortischem chemical plant at Novaky in Slovakia. The purchase has been approved by the Slovak Office for the Protection of Competition. The Kaprain group intends new investment into the Novaky plant, with the initial focus on paying the salaries of 700 employees.

Polish Chemical Production (unit-kilo tons)		
Product	***Jan-Apr 21***	***Jan-Apr 20***
Caustic Soda Liquid	115.0	124.4
Caustic Soda Solid	28.9	25.6
Caprolactam	55.5	54.1
Acetic Acid	2.3	1.8
Polystyrene	24.7	22.7
EPS	29.6	29.8
Synthetic Rubber	86.7	94.5
Ammonia (Gaseous)	947.0	727.2
Ammonia (Liquid)	36.0	36.0
Pesticides	28.4	27.3
Nitric Acid	883.0	841.0
Nitrogen Fertilisers	749.0	749.0
Phosphate Fertilisers	154.5	142.7
Potassium Fertilisers	113.5	132.8

The Fortischem plant produces a range of inorganic chemicals and PVC. The Czech Republic is a main export destination for PVC produced at Novaky. Chlorine production was converted from mercury to membrane in 2018 after installation was conducted by ThyssenKrupp Uhde. At its full operating capacity, it can produce 75,000 tpa of caustic soda. Similarly to Chemko Strazske in Slovakia the Novaky plant does come with environmental problems.

Grupa Azoty, caprolactam-polyamide

Grupa Azoty produced 55,500 tons of caprolactam from its two plants at Tarnow and Pulawy in the first four months in 2021 against 54,100 tons in the same period in 2020. Group exports of caprolactam amounted to 14,000 tons from 14,400 tons in January to April last year.

The new polyamide unit brought on stream at Tarnow has enabled the group to achieve a better balance in caprolactam supply with demand for polyamide production and to focus on polyamides and derivatives further down the value chain. The new plant at Tarnow produces polyamides in a full viscosity range, suitable for a broader spectrum of applications. The group is seeking out opportunities to expand into advanced polyamide-based polymers, polymer additives, and engineering plastics.

In other business Grupa Azoty decided reached a decision in June to discontinue the production of polyoxymethylene (POM) in order to reduce the company's total CO2 emissions. The aim is for Azoty to exit the business by 31 August 2021.

RUSSIA

Russian Chemical Production (unit-kilo tons)		
Product	***Jan-Apr 21***	***Jan-Apr 20***
Caustic Soda	446.4	440.0
Soda Ash	1,159.0	1,182.0
Ethylene	1,489.0	1,435.3
Propylene	1,062.7	784.8
Benzene	455.2	502.0
Xylenes	196.9	170.3
Styrene	260.5	233.9
Phenol	85.6	64.7
Ammonia	7,000.0	6,800.0
Nitrogen Fertilisers	3,951.0	3,817.0
Phosphate Fertilisers	1,486.0	1,443.0
Potash Fertilisers	3,537.0	3,183.0
Plastics in Bulk	3,678.0	3,295.0
Polyethylene	1,199.0	1,125.0
Polystyrene	197.9	183.6
PVC	360.5	372.5
Polypropylene	712.7	350.3
Polyamide	66.1	59.1
Synthetic Rubber	595.0	514.0
Synthetic Fibres	50.1	49.9

Russian chemical production, Jan-Apr 2021

Production of chemicals and chemical products in Russia increased by 7.1% in the first four months of 2021. This included a rise of 15.2% for the production of rubber and plastic products which has benefited from improved market demand and plant utilisation rates. Regarding the fertiliser sector a total of 8.9 million tons were produced in the four months of 2021, which is 10.2% more than in the same period in 2020.

Production of synthetic rubbers in primary forms amounted to 595,000 tons in the first four months, measured against 514,000 tons in the same period in 2020. Production of tyres amounted to 5.8 million units in April, that is twice as much as in the same period of 2020.

Russian chemical trade Jan-Apr 2021

Higher prices have been seen across the board for Russian exports and imports of organic chemicals, polymers and rubber in the first four months of 2021, with methanol standing out on the export side and isocyanates for imports. Organic and inorganic chemical import values rose from $2.195 billion to $2.402 billion in January to April 2021 whilst polymer and rubber imports rose from $3.713 billion to $4.562 billion.

Trade in pharmaceuticals and pharmaceutical ingredients have risen both for Russian export and import activity part of which may be attributed to impact from COVID. Exports of vaccines from Russia amounted to $186 million in the first four months in 2021 against $71 million for the whole of 2020.

Russian Imports of Chemicals and Chemical Products ($ million)		
Product Group	***Jan-Apr 21***	***Jan-Apr 20***
Organic and inorganic chemistry products	2402.4	2194.6
Pharmaceutical products	4124.8	2476.4
Perfumery and cosmetic products	1073.4	958.9
Soap, detergents	495.4	457.6
Polymers, rubber	4562.4	3713.9

Sales of Sputnik V have been the main driver behind increased vaccine exports with Argentina taking the largest volume amounting to $60 million in value. Exports of pharmaceuticals from Russia totalled $478 million for the first four months in 2021 against imports of $4.125 billion. Imports rose from $2.476 billion in the period January to April 2020 and are usually around ten-fold higher than exports.

SIBUR-TAIF merger and potential effects

The SIBUR-TAIF merger which is underway at present has the potential to create a major chemical player on the world market whilst acting as the dominant supplier of basic polymers and synthetic rubbers to the domestic market. As part of the merger, a company will be established on the basis of SIBUR Holding, in which the existing shareholders of TAIF will receive 15% in exchange for the transfer of a controlling stake in the group consisting of petrochemical and energy enterprises. The remaining stake in TAIF may subsequently be bought out by the combined company.

SIBUR's revenue could increase by more than 40% as a result of the merger and the EBITDA could grow by about a quarter. However, SIBUR's EBITDA margin should drop as Nizhnekamskneftekhim and Kazanorgsintez have a lower profitability (about 20%, which is typical for traditional petrochemical producers) compared to SIBUR, which has an EBITDA margin of more than 30%.

Russian petrochemical projects

Amur Gas Chemical Complex-logistics

The Tomsk barge which is delivering the largest equipment for the Amur Gas Chemical Complex is currently en route to the site at Svobodny is covering a distance of about 5,000 km through the Korean Strait, the Sea of Japan, the Amur and Zeya rivers. The loading operation was carried out in the South Korean port of Masan. The ship was then sent to the Russian port of De-Kastri. Through Nikolaevsk-on-Amur, on the rivers Amur and Zeya the barge-toe train will end its journey at the temporary pier, located near Svobodny. Using this method of transport SIBUR plans to deliver about 50 units of oversized equipment this year with a total weight of more than 12,000 tons.

SIBUR-Gazprom agreement on Amur infrastructure

SIBUR and Gazprom signed an agreement in June concerning cooperation on the use of infrastructure facilities of the Amur Gas Processing Plant (GPP) and the Amur Gas Chemical Complex. The document contains the basic conditions of long-term agreements on the joint use of part of the infrastructure.

This includes the temporary berth established by Gazprom on the Zeya river, in addition to roads, transport sites, as well as railway infrastructure connecting with the Trans-Siberian Railway. Joint infrastructure operations are aimed at helping the logistics of both gas and gas-chemical projects and redistribute cargo flows, eliminating downtime and associated costs. The Amur Gas Processing Plant had achieved around 75% of the construction schedule by the end of May and has started supplying its first gas to China via the Power of Siberia pipeline.

RusKhimAlliance-Ust Luga gas processing and gas chemical

RusKhimAlliance, Linde and Renaissance Heavy Industries have signed an EPC contract for the construction of the gas processing facility at Ust-Luga on Russia's Baltic coastline. Linde and Renaissance Heavy Industries consortium have been contracted to carry out work on the design, supply of equipment, construction and commissioning of gas processing facilities and the industrial plant of the gas processing complex.

Gazprom-Baltic Project Outline	
Gas processing	45 billion cubic metres per annum
Methane	19 billion cubic metres per annum
LNG	13 million tpa
LPG	2 million tpa
Ethane	4 million tpa
Ethylene	3 million tpa
Polymers	3 million tpa

The Ust Luga site will include two large-scale enterprises. The first consists of an integrated natural gas processing and liquefaction complex (RusKhimAlliance, Gazprom JV and Rusgazdobycha). The second is the interlinked gas-chemical complex Baltic Chemical Complex which is a subsidiary of Rusgazdobycha. Lummus has been commissioned to supply a total of 14 furnaces for the production of ethylene for the Baltic Chemical Complex whilst a number of license agreements for polyolefin capacities have already been signed.

Irkutsk Oil Company-second helium plant

Irkutsk Polymer Plant has started installing large-sized equipment in June. Delivery of 45 pieces of equipment from the port of South Korea to Ust-Kut was completed in September last year. At present, work is being completed on the preparation of foundations for installation, and the assembly of the main crane with a lifting capacity of 1,600 tons is underway. The total weight of the processing equipment is 4,500 tons. The largest pieces of equipment are a deethanizer (length 81.9 m, weight 357 tons) and an ethylene polymerization reactor (44.5 m, weight 597 tons).

The equipment is expected to complete installation by September 2021. The Irkutsk Polymer Plant is the first ethane polymer plant in East Siberia, using its own raw materials from the oil and gas fields in the northern part of the Irkutsk Oblast. The production capacity of the polyethylene plant is being designed to produce 650,000 tpa.

In addition to polyethylene the Irkutsk Oil Company (INK) intends to build a second helium plant at the Markov field in the Irkutsk region, which will allow the company to become the second largest producer of the product in Russia. The construction of the second plant will allow INK to produce about 15-17 million litres of helium per annum. Currently, the company is building its first helium plant in the Yarakta field which is planned for launch in 2022. The second plant is planned to be built by 2025.

