Chemical Information Resources for East Europe and CIS

CIREC MONTHLY NEWS

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

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FEATURES FROM THIS ISSUE

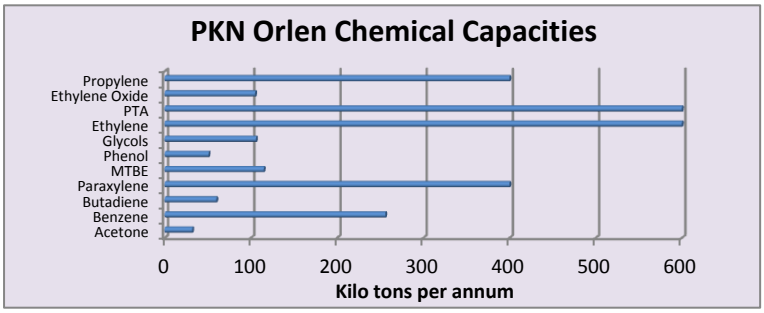
CENTRAL & SOUTH EAST EUROPE

Petrochemicals

PKN Orlen-investment outline

PKN Orlen's new investment programme for the 2013-2017 has not culminated in the announcement of new projects for olefins and polyolefins as may have been expected. Instead the strategy seems focused on reaping payback from its investment in PTA and paraxylene, whilst maximising and developing markets from its existing polyolefin capacities at both Plock and Litvinov.

The group has highlighted that sales of polymers should rise from 800,000 tons in 2012 to 900,000 tons in 2017, while sales volumes from the company's PTA plant should increase from 500,000 tons in 2012 to 600,000 tons in 2017. Olefin production is forecast by Orlen to rise 7% in the coming five-year period. The group believes that there is still great scope for exploiting Central and East European petrochemical markets that are yet to properly mature. In 2011, consumption of polyolefins in Central and East Europe stood at 24 kg per capita, against 32 kg per capita in Poland and 55 kg per capita in West Europe. Thus, the potential for growth in sales from existing capacities is significant.

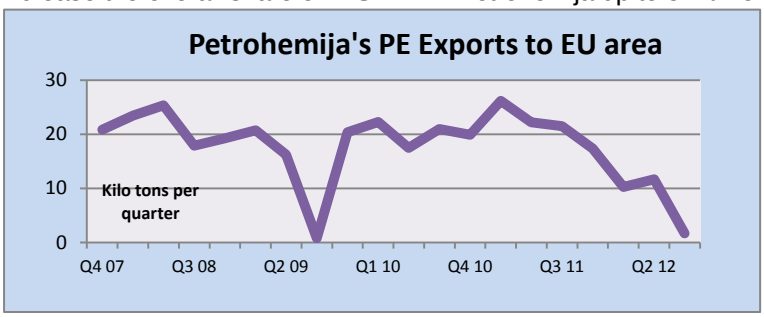


The main weakness in the strategy is borne out from the possibility of having to compete against cheap exports of petrochemical products from the Middle East and the US produced with cheap gas. It seems that it is the fear of competition that is the main stumbling block to building new facilities. Regarding hydrocarbons, Orlen is the most important player for the development of hydrocarbon production in Poland, holding 8 licenses covering conventional and unconventional reserves. In the years 2013 to 2017 PKN Orlen plans to develop 57 wells with production beginning in 2016.

Although Orlen is not at present considering large-scale projects in petrochemicals, developing cooperation between the two groups Lotos and Azoty could possibly force a rethink. These groups are planning to invest in the development of chemical and petrochemical production. ZA Tarnow had previously tried to influence Orlen to co-invest in petrochemicals, but without success. Now under the new mantle of the Azoty group potential projects are being considered with Lotos, which may ultimately challenge Orlen's position as the leading chemical producer in Poland. Thus, local competition may provide the driving force for new projects to be assessed by PKN Orlen.

Petrohemija-Gazprom Neft approves equity for debts

Gazprom Neft has approved the acquisition of share capital in HIP-Petrohemija through its Serbian subsidiary. The transaction value could be worth up to €67.4 million through the conversion of debts into equity. It will increase the overall share of NIS in HIP Petrohemija up to 34% from 12.72% at present. The parties hope to turn HIP-Petrohemija from an unprofitable to a profitable company. The largest shareholders in HIP-Petrohemija are the Republic of Serbia with 68.52%, followed by Srbijagas with 13.38%.



Restart of Petrohemija polyethylene plants at Pancevo

After several months of standstill Petrohemija restarted the ethylene cracker and LDPE plants on 6 December. Naphtha was introduced into the furnace the day before. The revamped HDPE plant started on 18 December. Equipment for the HDPE upgrade has been supplied by Bigelow-Liptak from Canada, whilst the HDPE process licensor is Chevron Phillips Chemicals from the USA. The plant capacity has been expanded from 70,000 tpa to 90,000 tpa, with the possibility of expanding to 100,000 tpa at a later date. The restart has allowed the restart of the SBR plant Elemir in the Vojvodina region, which had encountered C4

Dioki-possible restart of PE & PS facilities

After the preparation of all technical facilities is completed, which will need to be confirmed by inspection, the Board of DINA-Petrokemija is planning to start production of LDPE immediately after unblocking business accounts. The plants are almost ready to restart production, but the start-up is dependent on the Turkish investor Çalişkanom correcting the financial imbalances. Ethylene supplies by ship to Omisalj could restart immediately if this is achieved, allowing the restart of the polyethylene facilities.

Regarding the polystyrene unit at Zitnjak Dioki is in negotiations with a strategic partner to launch production which it expects to take place in the near future. Crodux Gas has agreed to finance a restart of polystyrene production at Zitnjak. The 50,000 tpa plant could be active in 2013, particularly the 15,000 tpa unit for expanded polystyrene.

MOL, Slovnaft pipeline

MOL, Slovnaft and Transpetrol have signed a memorandum of co-operation regarding the modernisation and expansion of Druzhba 1 pipeline transport system that will allow the creation of an alternative access to oil from the Adriatic sea. The expansion will mean an increase in deliveries to Slovnaft, which will be supplemented by full alternative oil supplies through this pipeline which follows the Adria pipeline. The Druzhba 1 pipeline is 130 km long and it stretches mainly across Hungary (only about 10 kilometres across Slovakia). Operations on the Slovak part of the pipeline will be implemented by Transpetrol and operations in Hungary will be managed by MOL. The modernisation of the oil-pipeline will ensure the long-term sustainability of domestic oil security and the development of refinery production. In the first three quarters of 2012 Slovnaft processed 3.98 million tons of crude oil, which was about 13% less than the same period in 2011.

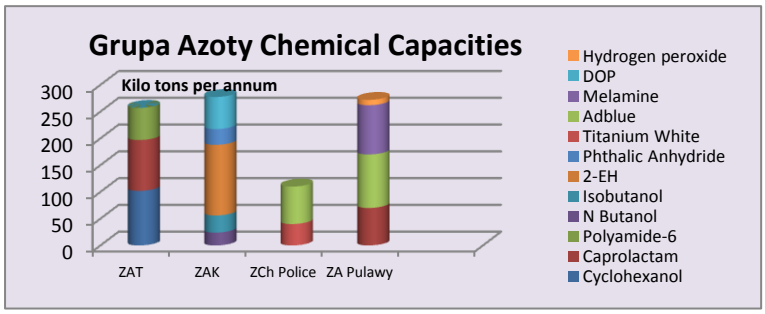
feedstock difficulties. The Elemir plant has capacities of 45,000 tpa of butadiene and 40,000 tpa of styrene-butadiene rubber.

The first six months of operation of the modernised HDPE plant will comprise a probationary period, during which parts of the process may need to be adjusted to a greater or less degree. The upgrade of the plant took three and a half months from the start of September, which resulted in the whole complex being closed. In the second half of last year the refining group NIS recorded a large drop in consumption for naphtha sales as a result of the extended overhaul at Petrohemija. Petrohemija normally buys around 12,000 tons of naphtha from NIS per month, supplemented by another 8,000 tons from other sources.

Chemicals

Grupa Azoty merger progresses

On 5 December 2012 the Tarnow and Pulawy groups performed the first part of the merger process, uniting the production capacities of both groups under the new common brand Grupa Azoty. Assuming no last minute hitches, this might be seen as the most important development in the Polish chemical industry in the past two decades. The amalgamation of the two groups not only resolves the long standing process of privatisation in the Polish chemical industry, but it also creates a huge entity capable of competing globally in a number of product areas.



The consolidation process is expected to fuel directional strategy in both fertilisers and organic chemicals, in addition to cooperation with the refining group Lotos. Production plants at Tarnow, Pulawy, Kedzierzyn and Police will combine to maximise the benefits of integration in logistics, investment, marketing and gas prices. Furthermore, the government is behind the idea of collaboration between Lotus and the Polish chemical companies. Methanol is of particular interest in that Poland imports around 500,000 tpa and does not produce at present. Other possible products of interest to Azoty and Lotos could include phenol and aromatic monomers. The largest project of all could involve a cracker, but this would require significant investment funds.

It is difficult to be precise over how long the integration process of the Pulawy Group into the Tarnow Group. The consolidation of the latest entry into the Tarnow Group was ZCh Police, and this process took about eighteen months to complete in terms in the optimisation of production costs, energy, marketing, etc. Another source of savings has been in the significant diversification of gas supply.

Polish transport companies hope to benefit from the synergies and consolidation taking place in the Polish chemical industry. Currently, about 100 million tons of raw materials and chemical intermediates, defined as dangerous goods (ADR) in Poland, are transported by road. The fusion of the Pulawy and Tarnow groups could be of great benefit for the logistics companies, allowing contracts to be concluded more efficiently and cost-competitively.

Polish Chemical Production (unit-kilo tons)		
Product	***Jan-Nov 12***	***Jan-Nov 11***
Caustic Soda Liquid	278.1	269.8
Caustic Soda Solid	61.5	50.9
Soda Ash	1023.5	962.3
Ethylene	418.5	510.5
Propylene	299.7	328.6
Butadiene	51.5	61.6
Toluene	19.6	53.5
Phenol	32.3	37.7
Caprolactam	150.0	149.9
Acetic Acid	7.0	7.2
Polyethylene	294.4	335.7
Polystyrene	132.2	121.1
PVC	239.4	265.9
Polypropylene	222.1	229.3
Synthetic Rubber	176.3	169.4
Ammonia (Gaseous)	1151.9	1062.6
Ammonia (Liquid)	1165.7	1032.8
Pesticides	21.9	19.8
Nitric Acid	2124.0	1947.8

Polish gas prices & agreements

The reduction of gas prices for the chemical industry was agreed at the end of 2012, but possibly not as much as the chemical companies had hoped. PGNiG agreed to reduce prices by 3.31% on average, saving the chemical companies large sums, but other sectors in the Polish economy have received bigger falls. The biggest recipient of gas in Poland is the Orlen Group which annually buys 1.3 billion cubic metres.

This means that the savings should amount to about zl 52 million for 2013. ZA Pulawy is second place, buying about 950 million cubic metres of gas, and savings for 2013 could amount to zl 38 million. From the Tarnow Group, prior to the inclusion of ZA Pulawy, ZCH Police was the largest consumer and could save zl 22 million in 2013. This is followed by ZA Tarnow and Zaklady Azotowe Kedzierzyn at around zl 16 million each.

