

# CIREC

## MONTHLY NEWS

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

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

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### *Features from the August 2004 issue*

- BorsodChem intends to spend Ft 80 billion on investments during the next three years. Previously it was planned that an MDI plant with a capacity of 60,000 tpa would be built, but this plan was later expanded to 80,000 tpa which is expected to start operation in 2005. Installation of machinery and pipe structures will begin after the company's summer maintenance break in August. Trial production in the MDI plant may begin in September 2005, just in time for the projected "peak" of the chemical industry cycle.
- The management of the Police Chemical Plant calculate that they need to invest z<sup>3</sup>.1 billion over the next nine years. The most significant projects will be completed within the next three to four years, which include increasing the production of titanium white, and moving into the production of methanol. In order to carry out these investments, the company is seeking support from its future investor, Ciech.
- Zaklady Azotowe Pulawy undertook pre-commissioning and commissioning in March 2004 of the Melamine III plant. The new 30,000 tpa Melamine III plant is the second melamine plant built by the company in recent years and makes Zaklady Azotowe Pulawy the third largest global producer of melamine. With a total production capacity of 92,000 tpa the company is capable to currently meet 10% of global and 20% of European melamine demand.
- OMV has finalised the agreement to buy a majority stake in SNP Petrom SA for as much as €1.52 billion. The Austrian company will pay Romania €669 million euros for a 33% stake. OMV will eventually buy new shares in Petrom for €723 million to €855 million, increasing its stake to 51%. Romania's parliament must approve the sale. OMV will boost refining capacity by almost half and gain central Europe's biggest oil and gas reserves.
- In late July, a license was signed between Nizhnekamskneftekhim and Basell for the new polyethylene plant at a value of \$150 million. The capacity of the plant will be 200,000 tpa and construction is planned to start in 2005. Nizhnekamskneftekhim is also in close talks with Mitsui over other agreements for projects which could be completed before the end of the year.
- On 9 July, Nizhnovenergo announced the restart of production at Korund at Dzerzhinsk, having reached an agreement over energy supplies with the new owners. The auction for Korund's shares was made at the end of April 2004, with the buyers being the Moscow company Orgsininvest at a price of 300 million roubles. By August, Korund expects to have restarted five of its seven units.
- LUKoil-Neftekhim has stated it will invest \$60 million in the construction of the overdue polypropylene plant at Budyennovsk. The aim is to complete the plant, with a capacity of 100,000 tpa, over the next 18 months. The project was first conceived and started in the Soviet era and a number of other efforts to see completion have until now failed.
- Plans to convert Azerichimia into a joint stock company are still being considered by the Azeri government, and until this idea turns into reality it may be difficult to envisage much progress in the country's petrochemical sector. The aim of creating a joint stock company is to unite the main chemical complexes with the aim of drawing major investments to the industry.

## CENTRAL EUROPE

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### Czech Republic

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(Czech crown, Kc, Jul 11, \$1 = 25.930, €1 = 31.447)

#### Unipetrol

The IOC is considered unlikely to buy out a majority stake in CeRa according to the views of the Czech Ministry of Industry. The IOC, consisting of ConocoPhillips, Eni SPA unit ENI International and Royal Dutch/Shell has an equal share in the 49% of CeRa which is not owned by Unipetrol. The IOC has the option to buy the remaining 51% in the event of Unipetrol's sale, which is now taking place.

Unipetrol's share price fell in reaction to the Ministry's reported statements, largely because PKN Orlen would pay less for the company if CeRa was removed from the deal. That would mean minority shareholders in Unipetrol would also be offered less in a mandatory buyout offer from PKN Orlen.

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### Slovakia

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(Slovak crown, SKK, Jul 11, \$1 = 32.99, €1 = 40.211)

Petrochema Dubova posted a net profit of SKK 19.4 million in 2003, a decline of SKK 13 million from 2002. Sales fell to SKK 1.75 billion, down from SKK 2.18 billion. Petrochema exported nearly half of its production. The company expects sales to top SKK 2 billion this year, while gross profit is projected at SKK 45 million. Petrochema produces motor fuels, heating oil and industrial detergents. The company is 96% owned by Alfa Trading, which is comprised mostly of Petrochema managers.

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### Hungary

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(Hungarian forint, Ft, Jul 11, \$1 = 202.01 €1 = 250.80)

#### BorsodChem

BorsodChem closed the second quarter of 2004 with a favourable net profit. BorsodChem was able to raise its product prices in June, although raw material prices also increased. At the same time, the stronger forint helped towards significant financial gains on its foreign currency loans.

BorsodChem is reviewing its options regarding its capital structure. BorsodChem has recently been awarded a BB long-term corporate credit rating with a stable outlook from rating agency Standard & Poor's Ratings Services. HSBC Holdings has been advising BorsodChem about the rating process and has now been retained to advise on the review of capital structure.

BorsodChem intends to spend Ft 80 billion on investments during the next three years. Previously it was planned that an MDI plant with a capacity of 60,000 tpa would be built, but this plan was later expanded to 80,000 tpa which is expected to start operation in 2005. Installation of machinery and pipe structures will begin after the company's summer maintenance break in August. Trial production in the MDI plant may begin in September 2005, just in time for the projected "peak" of the chemical industry cycle.

Whilst the company purchased the licence of the present MDI Plant from Mitsui, the new plant is to be built using BorsodChem's own technology. After September 2004, BorsodChem's TDI capacity will rise from 60,000 tpa to 80,000 tpa, while PVC capacity will increase from 300,000 tpa to 330,000 tpa. The TDI expansion would make BorsodChem the largest regional player, with the other producer Zchem in Poland which has a capacity of 60,000 tpa.

The VCM capacity expansion at Kazincbarcika is being implemented in two phases. Production is to be increased first from 180,000 tpa to 250,000 tpa by the end of 2004, and eventually it will reach 350,000 tpa. To meet the increased chlorine demand, a membrane-cell chlorine plant of 80,000 tpa is planned to be completed by the beginning of 2006.

In addition to these developments BorsodChem subsidiary BC-MCHZ has an aniline production process that was sold to Japan, whilst there are negotiations with a Chinese company about the technology transfer.

