

# CIREC

## MONTHLY NEWS

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

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Issue 278, 31 Jan 2014

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# CENTRAL & SOUTH EAST EUROPE

## Petrochemicals

**PKN Orlen Financial Breakdown 2013**  
(billion zlotys)

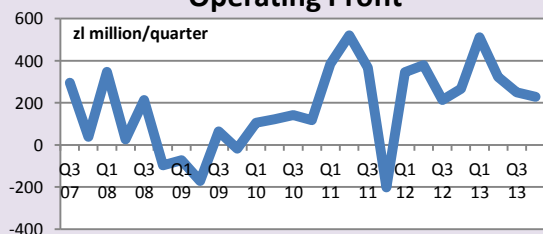
Sector	Revenues	Costs	Operating Profit
Refining	88.449	89.437	1.18
Retail	36.624	35.695	0.917
Petrochemical	19.402	18.072	1.314

division amounted to zł 484 million in the fourth quarter compared to zł 600 million in Q4 2012.

### PKN Orlen Q4 2013

PKN Orlen recorded a fall in the EBITDA in refining in the fourth quarter last year, influenced mainly by weak margins. Refinery sales in physical terms rose in the Polish market in Q4 2013, but were more limited in the Czech Republic. The impact of crude oil prices on the valuation of inventories in the fourth quarter amounted to zł 535 million, dropping by zł 48 million against the same period in 2012. As a result, the EBITDA of the refining

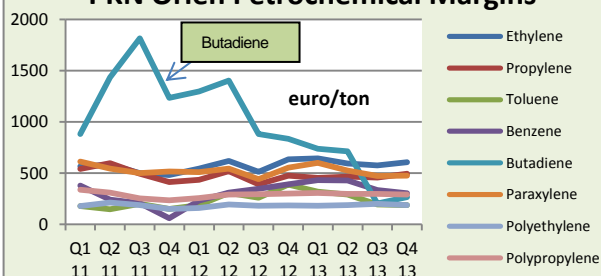
**PKN Orlen-Petrochemical Division**  
**Operating Profit**



Although petrochemicals is the smallest of three divisions in the Orlen Group in terms of revenues it continues to show the best returns.

An EBITDA of zł 417 million was achieved in the fourth quarter, which was lower by zł 27 million against the fourth quarter in 2012. Petrochemical margins were weaker in 2013 but were partially compensated by currency factors. Higher sales of fertilisers, PVC and PTA in the fourth quarter, up zł 39 million on Q4 2012, helped the divisional performance.

**PKN Orlen Petrochemical Margins**



Negative factors included lower sales of olefins and polyolefins as a result of production restrictions by BOP (including a breakdown of the Polyethylene II unit) and by Unipetrol (a shutdown of the olefin installation in the third and fourth quarters) as well as less favourable market conditions.

The inventory valuation for the petrochemical division in the fourth quarter amounted to zł 3 million. As a result the EBITDA for the fourth quarter amounted to zł 417 million compared to zł 444 million in Q4 2012.

**PKN Orlen Group Chemical Sales**  
(unit-kilo tons)

Product	Jan-Dec 13	Jan-Dec 12
Monomers	497	517
Polymers	852	854
Aromatics	381	372
Fertilisers	1034	1317
Plastics	423	369
PTA	556	484
Other	1440	1330
Total	5183	5243

by PKN Orlen.

Of the products sold by the Orlen Group, butadiene has seen the most dramatic fall in the past two years although there are signs that the price might start to rise in the first half of 2014. For the full year in 2013 sales volumes were only slightly lower overall, but encountered falls in fertilisers whilst recording rises in PTA and plastics.

Orlen's petrochemical divisions undertook capital expenditures (CAPEX) of zł 236 million in the period October to December 2013. The most significant investments comprised the modernisation of the furnace at the Olefin Unit II at Plock, design works for the new polyethylene plant at Litvinov and the reconstruction of two olefin furnaces. Other investments included the construction of a loading and storage unit at Anwil, as well as projects concerning the construction of a gas power plant at Wloclawek conducted

### Orlen Lietuva-pipeline

Orlen Lietuva's EBITDA was lower by zł 286 million in 2013 against 2012 to a loss of zł 169 million, in reflection of the weak market conditions. Another factor hampering operational profitability comprised stoppages of Russian crude via the Druzhba. Transportation costs have been inflated because oil products have to be shipped by railways. Lithuania supports talks between the state-controlled Klaipedos Nafta AB oil

terminal and Orlen Lietuva on a possible new pipeline between the two operations. The government in the past opposed plans by PKN Orlen to build a product pipeline from Mazeikiu to the port of Klaipeda. Development plans for Orlen Lietuva, depend on approval of the pipeline. An estimate has placed the project's investment budget at around \$110 million.

**Unipetrol's Operating Results by Division (Kc Mil)**

Sector	Jan-Dec 13	Jan-Dec 12
Refinery	-1,741.3	-4,197.2
Petrochemical	807.2	290.6
Retail	188.4	206.7
Total	-934.2	-3,699.9

**Unipetrol Q4 2013**

The Unipetrol Group posted an operational profit EBITDA of Kc 252 million in the fourth quarter last year. Due to lower petrochemical and refinery production sales, as well as refining margins, revenues decreased by 5% to Kc 25.070 billion. Unipetrol signed purchase agreement with Shell at the end of last year, which increased its share capital in Ceska Rafinerska to 67.555%.

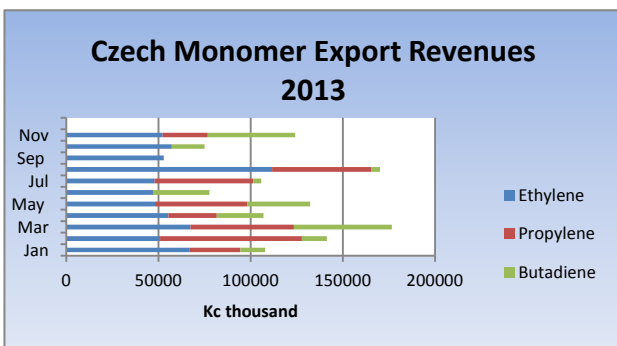
In the refinery division, the volume of crude processed in Q4 reached 906,000 tons, comparable to other quarters of 2013. Nominal utilisation reached 81%. The refinery division recorded an EBITDA of -Kc 391 million in Q4 2013, mainly due to weak refining margins. The results of the division were positively affected by variable and fixed costs savings. Paramo recorded better results, driven by ongoing restructuring. Group sales of refinery products decreased to 762,000 tons, 2% down, mainly due to a planned turnaround of the Kralupy refinery in September and October 2013.

**Unipetrol's Petrochemical Sales (unit-kilo tons)**

Product	Jan-Dec 13	Jan-Dec 12
Ethylene	128	156
Propylene	37	41
Benzene	186	205
Urea	5	175
Ammonia	174	142
Butadiene	59	67
HDPE	270	289
PP	224	237
C4	76	77

The petrochemical division for Unipetrol recorded an EBITDA of Kc 514 million in Q4 2013. The results of the division were helped by very good petrochemical margins, and favourable currency factors. Higher steam cracker utilisation took place in the fourth quarter, in addition to fixed and variable costs

savings. On the downside Unipetrol reduced sales in physical terms by 7% due to due to slightly lower sales of polymers.



In October 2013 Unipetrol signed a license agreement with INEOS, acquiring the right to use its production process and technology for the new polyethylene unit (PE3) at Litvinov. The new polyethylene unit will assist in the process of increasing utilisation of the steam cracker and it will contribute to a better interconnection between the petrochemical and refinery divisions of the Unipetrol Group.

In the next few years the majority of investments for Unipetrol are intended to be undertaken in the petrochemical area. To ensure reliable and stable

energy sources for this division, Unipetrol signed a contract in November with Severní energetická on long-term supplies of lignite until December 2017. Annual lignite supplies will reach up to approximately 1 million tons.

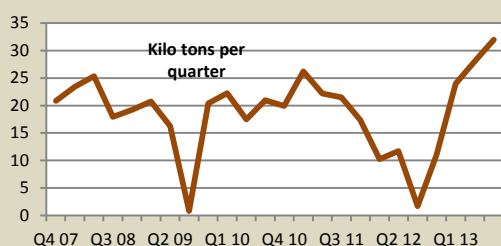
**Oltchim-privatisation deadline extended to March**

The deadline for submission of binding offers for Oltchim has been extended from 31 January to 28 March, in order to give interested companies more time available to take a decision. The number of potential bidders has fluctuated, with one or two companies losing interest and other new players appearing. A new entrant into the competition for Oltchim has stemmed from TVK, which is only interested in the assets at Ramnicu Valcea and the petrochemical assets at Pitesti. SOCAR has stated that it is no longer ready to bid for Oltchim, whilst one Chinese investor has also withdrawn. Chimcomplex expects to come to the auction with a joint bid Oltchim with an American trader of chemicals Tricon Energy Holding. Chimcomplex shareholders have approved its participation in the acquisition of assets in Oltchim, alone or in consortium with other investors. Interest is still in place from Russia and China, in what is a very important auction for the company.

**Petrohemija sees overall improvement in 2013**

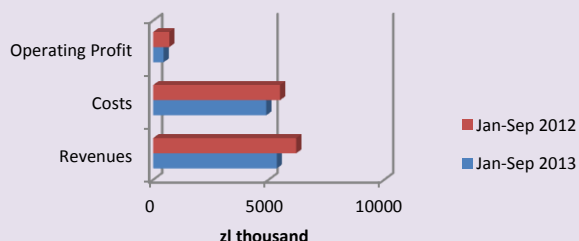
Provisional results for Petrohemija in 2013 indicate an operating loss, although the company's position has improved over 2-3 years ago. More than 80% of Petrohemija's revenue is generated by exports, with the main

### Petrohemija's Polyethylene Exports



guarantees feedstock security in addition to government investment support for petrochemical projects. The restructuring process is ongoing and new plans for Petrohemija are expected in the first part of this year. Although the company owes around €20 million to the Serbian gas producer Srbijagas, it is protected under government orders as it is still undergoing restructuring. Petrohemija was the third largest in Serbian exporter in 2013, achieving revenues of €233.5 million. The company's main problem and challenge is the cost of feedstocks, accounting for 75% of total costs.

### Synthos-Financial Performance



and HIPS.

markets located in the EU. In 2012 modernisation was undertaken, explaining the drop in exports in 2012 as indicated in the graphic opposite.

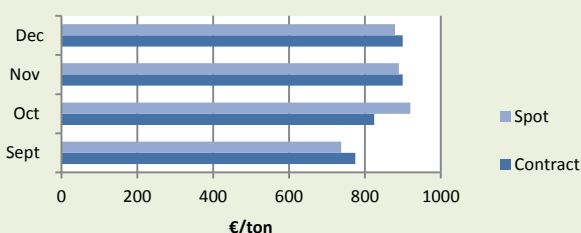
The LDPE plant at Pancevo broke its record for production in 2013, exceeding 60,000 tons, from 58,544 tons in 2012. In fact despite record production in most of Petrohemija's 16 plants the company showed a loss of a 2.8 billion dinar.

Close relations have been developed with the refinery company NIS, which is owned by Gazprom Neft. This

### Synthos, preliminary indicators for 2013 positive

Despite the deterioration of economic conditions the Synthos Group considers 2013 to have been successful, even recording an estimated profit of zl 420 million on synthetic rubber sales. The group estimates that it made a recorded operating profit of zl 455 million in 2013. In 2012 the group made zl 776 million in profits, and thus the trend has been downward but the group still remains in positive territory. Revenues totalled zl 5.36 billion in 2013 against zl 6.21 billion in 2012. Offsetting the impact of the rubber division, Synthos achieved higher margins for some styrene plastics, such as polystyrene, GPPS

### European Butadiene Prices 2013



Synthos Kralupy could benefit this year from higher butadiene prices. Planned maintenance shutdowns in Asia (February to June), whilst shortages are expected in Europe may help to drive up the price. On the other hand butadiene prices could be restricted by weak demand for rubber.