ZA Tarnow derives around half of its gas consumption from local sources. These sources are provided at competitive prices, and comprise 30% nitrogen. For companies producing fertilisers, higher nitrogen content in natural gas posses some advantages. Following a similar contract formed by ZA Pulawy last October, ZCh Police has entered into a new contract for the supply of natural gas from EGESA and E.ON Ruhrgas AG. The contract comprises a small share of the total consumption of ZCh Police and will cover the period from 1 January 2013 to 1 January 2015. At the same time PGNiG remains the strategic partner for the supply of natural gas, providing around 70% of supplies this year. For 2013 ZCh Police intends to buy in total around 560 million cubic metres of gas.

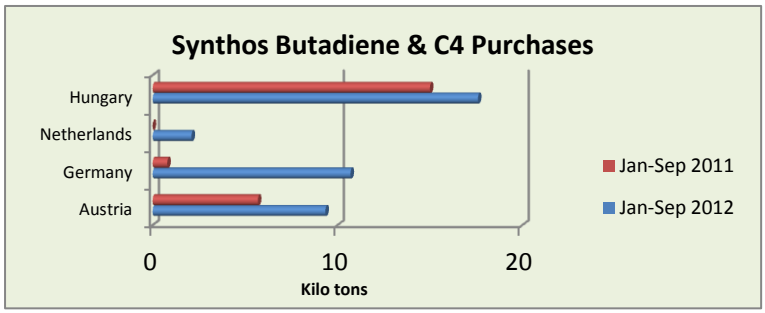
PKN Orlen awards SNC-Lavalin for power station at Wloclawek

SNC-Lavalin, in a consortium that includes General Electric, has been awarded a turnkey contract by PKN Orlen to build a combined cycle power plant at Wloclawek. The value of the contract is estimated at $183.7 million. The plant is to be designed to produce 463 MW of power through a gas turbine, with a heat recovery steam generator and steam turbine.

SNC-Lavalin's mandate will include the provision of all plant equipment, excluding the gas turbine and the steam turbine and generator. The company will also provide project management, engineering, etc, for the overall project. Construction is scheduled to start in March 2013, and is expected to take 36 months.

Air Products-Zachem

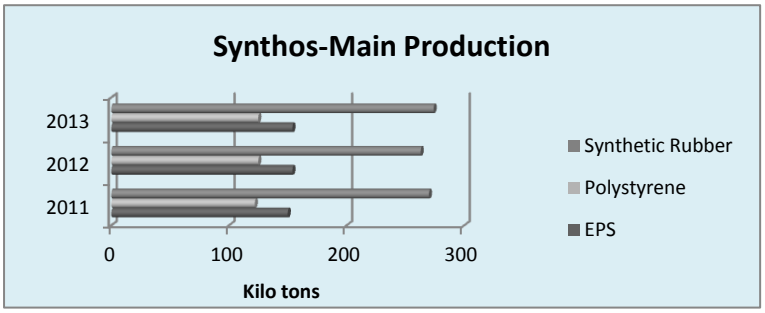
Air Products has submitted an application for securing a monetary claim against Zachem to the amount of $98.6 million. This proposal has been rejected in its entirety by the court, but Air Products filed a complaint against this decision. The claim is based on the termination of the TDA supply contract in December 2012. Ciech considers the application and the complaint unfounded, and argues that the termination was handled in compliance with the original contract. After the sale of Zachem's TDI unit from Ciech to BASF redundancies of up to 600 people were announced to take place at the end of March this year.



Synthos-butadiene contract

Synthos and its subsidiaries: Synthos Dwory and Synthos Kralupy have signed an agreement with OMV Refining and Marketing for the planned future supply of butadiene. The contract lasts until 2019 and its estimated value is zl 3 billion. The communication stated that the contract price is based on a formula that takes into account the trading price of the European butadiene monthly contract price. The agreement helps to establish a co-operation that will ensure the future supply of feedstock for the production of SSBR rubber by the Synthos Group.

Another source of butadiene is being derived by Synthos in conjunction with Global Bioenergies. The two groups have announced the discovery of a direct biological pathway to convert renewable resources into butadiene. In July 2011, Global Bioenergies entered into a strategic partnership with Synthos. The agreement aimed at developing a process to convert renewable feedstock into butadiene. It is not known yet how much butadiene could be made available, but the success of this first phase of research has triggered a €1.5million milestone payment to Global Bioenergies. The butadiene programme now enters the development phase, for which Synthos will contribute several million euros through annual fees. Global Bioenergies shall receive royalty payments from Synthos on bio-sourced butadiene used for the production of rubber. Global Bioenergies retains the exclusive rights for non-rubber applications, such as nylon, plastics and latexes.



Synthos-investment plans

Synthos will begin a programme of investment in February 2013 valued in the range of €130-135 million, which will expand its product portfolio in the next few years. One of the main projects involves the construction of two parallel lines for polybutadiene rubbers SSBR. These lines could become operative by June 2015, with a total production capacity of 80-90,000 tpa. PBR's most important use is in tyres, mainly treads and sidewalls, which account for 70% of global consumption of PBR. Regulations entering into life in 2012 (so-called tyre labelling) in the direction of the so-called green tyres with lower rolling resistance contributing to lower fuel consumption led, primarily in West Europe, to a significant increase in the demand for PBR, in particular, PBR produced using neodymium technology, which is used, among others, by Synthos Group.

Spolchemie-hydrochloric acid

Spolchemie plans to undertake an increase in the production of hydrochloric acid, and the construction of a new plant at Usti nad Labem. The company hopes to replace the old plant which is now obsolete. The investment, including the reconstruction of transport routes, will require around Kc 50 million. The new plant is being designed quantitatively and qualitatively with a greater range of production, including high purity hydrochloric acid. Despite the aim to replace the out of date plant local opposition has rallied against the prospect of a new plant being applied.

PCC Rokita-bond issue

PCC Rokita launched another public offer of bonds in December in an effort to raise zl 20 million, all part of a strategy to support investments. PCC Rokita is undertaking projects in all three major production complexes, polyols, chlorine and phosphorous compounds. In terms of revenues these divisions account for 45%, 33% and 9% respectively. These investments will help to increase sales of high-margin products such as plasticizers and stabilizers as well as the development of next-generation products.

PCC Rokita 100% subsidiary PCC Exol increased sales in 2012, helped by production from the 30,000 tpa ethoxylation plant at Plock (which started production in 2011). Plock was chosen for the new plant for non-ionic surfactants for its proximity to PKN Orlen in order to receive ethylene oxide by pipeline without the need to transport it to PCC Rokita's base at Brzeg Dolny. The capacity of PCC Rokita's ethoxylation plant at Brzeg Dolny comprises 35,000 tpa, thus giving the group 65,000 tpa in total.

Synthos plans to concentrate on synthetic rubber as the primary business, but also develop other divisions such as expanded polystyrene (EPS) and dispersions. In 2012 Synthos launched an additional production line for EPS of 20,000 tpa, and also launched a line for dispersions, increasing production capacity by about 20,000 tpa. The group expanded its range of acrylic dispersions through three new product groups, Osakryl AB 20, Osakryl AH 035 and Osakryl OSA 23NM.

For the past few years Synthos has been the star of the Polish chemical industry in terms of financial performance but has been affected in the past year by declining margins and lower volume sales. As for the market outlook Synthos expects a tough year in 2013, and could see the profits further erode.

Alwernia-melamine project

The Ciech Group has received a bid for its fertiliser subsidiary Zaklady Chemiczne Alwernia from a group comprised of Alwernia managers and employees. Alwernia is among several non-core subsidiaries earmarked for possible disposal under Ciech's divestment strategy. Following the agreement with BASF for the TDI facilities at Bydgoszcz Ciech is now looking at the options for the possible divestment of its organics division, comprising epichlorohydrin, epoxy resins and plant protection agents. Alwernia is the sole Polish producer of food-grade phosphoric acid. The company also produces chromium compounds and fodder additives. Alwernia has announced plans to launch a 2,000 tpa later this year that will produce halogen-free melamine-based fire retardants. The idea to build the plant has arisen through perceived strong demand in this product area.

RUSSIA

Russian Chemical Production (unit-kilo tons)

Product	*Jan-Nov 12*	*Jan-Nov 11*
Acetic Acid	134.9	126.6
Ammonia	12,365.0	12,716.2
Benzene	1,032.9	1,028.2
Butanols	231.7	201.2.
C Black	668.4	666.3
Caustic Soda	1,010.5	926.0
Ethylene	2,039.6	2,254.9
Methanol	3,007.0	2,768.7
PET	391.0	333.8
Phenol	252.5	223.3
Phthalic Anhydride	86.6	86.9
Polyethylene	1,255.2	1,412.4
Polypropylene	601.0	627.2
Polystyrene	313.9	291.2
Propylene	1,027.0	1,112.9
PVC	558.7	518.1
Soda Ash	2,587.8	2,584.1
Styrene	489.9	442.9

Russian chemical industry outlook 2013

The chemical industry in Russia faces a number of key issues and challenges in 2013, in particular confronting the impact of WTO entry and costs. In 2013 the Russian government will be required to start the process of cutting all the forms of support for the national chemical industry, including the reduced tariffs for gas, electricity and railway transportation. In addition, the government will end the practice of concessional lending to domestic chemical exporters.

The Russian Chemical Union (RSKh) is particularly concerned on the impact on the medium sized companies if the government proceeds with the programme to abolish subsidies to domestic producers. Fears have emerged for the collapse and bankruptcy of as many as 600 small and medium sized chemical companies, as a result of WTO integration. The RSKh is concerned about the impact on export capability due to most companies being located considerable distance from the border. As a result these companies badly need some form of discounts from railway companies in order to transport their products.

Despite the pessimism of the RSKh there are many positive aspects and benefits of global integration and some companies may adjust relatively smoothly to a new regime of costs. One prevailing argument is that removing subsidies producers will be at least better placed to identify which products are more competitive than others. It seems inevitable that the industry is likely to feel some effects from the uncontrolled growth of tariffs for energy and transport in the next couple of years. Although these rising costs will erode margins for producers possibly the biggest challenge for large parts of the Russian chemical industry include the high level of depreciation on industry equipment and the lack of processing.

For 2013 Russian Railways increased tariffs from 1 January on transport and infrastructure services on average by 12-15%. For LPGs moreover the Federal Tariff Service (FTS) has posted a draft order to increase the wholesale price for domestic use from 1 July 2013 by 15%, which would take prices to 10.058 roubles per ton. Currently, the Russian wholesale price of LPG for domestic use stands at 8,746 roubles.

Feedstocks & Petrochemical Producers

SIBUR-feedstock developments

Novatek is expected to approve the supply of feedstocks in January to Tobolsk-Neftekhim obtained from the stabilisation of gas condensate at the Purovsky plan, where capacity is currently being expanded. Novatek wants to conclude a number of deals with SIBUR to supply gas products and gas condensate for a period of twenty years from 2014 after investments have been completed.

The scope of delivery comprise up to 36 million tons of natural gas liquids. The NGL price will be determined by a formula based on the market value of the products obtained by processing natural gas liquids. Novatek plans to enter into a contract with SIBUR to transport natural gas liquids from the Purovsky plant to Tobolsk-Neftekhim and the agreement of NGL processing facilities at Tobolsk-Neftekhim.

Another transaction involves the sale of LPGs of up to 8 million tons in the period 2014-2033. The LPG price is calculated by a formula based on the definition given to the loading station of LPG prices in the export market (net of taxes and transportation costs) with the projected increase of formula components.

