

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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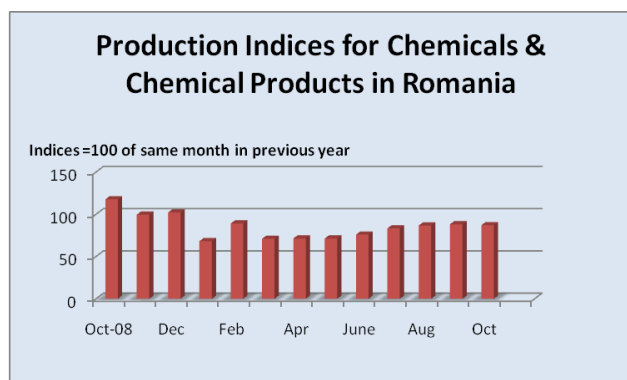
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## CENTRAL & SOUTH EAST EUROPE

### Oltchim agrees acquisition of Arpechim's petrochemical facilities

Petrom announced on 18 December 2009 that it had sold its petrochemical assets to Oltchim for €13 million (\$18.71 million), which is much lower than the transaction price of €62 million expected earlier in the year. However, the transaction also includes a restructuring of Oltchim's 112.4 million lei (\$38.44 million) debt to Petrom, which is majority owned by OMV. The transfer of these assets is based on Petrom's management decision to focus on core operations and to exit petrochemicals. The transaction grants Oltchim control of the olefin cracker at Arpechim to which is connected by pipeline. Oltchim uses ethylene for VCM production, ethylene and propylene oxide for polyols, and propylene for oxo alcohols.



Following the shutdown of the petrochemical activity at Arpechim in November 2008, Oltchim's trading activity has dropped by around 60%. The Arpechim olefin closure and impact on Oltchim significantly affected chemical industry production in Romania as shown opposite. The shutdown itself came in the early stages of the global recession, and the lack of feedstock resulted in Oltchim showing significant losses in the first half of 2009. Although for the first nine months of 2008, Oltchim recorded over €8 million in operating profit, it requires the Arpechim facilities to restart in order for turnover to return to previous levels. The petrochemical facilities at

Pitesti and Ramnicu Valcea are interlinked through the olefin pipeline system, and thus may have more chance of success under the management of one company rather than two.

### Petrom-Petrobrazii

Petrom has opted against increasing the refining capacity of its Petrobrazii unit, as previously planned, but instead will reduce it from 6 million tpa to 4.2 million tpa. The primary role of Petrom's refining business is to process domestic crude production mostly focused at Petrobrazii, but in view of the poor margins the company has decided to downsize. Petrom will invest around €1750 million between 2010 and 2014 in modernising its Petrobrazii facility. The revision of the original investment plan will lead to an impairment of around €60 million relating to costs already incurred, which will be booked in the fourth quarter of 2009.

Petrom's other crude oil processing unit Arpechim will operate solely on an "as needed" basis until 2011, depending on the prevailing margin and supply conditions. The company will then make a final decision on whether to keep operating. Petrom has decided to exit the chemicals and petrochemicals divisions, as both are non-core businesses. Petrom will divest chemicals by the end of 2010 and until then will run the operations of Doljchim on an "as needed" basis and according to the company's integration needs.

### Dioki increases polyethylene capacity

Dioki's petrochemical division DINA-Petrokemija has announced the implementation of polyethylene technology LUPOTECH T from Basell, for the production of polyethylene DINALEN at Omisalj. The new technology, which uses organic peroxides to initiate the polymerization of ethylene, would result in obtaining higher levels of stability of polymerization together with promotion of quality of DINALEN and its derivatives. The plant capacity is to be increased by 30%, or 20,000. It is predicted the production under the new technology to take place in the middle of January and the first deliveries to buyers by the end of January 2010.

### Polish chemical company equity sell-offs

As usual, there is widespread news about the privatisation of several Polish chemical companies although no deals look imminent. To recap, the Polish Treasury plans to sell its 37% stake in Ciech, 53% in Zakłady Azotowe Tarnów (ZAT) and 86% in Zakłady Azotowe Kędzierzyn (ZAK) as part of a large-scale privatisation programme. From this programme, it hopes to yield around zł 36 billion (\$12.4 billion) to help finance a gaping budget hole. PCC accordingly placed a final bid for all three, but it seems there will most likely be discrepancies between what the Treasury Ministry expects and the real bids. Other bidders on the shortlist included three companies are Lithuania's UAB Achema, National Qatar Industries Company, Polish fund Mistral and private equity investors Bain Capital and Cinven. National Qatar Industries withdrew its interest in the second half of December. Brenntag Holding has expressed interest in taking over Cheman, a

distribution unit of Ciech. In principle at least, the process of selling shares in Ciech, ZAT and ZAK owned by the State Treasury and Nafta Polska has entered the decisive stage.

PKN Orlen has reportedly received enquiries from potential bidders for Anwil, from which it expects to draw up a shortlist of serious bidders in the near future. Spolana has been put up for sale by PKN Orlen together with Anwil. Spolana is the only Czech PVC and caprolactam producer. PKN Orlen would like to receive over Kc 10 billion for the sale of Anwil, with Spolana's value making up around a tenth of the sum. Final talks with potential buyers are to begin in January. Although Anwil is seen as a key part of the Orlen group, falling earnings and rising debts are thought to be restricting Orlen's ability to invest in the expansion and to improve its efficiency. Regarding Anwil, it remains uncertain whether a suitable buyer can be found, particularly as it is a company which will need to work closely with PKN Orlen over questions of ethylene supply between Plock and Wloclawek. Despite the aim to sell Anwil, the Orlen group is continuing with several major expansion schemes, including the construction of a 400,000 tpa plant to produce paraxylene and a 600,000 tpa plant for PTA.

### Ciech, electricity contracts

Ciech completed contracts in December for the purchase of electricity for 2010. The electricity supplier is to be PGE ZELT Obrót with which the Ciech Group companies Zachem, Organika-Sarzyna, Fosfory, ZCh Alwernia and Vitrosilicon executed contracts for 2010. The total amount of electricity will exceed 450,000 MWh, and the total value for the Ciech Group will comprise about zł 103 million net. The negotiated conditions of energy purchase for 2010 will generate about zł 10 million of savings in comparison to costs in 2009. The supplies will be supplemented by an in-house electricity generation by the CHP's owned by a Group company Soda Polska Ciech.

Efforts have been made to reduce electricity costs after sales were down in the first three quarters of 2009. Revenues from the sales of fertilisers were down by 50.4% and TDI from Zachem down by 12.6%. The Group benefited from lower raw material prices for inorganic products, whilst prices for organic chemical sales rose gradually throughout the year. Conversely, sales' volumes dropped for a range of products, whilst epoxy and polyester resins faced stringer competition from Asia.

By the end of October 2009, the amount of EU funds approved for co-financing activities within the Ciech Chemical Group amounted to zł 112 million. Agreements have been concluded for projects in the soda division (Soda Polska Ciech). Other projects include zł 40 million for Organika-Sarzyna for MCPA and MCPP production and zł 27 million for Zachem directed towards new technology for the production of epichlorohydrin. The major projects for the Ciech Group include the modernisation of the power plant for the Soda Matwy Group and the construction of a steam calcinator for Uzinele Sodice Govora in Romania. Other key projects include the expansion of the TDI plant at Zachem to 75,000 tpa.

Ciech's performance improved throughout the course of 2009, after a difficult first two quarters. In the third quarter, the company observed an increase in sales of soda ash and sodium bicarbonate, rising 12% against the second quarter to total 436,000 tons. TDI sales also improved combined with polyester resins and PUR foams.

Polish Chemical Production (unit-kilo tons)		
Product	Jan-Nov 09	Jan-Nov 08
Caustic Soda	68.5	76.0
Soda Ash	816.6	1416.9
Ethylene	470.9	451.3
Propylene	326.3	333.8
Butadiene	49.3	54.3
Toluene	89.0	109.8
Phenol	30.3	41.1
Caprolactam	131.6	135.8
Polyethylene	306.4	324.0
Polystyrene	116.3	108.3
PVC	231.7	233.6
Polypropylene	235.0	229.1
Synthetic Rubber	121.9	117.9
Pesticides	18.8	31.4

### SK Eurochem-EBRD loan

The EBRD is lending €3 million to SK Eurochem in Poland to help the company adjust to new market conditions for PET. SK Eurochem produces around 130,000 tpa of PET at Wloclawek, exporting around 60% of its production to neighbouring countries. In the past year, competition in the Polish PET division has weakened considerably, thus allowing SK Eurochem to become the main producer of PET in the country. Responding to the supply gap on its local market, the company plans to expand the volume of PET sold in Poland, replacing current export sales.

The EBRD loan will finance SK Eurochem's working capital needed to provide longer-terms of payment required by Polish clients. In addition the EBRD funds will help the company diversify its sources of raw materials in order to ensure the continuity of production process. SK Eurochem was established in 2002 by SK Chemical (the second largest

chemical producer in Korea), and Anwil. Previously, the EBRD has supported the company by providing a senior loan of €13 million. In addition, EBRD currently holds an 8.7% stake in the company.

#### **Zakłady Azotowe Tarnow-Unylon**

Zakłady Azotowe Tarnow (ZAT) has reached agreement to take over Unylon Polymers, a Hamburg-based polyamide producer that filed for insolvency in April 2009. ZAT has agreed to pay a total of zł 41.5 million (€10 million), which accounts for the increase in capital and €6 million in debt. In addition to these funds, an extra €1 million will be paid for Unylon shares. Depending on creditor approval, ZAT will integrate Unylon's caprolactam polymerisation lines with capacity of 47,000 tpa into its own company structure. ZAT has a caprolactam capacity at Tarnow of 95,000 tpa and PA6 capacity of 45,000 tpa.