**MOL**

MOL is unconcerned about oil supplies to Hungary following the financial and political troubles of its largest supplier YUKOS. It is not clear though how the YUKOS crisis will affect MOL's JV in the Siberian Zapadno-Malobalnik field, in which MOL's share of the field's output is over 1 million tpa. YUKOS supplies 7.2 million tpa of crude oil to the MOL group, including Slovnaft, under a ten year agreement signed in July 2003. MOL itself processes about 6 million tpa of crude, including 1 million tons from its own domestic production.

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**Poland**

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**(Polish z³oty, z³, Jul 11, \$1 = 3.6350 €1 = 4.51)**

**PKN Orlen**

Despite the changes in CEO at PKN Orlen the company has not changed course and is funnelling two-thirds of its funds derived from last year's profits into its billion-dollar Central European consolidation plan. The general shareholders' meeting in June decided to set aside z³ 651.8 million of 2003's net profit for investment into new Czech, German and Ukrainian projects, as well as related downstream industries in Poland. Orlen will cooperate with ConocoPhillips to import 100 million cubic metres of gas this year. In addition, Orlen is expected to buy ConocoPhillips' gasoline stations in northern Germany, which, together with buy-ups of Royal Dutch/Shell stations and the already acquired former BP outlets, will raise its market share to 15%. However, this process will take at least ten years to complete.

In addition to the Unipetrol acquisition another large, short-term investment could be the complete takeover of two state-owned chemical plants in Kê dzierzyn and Tarnów.

**Elana**

Elana at Torun, part of the Boryszew group and majority owned by Roman Karkosik, expects to post a net profit in 2004 of around z³ 36 million against earlier forecasts of z³.27 million. During the first five months of 2004 the company made a profit of z³.26 million. Elana's 2004 revenues are forecast to total z³.874 million as compared to z³.672 million in 2003. By the end of July, the supervisory board will be presented with a five-year development programme, which might envisage taking over German companies. A new bottle-grade PET pellet plant at Torun opened in March this year with a capacity of 72,000 tpa. Elana's total combined capacity is now 120,000 tpa.

**Melamine**

Zaklady Azotowe Pulawy undertook pre-commissioning and commissioning in March 2004 of the Melamine III plant. The new 30,000 tpa Melamine III plant is the second melamine plant built by the company in recent years and makes Zaklady Azotowe Pulawy the third largest global producer of melamine. With a total production capacity of 92,000 tpa the company is capable to currently meet 10% of global and 20% of European melamine demand.

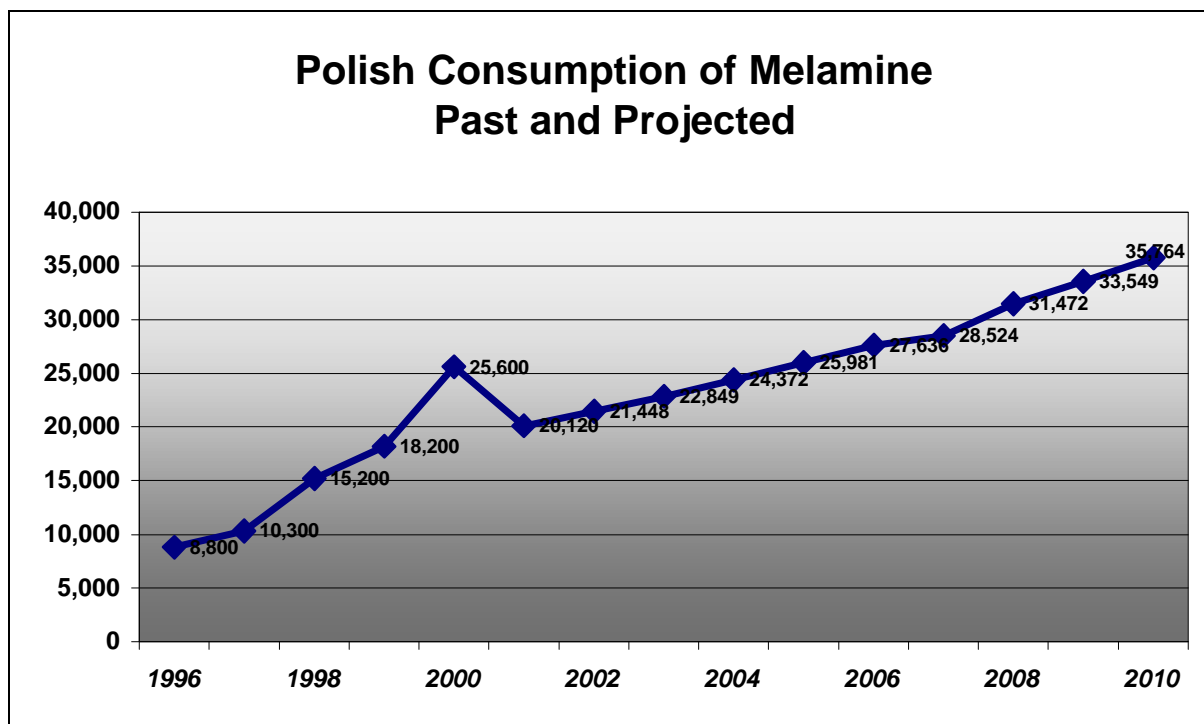
The new Melamine III plant also consumes captively another 100,000 tpa of the company's urea. Around 60% of the melamine from the new plant is being exported. Melamine from Pu³awy has for the first time reached the Russian market which is now considered one of the best developing markets.

Growth in world melamine demand is estimated at a minimum of 4.3% per annum. In 2005, global melamine consumption is expected to total 840,000 tons, and in 2010 as much as 1,030,000 tons.

Due to a convenient geographical location, Zak³ady Azotowe Pu³awy has a clear advantage over its competitors and the opportunity to sell its product to a market which is developing quicker than the global average. Current forecasts indicate that the consumption of melamine in Central & East Europe, inclusive of Poland, is expected to grow at more than 6.6% per annum over the next few years. Zak³ady Azotowe Pu³awy has made a forecast for melamine consumption in the Polish market as illustrated in the chart below. Melamine consumption in Poland is forecast to increase to around 35,000 tpa by 2010 which means a 1.5 fold increase over levels of 2002-2003. Melamine consumption for Central and East Europe is forecast to reach 51,000 tons by 2006, with Poland taking around a 54% share at 28,000 tons.