In December, SIBUR commissioned a low temperature condensation and distillation unit at Yuzhniy Balyk Gas processing Plant, meaning that the recovery of associated gas at the site has reached 98%. Commissioning of the new plant will produce an additional 120,000 tpa of natural gas liquids which will be transported to Tobolsk for further processing. Construction of new facility began in March 2011. Increasing

the resource base is designed to fill the product pipeline under construction Purovsky-Yuzhniy Balyk-Tobolsk-Neftekhim. Associated gas is supplied to the Yuzhniy Balyk Gas Processing Plant by Rosneft.

= Russian Gas Liquid Production (unit-kilo tons)		
	Oct-12	Nov-12
Russian Total	**576.7**	**632.1**
SIBUR-Holding	**135.1**	**161.4**
Yuzhniy-Balyk GPP	66.9	68.8
Muravlenkovo GPP	40.6	63.9
Gubkinsky GPP	27.6	28.7
Gazprom	**115.3**	**123.9**
Gazprom dobycha Astrakhan	53.5	52.3
Gazprom dobycha Orenburg	61.8	71.6
Gazprom Processing	**134.7**	**148.5**
Sosnogorsk ZSK	0.8	0.8
Surgut ZSK	119	132
ZPKT Gazprom Processing	14.9	15.7
LUKoil	**88.7**	**89.7**
Volgogradneftegaz	2.7	2.7
Langepasneftegaz	64	62.6
Korobkovsky GPZ	6.6	5.9
LUKoil-PNOS	15.4	18.5
Rosneft	**63.5**	**65.**
Otradnenskoye GPZ	13.2	12.5
Neftegorsk GPZ	28	27
Kuibyshev NPZ	10.6	7.8
Syzran NPZ	4.8	9.5
Novokuibyshevsk NPZ	6.9	8.2
TNK-BP	**5.2**	**5.4**
Orenburgneftegaz	5.2	5.4
Bashneft	**3.4**	**3.5**
Ufimsky NPZ	3.4	3.5
Tatneft	**30.8**	**34.7**
Tatneftpererabotka	22.2	26.3
Taneko	8.6	8.4

LUKoil-new GPP

LUKoil currently accounts for relatively small share of Russian gas liquid production, but is now planning to build a second line for processing at LUKoil-Permneftegazpererabotka. Construction of the second line is part of a planned upgrade of existing facilities and the additional construction of new facilities. The expected increase in the flow of raw materials for LUKoil has also necessitated the construction of a new compressor station in order to compress associated gas.

Nizhnekamskneftekhim-gas fractionating improvement

Nizhnekamskneftekhim has completed improvements in the gas fractionation plant (TSGFU) after reconstructing the separation column. This helps both the production of butadiene and hydrocarbons. Nizhnekamskneftekhim has also replaced equipment in the gas fractionation plant and has noted that the new column has helped reduced energy consumption.

Considerable amounts of work were undertaken in the latter part of 2012 for the reconstruction of ethane cracking furnaces E-BA-121 and E-BA-122. This work has been designed to increase productivity and to reduce the negative impact on the environment. The reconstruction has allowed full use of ethane, which was previously flared.

Gazprom Neftekhim Salavat, Kaustik-new ethylene pipeline

Gazprom Salavat Neftekhim and Kaustik (part of Bashkhim) have launched a new ethylene pipeline linking the EP-300 cracker at Salavat with the PVC facilities at Sterlitamak. Gazprom Neftekhim Salavat and Kaustik started construction last year of a new ethylene pipeline in order to link Sterlitamak to Salavat. This will allow the delivery of up to 20 tons per hour via the pipeline. Kaustik currently consumes only 12 tons of ethylene per hour supplied via the Volga-Urals ethylene ring which is managed by Nizhnekamskneftekhim. .

The length of the Salavat-Sterlitamak link is less than 32 km. Kaustik has repeatedly complained in recent years that Nizhnekamskneftekhim inflates transport costs and prices of raw materials. In 2006, the FAS fined Nizhnekamskneftekhim 70 million roubles for price hikes imposed on Kaustik. In view of the expansions in olefin capacity at Salavat, Kaustik requires a pipeline system that can not only deliver more ethylene to meet current VCM needs, but also future plans for more VCM-PVC capacity.

The new Salavat-Sterlitamak pipeline started in December 2012, running initially at 50% of capacity, and is expected to reach full loads of 20 tons per hour in the early part of 2013. In 2011 Gazprom Neftekhim Salavat and Kaustik signed a long term contract for the supply of 95,000 tons of ethylene over for five years with an option to renew on the same terms.

SANORS-investment plans

Samara based petrochemical holding SANORS is examining a number of projects and investments for the next few years, the most topical of which comprises the construction of a 1 million tpa cracker. Using Novokuibyshevsk as a the base for developing a large petrochemical complex SANORS wants to compete against other similar size projects at Nizhnekamsk, Tobolsk and Nakhodka where construction is already underway. The question facing the holding group is whether it can secure enough naphtha feedstock to run a large cracker and whether costs will be low enough to make production competitive. Whilst Nizhnekamskneftekhim is using predominantly naphtha for its new 1 million tpa cracker, it is well set up to receive necessary volumes from the local Taneko refinery at Nizhnekamsk and other sources.

SANORS plans to build a primary oil refining CDU VDU installation at Novokuibyshevsk with a capacity of 5 million tpa. In addition, it is planned to create a new pyrolysis production unit, with large-scale olefins and aromatics production facilities. Design work for the CDU VDU installation should be completed by September 2013. SANORS was created in the spring of 2011 on the base of Samaraorgsintez and Novokuibyshevsk Petrochemical Company. For 2012 the Novokuibyshevsk Petrochemical Company processed 580,000 tons of gas at the gas fractionation unit, in addition to 60,000 tons of TAME. Samaraorgsintez produced 70,500 tons of phenol and 47,000 tons of acetone, in addition to 83,000 tons of ethanol. Novokuibyshevsk Petrochemical Company produces para-tetra-butylphenol, and produced 7,700 tons in 2012.

Russian ethylene supply

Ethylene production in Russia increased by 6% in November over October to 235,900 tons. Kazanorgsintez increased production 1.5 times to 47,000 tons, whilst Stavrolen increased production by 17% to 29,100 tons. Despite the increase in total Russian production Tomskneftekhim reduced volumes by 12% to 21,700 tons, and Gazprom Neftekhim Salavat reduced by 8% to 24,300 tons. Russian ethylene production for the period January to November 2012 totalled 2.1 million tons, 8% down on 2011. This was due principally to the downtime at Stavrolen.

Russian Propylene Merchant Sales Nov 2012 (unit-tons)

Producer	Customer	Vol
Angarsk Polymer Plant	Tomskneftekhim	1,461
	Volzhskiy Orgsintez	510
	Saratovorgsintez	999
	SIBUR-Khimprom	482
	Omsk Kaucuk	749
	Kazanorgsintez	289
	Samaraorgsintez	814
LUKoil-NNOS	Saratovorgsintez	10,195
	Export	1,312
Omsk Kaucuk	Volzhskiy Orgsintez	264
	Plant of Synthetic Alcohol	456
	Export	1,036
	Akrilat	1,497
	Saratovorgsintez	2,223
	SIBUR-Khimprom	4,871
	Export	830
Stavrolen	Volzhskiy Orgsintez	397
Azerkimya	Saratovorgsintez	479
Total		28,864

Russian styrene, Jan-Nov 2012

Russian sales of styrene on the domestic merchant market totalled 81,600 tons in the period January to November 2012, 2% less than in the same period in 2011. November sales amounted to 8,400 tons, 15% down on October due to lower sales by Nizhnekamskneftekhim. The start-up of the ABS plant at Nizhnekamskneftekhim is expected this year to divert styrene monomer away from merchant market sales towards captive usage.

Russian propylene, Jan-Nov 2012

Russian sales of propylene on the domestic merchant market totalled 317,900 tons in the period January to November 2012, 11% up on the same period in 2011. In the same timeframe sales of propane-propylene fractions totalled 174,000 tons which was 5% up on 2011. Demand for propylene has dropped over the holiday period, holding prices in the Volga region at levels of 38,000-41,000 roubles per ton. Propane-propylene fraction exports from Russia have increased this year from the Ryazan refinery to the Linik refinery in Ukraine (both owned by TNK-BP) for polypropylene production. Regarding domestic sales of propylene monomer, LUKoil-NNOS remains the largest supplier, shipping large volumes to LUKoil subsidiary Saratovorgsintez for the production of acrylonitrile.

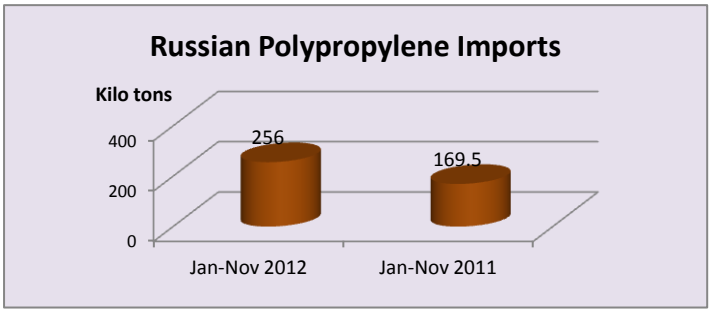
Russian propylene production totalled 1.003 million tons in January to November 2012, 9% less than in 2011. Stavrolen is starting to increase its operating level helping the supply of propylene monomer in the merchant market. November production at Budyennovsk totalled 10,300 tons which was 6% up on October. The effects of revived production mean that Stavrolen has stopped purchasing propylene from other producers whilst contributing to the amount of product available in the merchant market.

Bulk Polymers

Russian & Eurasian polypropylene market

The Russian Union of Chemists (RSKh) has put forward a case against the zero rate of import duties for polypropylene advocated by the government in compliance of the requirements of WTO accession, and also pressure from the other members of the Eurasian Economic Union namely Belarus and Kazakhstan. The RSKh believes that the imposition of a zero rate duty would be detrimental to domestic producers. At present a 10% duty applies to imports of polypropylene into Russia, Belarus and Kazakhstan which together comprise the Eurasian Customs Union.

Tariff commitments after Russia joins the WTO suggests a rate cut to 6.5% by 2014, which the RSKh believes is relatively acceptable. However, the longer term aim is to reduce rates to zero which the RSKh opposes as it undermines the activity of domestic producers such as Tomskneftekhim, Nizhnekamskneftekhim, Ufaorgsintez and the Moscow refinery. With new plants at Omsk and Tobolsk coming on stream this year, there are fears that imports could provide some challenging competition for producers.



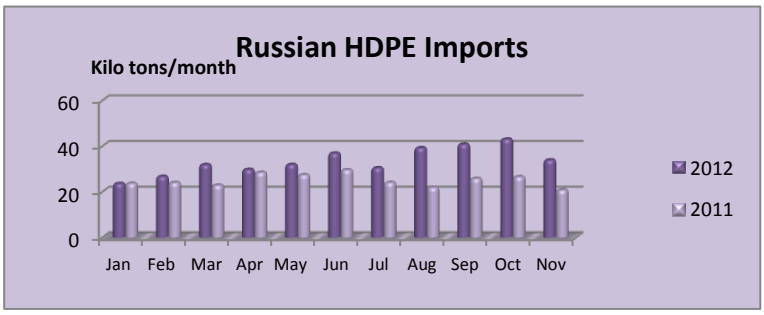
Russian polypropylene, Jan-Nov 2012

Russian imports of polypropylene totalled 256,000 tons in the period January to November 2012, 51% up on the same period in 2011. The imports of propylene homopolymer increased by 52%, while the increase in imports of block propylene copolymers was up 31%. Combined polypropylene imports to Russia decreased by 37% in November compared with October and were 18,000 tons. The decline in imports in the last part of the year was recorded in all kinds of polypropylene and was due largely to seasonal factors.