#### **Zakłady Azotowe Puławy-environmental projects**

Zakłady Azotowe Puławy (ZAP) and the National Fund for Environmental Protection and Water Management entered into an agreement on subsidising the construction of the wet flue gas desulphurisation unit using ammonia. The subsidy amounts to zł 20 million from the total cost zł 224 million and is one of ZAP's key environmental investment projects. The construction of the wet flue gas desulphurisation unit using ammonia will not only reduce the SO<sub>2</sub> emissions from the CHP plant, but will also increase fertiliser production potential for ammonium sulphate. The investment is planned to be completed over a period of 35 months and is aimed at reducing ZAP's environmental impact. ZAP made a net loss of zł.31 million in the first three quarters of 2009, compared to a profit of zł.150 million in the same period in 2008. The group's revenues almost halved from zł.675 million to zł.383 million. ZAP has also been granted support from EU funds. In the last financial year, four of the company's investment projects received financial support of more than zł 40 million in total as part of the operational programme infrastructure and environment for 2007–2013.

#### **NCHZ-government control?**

The Slovak government signed a Strategic Enterprises Act on 26 November, which gives the government rights to exercise control over companies such as Novacké Chemické Závody (NCHZ). NCHZ is facing bankruptcy due to a fine from the EU that it regards as ruinous, and as a result has been identified as the first company which the government intends to take over under the Strategic Enterprises Act. The loss of more than 1,700 jobs directly in this company is imminent, which could cause a chain reaction of more layoffs in companies in Slovakia supplying NCHZ.

The Slovak Economy Ministry has confirmed that creditors would decide how the bankruptcy proceedings would continue and only after the final price has been set by the market will the State try to buy these assets. NCHZ's bankruptcy followed a €19.6-million fine levied on the company by the European Commission for operating a cartel in chemicals with other companies between 2004 and 2007.

#### **Central European plastics outlook**

In Hungary, Pannunion's blow moulding operation Pannon-Effekt Ltd. has installed two new high-capacity container moulding machines at its plant at Debrecen. Combined, these machines are set to boost the plant's blown barrel and other container capacity by one million units per year.

Forecasts of improvements in the Hungarian economy by the middle of this year, made by the government, may help to arrest the decline in plastics consumption seen in the past twelve months. Hungary's petrochemicals industry has been facing a severe deterioration in domestic and export market conditions in the past year, and it has been thought that production was unlikely to return to pre-recession levels until 2011 at the earliest. However, the prospects do appear better for 2010 than 2009.

In 2009, domestic polymer consumption in Hungary dropped by around a third to 770,000 tons. Construction fell by around 11% against 2008, badly hitting PVC and polyethylene sales. Polypropylene demand has suffered, with car production significantly down in 2009. Against these negative indicators, around 75% of Hungary's polymer output is currently sold abroad so the domestic market plays a less important role for BorsodChem and TVK. External markets are expected to be better this year, but still some way off 2008 exports for polyethylene and polypropylene.

For the Czech Republic, plastics consumption is expected to be better than in 2010 than in 2009 but still confronted by difficulties. After more than a decade of annual growth rates of around 10-20%, Czech rubber and plastics processors experienced a downturn in 2009. The output was down 18.5% in Q1 2009 and 16.7% in the second quarter.

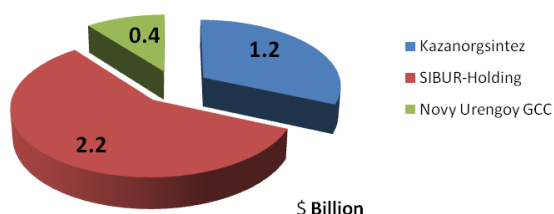
## RUSSIA

### Russian chemical market outlook 2010

Market prospects for 2010 in Russia appear considerably better than at the start of last year, although for the majority of chemical and plastics products consumption levels are still expected to remain below 2008 figures. Nearly all application areas across the industry were badly affected in 2009, and whilst markets remain difficult at least there were gradual signs in the latter part of the year that volumes were beginning to stabilise. Petrochemical prices reached their lowest ebb for a long while at the start of 2009, following the dramatic decline in oil prices and demand. Lower oil prices in the last part of 2008 sparked a chain reaction on raw material prices, including ethylene and propylene which impacted on derivatives.

The economic difficulties in 2009 led to banks backed by the government becoming far more influential in the chemical industry, both in terms of project support and helping companies to maintain operations. Sberbank extended loans and credits in excess of 60 billion roubles to some of the major chemical players including Kazanorgsintez and SIBUR-Holding. VEB has also provided large-scale support to SIBUR, in particular for the Tobolsk project, whilst also financing the Mendeleevsk ammonia and methanol complex in Tatarstan. VTB has been active in providing support to Gazprom's Novy Urengoy gas chemical project, whilst also seeking to take a 32.5% stake in Polief.

**Major Bank Credits for Russian Petrochemical Companies 2009**



Economic tightening last year helped bring about a number of important decisions from Russian companies, aimed at reducing costs, which may not have taken place under normal circumstances. One of the major developments includes the renegotiation by Kazanorgsintez for ethane supplies with Gazprom, although the company has been forced to take a substantial loan from Sberbank in order to avoid bankruptcy. From the start of December, Bashneft stopped tolling arrangements at Ufaorgsintez for polyolefins. At Volgograd, Plastkard ended trading services of ETK for PVC sales and is now selling to customers directly. SIBUR took over

responsibility of polypropylene production and sales in May at the Petrochemia division of Moscow refinery, whilst in August SIBUR purchased an Austrian trading company Citco to replace Gazprom Export for LPG and petrochemical exports.

Petrochemical producers in Russia have managed to survive the worst of the financial crisis better than some other sectors, despite witnessing sharp falls in profits in the past 12-15 months. Investment projects have in many cases been revised, pushing back planned start-up dates, whilst some ambitious project concepts have been shelved for the time being. The government or central authorities have become far more active in petrochemicals since the economy nose-dived, in terms of keeping plants running and supporting key projects such as Tobolsk and Kstovo. The need to find outlets for associated gas processing also provides a stimulus for the government to become more active in petrochemicals. As producers often state, the best way in which the government can help is by undertaking key investments in gas pipeline, road and rail infrastructure.

The major new plant to come onstream in Russia in 2009 was at Nizhnekamsk where a new 230,000 tpa HDPE unit was started in February. This year a number of projects are expected to be completed, including the HDPE plant at Salavat, the polypropylene plant at Omsk and the PET project at Kaliningrad. A variety of other projects will witness some progress, helped towards their completion dates in 2011-2013 when a number of large-scale capacity plants are set to come onstream.



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**Associated Gas/Feedstocks**

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**Gazprom's strategic plans for petrochemicals in Russian Far East**

The Institute of Oil and Gas Geology and Geophysics, part of the Siberian branch of the Russian Academy of Sciences is to undertake an analysis for Gazprom of the prospects of developing gas chemicals in East Siberia and the Russian Far East. The analysis is to take a long term view on the potential in East Siberia and the Far East, where four main regions have been identified for gas development. These include Sakhalin, Yakutia, Irkutsk and Krasnoyarsk, in each of which plans exist or are being considered to construct gas-processing and gas-chemical complexes.

The aims from these projects include maximising the production of helium, ethane, butane etc, all of which possess ready markets either at home or for export. Russia currently uses around 0.4 million tons of ethane per annum in the production of petrochemicals, but by developing ethane reserves there are hopes to be able eventually to export bulk polymers into Asia. By developing the gas industry, the premise is that Gazprom could produce between 4-8 million tpa of ethane, connected to the production of helium, that would provide the basis for low-cost petrochemicals.

**Rosneft-petrochemical plans for Far East and associated gas targets**

Rosneft's main investment plans for the Far East include the construction of a refinery at Primorsk with a capacity of 20 million tpa, together with derivative units. The company has stated that it wants to produce polypropylene and paraxylene for export to Asia, although these ideas are unlikely to become real prospects in the near future. Rosneft is also interested in the privatisation of the Naftan refinery in Belarus, which has a capacity of 10.7 million tpa. However, it may be discouraged by the efforts of the Belarussian government to sell Naftan and petrochemical producer Polymir as one package.

Rosneft will be faced by serious challenges in reaching the 95% target set by the government for utilising associated gas. The absence of Rosneft's own gas-processing plants in the Yamal-Nenets region and the lack of arrangements with Gazprom over access to its gas-transport system present difficulties in achieving 95% utilisation. Although Rosneft remains well behind Surgutneftegaz and LUKoil, which both already fully utilise their associated gas production, the company is investing huge sums over the next few years to increase the utilisation rate. In the past few years there have been consecutive annual improvements, but without gas processing facilities of its own needs to depend on other players in the market. At its largest oil subsidiary, Rosneft-Yuganskneftegaz, a new compressor was introduced on the left-bank part of the Priobsky deposit in West Siberia in late 2009.

**TNK-BP, BNP Paribas**

TNK-BP and BNP Paribas signed a memorandum on 27 November for cooperation on associated gas, consistent under the terms of the Kyoto protocol created 11 December 1997. TNK-BP and BNP Paribas intend to jointly undertake projects aimed at increasing the economic efficiency of associated gas utilisation at TNK-BP oil fields in Russia. As a first step, TNK-BP and BNP Paribas signed a contract which provides for the sale of emission reduction units generated within the Samotlor gas gathering project framework.

TNK-BP has successfully commissioned five vacuum compressor stations at the Samotlor oil treatment facilities, which allows utilisation of 90 million cubic metres of associated gas during the final stages of the oil separation process. In early 2010, TNK-BP and BNP Paribas are planning to consider further options for potential cooperation in the Orenburg region, including associated gas utilisation at the Vakhitovskoye oil field and construction of the Rodnikovskaya power plant.

**Refinery news**

Tatneft has completed the construction and water tests of a 118-km main oil pipeline, linking the Kalekino pump station in the Almetyevsk region to the Taneko refining complex under construction at Nizhnekamsk. The pipeline is routed across the Almetyevsk, Sarmanov, Zainsk, Tukai and Nizhnekamsk districts in Tatarstan. The pipeline is 720 mm in diameter which is enough to increase the pumped volume of oil eventually from 7 to 14 million tpa.