**Other Polish news**

The management of the Police Chemical Plant calculate that they need to invest z³.1 billion over the next nine years. The most significant projects will be completed within the next three to four years, which include increasing the production of titanium white, and moving into the production of methanol. In order to carry out these investments, the company is seeking support from its future investor, Ciech.



The Polish Oil and Gas (PGNiG) may be forced to convert the debts of the Tarnów and Kędzierzyn plants into equity stakes and then sell them on to Anwil. Nafta Polska is currently carrying out due diligence on the three plants, including three chemical plants, Police, Tarnów and Kędzierzyn and over the summer is expected to transfer the rights to the shares from the state to itself. Nafta Polska has still not found an investor for ZAPuław. As a result the idea of floating the company on the stock exchange has returned.

Ciech is in advanced negotiations concerning a several million dollar investment connected with the exploitation of sulphur in Iraq. Ciech, which plans to debut on the Warsaw Stock Exchange this year, announced plans to invest as much as z<sup>3</sup> 96.6 million before the end of 2004.

The funds will chiefly come from its own capital and its subsidiaries. However, Ciech disclosed that its two main projects, an investment in Petrochemia Blachownia and Vitrosilicon, will have to be financed with external funds. The strategic assumption behind these investments is to base business objectives on the production of soda ash and phosphorus in alliance with the Police Chemical Plant, which is still controlled by the State Treasury. Z<sup>3</sup>.150 million is expected to be raised through privatisation of the Police plant.

Polish chemical companies fear that the impact of EU integration and the EU's REACH policy could lead to large losses in the sector, while at the same time as much as 20,000 people will lose their jobs. Implementation of the REACH regulations concerning chemical products in the EU by 2007 is expected to seriously limit the competitiveness of EU producers. The sector wants to amend the regulations so as to avoid the need to re-register chemicals that have been registered in another EU member state.

## SOUTH EAST EUROPE

### Slovenia

Paint manufacturer Helios at Domžale has made a bid to purchase the remaining share in the rival company Color, where it already controls an 85.04% stake. Helios has the ambition to form the biggest company in the coatings industry in Central and East Europe and is considering further takeovers in neighbouring countries.

The Slovenian company JUB has opened a paints and varnish factory at Simanovci in Serbia. The value of the investment is €6 million with around three-quarters of its output will be exported.

Goodyear has completed its acquisition of the remaining shares in Sava Tyres at Kranj, Slovenia. The move, according to Goodyear, strengthens the company's position as the second largest tyre maker in Europe and enhances its low-cost sourcing capabilities.

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## **Romania**

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### **Petrom**

OMV has finalised the agreement to buy a majority stake in SNP Petrom SA for as much as €1.52 billion. The Austrian company will pay Romania €669 million euros for a 33% stake. OMV will eventually buy new shares in Petrom for €723 million to €855 million, increasing its stake to 51%. Romania's parliament must approve the sale. OMV will boost refining capacity by almost half and gain central Europe's biggest oil and gas reserves. Analysts' valuations of the Petrom stake ranged from €1 billion to €1.7 billion, putting the actual price near the high end. The purchase is OMV's biggest ever and makes Austria the largest foreign investor in Romania. If the takeover were fully financed from loans, OMV's debt would be less than 40% of shareholders' equity. The ratio stood at 30% at the end of June.

OMV will sell its 25% stake in the Rompetrol Group, if required to do so by the national competition authority. The companies have hired J.P. Morgan Chase & Co. to find a buyer for the holding, which OMV bought in 2002 for an undisclosed sum.

Petrom's privatisation is seen as an indication of the government commitment to market changes, and a key element of the country's efforts to win EU membership in 2007. The petrochemical divisions will be kept as part of Petrom and expanded further. Petrom currently has capacities to produce around 900,000 tpa of naphtha, 130,000 tpa of LPG, 170,000 tpa of ethylene, 90,000 tpa of polyethylene, 80,000 tpa of acrylonitrile, 62,000 tpa of ammonia, 50,000 tpa of urea, and 72,000 tpa of methanol.

### **Oltchim**

The Petrom sale is expected to now start to open doors for the sale of Oltchim which has been on hold for some time. Oltchim plans to start PVC modernisation this year after the Dutch technical service provider Imtech NV won the order. Ventilex, part of Imtech Technology, will install a total of three PVC dewatering and drying lines as the final stage of the process of upgrading. Other projects being examined by Oltchim include TDI based on Rhone Poulenc technology, having previously been sited in Serbia.

## **BALTIC STATES**

The problems facing YUKOS could possibly affect Mazeikiu Nafta in the short term, in which YUKOS purchased a 53.7% stake in 2002, but there are sufficient alternative sources of Russian crude should the worst happen. The Lithuanian government has a 40.66% stake, but does not have the funds to buy out YUKOS. Oil throughput at Mazeikiu Oil Refinery increased 36.8% to 3.9 million tons in the first half of 2004. Mazeikiu Nafta was in financial difficulty when YUKOS took it over in 2002. However, in 2003 the refinery processed 7.16 million tons of crude and all the losses were eliminated. Between 70-80% of total revenue from Mazeikiu Nafta comes from the refinery division.

## **EURASIA, COMMONWEALTH OF INDEPENDENT STATES**

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### **Russia**

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(Rus rouble Jul 11, \$1 = 29.110, €1= 36.149)

### **Russian supply/demand**

Although Russian bulk polymer and organic chemical consumption has been increasing rapidly from its relatively low base since 1999 onwards, Russian producers have been unable to meet much of this new demand due to a lack of investment. Domestic consumption of polyolefins, PVC and polystyrene are all rising rapidly which is helping to increase the pressure on imports. Production levels are growing steadily (as shown in the graphic), but

not as quickly as demand. In fact, production levels in Q1 2004 were the highest ever volumes seen for organic chemicals and polymers in Russia.