In terms of export activity Russian shipments increased 19% in November over October to 5,790 tons. The increase in domestic production, helped by the restart of the Stavrolen plant, has helped with availability. Belarus is still a major consumer of Russian polypropylene, taking 2,500 tons in November. Shipment of polypropylene in Kazakhstan increased by 42% to 610 tons, whilst export to Ukraine doubled to 430 tons. In addition, China imported 500 tons of Russian polypropylene against no shipments in October.

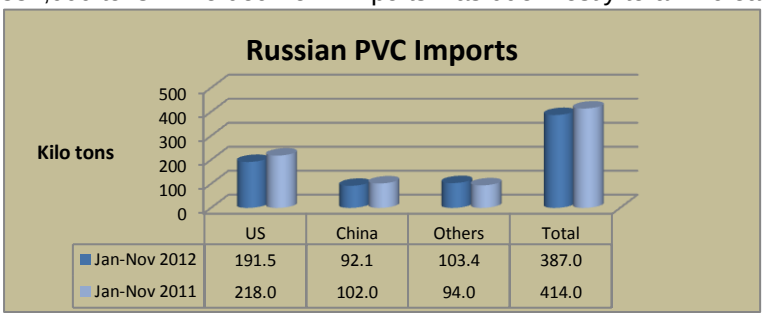
Russian polyethylene, Jan-Nov 2012

Imports of HDPE in January-November 2012 rose by 35% over the same period in 2011 and amounted to 371,000 tons. It is worth noting that since the restart of the Stavrolen cracker and HDPE plant, imports have started to drop. In November volumes dropped 27% against October to 33,900 tons. However, volumes remain well in excess of the shipments imported in 2011, indicating that many consumers continue to prefer foreign product over domestic product. Stavrolen stopped the production of HDPE for routine work in December, lasting for a few days. The company expects normal production in the first quarter in 2013, although imports are expected to remain in strong demand.



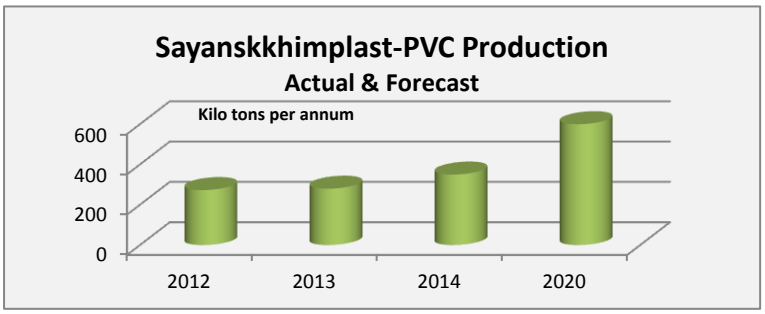
Russian PVC imports, Jan-Nov 2012

Imports of suspension PVC to Russia in January-November 2012 was down 11% vs. 2011 and amounted to 387,000 tons. The decline in imports was due mostly to an increase in domestic production, and partly due to a large inventory of PVC held in the early part of 2012 throughout the market. Imports of suspension PVC in November decreased by 28% compared with October and amounted to 35,200 tons. Imports from the US amounted to 18,000 tons in November, 28% down against October. Import volumes are expected to remain low in January and February due to seasonal demand. Supplies acetylene PVC from China fell by 32% in November compared to October and reached 10,000 tons.



The market could see some shortages in the early part of 2013 due to low inventory, but the main uncertain variable is climatic conditions and whether the converters will be capable of working. In the case of a relatively normal winter consumers could be forced to accumulate reserves and the US and China seem the most likely

sources. Ukrainian product is not possible at present as Karpatneftekhim is expected to remain idle for the first quarter.



Sayanskkhimplast-forecasts for 2013

The largest Russian PVC producer Sayanskkhimplast estimates that revenues rose almost 9.7% in 2012 to 10.2 billion roubles, although net profit declined to 1.1 billion roubles due to a rise in costs of 13.2% over 2011. Since 2008, Sayanskkhimplast states that prices of packaging materials have increased by over 70%, while the prices of some kinds of unique imported reagents by 89%.

The company has recently signed a contract with Uhde for the modernisation and expansion of the VCM monomer facilities. The original design capacity of the PVC plant was 250,000 tpa which has since been modified and expanded to 300,000 tpa. Sayanskkhimplast expects to increase the production of PVC by 5.4% in 2012 over 2011 to 273,000 tons, and caustic soda by 4.4%, to 188,000 tons. The volume of production of PVC in 2013 is expected to increase by 3% up to 280,000 tons. Production of caustic soda is expected to be at similar levels to 2012.

The main problem for Sayanskkhimplast is ethylene supply and the dependency on pipeline deliveries from Angarsk. The company could produce up to 300,000 tpa of PVC if there was sufficient ethylene. In 2010 Sayanskkhimplast introduced a new pyrolysis furnace with a capacity of 200,000 tpa of VCM, and plans to install another 200,000 tpa furnace for 2014 in conjunction with Uhde. At the same time old VCM furnaces will be decommissioned. By 2014 Sayanskkhimplast plans to increase the production of PVC up to 350-370,000 tpa, depending on ethylene supply but the most important development concerns potential gas chemical investments which allow the company to increase PVC capacity to 600,000 tpa by 2020. Sayanskkhimplast is reliant primarily on Gazprom's investments if the rise to 600,000 tpa is to take place.

Russian PET Production (unit-kilo tons)

Producer	*Jan-Nov 12*	*Jan-Nov 11*
Evroplast (Senezh)	85.7	75.1
SIBUR-PETF	86.0	68.7
Alko-Naphtha	125.3	64.9
Polief	121.2	125.1
Total	418.1	333.8

Russian PET, Jan-Nov 2012

Russian PET production totalled 418,100 tons for the period January to November 2012 against 333,800 tons in the same period in 2011. The largest Russian producer Alko-Naphtha operated its PET plant at levels of 60-65% of capacity in November and December due to a lack of seasonal demand. PTA and MEG imports dropped in these months accordingly.

The volume of imports of PET in Russia in the period January-November 2012 dropped by 46% compared to the same period in 2011 and amounted to 141,500 tons. Chinese imports of PET last year exceeded the volume of shipments from South Korea for the first time. This is due to the fact that Chinese companies have provided a significant discount (sometimes more than $50 per ton) to Russian customers in order to keep their sales rotating in a declining market.

Russia currently exports PET, but producers are trying to focus more on the domestic market with a long term target to reduce export activity. Alko-Naphtha is expected to produce more PET in 2013 than in 2012 which is expected to erode the volume of imports. Moreover, Polief is expected to expand capacity at Blagoveshchensk this year, rising from 140,000 tpa to 210,000 tpa.

Despite the rise in domestic capacity some Russian importers stated that they do not expect to completely abandon the import of Asian PET. The reason for this decision is the desire to diversify, as well as the opportunity to receive a deferred payment which may be available from domestic suppliers.

Aromatics & derivatives

Russian Xylene Production 2012 (OX&PX)							
Producer	May	Jun	Jul	Aug	Sep	Oct	Nov
Gazprom Neft	25.2	17.9	20.2	18.4	17.3	15.1	17.4
Surgutneftegaz	9.4	9.7	9.2	8.5	8.8	7.8	8.4
Ufaneftekhim	14.2	14.2	13.1	13.7	14.1	15.1	15.2
Total	48.8	41.7	42.5	40.7	40.3	38.0	41.0

Russian orthoxylene exports

Exports of orthoxylene from Russia totalled 7,700 tons in November, 5.1 times higher than in October, and 2.1 times higher than in November 2011. Gazprom Neft exported 5,500 tons in November after non-activity in October, whilst Kirishinefteorgsintez exported the other 2,500 tons. Total orthoxylene exports for the period January to November 2012 dropped 5% against 2011 to 45,600 tons. Regarding production, Gazprom Neft at Omsk remains the largest Russian producer, with paraxylene accounting for roughly 60% of monthly volumes. None of the three Russian producers posses downstream processing facilities, although Ufaneftekhim is located closely to Polief in Bashkortostan which its supplies paraxylene for the production of PTA.

Russian phthalic anhydride production

Russia produced 6,900 tons of phthalic anhydride in November, 48% up on October and 1% higher than in November 2011. Kamteks-Khimprom increased production by 70% after a maintenance stoppage, producing 5,900 tons against 3,400 tons. The other Russian producer Gazprom Neftekhim Salavat accounted for 16% of output in November, and differs from Kamteks-Khimprom in that nearly all production is consumed captively. In the period January to November 2012 Russia produced 86.600 tons of phthalic anhydride, 1% less than in the same period last year.

Russian Benzene Production (unit-kilo tons)		
Producer	***Jan-Nov 12***	***Jan-Nov 11***
Altay-Koks	26.7	32.5
Angarsk Polymer Plant	69.9	60.0
Chelyabinsk MK	16.7	14.0
Gazprom Neft	83.8	90.7
Koks	21.7	16.8
LUKoil-Neftekhim	0.0	63.0
LUKoil-Permnefteorgsintez	32.0	38.9
Magnitogorsk MK	60.1	44.8
Nizhnekamskneftekhim	164.7	169.7
Novolipetsk MK	20.6	26.2
Gazprom Neftekhim Salavat	87.6	96.1
Severstal	27.7	35.5
SIBUR Kstovo	58.5	67.8
Slavneft-Yaroslavlorgsintez	59.6	52.0
Surgutneftegaz	52.9	56.0
TNK-BP	29.9	33.8
Ufaneftekhim	76.2	66.2
Ural Steel	7.1	5.8
Uralorgsintez	66.4	55.5
Zapsib	52.7	3.0
Others	18.3	0.0
Total	1032.9	1028.2

Russian benzene, Jan-Nov 2012

Sales volumes of benzene on the Russian domestic market amounted to 65,400 tons in November, 7% up on October. Altai-Koks increased its supply of products to domestic customers by 35% in November to 8,200 tons, whilst Kirishinefteorgsintez and West Siberian Metallurgical Combine increased shipments by 30% to 5,800 tons and 5,500 tons respectively. In addition, SIBUR Neftekhim increased shipments by 26% to 8,200 tons. From January to November, domestic plants shipped 666,800 tons to the domestic market, which is the same as in 2011. Benzene production totalled 1.033 million tons in January to November 2012, slightly up on 2011.

Russian imports of benzene totalled 2,800 tons in November, 5% up on October. Samaraorgsintez increased its purchases benzene imports by 2.4 times to 1,200 tons from Yasinovsky Coke in Ukraine. At the same time, Kazanorgsintez reduced the import of Kazakh benzene by a half to 120 tons. Kuibyshevazot increased purchases by 24% to 1,500 tons. For the period of January to November Russia imported 35,300 tons of benzene which is 6% lower than in the same period last year.

