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

Issue 212, 16 July 2008

#### Features from this issue

- The Unipetrol Group will invest almost half a million Czech crowns during 2008 into modernising its benzene production unit at Litvinov
- ZA Pulawy may issue new shares or take out loans to finance the construction of a coal gasification plant, together with energy coal miner Bogdanka
- Kazanorgsintez has agreed to take a loan of 5 billion roubles from Sberbank which will be used for supporting investment projects in ethylene, polycarbonate, etc
- The shareholders of Soda at Sterlitamak, which is the largest producer of soda ash in Russia, elected in June to reorganise the company into twp separate companies
- Magnitogorsk Metallurgical Plant (MMK) has taken 51% ownership in the jv OOO "MMK-Benzol", which has been formed with Kuibyshevazot at Togliatti
- For SIBUR-Neftekhim's expansion of the cracker to meet the demands of the RusVinyl project, the local government has granted tax privileges for investment
- On June 16, public hearings took place in Tobolsk regarding the significance of the polypropylene project for the region in terms of economic benefit and environmental consequences.
- The Omsk polypropylene project may be delayed due to uncertainties over feedstocks combined with the awareness of other new projects under construction
- The Chinese government has taken the decision to abolish anti-dumping duties on imports of caprolactam from a number of countries including Russia, Japan, Belgium, Germany, and the Netherlands
- Crimean Soda has completed the first stage of the reconstruction of its filtration unit in the production of soda ash
- Construction of the 300,000 tpa PET plant in the Alabuga special economic zone in Tatarstan has been initiated, according to reports
- Construction started in July on the new glass-fibre plant in the Alabuga special economic zone
- The administration of the Nevinnomyssk region is to examine the ecological implications of Evrokhim's plan to construct a new melamine plant at the Azot complex
- Chemical production in Azerbaijan rose 69.8% in the first five months of 2008 over 2007. Chlorine rose 2.1 times to 11,000 tons, propylene 80.3% to 13,900 tons, isopropanol 68% to 8,200 tons, and polyethylene 77.8% to 24,900 tons.
- Dzerzhinsk Orgsteklo (DOS) has confirmed its decision to close its MMA plant, caused by high prices for raw materials sulphuric acid and oleum
- Investments into the construction of the methanol plant at Nizhniy Tagil are expected to cost €115.5-125.5 million, with the largest investments taking place in 2009

# **CENTRAL & SOUTH EAST EUROPE**

#### **Petrochemicals**

### **Refineries in Central-South East Europe**

Russian oil deliveries to Unipetrol via the Druzhba pipeline were halved in mid-July, accordingly to technical problems. Unipetrol has made up the deficit from state reserves, whilst it is also increasing supplies from the TAL-IKL pipeline from the Mediterranean region.

PKN Orlen is interested in buying the outstanding 9.98% of Mazeikiu Nafta that it does not own from the Lithuanian government. PKN Orlen, which controls 90% of Mazeikiu, is also interested in taking a stake in the oil terminal operator Klaipedos Nafta. PKN Orlen bought 80% of Mazeikiu in 2006 for \$2.4 billion and bought another 10% from a minority shareholder in a public tender.

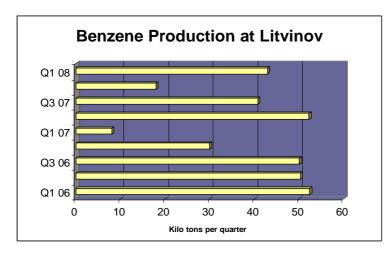
Foster Wheeler Iberia has been awarded a contract by MOL to provide the basic design and estimation services for the revamp and expansion of the delayed coker complex at Százhalombatta. The revamp will also include the fractionation, gas recovery and sour water stripper units. The objective of the revamp is to expand the existing coking complex 27%, which uses Foster Wheeler delayed coking technology

LUKoil Bulgaria has announced plans to invest several hundred million US dollars into new capacity at its Bourgas refinery. LUKoil Neftochim has already selected Axens to design and license technologies to convert Urals blend vacuum residue and gasoil at its refinery. The heavy-ends upgrade, equipped with Axens' interstage separation (IS) and HyK units, will be integrated through a common hydrogen management scheme. This will minimise capital investment, while enabling the independent operation of the two units.

Rompetrol Rafinare shut operations between 1-15 July for a scheduled shutdown, whilst simultaneously expanding the company's capacity for producing low-sulphur Euro 5 gas. The scheduled stoppage focused mainly on changing catalysts and maintenance works that are only possible when installations are not running.

The Rompetrol Group has assigned over \$164 million for continuing the refining investment programme this year. For 2008, Rompetrol estimates it will process around 3.94 million tons of crude against 3.8 million tons in 2007. In May, the refinery registered the highest monthly volume on record, approximately 405,000 tons. A large share of crude is imported from Kazakhstan, following the takeover of Rompetrol by KazMunaiGaz in 2007. The crude oil is processed at Midia and then exported in the form of other products.

Rompetrol Rafinare has increased share capital in its subsidiaries Rompetrol Rafinare, and has also decided to increase the share capital of its subsidiary Rompetrol Petrochemicals by €32.6 million.



### **Unipetrol 2008 financial targets**

Full-year net profit at Unipetrol could reach Kc 3.8 billion in 2008, which is short of the target Kc 4.8 billion. Rising feedstock costs combined with a fairly lacklustre market climate are the main factors behind the anticipated weaker results. In April the company said it saw its EBIT forecast as rather conservative, but further oil price growth and the strengthening of the crown currency dented the company's first-quarter performance. The company is working to raise petrochemical margins through hiking prices as well as cutting costs.

### Unipetrol-benzene

The Unipetrol Group will invest almost half a million Czech crowns during 2008 into modernising its benzene production unit at Litvinov. The key part of the facilities, the fractionating column, was transported from Ústí nad

Labem in early June. The column for benzene distillation will help Unipetrol to increase benzene capacity from 210,000 tpa at present to 250,000 tpa. The project should be completed by the end of 2008. Production has been affected in the past year by various stoppages, causing shortfalls in supply to the ethylbenzene plant at Litvinov, which is owned by Synthos-Kaucuk. This plant requires around 228,000 tpa to run at full capacity, before being shipped by pipeline to Kralupy.

At least 60% of Unipetrol's investments of Kc 6.5 billion this year will be devoted to petrochemicals. Construction of the new butadiene plant will start at Kralupy during 2008, whilst in addition to increasing production capacities for ethylene and polyolefins at Litvinov.

#### HIP Petrohemija-2008

In the first four months of 2008 Petrohemija produced a total of 227,500 tons of petrochemicals, which was 2.6% above the target and despite the problems experienced with naphtha supplies in the first two months of the year. HDPE production increased 10% and ethylene by 8.8%. In 2007, Petrohemija's produced a total of 693,944 tons, which exceeded 2006 marginally. The company produced 76,384 tons of polyethylene in 2007, exceeding its target by 1.21%. The feedstock problems incurred by the company caused the LDPE Plant to produce 5.42% lower than target, totalling 55,204 tons.

The domestic petrochemical industry in Serbia covers between 40-60% of domestic demand, with imports consisting largely of product types not available such as cross linkable polyethylene, HDPE for woven sacks, etc. Import of plastics into Serbia is free for products not produced locally, whilst custom duties of 3-5% are applied to products which are produced domestically.

# **Chemicals**

#### **Ciech-ZA Tarnow**

Ciech acquired 1.560 million shares or 6.5% in ZA Tarnow in June as a result of the Tarnow company's IPO. Ciech has indicated that it could be planning to expand its stake further and should these plans materialise, ZA Tarnow could become part of Ciech's chemical strategy by 2011. A key part of Ciech's strategy is to develop the fertiliser sector, and by taking over ZA Tarnow the principal aim would to be to try and secure around 10% of the Polish fertiliser market. Such a market share could possibly double the capital value of Ciech. Products from ZA Tarnow could also help in Ciech's organic division, and thus it could turn out to be a significant acquisition. However, Ciech may face competition from Polish gas producer PGNiG.

Polish Chemical Production (unit-kilo tons)					
Product	Jan-May 08	Jan May 07			
Caustic Soda	42.1	43.6			
Ethylene	268.6	254.3			
Propylene	178.0	142.1			
Butadiene	27.1	24.3			
Toluene	65.2	47.1			
Phenol	22.0	20.9			
Caprolactam	69.3	69.7			
Polyethylene	170.4	165.3			
Polystyrene	46.8	44.3			
PVC	117.9	130.2			
Polypropylene	119.5	123.4			
Syn Rubber	57.4	54.0			
Pesticides	17.9	18.4			

ZA Tarnow's IPO plans did not meet with the overwhelming success that the company had targeted. Having initially valued at more than zl.300 million, and the first large Polish privatisation in more than six months, the IPO only brought in zl.295 million. ZA Tarnow had planned to list 16 million shares, but the company managed to sell only 15.1 million Bseries shares at zl.19.50, and this was less than the maximum asking price of zl.22.60. In the absence of instructional interest, PGNiG and Ciech stepped in to rescue the privatisation flotation of ZA Tarnow, with PGNiG buying 10% and Ciech 6.5%. Ciech's view is that taking 6.5 % of Tarnow strengthens the company's position in the context of the Treasury's intention to further privatise Tarnow in 2009. On the other hand, at this stage it looks like both PGNiG and Ciech could be competing for a majority stake in ZA Tarnow. The poor showing in the Tarnow IPO and the subsequent decline in share prices may not be a good omen for ZA Kedzierzyn, which is expected to be listed later this year.