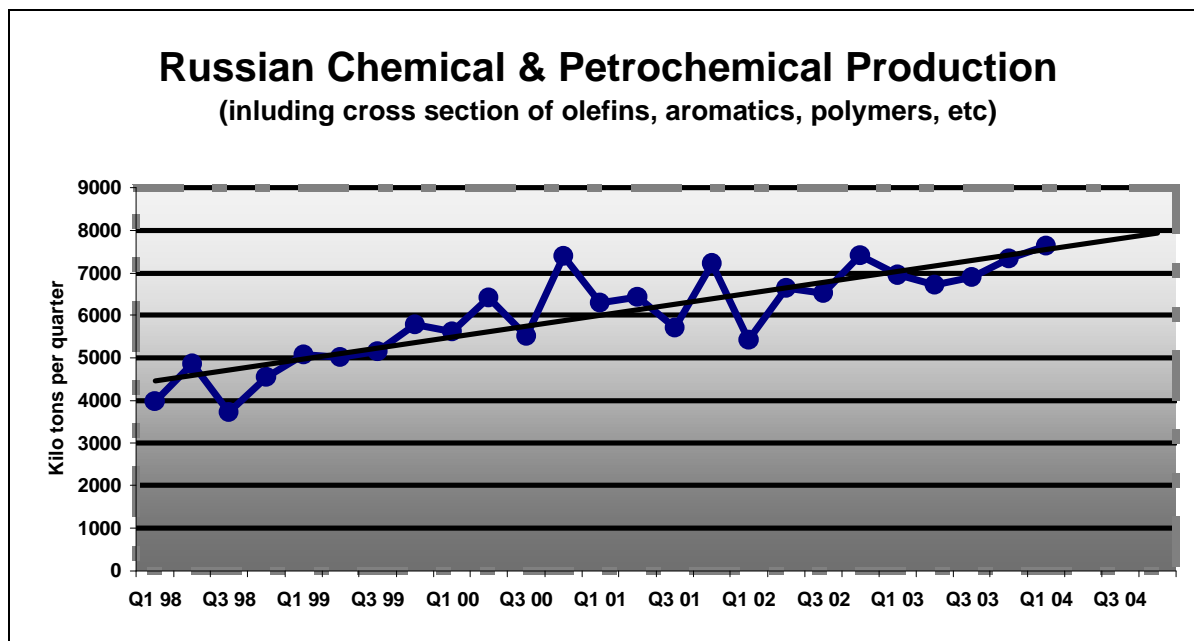
At the same time domestic demand is helping to reduce export flows, i.e., HDPE exports to China which have fallen sharply to zero in the past year or so. PVC exports have fallen due to anti-dumping measures introduced by the Chinese government, but at the same time Russian domestic demand has more than compensated for this loss of trade.

The issue of investment is a constant theme in current thinking for the Russian petrochemical sector in order to meet the new demand for plastics, etc. For example, the consumption of plastic films in Russia currently totals around 252,000 tpa, and is rising solidly, but is served mostly by imported sources of product. Polypropylene holds the largest share of the film market at around 29%, followed by multilayer and combined films at 21.4%, polyethylene at 18% and PVC at 13.3%. Though paper still is ahead of plastics in Russia with a 61% share of packaging consumption, compared to 22.6% for plastics, the market has great potential to expand. Investments are currently being targeted BOPP films, polystyrene and PET bottle chips.

Uzbekistan, Kazakhstan, Azerbaijan and Ukraine are also actively developing their plastic processing facilities, especially for the manufacture of moulding articles, wall panels and PVC pipes. The growth rate in CIS countries for plastics is estimated on average at 7.5%.

The major concern is focused on the lack of monomers and petrochemical feedstocks. Ethane is seen as the key raw material for the future of the petrochemical industry and thus developments in West Siberia are critical for wholesale expansions.

Some producers face feedstock problems occasionally, although plants which are included into the structure of vertically integrated oil companies, tend to have more stability. Hydrocarbon companies are in the business of making profit and thus unless market conditions are right for producing petrochemical feedstocks the onus is not on them to follow this strategy. When oil prices are as high as they have been in recent times it is a difficult argument to sell the concept of downstream petrochemical production. Indeed, whilst demand for petrochemicals in Russia is growing strongly but there is not enough incentive for oil companies to become involved in petrochemical production. Only LUKoil of the major oil companies has an active chemical division, and even then that division is required to be self-supporting and seems more of a production/trading sub branch than an integrated player with a coherent strategy.



Therefore, as Russian capacities are unable to satisfy all of the demand, the immediate term for 2005 and 2006 looks set for imports to increase, assuming that there is availability elsewhere. Scenarios could happen where building and other construction projects have to be delayed simply due to a lack of chemical product availability.

Beyond 2006 it may be possible to see the effects of investment at Kazan, Nizhnekamsk, Kstovo and Samara (Novatek) which would help meet some of the new petrochemical demand. Novy Urengoy could also come into the frame. Effectively, the sooner that some of the big petrochemical projects are put into practice the better for the Russian economy as a whole.

It is not only grassroot plants where investment is required more than 60% of Russian production capacities are considered now to be outdated and hence non-competitive which tends to reflect on profitability and reinvestment economics. Local producers are having to compete with imported sources of product, where technology is more advanced or there are better economies of scale. As a result, Russian profit margins are very tight and invariably what profits there are tend to be ploughed back into making small scale modifications of existing plants. At federal level duties for imported equipment for the construction of polymer production facilities, etc, are quite high and act as a deterrent to potential investors. In general, tax conditions are not conducive for encouraging producers to expand. These are all aspects which tend not to stop progress completely but they do help the investment cycle.

If there is a general trend or direction of investment currently evident in the Russian chemical industry, it is probably on energy and reducing production costs. In view of rising natural gas prices, power and rail tariffs in the domestic market this goal is becoming more important simply in order to try and achieve a competitive edge.

In the early 90s, after market reorganization, closures or conversion into joint stock companies, the majority of chemical facilities lost their power generating capacities. Only very few of them kept their own boiler houses, so now there is much investment and spending in this area. Restructuring is taking place in the Russian energy sector in 2005 which will lead to further changes in how plants receive their heat and steam and so this has become a very important cost consideration for most producers.