The Syzran NPZ, located in the Samara region, introduced a new hydrogen plant at the start of December 2009. The Syzran NPZ, which was taken over by Rosneft in May 2007, plans to invest around \$1 billion in the next few years to upgrade the facilities. The refinery capacity stands at 8.9 million tpa and uses oil supplied by Yuganskneftegaz, and also oil extracted by Rosneft in the Samara region (Samaraneftegaz).

Secondary processing capacities include catalytic reforming, catalytic cracking, and bitumen and gas-fraction installations.

An explosion took place at the Angarsk refinery, also part of Rosneft, on 6 December resulting one fatality. The explosion took place in catalyst and organic synthesis division although production was unaffected. Angarsk Petrochemical Company has recently completed the reconstruction of the sulphuric acid plant, increasing the capacity of 50% product to 55,000 tpa. The installation is intended for hydrogen sulphide recycling.

#### **Tatenergo sells thermal power plants to TAIF**

Tatenergo has approved the sale of the Kazan TPP 3 and Nizhnekamsk TPP to the TAIF group. The board has approved the sale of the Nizhnekamsk TPP's property worth 1.48 billion roubles and equipment worth 1.91 billion roubles, as well as the Kazan TPP 3's property worth 1.03 billion roubles and portable property worth 1.65 billion roubles. The assets are to supply energy to TAIF's two petrochemical production facilities. The Kazan TPP 3, with a 420 MW capacity, services Kazanorgsintez. The Nizhnekamsk TPP, with an 880 MW capacity, supplies power and heat to Nizhnekamskneftekhim.

#### **Tatneft-use of associated gas for energy**

Tatneft has started a corporate programme for processing of associated gas at the Minnibayevo Gas Processing Plant, primarily for usage in the production of electricity and heat. The programme covers the period 2009-2013 and involves the increase in associated gas utilisation to 98%. In 2008, Tatneft used 738.4 million cubic metres of associated gas per annum which equated to 96.4% utilisation.



Three areas have been identified, including the development of a system of gas collection and supply for processing to the Minnibayevo Gas Processing Plant, applying furnaces to heat oil, producing electric energy and heat with use of gas engine generator plants. Five gas engine generator plants with a total capacity of 1,040 kW have been installed at the oil and gas

recovery unit Yamashneft, from where transporting associated gas is difficult. The Minnibayevo Gas Processing Plant provides over 20% of ethane for Kazanorgsintez and may supply Nizhnekamskneftekhim with more feedstocks in future.

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### **Petrochemicals**

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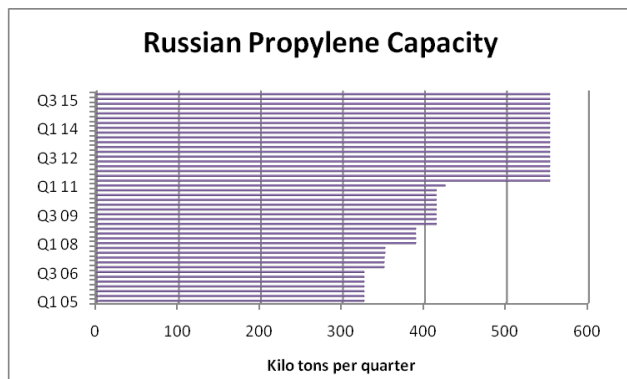
#### **SIBUR concludes EPC contracts with Tecnimont and Linde for Tobolsk project**

SIBUR has reached agreement with Tecnimont and Linde for the Tobolsk project, with the next part of the process involving the selection of a contractor for constructing a platform for the main civil work. Tecnimont is to be responsible for the PDH plant and Linde for the polypropylene plant. The large-sized equipment is planned to be delivered to Tobolsk in the 2010-2011 timeframe. Vneshekonombank and Tobolsk-Polymer concluded an agreement in December over a credit line of \$153 million for support to the construction of the propylene and polypropylene plants. The two plants are being constructed using the raw material base supplied by Tobolsk-Neftekhim, with SIBUR having agreed technology licences with UOP and Ineos.

#### **Tobolsk-Polymer, EPC awarded to Tecnimont for PDH unit**

Tobolsk-Polymer has concluded a contract with Tecnimont as the EPC contractor for the polypropylene project. The overall contract value is placed at €650 million, inclusive of the portion already committed on a cost plus fee basis. The project will be financed through an Export Credit Facility with SACE (the Italian Agency for Export Credit), although the contract only becomes effective on the date at which the Export Credit is available for disbursement. In the meantime, engineering and procurement activities are under way, funded by a cash collateral facility made available by the client.

The project involves the construction of a 510,000



tpa PDH plant and foresees that engineering and procurement will be performed on a lump-sum basis. Agreements follow the previous contract, signed in December 2007, by Tecnimont with Tobolsk-Polymer concerning the development of Front End Engineering Design (FEED) and Open Book Estimate (OBE) for the PDH project. The project will use UOP's innovative Oleflex TM technology to transform propane into propylene through dehydrogenation, comprising one of the largest plants of its type in the world. The impact on total Russian propylene capacity will be significant, as evidenced by the graphic above. Further propylene expansions and grass root facilities could be

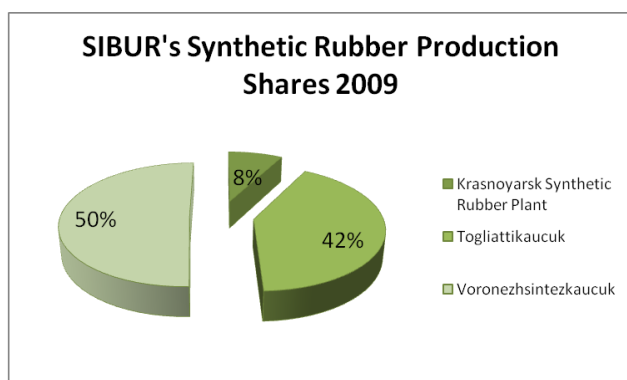
possible in Russia prior to the end of 2015, but project schedules are still only at the provisional stage.

#### Linde wins several contracts in Russia, including Tobolsk and Novy Urengoy

The Linde Group announced in December that it had won several key contracts for plant engineering and gas supply projects in Russia. Under the terms of the unrelated deals, Linde is building two olefin plants in West Siberia. In addition, the company will construct an air separation unit (ASU) to ensure the long-term on-site supply of industrial gases to a steel company in the Moscow region. The combined value of these new contracts is estimated in excess of €530 million.

Linde-KCA-Dresden GmbH (LKCA) will construct a polypropylene plant with a capacity of 500,000 tpa for Tobolsk-Polymer; for this project LKCA has already started engineering work. The company plans to deliver large parts of the new plant to Tobolsk in 2010 and 2011 and to go on stream mid 2012. Linde will also be planning and overseeing construction of a gas separation and ethylene plant for Novy Urengoy Gas and Chemical Complex (NGCC). This project is worth around €47 million for Linde. The ethane cracker will have a capacity of 420,000 tpa of ethylene, with construction already underway.

Linde has closed a long-term agreement with the steel company Kaluga Research and Production Electrometallurgical Plant (KNPEMZ), to supply the company with industrial gases at its production site at Vorsino (80 km south-west of Moscow). Linde will construct an on-site air separation unit with an investment volume of €37 million for this project. The new ASU will supply the merchant market, particularly in central Russia. It is estimated that the on-site facility will be supplying KNPEMZ with gaseous oxygen, plus nitrogen and argon for its steel mill in Vorsino by mid 2011. KNPEMZ belongs to Novolipetsk Steel. In addition to agreeing \$400 million credit with the Russian state bank VTB, Gazprom launched syndication of a \$500 million, five-year loan via Calyon and the Royal Bank of Scotland in 2008.



#### SIBUR-2010 outlook

SIBUR has indicated an aggressive approach to investments and marketing in 2010, including possible new acquisitions. The group expects some degree of demand recovery at home and abroad this year, forecasting turnover from organic chemicals to rise 10% and synthetic rubber to rise by 15%. These targets need to be balanced against significant falls in 2009. SIBUR expects to see growth in profits this year from associated gas processing, where production is expected to reach 17.5 billion cubic metres including increases in the availability of liquid fractions.

SIBUR is to continue investments into its largest projects this year, including the Kstovo and Tobolsk projects, in addition to the construction of the LPG terminal at Ust-Luga. The group has agreed to take over 50% of Biakspen which will provide an important outlet for polypropylene. The group is expected to increase its investments in this sector.

In 2009, SIBUR's production of synthetic rubber fell 29% to 339,000 tons and organic chemicals 10% to 940,000 tons. Tyre production dropped 31% to 7.36 million pieces. Profits for 2009 are expected to total 152.5 billion roubles against 173.5 billion roubles in 2008. SIBUR will benefit in future from the purchase of



Citco in Austria, which took place in mid 2009, allowing the group to export products directly rather than go through Gazprom.

### SIBUR-Russian Railways

SIBUR and Russian Railways signed an agreement in December for transport management of LPG inside Russia and for export. The purpose of the agreement is a long-term and envisages a steady increase in the volume of LPG transportation, together with the development of the appropriate transport infrastructure.



container hubs.

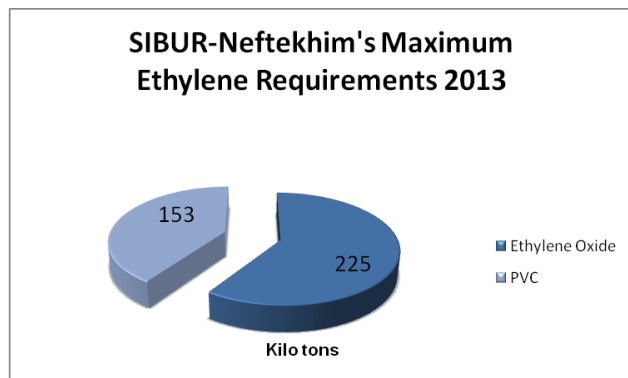
The companies aim to guarantee certain volumes of LPG transportation, as well as to develop the railway infrastructure and LPG transportation through the Ust-Luga port in the Leningrad Region. Substantial sums are expected to be invested into Ust Luga, 110 km from St Petersburg on the Gulf of Finland, into one of the country's largest oil and

### Tobolsk-Neftekhim, gas processing exceeds 3 million tons for first time

In 2009, Tobolsk-Neftekhim processed 3 million tons of SHFLU at the central gas fractionating unit, which originally was introduced in 1984. This is the first time that 3 million tons has been exceeded, after investments undertaken in recent years by SIBUR.