### ZA Pulawy-coal gasification

ZA Pulawy may issue new shares or take out loans to finance the construction of a new coal gasification plant, together with energy coal miner Bogdanka. ZA Pulawy has commissioned a feasibility study to assess the project, which could start in 2009 and take at least three years to complete. An additional share

issue is one of the possible ways to finance the project. ZA Pulawy has benefited from rising fertiliser prices in the past two years, as farmers seek soil nutrients to meet growing demand for food staples. However, the company is also battling to cover the growing costs of raw materials, such as gas imported from Russia. Coal gasification is viewed as a more environmentally friendly method of converting coal into electricity.

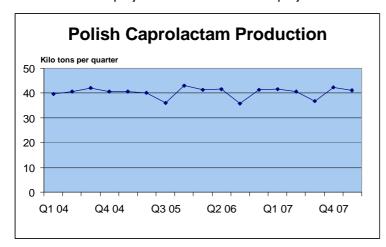
### ZA Pulawy-Air Liquide

In mid June ZA Pulawy concluded an agreement with Air Liquide Polska, under which Air Liquide will construct an air separation unit. The unit is to be built on a plot of land leased from ZA Pulawy and is expected to start in January 2010. The new oxygen generation plant is an important part of ZA Pulawy's strategy and is a key stage in expanding the oxygen generation plant and ammonia—urea production line. The project will enable a significant increase in the production of urea by 270,000 tpa. Ammonia capacity is to be increased by 170,000 tpa from its current level of 955,000 tpa, and caprolactam by 5,000 tpa on top of the current 65,000 tpa. In addition to capacity expansions, gas consumption will be lowered for ammonia by 5.4% and urea by 3.5%

The new plant will be constructed under an over-the-fence arrangement. This means that ZA Pulawy will build the foundations and ensure connection of utilities, while Air Liquide will build the air separation unit and later operate and maintain it. Under separate agreements, ZA Pulawy will lease the land and supply the unit with the utilities necessary for its operation, i.e. electricity, steam, and water.

### ZA Pulawy-caprolactam licence

ZA Pulawy, which co-owns the Polish caprolactam production licence, has been in negotiations in Indonesia to revive an old project. The construction project of the first caprolactam production plant in Indonesia,



which had been carried out a few years ago, was disrupted by the economic crisis affecting the Asia and the Far East. Talks were resumed as soon as stability returned to the region, leading to the decision to transfer the licence. The Polish licence has already been granted to Spain, Italy, South Korea, Taiwan and India. As part of the transfer of the licence (whose other holders are ZA Tarnow and the Instytut Chemii Przemyslowej of Warsaw), ZA Pulawy intends to sell the accompanying technical services to launch the production of caprolactam based the Polish on technology.

Polish caprolactam production has been very steady for the past few years, with the two plants at Pulawy and Tarnow producing around 40,000 tons per quarter.

## **PCC Rokita**

PCC Rokita announced in June the completion of a new sulphonation plant. In a construction time of 15 months, PCC Rokita SA completed its second sulphonation line, facilitating increased production of surfactants. Investment in the production line amounted to around zl 90 million (€26.5 million). The capacity of the new plant is 30,000 tpa, three times more than the first line at 10,000 tpa. Following the finalisation of the test operations, the new production units were commissioned at the beginning of June. The new installation possesses a pipeline connection with the first production line. PCC Rokita is part of Petro Carbo Chem, which in 2006 unsuccessfully attempted to make key acquisitions in the Polish chemical industry. The new installation will reach full capacity in the fourth quarter of 2008. In the next three years, PCC Rokita will invest zl 380 million in further projects.

The phosphorus business unit of PCC Rokita announced a significant price increase for Roflam P (tris(2-chloro-1-methylethyl) phosphate) from the start of July. Due to prices of yellow phosphorus, which were raised dramatically during the last few months and very high prices of propylene oxide, it has been forced to increase prices. The phosphorus business unit is one of PCC Rosita's four operating business units. The company is a producer of flame-retardants, plastic additives and naphthalene derivatives.

# Spolchemie-epichlorohydrin

From 1 July, Spolchemie increased resin prices, including epoxy and alkyd, by around €120 per ton. The uninterrupted rise in all alkyd resin raw material costs is forcing Spolchemie to increase prices across the board. This increase follows the previously announced increase in Q1 2008. In October 2007, the Spolchemie group finished the construction of its second plant for production of low molecular epoxy resins based on Japanese technology and raising total epoxy resin capacity to 52,000 tpa at Usti nad Labem. Production in 2007 from the new plant totalled 4,017 tons.

Spolchemie is in the process of expanding activities overseas by building an epichlorohydrin plant in Malaysia at a cost of approximately € 54 million (Kc 1.39 billion). The Malaysian plant, Spolchemie's first ever foreign direct investment, could be followed by the creation of another epichlorohydrin plant possibly in the Americas. The first plant should begin production in the middle of next year, while the plant in the Americas should follow around one year later.

The business plan of Spolchemie envisages establishing epichlorohydrin output in both locations and then adding on epoxy-resin production that should utilize that output. Epichlorohydrin or epoxy resins production is not available in Malaysia so this new project will allow Spolchemie to establish a strong base for the local market, and for other markets such as China and India.

Earlier this year, Reichhold and Spolchemie jointly announced the signing of a long-term agreement for the production of unsaturated polyester resins and gel coats for Reichhold's composites customers in Europe. Spolchemie has completed construction of a new state-of-the-art plant in Ústí nad Labem, designed to supply Reichhold's customers in both East and West Europe.

# South East European news

Price rises for gas in Romania is leading to further increases in costs in the chemical sector, having risen almost 9% since the start of the year. High gas and electricity prices, combined with higher prices of raw materials and the appreciation of the lei have affected the export capability of Romanian chemical companies. The value of the chemical industry in Romania is estimated to amount to around €1.5 billion, and the main players are Oltchim, Doljchim and Azomures.

Imports of chemical products into Romania in the first quarter this year increased 8% by volume and by 29.2% by value. Only a small share of the 250,000 tpa of polymer consumed by Romanian plastics converters is currently produced domestically, and thus imports play a key part in consumption. Rompetrol is attempting to establish a position in the local market by investing in polymer production, but is yet to see benefits in profitability from these measures.

In Bulgaria, the major shareholder in the Bulgarian fertiliser producer Neochim has sold half of its 49.17% stake to local company Eco Tech in a block deal on the Sofia bourse. Bulgarian chemical company Polimeri has decided to proceed with a planned capital hike despite a cancellation request by a minority shareholder. Polimeri is in process of acquiring assets for 2.9 million leva, mainly for the production of pipes. The company has an ambitious investment programme for €20 million, including the conversion to membrane technology, the modernisation of production facilities, energy efficiency and production of household chemistry goods. In 2007, Polimeri slightly reduced its electricity costs after the adoption of direct negotiations with power plants. The company has own cogeneration facility but is relying on electricity from the national grid.

Croatia has extended the deadline for the sale of 81.67% of debt-laden plastics company Adriachem after the previous offer failed to attract investors.

# **Baltic port shipments 2008**

Trade shipments through the Baltic ports show a mixed picture this year. In the first five months of this year, the Klaipeda port in Lithuania transshipped a total of 12.95 million tons, which was 19.1% higher than in 2007. Klaipeda noted that the volumes of loadings of all types of loads grew within this period, with liquid fertilisers increasing 14.5% to 662,000 tons. PTA imports into the port have been rising to meet the demand of PET production at Klaipeda. In Estonia, trade has been affected negatively this year by the political fall-out with Russia in 2007, with the Tallinn port moving 31% less tonnage than in 2007 and totalling 12.7 million tons for the

first five months. For the Latvian ports, Ventspils moved 12.7 million tons (down 3.7%), whilst Riga was 15.7% up to 11.9 million tons and Liepaja up 13% to 1.9 million tons.

# RUSSIA

#### Introduction

Growth in chemical production has continued to be strong this year, with a number of new plants in operation whilst demand has remained robust. Despite government predictions of 8% growth this year, the economy could start to feel the effects of the global slowdown in the coming months as liquidity tightens. Food prices and energy prices have risen dramatically in the past year in Russia, far more so than in West Europe in relative terms, and this will have an inevitable impact on spending power.