Synthos will open its first solution styrene-butadiene rubber (S-SBR) plant by the end of 2014, which will add an additional 90,000 tpa of capacity. The facility is currently being built in Poland near Krakow and will be fully operational in 2015. It is building the facility to meet the needs and expectations of the tyre market, where the company expects solid growth in S-SBR from markets in the US, Asia and Europe.

### Synthos-Main Production



80,000 tpa neodymium-catalysed butadiene rubber (NdBR) plant in the Czech Republic, as well as a nitrile butadiene rubber (NBR) and high styrene rubber (HSR) manufacturing facility in Poland.

### Synthos-Harwick agreement

Synthos has announced a strategic sales alliance with Ohio based Harwick Standard Distribution Corporation to distribute styrene-butadiene rubber and butadiene rubber in the US and Canada. Synthos is the largest European producer of SBR, with a capacity of 280,000 tpa of emulsion-based styrene-butadiene rubber (E-SBR) in Poland and the Czech Republic. Synthos also has an



## Chemicals

## Polish Chemical Production (unit-kilo tons)

Product	Jan-Dec 13	Jan-Dec 12
Caustic Soda Liquid	311.5	308.0
Caustic Soda Solid	80.0	75.4
Soda Ash	1052.1	1116.2
Ethylene	487.2	453.0
Propylene	351.6	326.0
Butadiene	52.3	57.1
Toluene	17.7	24.6
Phenol	35.7	34.5
Caprolactam	160.0	163.1
Acetic Acid	8.2	7.3
Polyethylene	342.3	329.1
Polystyrene	56.2	57.2
EPS	76.9	77.0
PVC	306.0	261.6
Polypropylene	254.0	243.6
Synthetic Rubber	193.1	191.3
Ammonia (Gaseous)	1294.8	1270.0
Ammonia (Liquid)	1217.6	1257.0
Pesticides	21.0	24.2
Nitric Acid	2278.0	2320.0
Nitrogen Fertilisers	1826.0	1877.8
Phosphate Fertilisers	367.5	466.6
Potassium Fertilisers	299.5	340.3

priority of which is to increase the efficiency of production facilities, especially ammonia. Around 80% of costs in urea production are attributed to gas. To produce one ton of ammonia around 910-1075 m<sup>3</sup> of natural gas is required. If the above-mentioned factors will add to environmental issues arising from the regulations for EU, wage issues this year may be difficult for the group.

ZAK and ZAP have signed a contract for the supply of urea at the start of 2014. The contract has been signed for five years and the value is estimated at zł 694.2 million. In mid-2013 ZAP aims to put into operation ammonia storage facilities with a capacity of 15,000 tons. The investment of over zł 100 million is currently the most important investment the plant in Pulawy. After installation the company will be able to store ammonia in volume and avoid supply side disruptions in production of urea and melamine.

## ZAK-coal power plant &amp; oxo alcohols

By the end of the first quarter of 2014 ZAK aims to select a contractor for the new coal power plant at Kedzierzyn. Construction could possibly start in the middle of this year, with investment costs estimated at several hundred million dollars. The capacity of the plant is to be designed to produce 45-50 MWe and 250 MW. This will fully satisfy the need of the company to the heat and steam (and heat half Kedzierzyn), and one quarter of the demand for electricity. ZAK also plans a new installation for oxo alcohols, with a capacity of about 50,000 tpa.

The idea of replacing the existing plant for plasticizers has come from the need for new products produced from PTA. Other projects under consideration include 100,000 tpa of liquid UAN fertilizer production, along with the base storage.

production of chlorine and hydroxides is required under environmental guidelines to be completed by the end of 2015. By this date Spolchemie's licence to use mercury technology will have expired. Following its completion, the company aims to continue redevelopment project areas and buildings contaminated with mercury. Immediately after the new plant has started the old plant will start the process of demolition.

## Grupa Azoty, gas prospects 2014

Grupa Azoty may face a tough year in 2014, particularly in the fertiliser business where competitiveness is determined by the cost of gas. Natural gas accounted for 40.3% of total costs in 2013 for Grupa Azoty. The amount of gas used and costs have risen significantly in the past two years due primarily to the acquisition and integration of ZAK, ZCh Police and more recently ZA Pulawy.

At the end of the year Group Azoty-Pulawy and PGNiG signed an extension contract on 31 December for the supply of natural gas, specifying the quantity of the gas and power contract in 2014 estimated value of the contract amounts to 1.090 million net. Other contracts were signed with RWE Poland for 2014 worth about zł 69 million and Statoil Asa worth about zł 97 million. Efforts to diversify gas supplies clearly show the move away from PGNiG and dependency on Russian gas.

A gas pipeline is under consideration that could link the Czech Republic and Poland, and which could provide a connection to Blachownia. A pipeline from Raciborz to Kedzierzyn Kozle would be about 60 km. Although construction could take several years, it could be of significant help to the chemical plants at Blachownia and Kedzierzyn.

## Grupa Azoty, raw materials

Grupa Azoty plans to invest around zł 700-800 in 2014, the

priority of which is to increase the efficiency of production facilities, especially ammonia. Around 80% of costs in urea production are attributed to gas. To produce one ton of ammonia around 910-1075 m<sup>3</sup> of natural gas is required. If the above-mentioned factors will add to environmental issues arising from the regulations for EU, wage issues this year may be difficult for the group.

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KGHM Polish Copper and Group Azoty Nitrogen Plant Pulawy, and a subsidiary of the latter Fosfory signed an agreement setting out the terms of cooperation. This covers the field of exploration, appraisal and exploration of deposits of potassium salts, phosphorus raw materials, salt and non-ferrous metals. KGHM is more interested in the ores of metals, Group Azoty on chemical raw materials.

## Spolchemie-membrane electrolysis

Spolchemie's membrane electrolysis project has been awarded to Kovoprojekta Brno after a tender. The cost of construction is estimated at Kc 1.36 billion. The new electrolysis plant for the

# RUSSIA

## Russian chemical production 2013

### Russian Chemical Production (unit-kilo tons)

Product	Jan-Dec 13	Jan-Dec 12
Ammonia	14,400.0	13,753.6
Benzene	1,225.8	1,135.9
N-butanols	126.0	133.9
Iso-butanols	80.3	84.1
Caustic Soda	1,041.0	1,095.0
Ethylene	2,685.0	2,276.1
Methanol	3,501.9	3,320.8
PET	408.0	452.6
Phenol	282.9	277.6
Phthalic Anhydride	102.2	94.6
Polyethylene	1,861.0	1,553.5
Polypropylene	857.0	684.5
Polystyrene	457.0	373.9
Propylene	1,220.4	1,165.6
PVC	617.2	615.9
Soda Ash	2,453.0	2,806.6
Styrene	609.5	541.5
Synthetic Fibres	125.0	119.2
Synthetic Rubber	1,482.0	1,399.1
Nitrogen Fertilisers	8,200.0	8,039.2
Phosphate Fertilisers	3,100.0	3,134.5
Potash Fertilisers	7,000.0	6,641.4

Statistical Database at [www.cirec.net](http://www.cirec.net).

### Russian chemical production 2013

Chemical production in Russia rose by 2.8% in 2013 over 2012, with polymers showing the largest increases due to new capacity and higher utilisation rates. Ethylene and propylene both recorded significant rises, influenced to a large degree by the resumption of production at Stavrolen. Methanol production improved due to less maintenance downtime, whilst styrene monomer was boosted by large increases by both Nizhnekamskneftekhim and Gazprom Neftekhim Salavat.

Russian polymer production rose mostly in 2013 due to a number of factors on the supply side. Russia reduced the import of large polymers by around 40% in 2013 following the introduction of several new plants. Although domestic production increased, lower demand was also a factor in helping to reduce imports. The aim as pronounced by the Russian leadership is to become self-sufficient in bulk polymers by volume and revenue by 2017. However, opportunities for specialist grades are expected to continue to exist.

Synthetic rubber production achieved a new high in 2013 despite the weakness in the global tyre markets. In the sector for intermediates and organic chemicals, declines were noted in butanols due to slightly less opportunity for exports coupled with lower demand. Detailed production data for Russian chemical products up to Q4 2013, by producer, is available on CIREC's

Soda ash and caustic soda production were both in 2013 due to a number of factors. Soda ash demand has dropped marginally whilst there are some problems in securing raw materials for production in Bashkortostan. Caustic soda was affected by the termination of production at Dzerzhinsk by SIBUR in April-May 2013, but should be boosted this year after the start-up of the RusVinyl plant.

### Russian Petrochemical Exports (unit-kilo tons)

Product	Q1 13	Q2 13	Q3 13	Q4 13	Totals 2013
Propylene	10.8	8.2	0.0	2.2	21.2
Orthoxylene	12.4	8.0	15.2	12.7	48.2
Paraxylene	19.8	36.7	29.4	26.9	112.7
Methanol	357.1	454.8	303.3	287.1	1402.3
N-butanols	25.6	15.0	9.2	21.7	71.5
Iso-butanols	22.6	19.2	6.5	14.4	62.7
Styrene	25.8	42.1	26.6	38.9	133.5
Phenol	6.1	3.8	4.7	5.1	19.7
Caprolactam	20.1	18.9	14.7	15.8	69.6
Vinyl Acetate	3.1	5.9	8.4	10.6	28.0

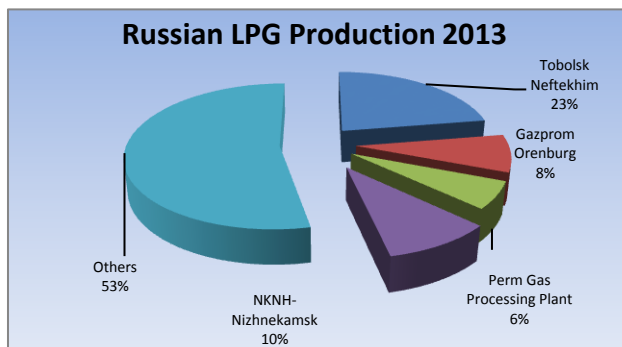
Export activity fluctuated throughout 2013, butanols and caprolactam both showing declines on 2012. Methanol exports remained strong over the four quarters in 2013, the low domestic gas price justifying foreign shipments, whilst the rise in styrene production enabled higher export volumes.

### Russian petrochemical projects

#### Novatek expands Purovsky gas condensate plant

Novatek has completed the expansion of the Purovsky gas condensate processing plant, raising capacity from 5 to 11 million tpa. Novatek has started commercial operations on the third and fourth lines for gas condensate stabilisation with a combined capacity of 3 million tpa.

Operation of the first two lines of complex began in late October 2013, which also possesses a combined capacity of 3 million tpa. The Purovsky plant was first commissioned in 2005 with a capacity of 2 million tpa, increased in 2008 to 5 million tpa. The Purovsky plant produces a stable gas condensate which is supplied to Novatek's industrial complex at Ust-Luga port for further processing, and LPG which is sold on the domestic market (including through its own network of petrol stations) and for export.



#### Tobolsk-Neftekhim, gas fractionating plant

At the end of 2013 SIBUR started commissioning on the new gas fractionation plant (HFC-2) at Tobolsk, after reaching 98% completion of the project. Work started in January this year for comprehensive testing of equipment and the installation of work environments. The additional capacity under construction comprises 2.8 million tpa, increasing total capacity at Tobolsk to 6.6 million tpa. The launch of new line is expected in 2014. Aside plant construction, work continues on the development of the railway infrastructure from the Denisovka station and ensuring

continuous plant operations.

#### Irkutsk-sound credentials for development of chemical industry

Various possibilities are under review for the development of the petrochemical industry in the Irkutsk region, ranging from Ust Kut in the north where feedstocks will be available in the next few years to the more traditional chemical industry sites in the southern areas of the Oblast. The main stimulus to the development of the petrochemical industry derives essentially from feedstock abundance and the extraction of resources from the Chayanda and Kovykta deposits.