Russian petrochemical production

Russian Ethylene Production (unit-kilo tons)		
Producer	***Jan-Apr 21***	***Jan-Apr 20***
Angarsk Polymer Plant	77.9	78.9
Kazanorgsintez	193.1	216.8
Stavrolen	115.4	116.4
Nizhnekamskneftekhim	214.6	218.5
Novokuibyshevsk Petrochemical	19.1	18.7
Gazprom N Salavat	122.2	128.9
SIBUR-Kstovo	131.2	145.9
SIBUR-Khimprom	19.7	19.2
Tomskneftekhim	95.5	94.9
Ufaorgsintez	26.3	44.5
ZapSibNeftekhim	474.1	352.6
Total	1489.0	1435.4

Russian ethylene production, Jan-Apr 2021

Russian ethylene production totalled 1.489 million tons in the first four months in 2021 against 1.435 million tons in the same period in 2020.

ZapSibNeftekhim produced 474,100 tons of ethylene up from 352,600 in January to April 2020. Other Siberian producers include Tomskneftekhim, which increased production from 94,900 tons to 95,500 tons and Angarsk Polymer Plant which was down slightly to 77,900 tons.

In Tatarstan Nizhnekamskneftekhim reduced ethylene production from 218,500 tons to 214,600 tons whilst Kazanorgsintez reduced production from 218,500 tons to 214,600 tons. Both producers belong to the TAIF Group, and both reported weak financial results for 2020.

In Bashkortostan Ufaorgsintez reduced ethylene production to 26,300 tons from 44,500 tons in January to April 2020 after encountering a fire at the cracker in February. Gazprom neftekhim Salavat reduced production slightly from 128,900 tons to 122,200 tons.

Smaller Russian ethylene producers include Novokuibyshevsk Petrochemical, in the Samara region, and SIBUR-Khimprom in the northeast Urals. Production at Novokuibyshevsk increased in the first four months in 2021 to 19,100 tons from 18,700 tons whilst SIBUR-Khimprom at Perm produced 19,700 tons against 19,200 tons.

In the Nizhniy Novgorod region SIBUR-Kstovo produced 131,200 tons of ethylene in the first four months in 2021 against 145,100 tons in the same period in 2020. In the Stavropol region Stavrolen produced 115,400 tons of ethylene versus 116,400 tons in January to April 2020. Stavrolen uses ethylene for the production of HDPE and VAM.

Russian Propylene Production (unit-kilo tons)		
Producer	***Jan-Apr 21***	***Jan-Apr 20***
Angarsk Polymer Plant	43.7	43.4
Kazanorgsintez	16.5	17.1
Lukoil-NNOS	63.8	83.9
Stavrolen	46.0	44.0
Nizhnekamskneftekhim	107.6	104.6
Novokuibyshevsk Petrochemical	12.6	14.7
Omsk Kaucuk	4.5	17.5
Polyom	65.0	61.2
Gazprom n Salavat	53.9	55.5
SIBUR Kstovo	59.2	63.4
SIBUR-Khimprom	20.0	20.8
Tomskneftekhim	52.1	53.4
SIBUR Tobolsk	3.0	105.9
Ufaorgsintez	59.8	65.0
ZapSibNeftekhim	454.6	138.0
Total	1062.5	888.5

Gazprom neftekhim Salavat-changes

Previous attempts to expand the olefin capacity base at Gazprom neftekhim Salavat have been mostly unsuccessful due to the difficulties in securing sufficient feedstocks. Since early 2021 the company has been realigned in the Gazprom structure and become part of RusGazDobycha under subsidiary RGD Refining Salavat.

The gas processing complex, which RusGazDobycha will build at Gazprom neftekhim Salavat, will process ethane-containing gas from the Nadym-Pur-Taz region and the Tambey field (Yamal). A contract was recently signed for the supply of 28 billion cubic metres of gas to Gazprom's Salavat enterprise. The launch of the new project means that in the next 15-20 years gas chemicals will be delivered from Salavat to the Urals, the Trans-Urals, Siberia and the eastern part of Russia, as well as to Central Asia. RGD Refining Salavat was registered in January of this year as a 100% subsidiary of Rusgazdobycha.

Russian Propylene Domestic Purchases (unit-kilo tons)		
Consumer	***Jan-Apr 21***	***Jan-Apr 20***
Saratovorgsintez	62.2	49.4
Volzhskiy Orgsintez	3.9	2.9
Akrilat	0.0	0.4
SIBUR-Khimprom	13.5	13.6
Omsk-Kaucuk	1.3	8.8
Tomskneftekhim	1.8	2.1
SIBUR Tobolsk	22.8	41.0
Moscow Refinery	4.7	2.0
Ufaorgsintez	5.3	1.5
Samaraorgsintez	3.0	0.0
Khimprom Kemerovo	1.8	0.7
Plant of Synthetic Alcohol	5.7	2.4
Angarsk Polymer Plant	0.0	2.0
Total	126.1	126.6

Russian propylene production, sales & exports, Jan-Apr 2021

Russian propylene production totalled 1.063 million tons in the first four months in 2021 versus 888,500 tons in the same period in 2020. The Tobolsk two-plant hub controlled by SIBUR produced 454,600 tons of propylene against 246,900 tons in January to April 2020. At Kstovo in the Nizhniy Novgorod region Lukoil-NNOS reduced production from 83,900 tons to 63,800 tons in the first four months this year and SIBUR-Kstovo reduced production from 63,400 tons to 59,200 tons.

In Bashkortostan Ufaorgsintez reduced production from 65,000 tons to 59,800 tons in January to April 2021, which was down due the outage in February whilst in Tatarstan Nizhnekamskneftekhim increased production slightly from 104,600 tons to 107,600 tons.

Sales of propylene on the domestic dropped in the first four months in 2021 to 126,100 tons versus 126,600 tons in the same period in 2020. Saratovorgsintez at Saratov increased purchases from 49,400 tons to 62,200 tons whilst SIBUR Tobolsk reduced purchases from 41,000 tons in 22,800 tons mainly due to the integration with ZapSibNeftekhim. Of the suppliers Lukoil-NNOS reduced shipments on the domestic market to 57,700 tons from 73,700 tons in the same period in 2020 whilst SIBUR-Kstovo reduced shipments from 55,500 tons to 45,700 tons. Propylene exports from Russian producers amounted to 34,400 tons in the first four months in 2021 against 18,600 tons in the same period in 2020.

Russian Producer Propylene Exports (unit-kilo tons)		
Producer	***Jan-Apr 21***	***Jan-Apr 20***
Lukoil-NNOS	13.4	14.5
SIBUR-Kstovo	6.8	3.4
Angarsk Polymer Plant	14.2	0.0
Stavrolen	0.0	0.7
Total	34.4	18.6

The Angarsk Polymer Plant exported 14,200 tons of propylene in January to April 2021 against no activity in the same period in 2020, all of which was sent to China. Exports of propylene from Angarsk have contributed to a tight domestic market supply balance in Russia for propylene. In May the Russian propylene market saw some surplus in the market which allowed a revival of export activity, rising threefold against April to 18,900 tons.

Russian Styrene Production (unit-kilo tons)		
Producer	***Jan-Apr 21***	***Jan-Apr 20***
Nizhnekamskneftekhim	100.4	99.7
Angarsk Polymer Plant	15.1	13.5
SIBUR-Khimprom	48.3	47.8
Gazprom n Salavat	70.5	56.1
Plastik, Uzlovaya	26.1	17.8
Total	260.5	234.9

Russian styrene production and sales, Jan-Apr 21

Russia produced 260,500 tons of styrene in the first four months in 2021 versus 234,900 tons in the same period in 2020. The largest producer Nizhnekamskneftekhim produced 100,400 tons to 99.700 tons. Gazprom neftekhim Salavat increased production from 56,100 tons to 70,500 tons and SIBUR-Khimprom from 47,600 tons to 48,300 tons.

Nizhnekamskneftekhim consumes most of Nizhnekamskneftekhim consumes most of its styrene monomer in the production of polystyrene and synthetic rubber. Russian styrene sales on the domestic merchant market rose in the first four months to 49,500 tons from 37,500 tons in the same period in 2020. Gazprom neftekhim Salavat increased sales from 18,000 tons in the first four months last year to 22,400 tons. Major merchant styrene buyers on the domestic market include Voronezhsintezkaucuk which produces styrene butadiene rubber.

Bulk Polymers

Russian HDPE Export Revenues ($ million)			Russian HDPE Export Volumes (unit-kilo tons)		
Country	*Jan-Apr 21*	*Jan-Apr 20*	*Country*	*Jan-Apr 21*	*Jan-Apr 20*
Belarus	19.3	12.8	Belarus	15.4	13.8
Belgium	5.2	0.0	Belgium	6.3	0.0
Bulgaria	1.1	1.1	Bulgaria	0.9	1.4
China	177.3	19.2	China	223.3	31.9
Egypt	1.5	0.0	Egypt	1.5	0.0
Estonia	0.5	0.0	Estonia	0.3	0.0
Finland	1.2	0.4	Finland	1.1	0.4
Kazakhstan	31.6	29.4	Kazakhstan	25.6	27.8
Lithuania	4.2	2.4	Lithuania	3.3	2.9
Poland	7.2	1.3	Poland	6.4	1.6
Serbia	2.4	5.7	Serbia	1.8	6.6
Turkey	24.2	0.7	Turkey	25.4	1.2
Ukraine	2.3	1.3	Ukraine	1.9	1.3
Uzbekistan	2.4	1.0	Uzbekistan	1.8	1.0
Others	9.5	4.8	Others	7.6	8.8
Total	290.0	80.1	Total	322.6	98.8

Russian PE production and HDPE exports

Production of polyethylene in Russia totalled 1.081 million tons in January to April, which is 9% more than in the same period in 2020. ZapSibNeftekhim went past 2.0 million tons of production in June since the initial start-up at the end of 2019. Russian LLDPE production increased to 198,600 tons against 159,100 tons in January-April 2020. LDPE production dropped 2% to 228,400 tons whilst HDPE increased 9% to 653,500 tons.