The fibre sector in Russia has come under close scrutiny from the government in the past month, in an aim to try and fathom out how to reverse the decline of domestic production in the face of imports. The production of fibres in Russia fell in the first five months of 2008 by 10.5% to 55,900 tons. Not only are domestic fibres largely uncompetitive, textile producers are also confronted by intense competition and have been lobbying the government to impose anti-dumping against importing countries such as Turkey and China. The hub of the Russian textile industry is located at Ivanovo, where local companies argue that imported fabrics are sold 15-20% below local prices.

For the past three years Russia has seen consecutive falls in the production of fibres and threads, as the textile industry that remains sources its fibres from abroad. Russia exported 34,010 tons of fibres in 2007, 18% less than 2006. This trend carried onto into the first quarter, with exports down 51% against the first quarter of 2007.

Control over imports of polyolefins could become the subject of concern in 2-3 years time after a number of new projects and expansions have been completed. Already the government has put measures in place that will allow producers to export polyolefins without incurring duties. Only recently, the Russian government has approved a zero rating for imported LLDPE for a period of nine months, starting from 17 July.

Safety remains a primary area of concern for Russian chemical companies, although it almost needs accidents to activate action. The Russian industrial safety service ROSTECHNADZOR is in charge of approving safety certificates, etc, and raising standards at individual plants. However, too many incidents continue to occur and it is a constant process of upgrading practices and applying laws and regulations. In terms of recent accidents, a fire took place at Omsk Kaucuk on 9 July although none of the production facilities were affected. Elsewhere, an explosion took place at Metafrax on 29 June with several fatalities. The incident took place on the formaldehyde plant. This was followed by a gas leak at the Moscow refinery on 13 July.

# Petrochemicals

#### TNK-BP, associated gas

TNK-BP's management has reiterated the need to tackle the problem of associated gas flaring in the Tyumen region. The company has allocated several billion dollars towards the programme of increasing the utilization of associated gas over to 95% over the next three to five years, effectively meaning that the burning of gas will be close to extinction by 2012-2013. TNK-BP has already embarked on several processing projects, the main one of which is with SIBUR involving the transport of gas to Tobolsk-Neftekhim and the Nizhnevartovsk electricity plant. The future ownership of TNK-BP remains uncertain, with BP's interests in the jv looking vulnerable.

# SIBUR plant maintenance

SIBUR-Neftekhim completed its planned shutdown for ethylene oxide and MEG on 17 June after a period of 16 days' maintenance This followed a shutdown between 30 ay to 9 June at the Kstovo cracker on the benzene unit. The caustic and chlorine plants at Dzerzhinsk were closed for a short turnaround in May.

Tomskneftekhim halted production from 12 July and will be down to 17 August for scheduled maintenance. The shutdown will include work on the steel framework and safety valves, inspection and cleaning of production

equipment, and eliminating minor malfunctions which cannot be corrected during normal operations. Tomskneftekhim is now moving towards a two-year shutdown cycle, that will remove the need for closure in 2009. Tomskneftekhim claims to have become the first petrochemical producer in Russia to make use of titanium-magnesium catalysts in the production of polypropylene. A pilot plant was introduced at Tomsk for the structural modernisation of the polyolefin plants, together with the Institute of Catalysis from Novosibirsk. Titanium-magnesium catalysts facilitate lower power consumption, whilst enabling a wider range of output.

In the Tyumen region, Tobolsk-Neftekhim undertook a shutdown in June for three weeks, involving the central gas fractionating unit, and also the stabilisation of the catalyst for the second reactor block for butadiene production. The plant restarted production operations on 23 June.

### SIBUR-Neftekhim-ethylene expansion

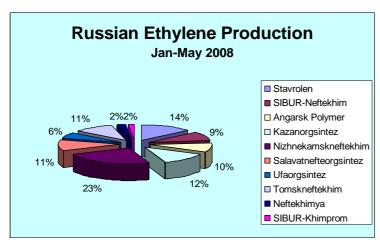
For SIBUR-Neftekhim's expansion of the cracker to meet the demands of the RusVinyl project, the local government has granted tax privileges for investment. Around 7 billion roubles will be invested in the reconstruction of the EP-300 plant, with an estimated payback period of 116 months. The budgetary effect from the reconstruction has been estimated to amount to 102.7 million roubles per annum. To recap, the capacity will expanded in stages, the first from 260,000 tpa to 360,000 tpa, and the second to 430,000 tpa. The use of the more advanced technologies will enable an increase in the safety of production and to reduce impact on the environment.

The main part of the expanded production will be directed towards the RusVinyl plant. At present, the main outlet for ethylene produced at Kstovo is for the production of ethylene oxide at Dzerzhinsk. The EP-300 cracker was started in 1981 based largely on technology from Czechoslovakia. Furnaces supplied to the original plant have been already replaced by new furnaces supplied by Technip. Other recent developments have included raw material storage facilities, computer-aided manufacturing, etc.

Production of olefins and derivatives dropped at SIBIR-Neftekhim in 2007, including ethylene by 1.6%, propylene by 4.3% and ethylene oxide by 3.7%. EDC production rose 0.5%, whilst benzene rose 10.8%. Hydrocarbon processing dropped 4.7% to 664,700 tons, which comprised 258,900 tons of liquid raw materials, and 405,800 tons of gaseous materials. The EO/MEG plant at Dzerzhinsk processed 17% less ethylene in 2007 over 2006, falling to 194,600 tons. According to SIBUR-Neftekhim, this was caused primarily by the low quality of the catalyst in the ethylene oxide reactor.

#### Nizhnekamskneftekhim

Nizhnekamskneftekhim has introduced new hydroneachenical cleaning technology for the pyrolysis furnaces at the olefin cracker. The benefits include lower energy consumption and less chance of damage to pipes. Nizhnekamskneftekhim increased its share of total Russian ethylene production to 23% in the first



five months of 2008, up by 2% on last year. The two plants in Tatarstan accounted for 35% of the total in the period January-May, which is several percent higher than last This is due to the completed year. cracker expansion of the Nizhnekamskneftekhim and the normal performance of Kazanorgsintez, which encountered ethane supply problems in the first half of 2007. Full quarterly data for Russian ethylene production can be seen at www.cirec.net.

In the first five months of 2008, the three ethylene plants belonging to SIBUR-

Holding (including SIBUR-Neftekhim, SIBUR-Khimprom and Tomskneftekhim) accounted for 22% of total Russian ethylene production.

# Kazanorgsintez-financial challenges

At a start of May, Standard & Poor's put Kazanorgsintez' ratings on negative watch, citing the company's request for a bond waiver. The company's total debt to EBITDA is likely to have reached 4.4 times at year-

end 2007, whereas the debt incurrence test is set at 4 times. By requesting a covenant waiver on an outstanding \$200 million loan the group is asking to increase the test threshold to 6 times until the end of the second quarter of 2009. Standard & Poor's stated that the CreditWatch placement could mean that Kazanorgsintez may not have sufficient funds to cover payments of the notes maturing in 2011 if noteholders request early redemption. The group's cash is also very low, at less than \$5 million at the end of March.

Kazanorgsintez has agreed to take a loan of 5 billion roubles from Sberbank which will be used for supporting investment projects in ethylene, polycarbonate, etc, and also short term financing. The complexities over debts could prove an obstacle in SIBUR's assumed takeover of the company. Regarding investments, there are suggestions that Kazanorgsintez could be restricted in how much capital it can secure on international markets due to the adverse credit situation.

Russian MTBE Market (unit-kilo tons			
,		2006	
Production	668.1	637.2	
Exports	370.8	288.3	
Imports	3.6	2.6	
MTBE Consumption	300.9	351.4	

# **Russian MTBE market**

Consumption of MTBE in Russia dropped in 2007 against 2006 by around 50,000 tons, with producers focusing more on export activity. However, MTBE in recent months has shown a deficit in the Russian domestic market, which may create a problem in the third quarter which is traditionally the biggest period for consumption in Russia. Demand has been outstripping supply,

partly due to unplanned shutdowns. Sterlitamak Petrochemical Plant stopped production, for example, whilst Titan at Omsk also faced problems but is now operating normally. Exports have risen this year from Russia due to strong demand, and this has impacted on domestic supply. Exports increased 11% in the first quarter against the same period in 2007, with most of the exports having been sent to Finland. Production increased 9% in the first quarter. In terms of capacity expansions, Uralorgsintez plans to increase capacity to 180,000 tpa by the start of 2009. Prices for MTBE on the domestic market have been rising and are expected to continue rising at least until the autumn.

#### **Angarsk Petrochemical Company**

Angarsk Petrochemical Company, which is owned by Rosneft, increased refining in the first six months of 2008 by 6.7% to 5.075 million tons. Butanols' production increased 5% to 30,100 tons, whilst methanol dropped 7% to 12,400 tons. Other products in the first half of 2008 included 3,200 tons of amines, 3,800 tons of MTBE and 25,800 tons of sulphuric acid.