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**SIBUR**

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**SIBUR Q1 2004 Production  
(unit-kilo tons)**

<b>Product</b>	<b>Location</b>	<b>Q1 04</b>	<b>Q1 03</b>
Ethylene	Various	113.2	97.3
Propylene	Various	55.9	50.3
Butadiene	Various	55.8	53.9
Benzene	Kstovo	18.6	14.6
Styrene	Perm	13.5	13.2
Isoprene	Samara	34.8	21
PVC	Dzerzhinsk	8.8	7.0
Polypropylene	Tomsk	29.8	27.4
Polyethylene	Tomsk	49	43.7
Caprolactam	Kemerovo	27.3	25.4
Plasticizers	Dzerzhinsk	11.5	6.7

Gazprom has stated that it has plans at some stage to restructure SIBUR as part of the group's strategy in gas chemicals and petrochemicals. SIBUR itself has recently redefined its roles with the Volgograd and Samara regions, the former being more compliant with SIBUR's objectives. Under the agreement with the Volgograd region SIBUR will aim to ensure growth in chemical production volumes, and to carry out projects such as the reconstruction of the cord thread plant at SIBUR-Volzhskiy.

SIBUR is intending to provide cover for a 51 million rouble loan raised by SIBUR Volzhskiy with Gazprombank. Other SIBUR projects in the Volgograd region include the expansion of tyre production at the Voltyre plant, and to create a unit for the production of progressive copolymers and to expand plastics at Kauchuk at Volgograd.

**SIBUR H1 2004 Production  
(unit-kilo tons)**

<b>Product</b>	<b>H1 04</b>	<b>H1 03</b>
Hydrocarbon raw materials	1,157	965
LPGs	1427	1152
Liquid/Monomer Fractions	365	308
Monomers	584	503
Synthetic rubber	270	237
Polymers	231	184
Organic products	376	288
Fertilisers	653	656

SIBUR has decided to liquidate the Samara managing company with the main reason being the inability to combine Togliattikauchuk and Novokuibyshevsk Petrochemical Combine. There were also problems with tax revenues with the local authorities. Accordingly, tax revenues from company activities were listed to Moscow rather than Samara. SIBUR-Samara was created at the end of 2000 based on the combined assets of Khimprom, Togliattikauchuk, and the Novokuibyshevsk Petrochemical Company. It was planned that Togliattikauchuk, and the Novokuibyshevsk Petrochemical Company would be

incorporated into one structure, particularly important for C4 integration, but this never happened in full.

In the first half of 2004 SIBUR's petrochemical production increased by around 15% over the same period in 2003. The Kstovo cracker increased ethylene production to 98,662 tons from 69,441 tons in the first half of 2003, but the use of gas based feedstocks meant that propylene production did not increase by the same scale.

In the first half of 2004 SIBUR produced 5,606 tons of different petrochemical products against 4,748 tons in the same period in 2003. The group processed 4,831 million cubic metres of gas feedstocks in the first six months compared to 4,447 cubic metres last year. Nearly all products saw an increase in production volumes with a 33% growth in gross profit levels.

**SIBUR-Neftekhim's Production (unit-tons)**

<b>Product</b>	<b>Jan-Jun 2004</b>	<b>Jan-Jun 2003</b>
Petrochemicals	315,000	232,317
Ethylene	98,262	69,441
Ethylene Oxide	31,167	18,569
MEG	74,769	60,173
DEG	9,290	6,441
TEG	627	426
Propylene	49,198	39,624
Benzene	35,041	24,073
BBF	24,398	19,652
C5	10,198	10,857
C9	7,591	5,341
EDC	43,812	37,113
PVC	16,730	15,194
Caustic Soda	42,243	41,417
Chlorine	7,579	7,849
Ethylene chlorohydrin	5,791	4,507

**Tomskneftekhim**

In 2005, Tomskneftekhim plans to purchase a complete line for packaging and shipment polyethylene from Haver & Boecker and Boimer & Boimer. The necessity to increase the capacity of the packaging unit and shipment of finished goods has resulted from the planned expansion of the LDPE plant from 150,000 tpa to 220,000 tpa.

In 2003, Tomskneftekhim produced 162,990 tons of polyethylene, whilst in the first four months of 2004 the plant produced 64,423 tons which was 10% more than last year. At the moment there is more ethylene being produced at Tomsk than required by the LDPE plant.

Vostokgazprom (VGP) has developed a feasibility report regarding investments into the construction of a gas processing plant in the Tomsk area, and a product pipeline, connecting the gas condensate deposits of region with Tomskneftekhim. The project has already received positive feedback from the EBRD. The total cost of the project is in the \$300 million range, with construction expected to take about 30 months.

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**Tatarstan**

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Price increases for polyethylene, polyethylene pipes, lorry tyres, phenol and synthetic rubber all contributed to higher turnover in the first half of 2004 for Tatarstan's petrochemical sector. Nizhnekamskneftekhim, Kazanorgsintez, and NefteKhimSevilen saw the highest profit and production growth levels in the sector. Nizhnekamskneftekhim's turnover grew 5.8% to total 13.3 billion roubles. Important factors in the sector included the new polystyrene plant and a substantial increase in polyethylene glycol production. Kazanorgsintez saw a 70% growth in profits in the first half of 2004, reaching 1.281 billion roubles, against 634 million roubles in the same period in 2003.

**Nizhnekamskneftekhim**

Nizhnekamskneftekhim reduced styrene monomer production over July in line with the plant maintenance shutdown. Polystyrene production was cut back by about 35% for the month as a result of the lower styrene availability. In the first half of 2004 the polystyrene plant produced 23,900 tons.

Nizhnekamskneftekhim's power saving programme resulted in savings of 84.2 million roubles in the first half of 2004, based on local energy prices. Plants saved 179.9 thousand Gkal of heat and 14.7 m KW/hour of electric power in the first half of 2004, in addition to 9239.5 tons of conventional fuel. In late July, a license was signed between Nizhnekamskneftekhim and Basell for the new polyethylene plant at a value of \$150 million. The capacity of the plant will be 200,000 tpa and construction is planned to start in 2005. Nizhnekamskneftekhim is also in close talks with Mitsui over other agreements for projects which could be completed before the end of the year.