Shchekinoazot-caprolactam modernisation

Shchekinoazot relaunched caprolactam production in the latter part of 2012 after modernisation which started in August 2012. The capital investment in the project amounted to about 1 billion roubles, which has been aimed at reducing the usage of hydrogen and ammonia, and reducing production costs overall by around 30%. The capacity of the caprolactam plant is 60,000 tpa; but Shchekinoazot is considering a new plant of 100,000 tpa.

The modernisation project has involved work on the unit for hydroxylamine where new equipment has been installed and the cyclohexanone unit. The modernisation of the plant was managed by the company's own technical department and the modifications are expected to be patented under the Shchekinoazot name. Two patents have been put forward, firstly for a method of cyclohexanone and cyclohexanol installation and secondly for the hydrolysis of esters in the production of caprolactam. Other aspects of the modernisation include new

centrifuges in the shop for ammonium sulphate. The company hopes to market its technology. In order to support the expanded production of caprolactam Shchekinoazot has also completed its new hydrogen plant, with the technology provided by Haldor Topsoe.

Russian Phenol Production (unit-kilo tons)

Producer	Jan-Oct 12	Jan-Oct 11
Ufaorgsintez	67.1	54.2
Kazanorgsintez	58.9	56.1
Samara	69.4	62.7
Omsk Kaucuk	57.0	56.1
Total	252.5	229.1

Russian phenol, Jan-Nov 2012

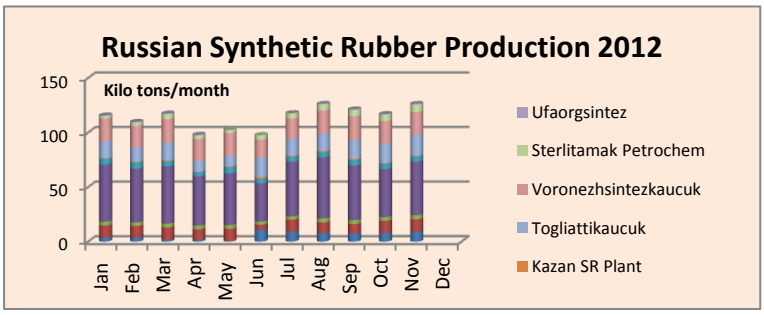
Russian exports of phenol totalled 8,300 tons in January to November 2012 against 680 tons in the same period in 2011. Higher production in 2012 was the main cause of the rise in export activity. All Russian producers increased production by some degree in 2012. The main exporters of domestic phenol remain Samaraorgsintez and Omsk Kaucuk. In November, Samaraorgsintez exported 750 tons of phenol, which was 60% of total shipments. Omsk Kaucuk accounted for the remainder of the exports or 473 tons. Poland is the main destination for Russian phenol exports, with Latvia being another. The share of exports to Latvia from Russia in November was 25%.

Sales of the phenol on the merchant market in Russia amounted to 11,000 tons in November, 1% down on October. Omsk Kaucuk sold 4,800 tons to domestic consumers, 5% up on October, whilst Samaraorgsintez increased sales by 8% to 3,500 tons. The main buyers of phenol in Russia remain phenol-formaldehyde resin and caprolactam producers, accounting for 85% of total sales. From January to November 2012 sales of commercial phenol in the domestic market amounted to 122,000 tons, 1% higher than the same period in 2011.

Polief-industrial park

Polief has signed a tripartite agreement with two parts the Bashkortostan government for the opening of the new industrial park KhimtTer. The main objectives of the industrial park are to creating new industries, as well as provide an outlet for PET production from Polief. It is expected that the park will include processing companies for production of PET preforms, PET tape, PET sheet, built the reprocessing of used and coming from the municipal waste collection services for PET bottles.

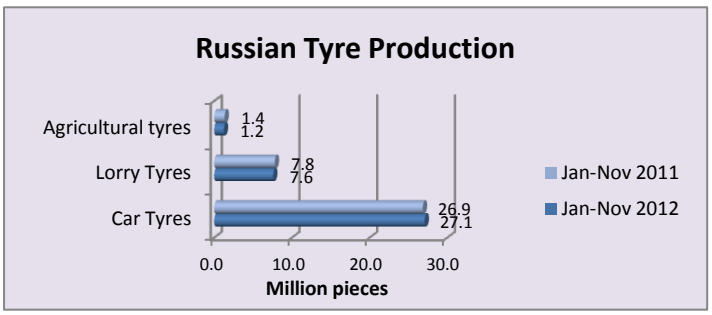
Synthetic Rubber



Russian synthetic rubber, Jan-Nov 2012

Russian synthetic rubber production totalled 1.31 million tons in the period January to November 2012, 0.7% down on the same period in 2011.

Russian exports of synthetic rubber in January-October 2012 increased compared to the same period of the previous year by 9.5% to 718,200 tons. The revenues fell by 3.7% to 2.26 billion roubles. Deliveries to non-CIS countries increased by 1.1% to 639,100 tons although revenues rose by 11% to $2.02 billion.



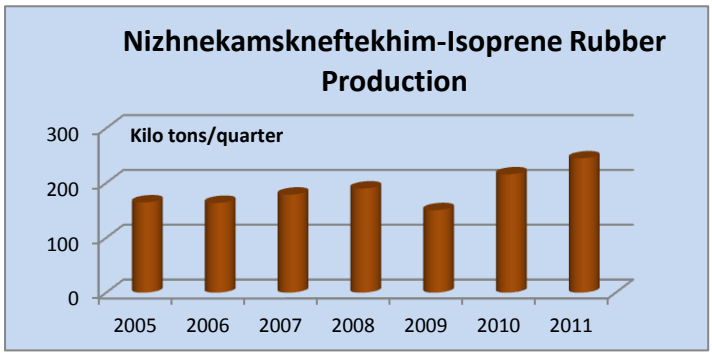
Russian tyre news

Pirelli has set a target of achieving 16% of the Russian tyre market by 2016, in conjunction with its jv with Russian Technologies. Sales growth is expected to be achieved through the production of tyres for cars and trucks of premium products, to export to the CIS countries and the EU. Currently, the partners are upgrading the assets of the jv Pirelli Tyre Russia at Voronezh Tyre Plant and Kirov Tyre Plant. It is hoped that by 2015, 60% of all manufactured at two plants will be produced tire brand Pirelli. By 2015, the total capacity of the two plants will comprise 10.5 million tyres per annum. In December 2011 to February 2012 SIBUR transferred ownership of Voronezh Tyre Plant and Kirov Tyre Plant to the jv formed between Pirelli and the state corporation Russian Technologies.

Tatneft plans to produce 14.9 million tyres in 2013 at its Nizhnekamskneftekhim subsidiary against 13 million in 2012. In March last year, Avtovaz and Nizhnekamskshina concluded a strategic partnership agreement until 2015, in which the Volga Automobile Plant is supplied around 2.5 million tyres per annum in 2013, rising to 3 million in 2014 and 3.5 million tyres in 2015. In addition, in early 2013, a jv between Tatneft and Ford Sollers plans to enter into an agreement for supply for a period of ten years.

SIBUR-Sinopec agreement awaits approval

Sinopec is still awaiting for approval by the Russian regulatory authorities for the purchase of 25% plus one share in Krasnoyarsk Synthetic Rubber Plant, which is the largest producer of high butadiene-nitrile rubbers in Russia. The company produced 39,000 tons in 2011. SIBUR and Sinopec signed an agreement in October under which the Chinese company plans to acquire a blocking stake in Krasnoyarsk Synthetic Rubber Plant. Previously, the parties signed a cooperation agreement, which is the basis for a jv for the production of nitrile rubber based at Krasnoyarsk. SIBUR and Sinopec are also discussing prospects for the establishment of a joint venture for the production of nitrile and polyisoprene rubber at Shanghai. Future production capacity will be determined after studies and evaluation of the project.



Nizhnekamskneftekhim-isoprene rubber

Nizhnekamskneftekhim went past the total of 9.0 million tons for the production of isoprene rubber (SKI-3) on 17 December from original start-up. Production of isoprene rubber at Nizhnekamsk was started on 8 October 1970 at the SKI-3 division number 1, followed by subsequent expansions in 1978 and 1980. At present, these units are combined with other products at the synthetic rubber plant, where new isoprene produced as polybutadiene (neodymium and lithium catalyst) and ethylene-propylene rubber.

Methanol & related chemicals

Russian Methanol Production (unit-kilo tons)

Producer	*Jan-Nov 12*	*Jan-Nov 11*
Shchekinoazot	405.3	288.5
Sibmetakhim	672.9	629.1
Metafrax	938.5	821.2
Akron	72.1	70.0
Azot, Novomoskovsk	274.3	258.4
Angarsk Petrochemical	18.5	14.6
Azot, Nevinomyssk	103.0	117.6
Togliattiazot	522.4	569.3
Totals	3007.0	2768.7

Russian methanol, Jan-Nov 2012

Methanol sales in the Russian domestic market increased in November against October last year due mainly to uninterrupted production at Togliattiazot. Volumes amounted to 113,500 tons in November, 30% up on October. Togliattiazot sold 26,000 tons of methanol on the domestic market in November, which was 12.5 times higher than in October.

For the period January to November 2012 domestic methanol producers shipped 1.1 million tons to the Russian market, which is broadly similar to 2011. Demand is expected to stay strong over the winter period, driven by purchases by the gas producers. Production of methanol was higher in 2012 over 2011 due largely to increases at Metafrax and Shchekinoazot. Metafrax was able to produce in 2012 with less maintenance downtime than in 2011, whilst Shchekinoazot benefited from the operations of its new 450,000 tpa plant which started up in September-October 2012. Metafrax saw better profits from methanol sales in 2012, increasing net income 1.7 times in the period January-November against 2011 to 2.081 billion roubles. Revenues from sales for Metafrax amounted to 9.998 billion roubles, an increase of 21%. The company is now focused on projects for the reconstruction of the pentaerythritol unit, and the expansion of the methanol plant which could see capacity rise by around 10%.

Russian methanol projects-Far East & East Siberia

East-Siberian Gas Chemical Company (VSGHK) expects this year to make a final decision on whether to construct a new methanol plant in Yakutia in the Russian Far East. If approved, the aim would be to construct a 1.5 million tpa methanol plant and this would take place in collaboration with consumers of methanol from Japan and South Korea. In addition VSGHK is considering plans to produce synthetic liquid fuels gas-to-liquid (GTL), involving the Japanese corporation JOGMEC. The GTL technology has been adapted by the Japanese partner to the climatic conditions of Yakutia which means working at temperatures down to -55C. A plant of 500,000 tpa could be built to produce Arctic and winter diesel fuel, and jet fuel for the domestic Russian market.

VSGHK has struggled to find a partner to develop both of these project concepts. SIBUR has declined interest due to a lack of infrastructure in the Yakutia region. This makes it very difficult to deliver large-scale equipment to the potential site and to ship final product to the marketplace. However, the management VSGHK not seem discouraged, and there is some hope that the Russian technology group Rusnano may invest $150 million in the project.