Since acquiring the assets from YUKOS Rosneft has examined possible petrochemical investments at Angarsk but is yet to formulate a strategy. In the Russian Far East, Rosneft expects to complete the construction of the first line of the Eastern Refinery in the Prmorsk Kray by 2012. The refinery will eventually have two lines, with a total capacity of 20 million tpa.

#### **Bulk polymers**

# Tobolsk-Polimer-local hearings approve PP project

Public hearings took place in Tobolsk on 16 June regarding the significance of the polypropylene project for the region in terms of economic benefit and environmental consequences. No apparent opposition has been put forward, whilst SIBUR has argued strongly that the new plant represents no danger for the environment and health of the local population, and completely corresponds to state of the art world standards. For an assessment of the safety of the polypropylene project Tobolsk-Polimer concluded a contract with a Russian ecological group called Branan Environment. The results of the assessment were favourable, with Branan Environment stating that the new plant conformed to the highest ecological standards. In addition, the new plant will reduce the dangers and risks associated with transporting 600,000 tpa of propane from Tobolsk by rail to other parts of Russia, as happens at present. In terms of wildlife and soil no perceived threats are envisaged from the project.

Tomsk was the original site for SIBUR's concept of a world-scale polypropylene plant. However, Tobolsk was eventually selected due to its more convenient location in the north of the Tyumen Republic and also closer proximity to the European part of Russia. SIBUR created the separate company Tobolsk-Polimer in

April 2006, specifically for the production of polypropylene. The project licensors were selected in August 2007, based on UOP technology for propane dehydrogenation and Ineos technology for polypropylene production.

The economic benefits of the polypropylene project include tax revenues, and the creation of around 500 workplaces to maintain and manage the plant. It is also coupled with opportunities for developing small businesses based on polypropylene processing. Construction of the plant will use materials produced in the Tyumen region, some of which will be delivered by river. Tobolsk-Polymer plans to construct 685 apartments to house personnel for the project, with the first building expected to be ready in August. VNIPIneft will make the selection of general contractor and supporting services, whilst Tobolsk-Polymer will make full use the existing developed infrastructure of Tobolsk-Neftekhim.

### Omsk polypropylene project

The Omsk polypropylene project may face delays due to factors such as feedstocks and the awareness of other new projects which are under construction. Despite the contract between Tecnimont and Titan Holding being signed in 2005, the plant is still only in the early stages of construction and is unlikely to meet the scheduled start-up of 2009. Titan has already constructed the foundations for the plant, but there have been problems over financing from the Italian side and not all the equipment has yet been delivered tom Omsk. The polypropylene reactor was delivered several months ago to the port of St Petersburg, but is yet to start its journey to Omsk and remains in storage. It seems that key factors such as a shortage of propylene at Omsk and the predicted oversupply in polypropylene capacity in Russia by 2011-2012 are serving as a major stumbling block. It could be that the project will not be completed whilst it remains the sole property of Titan.

Possible scenarios include Gazprom Neft taking over the project, which could then supply the propane-propylene fractions from the Omsk refinery at reasonable cost, or SIBUR-Holding taking a part stake and organising the supply of feedstocks. The original project included an agreement with independent gas company Novatek to supply raw materials to Omsk, but Novatek has since concluded an agreement with SIBUR-Holding for the Tobolsk project. The absence of a raw-material base is one of the main problems of facing the Omsk polypropylene project, and it is not feasible that the plant could survive long term on merchant purchases of propylene. Other solutions include starting the production of olefins at Omsk Kaucuk, which is part of the Titan group. The conclusion is that without creating a new partnership or making large-scale investments, the Omsk polypropylene plant would be the most disadvantaged of the Russian producers by around 2012 should it be completed under the current set-up. Titan's worst-case scenario is to scarp the project, and whilst this may transpire to cut the group's losses such a decision would only be taken after all other avenues have been exhausted.

#### Titan-Omsk regional control

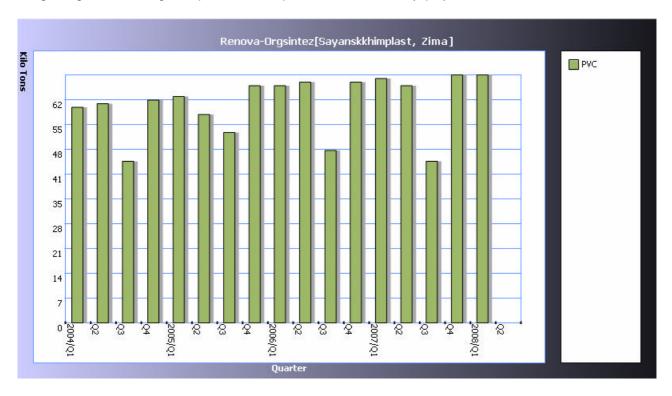
The potential loss of the polypropylene project would represent a blow to Titan's plans for becoming an important holding company in Russia. Even so, the holding group has plans in place for Omsk Kaucuk, over which it took full control in late 2007 after increasing share emissions by 0.69% to 90.87%. Titan intends to restore the solvency of Omsk Kaucuk, which is under bankruptcy until 2009. Prior to last year Omsk Kaucuk has remained outside the structure of Titan, with 50% of the company resting in the hands of the director general Omsk Kaucuk has historically been Titan's long-term strategic partner, but is now being integrated into the Titan group. Titan has stated plans to expand capacities at Omsk Kaucuk in the next few years for synthetic rubber (by 11,200 tpa), phenol (by 5,700 tpa), and merchant propylene (by 40,000 tpa).

In addition to the declared bankruptcy of Omsk Kaucuk, the Omsk Chemical Company (Omskpolimer) has incurred the same fate due to outstanding debts. Titan spent around \$40 million on acquiring Omskpolimer, and will need to invest to complete unfinished projects. In 2005, the management of Omskpolimer planned to invest \$100 million, including a restart of the units for ion-exchange resins and phthalic anhydride. Omskpolimer awarded RolleChim Impianti SpA the revamp of the oxidation unit of phthalic anhydride plant which was scheduled to be concluded in March 2007. However, this project remains uncompleted, and currently Titan's suture seems dependent on finding a reliable partner if it is to fulfill its goals in chemical industry expansion.

#### RusVinyl project receives tax privileges

RusVinyl has been granted tax privileges on annual profits up to 2.8 billion roubles for a period of 84 months. The 330,000 tpa PVC plant is scheduled to be completed in 2010-2011, but full operations will depend on the

simultaneous expansion of the ethylene facilities. Solvay also plans to invest €50-60 million in the processing of the salt deposits at nearby Belbazh. This will provide the basis for producing 225,000 tpa of sodium chloride. RusVinyl is currently in negotiations with the regional administration over the creation of an industrial zone for the processing of PVC into finish ed products such as PVC pipes. On 4 June, the investment council in the Nizhniy-Novgorod government region expressed the importance of the RusVinyl project at Kstovo.



# Sayanskkhimplast-H1 2008

Sayanskkhimplast has undergone an audit regarding quality, ecological management and management in the region of professional safety and industrial safety. In the first half of 2008 Sayanskkhimplast increased PVC production by 0.3%, PVC plasticizers rose by 4.1% and caustic soda by 2.6%. This follows a difficult period last year after the accident at the EDC plant in August. Full data for Sayanskkhimplast can be accessed on <a href="https://www.cirec.net">www.cirec.net</a>. Sayanskkhimplast is owned by Renova-Orgsintez.

#### **Aromatics & derivatives**

# Russian paraxylene projects

Maire Tecnimont and GS Engineering & Construction (South Korea) signed a joint \$900 million contract to construct the Taneko refinery at Nizhnekamsk. The Tatarstan project includes an aromatics complex with a capacity of 151,000 tpa of paraxylene, a naphtha hydrotreater with 1.1 million tpa, a kerosene hydrotreater of 500,000 tpa and a diesel-hydrodesulphurisation facility of 1.6 million tpa. TTaneko has already completed the first stage in laying the basis for the refinery and aromatics complex at Nizhnekamsk, and the licenses have already been signed. The refinery will be capable of processing high-sulphur crude.

The Omsk refinery is expanding its paraxylene capacity to 240,000 tpa from 205,000 tpa, whilst at the same time achieving 99.95% purity in its output levels. Prior to the start of the revamp, which is being undertaken by UOP, the purity of paraxylene was recorded at 99.72%. Currently the aromatics complex produces 432 tons of paraxylene per day, running at 80% of capacity, with the aim being to increase output levels to 495 tons per day.

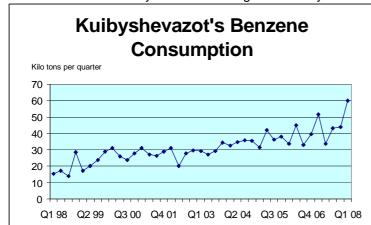
In Bashkortostan, plans are being assessed for the reconstruction of the iso-reforming unit at Ufaneftekhim, with one of the goals to expand the production of paraxylene. Ufaneftekhim processes West Siberian crude, which can be a mixture of high-sulphur oils and gas condensates, and produces aromatic hydrocarbons. Ufaneftekhim wishes to expand paraxylene capacity in order to meet the demand for PTA production at nearby Blagoveshchensk.