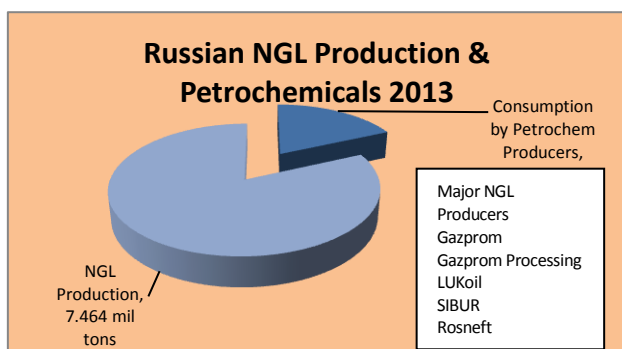
For the Kovykta gas condensate field Gazprom has recently finished installation of equipment for a pilot membrane plant (BBP) helium extraction from natural gas. This year Gazprom hopes to design a similar membrane plant at the Chayanda field, trying to overcome the harsh climatic conditions of East Siberia and the Far East.

Irkutsk Oil Company (INK), which wants to build a gas-chemical complex at Ust-Kut, has stressed that it does not require state funding for construction. Project investments in petrochemicals and gas processing could amount to 110-120 billion roubles, and INK is ready to pursue the strategy with or without Gazprom. A provisional date for

commissioning has been set for 2019.

The project outline for INK includes plans to build two gas processing plants with a total processing capacity of more than 7 billion cubic metres of gas per annum. INK aims to construct a pipeline system for natural gas liquids and methane with a total length of 500 kilometres, and a polyethylene plant with a capacity of 650,000 tpa with a possible extension of up to 1 million tpa. It also plans a staging post for shipment by rail of propane, butane, and gas condensate.

Raw materials for the INK gas processing and petrochemical project are to be sourced from the oil fields Yarakta, Markov and Ayan, which operates Congress. The complex could require around 8 billion cubic metres of gas per annum. A feasibility study for the project started in 2013 and should be completed in 2014.

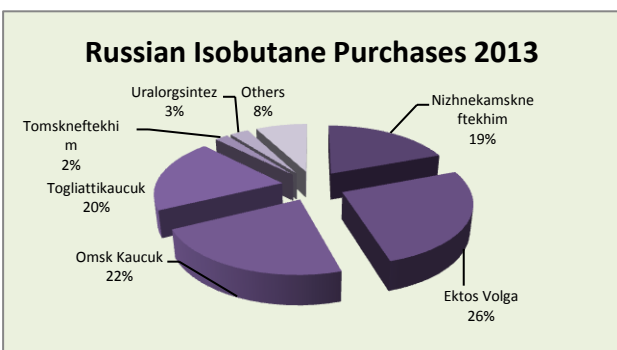


#### Russian petrochemical producers & markets

##### Petrochemical feedstocks, Jan-Dec 2013

Production of natural gas liquids (NGLS) totalled 7.46 million tons in 2013, 12% more than in 2012. The significant increase was facilitated by the commissioning of the Vyngapur gas processing plant. Last year, the Vyngapur plant produced 688,300 tons of NGLs. Overall, the petrochemical industry consumed 1.669 million tons of NGLs in 2013, against 1.242 million tons in 2012. Increased availability from Yuzhniy Balyk is helping the

upward trend. Sales of NGLs from Yuzhniy Balyk totalled 3.880 million tons in 2013, 17% up on the previous year.



### Russian isobutane 2013

Russian isobutane deliveries to the Russian domestic market totalled 408,640 tons in January to December 2013, 4% down on 2012. Tobolsk-Neftekhim is one of the main suppliers, followed by Novokuibyshevsk Petrochemical Company and Uralorgsintez. Most of the consumers use isobutane in the production of MTBE. Ekto-Volga was the largest consumer in 2013, taking 109,310 tons.

### Russian ethylene production 2013

In 2013, Russia increased production of ethylene by 17% to 2.7 million tons. Besides Stavrolen, nearly all the other producers increased production helping to drive up the total. Gazprom Neftekhim Salavat increased production by 63,500 tons due to ongoing modernisation and expansion, whilst Kazanorgsintez increased production by 34,300 tons due to increased ethane supplies.

**Russian Ethylene Production  
(unit-kilo tons)**

Producer	Jan-Dec 13	Jan-Dec 12
Angarsk Polymer Plant	211.2	190.9
Kazanorgsintez	527.3	493.0
Stavrolen	336.1	77.7
Nizhnekamskneftekhim	605.7	605.5
SANORS	77.7	76.1
Gazprom N Salavat	268.8	205.5
SIBUR-Neftekhim	241.0	231.0
SIBUR-Khimprom	46.9	48.4
Tomskneftekhim	259.3	260.9
Ufaorgsintez	123.6	97.9
Total	2697.5	2286.9

10,700 tons.

SIBUR-Kstovo suspended olefin operations in late December due to the failure of a boiler unit. Production of ethylene and propylene at Kstovo was completely restored by 25 January, and ethylene oxide and glycols at Dzerzhinsk on 26 January. Kstovo and Dzerzhinsk are interdependent plants, and thus olefin shortages can affect derivative production for ethylene oxide and acrylates.

Despite the unplanned outage at Kstovo, ethylene production for Russia was unchanged in December against November and totalled 241,000 tons. Other producers increased production in the final month of the year, in particular Gazprom Neftekhim Salavat by 33% to 28,800 tons and Ufaorgsintez by 9% to

### Russian propylene, Jan-Dec 2013

Russian production of propylene for January to December 2013 rose 30% to 1.474 million tons. Full production data is available on the Statistical Database at [www.cirec.net](http://www.cirec.net). Production was not only boosted by the revival at Stavrolen but also by the introduction of new capacity at Omsk based on propane-propylene fractions for the production of polypropylene.

Domestic sales totalled 327,500 tons in 2013, 7% down on 2012. The reason for lower sales was due to the cessation of supply from Omsk Kaucuk on the open market, which has now been directed to Polyom. Russian propylene exports rose 26% in 2013 over 2012 to 26,900 tons. Poland accounted for 56 % of Russian exports, followed by Belarus with 34%. The largest exporters included Angarsk Polymer Plant and LUKoil-NNOS.

**Russian Propylene Production  
(unit-kilo tons)**

Producer	Jan-Dec 13	Jan-Dec 12
Angarsk Polymer Plant	102.6	94.8
Kazanorgsintez	38.1	37.3
LUKoil-NNOS	149.8	130.5
Stavrolen	132.2	10.4
Nizhnekamskneftekhim	301.6	272.6
Omsk Kaucuk	38.8	56.9
Polyom	124.1	1.5
Gazprom Neftekhim Salavat	112.5	78.8
SIBUR Kstovo	120.8	115.3
SIBUR-Khimprom	61.8	72.1
Tomskneftekhim	132.7	119.8
Ufaorgsintez	158.9	136.1
Total	1473.9	1126.0

### Russian styrene market 2013

Styrene sales on the domestic market amounted to 6,700 tons in December, 31% more than in November. SIBUR-Khimprom increased shipments two fold in December to 3,500 tons. At the same time, shipments of monomer from Angarsk Polymer Plant decreased by 24% to 262 tons, and from Gazprom Salavat Neftekhim by 9% to 2,800 tons. In 2013, domestic sales in Russia of styrene totalled 90,200, virtually the same as in 2012. Russian exports of styrene increased 2.7 times in December to 25,200 tons. Shipments for the whole of 2013



### Russian Styrene Production (unit-kilo tons)

Producer	Jan-Dec 13	Jan-Dec 12
Nizhnekamskneftekhim	248.6	200.9
Angarsk Polymer Plant	32.8	33.6
SIBUR-Khimprom	101.6	104.7
Gazprom Neftekhim Salavat	168.5	136.7
Plastik, Uzlovaya	58.1	65.6
Total	609.5	541.5

totalled 133,400 tons, almost unchanged from 2012. The main directions of Russian styrene exports were Finland (59%) and Turkey (21%).

In 2013, Russia produced 609,500 tons of styrene, 14% more than in 2012. Nizhnekamskneftekhim increased production by 24%, last year and Gazprom Neftekhim Salavat by 23%. Production of styrene amounted to 53,200 tons in December, unchanged from November. Angarsk Polymer Plant increased production by 14% up to 3,500

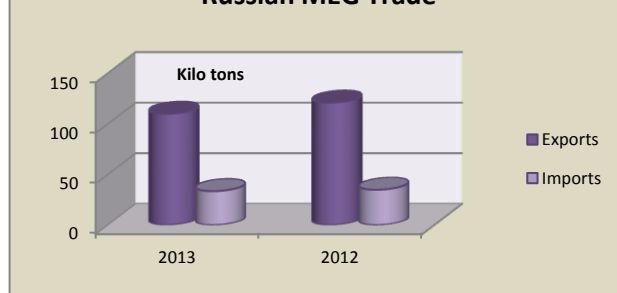
tons and Nizhnekamskneftekhim by 4% to 23,700 tons. At the same time Plastik at Uzlovaya reduced the production of styrene by 17% against November to 4,400 tons. SIBUR has recently agreed to sell Plastik, and hopes to form contracts for ethylbenzene supply to the new owners.

### Russian MEG, Jan-Dec 2013

MEG sales on the Russian domestic market totalled 110,000 tons in 2013, 10% less than in 2012. SIBUR-Neftekhim and Nizhnekamskneftekhim provided 96% of the market. The main consumers of MEG remain the PET producers Senezh and Polief, which accounted for 65% of total sales. Senezh returned to the market in December after being down in November.

Russia imported 33,500 tons of MEG in 2013, 4% less than in 2012. The main Russian consumer of imported MEG is Alko-Naphtha, accounting for 95% of shipments. Exports from Russia totalled 76,600 tons in 2013, 1% up on 2012. 90% of exports were bought by Belarus, which is mostly Mogilevkhimvolokno. SIBUR-Neftekhim and Nizhnekamskneftekhim were responsible for 60% and 40% of exports respectively.

### Russian MEG Trade



### SANORS' Production 2013 (unit-kilo tons)

Product	2013	2012
Liquid Gases	661.9	580.0
Phenol	83.9	76.2
Acetone	51.5	46.8
Ethanol	101.1	82.2
Isopentane	107.7	61.2
Para-tetra-butylphenol	4.5	7.7

### SANORS 2013

SANORS reported an increase in revenues of 47% in 2013 over 2012, amounting to 33.04 billion roubles. In physical terms, production increased by 29% to 1.213 million tons. This included an increase of 33% in the production of LPGs, and a 76% rise in isopentane production to 107,700 tons. Processing of NGLs and other hydrocarbon gas fractions increased over 11.5% with 2012 and amounted to 661,900 tons.

For organic chemicals, SANORS produced 101,100 tons of ethanol, which was up 23%, whilst phenol and acetone both increased 10% to 83,900 tons and 51,500 tons respectively. Cumene production rose 15% to 6,800 tons, and benzene 9 times to 23,000 tons.

### Tatarstan chemical sector 2013

Chemical production in Tatarstan rose 1.7% in 2013 against 8.2% growth in 2012. Last year, Tatarstan produced 32.8 million tons of oil, processing more than 16 million tons of raw materials. The Republic produced 1.5 million tons of plastics, 640,000 tons of rubber, showing growth of 6.6% and 8% respectively. The Russian tyre market declined by 2.7% in 2013 to 58.2 million units, whilst production remained at the level of 2012. Annual labour productivity in the petrochemical complex of Tatarstan rose to 10.2 million roubles per person; the average salary in the complex was 34,300 roubles.

Last year Nizhnekamskneftekhim's preliminary results show a fall of 2.7 fold against 2012, dropping to 6.2 billion roubles. Proceeds from sale of marketable products reached 120 billion roubles. In 2012, the company posted a net profit of 16.954 billion roubles, revenue up to 125.247 billion roubles. Thus, the figures dropped to 2.7 and 4.2%, respectively.

### Bulk Polymers

#### Russian polymer production 2013

Russian polymer production rose mostly in 2013 due to a number of factors on the supply side. Russia reduced the import of large polymers by 40% in 2013 following the introduction of several plants. Although domestic production increased, lower demand was also a factor in helping to reduce imports.