### SIBUR-Neftekhim-cracker expansion underway

SIBUR-Neftekhim reports that it has now embarked into the modernisation of the EP-300 cracker at Kstovo, in which capacity will be raised in the first phase from 240,000 tpa to 360,000 tpa. As stressed before, this will provide the necessary ethylene for the RusVinyl project which is aimed for completion by 2013. Based on a 330,000 tpa plant for PVC, RusVinyl will require around 153,000 tpa of ethylene for VCM production. In addition to the PVC project, SIBUR-Neftekhim is expanding its capacity of ethylene oxide at Dzerzhinsk from 240,000 tpa to 269,000 tpa thus requiring more ethylene supplied by pipeline from Kstovo. The expansion of the Kstovo cracker to 360,000 tpa has been targeted for completion the middle of 2012 although completion dates are subject to change. The ultimate target of 430,000 tpa, which is part of the second phase of expansion,



will be reviewed by SIBUR at a later date.

### LUKoil-Caspian gas processing and petrochemical project

Gazprom and LUKoil have been unable to agree a price structure for ethane and Caspian gas development, in support of the petrochemical investments at Budyennovsk. LUKoil is developing the Korchagina deposit on the shelf of the Caspian sea, which it aims to connect with the Stavropol region by pipeline over a distance of 700 km. However, the two sides cannot agree on the price of ethane and it may require some government intervention (as in the case of Gazprom and Kazanorgsintez) to ensure that a solution is found.

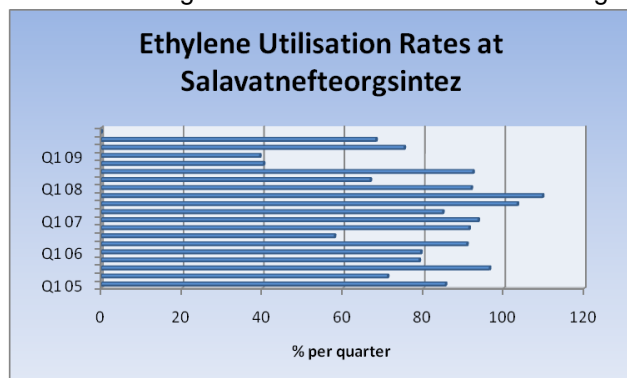
In 2009, LUKoil reconsidered the decision to locate the gas processing plant in Kalmykia, and eventually decided to relocate it at Budyennovsk. Gazprom has defined a point of connection for LUKoil not in Kalmykia, but around Georgievsk in the Stavropol region which is 100 km south west from Budyennovsk. On this pipeline, there is a gas feeding export «Blue stream», and LUKoil gas will help Gazprom guarantee to fill it. Building the gas processing plant in the Stavropol region is considered more favourable to LUKoil as the necessary infrastructure is already in place in at Budyennovsk.

The gas processing plant at Budyennovsk is to be designed to include capacities of 800,000 tpa for SHFLU and 400,000 tpa for ethane. For the further processing of SHFLU and ethane, ethylene and propylene facilities will be constructed on the Stavrolen complex. Ethylene capacity will be increased from 350,000 tpa

at present to 900,000 tpa and propylene from 125,200 tpa to 320,000 tpa. The gas chemical investments at Budyennovsk are expected to be completed in the 2015-2016 timeframe.

### Salavatnefteorgsintez-ethane furnace under construction

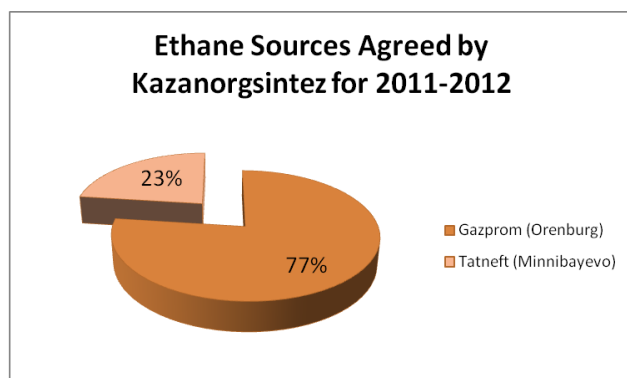
Salavatnefteorgsintez started the commissioning in December of a two chamber furnace for ethane pyrolysis at its Monomer division. This is part of the company's investment programme which will ultimately result in an increase in ethylene capacity in the Monomer division from 300,000 tpa to 380,000 tpa. As illustrated by the graphic opposite, operating rates have rarely achieved maximum loading.



In the immediate term, the furnace will help to provide ethylene for the new 120,000 tpa HDPE plant coming onstream in the first quarter of 2010. The amount of investment being undertaken in the ethane unit is estimated at 798 million roubles. The F-03AB unit is capable of using around 100,000 tons

of ethane per annum. Ethane is to be supplied to Salavat from Orenburg. Aside the expansion of ethylene capacity, the EP cracker is to be modernised to allow higher utilisation rates.

Salavatnefteorgsintez comprises five divisions, Oil Refining, Organic Synthesis, Monomer, Mineral Fertilisers and the Mechanical-Repair Factory. The Monomer division includes plants for benzene, propylene, ethylene, styrene pyrolysis resins, pentane-isoprene fractions, polyethylene and polystyrene. Part of the technology for the new furnace has been supplied by Yokogawa, whilst aside ethane the unit can utilise mixed raw materials such as ethane and SHFLU.



### Kazanorgsintez-Gazprom ethane agreement

As from 1 January 2010, Kazanorgsintez ceased operating under the tolling arrangement with Gazprom Dobysha Orenburg, following the intervention of the government in the last quarter of 2009. The new contract involves 290,000 tpa of ethane, the cost of which will be tied to the prices for polyethylene. In addition to ethane supplies from Orenburg, Kazanorgsintez has agreed to take 96,000 tpa or 23% of its ethane requirements from the Minnibayevo Gas Processing Plant under a contract agreed with Tatneft. The price agreed for the ethane is 6,750 roubles per ton, pre-VAT, based

on polyethylene prices of 30,000 roubles per ton. Since the agreement was reached polyethylene prices have rise to around 37,000 roubles per ton which will increase the ethane price to 8,325 roubles per ton.

The new contract of 290,000 tpa of ethane from Orenburggazprom to Kazanorgsintez includes the possibility of increasing volumes, if necessary. Kazanorgsintez completed the agreement with Gazprom over ethane supplies in December, following two months of discussions. Relations between the two companies have been in disruption since 2007, since Orenburggazprom halted supplies of ethane to Kazanorgsintez. Previously, 315,000 tons of ethane per annum was delivered to Kazan from Orenburg, of which half was processed into polyethylene, and half processed on a tolling arrangement for SIBUR. Partly as a result of this unfavourable arrangement, Kazanorgsintez incurred losses of 2.96 billion roubles in 2008. In November 2009, under government supervision it was agreed that the tolling arrangements would be lifted as part of the conditions of Kazanorgsintez receiving credits of 35 billion roubles from Sberbank.

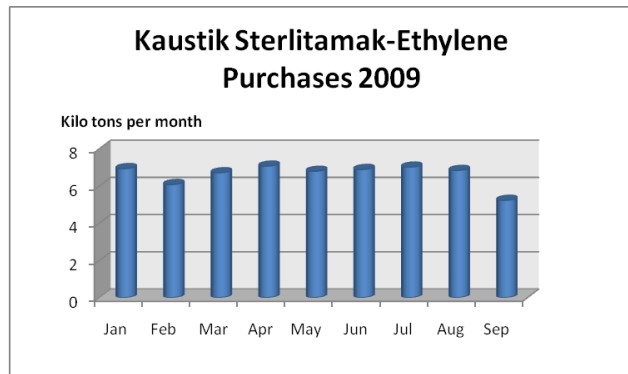
### Merchant propylene availability in decline

Merchant propylene in Russia was more available in October than in recent months, totalling 23,600 tons and bringing the total sale on the domestic market for the first ten months of 2009 to 199,600 tons, which was 17% down on 2008. The main merchant buyer Saratovorgsintez purchased 16,500 tons in October, totalling 120,800 tons for the first ten months or 10% down on 2008. Stavrolen sold 33,800 tons in the first ten months against 71,900 tons in the same period in 2008, which was lower due to the outage in the second quarter of 2009. In addition, the company has restarted polypropylene production. SIBUR-Neftekhim reduced merchant sales of propylene by 3% in the period January-October 2009 totalling 79,800

tons. At the same time, Omsk Kaucuk and the Angarsk Polymer Plant increased shipments of propylene on the domestic market by 15% and 4% respectively. Availability of propylene could become extremely tight at the end of 2010 in line with the start-up of the Omsk polypropylene project. As there is insufficient propylene at Omsk to meet the demand of the new plant, Omsk Kaucuk is expected to play an active role in the merchant market.

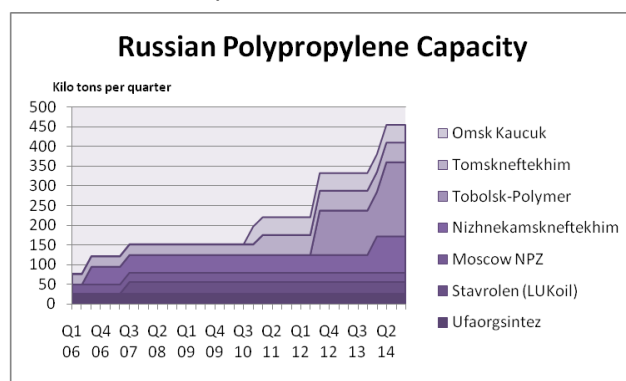
#### Nizhnekamskneftekhim-Kaustik disagreement over ethylene transport tariff

The government of Bashkortostan is requesting a reduction of the price of ethylene transportation to Kaustik. The price for transporting ethylene through Tatarstan is almost nine times higher than for transit across Bashkortostan. For the 31.8 km on the Tatarstan side of the pipeline, the cost is 1,381 roubles per ton of ethylene, whilst in Bashkortostan it is 8.8 times higher in Tatarstan.



resulting in 180,000 tpa of capacity and creating 350 new workplaces. The construction of the project on the Omsk Kaucuk site, managed by the holding company Titan, has received support from the Omsk administration and credit from Vneshekonombank. The project is worth around 4.3 billion roubles and is based on Spheripol technology.