# Alabuga PET project

South Korean partners KP Chemical and Lotte met with Tatneft and the Tatar bank AK Bars in June to confirm the start of the PET project. Construction of the 300,000 tpa PET plant in the Alabuga special economic zone in Tatarstan will be initiated in the near future, according to reports from Tatneft. Completion of the PET plant is scheduled for 2010, but that date may well be extended into 2011. The jv partner KP Chemical will source the PTA from its plant in China, although it might have appeared more logical to have sourced PTA from Polief. A board of directors will soon be selected for the jv, which will be responsible for managing the project formulating the business plan.

# MMK Benzol-Togliatti

Magnitogorsk Metallurgical Plant (MMK) has taken 51% ownership in the jv OOO "MMK-Benzol", which has been formed with Kuibyshevazot at Togliatti. Kuibyshevazot attempted to take the controlling stake, but



eventually lost out to MMK. The jv was formed officially on 18 June, and will manage the construction and operation of a 50,000 tpa benzene plant, which is scheduled to come on stream in 2010-2011. Kuibyshevazot will consume all the benzene in the production of caprolactam.

Kuibyshevazot has been anxious to secure its feedstock base, after experiencing problems in benzene supply in 2006 and even before that. The company has harboured plans to construct its own benzene plant for several years, but has found it too

expensive to construct a stand alone plant. As a result, it has formed a jv with MMK. Kuibyshevazot incurred a substantial fall in profits in 2006 after a number of cracker shutdowns in Russia increased the need to purchase imported benzene. The benzene supply picture has since stabilised, enabling KuibyshevAzot to report large profit gains in 2007, but the long term outlook for domestic supply remains a concern for the non-integrated consumers. The jv MMK-Benzol at Togliatti will produce benzene from coke-gas, and will be charged to KuibyshevAzot at the market price.

## Russian caprolactam market

Consumption of caprolactam in 2007 totalled 118,400 tons in Russia, which was 14% higher than in 2006 and due largely to increased captive needs. However, demand from the merchant market still remains lacklustre, and overall domestic consumption dropped in the first four months of 2008 by 7%. Kuibyshevazot increased polyamide production 2.2 fold in 2007, which was the main factor behind the increase in captive usage. The main merchant consumers of caprolactam in Russia include Khimvolokhno at Shchekino, SIBUR-Volzhskiy, and Kurskkhimvolokhno. Despite the weakness in Russia's domestic fibre sector the new polyamide facilities, combined with the strong export opportunities, have helped to maintain high production rates of caprolactam. In 2007, production rose 4% and in the first four months of 2008 an increase of 8% was noted. In physical volumes, Russian produced a total of 120,600 tons in the first four months of this year, with Kuibyshevazot producing just over 50%.



With almost two thirds of caprolactam relying on exports Russian producers recognise their vulnerability to global market trends. Caprolactam prices in Russia's domestic market are currently lower than on export markets, which adds to the incentive for producers to export. However, the price trend is expected to change as captive consumption increases in the next few years and product becomes The domestic merchant more limited. market accounted for only 38,000 tons in 2007, which was 33% lower than in 2006, although the market has not deteriorate

further in 2008 so far. Exports totalled 206,500 tons in 2007, raising income of \$452 million. Both Kuibyshveazot and Shchekinoazot reduced exports by 8% and 10%, respectively, whilst Azot at Kemerovo increased volumes by 19%. Azot exported more caprolactam largely due to the halt in polyamide-6 production at Khimvolokno-Amtel Kuzbass.

Most of Russian caprolactam exports have gone in recent years to China and Taiwan. These countries consume 45% and 35% respectively of s Russian exports. In the first four months of 2008 Russia, exported 74,400 tons of caprolactam for a value of \$174 million, a 20% increase over 2007.

# Chinese anti-dumping duties on caprolactam lifted

The Chinese government has taken the decision to abolish anti-dumping duties on imports of caprolactam from a number of countries including Russia, Japan, Belgium, Germany, and the Netherlands. Anti-dumping duties were introduced on 3 December 2007 for a period of six months after pressure from domestic producers. Specifically the Chinese Ministry of Commerce ended the intermediate antidumping investigation with respect to the imports of caprolactam by Azot at Kemerovo.

# Russian polyamide-6 market

Polyamide granular exports accounted for 86% of the 77,000 tons produced in 2007. The Russian market was estimated at 22,300 tons in 2007, which was 29% higher than in 2006. Growth is being fuelled by the availability of domestically produced polyamide granular which provided 10,800 tons to domestic customers last year. Imports remain slightly higher at 11,500 tons, but the balance in favour of domestically produced material is changing.

Kuibyshevazot currently has the capacity to produce 96,000 tpa of polyamide-6, after completing its third line last year. A fourth line with a capacity of 50,000 tpa is in the construction stage, and when started will mean that Kuibyshevazot will have only a small surplus available for the merchant or export market. Most, if not all, of the surplus will be sent to Kurskkhimvolokhno, in which Kuibyshevazot took a controlling stake several months ago. Khimvolokno at Shchekino has also increased capacity for polyamide production from 70 to 80 tons per day, and as Khimvolokno is part of Shchekinoazot the additional caprolactam required will be sourced in-house. Metafrax at Gubakha expects to start a small polyamide plant of 1,550 tpa later in 2008.

Polyamide threads is a highly completive market, although consumption is falling due to high demand for polyester fibres which are seen as being more cost-effective. Textile threads are supplied largely from the Ukrainian plant Chernigov Khimvolokno. Belarus provides around 70% of polyester fibre consumption in Russia, with about 25% coming from China and South Korea and only 5% from domestic production.

### **Tatarstan-Ivanovo fibre integration**

A new plant is planned by Tatneft for the production of polypropylene non-woven materials in the Alabuga special economic zone. The capacity of the new line will be 240 million cubic metres per annum, with most of the output being shipped to Ivanovo which is a well established fibre centre in Russia. About two thirds of the county's textile industry is based at Ivanovo, and the poor record of the sector in recent years has led to the idea of creating a textile cluster uniting oil production, oil refining and the textile industry. Due to strong competition from imports many Russian textile companies have been unable to compete.

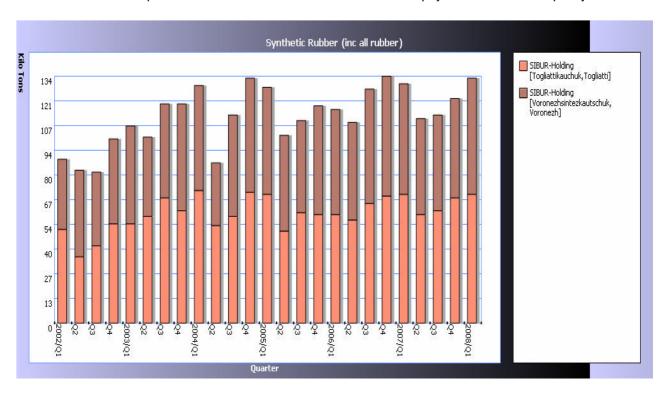
In addition to polypropylene non-woven materials from Tatarstan, polyester fibre materials are also being considered with Nizhnekamskneftekhim already producing MEG and the new Taneko complex at Nizhnekamsk aiming to construct a new PTA plant. Thus, the raw material base could exist for polyester production to replace imports.

# Synthetic Rubber

# SIBUR's rubber division

Togliattikaucuk is undertaking changes in technology for the production of rubber copolymers, based on domestic design. This will affect butadiene-styrene rubber production, from which most of the output is used in the tyre industry. The capacity of the plant is 50-60,000 tpa, and the main technological change will occur by replacing salt with a synthetic reagent. Besides environmental advantages, it will result in a combined fall in costs and improvement in product quality. Togliatti Kaucuk's output of synthetic rubber has

steadily increased since 2002 due to new investments and improved operating rates, similarly to Voronezhsintezkauchuk. Production trends over the past six years are shown below. The shareholders of Voronezhsintezkauchuk recently made the decision not to pay out dividends on the sums of 2007. Shareholders decided to direct clean profit in the size of 5.6 million roubles toward the pay-off of the losses of past years.



#### **SIBUR-Amtel agreement**

SIBUR Russian Tyres is set to be united with Amtel-Vredestein. Holding, after SIBUR has acquired 70% of the shares in Amtel-Vredestein. The deal will mean sufficient financial support for Amtel-Vredestein in order to continue its activities. Amtel-Vredestein has said that it will issue new shares and proceed with a private placement to allow SIBUR to have a controlling stake in a jv. Amtel, which has suffered from debt refinancing problems, will issue almost 160 million new ordinary shares and aims to raise \$150 million through a private placement of almost 80 million shares at \$1.89 each. SIBUR will buy \$50 million of these shares and SIBUR-Russian Tyres will provide \$40 million in interim funding. The objective of these share purchases is ultimately for SIBUR-Holding is to create a major tyre group that can be sold back to Amtel or to another buyer.