The aim pronounced by the Russian leadership is to become self-sufficient in polymers by volume and revenue by 2017. However, opportunities for specialist grades are expected to continue. The full year activity at Stavrolen had an important effect on the production of polyethylene and polypropylene,

whilst the start-up of the Polyom plant helped to add more polypropylene. In the polystyrene sector SIBUR-Khimprom increased its EPS production, whilst for PVC production remained stable. PET was the only product where production fell, partly due to extended maintenance at several plants.

**Russian Polymer Production (unit-kilo tons)**

Product	Jan-Dec 13	Jan-Dec 12
PET	408.0	452.6
Polyethylene	1,861.0	1,553.5
Polypropylene	857.0	684.5
Polystyrene	457.0	373.9
PVC	653.0	653.7

Russia's export duty for polymers including polypropylene, polyethylene and PET, for delivery to Europe was increased from 1 January 2014 from various levels of 0-3% to 6.5%. Other products affected by the changes in export duties include acetone, anhydrous ammonia, a number of phenols, etc. The change in tariff rates will inevitably affect the competitiveness of Russian products in Europe, and possibly on the volume of deliveries. The EU regulation, which suggest new rates was

adopted a few months after Russia's WTO accession, giving to Russian producers only a year to adapt to new duties.

**Russian Polymer Imports (unit-kilo tons)**

Imports	2013	2012
HDPE	286.2	408.5
LLDPE	209.0	153.2
GPPS	46.5	59.5
HIPS	27.5	25.9
EPS	73.8	83.1
Polypropylene	217.0	276.0
Polycarbonate	45.0	54.5
PVC	367.0	411.1
PET	172.0	184.0
Total	1444.0	1655.8

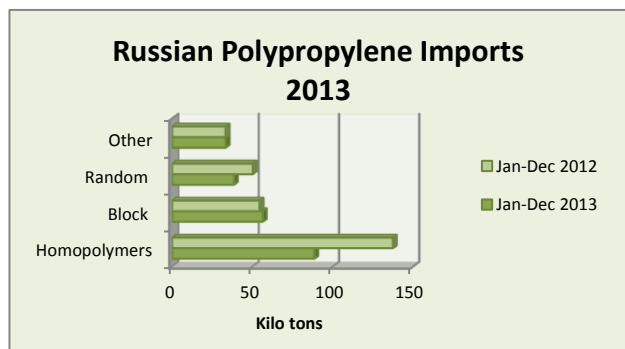
**Russian HDPE/LLDPE 2013**

HDPE production in Russia increased by 38% in 2013 to 1.021 million tons. The significant increase was due principally to the restart of the Stavrolen plant, producing 309,000 tons against 70,400 tons in 2012. In addition Kazanorgsintez increased production by 6% over 2012 to 468,000 tons. Nizhnekamskneftekhim reduced production by 5% last year due partly to technical problems and partly due to increases in LLDPE production.

HDPE imports into Russia totalled 286,200 tons in 2013, 30% down on 2012. The growth in HDPE imports occurred only for extrusion coating for large diameter steel pipes (up by 12% to 73,800 tons) and injection moulding (up by 3% to 48,900 tons). Imports of HDPE for pipe production declined almost twofold to 68,300 tons, from 129,600 tons in 2012. Imports of film HDPE decreased more than twofold last year against 2012 to 44,800 tons, compared with 100,000 tons. The main reason for such a serious fall in imports was the growth of domestic production. Import of blow moulding and cable HDPE in 2013 fell by 30% and 10%, respectively, totalling 34,200 tons and 13,600 tons.

Russian imports of LLDPE increased by 18% in January to December 2013 totalling 209,000 tons. Film LLDPE dominated consumption, rising from 167,400 tons in 2012 to 184,800 tons in 2013. Nizhnekamskneftekhim produced 27,000 tons of LLDPE in 2013, almost twice the amount in 2012.

Of the importers SABIC supplied 76,000 tons in 2013, rising 18% over 2012, represented mainly by butene brands. Converters also use LLDPE supplied by Dow, which imported 18,000 tons in 2013, 12% less than in 2012. ExxonMobil Chemical provided 16,000 tons to the Russian market, 36% more than in 2012. The demand for linear polyethylene in the Russian market has increased more than 10 times for the last 10 years, from 22,600 tons in 2004 to 236,000 tons in 2013.



**Russian polypropylene imports, Jan-Dec 2013**

Imports of polypropylene into Russia totalled 217,000 tons in 2013 against 276,100 tons in 2012. Russia's imports of polypropylene fell due mainly to the launch of the plants at Omsk and Tobolsk, together with a combined capacity of 680,000 tpa, and also the restored activity by Stavrolen. Imports declined in all sectors of homopolymer consumption due to improved supply from Russian producers.

Total imports of block copolymers of propylene rose to 56,500 tons in 2013, from 54,500 tons in 2012.

Polypropylene block imports grew due to the increased purchases from consumers of extrusion copolymers, whereas imports of injection copolymers remained unchanged. Imports of random copolymers fell to 38,600 tons in 2013, from 50,200 tons in 2012. Russian producers managed to reduce the dependence of imports of random copolymers; the largest decline occurred in the injection moulding sector (down 39% to 6,000 tons) and pressure pipes (down 26% to 18,300 tons).

### Russian polypropylene production 2013

Russian polypropylene production increased by 25.2% in 2013 to 857,000 tons. Revived production by Stavrolen and the start of the Polyom plant at Omsk were the main reasons for higher production. Stavrolen did continue to encounter minor problems in 2013 and was forced to suspend production on two occasions, but in each case for only a few days. Production should exceed 2013 levels in 2014, due to the impact of the Tobolsk-Polymer plant. Polyom started producing polypropylene for the production of non-pressure pipes, sewerage and drainage systems. The product is characterized by low yield and resistance to oxidative aging.



### Russian polystyrene market 2013

Polystyrene production rose 22.2% in Russia in 2013, helped by increased EPS production by SIBUR-Khimprom and GPPS/HIPS at Nizhnekamskneftekhim and Gazprom Neftekhim Salavat.

General-purpose polystyrene (GPPS) and HIPS imports into Russia dropped in 2013 by 18.5% to 74,000 tons. The fall was directly linked to increases in GPPS production by Nizhnekamskneftekhim, in addition to Gazprom Neftekhim Salavat and PGProf. At the same time, there was a shortage of high-impact polystyrene

(HIPS) in the Russian market in 2013, which local converters compensated by imports.

Overall GPPS imports into Russia fell by 28% last year and totalled 46,500 tons. The construction sector, electronics and packaging dominated imports of GPPS grades, accounting for 40%, 33% and 24%, respectively. HIPS imports rose by 6% to 27,500 tons. The largest consumers of imported HIPS stemmed from the electrical engineering sector. This sector accounted for 85% of total HIPS imports in 2013.

Imports of expandable polystyrene (EPS) into the Russian market fell in 2013 by 16% from 2012 and totalled 71,700 tons. SIBUR-Khimprom and Angarsk polymer plant increased production last year while Plastik at Uzlovaya reduced its output. The construction sector showed a good growth, which contributed to increased consumption of EPSV-S and increased domestic production. China is the largest supplier of imported EPS to the Russian market and accounts for more than 45% of the total imports.

Exports of polystyrene and styrene plastics from Russia grew in 2013 by 43% over 2012, totalling 71,000 tons. HIPS accounted for the largest export shipments, rising 28% over 2012 to 25,000 tons. Nizhnekamskneftekhim's 825ES grade remained the most popular Russian HIPS grade in foreign markets. Exports of EPS grew by 32% in 2013 and totalled 23,800 tons. The key export market for Russian EPS remained Ukraine. GPPS exports from Russia rose 53% in 2013 and totalled in 2013 17,500 tons. ABS exports rose by 14 times in 2013 and totalled 4,330 tons, due to the launch of a new GPPS-ABS line at Nizhnekamsk.

Plastik Production Capacity	
Product	Capacity (ktpa)
Styrene	60
EPS	11.3
Phenolics	6.38
ABS	23

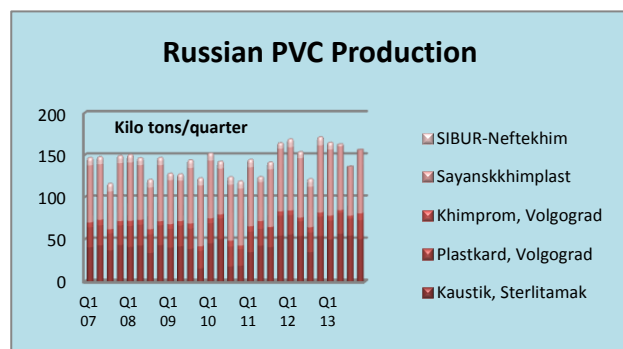
### SIBUR sells Plastik

SIBUR has sold its 100% stake in Plastik at Uzlovaya, located in the Tula Region, to a group of private investors. The deal amounted to 575 million roubles. SIBUR has sold the assets as the plant's products do not conform to SIBUR's goals. Production of geosynthetics is undertaken (geogrids and nonwoven geotextiles), spun off as OOO Plastik-Geosintetika (a joint venture between SIBUR and Leader Innovations Closed-End Venture Capital Fund), was not included in the transaction and continues to operate as part of SIBUR Group.

Plastik's asset base includes production of styrene, expandable polystyrene, ABS plastics, and separators and phenolic plastics. It also operates the lines producing parts and components for the automotive industry and machine building, safety products for workers in the mining and construction industries, and household products for a wide range of consumers. The new investors are bringing in a carefully designed strategy of further business development and growing its petrochemical asset base. SIBUR aims to conclude a contract for ethylbenzene supplies to Plastik.

### Russian PVC production 2013

Russian PVC production totalled 617,200 tons in 2013 compared to 615,500 tons in 2012. Production from the three largest companies Sayanskkhimplast, Bashkir Soda Company (Sterlitamak) and Kaustik (Volgograd)

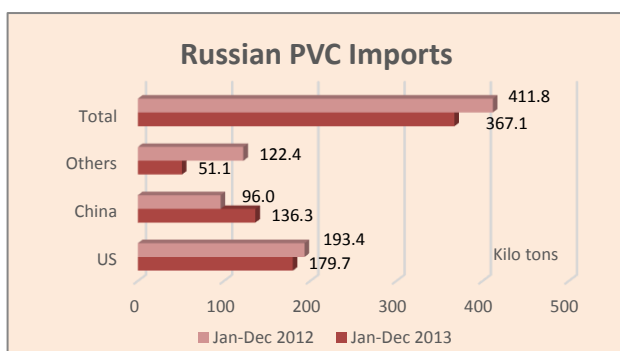


compensated for the termination of SIBUR-Neftekhim's production in April, as well as a long unscheduled shutdown at Khimprom, Volgograd. PVC suspension grade totalled 600,000 tons in 2013, compared to 595,000 tons in 2012.

#### Russian PVC imports 2013

Russian PVC imports totalled 367,000 tons in 2013 against 411,000 tons in 2012. Sluggish demand for suspension PVC was the main reason for the reduction in imports in 2013. PVC imports are expected to fall further in 2014 due to weakish demand for finished

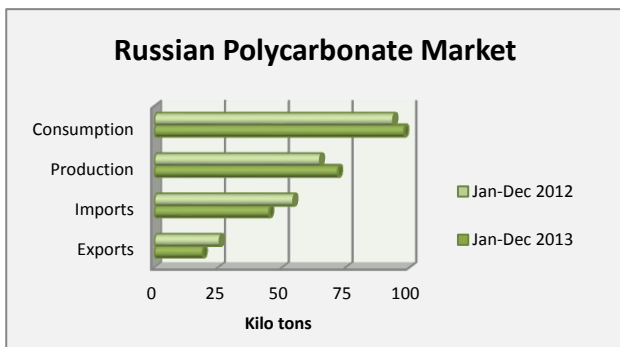
products made from PVC and the oncoming launch of new capacity by RusVinyl in the Nizhny Novgorod region.