The last two polypropylene plants to be started in Russia included the Nizhnekamskneftekhim plant in 2006 and the Stavrolen plant in 2007. The Nizhnekamskneftekhim plant of 180,000 tpa cost around \$132 million



for construction and the Stavrolen plant of 120,000 tpa cost around \$190 million. These costs equate to \$733 per ton in Tatarstan and \$1583 per ton in the Stavropol region. The capital cost of polypropylene from the Tobolsk project is expected to be much higher than either Nizhnekamskneftekhim or Stavrolen. On the other hand, the availability of cheaper feedstocks from neighbouring Tobolsk-Neftekhim will help to speed up the pay-back period.

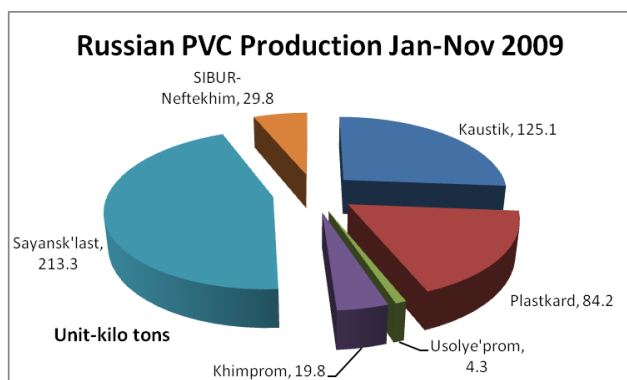
Tobolsk-Polymer is expected to become a net exporter of polypropylene, as its production will

#### RusVinyl project to start construction in 2010

The RusVinyl PVC project at Kstovo is expected to start construction in the first quarter in 2010, after a positive outcome of the project assessment was reached by domestic and foreign engineering companies in the latter part of 2009. The project includes plants for chlorine (205,000 tpa), caustic soda (220,000 tpa) and PVC (330,000 tpa), in addition to several accompanying products. The project is considered to have the necessary infrastructure, labour and power resources. The feasibility report was undertaken by Uhde which has confirmed the economic viability of the project. It has also been included by the Ministry of Industry and Trade of the Russian Federation in the so-called Strategy of Development of the Chemical and Petrochemical Industry of Russia up to 2015.

The first production stage of the PVC project at Kstovo is currently targeted for the first quarter of 2013, having been rescheduled due to a combination of changes in the PVC market over the past year combined with restrictions imposed on finance. The expansion of the Kstovo cracker, which aims to increase ethylene capacity to 360,000 tpa, should be completed by the middle of 2012. From the expanded ethylene cracker

of 360,000 tpa, of which 200-210,000 tpa is expected to be consumed in ethylene oxide production and the remainder for PVC production.



#### Russian PVC production, Jan-Nov 2009

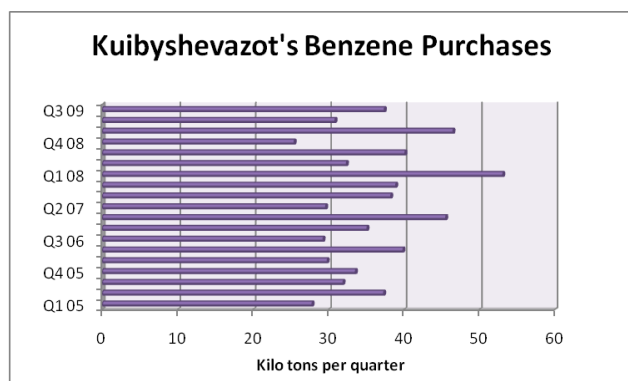
PVC production in Russia totalled 35,560 tons in November 2009, 29% less than in November 2008. Suspension PVC totalled 33,550 tons and emulsion grade totalled 2,010 tons. PVC suspension grade was affected in November by the shutdown at Plastkard and reduced operating rates at Kaustik at Sterlitamak. In total for January-November, Russian PVC production dropped 10% against the same period in 2008 to 476,210 tons.

#### Aromatics & derivatives

#### Russian benzene & orthoxylene markets

Volumes of merchant benzene on the Russian market have continued to rise in the past few months; in November, 69,300 tons were sold which was 7% higher than in October. For caprolactam production, shipments rose 4% to 29,000 tons, for phenol benzene shipments rose 29% to 18,700 tons, whilst for styrene shipments dropped 6% to 7,000 tons. For the period January-November 2009, benzene merchant sales in Russia dropped 10% to a total of 628,100 tons. Styrene was the main affected outlet due to lower demand for SBR. Caprolactam production was affected in the early part of 2009, particularly at Azot at Kemerovo, whilst falls in benzene purchases for phenol were down 5% due to the idle time at Saratovorgsintez. Amongst the producers, Nizhnekamskneftekhim significantly reduced its availability of merchant benzene in 2009 for export and domestic sales, totalling 8,500 tons against 48,500 tons in the period January-November 2008.

Russian orthoxylene sales to the domestic market dropped 15% in the period January-October 2009, totalling 84,400 tons. The main supplier to the domestic market is Gazprom-Neft at Omsk, which accounted for 52% of sales in 2009. Kirishinefteorgsintez accounted for 30% of the market and Ufaneftekhim 18%. Exports from Russia rose 18% in the first ten months of 2009, totalling 75,600 tons. The increase in orthoxylene exports has been made possible due to reduced domestic demand.



#### Kuibyshevazot-benzene jv revived

Kuibyshevazot and Magnitogorsk Metallurgical Combine (MMK) plan to revive their cancelled jv for a benzene project. The two companies had agreed in 2007 on the jv to build a 50,000 tpa benzene plant at Samara based on coal, but MMK withdrew from the jv in 2008. Kuibyshevazot has continued developing the plans, but has made limited progress and has sought to revive the jv. Investments into the benzene plant are estimated to require 1.4 billion roubles, based on raw materials supplied by MMK. The plant would reduce the dependency of Kuibyshevazot on merchant purchases of benzene

to feed its production of caprolactam, although not completely remove it as illustrated by the graphic above. It appears that MMK will take the majority share in the jv entitled MMK-Benzol, which may have been the initial stumbling block to the project. No dates are yet available for completion, but probably 2012-2013 is the earliest timeframe for construction to be undertaken and completed.

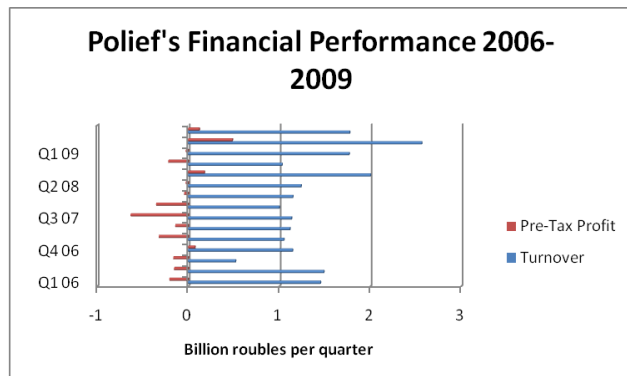
#### Russian phenol demand 2010

As phenol consumption improved during the course of 2009, the extended stoppage at the Saratovorgsintez tended to become more noticeable and the current deficit position in phenol supply is expected to continue in 2010. Imports of phenol were 30% lower in the period January-November 2009 against 2008, due more to questions of liquidity than demand. The growth in demand for phenol from bisphenol A in Russia has increased captive consumption of phenol, whilst at the same time restricting availability on the merchant market. This trend is expected to increase in 2010, even if Saratovorgsintez restarts production, and thus high utilisation rates are projected for the four operating plants in Russia.



### Polief-VTB

The Russian state bank VTB has had a proposal to purchase 32.5% minus 1 voting shares in Polief approved by the central authorities. VTB is one of the largest creditors of Polief and this will help to strengthen measures of the corporate control over the company. The stake is expected to be taken from Selena which owns 51% in Polief, whilst other shareholdings will remain unchanged. This includes 17.5% from Domestic Polymers, a JV between SIBUR and LUKoil-Neftekhim, and 32.5% from the government of Bashkortostan. Selena purchased the 51% stake from the government of Bashkortostan in 2005 in exchange for the debts of Polief.



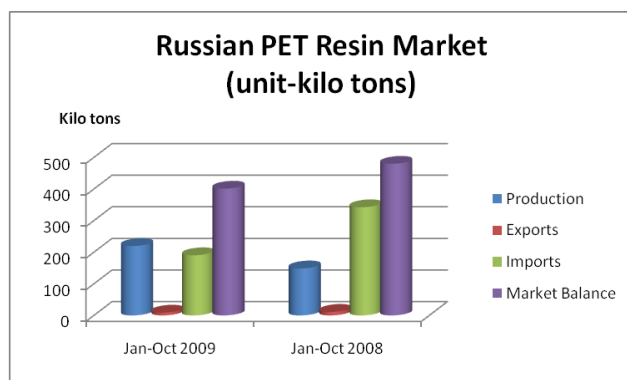
Despite the exchange of shares for debts the company has continued to incur losses. At the beginning of October 2009, Polief owed a total of 11 billion roubles of which 4.6 billion roubles is short term. VTB granted a credit line for \$200 million in 2006 for five years, and has decided that in order to clear this debt it would be better if it was involved actively in Polief. Capacities of PTA and PET at Polief are 230,000 tpa and 120,000 tpa respectively, with projects underway to increase PTA to 600,000 tpa and PET to 400,000 tpa. In the first three

quarters of 2009, Polief recorded a net loss of 1.5 billion roubles.