# Nizhnekamskneftekhim-isobutylene

Nizhnekamskneftekhim has restarted the production of concentrated or pure isobutylene, after increasing capacity as part of major programme to increase butyl rubber production. Concentrated isobutylene is rarely sold on the merchant market and is dominated by captive consumption in butyl rubber. Thus, the isobutylene is used captively at Nizhnekamsk for butyl rubber production and is located in the divinyl section of the complex. Launching this unit will enable Nizhnekamskneftekhim to produce up to 250,000 tpa of concentrated isobutylene, and provides the feedstock base for expanding butyl rubber capacity to 220,000 tpa. The initial isobutylene plant was started in 1973 with a capacity of 44,000 tpa, and was subsequently increased to 84,000 tpa in 1990.

#### Kauchuk Sterlitamak

From the pending sale of Kauchuk at Sterlitamak, the government of Bashkortostan has stated that it is interested in retaining a stake in the company despite the debts of around 3 billion roubles. A 25% stake in the company, which is owned by the government, is included in the privatisation programme for 2008. Kauchuk currently is supplied by raw materials buy SIBUR. The company specialises in the production of isoprene and isoprene rubber, in addition to catalysts, synthetic zeolite, etc.

# Methanol & gas based chemicals

# Renova sells shares in Togliattiazot

The Renova group has sold a 7.5% stake in Togliattiazot to Uralkhim, which is owned by former SIBUR CEO Dimity Mazepin. During the past year, Renova has considered various options regarding its stake, from increasing it to selling it, and has held talks with Togliattiazot's major shareholder and other market participants. Renova acquired the stake in the ammonia and methanol producer in 2005, mainly as a portfolio investment. However, as soon as it became a Togliattiazot shareholder, Renova encountered differences with the company's management over corporate issues such as confidentiality and a fair dividend policy. The new owner of the 7.5% stake Uralkhim may try to take full control of Togliattiazot, although this may need to be a long tern strategy.

Renova-Orgsintez is more focused on other goals and tends to be leaning towards higher added value products. The polysilicon project at Novocheboksarsk for example represents a major investment, although there is no domestic market at present. Neftekhimya at Novokuibyshevsk is still seen as a site for a possible PVC project to add value in petrochemicals. However, a decision is yet to be made by Renova-Orgsintez, and would depend ultimately on local supplies of ethylene and chlorine. Chapayevsk was previously considered as a location for a PVC plant, but the plant was sold last month. Promsintez at Chapayevsk was viewed as not part of the long term strategy for Renova-Orgsintez. Thus, the current focus of the group is targeted primarily on asset development at Novocheboksarsk and Novokuibyshevsk.

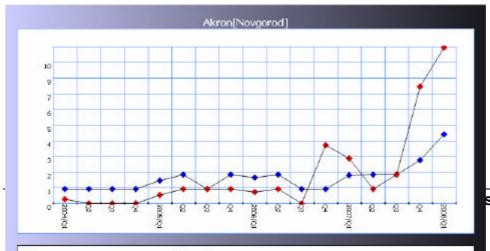
#### Mendelevsk methanol & ammonia project

Bilateral talks took place on 2 July regarding the agreement between Tatarstan and the Moscow based Japanese company Sodzhits Corporation, regarding the ammonia and methanol project. The agreement covers the development of the gas based chemical plant to be located at Mendelevsk based in Tatarstan, for which Mitsubishi is supplying licences and technical support. The integrated complex will produce ammonia, methanol and granulated urea, with respective capacities of 717,000 tpa, 230,000 tpa and 717,000 tpa. Most of the output will be targeted on providing fertilisers for domestic agriculture, whilst providing sufficient methanol for Nizhnekamskneftekhim, which it consumes mainly in the production of isobutylene. Nizhnekamskneftekhim examined the idea of constructing its own methanol plant several years ago, in conjunction with Mitsui, but did not opt to take the project forward.

# Sibmetakhim-Vladivostok methanol plant

Vostokgazprom and Sibmetakhim are starting to explore the possibility of building a large methanol plant near Vladivostok. Vostokgazprom and SIBUR-Holding founded Sibmetakhim, generating around a quarter of Russian methanol output and providing Gazprom with almost of its supplies. Sibmetakhim is essentially based at Tomsk including the methanol, formalin and urea-formaldehyde resins plants, in addition to holding a 33.4% stake in Metafrax. Sibmetakhim's turnover in 2007 was 4.050 billion roubles, which was 16% higher than in 2006 and 50% higher than 2005. Methanol production by Sibmetakhim totalled 755,000 tons in 2007, with formalin production at 79,000 tons, urea-formaldehyde resins at 57,000 tons and urea-formaldehyde concentrate at 13,000 tons. Of the company's total production of methanol, 33,000 tons was consumed captively and the remainder sold on the merchant market. Exports amounted to 403,000 tons, whilst 319,000 tons were sold on the domestic market. The main methanol consumers domestically included Gazprom, Gazprom Neft, SIBUR, and TNK-BP.

#### **Akron-IPO**



Novgorod based Akron is planning to issue more shares and to hold an IPO to support "horizontal integration" expansion numerous units, including methanol and ammonia. The company aims to sell around 10% of its capital through an IPO. Akron's financial performance

sia 14

improved in 2007 due to high fertiliser prices, but longer term the company is faced by the problem of rising gas prices and also export duties on fertilisers.

The purpose of the government imposing duties is to restrict the export of fertilisers and result in lower prices in the domestic market. Gas comprises around 30% of total costs for Akron and that share could increase as costs rise. In the period 2009-2015, the Russian government intends to increase domestic gas prices in stages to the same levels seen in Europe. This will create pressure for important decisions for industrial consumers to be taken now, or at least near term. Akron is looking to diversify its feedstock dependence, even to the point of constructing a transfer terminal on the Baltic coast. Almost half of the company's profits stems from the sale of phosphate fertilisers.

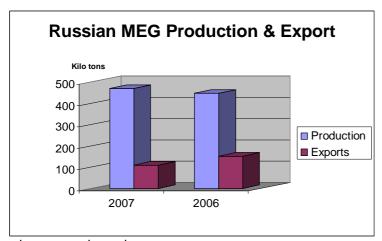
Akron's ffirst-quarter profit more than tripled on increased output and record prices. Net income rose to 3.96 billion roubles (\$169 million) in the first quarter, from 1.3 billion roubles a year earlier. After the success of Uralalkali IPO in 2007, Akron is also expected to see positive results from an IPO.

# Evrokhim melamine project

The administration of the Nevinnomyssk region is to examine the ecological implications of Evrokhim's investment plan to construct a new melamine plant at the Azot complex. The results of the study will be known by the autumn, but the initial signs are largely of local opposition to the project. Azot's argument is that without investment into modernisation and diversification the company cannot move forward, which ultimately is negative for the economy of the local region. The melamine plant is planned for construction on the basis of the urea plant, which will also be modernised. This should help to reduce emissions, which will reduce by around 15% or 47 tons per annum. Reducing the production of granulated urea will the main goal of modernisation, as this is the main cause of emissions.

Currently Russia imports large volumes of melamine, but until now it has not been possible for any chemical producer in Russia to secure a technology license. Evrokhim has finally succeeded through Lurgi and now plans to invest around €184 million into a 50,000 tpa plant. Should environmental approval be received, production theoretically could start in 2011. The same melamine technology could be applied at Evrokhim's other main complex at Novomoskovsk.

#### Organic chemicals



increases planned.

#### Russian MEG market

As the graphic opposite illustrates, only a small percentage of Russian MEG is exported, with most emphasis on domestic consumption. MEG prices in Russia are expected to rise in the near future due to strong demand. MEG consumption is increasing due largely to the production of PTA by Polief at Blagoveshchensk. SIBUR-Neftekhim has supplied its first shipment of antifreeze SIBUR-Premium from Dzerzhinsk to the Minsk automobile plant in Belarus. The antifreeze will be shipped in volumes of 60 tons per month in the first phase, with

### Russian acetic acid & derivative market

In the first five months of 2008, Nevinnomyssk Azot exported 6% less acetic acid than last year due to improved demand trends. Of the 64,000 tons produced in January-May 2008, only 10,800 tons were exported and most of the exports went to Belgium. In the same period, imports of acetic acid into Russia rose 21% to 8,500 tons. Imports come largely from Ukraine.

Butyl and ethyl acetate remain essentially export-oriented products for Russian producers, with the former being the more dependent on export activity. Domestic markets for both products are relatively small, at less than 20,000 tpa. The production of butyl acetate dropped 23% in the first four months of 2008 due to

lower exports, whilst at the same time prices are rising due to higher raw material costs for butanols and acetic acid. By contrast, ethyl acetate production rose 19% in the first four months to 11,900 tons, with the domestic market taking more of the product share. Demand for ethyl acetate is largely seasonal with the winter period showing falls and the second quarter showing higher consumption. Prices rose in June by 8% due to rises in ethanol and acetic acid prices.