Average Russian Chemical Prices (EXW & FCA)

Product	Sep	Oct	Nov	Dec
Acetone	27000	27000	31860	31860
Benzene	35000	35000	35000	36000
Cyclohexane	75000	75000	75000	75000
Cyclohexanone	81000	81000	81000	81000
DOP	63000	63000	63000	65000
Ethylene Oxide	55500	55500	55500	55500
Formaldehyde	10000	10000	10000	10000
Isobutanol	48000	47000	47000	47000
Isopropanol	60000	60000	60000	60000
MEG	55000	55500	56000	56000
Methanol	10600	10600	14160	14160
Normal Butanol	48000	48000	48000	48000
Orthoxylene	33000	35000	35000	35000
Paraxylene	40000	42000	42000	42000
Phenol	55000	56500	56500	56500
Phthalic Anhydride	64000	64000	64000	64500
Propylene	41000	41000	35000	35000
Propylene Glycol	80000	80000	80000	80000
Styrene	63000	63000	63000	63000
Toluene	35000	35000	35000	35000

Also in the Russian Far East, the Khabarovsk administration has held talks with Marubeni over the possibility of building a methanol plant in the region based on new gas supplies. Currently, natural gas is delivered to Khabarovsk on the transmission system of Sakhalin-Khabarovsk-Vladivostok. In the next few years this pipeline will be extended to include other sources. It is unlikely that both Yakutia and Khabarovsk projects would progress simultaneously, but these discussions highlight the challenges facing such projects in this part of Russia.

Evrokhim-investment outline

Fertiliser group Evrokhim intends to invest around $513 million in the 2013-2017 period, targeted on the construction of a unit for ammonium nitrate and reconstructing both ammonia plants at Nevinomyssk and Novomoskovsk. In particular, Azot at Nevinomyssk will invest $216 million, of which $55 million will be used to increase the capacity of the ammonia unit. Investment in Azot at Novomoskovsk will comprise $244 million, which will be used for the construction of additional units and upgrades to existing weak nitric acid.

Evrokhim plans to spend $54 million in terminal development at Antwerp, and another $24 million in the development of its Siberian gas producer Severneft-Urengoy. Evrokhim is also planning to build a terminal for transhipment of mineral fertilisers at the Ust-Luga port in the Leningrad region. This terminal would have a capacity of 5 million tpa.

Ust-Luga urea project

Russian bank Vnesheconombank (VEB) has granted sizable for developing Ust-Luga, which is expected to become a key terminal and production site for feedstocks and chemicals in the Russian north-west. The loans have been granted for pre-work to create a physical infrastructure at the port of Ust-Luga in the Leningrad region and adjacent territory. Ust-Luga is starting to become an important hub for transhipment of LPGs and fertilisers. Moreover, an industrial zone and port is now being developed with investments in engineering and transportation infrastructure with a total value of up to 68.7 billion roubles.

Ust Luga-Geographical Advantages

Overall, total investments in the Ust Luga region could amount to 538 billion roubles, and this includes oil and petrochemical sectors.

The Vostok Group has started a project to [illegible]ga for the production of ammonia and urea using modern technologies. The estimated investment is placed at around $1.5 billion. Investments into the infrastructure are required creating a link from the gas pipeline Kohtla-Jarve-Leningrad and providing gas from 2016-2017 onwards. Vostok is building a plant for urea with a capacity of 1 million tpa which will require around 780 million cubic metres per annum.

Organic Products

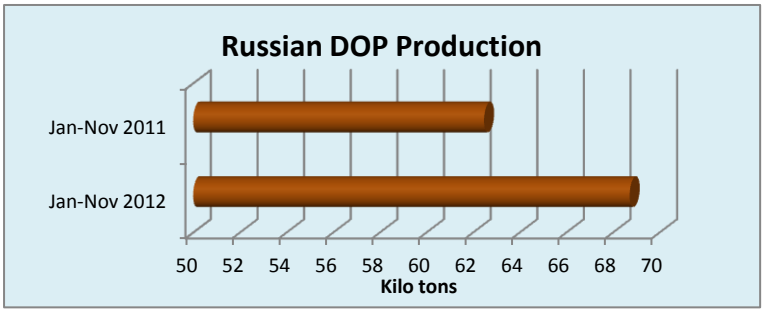
Russian Butanols Production (unit-kilo tons)

Producer	*Jan-Nov 12*	*Jan-Nov 11*
Angarsk Petrochemical	33.2	21.4
Azot Nevinomyssk	15.5	33.2
Gazprom Neftekhim Salavat	115.0	38.7
SIBUR-Khimprom	68.0	107.8
Total	231.7	201.2

Russian butanols, Jan-Npv 2012

In November, domestic sales volumes of butanol amounted to 4,850 tons which was 9% less than in the previous month. Even so volumes were 20% more than in November 2011. The share of n-butanol in the total sales volume in November 2012 was 86% and isobutanol 14%. Akrilat at Dzerzhinsk bought 1,840 tons in November, and Dmitrievsky Chemical Plant bought 1,450 tons. Overall, the Russian market for butanol purchases totalled 69,150 tons in January to November 2012, 17% up on 2011. Production of butanols totalled 231,700 tons in January to November 2012 against 201,200 tons in the same period in 2011. The share of n-butanol comprised 62% of production and isobutanol 38%.

Butanol exports totalled 146,200 tons in the period January to November 2012, 22% less than in 2011. China provided the main outlet for Russian butanol exports, whilst the largest exporter was Gazprom Neftekhim Salavat accounting for 54% of Russian shipments. November exports amounted to 6,310 tons, 56% down on October.

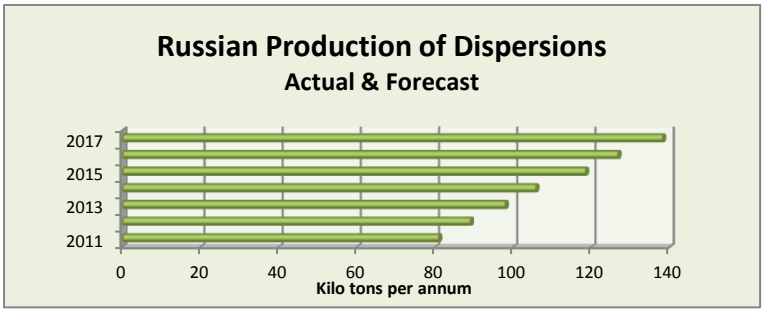


Russian DOP market, Jan-Nov 2012

DOP production in Russia increased by 37% in November against October to 7,460 tons. The growth of production was due to increased production at Kamteks-Khimprom. For the period January to November 2012 DOP production totalled 68,720 tons which is 10% up on 2011. Although this may only be a temporary trend the increase in production is due to the displacement of imported DOP from the domestic market. Gazprom Neftekhim Salavat accounted for 34% of production, Kamteks-Khimprom 28%, Roshalsky Plant of Plasticizers 24%; and Ural Plant of Plasticizers 14%. DOP imports in November amounted to 87 tons, 82% less than October with Ukraine the sole source of imports.

Russian pentaerythitol

Metafrax restarted the production of pentaerythritol at Gubakha in November after repairs. Overall, for the period January to November 2012 Metafrax produced 21,030 tons of pentaerythritol, 7% higher than the same period in 2011. The original plant for pentaerythritol at Gubakha was designed by the Novosibirsk branch of Giproplast and started production in 1982. The plant has reached the stage where modernisation is necessary, including the conversion to a more contemporary alkaline method of production. Current capacity stands at 22,500 tpa, producing two grades of product. The options are to either increase capacity of the existing plant to 30,000 tpa or to construct an entirely new plant with a capacity of 50,000 tpa. A feasibility study has is underway and when completed it should help to decide which option to follow. As part of the investment Metafrax wants to start the production of a new product dipentaerythritol.



GNS--acrylic acid project

Gazprom Neftekhim Salavat signed an EPC contract with Mitsubishi Heavy Industries, Sojitz Corporation and the Turkish company Renaissance Construction to build a complex for acrylic acid. The contract includes design criteria, integrated supply and construction of a new acrylic acid and acrylates. The new processing facility will be located at the Monomer division at Salavat, comprising 80,000 tpa of crude acrylic acid capacity and 80,000 tpa of butyl acrylate. The plant is expected to have unfolded for the fourth quarter of 2015. The sole current producer of acrylic acid in Russia is Akrilat at Dzerzhinsk which has a capacity of 35,000 tpa of acrylates. In 2011, Akrilat produced 36,000 tons of butyl acrylate, three quarters of which were exported.

The GNS project could prove to be more cost-effective than Akrilat due to presence of all the necessary raw materials in-house. Prospects for the development of the Russian market for acrylic dispersions are extremely positive. Consumption of paints is growing strongly at around 10% per annum, and it is expected that by 2017 it could reach 150,000 tons compared to 81,000 tons in 2011. Global companies account for over 50% of consumption, and thus there is good opportunity for import substitution.

Swan expands capacity of acrylic dispersions

Nizhny Novgorod company Swan has launched a new line of acrylic dispersions. The design capacity of the new line is 500 tpa of acrylic dispersions. The new line was launched in mid-September last year and is intended for the production of both old and new grades of aqueous dispersions for various industries. Swan is involved in the production of acrylic, styrene-acrylic and vinyl acetate-acrylic dispersions used in paints, textiles, nonwovens, construction and furniture industries.

Russian MEG market, Jan-Oct 2012

MEG imports from Russia increased by 2% in January to October 2012 to 32,700 tons against last year. Import purchases were dominated by Alko-Naphtha, with 93% of imports, and the largest source of imports was SABIC.

Exports were up 65% over last year in the period January to October 2012 to 63,000 tons. Belarus is the main destination for Russian MEG exports, provided largely by Nizhnekamskneftekhim and SIBUR-Neftekhim. Other destinations include CIS republics Uzbekistan and Kazakhstan.

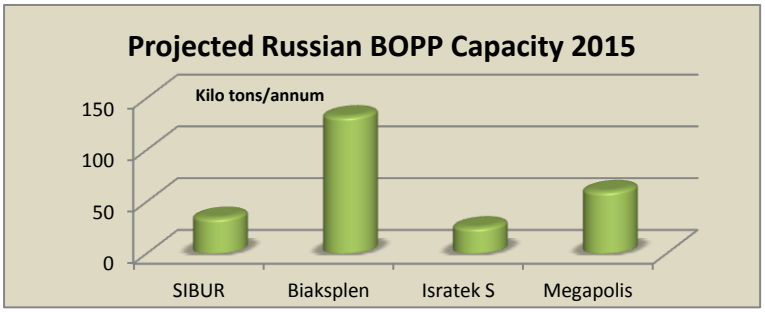
Plant Sintanol-second ethoxylate line

Plant Sintanol at Dzerzhinsk has invested 500 million roubles in the construction of an ethoxylation unit, the second phase of the investment process and bringing the total value in ethoxylates to 686 million roubles. In the first phase Plant Sintanol will produce 10,000 tpa, and eventually increase volumes in the second phase to 20,000 tpa. Ethylene oxide and propylene oxide represent the key raw materials for the ethoxylation unit, part of which will be supplied by SIBUR-Neftekhim. The project follows the start of production of sulphonated products at Dzerzhinsk last year, with a capacity of 37,000 tpa aimed at challenging imports. Plant Sintanol has worked closely with the Italian company Desmet Ballestra providing a new generation of ethoxylation reactor.