**Kazanorgsintez**

Kazanorgsintez has reached agreement with Asahi Kasei regarding the license for the polycarbonate project based on non-phosgene production. Kazanorgsintez plans to build a polycarbonate plant with a capacity of



65,000 tpa, based on a Bisphenol A plant with a capacity of 70,000 tpa. The project is expected to be completed by 2006. Sberbank has agreed to grant Kazanorgsintez a loan in the range of \$800 million to support petrochemical projects up to 2011. The first part of the grant, \$420 million, will support projects up to 2007.

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**Bashkortostan**

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Emerging signs are that Bashkortostan's independence from Moscow is beginning to come under pressure, which could eventually mean that the Republic is absorbed into the rest of the country. As Bashkortostan is a major region for the production of petrochemicals and oil refining this political direction could open up new opportunities for developments in the sector. Over the last few years the local chemical companies have been reluctant to explore co-operation with outside companies and influences, but the opening of the door to Gazprom has marked an important turning point.

Given the gradual but growing pressure from the Putin administration, the general political situation is beginning to change, and there is a view that Bashkortostan will inevitably converge with the rest of Russia.

Bashkortostan's industrial production was up 7.4% to \$6.26 billion in 2003, placing it 10th out of Russia's 89 regions. Despite the fact that a "proper privatisation" of old Soviet assets was never carried out, it is one of a handful of regions that have traditionally been net contributors to the federal budget.

The largest petrochemical complex in Bashkortostan is Salavatnefteorgsintez which was initially designed to refine gas condensate imported from Kazakhstan. In 2003, Salavatnefteorgsintez's revenue amounted to \$604.3 million. Earlier in 2004, Salavatnefteorgsintez and Tecnimont signed a contract to construct a new \$100 million polyethylene production line with a capacity of 120,000 tpa.

<b>Ufaorgsintez Q1 2004 Production</b> (unit-kilo tons)		
<b>Product</b>	<b>Q1 2004</b>	<b>Q1 2003</b>
Ethylene	26.7	18.5
Propylene	33.3	32.0
Phenol	18.0	17.0
Acetone	11.4	10.8
Polyethylene	21.9	21.1

The second largest petrochemical complex is Ufaorgsintez which produces acetone, phenol and polyethylene. Unlike other enterprises in the petrochemicals sector, Ufaorgsintez has a diversified sales market, being a fairly active exporter to countries such as China, Lithuania, and Finland. In 2003 the company generated revenues of \$139.8 million.

Several of the major chemical companies in Bashkortostan are closed stock companies, such as Kaustik and Kauchuk. Sovlink is the majority shareholder. Kauchuk specialises in the production of general purpose synthetic rubber, and produces 33% of Russia's isoprene rubber and 40% of its copolymer rubber. It also produces synthetic zeolites, natural oil substitutes for paints, and everyday rubber and chemical goods. Revenues in 2003 were an estimated at \$103.3 million.

Sterlitamak Petrochemical Plant is a closed joint stock company and its range of products includes antioxidants, synthetic rubbers, epoxy hardeners and household chemical goods. Its revenues in 2003 were about \$42.90 million.

**Salavatnefteorgsintez Q1 2004**

In the first quarter of 2004 Salavatnefteorgsintez processed 1.590 million tons of crude, which was 8% higher than in the same period in 2003. Turnover reached 5.641 million roubles, 20.2% up on 2003. In the petrochemical division, plasticizers and phthalic anhydride utilisation levels rose, whilst plants for polyethylene, ammonia and urea ran at more than 100%; and ethylbenzene and styrene at 80%.

<b>Salavatnefteorgsintez Q1 2004 Production</b> (unit-kilo tons)		
<b>Product</b>	<b>Q1 2004</b>	<b>Q1 2003</b>
Ethylene	73.6	74.1
Propylene	33.0	32.5
Phthalic Anhydride	3.5	3.0
Benzene	54.5	47.7
Styrene	41.9	11.5
Polystyrene	11.6	12.3
Polyethylene	12.6	11.5

In the first quarter there were three incidents at Salavat, one involving the EP-300 unit. SNOS has made savings of around 65 million roubles in the first part of this year on raw material costs, reagents and catalysts. A significant part of the company's profits are directed into capital investments, into modernisation of existing plants and the infrastructure for the whole complex. Additional equipment has been introduced this year for the production of foam polystyrene. For replacement of the out-of-date

equipment SNOS spent 13.5 million roubles. 47% of production was exported in the first quarter of 2004, valued at 90 million roubles which was 2.7 times higher than in 2003. Growth was seen in the shipment of diesel fuel, urea, ammonia, styrene and polystyrene.

The problem of non-payments remains an issue for SNOS and the company has somewhere in the range of 2.329 million roubles outstanding. The number of workers in the first quarter was 14,733, with an increase of 198 due to start-up of the new ethylbenzene and styrene units.

A new polyethylene plant has been agreed with a capacity of 120,000 tpa based on Basell technology. Tecnimont has organised financing the project by attraction of long-term credits from the largest Italian banks under guarantees of Italian export-credit agency SACHE. The project will cost more \$80 million and will facilitate an expansion of polyethylene, coupled with new grades of high-quality polyethylene for applications in agriculture, the food-processing industry, etc.

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**Irkutsk**

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**Sayanskkhimplast**

Sayanskkhimplast increased PVC production in the first five months of 2004 by 11% to 102,085 tons. Production of PVC plasticizers totalled 5,220 tons for the period January-May 2004, a rise of 14% over the same period of 2003. Sayanskkhimplast has installed a unit for the production of PVC profile products for wall panels, and also pipes and cables of different types and sizes. There is no other production of these products in Siberia which has meant that the region has had to rely on imports. The new unit will process 1,500 tpa of PVC products. The equipment has been installed by the Italian company Akka and is part of Sayanskkhimplast's continuing efforts to expand downstream.

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**Samara**

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**Novatek**

A preliminary package of documents has been created regarding the financing for the construction of the Novatek petrochemical project at Novokuibyshevsk in the Samara region. The project is valued at €1 billion and will include 600,000 tpa of olefins. This will be targeted at 400,000 tpa of polyethylene and 200,000 tpa of polypropylene. Novatek, and Linde are still in talks over the building a 1 billion euro complex, countering reports

that the deal had collapsed. Russian and German media reported in July that the deal had collapsed after Gazprom stepped up pressure on Novatek not to build the plant. They said Gazprom had ensured that Novatek was not invited to a signing ceremony in Moscow in July, attended by German Chancellor Gerhard Schroder and President Vladimir Putin.