## Plastics

### Russian PET market 2009

Imports of PET into Russia have been affected in the past year by lower volume demand and currency factors combined with increases in domestic PET production. The PET market in 2009 was affected by the economic downturn, with small and medium sized traders witnessing falls in imported volumes and unstable prices. Imports of PET dropped to 190,400 tons in the period January-October 2009 against 342,300 tons in the same period in 2008. The main importers of PET into Russia for the first ten months of 2009 from South Korea (44%), China (26%), and Belarus (19%). The market tends to weaken over the winter months before reviving in the spring.



Whilst economic conditions restricted imports, domestic PET production increased significantly in the first ten months of 2009. Russian production totalled 219,600 tons in this period, 47.7% higher than in the previous year due primarily to the start-up of the Polief plant at Blagoveshchensk.

The start-up of the Alko-Naphtha plant is expected in the middle of 2010, based on technology supplied by Uhde Inventa-Fischer. This plant is likely to add further pressure on imports unless the output from the Kaliningrad plant is directed away from the Russian market.

The plant size of the Kaliningrad is 220,000 tpa and production will be based on imported PTA. Due to its advantageous port location, there is the potential to source PTA from a variety of suppliers. Further expansions at Senezh, SIBUR-PETF and Polief, if completed as planned, could see total Russian PET capacity rise to 930,000 tpa by 2012-2013. SIBUR-PETF wants to expand capacity from 52,400 tpa at present to 90,000 tpa, whilst Polief is expanding from 120,000 tpa to 400,000 tpa. Other projects where there is more uncertainty include Alabuga (KP Bars) and Stavropol (Appleks), particularly the latter, whilst possibilities of constructing PET facilities in the Ivanovo region are still under review.

Whilst bottles have provided the main outlet for PET resin in Russia until now, there is the possibility that the application range could start to produce fibres and threads, and films. The major producer in Russia of BOPET is the Kaluga Plant of Polymer Films which has a capacity of 18,000 tpa, but new facilities are expected to be added in due course. A consequence of the financial crisis has been the increased processing of secondary raw materials, which are 20-25% lower in cost than primary.



### Dzerzhinsk Orgsteklo-MMA

Dzerzhinsk Orgsteklo (DOS) expects to start the production of acetonecyanhydride at the end of January, as supplies from Belarus have become too expensive in the production of MMA. DOS had received around 700 tons per month of acetonecyanhydride from Polymir at Novopolotsk over the latter months of 2009, but prices rose 50% rise in the original agreement in late 2009. This made MMA production unprofitable.

Due to rising costs and using up its allocated funds, DOS suspended the production of MMA and hydrocyanic acid on 14 December. Using up funds occurred at the same time the Nizhniy Novgorod administration was carrying out negotiations with Japanese investors for the construction of a new MMA plant. A short-term solution has been found to financing allowing the plant to restart. DOS is expected to receive its first shipment of acetone from Ufaorgsintez in mid-January to enable its own production of acetonecyanhydride by the end of the month. DOS was producing 1,800 tons per month of MMA prior to the latest stoppage, and hopes that this will rise to 2,300 tons by the middle of the year and eventually 3,000 tons by the end of 2010.

### Dow starts Izolan plant

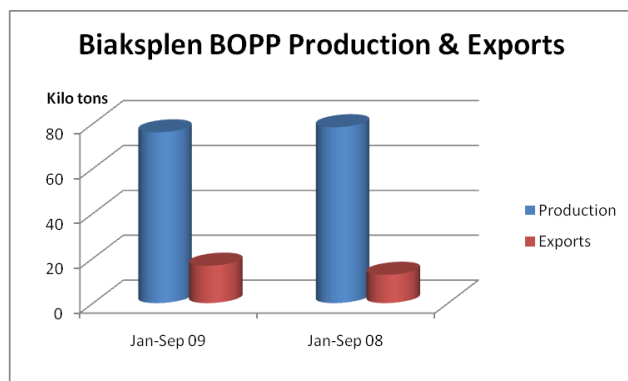
Dow Izolan officially opened its new plant for polyurethane systems at Vladimir in the fourth quarter of 2009. Construction started in the second half of 2008 and has been completed as scheduled. The capacity of the plant is 35,000 tpa and will produce a range of products hitherto not available domestically in Russia. The cost of investment has amounted to around €130 million.



### Kazanorgsintez-polycarbonate

Kazanorgsintez exported 2,900 tons of polycarbonate in November, 35% higher than in October and brought the total for the period January-November 2009 to 20,460 tons. Imports of polycarbonate into Russia totalled 28,030 tons in January-November 2009, 31% down on the same period in 2008. Imports were affected last year both by the economic downturn and the availability of polycarbonate from Kazanorgsintez.

Kazanorgsintez started the production of polycarbonate PS-075 in September and produced 364 tons by the end of 2009. Of the total production of PS-075, all but 10 tons was sold on the domestic market where previously it had not been available. The total capacity for polycarbonate production at Kazanorgsintez is 65,000 tpa, which ran at 84% in 2010. Shipments on the domestic market totalled 29,247 tons, whilst shipments sent for export totalled 25,582 tons. Domestic sales in 2010 are expected to increase as a result of Kazanorgsintez being able to replace more imported material and a slight improvement in the overall economy.



consume around 80,000 tpa of polypropylene.

### SIBUR-Biakspen deal concluded

SIBUR has concluded the acquisition of 50% in Biakspen, including its BOPP plants located in the Nizhniy Novgorod, Kursk and Moscow areas. Discussions are now underway to purchase the second half of the company. Biakspen produced 87,000 tons of BOPP in 2008 and 2009 is expected to be only marginally down on this total. SIBUR is buying Biakspen principally to provide a guaranteed outlet for polypropylene, which will be useful for current output at Tomskneftekhim and will attain further importance after the completion of the Tobolsk project. The plants belonging to Biakspen

For the first nine months of 2009, BOPP production in Russia totalled 76,100 tons which was 3% lower than in the same period in 2008. BOPP production totalled 10,600 tons in August, 4% up on the same month last year, but dropped to 6,100 tons in September due to an outage at Biaksplen. Biaksplen accounted for 61% of production in 2009 from its three plants at Kursk, Moscow and Nizhniy Novgorod. Other producers Novatek-Polymer accounted for 21% and Isratek S for 19%. Russian exports of BOPP totalled 16,670 tons in the first nine months of 2009, 32% up on last year. Biaksplen accounts for around 65% of all BOPP exports, with the main destinations including Ukraine, Poland and Kazakhstan.

## Organic chemicals

### Metafrax overturns pentaerythritol stoppage

Metafrax has altered its earlier decision to close the pentaerythritol plant for a three month outage at Gubakha in January. The company has decided to continue operating although reducing the operating rate. In the period January-November 2009, Metafrax produced 11,600 tons of pentaerythritol which was 40% lower than in 2008.

### Russian acetone market, January-October 2009

Russia supplied 43,800 tons of acetone to the domestic market in the period January-October 2009, 19% less than in the previous year. Production increased in October after the restart of the Omsk Kaucuk plant. The main reason for lower sales on the domestic market in 2009 was the stoppage of the MMA plant at Dzerzhinsk Orgsteklo (DOS). Kazanorgsintez and Ufaorgsintez have reduced sales on the domestic market in the past year due to increases in captive consumption, whilst Samaraorgsintez has been more focused on export activity. Amongst the producers, only Omsk Kaucuk has increased sales on the domestic market in 2009, selling 10,900 tons in the period January-October against 2,300 tons in the previous year. Omsk Kaucuk previously sold most of its acetone to Polymir in Belarus for the production of acetonecyanhydride, but demand has been down this year.

### Russian butyl & ethyl acetate markets, Jan-Oct 2009

Butyl acetate consumption in Russia dropped in 2009 due to lower purchases from the paint industry, falling by 28% to 8,400 tons in the period January-October against 2008. Russia exports a large part of its butyl acetate production which dropped 6% to 37,900 tons in the first ten months of 2009. Production was affected by the shortage of butanols in the early part of 2009, although recovered later. Exports rose 3% to 29,500 tons in the period January-October 2009.

Russian Butyl Acetate Market (unit-kilo tons)				
	Jan-Oct 09	Jan-Oct 08	2008	2007
Production	37.9	40.3	51.9	66.5
Exports	29.5	28.6	31.6	47.2
Domestic Sales	8.4	11.7	20.3	19.4

Ethyl acetate production volumes are lower in Russia than butyl acetate, with domestic consumption accounting for most of the sales. The largest Russian exporter traditionally is the Ashinsk chemical plant, but due to market conditions

has been selling more product domestically in the past year. For the period January-November 2009, Russian exports of ethyl acetate were reduced to 2,970 tons in comparison to 9,760 tons in 2008. Exports of ethyl acetate from Ukraine dropped two fold to 11,520 tons.

### Russian isopropanol

The Plant of Synthetic Alcohol at Orsk in the south Urals is the major producer of isopropanol in Russia, controlling 60-65% of the market. The plant is owned by the Sodium Group, based in Cyprus, which has recently agreed the sale of Berezniki Soda to Solvay. The other producers in the CIS include Sintez at Dzerzhinsk and Azerkhiymia at Sumgait. Sintez has the advantage of being close to the main end-users, and has recently increased its capacity from 700 tons per month to 2,000 tons per month. In 2008, the Plant of Synthetic Alcohol produced 27,832 tons of isopropanol, but reduced operating rates to around 25,000 tons in 2009.

## Synthetic rubber

### SIBUR plans extra capacity for thermoelastomers at Voronezh

Voronezhskintezkaucuk has produced its first trial shipment of butadiene-styrene rubber (DSSK) which is to provide the basis for the production of green tyres. DSSK will undergo tests at the Russian and

international tyre manufacturers, including SIBUR-Russian Tyres, Continental, Nokian, etc. If tests prove successful, production will be increased in accordance with demand.

In the first ten months of 2009, Voronezhskintezkaucuk produced 135,504 tons of synthetic rubber which was 30% lower than in the same period in 2008. In recent months, the company has restarted the production of certain types of thermoelastomers in 2009, including DST-30-814 for the production of composites and DST-30-58 and DST-30R-48 which can be used for polymer-bitumen mixes. In December, the company restarted DST-45 PM production for usage in shoe compositions.