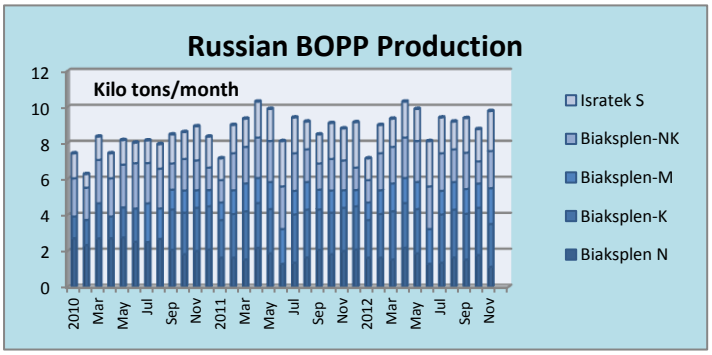
Plastics

Russian BOPP projects

Waterfall Pro, a subsidiary of the holding Megapolis Group, has begun construction of a plant for the production of BOPP at Shakhty in the Rostov region. The project cost is estimated at 3.9 billion roubles, with the capacity of the plant being designed to produce 60,000 tpa. The first phase of the company is expected to be put into operation in May 2014. Megapolis has signed a preliminary agreement for polypropylene supplies with SIBUR to ensure supply of raw materials at the time of start-up.



Plant construction involves the installation of two complete lines for the production of BOPP film. The company aims to provide BOPP for the food and processing industry in Russia, as well as export. The main scope of the company's products will comprise the packaging of food product sector, accounting for more than half of sales. Packaging of non-food products will account for about 29% of sales, according to estimates. The agreement between the company and the Rostov region was signed on 21 September. Megapolis is a diversified Russian holding, working in the energy sector, development, and light industry.



SIBUR itself is starting to implement its own project for construction of a BOPP film unit at Tomsk. Equipment for the new production unit has already been received and assembly has been started. Around 2.4 billion roubles is being invested in the project SIBUR expects that the BOPP plant being built at Tomskneftekhim will be capable of meeting around a third of the domestic market for BOPP. Biaksplen has also launched a similar sized project to build the plant BOPP film at Novokuibyshevsk. The total capacity of the new plants at both Novokuibyshevsk and Tomsk amounts to 68,500 tpa. After the project has been completed production capacity for BOPP film for Biaksplen and SIBUR will rise to 179,000 tpa, providing a stimulus to domestic polypropylene consumption.

Packaging plant-Novosibirsk

Russian company ZTE has started construction of a plant for packaging products at the Novosibirsk industrial and logistics park, and the plant is expected to be operational in late 2013. Estimated investment in the project is 450 million roubles, involving the complete cycle of production of polyethylene containers. Capacity ranges from 1 to 220 litres, with rises to one thousand litres in future.

Kamenskvolokno Revenues (Roubles)

	2009	2010	2011
Aramid Threads & Fibres	1,798,854	2,002,536	2,538,061
Polypropylene Threads & Fibres	447,411	498,528	662,613
Other Production	37,046	27,825	38,058

Kamenskvolokno-polyolefin films

Fibre producer Kamenskvolokno has completed an investment into the production of high-strength fibres of polyolefin film. Equipment was purchased from Germany, providing a capacity of 3,800 tpa at the company's main site at Shakhty near Rostov. Around nearly half of production will be directed towards polypropylene film yarn for sale on the market in Russia and the CIS. Kamenskvolokno is the largest company producing chemical fibres and yarns in Russia, produces almost 50% of the polypropylene film yarn supplied to the CIS markets (55% of output). The company also exports its products to countries Italy, France, Japan, China, and Turkey.

Other Products

Bashkhim consolidates subsidiaries

Bashkhim has taken steps to unite the Sterlitamak plants Kaustik and Soda, together with the Berezniki Soda Plant and shipping company Transneftekhim. The government of Bashkortostan is set to own 38% equity in the combined company, with Bashkhim holding a 60% majority stake and another 2% held by minority shareholders.

The advantages of combining the companies can be derived from the coordination of production and investment plans, and improving the supply chain. The group aims to reduce costs across the board for administration, energy, logistics, etc. The opportunities for funding are also improved, whilst if the holding company wanted to seek an IPO such a combined entity provides an attractive proposition for investors. The soda ash capacity of the combined company will comprise 2.3 million tpa, which is about 4% of the world total. Other products include PVC produced by Kaustik at Sterlitamak with 200,000 tpa at present, and prospects for expansion to 600,000 tpa by 2018-2019.

Khimprom-hdrogen peroxide

Khimprom at Novocheboksarsk (part of Renova Orgsintez) plans to invest 700 million roubles for the purchase of new equipment for hydrogen peroxide production. The equipment will allow an increase in the production of 50% hydrogen peroxide, from its current level of 30%, and increase the energy efficiency of the production process. The main consumers of hydrogen peroxide from Khimprom are the pulp and paper industry as well as domestic household product producers such as Procter & Gamble, Henkel, Reckitt Benckiser, etc.

Nitol-polysilicon price pressures

Nitol has taken the decision to reduce the production of polysilicon to a minimum level from the middle of December. A substantial drop in polysilicon prices in recent years, falling from $400/kg at the start of the project at Usolye-Sibirsk in 2008 to $16/kg at present. Thus, creating components for electronics and alternative energy sources has become unprofitable. Having run down the chemical production activities at Usolyekhimprom, Nitol may now have to reduce the number of employees in Usolye-Silicon. The fall in profitability is due largely to the introduction of a

number of plants in China which has tipped the market into surplus.

Together with Nitol, the shareholders Rusnano and Sberbank are considering options how to address the lack of profitability. One main option is the conversion of polycrystalline silicon, which would reduce the cost of raw materials and help plants to compete with Chinese producers. The development of such an option would require investment of about 5 billion roubles. Another view suggests maintaining low production volumes until the widely expected wave of bankruptcies in the industry takes place, which could lead to prices rising to levels of $40-50/kg by 2014-2015.

Whilst there is no certainty this scenario will happen, such a price level allows businesses to cover the costs of production, upgrade equipment and pay off creditors. The third option is to mothball the plant at Usolye-Sibirsk, but this seems the least likely route to be taken. The Scientific Council Rusnano approved the establishment of polysilicon production in 2009. The total amount of the project amounted to 19.7 billion roubles, of which Rusnano invested 13.9 billion roubles. Sberbank now owns 41.25% of the company, and Rusnano 58.75%.

3M to build plant in Tatarstan

3M is planning to construct a coatings plant in the Alabuga special economic zones (SEZ) in Tatarstan. The new production unit will be called 3M Volga, which will focus on producing glass microspheres up to 3,000 tpa and liquid anti-corrosion coatings Scotchkote (design capacity of about 6,000 litres per annum and industrial adhesive tapes. The total volume of investment is planned at 1.9 billion roubles, and will be financed by 3m's own funds. The aim would be to start production in 2014. The zone is located 210 km from Kazan and 1048 km from Moscow.

Evrokhim-new sulphuric acid plant

Evrokhim subsidiary Fosforit at Kingisepp has improved its sulphuric acid plant through the construction of a new Heat Recovery System, which will help to reduce energy costs. Construction of Heat Recovery System was conducted last year by SNC-Lavalin, and is part of the expansion in 2015 from 750,000 tpa of sulphuric acid to 1 million tpa.

Air Liquide Severstal

Air Liquide Severstal, a jv between Air Liquide and Severstal established in 2005, has successfully commissioned a plant for the production of industrial gases at Cherepovets. The productive capacity of the unit is 2,000 tons per day of gaseous oxygen. In addition to oxygen, will also produce nitrogen, argon and rare gases. The total investment in the project amounted to €50 million.

This modern air separation unit was designed and built by Air Liquide on time, within budget and in compliance with all requirements of industrial safety. Its operation will be carried out by Air Liquide Severstal. The new equipment will increase the overall production capacity of the Air Liquide Severstal at a given production area up to 5,000 tons of oxygen per day. The new air separation plant will contribute to the modernisation of the production site at Cherepovets and more stable and reliable supply of industrial gases Severstal.

This is the second joint project with Air Liquide at Cherepovets. In addition, the company is continuing to work in other regions. At Balakovo in the Saratov Region Air Liquide is building a plant for the production of industrial gases, which will supply oxygen, nitrogen and argon to Severstal-Long Product Mill Balakovo.

Air Liquide buys Lentehgaz

Air Liquide has acquired industrial gas manufacturer Lentehgaz, based in the Russian north west. The total investment in the purchase was about €40 million. Air Liquide plans to equip the new plant air separation unit for the production of liquid oxygen and nitrogen capacity of 200 tons per day. Lentehgaz controls a significant market share of liquid and balloon products and a strong position in the market for health gases. The company specialises in the production and sale of liquid and gaseous oxygen at St Petersburg, including nitrogen, argon, hydrogen, carbon dioxide, verification, technical and food gas mixtures. It also produces acetylene at Kolpino.

Praxair-Volgograd

Praxair commissioned a plant in late 2012 for industrial and medical gases at Kaustik's Volgograd complex. Construction of the plant started in 2009 at the Plastkard division, which has now been merged with Kaustik under the Nikokhim holding. .The total investment in the project amounted to around $50 million and payback is expected within five years.

Plant capacity for the air separation unit (ASU) is 400 tons of gas per day. Production of oxygen, nitrogen, argon, hydrogen, welding mixtures and specialty gases, will be delivered in a liquefied or compressed form. Kaustik is expected to be the main consumer of Praxair which will help to significantly reduce production costs and thus to increase competitiveness. Praxair intends to develop its business in Russia by building other plants in Nizhny Tagil, Rostov, and the Nizhny Novgorod region.

Belarus

Belarussian Chemical Output (unit-kilo tons)		
Product	***Jan-Nov 12***	***Jan-Nov 11***
Potassium Fertilisers	4562.5	3774.3
Nitrogen Fertilisers	739.5	566.5
Phosphate Fertilisers	198.8	160.3
Ammonia	917.9	721.5
Ethylene	215.4	131.5
Benzene	119.0	95.4
Caprolactam	109.2	120.0
Polyethylene	128.5	125.7
PET	177.4	198.6

Belarussian petrochemicals

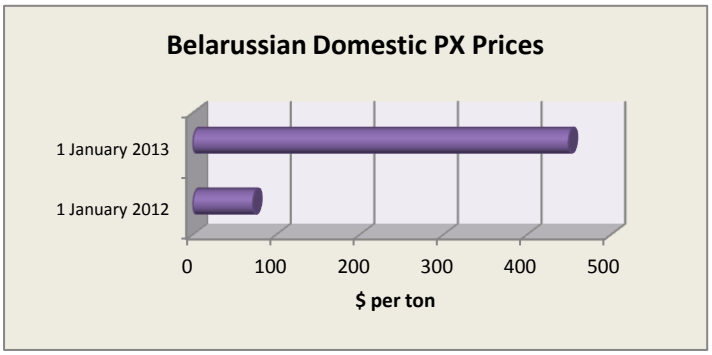
Polymir at Novopolotsk increased ethylene production 65% in the period January to November 2012 against 2011, whilst polyethylene production has remained virtually unchanged. Ethylene capacity was modernised in 2011 after the replacement of four compressors in the cracker at Novopolotsk. The polyethylene plant has also been modernised, although the capacity is unchanged.

For Belarussian benzene production, the Mozyr and Novopolotsk refineries produced 119,000 tons of benzene in the period January to November 2012, a 31% increase over the same period in 2011. The increase in operating time at the refineries was due to the modernisation of production facilities in Belarus in 2011. MTBE imports into Belarus from Russia dropped by around 25% in the period January to November 2012 to 112,000 tons. This was due in part to higher demand in the Russian market and the higher prices being asked for by Russian producers.

Mogilevkhimvolokno-electricity costs

Belneftekhim is pressing for tariffs on electricity costs to Mogilevkhimvolokno, stressing that otherwise the company will be unprofitable despite receiving in part paraxylene at low cost. According to the forecasts for 2013 unfavourable market conditions for PET, due to increasing competition from Asian producers, will mean that domestic electricity prices will result in unprofitable operations at Mogilevkhimvolokno.