Imports of US PVC reduced to 179,200 tons in 2013, from 193,400 tons in 2012. Only Chinese producers managed to increase its presence in the Russian market last year, rising 42% to 136,300 tons in 2013. European PVC producers reduced their supplies to Russia in 2013 to 36,500 tons. In the second half of 2014 PVC imports will be affected by the oncoming launch of RusVinyl with a capacity of 300,000 tpa for suspension PVC.

Demand for suspension PVC grade fell in Russia by 4% in 2013 against 2012. After a record high in 2011, with PVC consumption totalling 1.015 million tons, the demand for PVC in the Russian market began to decline. Consumption in 2012 tipped slightly over 1 million tons, but this shrank to 967,000 tons in 2013. Demand has been reduced in practically all sectors of consumption profiled mouldings, pipes, films and plastic compounds. Despite the recent declines over a ten year period consumption has risen sharply, from 375,000 tons in 2004 to 967,000 tons in 2013. Despite the rise in the past decade there remains substantial potential for growth in PVC consumption in Russia.

The Federal Antimonopoly Service (FAS) fined Sayanskkhimplast 123.5 million roubles in December last year for cartel participation in PVC suspension. This situation with traders of Sayanskkhimplast has taken before involving caustic soda. The total amount of fines imposed on the cartel on the market for PVC-S has amounted to 683.9 million roubles.



Russia's consumption of polycarbonate increased 5% to 97,700 tons in 2013.

Kazanorgsintez produced 72,000 tons polycarbonate in 2013, up 11%, with main volumes occurred for injection moulding and extrusion grades. Kazanorgsintez plans to begin production of blow moulding polycarbonate to the domestic market in 2014.

#### Russian PET 2013

Russian imports of PET dropped 7% in 2013 to 172,000 tons. Despite the overall decline in imports, shipments of Chinese PET increased by 21,000 tons and amounted to 94,000 tons. Sluggish demand helped reduce the inward flow of PET resin. Average capacity utilisation at Russian PET plants amounted to 71% in 2013; PET production totalled 408,000 tons in 2013, 10% down on 2012. A series of force majeure and scheduled outages for maintenance resulted in a reduction of production of in the second half of 2013. Alko-Naphtha, based in Kaliningrad, resumed PET production in December following maintenance. Senezh at Solnechnogorsk also restarted after the turnaround.



Russian PET Production (unit-kilo tons)		
Producer	Jan-Dec 13	Jan-Dec 12
Evroplast (Senezh)	58.0	98.9
SIBUR-PETF	94.9	75.3
Alko-Naphtha	123.1	145.5
Polief	132.0	132.9
Total	408.0	452.6

Polief expects to complete expansion of the PET plant at Blagoveshchensk this year, rising from 120,000 tpa to 210,000 tpa. As a result Russia's total PET capacity will increase to 670,000 tpa by the start of 2015.

Domestic consumption of 600,000 tons is unlikely to be met this year, meaning that capacity is starting to exceed demand levels thus reducing the opportunity for imports. From the start of the year

the import tariff rate on Russian-produced PET rose from 3.5% to 6.5%, which is another factor discouraging imports. Russia's 4.1 kg per capita PET consumption is still lower than that of Western countries.

## Aromatics & derivatives

### Russian Benzene Domestic Sales 2013 (unit-kilo tons)

Producer	Q1 13	Q2 13	Q3 13	Q4 13
<b>Synthesis sub-total</b>	<b>150.8</b>	<b>143.7</b>	<b>142.8</b>	<b>171.6</b>
Angarsk Polymer Plant	15.8	14.4	6.8	12.9
SIBUR-Neftekhim	22.2	15.6	18.7	15.5
Severstal	9.5	8.8	8.5	8.7
Uralorgsintez	17.1	16.0	12.7	17.0
Kirishinefteorgsintez	16.7	12.5	11.5	14.2
West Siberian MC	13.4	15.6	13.7	13.2
Ryazan NPZ	7.6	3.2	8.6	9.1
Slavneft-Yanos	15.4	9.3	12.5	17.6
Gazprom Neft (Omsk)	27.1	24.5	22.8	32.3
Gazprom Neftekhim Salavat	1.2	0.0	2.1	6.3
Stavrolen	0.0	6.0	13.2	19.1
Ufaneftkhim	1.1	2.1	3.5	4.8
Zaporozhkoks	1.0	2.8	1.7	0.0
Ukratnafta	0.9	6.3	3.1	0.0
Yasinovsky Coke	1.6	5.3	2.4	0.5
ArcelorMittal	0.2	1.1	1.1	0.7
<b>Nitration sub-total</b>	<b>8.8</b>	<b>10.5</b>	<b>9.2</b>	<b>10.4</b>
Novolipetsk MK	5.6	6.4	5.5	6.6
Chelyabinsk MK	3.1	4.1	3.7	3.7
<b>Crude sub-total</b>	<b>41.1</b>	<b>40.7</b>	<b>35.8</b>	<b>33.4</b>
Altay-Koks	10.1	8.0	8.6	7.5
Koks	6.4	8.5	8.5	9.2
Magnitogorsk MK	11.5	15.9	11.6	10.0
Nizhny Tagil MK	7.1	3.0	2.4	3.3
Novokuznetsk MK	2.5	1.6	1.3	1.1
Moskoks	2.2	1.9	2.1	1.8
Ural Steel	1.4	1.9	1.3	0.5
<b>Total</b>	<b>200.6</b>	<b>194.9</b>	<b>187.8</b>	<b>215.4</b>

### Russian benzene 2013

Overall for 2013 Russian benzene production rose 11% to 1.225 million tons. Gazprom Neftekhim Salavat increased production by 42%, and LUKoil-PNOS by 28%. Stavrolen also contributed to the increase, producing 51,000 tons in 2013 after being idle throughout 2012. Full benzene production data for 2013 can be seen on the Statistical Database, or please contact us directly.

Russian benzene production comprised 112,000 tons in December, unchanged from November. Production was reduced on the one hand by an accident at SIBUR-Kstovo in mid-December, but was compensated on the other hand by extra output by Uralorgsintez.

Russian benzene producers increased the sales on the domestic market by 5% in December against November to 73,700 tons. Gazprom Neftekhim Salavat increased shipments 3.9 times to 3,400 tons, whilst Ufaneftkhim increased by 41% to 2,800 tons and Gazprom Neft by 28% to 9,900 tons.

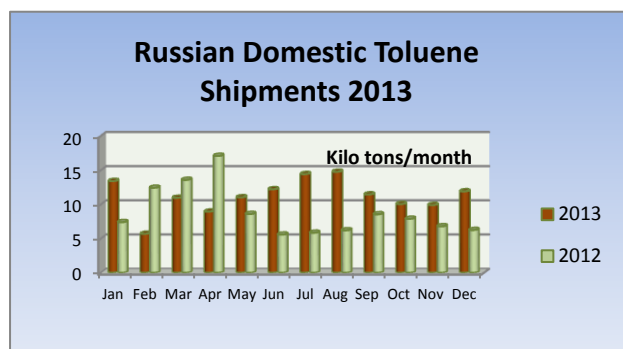
In 2013 Russia's domestic sales of benzene totalled 787,800 tons, 8% more than in 2012. The largest outlet for benzene was caprolactam, accounting for 16% of sales. ArcelorMittalTemirtau exported 3,400 tons of benzene from Kazakhstan to Russia in 2013, 32% up on 2012. Kuibyshevazot was the main buyer of Kazakh benzene.

### Russian orthoxylene 2013

Total orthoxylene sales on the domestic market fell 7% in 2013 against 2012 to 126,900 tons. Gazprom Neft provided 49% of shipments, with Kirishinefteorgsintez and Ufaneftkhim taking 29% and 22% respectively. Domestic sales of orthoxylene amounted to 11,820 tons in December, 8% higher than in November. Of the total Kamteks Khimprom purchased 8,410 tons.

### Shchekinoazot-caprolactam 2013

Shchekinoazot increased the production of caprolactam in 2013 by 15% compared with 2012 to 43,000 tons. The new capacity in 2014 could allow the company to produce up to 60,000 tons. Formaldehyde production by Shchekinoazot rose 24% in 2013 to 30,700 tons and the target for 2014 is 46,500 tons. Production of urea-formaldehyde concentrate in 2013 showed an increase of 47% up to 47,000 tons, which will rise to 67,000 tons in 2014.



2013, showing an 8% increase over 2012. Gazprom Neft accounted for 27% of total production, followed by Ufaneftkhim with 15%), and Slavneft-Yanos with 15%.

Russian Toluene Production (unit-kilo tons)		
Producer	Jan-Dec 13	Jan-Dec 12
Kinef	33.4	5.7
Gazprom N Salavat	9.8	14.7
Slavneft-Yanos	49.6	61.4
LUKoil-Perm	44.1	34.0
Gazprom Neft	93.2	78.7
RN Holding (ex-TNK-BP)	42.7	44.0
Others	22.3	35.8
Ufaneftkhim	50.9	40.2
Total	346.0	314.5

tons.

Domestic market consumption of phenol totalled 130,000 tons in 2013, 3% less than in 2012. Samaraorgsintez reduced sales phenol by 15%, and Omsk Kaucuk by 10%. Both producers encountered production problems last year. The largest consumers of phenol in the Russian market in 2013 were domestic producers of urea-formaldehyde resins (60%) and caprolactam (25%). For the start of 2014 the supply of phenol has been affected by the unplanned outage at SIBUR-Kstovo, reducing propylene availability.

Shchekinoazot also notes that it was possible to achieve stable operation of the unit methanol M-450, without periodic stops unplanned repair. The final circuit repairs began stopping planned repairs in September 2013. In 2014, production will reach a record high of 482,000 tons. The new installation hydrogen-26 was introduced in July 2013 and this has helped Shchekinoazot reduce consumption of hydrogen generation, facilitating a drop in the cost of caprolactam and ammonia.

#### Russian toluene market, Jan-Dec 2013

Russian toluene production totalled 342,100 tons in

Russian toluene shipments by rail to the domestic market totalled 134,900 tons in January to December 2013, 22% up on 2012. LUKoil-Permnefteorgsintez supplied 31% of shipments, Kirishinefteorgsintez 24%), Gazprom Neft 17%), and Slavneft-Yanos 11%). The largest consumers in 2013 were Obninsk Naftogaz with 9%, Sverdlov Plant 6%, Biisk Oleum Plant (5%), Nizhnekamskneftkhim (5%) and Zagorsk paint factory (5%).

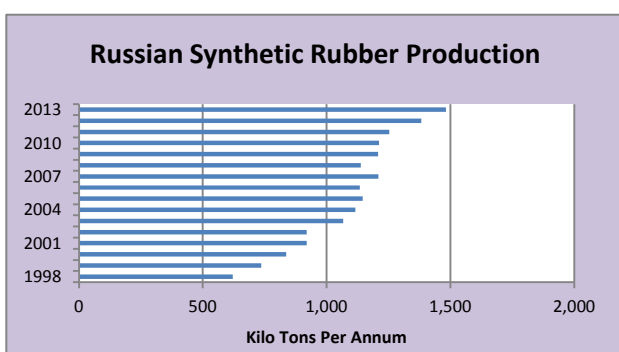
#### Russian phenol, Jan-Dec 2013

Russia produced 282,900 tons of phenol in 2013, 2% more than in 2012. Samaraorgsintez produced 83,500 tons which was 10% over the previous year whilst Kazanorgsintez increased production by 6% to 68,600 tons. Omsk Kaucuk reduced by 6% to 58,400 tons, whilst Ufaorgsintez dropped slightly to 72,400

Russian Phenol Production (unit-kilo tons)		
Producer	Jan-Dec 13	Jan-Dec 12
Ufaorgsintez	72.4	73.6
Kazanorgsintez	68.6	65.2
SANORS	83.5	76.7
Omsk Kaucuk	58.4	62.2
Total	282.9	277.6

Borealis exported 477 tons of phenol in November, 25% less than in October. Samaraorgsintez reduced exports of phenol by 25% in November over October to 1,447 tons. Sales were divided between Poland (84% or 1,200 tons) and Latvia (16% or 237 tons). Omsk Kaucuk exported 155 tons in November.