**EVROKHM****Azot Nevinnomysk Production (unit-tons)**

Product	Jan-Jun 2004	Jan-Jun 2003
Acetic Acid	81,000	72,200
VAM	9,400	9,073
Acetaldehyde	20,700	16,829
Butyl Acetate	10,500	9,589
Acetylene	18,000	15,063
Ammonia	516,000	494,727
Urea	274,000	163,290

**Azot Novomoskovsk Production (unit-tons)**

Product	Jan-Jun 2004	Jan-Jun 2003
Methanol	161,500	142,500
Caustic Soda	38,370	39,233
Calcium Chloride	2,530	2,357
VCM	14,600	13,840
Acetylene	7,080	10,505
Tetrachloroethane	2,410	2,005
TDI	1,500	1,468
Ammonia	601,200	660,659
Urea	285,700	334,100

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**Evrokhim**

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Azot at Nevinnomysk increased organic chemical production in the first half of 2004, with acetic acid reaching 81,000 tons. Ammonia production at Novomoskovsk was down in the first half of the year but the revamped methanol plant continued to produce more product.

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**Nizhniy Novgorod**

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**Korund**

On 9 July, Nizhnovenergo announced the restart of production at Korund at Dzerzhinsk, having reached an agreement over energy supplies with the new owners. The auction for Korund's shares was made at the end of

April 2004, with the buyers being the Moscow company Orgsininvest at a price of 300 million roubles. By August, Korund expects to have restarted five of its seven units.

Korund was managed under bankruptcy conditions from April 2000 to April 2004. During the external management period the main part of the production equipment (in exchange for the power resources) was run by the local energy company Nizhnovenergo which was the main creditor of the plant. In May 2003, Nizhnovenergo started organising tenders for the sale of Korund to a strategic investor. Due to complications the bidding process took longer than expected, but finally on 30 April 2004 the assets were sold to Orgsininvest.

The new owners have allocated 192 million roubles to revive production. Orgsininvest plans to construct a PET plant of around 160,000 tpa capacity at a cost of \$70-80 million. This would add to the other projects taking place in Russia. In terms of raw materials, glycols are produced locally by SIBUR-Neftekhim, but as with other PET projects in Russia the issue of PTA supplies would be the main concern for running the plant.

Orgsininvest is connected indirectly to Petrochemical Holding in Vienna, which is already undertaking projects for PET in Lithuania. SIBUR previously had considered building a PET plant at the Kaprolactam site at Dzerzhinsk.

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### **Product news**

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#### **Polystyrene**

Polystyrene demand in Russia is growing in excess of 20% per annum, and of the bulk polymers polystyrene is the most dependent on imports. In 2003, production growth was facilitated by a new 50,000 tpa polystyrene plant at Nizhnekamskneftekhim combined with stable operations at the existing facilities at Salavat, Omsk and Uz'ovaya. Substantial polystyrene production growth is expected in 2004 due to the full utilisation of the Nizhnekamskneftekhim plant, and also due to a new 50,000 tpa general purpose polystyrene facility which was put on stream in the first part of 2004 by Penoplex at Kirishi.

#### **PVC**

VEKA introduced a new Weber extruder at its Moscow site in June 2004 which can produce more variety in PVC window profiles for the fast growing Russian market. By government regulation all new dwellings in Russia are required to have PVC windows installed and with the boom in construction this is helping to drive demand. VEKA first opened the office in Russia in 1995 and since 1999 has been manufacturing from its Moscow site with advanced equipment in full conformity with the EU. The company will open a new plant at Novosibirsk this year.

A new plant for the production of PVC window profiles will be constructed at Novgorod to serve the local market. The plant will be constructed by Pargolovsk which is based in St Petersburg. Samara Window Constructions has opened its own line for window profiles with protective films which will facilitate protection from ultra-violet radiation, and at the same time allowing for solar energy and thermal radiation.

These developments are small examples of the factors which are putting pressure on the need to invest in new PVC capacity, as Russia in the next couple of years may become a net importer of PVC. Plants are running close to their maximum operating rates. Chinese anti-dumping has turned into something of a plus point as perhaps Sayanskhiplast may not have been previously so enthusiastic to sell more product in the Russian market.

In 2003, Russian PVC utilisation rate was on average 91.8% as compared to 88.9% in 2002. Further PVC production growth is hindered by the lack of new capacity coming onstream. Apart from the lack of new units the current PVC plants are ageing and very outdated, with the exception of the current plant at Sterlitamak which started in 1998.

#### **Polypropylene**

LUKoil-Neftekhim has stated it will invest \$60 million in the construction of the overdue polypropylene plant at Budyennovsk. The aim is to complete the plant, with a capacity of 100,000 tpa, over the next 18 months. The project was first conceived and started in the Soviet era and a number of other efforts to see completion have until now failed.

Other new polypropylene projects planned in the short to medium term future include Nizhnekamskneftekhim and Novatek. Of the three existing plants Tomskneftekhim ran at 109.6% last year and Ufaorgsintez at 118.3%. Overall, in 2003 polypropylene capacity utilisation rate amounted to 92.8% compared to 87% in 2002. In the first quarter of 2004 Russia produced a total of 79,300 tons.

### **Tyres**

Growth in Russian tyre demand is leading to new investments which will provide new outlets for the major synthetic rubber producers. Russian tyre producer Amtel has announced the start of construction of a specialised Amtel-Chernozemie-II greenfield facility at Voronezh. The estimated project cost is €60 million, including €40 million from in-house Amtel investments, and €20 million from borrowed funds.

The new plant will produce modern radial tyres for Russian and foreign cars. The facility is scheduled to be completed and started up by the fourth quarter in 2005. The single production complex will manufacture 5.4 million premium tyres of different types per annum. The new facility will produce tubeless radial tyres.