Angarsk Polymer Plant has halted production of LDPE in June for routine repairs. The 75,000 tpa plant is expected to be down from 21 June until the beginning of August. From 12 July Gazprom neftekhim Salavat is shutting its LDPE plant for around a month.

HDPE exports from Russia increased from 98,800 tons in the first four months in 2020 to 322,600 tons in the same period this year. China was the largest destination for Russian HDPE, amounting to 223,300 tons against 31,900 tons in 2020, with revenues rising from $19.2 million to $177.3 million.

Russian PP Export Revenues ($ million)			Russian PP Export Volumes (unit-kilo tons)		
Country	*Jan-Apr 21*	*Jan-Apr 20*	*Country*	*Jan-Apr 21*	*Jan-Apr 20*
Belarus	35.7	23.0	Belarus	25.1	24.5
Belgium	11.4	0.0	Belgium	12.6	0.0
Brazil	4.6	0.0	Brazil	4.0	0.0
Bulgaria	0.4	0.4	Bulgaria	0.2	0.4
China	27.0	71.0	China	29.5	76.7
Czech Rep	5.9	2.6	Czech Rep	3.4	3.0
Finland	1.5	0.9	Finland	1.4	0.9
Germany	1.9	0.0	Germany	1.4	0.0
Hungary	1.7	0.6	Hungary	1.3	0.6
India	3.4	0.0	India	3.1	0.0
Israel	2.6	0.0	Israel	1.8	0.0
Italy	11.9	0.4	Italy	13.8	0.5
Kazakhstan	6.3	6.7	Kazakhstan	4.1	6.3
Lithuania	9.3	3.8	Lithuania	5.4	4.4
Moldova	1.6	0.8	Moldova	0.9	0.7
Peru	3.4	0.0	Peru	3.2	0.0
Poland	44.6	13.8	Poland	34.8	15.6
Portugal	1.6	0.0	Portugal	1.6	0.0
Serbia	6.0	5.1	Serbia	4.1	5.8
Tajikistan	1.8	0.9	Tajikistan	1.1	0.8
Turkey	70.7	31.0	Turkey	68.8	28.7
Ukraine	24.0	10.8	Ukraine	14.2	11.5
Uzbekistan	2.7	3.8	Uzbekistan	1.8	3.4
Vietnam	11.5	0.0	Vietnam	12.8	0.0
Others	5.9	1.4	Others	5.0	3.2
Total	297.3	177.0	Total	255.5	187.0

Russian polypropylene exports Jan-Apr 2021

Russian polypropylene exports rose by volume from 187,000 tons in the first four months in 2020 to 255,500 tons in the same period in 2021 with revenues rising from $177.0 million to $297.3 million.

Turkey was the largest destination for Russian exports of polypropylene in the first four months in 2021, taking 68,800 tons followed by Poland with 34,500 tons and China 29,500 tons.

Russian Paraxylene-PTA

Russian PTA Imports by Country (unit-kilo tons)		
Country	***Jan-Apr 21***	***Jan-Apr 20***
Belgium	0.0	4.0
China	85.5	94.4
South Korea	0.0	5.0
Total	85.5	106.3

Russian PTA imports, Jan-Apr 2021

PTA imports into Russia amounted to 85,500 tons in the first four months in 2021 versus 106,300 tons in the same period in 2020. China was responsible for all of the deliveries in 2021 tons compared to around 90% of imports in 2020. Average prices for PTA imports amounted to $630 per ton in January to April 2021 against $570 per ton in the same period in 2020.

PTA costs per ton for imports have been rising this year whilst paraxylene export prices have been climbing.

Higher production of PTA at Polief has enabled its owning group SIBUR to export small volumes this year amounting to 3,909 tons in the first four months.

Tatneft wins bid for Ekopet

Tatneft has won a bid to buy the PET producer Ekopet at Kaliningrad. The signing of legally binding documents on the deal is expected with the bank Trust in the coming weeks. According to the materials of the bidding, Tatneft acquired Ekopet for 6.45 billion roubles ($89.5 million) after the initial price was set at 3.75 billion roubles ($52.0 million).

The bank Trust has sold a single lot of shares and shares of companies belonging to Ekopet (production complex), 100% shares of TD Ecopolymers LLC (trading house), and 100% of the industrial park of BaltTechProm LLC, as well as the rights of the claim to these companies.

Ekopet is the largest PET producer in Russia with a capacity of 220,000 tpa. The company uses MTR (Melt-To-Resin) technology from Uhde Inventa-Fischer and is located in the Baltic Industrial Park in the Kaliningrad region. The plant has its own railway line and is located near the international sea trading ports of Kaliningrad and the Baltic.

Significance of Ekopet acquisition for Tatneft

The acquisition of Ekopet is aimed at contributing to Tatneft Group's goals to reduce greenhouse gas emissions. In 2019 Tatneft took control of the SafPet project at Nizhnekamsk which envisaged projects plans of 250,000 tpa of PET and 210,000 tpa of PTA.

These projects have failed to materialise partly because of the slow progress on the aromatics project which is being undertaken by Tatneft's refining division Taneko. Latest indications are that Tatneft hopes to complete the construction of a complex of aromatics for the production of benzene and paraxylene in 2022. Paraxylene production would clearly provide Tatneft with the feedstock basis for the full PET chain.

Russian PTA Imports by Region (unit-kilo tons)		
Location	***Jan-Apr 21***	***Jan-Apr 20***
Kaliningrad	60.3	56.9
Moscow	25.3	42.6
Others	0.0	7.5
Total	85.5	106.3

Possibly the most interesting aspect of the Ekopet acquisition includes the third asset, BaltTechProm LLC which is an industrial park with an area of 132 hectares with a site of prospective development for another 103 hectares. All this is located on the shore of the shipping channel, next to the international sea trade port of Kaliningrad with a developed railway infrastructure. Thus, together with Ekopet Tatneft has acquired a vast plot of land, which it is considering the possibility of building new installations.

Paraxylene from the Taneko refinery at Nizhnekamsk, which is scheduled to start in 2022, could be used for PTA production at Nizhnekamsk or alternatively shipped to Kaliningrad. The capacity of the paraxylene facility is expected to be 158,000 tpa.

Russian MEG Imports (unit-kilo tons)		
By region	***Jan-Apr 21***	***Jan-Apr 20***
Kaliningrad	20.7	19.1
Others	2.6	0.1
Total	21.3	19.2
By country	***Jan-Apr 21***	***Jan-Apr 20***
Saudi Arabia	17.8	19.1
Others	3.5	0.1
Total	21.3	19.2

Either way, the acquisition of Ekopet probably ends the prospects of the SafPet project at Nizhnekamsk being constructed. The SafPet project has had a number of its owners since its inception before being bought by Tatneft, and the delays in construction since 2017 have seen construction costs rise dramatically. The SafPet project consisted of 250,000 tpa of PET and 210,000 tpa of PTA and thus it is expected that Tatneft will drop the PET plan but carry on with the PTA plan.

Ekopet consists of state-of-the-art plant that requires no additional investment, is efficient at full capacity and has its own well-established, balanced market that provides long-term contracts. This was a major attraction to Tatneft. However, Ekopet's dependency on imported PTA and MEG has made production unprofitable at the site and therefore an ultimate goal of Tatneft is to complete the full chain of production.

Tatneft will need to assess whether raw materials for PET production should be produced in Tatarstan, where Tatneft is based, or located at the BaltTechProm site at Kaliningrad. Producing PTA in Tatarstan and then shipping 2,400 km to Kaliningrad (including transportation through two borders) for then the finished PET resin to be sent back to Russia would appear uneconomical, but equally developing PTA facilities at Kaliningrad poses other questions. The fact that Tatneft is now responsible for Ekopet together with its operational debts possibly means that decisions on investment into the PET chain cannot be delayed.

Russian Benzene Production (unit-kilo tons)		
Producer	***Jan-Apr 21***	***Jan-Apr 20***
Angarsk Polymer Plant	32.5	32.4
Gazprom Neft	35.3	51.5
Stavrolen	0.0	24.4
LUKoil-Permnefteorgsintez	17.3	19.9
Magnitogorsk MK	12.9	14.5
Nizhnekamskneftekhim	101.4	102.2
Novolipetsk MK	1.9	0.6
Gazprom n Salavat	69.3	74.6
Severstal	10.3	12.4
SIBUR-Holding	27.2	33.5
Slavneft-Yaroslavlorgsintez	22.3	22.3
Surgutneftegaz	11.3	19.1
Ryazan RN Holding	9.7	11.3
Ufaneftekhim	30.8	32.5
Ural Steel	3.3	4.0
Uralorgsintez	29.1	25.7
Zapsib	23.8	22.2
Novokuibyshevsk Petrochemical	7.5	6.5
Total	445.8	509.7

Aromatics

Russian benzene production Jan-Apr 2021

Russian benzene production totalled 445,800 tons in the first four months in 2021 versus 509,700 tons in the same period in 2020. Nizhnekamskneftekhim produced 101,400 tons against 102,200 tons whilst Gazprom neftekhim Salavat reduced production from 74,600 tons to 69,300 tons. Reductions were reported by a number of producers, the largest of which was Gazprom Neft at the Omsk refinery dropping from 51,500 to 35,300 tons.