### Synthetic Rubber



#### Russian synthetic rubber production 2013

Production of synthetic rubber totalled 1.482 million tons in 2013, a 6% rise over 2012 and continuing the progressive trend over the past 15 years. In 1998 production was 621,500 tons, the lowest total after the fall of the USSR. Production in that year was dramatically affected by the Russian default and subsequent rouble devaluation.

However, after this low point production has risen almost annually due to higher utilisation, modernisation and the introduction of new capacity. As a commodity item, exports account for 63% of total production and in terms of revenue more than \$2 billion per annum for Russia,

Russian production of rubber products fell by 3% in 2013 compared with 2012. At the same time the production of tyres for passenger cars increased by 6.2% up to 34 million units and for agricultural machinery by 4.6% to 1.425 million tyres. Production of tyres for trucks, buses and trolleybuses in 2013 decreased by 11.6% to 7.235 million units.

Russian Tyre Production (unit-million pieces)		
Sector	Jan-Dec 2013	Jan-Dec 2012
Car Tyres	34.0	32.0
Lorry Tyres	7.2	8.2
Agricultural Tyres	1.5	1.4

Since the start of 2014 both Togliattikaucuk and Voronezhskintezkaucuk have reduced the working week in response to lower market sales. Togliattikaucuk has reduced production volumes due to the combination of lower demand and rising raw material costs for butane and isobutane. Voronezhskintezkaucuk has followed suit, transferring part of employees on part-time or payment of two-thirds of the salary.

### Russian C4s, Jan-Dec 2013

The feedstock position of Russian synthetic rubber producers was helped significantly in 2013 by the restart of the Stavrolen cracker which supplied 68,770 tons of C4s to the domestic market. Aside Stavrolen, the major suppliers to the Russian market last year included Angarsk Polymer Plant, SIBUR-Kstovo and Tomskneftekhim. Imports are sourced in small volumes from Belarus, Azerbaijan and Iran.

Russian C4 Suppliers 2013 (unit-kilo tons)				
Supplier	Q1 13	Q2 13	Q3 13	Q4 13
Angarsk Polymer	19.1	16.5	6.9	17.5
Krasnoyarsk SR	0.2	0.2	0.0	0.1
Kazanorgsintez	9.5	6.7	6.3	6.7
Stavrolen	17.7	17.4	17.3	16.3
SIBUR-Kstovo	12.9	9.1	17.5	16.4
Tomskneftekhim	19.1	19.6	12.9	19.7
Ufaorgsintez	7.3	5.4	6.9	6.6
Naftan (Belarus)	11.4	10.9	12.9	9.3
Azerkhiymya	1.6	2.2	3.0	6.9
Efremov SR	0.0	0.2	0.0	0.1
Iran	1.8	0.8	0.4	0.1
Total	100.6	89.1	84.0	100.0

The major consumers of C4s in 2013 included Togliattikaucuk with 42%, Nizhnekamskneftekhim with 35% and Omsk Kaucuk 20%. The remaining small volumes were purchased by the Sterlitamak Petrochemical Plant in Bashkortostan.

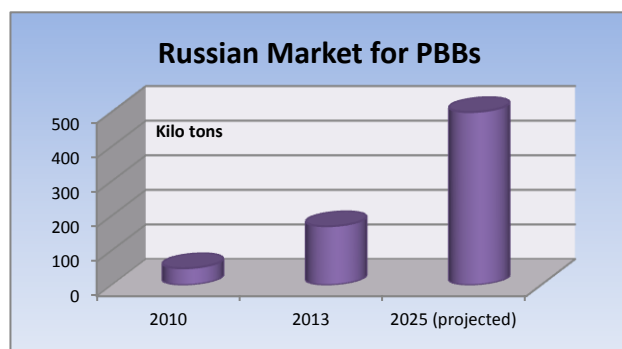
### Togliattikaucuk-isoprene & butyl rubber

Togliattikaucuk has started on the modernisation of the isoprene plant designed to improve the reliability of the equipment, to ensure the stable and secure operation of production, and to help to reduce the impact on the environment. Togliattikaucuk produces three types of rubbers, including butyl rubber, styrene and isoprene rubbers as well as monomers and high-octane gasoline additives. Togliattikaucuk is the only company in SIBUR which produces isoprene where capacity is 90,000 tpa.

Togliattikaucuk opened a new production line in January this year for butyl rubber, raising capacity from 48,000 tpa to 53,000 tpa. Total funding of the project has cost 1.3 billion roubles.

### Gazprom Neft acquires polymer-bitumen binder plant

Gazprom Neft has acquired 100% of the share capital of Synthase-OIL, which belongs to Ryazan pilot plant petrochemical products (ROZNHP). ROZNHP is the largest platform for the production of polymer-bitumen binders (PBB) in Russia. The plant's capacity is 60,000 tpa, although production only totalled 25,000 tons in 2013.



Integration of the new venture will allow Gazprom Neft to take a leading position in the Russian market in polymeric bituminous materials. The Russian market for PBBs was estimated at 170,000 tons in 2013, 3.5 times higher than in 2010. By 2025, the market is estimated to rise around 500,000 tpa following the major road investment programmes endorsed by the Russian government.

To date, the largest region for Russian consumption of PBBs is the Central Federal District, where there are numerous large-scale projects for road construction. Gazprom Neft started production of PBBs in 2010 at the Omsk refinery, with a capacity of 10,000 tpa. Tatarstan is also studying the possibility of producing polymer-bitumen binders in order to improve road structures. Tatarstan has a sufficient resource base for the production of PBBs. The start-up of the thermoelastomer plant at Voronezh last year has provided stimulus to PBB projects in Russia.

## Methanol &amp; Ammonia

## Russian Methanol Production (unit-kilo tons)

Producer	Jan-Dec 13	Jan-Dec 12
Shchekinoazot	426.8	446.5
Sibmetakhim	814.1	744.5
Metafrax	1016.0	1031.0
Akron	87.9	79.9
Azot, Novomoskovsk	304.6	300.7
Angarsk Petrochemical	2.7	21.8
Azot, Nevinomyssk	124.4	114.0
Tomet	725.4	582.4
Totals	3501.9	3320.8

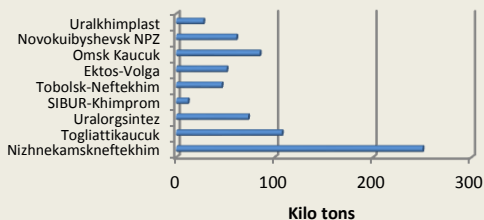
## Russian methanol market, Jan-Dec 2013

Russian methanol production totalled 3.502 million tons in 2013 against 3.321 million tons in 2012. Tomet at Togliatti showed the largest increase in production, rising from 582,400 tons in 2012 to 725,400 tons in 2013. Sibmetakhim at Tomsk was the only other producer to record a significant increase.

Domestic demand for methanol finished 2013 strongly, with rail shipments totalling 128,000 tons in December 11% up on November. Metafrax sold 43,000 tons to domestic consumers in December, Tomet 32,500 tons and Sibmetakhim 35,500 tons. Tomet completed repairs in early December, after starting the shutdown in November, and increased domestic shipments 28%

in the last month of the year. Regarding other producers, Azot at Novomoskovsk shipped 11,700 tons in December and Shchekinoazot 2,000 tons. MTBE was the main demand driver in December, accounting for 32% of shipments. Synthetic rubber accounted for 16% (21,000 tons), formaldehyde and its derivatives 15% (19,000 tons) and gas companies 23% (29,000 tons).

## Main Russian Methanol Consumers 2013



Domestic sales of methanol totalled 1.4 million tons in 2013, 15% more than in 2012. Metafrax, Tomet and Sibmetakhim accounted for 85% of total sales. Shchekinoazot increased shipments by 70% to 45,500 tons and this was due to higher production. Metafrax sold a total of 419,000 tons in 2013, 3% up on 2012.

The main consumers of methanol in Russia remained producers of MTBE, rubber, formaldehyde and its derivatives, and gas companies. Over the year, these sectors took 85% of methanol shipments. Due to the increasing demand for MTBE, purchases rose by nearly

40% over 2012. Nizhnekamskneftekhim was by far the largest consumer, using methanol in both MTBE and synthetic rubber production.

## Russian Methanol Exports 2013 (unit-kilo tons)

Producer	Q1 13	Q2 13	Q3 13	Q4 13	Total
Azot Novomoskovsk	34.7	30.2	14.3	56.5	135.7
Akron	2.4	1.4	4.2	3.9	11.8
Metafrax	102.8	153.3	50.5	33.7	340.4
Sibmetakhim	88.8	116.2	85.7	80.3	371.0
Togliattiazot	65.4	83.8	57.3	52.6	259.1
Shchekinoazot	63.0	69.9	91.3	60.1	284.3
Total	357.1	454.8	303.3	287.1	1402.3

activity by Tomet at Togliatti, after maintenance, saw exports rise by 60% to 24,100 tons. Metafrax reduced export shipments by 10% in December to 23,600 tons. Finland accounted for 47% of Russian exports in December, followed by Slovakia with 18% and Romania 11%.

MTBE exports from Russia totalled 87,000 tons in 2013, against 180,000 tons in 2012. The significant fall was due primarily to an agreement between domestic consumers and producers in early 2013. This meant that in order to avoid the introduction of duties on exports from Russia, domestic MTBE producers made concessions to domestic consumers and increased volumes of supplies of commodity MTBE on the Russian domestic market.

## Metafrax-Dynea Austria

Shareholders of Metafrax have not approved a loan €95 million to subsidiary MetaDynea Holding GmbH (Austria) for investment. Metafrax closed the purchase of resin producer Dynea Chemicals Oy and formaldehyde producer

## Russian methanol exports 2013

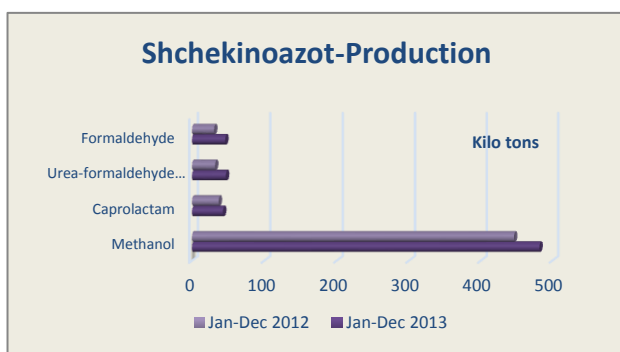
Exports of Russian methanol amounted to 1.4 million tons in 2013, 2% less than in 2012. Metafrax, Sibmetakhim, Shchekinoazot and Tomet accounted for 90% of exports. Finland purchased 48% of Russian methanol exports in 2013. Other consumers included Slovakia (15%) and Poland (12%). Russian methanol producers exported 17,200 tons through the Odessa terminal in January, 12% higher than in December.

Methanol exports amounted to 125,000 tons in December, 7% more than November. The return to



Dynea Austria GmbH in June last year, which was later renamed MetaDynea Holding GmbH. The capacity of the new company is 350,000 tpa of resins and 140,000 tpa of formaldehyde. The acquisition has helped Metafrax increase the total capacity for resin production to 700,000 tpa. It raises capacity for processing methanol for Metafrax from 400,000 tpa to 500,000 tpa of methanol, thus reducing availability for merchant sales.

Instead of investing in MetaDynea, Metafrax wants to use the funds for the production of ammonia and urea at Gubakha. Metafrax also plans to build two new units for the production of formaldehyde. The company is currently examining the construction of ammonia and urea production plans estimated at \$700-800 million, and two options for production from 400,000 tpa to 600,000 tpa of urea. Construction could be started in 2015, with the new plants to be launched in 2017-2018.



#### Shchekinoazot-methanol & ammonia project

Shchekinoazot has selected the design institute Orgkhim at Severodonetsk to undertake the basic outline of the construction project for methanol and ammonia in the industrial area of Shchekinoazot. Also under study are options for a new power plant.