SIBUR plans to start the construction of additional capacity for butadiene-styrene thermoelastomer production at Voronezhskintezkaucuk in 2011. Preparation of the project documentation is expected to be completed this year, with the plant intended with a capacity of 120,000 tpa.

#### **Russian tyre news**

In the first eleven months of 2009, Russia exported 7.4 million tyres which was 7% more than in 2008. The main increase came from car tyres which rose 19%, whilst lorry and tractor tyres dropped 8% and 26% respectively. Exports have increased as domestic demand dropped significantly, particularly in the first part of 2009.

A solid metal cord tyre plant was launched at Nizhnekamskshina in December, the first of new generation tyres to be produced in Russia. The tyres are being produced by equipment supplied through Continental's technology, aimed at bus and truck tyres. The rubber compound production technology involves silicon, which ensures high quality and excellent usability. Until now, such tyres have been imported into Russia. The tyres will be used by Kamaz, at nearby Naberezhne Chelny, from the plant at Nizhnekamskshina with a capacity of 1.2 million tyres per annum.

The new tyre's chief property is a steel cord used in the carcass and belt, which enhances their durability and provides better speed characteristics. Based on estimates, the demand for solid metal cord tyres in 2010 in Russia could reach 1.7 million pieces. Nizhnekamskshina became the strategic supplier of car tyres for AvtoVAZ in 2009.

In the latter part of 2009, Pirelli and Russian Technologies signed an agreement to create a JV for the production of tyres and steelcord in Russia. The new industrial hub will be established at the Togliatti Industrial Technology Park (Samara region). The hub establishment will begin as soon as the Russian authorities decide upon the area for production of automotive components, which is expected in the second half of 2010. The new factory will be built in two phases, the first of which includes a factory for radial tyres for industrial vehicles. The second phase envisages a factory to manufacture steelcord. The new \$453.4 million plant is expected to possess an annual capacity of 4 million units.

Pirelli shipped around 800,000 car tyres to Russia in 2008, although this was reduced dramatically in the first half of 2009 to around 40,000 tyres. Pirelli has decided to go ahead with the project despite the poor results last year. In addition to the plan already announced by the parties, the agreement envisages that the 50/50 JV aims to make the possible acquisition of former facilities belonging to Amtel-Vredestein at Voronezh and Kirov.

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### **Inorganic chemicals**

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#### **Solvay-Soda Berezniki**

Solvay hopes that the purchase of Soda at Berezniki will go through in the near future, as most of the documentation is in place. Uncertain reports started to emerge in the latter part of 2009 that the board of Soda at Sterlitamak had approved the purchase of Soda at Berezniki, and its integration into Bashkiria Khimya (Bashkim). This announcement came despite the fact that the current owner of Soda Berezniki has already agreed the about sale of shares to Solvay.

Bashkim has been managing Soda Berezniki under an administration arrangement since 2007, and this was terminated as from 1 December 2009. The aim of Soda at Sterlitamak to approve the purchase of its Berezniki competitor came as a total surprise to Solvay and the Sodium Group. Apparently offers were made by Bashkim for Soda Berezniki in 2009, but were not as attractive as placed by Solvay and were thus rejected.

## Methanol

**Russian methanol rail tariffs**

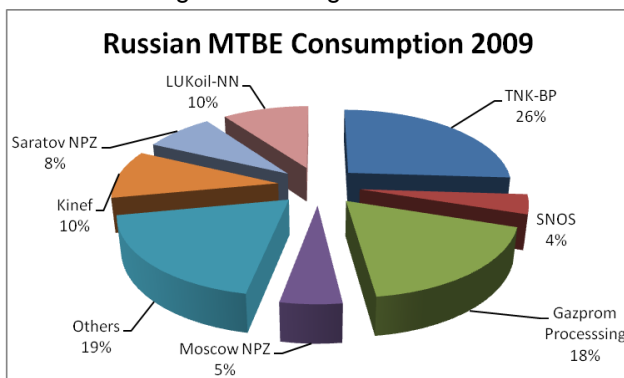
The Federal Service on Tariffs has confirmed that discounted for rail costs for methanol export shipments in 2010 should be applied on the same basis as in the fourth quarter in 2009. For Metafrax, this discount amounted to 14%, after the company had pressed for reduced costs from the start of the year. This was under the premise that methanol export prices had dropped below the level where transport costs were justifiable, and reductions were needed. Although Metafrax appreciates the 14% discount, it believes it should be higher.

The decision on tariffs follows requests from Metafrax and Evrokhim for an extension of lower rail costs for methanol exports. Evrokhim ships methanol through the rail stations Maklets (Moscow), Buslovsky (St Petersburg) and eventually to Kotka in (Finland). Discounts of 29% will equate to savings of about \$18 per ton, but Evrokhim is required to export no less than 100,000 tons in 2010 to keep the discount intact. Metafrax should receive a discount of 14% for shipments from the Ugleursky station, with volumes of no less than 300,000 tons required in 2010.

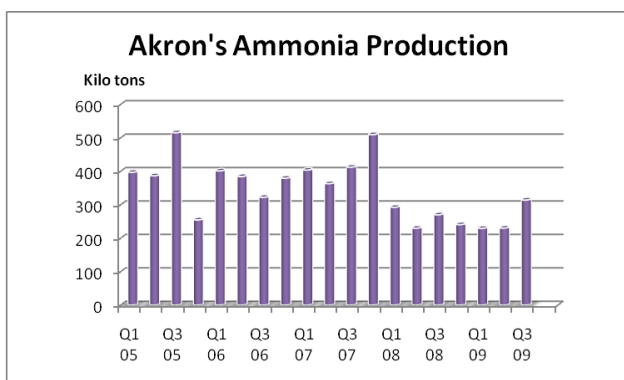
The fall in methanol prices and demand have affected exports in the past 15 months, and yet rail tariffs have remained high, at least until discounts were introduced in August 2009 by Russian Railways for export shipments from several rail terminals. Exports of methanol from Russia dropped 60% in the period January-November 2009 against the same period in 2008, but are expected to see some sort of recovery in 2010 partly due to the reduced tariffs. At the same time, domestic consumption of methanol is rising, and producers ultimately hope to rely less upon export trade. The main Russian methanol exporter in 2009 was Sibmetakhim, followed by Metafrax.

**Russian MTBE market**

MTBE consumption in Russia totalled 297,400 tons in the period January-October 2009, 6% up on 2008. Exports rose 10% in the first ten months of 2009 to 243,500 tons. Domestic demand in Russia is expected to rise in the short term. The main domestic consumers include the Ryazan refinery, Gazprom Processing, LUKoil-Nizhnegorodnefteorgsintez and Kirishinefteorgsintez. These four companies accounted for 65% of



consumption in the first ten months of 2009. LUKoil-Nizhnegorodnefteorgsintez at Kstovo increased its purchases by 30% in 2009, whilst Kirishinefteorgsintez increased purchases by 18%. MTBE production in Russia is dominated by SIBUR-Holding which produces at five individual plants, accounting for 61% of the domestic sales in the first ten months of 2009. Titan at Omsk accounts for another 24% of the market. In terms of projects, Titan is expanding its capacity at its Omsk Ekooil site from 200,000 tpa to 330,000 tpa, whilst amongst other producers Uralorgsintez plans to expand capacity to 300,000 tpa from 150,000 tpa.

**Akron-Sillamjæ terminal**

Akron has started operating the Sillamjæ terminal for the transfer of ammonia and liquid fertilisers at Baltic Chemical Terminal (BCT). The first shipment of 11,640 tons was made on 10 December. The terminal has two tanks with a capacity of 30,000 tons for storage of ammonia, and three tanks with a capacity of 20,000 tons of urea-ammonia mix.

BCT is a terminal facility for ammonia and liquid mineral fertilisers with its own deep-water berth at Sillamjæ. The facility is located in a non-freezing

area of the Baltic Sea and operates year-round, servicing vessels with a capacity of up to 40,000 tons.

Akron exported 217,000 tons of ammonia in 2008 and is the largest Russian exporter. Akron increased ammonia production 9% in the first three quarters of 2009, with nitrogen fertilisers rising 26%. The company's pre-tax profit fell 22% to 28.355 million roubles, whilst the EBITDA dropped 69% to 5.059 million roubles. The three companies in the Akron group include Akron at Novgorod, Drogobuzh in the Smolensk region and Hunzhi-Akron in the Shandong Province in China. Logistics are conducted from its own railway cars and three transshipment terminals in the Baltic ports at Kaliningrad, Sillamj e and Muuge (Estonia).

#### **Togliattiazot's production under pressure from gas prices**

Rises in prices for gas in Russia poses a threat to profitability at Togliattiazot (TOAZ) and could halt production for ammonia, methanol and urea. TOAZ consumes around 6 billion cubic metres of gas per annum, the price of which was expected to rise from the start of 2010. Around half of gas supplies come from Samararegiongaz, and the other half is supplied from outside the region. The tariff Gazprom charges independent organisations to transport gas is scheduled to rise 12.3% in 2010. An increase of 12.3% would put the tariff for gas transportation to domestic customers at 41 roubles per thousand cubic metres per 100 kilometres and 45.4 roubles for exports.

#### **Azot receives first equipment for melamine plant**

Azot at Nevinomyssk has been supplied with the first part of the equipment for its new melamine project, with delivery made by Bertrams. The equipment has already received the certificate GOST P which confirms its conformity to requirements and the specifications operating in Russia. The melamine plant will have a capacity of 50,000 tpa, with start-up planned for 2011. Total costs in the project are expected to reach around six billion roubles.