Russian Benzene Sales (unit-kilo tons)		
Producer	***Jan-Apr 21***	***Jan-Apr 20***
Angarsk Polymer Plant	18.8	20.8
SIBUR-Kstovo	26.2	32.5
Severstal	11.4	12.4
Uralorgsintez	27.0	25.6
Kirishinefteorgsintez	2.7	1.8
West Siberian MC	22.1	18.7
Ryazan NPZ	9.1	10.5
Slavneft-Yanos	22.4	21.9
Gazprom Neft (Omsk)	30.7	28.6
Gazprom Neftekhim Salavat	11.3	14.7
Stavrolen	0.0	24.0
Nizhnekamskneftekhim	9.7	10.8
Ufaneftekhim	0.2	2.8
Karpatneftekhim	2.2	1.5
Belarus	10.4	0.0
Atyrau	2.5	12.2
Chelyabinsk MK	5.0	1.3
Altay-Koks	2.6	9.7
Koks	9.1	7.3
Magnitogorsk MK	13.3	15.4
Nizhny Tagil MK	3.4	6.6
Ural Steel	0.9	0.0
Full Total	240.9	279.2

Sales of benzene on the domestic market, including imports, amounted to 240,900 tons versus 279,200 tons in the same four months in 2020.

A number of factors contributed to the lower sales volumes on the domestic market this year including plant outages and increased internal processing.

SIBUR-Kstovo reduced sales from 32,500 tons in the first four months in January to April 2020 to 26,200 tons in the same period in 2021, whilst Stavrolen at Budyennovsk did not produce in the first four months in 2021 after shipping 24,000 tons in January to April last year. Stavrolen has not produced benzene for several months.

Regarding import activity the Atyrau refinery in Kazakhstan reduced benzene sales on the Russian market to 2,500 tons in the first four months in 2021 against 12,200 tons in the same period in 2020. The Atyrau refinery encountered technical problems in the first quarter which restricted exports of benzene and paraxylene, particularly to Russia in March.

Benzene from Belarus to Russia from the Naftan and Mozyr refineries amounted to 10,800 tons in the first four months in 2021 against no activity in the same period in 2020. Belarus is currently producing more benzene than it needs for caprolactam production. However, Naftan may be forced to reduce production in the third quarter due to problems with oil supply.

Regarding caprolactam producers Kuibyshevazot reduced benzene purchases from 66,400 tons to 52,400 tons in January to April this year whilst Azot at Kemerovo increased purchases from 40,300 tons to 50,200 tons. Shchekinoazot reduced purchases from 30,800 tons to 22,300 tons.

For the production of cumene Kazanorgsintez purchased 25,400 tons of benzene in January to April 2021, versus 25,900 tons in the same period in 2020. Kazanorgsintez buys benzene from a range of suppliers including Nizhnekamskneftekhim, SIBUR-Kstovo and Severstal and usually issues tenders for forthcoming deliveries. The latest tender issued is for 2000 tons for delivery in July at a starting price of 86,373.53 roubles per ton. Other phenol producers saw Omsk Kaucuk reducing purchases from 19,400 tons to 1,600 tons and Novokuibyshevsk Petrochemical reducing from 19,400 tons to 17,400 tons. In the styrene sector SIBUR-Khimprom at Perm purchased 29,900 tons of benzene in January-April 2021 against 33,200 tons in the same period in 2020.

Russian caprolactam production, Jan-Apr 2021

Russian caprolactam production amounted to 126,500 tons in January to April 2021 against 67,200 tons in the same period in 2020. Kuibyshevazot reduced caprolactam production from 67,900 tons to 62,900 tons whilst SDS Azot at Kemerovo increased purchases from 38,500 tons to 45,100 tons.

Russian Caprolactam Production (unit-kilo tons)		
Producer	***Jan-Apr 21***	***Jan-Apr 20***
Kuibyshevazot	62.9	67.9
Shchekinoazot	18.4	19.8
SDS Azot	45.1	38.5
Total	126.5	126.1

Kuibyshevazot uses most of its caprolactam production in internal processing in the production of polyamide whilst Azot at Kemerovo and Shchekinoazot export most of its production. Shchekinoazot wants to reduce its dependency on exports by increasing internal processing. Kuibyshevazot is currently modernising its sulphuric acid and oleum plants to support caprolactam production

Russian Orthoxylene Domestic Sales (unit-kilo tons)		
Producer	*Jan-Apr 21*	*Jan-Apr 20*
Gazprom Neft	35.7	32.8
Ufaneftekhim	16.1	26.2
Kirishinefteorgsintez	13.5	0.7
Total	65.3	59.7

Russian orthoxylene market, Jan-Apr 2021

Orthoxylene domestic sales on the Russian market rose in the first four months in 2021 to 65,300 tons from 59,700 tons in the same period in 2020. Gazprom Neft increased shipments to 35,700 tons against 32,800 tons in the same period in 2020 whilst Ufaneftekhim reduced sales from 18,100 tons to 6,300 tons. Kirishinefteorgsintez increased domestic sales from 700 tons to 13,500 tons.

Russian Phthalic Anhydride Production (unit-kilo tons)		
Consumer	*Jan-Apr 21*	*Jan-Apr 20*
Gazprom neftekhim Salavat	4.6	3.6
Kamteks	32.4	28.0
Roshalsky Plasticizer Plant	3.6	0.0
Total	40.7	31.6

The major reason for increased domestic sales this year has been the rise in phthalic anhydride production. Kamteks-Khimprom increased production to 32,400 tons from 28,000 tons whilst Gazprom neftekhim Salavat increased production from 3,600 tons to 4,600 tons. In addition, the Roshalsky Plasticizer Plant started the production of phthalic anhydride in 2021, producing 3.600 tons in the first four months.

Russian Phenol Production (unit-kilo tons)		
Producer	*Jan-Apr 21*	*Jan-Apr 20*
Ufaorgsintez	25.5	21.3
Kazanorgsintez	28.2	26.7
Novokuibyshevsk Petrochemical	25.5	25.7
Omsk Kaucuk, Omsk	6.4	16.5
Total	85.6	90.1

Russian phenol market, Jan-Apr 2021

Russian phenol production amounted to 85,600 tons in the first four months in 2021 against 90,100 tons in the same period in 2020. Novokuibyshevsk Petrochemical produced 25,500 tons of phenol against 25,700 tons in the same period om 2020 whilst Ufaorgsintez increased production from 21,300 tons to 25,500 tons. Kazanorgsintez increased from 26,700 tons to 28,200 tons. Omsk Kaucuk has been forced this year to reduce production due to technical problems, dropping from 16,500 tons to 6,400 tons.

Russian Domestic Market Phenol Sales by Supplier (unit-kilo tons)		
Producer	*Jan-Apr 21*	*Jan-Apr 20*
Omsk Kaucuk	5.5	10.0
Novokuibyshevsk Petrochemical	18.7	20.2
Kazanorgsintez	0.0	0.1
Ufaorgsintez	20.7	12.0
Total	44.8	42.3
Russian Phenol Exports (unit-kilo tons)		
Producer	*Jan-Apr 21*	*Jan-Apr 20*
Omsk Kaucuk	0.8	3.0
Ufaorgsintez	4.9	8.4
NNK	2.5	0.5
Total	8.2	11.8

At the end of May, the Novokuibyshevsk Petrochemical Complex started repair work at the phenol and acetone production facilities, which will last until the end of June. Phenol prices on the domestic market have remained balanced due to lower benzene prices in Europe. Omsk Kaucuk is hoping to return to full production in the third quarter but is facing challenges at present to comply with domestic safety regulations.

Omsk Kaucuk-cumene modernisation

Omsk Kaucuk plant has calculated that it can reduce emissions by as much as 86% after the completion of the reconstruction of the cumene plant. Omsk Kaucuk previously used aluminum chloride as a catalyst but after reconstruction, the method of alkylation of benzene with propylene in the presence of zeolite catalysts will be used.

Synthetic rubber

Russian Synthetic & Natural Rubber Market (unit-kilo tons)		
	Jan-Apr 21	*Jan-Apr 20*
Production	595.0	514.0
Exports	372.8	280.6
Imports	72.5	65.4
Supply/Demand Balance	294.7	298.8

Russian rubber market Jan-Apr 2021

Russian production of synthetic rubber in January-April 2021 amounted to 595,000 tons versus 514.000 tons in the same the same period last year. In addition to synthetic rubber natural rubber production is rising this year with global forecasts of 5.8% growth predicted for

2021 with demand rising at 6.7%. Whereas Russian consumption of natural and synthetic rubber equates to around 2.5% of total global consumption, production in Russia accounts for around 5.2% of the combined total global supply. For synthetic rubber Russia accounts for around 10% of global production.

Long term the demand synthetic rubber may be driven by the decline in natural rubber production which is forecast over the next two decades. Synthetic rubber can replace natural rubber in some applications, but natural rubber has unique properties which even synthetics cannot match. For example, natural latex gloves are more resistant to tear than nitrile ones, while aircraft tyres use natural rubber for its high elasticity and resistance to heat, which can build up from friction during landing. Thus, for all the new types of synthetic rubber production being created natural rubber cannot be replaced in full.