Shchekinoazot has projected production of methanol of 482,000 tons for 2014, whilst caprolactam production could reach 60,000 tons. Formaldehyde has been projected for 46,500 tons, after totalling 30,700 tons in 2013 and 24,300 tons in 2011. The start-up of the

concentrated low-methanol formaldehyde unit last year allowed the company to increase urea-formaldehyde concentrate from 32,000 tons in 2012 to 47,000 tons in 2013. This year Shchekinoazot hopes to produce at full capacity of 67,000 tons.

### Organic Chemicals

#### Russian Butanol Production (unit-kilo tons)

##### N-Butanol

Producer	Jan-Dec 13	Jan-Dec 12
Angarsk Petrochemical	27.0	21.1
Evrokhim	14.5	15.5
Gazprom Neftekhim Salavat	58.9	73.9
SIBUR-Holding	25.6	23.4
Total	126.0	133.9

##### Isobutanol

Producer	Jan-Dec 13	Jan-Dec 12
Angarsk Petrochemical	14.4	11.1
Gazprom Neftekhim Salavat	28.4	30.9
SIBUR-Holding	41.3	38.4
Total	84.1	80.3

#### Russian butanols production 2013

Butanol production in Russia dropped slightly in 2013, although isobutanols did show a minor increase. The outlook for the butanol market in the next few years indicates declining exports and gradual rises in domestic consumption. Traditionally, Russian butanol production has been oriented towards exports. The most export-oriented producer is Angarsk Petrochemical Company due to its geographical position close to China.

The largest producer of butanols Gazprom Neftekhim Salavat traditionally ships from 50% to 70% of production to China, whilst SIBUR-Khimprom is focused more on domestic sales. The demand for normal butanol by SIBUR-Neftekhim for the production of acrylates at Dzerzhinsk provides a major outlet for SIBUR-Khimprom. The smallest butanol producer in Russia is Azot at

Nevinomyssk which processes much of its output captively.

#### Butanol Domestic Sales by Russian Producers (unit-kilo tons)

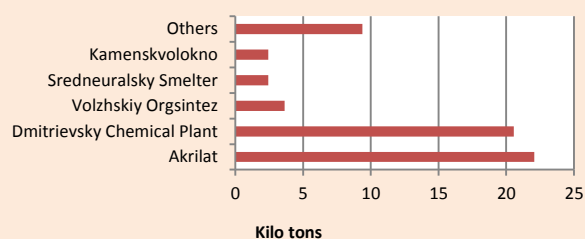
Company	Q1 13	Q2 13	Q3 13	Q4 13
Gazprom Neftekhim Salavat	8.9	2.6	6.5	5.2
SIBUR-Khimprom	6.1	6.4	3.5	6.1
Angarsk Polymer Plant	1.0	0.9	2.6	1.5
Azot Nevinomyssk	0.8	0.9	0.7	0.7
Totals	16.9	10.8	13.3	13.4

Exports of butanols have been in decline since 2011 due in part to the construction in China of its own facilities. Reduced demand for imported butanols in China has led to a drop in prices of these products. Furthermore in 2015 the world's largest complex in Saudi Arabia for the production of butanols is expected to start, comprising a total capacity of 341,000 tpa against total combined Russian capacity of 344,000 tpa. In view of

the market competition Russian butanol producers may thus need to redirect emphasis to the domestic

market. As part of this strategy In December 2013 Gazprom Neftekhim Salavat began construction of a complex for the production of acrylic acid and acrylates which should be ready by the fourth quarter in 2015.

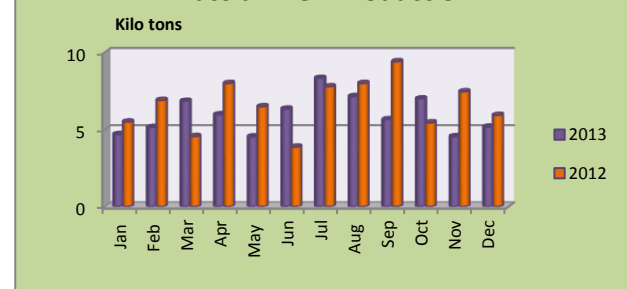
### Russian Butanol Consumers 2013



(34%), Volzhskiy Orgsintez (6%), Kamenskvolokno (4%) and Sredneuralsky smelter (4%).

Butanol exports totalled 137,300 tons in 2013, 11% less than in 2012. The share of n-butanol in total exports was 52% and isobutanol 48%. The main direction of Russian butanol exports in 2013 were China (51% of shipments) and Finland (41%). Exporters were broken down into Gazprom Neftekhim Salavat 52%, SIBUR-Khimprom 25%, Angarsk Petrochemical Company 22%, and Azot at Nevinomyssk 1%.

### Russian DOP Production



to 5,170 tons. Both Roshalsky Plant of Plasticizers and Ural Plant of Plasticizers were both idle in December, whilst Gazprom Neftekhim Salavat boosted volumes from 1,090 tons to 2,680 tons. Kamteks-Khimprom produced 2,490 tons, unchanged from November.

For 2013 overall Russian DOP production totalled 71,350 tons, 4% down over 2012. This decrease was due to the discontinuation of DOP production by the Urals plant in late 2012. Another reason for the decline of production is reduced demand for DOP on the Russian market.

DOP exports amounted to 810 tons in 2013, 63% higher than in 2012. The rise in exports was due to a decline in demand for the plasticizer in the domestic market. The main customers for Russian DOP in 2013 were Uzbekistan (51%) and Ukraine (49%). The largest suppliers included Roshalsky plasticizers (49%), Kamteks Khimprom (43%) and Ural Plant of plasticizers (7%).

### Russian Acetone Production 2013 (unit-kilo tons)

Producer	Q1 13	Q2 13	Q3 13	Q4 13	Total
Ufaorgsintez	11.8	11.2	11.1	11.9	46.0
Kazanorgsintez	11.7	11.9	8.1	12.1	43.8
Samaraorgsintez	12.8	9.2	13.9	15.1	51.0
Omsk Kaucuk	10.0	9.7	7.5	6.2	33.4
Total	46.4	42.0	40.6	45.2	174.1

In the meantime the company has run up sizeable debts which have resulted in court action. Sintez-Acetone is owned by Cypriot Global Oil Services Holdings Limited. Mahler AGS GmbH has installed the new hydrogen station.

### Russian butanol-domestic sales & exports

Russian butanol sales amounted to 5,100 tons in December 2013, 4% higher than in November. Russian domestic sales totalled 60,500 tons of butanols in 2013, 19% down against 2012. N-butanol sales amounted to 87% of the market and isobutanols 13%.

The largest suppliers of butanols in the domestic market last year were SIBUR-Khimprom (41% of shipments), and Gazprom Neftekhim Salavat (40.7%). The main domestic consumers of butanols in 2013 included Aktilat (36%), Dmitrievsky Chemical Plant

### Russian phthalic anhydride 2013

Russian production of phthalic anhydride totalled 102,200 tons in 2013, 6% up on 2012. Kamteks-Khimprom accounted for 92% of Russian production. Russian exports of phthalic anhydride totalled 69,600 tons in 2013, 23% more than in 2012. The main direction of exports in 2013 included China (25% of exports), India (22%), Turkey (17%), Ukraine (8%), Poland (8%), Finland (6%) and Uzbekistan (4%).

### Russian DOP production & exports 2013

DOP production in Russia increased 3% in December

### Sintez-Acetone

After the closure of the Kaprolactam division at Dzerzhinsk last year Sintez-Acetone at Dzerzhinsk was forced to suspend isopropanol production due to a lack of hydrogen. A new hydrogen unit has since been installed and the company intends to restart production in the near future.

## Plastics/resins

**Polyplastik-outlook for 2014**

Russian plastics group Polyplastik intends to purchase three domestic pipe manufacturers as part of its expansion strategy. In addition, the company is interested in buying more assets abroad to add to its acquisitions in the UK. In March 2013 Polyplastik bought UK manufacturer of polyethylene pipes and composite materials Radius Systems, followed by Radius Systems Subterra and Aeon Group Holdings.

Polyplastik has forecast an increase in revenue in 2014 over 2013 by around 15%. In 2013, the company planned to increase revenue by 11% compared with 2012, but this figure only managed to increase by 2-3% to 27.8 billion roubles. In physical terms, production of pipes totalled 210,000 tons in 2013. Demand was affected by lower GDP, whilst some regions lacked funds for infrastructure development and Gazprom was forced to reduce its investment programme due to freezing of tariffs by natural monopolies. The second half of 2013 was worse than expected. Polyplastik is Russia's largest producer of polymer piping systems for external water supply and sanitation.

Polyplastik and BASF have signed an agreement to work together to create innovative systems for the stabilisation of composite materials for the automotive industry and long-term cooperation for the supply and use of modifiers in their production. The companies plan to participate in joint projects aimed at improving the quality of products Polyplastik in compliance with international standards and expanding the range of compounds, focusing on projects for the automotive industry. Polyplastik plans to increase the production of polymer composite materials by 5% in 2014 up to 80,000 tons. In 2013, the group produced 76,000 tons.

**Titan-BASF**

Titan and BASF have signed a memorandum on long-term cooperation under which BASF will supply stabilizers and antioxidants to Polyom. The agreement also includes technical support in the production of new grades of polypropylene. BASF additives protect polymers against damage due to thermal, mechanical, lighting and other effects. Furthermore, these additives have a low degree of general toxicity and improve the physical, chemical and hygienic properties of the polymers.

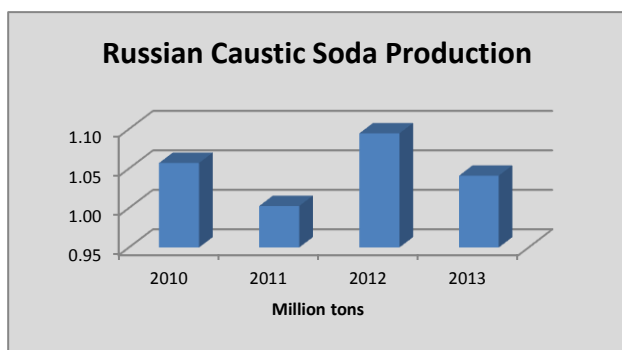
**United Petrochemical Company-epoxy resins**

United Petrochemical Company is examining the possibility of further developing the bisphenol-A plant at Ufa. The main raw materials for bisphenol A are produced at Ufaorgsintez which is now included in the United Petrochemical Company. Rather than producing polycarbonate United Petrochemical Company is considering the production of epoxy resins based on higher profitability expectations. This project is also attractive in that it is aimed at import substitution. Nearly all of the epoxy resins consumed in Russia are imported.

## Inorganic Chemicals

**Russian caustic soda market**

Russian caustic soda production totalled 1.041 million tons in 2013, against 1.095 million tons in 2012. The reason for lower production was the termination of operations at SIBUR-Neftekhim's Dzerzhinsk plant, as from 5 April 2013.



The decision to close the Dzerzhinsk plant was taken due to obsolete and outdated equipment on the one hand and the pending completion of the RusVinyl project at Kstovo on the other hand. Since the beginning of the second quarter prices of caustic soda in Russia have begun to rise in response to supply shortages.

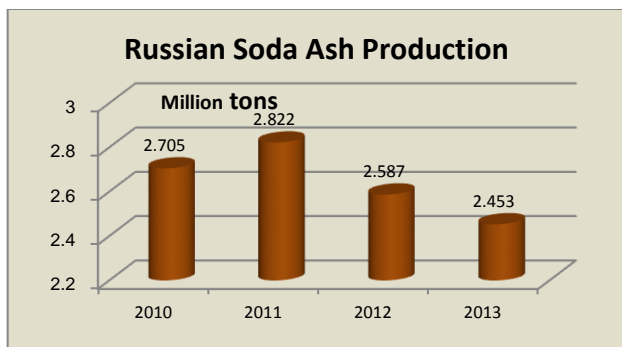
In 2014 RusVinyl expects to start production of caustic soda at Kstovo, from its new plant with a capacity of 235,000 tpa of caustic soda. The jv has already signed a long term agreement with Russolo and Belaruskali for the supply of salt.