### **Ukraine**

#### **Ukrainian Chemical Production (unit-kilo tons)**

Product	Jan-Nov 09	Jan-Nov 08
Acetic Acid	76.3	146.3
Adipic Acid	0.0	27.8
Ammonia	2785.1	4702.6
Benzene (-95%)	169.9	213.1
Benzene (+95%)	69.9	139.5
Caprolactam	17.0	43.1
Caustic Soda	41.7	75.4
Ethylene	0.0	85.0
Formaldehyde	20.2	76.7
Methanol	60.2	161.5
Polyethylene	0.0	48.4
Polypropylene	91.4	76.0
Polystyrene	19.3	34.8
Polyvinyl Acetate	4.8	9.3
Soda Ash	621.8	902.9
Titanium Dioxide	95.7	120.8
Toluene	4.3	6.2

#### **Ukrainian polymer markets**

Ukraine exported 52,760 tons of polypropylene in January-November 2009, 24% more than in the same period in 2008. Exports were lower in 2008 partly due to the planned maintenance stoppage at the sole producer Linik at Lisichansk. Turkey was the main destination for polypropylene exports in 2009, accounting for 51% with Russia taking 42%.

Ukraine imported 13,160 tons of PVC films in the period January-November 2009, 20% less than in the same period in 2008. Imports have been lower due to financial problems facing consumers. Exports totalled 2,500 tons which was 2% more than in 2008.

Ukraine's imports of PET totalled 125,090 tons in the period January-November 2009, 36% less than in 2008. China accounted for 35% of imports and South Korea 23%. Consumption peaked in the summer months but has since dropped, whilst overall volumes of demand were down in 2009 due to the economic downturn.

#### **Ukrainian plasticizer alcohols**

Consumption in the Ukrainian market of plasticizers fell 20% in the period January-October 2009, down to 18,700 tons. The main outlet for plasticizer alcohols in Ukraine is PVC plastic compounds and vinyl wall-paper, for which consumption fell by 11% in 2009. The decline is relatively good in view of the market conditions that have been seen in Ukraine, and in comparison to some other sectors. The Ukrainian market of plasticizers is based mainly on imports, mostly DOP and DINP.

Domestic production started in Ukraine in 2007 by Polikem in the Ivano-Frankovsk region, and was revived at Lizinvest at Rubezhnoye in July 2009. Polikem reduced production by 40% in 2009 which meant that the restart at Lizinvest did not affect the market significantly. Even so the two plants are located at different

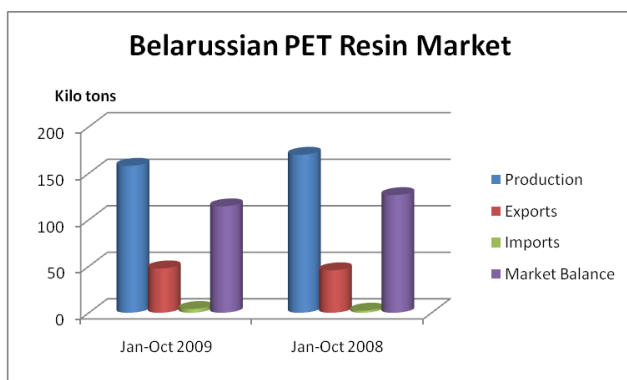


ends of the country and rarely come into competition. DOP production has fallen due to difficulties in securing supplies of phthalic anhydride and 2-ethylhexanol.

### Crimean Titan-ilmenite supplies

Crimean Titan may have to seek alternative ilmenite raw material sources for production of titanium dioxide, after it was denied the right by the government to develop the Irshansky and Volnogorsky deposits. These mines are the main sources of ilmenite raw materials for the company, and thus the government decision will force Crimean Titan to buy its materials abroad. Crimean Titan has rented the mines since September 2004, but has now been prevented in sourcing ilmenite. Another deposit in Ukraine at Mezhdurechensk, owned by Crimean Titan's holding company Ostchem, could in future produce around 80-85,000 tpa of ilmenite. This would represent a third of annual requirements, and thus but Crimean Titan would still need to import.

## Belarus



### Belarussian chemical production Jan-Nov 2009

Chemical production in Belarus increased 33.7% in the period January-November 2009 against the same period in 2008, totalling 11.758 trillion Belarussian roubles. The paint and varnish industry rose 3.9 times in the first eleven months of 2009, reaching 2.293 million tons. Phosphate fertiliser production rose 2.2% to 164,000 tons, whilst potash fertilisers dropped 48.3% to 2.242 million tons and nitrogen fertilisers fell 1.1% to 663,500 tons. Synthetic resins and plastics production fell 12.8% to 323,100 tons whilst fibres and threads dropped 13.4% to 181,500 tons.

### Belarussian PET market

Mogilevkhimvolokno produced 179,600 tons of PET in the first eleven months of 2009, 14% lower than in the previous year. Production was lower in 2009 due to lower volumes required for fibres and threads production, although preforms were only marginally affected. In 2009, the company applied measures for the modernisation of PET facilities in order to produce grades PET PN-3 used in the production of films and magnetic films. In 2010, the company hopes to achieve the same levels of production as in 2008. Imports rose in 2009, albeit from a relatively small base. Despite shortages in the domestic market, Mogilevkhimvolokno continues to focus on exports.

## Kazakhstan-Central Asia

### Uzbek chemical industry investments

Uzbek chemical holding Uzkhimesanoat plans investments into new chemical projects in the period 2009-2011, with emphasis on new phosphate and other fertiliser products. Navoiyazot has been selected as the site of for Uzbekistan's joint investment with International Petroleum Investment Co (IPIC) for building of a chemical complex worth \$1.34 billion. This will include 750,000 tpa of ammonia and 1 million tpa of urea, which are planned to be in operation by 2013. The general contractor for the project will be the German company MAN Ferrostaal AG.

Navoiyazot is adjusting the production of methanol to grade A for consumption in motor fuels. Around \$1.2 million is to be invested in 2010 into the 12,000 tpa plant at Navoi. In addition, Navoiyazot plans to develop dimethyl ether with a capacity of 2,000 tpa. The company also plans to build a facility for production of 50,000 tpa of PVC and 32,000 tpa of caustic soda, as part of a jv.

Also in Uzbekistan, Ferganaazot is to modernise its fertiliser plant in which \$9.1 million will be invested prior to the end of 2011. The modernised technology will reduce energy losses for the production of nitric acid, whilst \$9.8 million will be invested to increase urea capacity from 270,000 tpa to 330,000 tpa. For the next few months, the company will concentrate on the technical pre-planning and preparations for the investment programme. Regarding finance, Ferganaazot aims to provide \$4.2 million from its own sources, to receive \$17 million as credit from the Uzbek Fund of Reconstruction and Development, and \$3.8 million of bank

loans. Other chemical projects in Uzbekistan include the production of potassium chloride at Dehkanabadsky which is intended to have a capacity of 200,000 tpa.

#### **Uzbek chemical sales**

Navoiyazot exceeded its forecast for exports for the first three quarters of 2009. The launch of the nitrogen-phosphorus fertiliser facility was an important event for the company in 2009. Upgrading outdated equipment will help Navoiyazot to improve economic figures, with fourteen projects scheduled, most of which have already been implemented.

Kungrad soda plant in Uzbekistan (Karakalpakstan) has exported around 36,000 tons of soda ash in 2009, having started exports in the second half of the last year. The plant, which occupies a territory of 60 hectares, has a capacity to produce 100,000 tpa of soda ash. In 2008, the plant produced 71,000 tons, and in the first half of 2009 rose to 40,000 tons. The main buyers of the plant's products include Quartz, PharmGlass, Gazalkent Oyna, Uzqurulishmateriallari, Uzkimyosanoat, Uzbekneftegaz etc.

#### **EBRD-AzMeCo**

The EBRD signed agreements on 1 December with AzMeCo for a loan of \$120 million for the construction of the new methanol plant. The project cost is \$300 million, of which around \$70 million is AzMeCo's investment. The International Bank of Azerbaijan, the Black Sea Bank of Commerce and Development, and Canada's EDC company are also taking part in the financing of the project. The construction of the methanol plant started in 2008, and is located in one of Baku's industrial suburbs. Until now around 55% of the project has been completed, with the project to be commissioned by the end of 2010. The capacity of the plant is being designed to produce 720,000 tpa.

The EBRD loan will be spent for the purchasing and installation of technological equipment. Former UK Prime Minister Tony Blair was in Baku to attend the signing ceremony, and has apparently become a convert to the uses of formaldehyde. AzMeCo has stated that the company plans the construction of other plants besides methanol, including ammonia and urea. For organic chemicals, the company aims to produce acetic acid with a capacity of 450 tons per day, formaldehyde with 50 tons per day and melamine 40 tons per day. Total investments in the construction of the above-mentioned plants are estimated at \$1.1 billion. Financing from the EBRD will be carried out by two tranches: \$90 million will be allocated for a period of nine years, with another \$30 million will be given for ten years.

#### **Aktau polystyrene plant stops production**

Imports of polystyrene into Kazakhstan are expected to continue this year, after Sat Operating Aktau halted polystyrene production in August 2009 due to shortages of raw materials. Polystyrene at Aktau was first started in 1981, with a capacity of 100,000 tpa but has rarely run at a reasonable utilisation rate in recent years. The lack of production has led to an increase in imports into Kazakhstan this year, increasing 73% to 6,110 tons in the period January-September 2009.

Styrene was produced locally in the past, but stopped following a plant explosion in the 1990s and imports have been necessary since in order to maintain production. Styrene is purchased now mostly from Russia. Sat Operating Aktau intends to restart polystyrene production in the early part of 2010, depending on the raw material situation.

#### **Sinopec-Atyrau aromatics complex**

Sinopec Engineering has started the construction of the aromatics complex at Atyrau, with output intended largely for export. The contract has taken into account environmental factors. The aromatics complex will use technologies ParamaX® supplied by Axens, which covers the production of paraxylene and benzene from gasoline fractions.

## Relevant Currencies

- (Czech crown. Kc. \$1= 17.241. €1 = 25.922): (Hungarian Forint. Ft. \$1 = 177.04. €1 = 266.185): (Polish zloty. zl. \$ 2.7757. €1 =4.1740): (Romanian Lei. \$1 = 2.8526. €1= 4.289). (Ukrainian hryvnia. \$1 = 8.205. €1 = 12.3365): (Rus rouble. \$1 = 28.2963. €1= 43.916)

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