Russian Synthetic Rubber Exports (unit-kilo tons)		
Product	***Jan-Apr 21***	***Jan-Apr 20***
E-SBR	16.3	12.7
Block	27.2	16.7
SSBR	3.2	2.0
SBR	44.9	29.8
Polybutadiene	90.8	68.6
Butyl rubber	44.1	36.0
Halogenated butyl	46.2	38.2
NBR	13.1	11.8
Isoprene	84.7	61.3
Others	2.2	3.6
Total	372.8	280.6

Russian synthetic rubber exports, Jan-Apr 2021

Russian exports of synthetic rubber amounted to 372,800 tons in the first four months in 2021, up from 280,600 tons in the same period in 2020. Average prices for Russian synthetic rubber exports rose from $1418 per ton in January to April 2020 to $1551 in the same period in 2021.

As a result of higher volumes and prices, revenues from synthetic rubber exports rose from $397 million in January to April 2020 to $578 million in January to April 3021. Regarding shipment destinations China represented the largest market for Russian exporters in 2020, accounting for nearly 22.3% of total sales.

Russian Synthetic Exports by Destination (unit-kilo tons)		
Country	***Jan-Apr 21***	***Jan-Apr 20***
Belarus	11.3	6.8
Brazil	9.6	5.4
China	51.8	54.9
Czech	11.8	7.3
Germany	12.4	9.3
Hungary	19.1	12.4
India	39.2	27.2
Mexico	15.0	7.4
Poland	40.9	30.1
Romania	10.1	10.2
Serbia	4.4	4.5
Slovakia	12.9	8.9
Turkey	36.3	18.5
Ukraine	9.0	4.0
US	15.1	13.1
Others	73.9	60.6
Total	372.8	280.6

Exports to China amounted to 51,800 tons in the first four months in 2021 against 54,900 tons in the same period in 2020. This was followed by Poland, rising from 30,100 tons to 40,900 tons, and India rising from 27,200 tons to 39,200 tons.

Nizhnekamskneftekhim-rubber exports Jan-Apr 2021

Nizhnekamskneftekhim's exports of synthetic rubbers rose in the first four months to 113,200 tons from 89,800 tons in the same period in 2020. Isoprene rubber exports rose from 28,500 tons to 39,500 tons whilst butadiene rubber exports increased from 25,700 tons to 36,800 tons. Revenues from synthetic rubber exports rose from $245.3 million to $326.8 million. Isoprene export revenues jumped from $69 million to $103 million in January to April 2021. The first quarter saw a 44% rise in revenues for Nizhnekamskneftekhim in the first quarter this year to 54.9 billion roubles ($754 million). Around 40% of Nizhnekamskneftekhim's revenues stem from rubber sales and around 33% from plastics.

Togliattikaucuk Rubber Exports (unit-kilo tons)		
Product	***Jan-Apr 21***	***Jan-Apr 20***
Isoprene Rubber	7.1	1.4
Butyl Rubber	19.9	11.8
SBR	16.1	8.2
Others	2.3	0.2
Total	45.4	21.5

Togliattikaucuk-rubber exports Jan-Apr 2021

Togliattikaucuk exported 45,400 tons of synthetic rubber in the first four months in 2021 against 21,500 tons in the same period in 2020.

Butyl rubber exports from Togliattikaucuk rose from 11,800 tons to 19,900 tons and SBR exports rose from 8,200 tons to 16,100 tons. Revenues from synthetic rubber exports for Togliattikaucuk increased in the first four months from $31.1 million in 2020 to $58.8 million.

Methanol

Russian Methanol Production (unit-kilo tons)		
Producer	***Jan-Apr 21***	***Jan-Apr 20***
Shchekinoazot	331.1	316.0
Sibmetakhim	337.8	331.1
Metafrax	421.7	416.0
Akron	35.0	30.5
Azot, Novomoskovsk	97.9	90.1
Angarsk Petrochemical	15.8	23.3
Azot, Nevinnomyssk	38.1	43.2
Tomet	163.3	302.2
Ammoni	45.5	38.6
Totals	1486.1	1590.9

Russian methanol production Jan-Apr 2021

Russia produced 1.486 million tons of methanol in the first four months in 2021 against 1.591 million tons in same period in 2020. The decline was due primarily to the lower production from Tomet, falling from a total of 302,200 tons in January-April 2020 to 163,300 tons. Metafrax produced 421,700 tons of methanol in the first four months in 2021 against 416,000 tons in the same period in 2020, followed by Sibmetakhim rising from 331,100 tons to 337,800 tons and Shchekinoazot rising from 316,000 tons to 331,100 tons.

The two plants which are owned by the Evrokhim Group produced 97,900 tons at Novomoskovsk and 38,100 tons at Nevinnomyssk respectively. Ammoni in Tatarstan increased methanol production from 38,600 tons in January to April 2020 to 45,500 tons.

Tomet restarted its first line after maintenance on 23 May after restarting the second line at the end of March which had been idle since December. As a consequence, Tomet as from late May started to operate both methanol lines which should help to restore the market balance from last year. Other forthcoming methanol plant outages includes Azot at Novomoskovsk which will carry out planned repairs at the production of methanol, lasting from mid-June to mid-July.

Russian Methanol Exports by Producer (unit-kilo tons)		
Producer	***Jan-Apr 21***	***Jan-Apr 20***
Azot Nevinnomyssk	3.6	0.0
Azot Novomoskovsk	32.1	22.8
Akron	3.2	3.7
Metafrax	150.8	137.8
Sibmetakhim	167.7	134.2
Tomet	47.7	88.3
Shchekinoazot	237.4	177.5
Ammoni	0.0	0.0
Total	642.5	564.3

Russian methanol exports, Jan-Apr 2020

Export shipments of Russian methanol from producers totalled 642,500 tons in the first four months against 564,300 tons in the same period last year. Average prices of Russian exports rose from $189 per ton in January-April 2020 to $307 in 2021.

Tomet reduced exports from 88,300 tons in January to April 2020 to 47,700 tons in the same period this year although other producers compensated with higher volumes taking advantage of higher prices.

Russian Methanol Export Destinations (unit-kilo tons)		
Country	***Jan-Apr 21***	***Jan-Apr 20***
Belarus	41.2	25.4
Finland	308.2	349.7
Germany	1.1	0.9
Kazakhstan	7.4	17.0
Latvia	5.8	3.4
Lithuania	30.8	23.9
Netherlands	28.0	67.6
Poland	108.3	122.6
Romania	25.3	24.5
Slovakia	83.2	52.2
Spain	0.0	5.5
Turkey	5.1	10.0
UK	0.0	28.5
Ukraine	21.3	11.0
Others	5.2	2.2
Total	671.1	748.9

Tomet was forced to reduce exports due to lower production. Metafrax exported 150,800 tons of methanol in the first four months in 2021 versus 137,800 tons last year, whilst Sibmetakhim increased shipments from 134,200 tons to 167,700 tons. Higher prices are expected to improve profitability for both plants.

Shchekinoazot, Russia's current largest exporter of methanol increased shipments from 177,500 tons to 237,400 tons in January-April 2021.

European imports of methanol from Russia were halted in June due to the ban the transit of chemicals prior to and during the EURO 2020 Championship matches taking place at St. Petersburg. This meant that shipments could not proceed to Finland for around ten days.

Russian Methanol Domestic Sales (unit-kilo tons)		
Producer	***Jan-Apr 21***	***Jan-Apr 20***
Azot Nevinnomyssk	5.9	7.0
Azot Novomoskovsk	65.8	54.0
Metafrax	136.1	109.2
Sibmetakhim	157.0	123.5
Tomet	105.3	146.9
Shchekinoazot	64.2	41.9
Ammoni (Mendeleevsk)	30.8	14.0
Total	565.0	496.4

Russian methanol domestic sales, Jan-Apr 2021
Sales of methanol on the domestic market amounted to 565,000 tons in the first four months in 2021 against 496,400 tons in the same period in 2020. Despite a drop in sales by Tomet from 146,900 tons to 105,300 tons sales from several other producers increased.

Metafrax increased domestic merchant sales from 109,200 tons to 136,100 tons whilst Sibmetakhim increased shipments to domestic customers to 157,000 tons from 123,500 tons. Shchekinoazot increased merchant domestic sales from 41,900 tons to 84,200 tons and in Ammoni was able to increase sales from 14,300 tons to 30,800 tons.

Russian Methanol Domestic Buyers (unit-kilo tons)		
Consumer	***Jan-Apr 21***	***Jan-Apr 20***
Nizhnekamskneftekhim	102.5	67.6
Togliattikaucuk	37.3	50.8
Uralorgsintez	21.3	21.4
SIBUR-Khimprom	4.0	5.7
SIBUR Tobolsk	11.4	13.7
Ektos-Volga	2.9	20.9
Omsk Kaucuk	24.1	30.2
Novokuibyshevsk NPZ	12.9	15.6
Uralkhimplast	7.3	6.4
Slavneft-Yanos	4.2	2.5
Metadynea	34.5	24.0
Kronospan	43.4	26.2
Gazprom	76.9	47.5
Khimsintez	6.2	4.0
Volzhsky Orgsintez	3.0	3.8
Others	174.0	156.1
Total	565.8	496.4

Nizhnekamskneftekhim increased methanol merchant purchases from 67,600 tons in the first four months in 2020 to 102,500 tons in the same period in 2021. The rise in purchases was due mainly to increased production of isoprene monomer.

Gazprom increased purchases of methanol for gas hydrates in Siberia from 47,500 tons in January-April 2020 to 76,900 tons this year. Most of the methanol purchased by Gazprom is sourced from Sibmetakhim, which is part of the same group and is more often referred to as Gazprom Methanol.