The cartel issue for caustic soda is still ongoing with the case under review by the Arbitration Court of Moscow. Some companies have seen the case put forward by the Russian Federal Anti-Monopoly Service (FAS) overturned by the Arbitration Court of Moscow. These include SIBUR Holding, SIBUR Neftekhim, Evrokhim, Nikokhim, Bashkhim, and Khimprom. At the same time, the court has upheld the decision of FAS in respect of United Trading Company, Galopolymer Company Kirov-Chipetskiy, Kaustik (Sterlitamak), Kaustik (Volgograd), Sayanskkhimplast, and Group Orgsintez (formerly Renova-Orgsintez).

**Russian soda ash 2013**

Russian soda ash production dropped again in 2013 after a fall in 2012, influenced to a large degree by lower consumption on the one hand and raw material shortages on the other hand. Demand for soda ash in

Russia has been in decline in the past couple of years, due to lower consumption in the mining and metallurgical sector and producers of glass containers. Despite lower demand imports have been rising, provided largely by Crimean Soda Plant and the Bulgarian company Sodi-Solvay.



Regarding domestic production, Bashkir Soda Company (BCS) faces challenges in natural resources. Output of soda ash decreased by 15% in 2013, primarily due to a decline in capacity utilisation at Sterlitamak (formerly Soda). The plant reduced production by 20% in 2013, whilst other domestic plants have also reported reduced production. Some views suggest that BCS will fully exhaust its limestone mine by 2017, and thus without a replacement of raw material sources will lead to the closure of the Sterlitamak plant. In 2011, BCS appealed to the government to allow the extraction of limestone from

the Tratau Mountain which is blocked by a Soviet decree dating to 1936. At present there is no indication that the Russian government will overturn that decree.

#### Fosagro-Rusal contracts for aluminium fluoride & aluminium hydroxide

Fosagro has concluded contracts for the supply of aluminum fluoride with Rusal, as part of a cooperation agreement lasting up to 2034. The first contract covers the supply of aluminum fluoride to Rusal from Fosagro Cherepovets until 31 December 2034. The approximate amount of the transaction will exceed 20 billion roubles. The second contract involves Rusal supplying aluminum hydroxide to Rusal for the production of aluminum fluoride. The approximate amount of the transaction is approximately 6.5 billion roubles.

Following the endorsement of the contracts Fosagro intends to modernise the plant for aluminum fluoride and gradually increase production over the next few years. The plant produced 23,000 tons in 2012 and Fosagro hopes to be able of producing 35,000 tons by 2016.

#### Khimprom-hydrogen peroxide project

Khimprom at Novocheboksarsk is to begin construction of the plant of hydrogen peroxide in June this year. Swedish company Chematur Engineering AB has developed the basic design for construction of the plant, and has approved the first part of the documentation of the base project. The capacity of the new plant is 50,000 tpa and the construction costs at around 3 billion roubles. The plant is scheduled for completion in 2015.

#### Russian titanium dioxide 2013

Imports of titanium dioxide into Russia rose in 2013 by 14% over 2012, totalling 74,800 tons. The overall consumption of rutile TiO<sub>2</sub> rose to 73,500 tons, while imports of anatase titanium dioxide fell by 600 tons to 1,300 tons. At present Russia does not possess facilities for the production of titanium dioxide. Paints and coatings account for 80% of imported TiO<sub>2</sub>. The second place is occupied by producers

of rigid compounds, which account for about 16% of the total consumption.

#### Khimprom Vologograd increases exports of tributyl phosphate in 2013

Last year Khimprom sold twice more tributyl phosphate (TBP) in 2013, most of which was exported. A similar situation exists with ferric chloride, where sales abroad increased by more than 2.5 times compared with 2012. The greatest increase in export volume was observed in chloroform: in 2013 the company exported 2,800 tons, which is 7 times more than in 2012. The increase in exports resulted primarily from the cessation of chloroform supplies to Galopolymer at Perm.

#### Belarussian Chemical Output (unit-kilo tons)

<b>Fertilisers</b>	<b>Jan-Dec 13</b>	<b>Jan-Dec 12</b>
Potassium Fertilisers	4242.7	4832.7
Nitrogen Fertilisers	833.1	814.4
Phosphate Fertilisers	203.4	212.9
Ammonia	1027.4	1015.2
Sulphuric Acid	920.0	957.6
<b>Petrochemicals</b>	<b>Jan-Dec 13</b>	<b>Jan-Dec 12</b>
Ethylene	226.0	234.4
Benzene	128.5	130.1
Caprolactam	129.1	121.3
Polyethylene	135.9	140.7
PET	167.4	185.5
Synthetic Fibres	215.6	239.1

The main expectations in 2014 are associated with methylene chloride and trichloroethylene exports (which have always been the main export products for Khimprom, in addition to sodium hypochlorite, calcium carbide, TBP, and chloroform.

#### Belarus

#### Belarussian chemical production 2013

Naftan produced 128,500 tons of benzene in 2013, 2% less than in 2012. Azot at Grodno increased caprolactam production by 6% to 129,100 tons. Ethylene and polyethylene production dropped slightly in 2013, also



followed by PET where raw material shortages prevented full utilisation.

<b>Azot Grodno Production (unit-kilo tons)</b>		
<b>Product</b>	<b>Jan-Dec 13</b>	<b>Jan-Dec 12</b>
Methanol	72.1	77.1
Caprolactam	128.9	121.3
Polyamide primary	75.0	51.6
Polyamide filled	10.2	10.4
Ammonia	1026.5	1081.6
Urea	967.4	949.7
Fertilisers	760.3	745.5

Polymer production in Belarus rose 3% in 2013. Production of pipes, hoses and fittings made from polymers rose 7.2% to 13,600 tons in 2013. Belarus only produces a small volume of organic intermediates, one of which is phthalic anhydride which is produced at Lida and where domestic consumption has been rising. Exports of phthalic totalled 3,600 tons in 2013, 43% less than in 2012.

In the fertiliser division potassium fertilisers saw a 13% fall in production in 2013, largely due to the cartel difficulties arose with Uralkali in Russia. Once the cartel arrangement was broken prices and production both fell, particularly in Belarus, but the position has since improved.

#### **Mogilevkhimvolokno-Chinese support for new polyester plant**

Chinese corporation CAMCE Engineering (a subsidiary of SINOMACH) is to provide support to Mogilevkhimvolokno in the project to build a new plant for polyesters. The project involves constructing a plant for continuous polycondensation of PET with direct fibre formation and production of technical yarns.

Mogilevkhimvolokno intends to construct a PET plant with continuous polycondensation with a capacity of 200,000 tpa, providing for the production of several types of PET for various purposes. This includes lines for the production of polyester fibre with a capacity up to 100,000 tpa and a production line for industrial yarns with a capacity of 18,000 tpa. Investment in the project, which was planned for five years, is estimated at \$231.7 million.

Mogilevkhimvolokno needs to accelerate the modernisation of production capacities as the company is encountering losses. This new project will enable Mogilevkhimvolokno switch to a modern energy system (power consumption will fall by more than two-fold) to produce polyester products from PTA instead of paraxylene, as is currently used.

#### **Omsk Carbon Black to coconstruct carbon black plant in Belarus**

Omsktekhuglerod completed the design and bind to areas of the plant for the production of carbon black near Mogilev. The plant can now be built in Belarus, which will produce carbon black for the needs of the republic and Europe. It is expected that construction of the plant cost 4.5 billion roubles will begin in February. The construction period for the plant is 1.5 years. Production capacity is being designed to produce 120,000 tpa, with start-up scheduled for 2017.

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### **Ukraine**

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#### **Ukrainian gas supply 2013-2014**

Ukraine decreased gas imports by 15.5% in 2013 due to high Russian prices and economic weaknesses. Gas consumption fell 6.7%, despite an increase in domestic production. Another factor affecting gas consumption in Ukraine is the shift towards coal gasification technologies. Overall the country faces huge political and economic problems, sandwiched between the geopolitical interests of the EU and Russia.

The largest Ukrainian importer of Russian gas in 2013 was Ostchem which includes chemical plants Stirol at Gorlovka, Azot Severodonetsk, Azot Cherkassy and Rivneazot. Not only does Ostchem buy for its own fertiliser plants, it also supplies gas for pumping gas into underground storage. In December, Gazprom has lowered the price of gas to Ukraine by around 30% to \$268.5 per thousand cubic metres. In 2014, Gazprom plans to deliver to Ukraine 35-40 billion cubic metres of gas and the entire amount will go through the state company Naftogaz.

#### **Ukrainian benzene 2013**

Domestic production of benzene for synthesis and nitration dropped 34% in December against November to 8,800 tons. Ukratnafta reduced production by 2.5 times in December to 2,800 tons. Zarya at Rubezhnoye increased its production by 29% to 1,700 tons. For 2013, Ukrainian benzene production totalled 101,000 tons, 39% more than in 2012. The significant rise in production is due to the resumption of production of benzene by Ukratnafta at Kremenchug in February in 2013.

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Caucasus-Central Asia

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**Rosneft, Pirelli styrene-butadiene rubber project in Armenia**

Rosneft and Pirelli Tyre Russia signed a memorandum of understanding in January on establishing a JV for the production of styrene-butadiene rubber in Armenia. The project will create in Armenia modern manufacturer of high-tech rubbers used in the creation of green tires and help reduce the fuel consumption of vehicles and improved grip.

This project will help restore industrial complex for the production of rubber in Armenia. Armenia has reached agreement with Iran to import butadiene to Nairit butadiene to produce chloroprene rubber. In terms of current trade activity between the two countries Armenia imports natural gas from Iran and exports electricity in return. By importing butadiene Nairit could produce between 30-35,000 tpa of chloroprene rubber, as opposed to 15-20,000 tpa based on the old method of acetylene. Nairit states that it would aim to sell around 10,000 tpa of chloroprene rubber to Iran, in addition to exporting volumes to China.

**Hyundai-Uzbek GTL project**

Hyundai Engineering & Construction has won a contract for construction of the GTL plant in Kashkadarya region in Uzbekistan. Hyundai Engineering & Construction underlined that the sum of the deal is \$3.2 billion and it will take \$2.33 billion of the deal. The construction is scheduled to be completed by August 2017.

Uzbekneftegaz national holding company, Petronas and Sasol Synfuels International (PTY) Limited are implementing project on construction of the plant on production of synthetic fuel on the base of Shurtan Gas Chemical Plant in Kashkadarya region. Uzbekneftegaz, Petronas and Sasol Synfuels International (PTY) Limited signed charter and constituent agreement of joint

venture Uzbekistan GTL in November 2009. The project cost is about \$4 billion. The venture will work under Oltin Yol GTL brand.

The plant will process 3.5 billion cubic metres of gas and produce 863,400 tons of diesel fuel, 304,000 tons of aviation kerosene, 395,500 tons of naphtha and 11,200 tons of liquefied gas. Technip of France has developed the feasibility study. The project will be financed due to own resources of the venture's founders, a consortium of banks and financial institutions, which issue loans on project financing terms.

**Uzbek soda ash expansion**

Uzkimyo sanoat has announced tenders for the purchase of machinery for the expansion of the Kungrad Soda Plant. Bids will be accepted until 24 February 2014. The project is worth \$110 million, \$77 million of which has come from a loan from the Chinese Eximbank. The capacity of the plant is to be increased from 100,000 tpa to 200,000 tpa. The raw material base of the plant are mine salt Barsakelmes with proven reserves of more than 130 million tons of limestone deposits and Dzhamansay about 70 million tons.

*Relevant Currencies*

Czech crown. Kc. \$1= 20.753. €1= 25.833; Hungarian Forint. Ft. \$1= 229.448. €1= 288.154; Polish zloty. zl. \$1=3.414. €1=4.280; Bulgarian leva: \$1 = 1.5956. €1= 1.557; Romanian Lei. \$1 = 3.555. €1= 4.463; Croatian Kuna HRK. \$1 = 5.998. €1= 7.530; Ukrainian hryvnia. \$1=8.07. €1= 10.140; Rus rouble. \$1= 33.192. €1= 41.867

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