#### Sterlitamak Petrochemical Plant

Sterlitamak Petrochemical Plant plans to increase investment in reconstruction and modernisation in 2008 by 422.8 million roubles, which is 2.8 times higher than in 2007. The main project involves the ongoing construction of a unit for the production of agidol-110, which is used as a stabiliser for rubber and resins, and for polyolefins. Construction started in 2007 and will take 68.3 million roubles of investment this year, with completion expected in 2009. In 2007, the company produced 78,900 tons of products with a turnover of 3.5 billion roubles. Sterlitamak Petrochemical Plant was privatised in 1994 and specialises in the production of small tonnage chemicals (anti-oxidants for rubber and other polymers, high octane components for gasoline, etc). A majority stake of 73.94% in Sterlitamak Petrochemical Plant is held by a company called Depozitrano.

#### **Plastics**

### Russian polymer markets

In the polypropylene market, imports by Russia increased 7% in May over April following the accident at Budyennovsk on 4 April. Over the course of April-May, polypropylene imports from Turkmenistan and Ukraine hiked at 10,000 toms due to purchases made by three Russian traders. Scheduled maintenance in Tomsk and Nizhnekamsk is fuelling current buying activity. In June, prices for Russian homopolymer varied within the range of 51.500-52.000 roubles per ton, which shows a sharp increase since the start of the year.

A total of 42,400 tons of PVC was imported into Russia in June, with the total for the first half of the year amounting to 213,900 tons, which was the same as for the whole of 2007. As a result of the surge in imports, domestic producers have been forced to maintain contract prices at the same level in July. Some buyers have bought more Chinese product in the second quarter in anticipation of possible transportation difficulties during the Olympics. Increasing world prices for PVC and could affect the Russian market in the near future. Production of polypropylene in Russia until Q1 2008 is shown below.

# Russian polymer consumption

In the first half of 2008, Russian consumption of PVC window profiles rose approximately 25% after achieving a full year growth of 19% in 2007. In spite of expectations that demand might soften in 2008, consumption has been driven by the construction of new houses in the first half of the year. Nonetheless, many building projects are starting to feel the effects of tighter cash liquidity and have been stalled as a result. Thus, the second half of the year could see some downturn, or at least less robust growth.

PVC pipe production rose 16% in 2007 to 22,000 tons, with a further 6% increase noted in the first five months of 2008 to 9,000 tons. Around 20 Russian companies produce PVC pipes, and there is less dependency on imports in comparison with polypropylene. Polypropylene pipe consumption is rising at between levels of 15-20% per annum. Application areas in Russia include hot and cold water supply systems, sewage pipes, etc. Around 25 companies in Russia produce pipes from polypropylene, but imports dominate the market. Turkey accounted for 51% of imports in 2007, followed by Poland, Czech Republic and Germany. The insufficient level of financing of state municipal programmes is seen as the main factor limiting demand growth, but notwithstanding double digit rates are expected to continue for the foreseeable future based largely on imports.

# Glass-fibre plant starts construction at Alabuga

Construction started in July on the new glass-fibre plant in the Alabuga special economic zone. The plant is being constructed for Tatneft-Alabuga-Glassfibre, which is a jv formed between Tatneft and Preiss-Daimler. A sum of €63.6 million is being invested in the project and will comprise 21,000 tpa of capacity, to be onstream in 2009. Raw materials for the plant will be supplied from domestic sources, including kaolin from the Chelyabinsk region, boric acid from the Nizhniy-Novgorod region, and sodium sulphate from Mendeleyevsk.

# **Dzerzhinsk Orgsteklo**

Dzerzhinsk Orgsteklo (DOS) has confirmed its decision to close its MMA plant, caused by high prices for raw materials sulphuric acid and oleum. These products are used in the production of acetone cyanohydrin. The cost of sulphur on the world market s the primary factor behind the hike in raw material prices, where sulphuric acid has risen from 1400 roubles to 6000 roubles per ton in the first half of the year. Oleum has risen from 1600 roubles to 9000 roubles per ton. DOS has found it not possible to pass these increases on to the end-user due to strong competition.

Instead of producing in-house MMA, DOS has turned to imports thus enabling continued production of PMMA. The company is expanding its PMMA capacity and sees no threat to long-term production, although MMA is a different matter. The side effect of halting MMA production at Dzerzhinsk is a surplus of acetone on the domestic market. DOS traditionally has consumed around 3,000 tons per month in the production of MMA, so Russian acetone producers are now faced by a surplus. This is expected to see prices go downwards.

#### **Base chemicals**

#### Reorganisation of Soda at Sterlitamak

The shareholders of Soda at Sterlitamak, which is the largest producer of soda ash in Russia, elected in June to restructure and divide the company into twp separate subsidiaries. The two new entities will focus firstly on raw materials and secondly on construction materials. The raw material company will engage in the production of limestone, whilst the building company will concentrate on the production of cement, gypsum, dry construction mixtures and other forms of building materials. The division into two subsidiaries is expected to be confirmed later this year. In the first four months of 2008, Soda produced 579,900 tons of soda ash, comprising 58% of total Russian production. Bashkiria Khimya controls 35.57% of Soda, with 61.65% owned by the government of Bashkortostan.

# Kaustik Volgograd, Jan-May 2008

In the first half of 2008, Kaustik at Volgograd increased turnover by 22.6% against 2007, reaching 2.471 billion roubles. In the period January-June 2008, Kaustik produced 35,340 tons of granulated caustic soda which was 10.1% higher than in the same period in 2007. Liquid caustic production increased 0.6% to 75,314 tons, liquid chloroparaffins 11.9% to 5,324 tons and merchant chlorine by 7.5% to 25,974 tons. Kaustik is owned by Nikokhim.

### **Evonik-Syntech**

Evonik's inorganic materials business unit and the Synttech Group in Russia are assessing the possibility of a jv in the production of thermal black. At the end of June, both companies signed a letter of intent in Frankfurt, whilst in the coming months they will jointly examine the financial and technical feasibility of working together.

The Synttech Group acquired the rights to a gas field in the Republic of Komi, in the north-east part of European Russia. Together with Evonik, the intention is to build and operate a plant with a capacity in the range of 20,000 tpa, using natural gas to produce thermal black. It is also intended that both companies would jointly be responsible for marketing and sales efforts. Thermal black, produced with Evonik's technology, is primarily used by the rubber Industry for the manufacturing of mechanical rubber goods.

#### Ukraine

#### Ukrainian refineries

In the first half of 2008, Ukrainian refineries received 3.019 million tons of crude from Russia, 44.2% down on the same period in 2007. Domestic production of crude rose 4% to 1.421 million tons, whilst other sources included lraq and Belarus. In the first six months of the year Ukrainian refineries produced 23.4% less gasoline and 23.4% less diesel fuel than in 2007. The main cause of the lower imports from Russia is the reduction of crude deliveries from Tatneft to the Kremenchug refinery, which had been effectively halved in the first half of the year. The dispute over control of the Kremenchug refinery, and cuts in supplies, began last October.

# Karpatneftekhim-dispute over Oriana assets

The Economic Law Court of the Ivano- Frankovsk region in west Ukraine is currently in dispute with LUKoil over the ownership of the Kalush petrochemical complex. This is however not preventing construction of the new PVC plant at Kalush, which has been started by the Ukrainian company Luganskstroy. The capacity of the new plant will be 300,000 tpa, at a cost of \$220 million, and provide an outlet for the VCM at Kalush.

Production of olefins stopped at Kalush at the end of May due to rises in feedstock costs, which made operations unprofitable. In 2007, Karpatneftekhim produced 171,500 tons of VCM, 53,400 tons of caustic soda, 102,000 tons of polyethylene, 103,600 tons of propylene and 228,400 tons of ethylene.

### Kalush pipe plant

The Russian group Poliplastik is working on a project to install a pipe plant at Kalush in 2008. The plant will begin a series of production tests in October-November 2008, with the design capacity of 50,000 tpa based on polyethylene and PVC. The Poliplastik plant will located adjacent to Karpatneftekhim, which will supply most of the polyethylene in the first phase and PVC when the new plant has been completed in 2010 or 2011.

# **Ukrainian PVC market**

PVC consumption in Ukraine has shown good growth in 2008, with the first four months recording a 50% increase to 43,000 tons. Imports have risen, not only to meet rising demand but also due to the stoppage of production by Khimprom at Pervomaisk in the Kharkov region. After resolving customs' problems in January, Ukrainian suppliers swiftly increased the volumes of PVC imports. The main sources of PVC imports is from Europe, as shown in the table below for the first quarter. The total imports for the first six months of the year was 59,100 tons. Recently Ukrainian processors have begun to use PVC from the USA.