In the formaldehyde resin sector Metadynea increased methanol purchases from 24,000 tons to 34,500 tons whilst Kronospan increased from 26,200 tons to 43,400 tons. The Novomoskovsk methanol plant is the major supplier to both Metadynea and Kronospan. Over the next three years Metadynea to increase the production of phenol formaldehyde resins by around a third at its Orekhovo-Zuyevo plant.

Uralkhimplast purchased 7,300 tons of methanol in the first four months in 2021 against 6,400 tons last year, most of which was supplied by Metafrax. In 2020, Uralkhimplast reduced the production of synthetic resins and plastics by 12.4% to 71,790 tons, phenol-formaldehyde resins fell by 6.9% to 60,280 tons, and formalin by 15.7% to 45,400 tons.

Shchekinoazot-new tank car purchase
Shchekinoazot and the wagon company OVK (TikhvinKhimMash) signed a contract in May for the supply of 132 new-generation tank cars for methanol transportation. The shipment of the entire batch is planned to be delivered by the end of the third quarter of this year. The tank car model 15-6880 is the same model that is being purchased by Azot at Novomoskovsk, having agreed in the previous month with OVK for the supply of 109 new cars.

To recap tank car model 15-6880 is equipped with trolleys with an axial load of 25 tons and is characterized by increased capacity (73 tons) against older wagons (67 tons), in addition to increased boiler volume (88 m3). Due to its improved characteristics, the tank provides transportation of almost 2 tons of cargo more than the model on the trolley 23.5 tons. The inter-repair mileage of the car has been increased to 1 million km (or eight years) compared to the typical analogue. The life of the tank is 32 years compared to 24 years for the older models.

Rail cars for methanol transportation need to comply with domestic and international regulations regarding the movement of hazardous materials. Most Russian producers have needed to buy new rail cars in the past few years in order to replace obsolete models or to meet new regulations. Methanol producers have been working with the wagon manufacturers to improve on existing stock. For new rail cars three manufacturers currently operate in Russia, including TikhvinKhimMash, RM Rail and Uralvagonzavod. Since 2013, OVK has supplied Shchekinoazot with about 600 wagons, including tanks for the transport of methanol and other bulk chemical cargoes, and hoppers for the transportation of mineral fertilisers. The new 132 tank cars are being purchased mainly to cover the increase in methanol production following the completion of the new M-500 plant.

Shchekinoazot M-500 methanol project

Shchekinoazot aims to complete construction of the new M-500 plant before the end of this year. To date the installation of methanol tanks has been completed at the site and hydrotesting has been carried out. The general contractor has installed methanol fusion reactors and is completing the installation of the steam reforming furnace.

At the end of May construction had met 96% of the project schedule. The equipment and pipelines are being tested. 95% of cable systems for laying cable products have been installed, and almost 590 km of planned 655 km of planned cables have been laid.

Since December 2020, the general contractor has started to hand over the completed installation lines of pipelines, more than 50% have already been presented. The launch and operational documentation are already being developed including the training of shift managers and technologists on a computer simulator.

Shchekinoazot-expansion of resins and methanol processing

As part of the strategy to increase methanol processing and to reduce the dependence on merchant sales to the export and domestic market Shchekinoazot has outlined plans to increase the production of resins sevenfold by 2030. By 2025, the company plans to complete the construction of new production facilities and expand the range of resins including the production of concentrated low-methanol formalin, urea-formaldehyde resins and urea-melamine-formaldehyde resins.

As part of its development programme for methanol and resins Shchekinoazot started construction in May of two plants to produce 525,000 tpa of ammonia and 700,000 tpa of urea. Neither of these products are currently produced by the company and thus the intention is to create a full chain of production.

The ammonia and urea project is being constructed by China National Chemical Engineering with licenses provided by Haldor Topsoe and Stamicarbon. Some of the equipment will go from Europe, some from China to the port of St. Petersburg. However, the transport of equipment from the ports to Shchekino represents the most difficult part of logistics.

Evrokhim-methanol project Kingisepp

Evrokhim plans to invest 140 billion roubles in the construction of a methanol plant and terminal in the Kingisepp region of Leningrad. An agreement has been reached on cooperation and cooperation to create a modern enterprise using the best available technologies in the production of methanol with a maximum capacity of 2.5 million tpa. This is in addition to the construction of a methanol pipeline and a port terminal for shipment of products.

OTEKO methanol project-Taman peninsuala

The OTEKO group of companies has revived the idea of building a methanol plant on near the Sea of Azov. Previous efforts have been thwarted but since April 2021 hearings have been underway to assess the impact of methanol production on the environment. Residents of the Temryuk region are strongly opposed to the production of ammonia and methanol taking place on the Taman Peninsula. There are many ecological reasons for opposing a large-scale methanol plant in the Taman region, and possibly the opposition groups may have enough backing to prevent a project going ahead.

The terminal is one of the main keys to the project as otherwise methanol would need to be shipped by rail to other Baltic ports such as Sillamae in Estonia. The new plant will be built on the territory of the industrial zone "Phosphorite" in the Kingisepp district, where Eurochem-Northwest-2 is building an ammonia and urea plant. The EuroChem North-West-3 methanol project is aimed at a start-up in 2025.

Baltic Methanol-change of ownership

Ilya Traber, co-owner of Primorsky Universal Congestion Complex, has acquired a 50% stake in Baltic Methanol. Baltic Methanol owns 99% of the Baltic Gas Chemical Company, which plans to build a methanol plant near Ust-Luga. Traber bought a 50% stake from Vladimir Kruglov, who still has 33.33%.

Organic chemicals

Russian N-Butanol Production (unit-kilo tons)		
Producer	***Jan-Apr 21***	***Jan-Apr 20***
Angarsk Petrochemical Company	10.9	7.5
Azot Nevinnomyssk	3.9	6.7
Gazprom neftekhim Salavat	20.0	22.5
SIBUR-Khimprom, Perm	8.1	10.5
Total	42.9	47.3
Russian Isobutanols Production (unit-kilo tons)		
Producer	***Jan-Apr 21***	***Jan-Apr 20***
Angarsk Petrochemical Company	5.7	4.7
Gazprom neftekhim Salavat	11.1	12.2
SIBUR-Khimprom, Perm	8.2	18.1
Total	25.0	35.0

Russian butanol production Jan-Apr 2021

Russian normal butanol production totalled 42,900 tons in January to April 2021, against 47,300 tons in the same period in 2020. Gazprom neftekhim Salavat was the largest Russian producer, producing 20,000 tons against 22,500 tons in January to April 2020.

Isobutanol production in Russia dropped from 35,000 tons to 25,000 tons in January to April 2021. Gazprom neftekhim Salavat reduced production to 11,100 tons from 12,200 tons, and SIBUR-Khimprom reduced from 18,100 tons to 8,200 tons.

Russian domestic butanol sales, Jan-Apr 2021

Merchant normal butanol sales on the Russian domestic market dropped in the first four months in 2021 to 19,100 tons from 21,400 tons in the same period in 2020. The largest butanol buyer on the domestic market remains Dimitrievsky Chemical which took 7,500 tons whilst Akrilat at Dzerzhinsk reduced purchases from 4,900 tons to 3,900 tons.

Russian Butanol Consumption (unit-kilo tons)		
Consumer	***Jan-Apr 21***	***Jan-Apr 20***
Akrilat	3.9	4.9
Dimitrievsky Chemical	7.5	7.5
Volzhskiy Orgsintez	2.8	3.4
Roshalsjy Plant of Plasticizers	0.9	0.6
Others	3.9	5.0
Total	19.1	21.4

Angarsk Petrochemical was the largest supplier of normal butanols in the first four months shipping 10,300 tons to 10,200 tons whilst SIBUR-Khimprom reduced sales from 9,100 tons to 5,800 tons. Both SIBUR-Khimprom and Gazprom neftekhim Salavat direct almost the entire volume of n-butanol produced to internal processing. The Angarsk Petrochemical Plant does not supply isobutanol to the free domestic market and finds it more economical to ship almost all products for export.

Russian Butanol Domestic Sales (unit-kilo tons)		
Producer	***Jan-Apr 21***	***Jan-Apr 20***
Gazprom n Salavat	2.7	1.5
SIBUR-Khimprom	5.8	9.1
Angarsk Petrochemical Company	10.3	10.2
Azot Nevinnomyssk	0.2	0.6
Totals	19.1	21.4

Russian acetone production & exports, Jan-Apr 2021

Russian Acetone Production (unit-kilo tons)		
Producer	***Jan-Apr 21***	***Jan-Apr 20***
Ufaorgsintez	16.0	13.4
Kazanorgsintez	17.9	16.9
Novokuibyshevsk Petrochemical	15.8	16.0
Omsk Kaucuk	3.9	9.4
Total	53.6	55.7

Russian acetone production amounted to 53,600 tons in the first four months tons in 2021 against 55,700 tons in the same period in 2020. Omsk Kaucuk produced 3,900 tons of acetone down from 9,400 tons in the same period in 2021 due to technical problems. Ufaorgsintez increased production from 13,400 tons to 16,000 tons whilst Kazanorgsintez increased from 16,900 tons to 17,900 tons.

Russian Acetone Exports (unit-kilo tons)		
Country	***Jan-Apr 21***	***Jan-Apr 20***
Belarus	4.7	4.4
Netherlands	10.1	6.5
Turkey	0.2	4.5
Latvia	2.7	0.7
Others	3.1	4.5
Total	20.8	20.6

Exports of acetone amounted to 20,800 tons in the first four months in 2021 against 20,600 tons in the same period in 2020. Solvent distributor Dimitrievsky Chemical buys acetone from the producers and then exports, whilst all the producers with the exception of Omsk Kaucuk export in reasonable volumes.