Naftan at Novopolotsk provides around 75,000 tpa of paraxylene to Mogilev, which represents less than half of the requirements for Mogilevkhimvolokno, but even this was transferred free of cost the company still believes that losses would be recorded from PET operations. Belneftekhim has examined the possibility of direct deliveries of Russian electricity at lower prices which might help to circumvent the problem. Should this be agreed with Russian partners, the price for Mogilevkhimvolokno on the Russian border would be no more than $7.6 cents per 1 kWh against the rate in Belarus which is currently $14 cents per 1 kWh.



Belneftekhim in recent years has gradually increased the selling price of domestic paraxylene, particularly last year as part of the gradual convergence of the Eurasian Customs Union. The selling price of domestic paraxylene was increased from $72.5 per ton at the beginning of 2012 to $450 per ton at the end of the year. Thus, one of the extreme advantages gained by Mogilevkhimvolokno has been eroded even though the domestic price is still almost 3 times lower than the world level which stands at about $1,400 per ton.

Belarus alters investment strategy in chemical sector

Belneftekhim is seeking a partner to help invest around $1 billion in the development of new chemical facilities at Grodno, particularly for the production of ammonia, methanol, hydrogen, and urea. At the same time Belarusian authorities have opted not to build a new petrochemical complex at Polymir at Novopolotsk, which has been under the radar for some time. This decision was taken due to the lack of cheap sources of loans and investments. The complex under planning depended on the construction of a new refinery which is now not to be built after costs were estimated in value at more than $1.5 billion. Belarus instead wants to construct additional ethylene and propylene facilities at Novopolotsk of 200,000 tpa and 100,000 tpa by 2018. Other investments involve polymer plants 150,000 tpa of HDPE and 150,000 tpa of polypropylene.

In other projects a plant for the processing of chlorine-containing mineral raw materials is intended to be built by Belaruskali by the end of 2013. The aim is to develop the processing of potassium chloride and to produce new kinds of import products such as potassium alkali (50% KOH), hydrochloric acid and liquid chlorine. Moreover the

Belarusian authorities also hope to implement a project with investment of about $1 billion at Mogilevkhimvolokno together with KazMunaiGaz using paraxylene.

Ukraine

Ukrainian PVC Imports Nov 2012 (unit-tons)	
Supplier	Volume
Anwil	1,692
BorsodChem	2,196
Formosa Plastics	1,420
Oxy Vinyls	1,010
Georgia Gulf	1,008
Vinnolit	802
Ineos	769
Vestolit	1,415
Spolana	826
Slovinyl	95
LG Chem	95
Novacke Chemicke	63
Total	11,391

Ukrainian PVC imports, Jan-Nov 2012

PVC imports into Ukraine totalled 11,391 tons in November, almost half of the volume in October. A seasonal decline in demand is the main cause of the drop in imports. Karpatneftekhim is still idle and is expected to remain down for the first quarter. LUKoil believes that Karpatneftekhim should be exempt from VAT payments connected with feedstock imports and this issue seems to the stumbling block.

In the period January to November 2012 Ukraine imported 89,487 tons of PVC, 21% down on the same period in 2011. Most foreign suppliers reduced sales in 2012 aside BorsodChem which managed to increase shipments by 37%. Apart from higher production by Karpatneftekhim in 2012 over 2011, demand for PVC tended to stagnate last year due to slow activity in the construction sector. In terms of consumers in Ukraine the trader Galich Cable imported 15,100 tons last year from Anwil and 2,100 tons from Spolana. PVC produced by Oxy Vinyls was purchased by PVC profile manufacturers with the largest being Miroplast (7,790 tons). The entire volume of suspension PVC produced by Georgia Gulf was purchased by the trading house Nadia (11,400 tons). The bulk of PVC supplied by Formosa Plastics was imported by Miroplast (5,400 tons), or 90% of the total supply.

As for the outlook for 2013, the first part is expected to see imports rising particularly whilst Karpatneftekhim remains idle. From January to September 2012 Karpatneftehim produced 121,100 tons of PVC, which is almost 1.9 times more than in the same period of 2011. During 15 months of operation of the plant, from June 2011 to September 2012 Karpatneftehim managed to achieve the desired quality of PVC resin, and won the trust of domestic processors in addition to Russian and Belarusian. Karpatneftekhim accounted for 32% of the domestic Ukrainian market in the period January to October 2012 against 10% in 2011, but now the plant is idle.

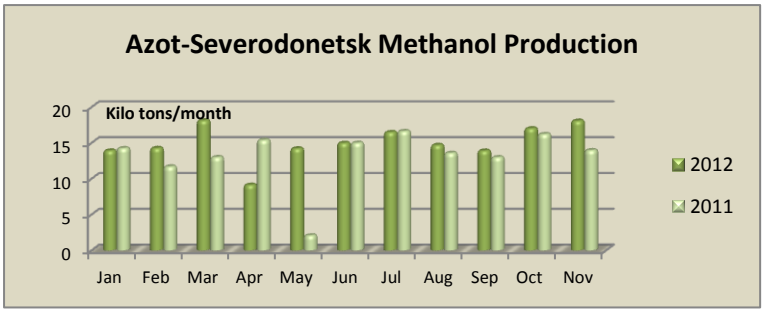
Ukrainian Chemical Production (unit-kilo tons)		
Product	***Jan-Nov 12***	***Jan-Nov 11***
Acetic Acid	132.6	131.9
Ammonia	4584.0	3720.8
Benzene (+95%)	97.7	118.9
Caustic Soda	124.2	144.5
Ethylene	128.2	170.9
Methanol	164.9	144.9
Polyethylene	54.7	93.3
Polypropylene	25.5	85.0
Polystyrene	17.2	19.5
Polyvinyl Acetate	4.1	5.9
PVC	71.4	76.3
Propylene	55.2	76.9
Soda Ash	599.7	701.3
Titanium Dioxide	136.1	141.0
Toluene	5.6	5.3

Low-cost polymer imported from the U.S, due to the lower cost of ethylene, makes it very difficult for Karpatneftekhim to compete as it uses naphtha and diesel fuel. The cost of these products about $900-1000/ton, which is much higher than the price of ethane used by US producers, particularly those from shale gas deposits. Diesel fuel and naphtha can yield 25% of ethylene, while from ethane about 50%. Unless the Ukrainian government introduces higher import duties it may be extremely hard for Karpatneftekhim to compete with US imports, but there is some hope that some action might be taken in the first quarter.

Ukrainian benzene, Jan-Nov 2012

Ukrainian benzene production continues to remain low whilst Karpatneftekhim remains out of action. Total output in November dropped 15% against October to 5,300 tons. Yasinovsky Coke reduced production by 19%, to 2,300 tons, and Zaporozhkoks by 12%, to 3,000 tons. In the period January to November 2012 Ukraine produced 94,200 tons, or 26% less than for the comparable period of 2011. A domestic consumer with growing importance is Zarya at Rubezhnoye, which uses benzene for the production of nitrobenzene.

The recent drop in domestic production has led to imports arriving from Poland. In October Polish imports totalled 1,000 tons against 400 tons in September. Azot at Cherkassy is the sole Ukrainian importer of benzene, using it for the production of caprolactam. Imports totalled 20,400 tons in the period January to October 2012, 2.1 times less than in 2011. The fall in demand from Rivneazot for the production of adipic acid is the main cause of the decline.



Ukrainian methanol, Jan-Nov 2012

Ukrainian consumers purchased 450 tons of methanol from Russia in November, 80% less than in the previous month. Shortages in the Russian market in November restricted export activity. Imports totalled 15,700 tons in the period January to November 2012, which was twice less than in 2011. At the same time production of methanol at the sole Ukrainian plant at Severodonetsk has increased from 144,900 tons to 164,900 tons.

Central Asia

Azerbaijan-chemical production Jan-Nov 2012

Chemical production in Azerbaijan rose 16.7% in the first eleven months of 2012 over 2011. In June last year Azerkimya opened a new terminal at Kulevi in Georgia for the transhipment of propylene. This allows Azerkimya to transport propylene from Sumgait to the east coast on the Black Sea for further transportation. From January to November 2012, Azerkimya produced 31,100 tons of propylene of which 38% was supplied to Russian customers. In November, Azerkimya produced 3,100 tons of propylene 27% up on October. Production of butylene-butadiene fractions in January to November 2012 totalled 82,000 tons, 82% of which was sold to Russian consumers.

UzIndoramaGasChemical-new polymer project

UzIndoramaGasChemical is planning to start building a gas chemical complex at Kashkadarya region in southern Uzbekistan in 2014. Last year a working group was assigned to expedite the development and approval for the construction of the complex. During 2013, the company hopes to finalise the pre-feasibility study for the project and establish the possible financing scheme.

UzIndoramaGasChemical is one of several jvs taking place in Uzbekistan designed to capitalise on the strong raw material base and hitherto lack of development in the domestic chemical industry. UzIndoramaGasChemical was formed as a jv between Uzbekneftegaz and Singapore's Indorama Group. The project investment amounts to around $2.5 billion involving the production capacity of 500,000 tpa of polyolefins and a construction period of three years. The project will be financed by funds raised Indorama, a loan of the Reconstruction and Development of Uzbekistan and equity of Uzbekneftegaz.

The project is to be based close to the Mubarek Gas Processing Plant, which was first put into operation in 1971. At present the capacity stands at about 30 billion cubic metres of natural gas with production of more than 570,000 tpa of gas condensate.

In addition to the project at Mubarek Uzbekneftegaz has also formed a jv with a consortium of Korean companies led by a project Kogas for construction of a petrochemical facility Ustyurt MCC based on deposit Surgil in the north-west. Its capacity will allow to process 4 billion cubic metres of natural gas a year to the production of 400,000 tpa of polyethylene and 100,000 tpa of polypropylene. The total cost of the project is $4.2 billion.

SOCAR-gas processing plant

SOCAR plans in mid-2013 to start construction of a gas processing plant in Garadag district of Baku. The company plans to complete construction by 2017 with an estimated project cost of $15 billion. The raw material for this complex will come from SOCAR's own gas fields. In addition, negotiations are underway with Total over constructing a gas processing unit. It would process associated gas from Azeri-Chirag-Guneshli, and if necessary, the gas from the Shah Deniz field. The second phase comprises the commissioning of a petrochemical complex, together with a refinery comprising a capacity of 10 million tpa.

Turkmenistan-gas chemical complex

Turkmenistan has remained relatively quiet regarding projects in petrochemicals, but has now decided that it wants to build two gas-chemical complexes in the west and east of the country for the production of polyethylene and polypropylene. The construction of the planned new complex is to be based on huge natural gas reserves, whilst the government also maintains ambitious plans to diversify the export potential of the country. A large gas-chemical complex will be built at the in the Seyidi refinery in the north-east, as well as on the coast of the Caspian Sea near the village Kiyanly. For the second project a marine terminal for storage and shipment of liquefied natural gas will be constructed to allow deliveries from the Turkmenbashi refinery.

The development of chemical facilities is intended, in part, to the need to diversify and to reduce the dependency on natural gas exports. The negative impact on the export of natural gas by pipeline routes is quite significant and the government recognises the need to move into different sectors. The construction of gas chemical complex

could take up 4-5 years and thus it is unlikely that the production of polyethylene and polypropylene would be seen prior to 2018.

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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