Ukrainian PVC imports (unit-kilo tons)						
Europe	2007	2006	Q1 08	Q1 07		
Hungary	17	18.5	7.0	2.6		
Germany	12	17.9	3	2.2		
Poland	6	1.8	2	1.8		
Romania	6	17.6	1	0.8		
Sub-Total	50	45.0	16	9.5		
Asia	2007	2006	Q1 08	Q1 07		
Taiwan	11	26.8	5	1.4		
S Korea	13	9.4	4	3.7		
China	12	17.1	3	4.2		
Sub-Total	39	49.4	12	9.7		
Total	92	93.4	29	19.2		

# Ukrainian caustic imports rise

In the period January-May 2008 production of caustic soda in Ukraine fell 10.2% against 2007, down to 54,200 tons. Dneproazot reduced production by 11% to 25,300 tons, whilst Karpatneftekhim fell by 9% to 21,300 tons. Domestic consumption also dropped by 13% to 33,000 tons. Dneproazot reduced deliveries to domestic consumers by 12%, to 19,700 tons, whilst Karpatneftekhim reduced shipments by 14% to 13,300 tons.

### Stirol Jan-Jun 2008

Stirol increased sales in the first half of 2008 by 27.6% over 2007, reaching 2.519 billion hryvnia. Ammonia revenues increased 39.3% to 601.964

million hryvnia, urea rose 1.8% to 448.666 million hryvnia and polystyrene 19.5% to 192.704 million roubles. Physical volumes of ammonia fell by 34,200 tons in the first half of the year due to reconstruction on the second of three units.

#### **Crimean Soda reconstruction**

Crimean Soda has completed the first stage of the reconstruction of filtration unit in the production of soda ash. The plant can now produce soda ash with lower chlorine ions, and is considered less aggressive, which will enable it to prolong its use. Furthermore, a reduction of the content of chlorine will lead to a fall in the volumes of harmful emissions into the atmosphere. This will allow the production of Crimean Soda to correspond to world ecological standards and improved product quality will enable it to increase sales to the European Union. The reconstruction of the filtration unit began in January 2008, and during the first stage two old vacuum filters were substituted by high-speed vacuum filters supplied by the German company EMDE. The full project will be completed by the end the year, including four new vacuum filters. The modernisation has been funded by the company's own funds with a cost of around €3 million.

In the first five months of 2008, Ukraine produced 416,000 tons of soda ash, which was 11% up on 2007. Crimean Soda produced 319,000 tons, 9% up, with Lisichansk Soda producing the remainder. Of Crimean

Soda's 319,000 tons, 171,000 tons was exported, with the main destinations including Russia, Italy and Belarus.

#### **Belarus**

### Mogilevkhimvolokno starts PBT production

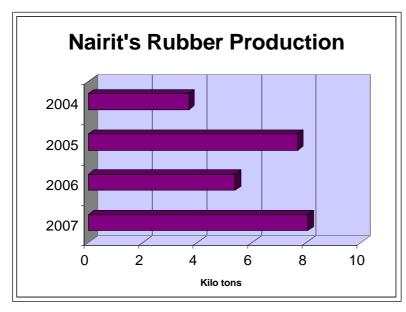
Mogilevkhimvolokno has started the production of PBT based on DMT raw materials, whilst also starting the production of polyester thermoelastoplastics with a capacity of 6,000 tpa. This material possesses a number of valuable properties, such as a high degree of elasticity, etc. In its fibre division, Mogilevkhimvolokhno expects to introduce a new line this year for the production of polyester technical threads (82-110 Teks).

# Political relations between US and Belarus could delay paraxylene project

Worsening relations between Belarus and the USA could affect the progress in the modernisation of the Mozyr refinery and the construction of the paraxylene plant. A license for a 120,000 tpa paraxylene plant was agreed with UOP last year, but now with Belneftekhim's assets having been frozen by the US government the project seems set to be slowed down.

### Belneftekhim wants jv with Evrokhim

Belneftekhim has prepared a proposal for the government of Belarus for cooperation between the Gomel Chemical Plant and the holding company Evrokhim. The Russian company has worked out a business plan for the development of the Belarusian plant. Gomel Chemical Plant produces mineral fertilisers, salts and acids. The company accounts for over 90% of Belarus' market of phosphorous fertilisers, whilst the state owns 99.4% of the company's shares. Evrokhim combines such enterprises as Nevinnomyssk Azot, Novomoskovsk Azot, and Kovdorsky GOK, etc.



#### Central Asia/Transcaucasus

# Nairit-production fall in 2008

In the first four months of 2008, the Armenian company Nairit produced 1.873 tons of synthetic rubber, 13.7% less than in the same period in 2007. Production has been affected in 2008 by weather problems delaying raw material deliveries, and also a change in legislation regarding Nairit produces 15 main customs. products, including chloroprene rubber, latexes, calcium hypochlorite, unslaked lime, caustic soda, oxygen, etc. For the past three years, the company produced only 16,753 tons of rubber, although 2007 was a good year with 8,058 tons produced. Nairit has converted back to production butadiene for the

chloroprene rubber, after a period of around twenty years when it used acetylene.

### Azerbaijan-chemical production increases in 2008

Chemical production in Azerbaijan rose 69.8% in the first five months of 2008 against the same period in 2007. Chlorine rose 2.1 times to 11,000 tons, propylene 80.3% to 13,900 tons, isopropanol 68% to 8,200 tons, polyethylene 77.8% to 24,900 tons. Refineries in Azerbaijan have been processing around 700,000 tons of crude per month. For the first half of 2008 total refined oil amounted to 3.622 illusion tons, which was 6.9 less than last year. The Baku refinery processed 2.313 million tons and the Azerneftyag refinery 1.308 million tons. Amongst the derivatives, 16,210 tons of butane-butylenes were produced which was 11% up on last year.

# **Relevant Currencies**

(Czech crown. Kc. \$1= 18.050. €1 = 26.784): (Hungarian Forint. Ft. \$1 = 173.46. €1 = 257.39): (Polish zloty. zl. \$1 = 2.4832. €1 = 3.6848): (Romanian New Lei. \$1 = 2.4380. €1 = 3.6130). (Ukrainian hryvnia. \$1 = 5.0450. €1 = 7.4863): (Rus rouble. \$1 = 24.329. €1 = 36.102)

Contents Issue No 212 CENTRAL & SOUTH EAST EUROPE	_
Petrochemicals	
Refineries in Central-South East Europe	
Unipetrol 2008 financial targets	
Unipetrol-benzene	
HIP Petrohemija-2008	
Chemicals	
Ciech-ZA Tarnow	
ZA Pulawy-coal gasification	
ZA Pulawy-Air Liquide	
ZA Pulawy-caprolactam licence	4
PCC Rokita	
Spolchemie-epichlorohydrin	5
South East European news	5
Baltic port shipments 2008	5
RUSSIA	
Introduction	<i>6</i>
Petrochemicals	
TNK-BP, associated gas	
SIBUR plant maintenance	
SIBUR-Neftekhim-ethylene expansion	
Nizhnekamskneftekhim	
Kazanorgsintez-financial challenges	
Russian MTBE market	
Angarsk Petrochemical Company	
Bulk polymers	
Tobolsk-Polimer-local hearings approve PP project	
Omsk polypropylene project	
Titan-Omsk regional control	
RusVinyl project receives tax privileges	
Sayanskkhimplast-H1 2008	
Aromatics & derivatives	
Russian paraxylene projects	
Alabuga PET project	
MMK Benzol-TogliattiRussian caprolactam market	
Chinese anti-dumping duties on caprolactam lifted	12
Russian polyamide-6 market	
Tatarstan-Ivanovo fibre integration	
Synthetic Rubber	
SIBUR's rubber division	
SIBUR-Amtel agreement	
Nizhnekamskneftekhim-isobutylene	
Kauchuk Sterlitamak	
Methanol & gas based chemicals	
Renova sells shares in Togliattiazot	
Mendelevsk methanol & ammonia project	
Sibmetakhim-Vladivostok methanol plant	
Akron-IPO	
Evrokhim melamine project	
Organic chemicals	
Russian MEG market	
Russian acetic acid & derivative market	
Sterlitamak Petrochemical Plant	16

# CIREC Monthly News, Issue no 212, 16 July 2008

Plastics	16
Russian polymer markets	1 <i>6</i>
Russian polymer consumption	
Glass-fibre plant starts construction at Alabuga	16
Dzerzhinsk Orgsteklo	
Base chemicals	17
Reorganisation of Soda at Sterlitamak	17
Kaustik Volgograd, Jan-May 2008	17
Evonik-Syntech	17
Ukraine	
Ukrainian refineries	17
Karpatneftekhim-dispute over Oriana assets	18
Kalush pipe plant	
Ukrainian PVC market	
Ukrainian caustic imports rise	18
Stirol Jan-Jun 2008	18
Crimean Soda reconstruction	18
Belarus	19
Mogilevkhimvolokno starts PBT production	
Political relations between US and Belarus could delay paraxylene project	
Belneftekhim wants jv with Evrokhim	
Central Asia/Transcaucasus	
Nairit-production fall in 2008	
Azerbaijan-chemical production increases in 2008	19