The Netherlands was the major destination for Russian acetone exports in the first two months this year, accounting for 10,100 tons, followed by Belarus with 4,700 tons.

Plant of Synthetic Alcohol under new owner

The Plant of Synthetic Alcohol at Orsk has been transferred to Sintezspirit. a new legal entity registered at the former address. The plant is being sold to the buyer at a minimum price of 585 million roubles. The Plant of Synthetic Alcohol was declared bankrupt in 2019 and there was a previous unsuccessful effort in March 2020 to sell the assets zl 623 million.

Russian decides not to impose ban on isopropyl alcohol exports

A ban on the export of isopropyl alcohol from Russia has been ruled out by the Russian authorities for the remainder of 2021 thus not repeating the temporary ban imposed in the period March to September last year. Demand is still strong for hand sanitizer, but Russia is now more capable of providing domestic supply through the increase in isopropyl alcohol capacity.

Russian Isopropyl Alcohol Trade 2021 (unit-kilo tons)				
	Jan	***Feb***	***Mar***	***Apr***
Exports	0.1	0.2	0.4	1.3
Imports	3.26	2.25	1.78	1.11

The start-up of the new plant at Omsk Kaucuk at the start of 2021 has added to the Plant of Synthetic Alcohol which was hitherto the sole Russian producer.

Although imports of isopropyl alcohol exceeded imports in the first four months (8,380 tons to 2,000 tons) the market changed in April when exports amounted to 1,324 tons against imports of 1,108 tons. The Plant of Synthetic Alcohol sells isopropyl alcohol from its 21,000 tpa plant through the trader Impexneftekhim. Omsk Kaucuk can now produce up to 60,000 tpa and sells through several traders. However, isopropyl alcohol is a harder solvent to sell than acetone and requires more sales effort. Uzbekistan has been identified as one market whereby processing of cotton uses ingredients based on isopropyl alcohol. The high-quality alcohol of 99.99% produced by Omsk Kaucuk could increase the competitiveness of cotton products.

SIBUR-maleic anhydride installation

The installation of the main equipment and metal structures of Russia's first butane based maleic anhydride plant has been completed by 95%, and the construction of the plant at Tobolsk is in its final stages. The capacity of the future plant, located on the territory of the company, will be 45,000 tpa. Around 75% of this equipment and 100% of building materials and metal structures are domestically produced. The plant is based on n-butane feedstocks and the technology license was supplied by the Italian company Conser. Maleic anhydride can be used in a wide range of applications including unsaturated polyester resins and 1,4-butanediol.

Russian Imports of Maleic Anhydride				
	Jan-Apr 21	***Jan-Dec 20***	***Jan-Dec 19***	***Jan-Dec 18***
Kilo tons	3.32	7.16	5.78	6.42
$ million	4.4	6.8	6.2	8.9

Tatneft-maleic anhydride project

Installation work on Tatneft's maleic anhydride project at the Minnibayevo Gas Processing Plant in Tatarstan was suspended in April due to irregular findings regarding the project documentation and safety regulations. This latest suspension came after installation was stopped in November 2020. Tatneft has since revised its documentation which it intends to send it for re-examination in July. Tatneft had originally planned to complete the 50,000 tpa plant by 2021 at the, but the company has since postponed the plant to 2023. Plant construction can restart if Tatneft's project documentation is approved.

Gazprom neftekhim Salavat-new acrylic acid and SAP projects

Gazprom neftekhim Salavat plans to implement a project to build the production of superabsorbent polymers (SAP) with a capacity of 45,000 tpa. The precondition for the implementation of these plans was the commissioning of an acrylic acid plant at the Salavat industrial site. Currently the issue of choosing licensees of the project's technological processes is being worked out.

Russian Imports of Suberabsorbents (SAP)				
	Jan-Apr 21	***Jan-Dec 20***	***Jan-Dec 19***	***Jan-Dec 18***
Kilo tons	64.2	198	206	195
$ million	127	369	412	399

The largest segment of consumption of superabsorbents is the production of baby diapers, this segment accounts for about 75% of the world consumption of these products. Other applications of superabsorbents include the production of medical sanitary products, as well as hygiene products.

Russian TDI-MDI Imports

Russian TDI Imports (unit-kilo tons)		
Country	***Jan-Apr 21***	***Jan-Apr 20***
Belgium	0.2	0.1
China	5.8	0.6
France	0.0	0.1
Germany	0.9	3.5
Hungary	2.9	3.4
Netherlands	1.1	0.3
Saudi Arabia	0.9	3.0
South Korea	4.3	0.3
Turkey	0.1	0.1
US	2.8	3.2
Others	0.1	1.8
Total	19.1	15.1

Russian TDI-MDI imports, Jan-Apr 2021

Russian TDI imports amounted to 19,090 tons in the first four months in 2021 against 15,088 tons in the same period in 2020. Values of Russian TDI imports rose from a total of $13.6 million in January to April 2020 to $24.8 million, with average prices per ton rising from $1855 to $2496. The upward trend in pricing started in the third quarter last year.

China supplied 5,745 tons To Russia in the first four months in 2021 against 585 tons in the same period in 2020, whilst Hungary reduced shipments from 3,396 tons to 2,917 tons. Germany reduced sales to Russia to 923 tons from 3,461 tons and Saudi Arabia reduced shipments from 2,981 tons to 915 tons.

Due to both higher volumes and higher average prices, total costs for Russian TDI imports totalled $47.7 million in the first four months in 2021 versus $28.0 million in the same period in 2020. Import costs in January to April from China totalled $13.048 million followed by $9.326 from South Korea and $9.107 million from Hungary.

Russian Imports of MDI (unit-kilo tons)		
Country	***Jan-Apr 21***	***Jan-Apr 20***
Belgium	5.8	3.0
China	11.2	11.1
Germany	7.9	5.5
Hungary	1.3	1.4
Japan	0.6	0.5
Netherlands	12.2	8.3
Portugal	2.5	0.0
Saudi Arabia	10.5	11.8
South Korea	0.4	0.3
Others	1.0	0.0
Total	53.4	41.9

MDI imports into Russia rose to 53,421 tons in January to April 2021 from 41,187 tons in the same period in 2020. Values of Russian MDI imports amounted to $109.477 million in the first four months rising more than double from the from $53.835 million in the same period last year. Values were boosted by the increase in both volumes imported and average prices per ton which rose from $1411 to $2011.

The Netherlands was the largest supplier of MDI to the Russian market, shipping 12,184 tons in the first four months against 8,284 tons last year whilst Saudi Arabia reduced shipments to 10,542 tons from 11,782 tons. Germany and Belgium are also major suppliers to the Russian market.

Portugal has been a new MDI supplier to the Russian market this year shipping 2,511 tons in the first four months for a value of $4.8 million. The largest region for Russian MDI imports remains the Vladimir Oblast followed by Moscow. In the first four months in 2021 the Vladimir Oblast accounted for 41.2% of MDI imports into Russia.

Ukraine

Ukrainian polymer imports & production, Jan-April 2021

In the first four months in 2021 imports of PVC to Ukraine decreased by 40% to 8,600 tons from 14,300 tons. At the same time exports of PVC rose in the first four months, supplied from Karpatneftekhim, rose from 72,300 tons to 79,500 tons.

Ukrainian Polymer Imports (unit-kilo tons)		
Category	***Jan-Apr 21***	***Jan-Apr 20***
HDPE	26.5	38.6
LDPE	26.1	25.2
LLDPE	22.8	25.8
PVC	8.6	14.3

Polyethylene imports into the Ukrainian market totalled 83,500 tons in the first four months, 8% lower than in 2020 when the total amounted to 90,900 tons. HDPE imports amounted to 26,500 tons against 38,600 tons whilst LDPE imports dropped 3% to 26,100 tons and LLDPE rose to 25,800 tons from 22,800 tons. EVA imports amounted to 5,100 tons against 4,000 tons a year earlier.

Karpatneftekhim Petrochemical Exports (unit-kilo tons)		
Product	**Jan-Apr 21**	***Jan-Apr 20***
Propylene	35.8	31.5
Benzene	36.9	6.6

Karpatneftekhim Jan-April 2021

Karpatneftekhim exported 35,800 tons of propylene in the first four months in 2021 against 31,500 tons in the same period in 2020, whilst benzene imports rose from 6,600 tons to 36,900 tons. The largest share of propylene shipments was exported to Poland.

Benzene supplies produced by Karpatneftekhim have restarted in the past two months due to outages undertaken at Russian plants. Karpatneftekhim resumed production and sales of C4s in May, including the delivery of 1,000 tons to Slovakia. As a reminder, Karpatneftekhim stopped production of C4s in April 2020, since it was more profitable for the manufacturer to hydrogenate the fraction than to sell it.

Belarus

Belarussian chemical production, Jan-Apr 2021

Ethylene production in Belarus increased in the first four months to 49,100 tons from 25,200 tons in January to April 2020 whilst propylene increased from 31,100 tons in 2021. Benzene production rose from 27,700 tons to 34,700 tons. Paraxylene production at the Naftan refinery dropped in January to April 2021 to 15,700 tons from 18,800 tons.

Belarussian Petrochemical Production (unit-kilo tons)		
Product	***Jan-Apr 21***	***Jan-Apr 20***
Ethylene	49.1	25.2
Propylene	31.1	14.5
Benzene	34.7	27.7
Caprolactam	26.2	23.5
OX	10.8	6.4
PX	15.7	18.8
Methanol	31.9	22.1

Belarus maintains medium term plans to build an ethylene-propylene plant at the Polimir plant. Implementation of this project will increase the production of LDPE. The overall outline of the project includes capacities of 200,000 tons for ethylene and 100,000 tpa for propylene. Construction has been marked for 2023, although this may be dependent on the political situation.

Belarussian paraxylene imports			
	Jan-Apr 21	**Jan-Apr 21**	**Jan-Apr 21**
Country	**Tons**	**$ 000**	**Av per ton**
Kazakhstan	5 287	3,575.8	676
Russia	2 909	2,215.2	762
Total	8,196	5,791.0	707
	Jan-Apr 20	**Jan-Apr 20**	**Jan-Apr 20**
Country	**$ 000**	**Av per ton**	**Tons**
Kazakhstan	3,350	2,462.0	735
Russia	3350	2,462.0	735

Mogilevkhimvolokno paraxylene tender 2021

Mogilevkhimvolokno completed a tender in June for the purchase of 19,000 tons of paraxylene, although details of the supplier have yet to be published. The estimated cost from Mogilevkhimvolokno amounted to 2250.12 Belarusian roubles ($888.9) per ton. Belarus is paying more than the market price due to the difficult situation inside the country. The delivery times cover the period from July to December 2021 including 10,000 tons in the third quarter and 9,000 tons in the fourth quarter. Applications for participation in the tender were accepted until 15 June.

Belarussian PTA Imports (kilo tons)		
Country	***Jan-Apr 21***	***Jan-Apr 20***
Russia	2.3	0.0
South Korea	8.9	9.5
Portugal	6.4	3.2
Poland	3.6	13.2
Total	21.1	25.8

In the first four months in 2021 Belarus imported 8,196 tons of paraxylene at a price of $707 per ton compared to 3,350 tons in the same period in 2020 at $735 per ton. From the suppliers this year Russian refiners shipped 2,909 tons to Belarus at an average price of $762 per ton, with Kazakhstan shipping 5,287 tons in the first four months at a price of $676.

Paraxylene from Kazakhstan is supplied from the Atyrau refinery which has suspended the production of aromatics until the end of 2021. This is in order to allow the refinery to concentrate on fuel production where there has been problem this year. As a result of the absence of paraxylene from Kazakhstan Mogilevkhimvolokno effectively has to rely on supplies from Russian refiners where supply is more constricted this year due to higher PTA production at Polief. The sole domestic producer Naftan is only able to provide a certain volume and was unable to fulfill the previous tender issued on 26 October 2020.

Belarussian PTA imports Jan-Apr 2021

PTA imports into Belarus amounted to 21,064 tons in the first four months in 2021 against 25,760 tons in the same period in 2020. Average prices per ton rose from $729 to $732. South Korea supplied 8,878 tons of PTA into Belarus in January to April 2021 versus 9,508 tons in the same period last year, with prices dropping from $738 to $684.

Poland reduced exports of PTA to Belarus from 13,091 tons in the first four months last year to 3,586 tons, with average prices per ton falling from $723 to $707. Portugal supplied 6,273 tons of PTA to the Belarussian market in January to April 2021 at an average price of $645 per ton against 3,161 tons in the same period last year at $726 per ton. Mogilevkhimvolokno is the sole importer of PTA into Belarus and is now under US sanctions which could make it difficult to purchase raw material supplies.

Belarussian Acrylonitrile Exports (unit-kilo tons)		
Product	***Jan-Apr 21***	***Jan-Apr 20***
Russia	0.8	1.4
Hungary	2.7	0.0
Netherlands	8.3	0.0
Turkey	3.1	5.5
UAE	0.0	2.8
Total	14.8	9.6

Belarussian organic chemical trade, Jan-Apr 2021

Acrylonitrile export volumes from Belarus rose in the first four months to 14,852 tons from 9,362 tons in the same period in 2020. Average prices rose from $1129 per ton to $1720 per ton. The Netherlands was the main destination for Belarussian acrylonitrile, taking 8,316 tons in January to April 2021 at an average price of $1660 per ton.

Belarussian Organic Chemical Exports (unit-kilo tons)		
Product	***Jan-Apr 21***	***Jan-Apr 20***
Acrylonitrile	14.8	9.6
Melamine	1.4	1.7
Caprolactam	0.6	2.4
Phthalic anhydride	16.6	8.3
Methanol	9.7	8.2

Methanol exports from Belarus rose from 8,172 tons in the first four months in 2020 to 9.674 tons in 2021. Exports prices rose from $229 to $378 per ton in the first four months with the largest exports being sent to Lithuania.

Belarussian Methanol Market (unit-kilo tons)		
	Jan-Apr 21	***Jan-Apr 20***
Production	31.9	22.1
Exports	9.7	8.1
Imports	42.4	21.2
Balance	64.7	35.2

Imports of methanol increased to 42,449 tons in the period January to April 2021 at an average price of $318 per ton against 21,214 tons in the first four months in 2020 at an average price of $122 per ton. Russia is almost the only supplier of methanol to the Belarussian market.

Acetone imports into Belarus amounted to 4,720 tons in January to April 2021 against 4,314 tons in the same period in 2020, with average prices rising sharply from $408 per ton to $939 per ton. Russia was the main supplier.

Belarussian polymer & MDI imports, Jan-Apr 2021

HDPE imports into Belarus amounted to 17,500 tons in the first four months in 2021 against 21,500 tons in the same period in 2020. Prices per ton rose from $953 in the first four months in 2020 to $1296, with Russia acting as the major supplier. LDPE imports into Belarus dropped to 11,900 tons versus 15,100 tons in the first four months last year. Russia is the main supplier of LDPE to the Belarussian market. Overall, imports of polyethylene into Belarus totalled 38,324 tons in the first four months in 2021 against 45,322 tons in the same period in 2020.

Belarussian Polymer Imports (unit-kilo tons)		
Product	***Jan-Apr 21***	***Jan-Apr 20***
PVC	29.7	22.6
Polypropylene	39.4	38.2
LDPE	11.9	15.1
HDPE	17.5	21.5
Polystyrene	21.8	22.5

In the first four months imports of PVC to Belarus amounted to 29,700 tons, versus 22,600 tons in the same period of 2020. Polypropylene imports amounted to 39,400 tons against 38,200 tons. Polyethylene exports from Belarus rose to 21,831 tons in the first two months in 2021 against 13,663 tons in the same period in 2020. Prices rose from $974 per ton to $1281 per ton.

Belarussian MDI Imports (unit-kilo tons)		
Country	*Jan-Apr 21*	*Jan-Apr 20*
Russia	1.0	0.7
Belgium	1.1	0.1
Hungary	1.7	0.6
Germany	4.0	3.3
Saudi Arabia	1.0	0.6
Others	0.3	0.0
Total	9.0	5.4

Import deliveries of MDI into Belarus in the first four months in 2021 amounted to 9,149 tons against 5,391 tons in the same period in 2020. Germany was the largest supplier, increasing shipments from 3,295 tons at $1302 per ton up to 3,953 tons at a much higher price of $2406 per ton. Hungary increased exports to 1,670 tons in the first four months against 638 tons last year with prices rising from $1347 per ton to $2630.

Central Asia/Caucasus

Jizzakh Petroleum-Gazprombank agreement for MTO project

Jizzakh Petroleum signed a memorandum of understanding with Gazprombank, VEB.RF and the Russian Agency for Export Credit Insurance and Investments to finance the construction of a new gas-chemical complex based on MTO technology.

The facility will be built in the Bukhara region. The gas-chemical complex, which is worth $2.8 billion, will work on domestic raw materials, which will allow to monetize natural gas through production focused on the export of value-added gas-chemical products. The new olefin plant is being designed to process 1.5 billion cubic metres of natural gas and produce 720,000 tpa of high-quality polymers. The Jizzakh Petroleum jv was created to accelerate the development of Uzbekistan's energy sector.

Jizzakh Petroleum License Agreements			
Company	*Product*	*Capacity (ktpa)*	*Start-Up Date*
Versalis	LDPE/EVA	180	2026
Sinopec	MTO	500	2025
Haldor Topsoe	Methanol	500	2025
Chemtex	PET	200	2025
Scientific Design	MEG	120	2027
Grace	Polypropylene	257	2026

The production line will include 18 products in the olefin segment. Enter Engineering will act as licensee on behalf of the Uzbek Company Jizzakh Petroleum which will own and operate the LDPE/EVA unit and the entire gas-chemical complex. The unit will be designed for a maximum production of EVA equivalent to 180,000 tpa.

Shurtan Gas-Chemical, modernisation cost estimates

The estimated cost of upgrading the Shurtan gas-chemical complex in Uzbekistan has been estimated to cost around $1.8 billion by Uzbekneftegaz. The project envisages the production of up to 430,000 tpa of polyethylene, raising capacity from the current 130,000 tpa, and up to 280,000 tpa of polypropylene. Gazprombank's $300 million loan has been raised to finance the project. The licensees of the project include Chevron Phillips Chemical (polyethylene production) and McDermott (polypropylene production). To implement the project, a contract was signed with Singapore's Enter Engineering for detailed design, acquisition and construction of equipment.

The Shurtan gas-chemical complex has launched a second line for the processing of polymer products for the production of irrigation plants and components for agriculture in the country. The equipment was supplied from China which will help to achieve savings in water demand while irrigating agricultural land.

SOCAR Methanol restarted production in May

SOCAR Methanol produced 47,200 tons of methanol in May, resuming production after the overhaul. The overhaul began in January and took four months. As of 1 June, the company had 28,500 tons of methanol in its warehouses. In 2020, SOCAR Methanol produced 476,600 tons of methanol, 24.4% higher than in 2019.

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