Another project in Russia involves Nokian Tyres of Finland which has started the construction of new plant in the Leningrad region. The first unit of the plant will be commissioned in the second half of 2005. By 2006, the plant will produce 1.5 million tyres per annum. The total capacity of the plant will eventually be 8 million tyres per annum.

The plant is to be located in the Vsevolozhsk region and will be constructed in agreement with the Leningrad region. The project cost is €300 million and the EBRD is taking part in the project. Nokian has decided to invest into the development of new capacities, as the plant in the Finnish town of Nokia operates at its maximum rate.

### **Methanol**

Agreements have been reached for the construction of a gas processing plant at Buj on the Kostroma region. A number of Moscow companies, including gas sector operators and some foreign banks, have invested into the project the total cost of which is about \$500 million. The plant has been proposed to produce methanol for the production of polymers. The investors singled out the region of Kostroma which is located in the centre of the gas fields of the Samara, Saratov and Perm regions and the republic of Komi. All these gas fields are exempt from the interests of Gazprom.

### **Hydroxylamine**

Novosibirsk group company Dauriya has announced plans to construct a hydroxylamine (50% solution in water) at the Kuibyshev Chemical Plant. The Kuibyshev hydroxylamine unit will become the second world producer of this product, used in the semi-conductor industry for etching payments and in the pharmaceutical industry for manufacturing antibiotics. Currently, the sole producer of hydroxylamine is BASF.

Dauriya plans to establish the plant by the middle of 2005, with annual sales of \$6-7 million. The company regards the plant as a pilot project, producing in the first phase 500-600 tpa. However, the company is assessing possibilities of increasing capacity up to 4,000 tpa.

The Kuibyshev Chemical Plant specialises in the production of ammonium perchlorate (component of rocket fuel).

### **Trichlorosilane**

In mid-July, Khimprom at Novocheboksarsk met with the Russian Federal Agency for Atomic Energy concerning the deliveries of pure trichlorosilane. Khimprom is currently modernising its production unit and supplies of trichlorosilane will be directed to the Zheleznogorsk mining-chemical combine for the production of polycrystalline silicon by the middle of 2005. Khimprom will increase its capacity to 2,000 tpa.

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## **Belarus**

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### **Belarussian development strategy**

After a number of failures in privatisation efforts Belarus has now indicated that it is not prepared to wait any longer for Russian investments to take place in the petrochemical industry, and will develop the petrochemical sector based on its own strategy. This indication tends to suggest of frustration as the Belarussian government has probably set prices for its petrochemical assets too high for Russian buyers. As a result there has been stalemate. YUKOS, LUKoil and Surgutneftegaz have all shown interest in Naftan, with probably the latter of those three companies being the most serious.

The new direction adopted by the government assumes investment worth €111,6 million, which will come from Mogilevkhimvolokhno, Belneftekhim and finally foreign credits under guarantees of the government. Mogilevkhimvolokhno and its investment plans, outlined in issue number 163, represent the core of the government strategy.

Slavneft has shown interest in taking a majority stake in Mogilevkhimvolokhno, whilst the Belarussian government has been looking at the possibility of co-operation between Slavneft, Mogilevkhimvolokhno and the Mozyr refinery. The Belarussian government has already rejected the idea of Slavneft investing in Mozyr.

The reconstruction of the Mozyr NPZ has been under process since 1996, and \$284 million has already been invested in the refinery. This year Mozyr NPZ has spent \$15 million on the fifth stage of reconstruction, involving the installation of an alkylation unit. At a cost of \$52 million the project should be completed by the end of 2006.

Another project involves the construction of a benzene unit at Mozyr with a capacity of 55,000 tpa, intended to supply Azot at Grodno for the production of caprolactam. This project is costing \$20 million and will be completed in the second half of 2005. Currently, about 60,000 tpa of benzene is imported into Belarus, most of which comes from Russia. The benzene unit project is the last stage of the Mozyr Refinery modernisation project. The capacity of the refinery is 16 million tpa.

#### **Polymir**

Polymir at Novopolotsk has two projects in process, the first of which is the \$41 million upgrade of the ethylene-polyethylene production facilities. It includes upgrading the 120,000 tpa ethylene cracker, and the LDPE plant from 69,000 tpa up to 100,000 tpa. This project will facilitate an diversification of feedstock sources and reduce power and cost efficiency by 1.5 times. The project is expected to pay back within 6 years.

The second step is upgrading the "Nitron-D" PAN-fibre with the capacity expansion up to 50,000 tpa. The total project cost is \$20 million, and it is to be deployed until 2006. As a result of this project the company is expected to be able to shutdown the old "Notron-C" plant which was built in 1972. Fixed and variable costs of the fibre production will be cut by 20%, which will improve the competitiveness of the facility and expand the product range. This project is expected to pay back within 7-9 years.

#### **Belarussian prices**

Belarus has introduced a temporary zero import duty for a number of chemical products in an effort to expand the feedstock purchasing geography, and to curb the growth of prices initiated by Russian feedstock suppliers. The zero customs duty is imposed for nine months and covers the imports of polypropylene, butadiene, isoprene rubber, cord materials for tyres, dyes and dye-based products to Belarus. When exporting the above goods from Belarus, the exporter will have to pay an export duty of 5-15%, which is equal to the suspended import duty.

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#### **Ukraine**

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**Ukrainian hryvnia, Jul 11, \$1 = 5.3165, €1 = 6.598)**

#### **LUKOR**

A major overhaul is planned by LUKOR in the near future where most of the capital equipment will be repaired. The most important role in this process will be undertaken by Techmash and will affect plants for VCM, HDPE, chlorine and caustic soda. Techmash will replace large parts of the equipment, with probably the biggest projects involving the repair of the VCM reactor and pyrolysis furnace. The HDPE plant will also be subject to some repairs. The reconstruction of a steam and gas generator, and the installation of more than ten units of heat exchange equipment, is necessary for the complex. For the production of chlorine and caustic soda insignificant repairs are required. Thus, major overhauls will be simultaneously carried out on three units at LUKOR.

#### **Titanium dioxide**

Titan at Armyansk in Crimea produced 36,411 tons of titanium dioxide in the first six months of 2004, representing an increase of 13,813 tons over the same period in 2003. For the whole of 2003 the company produced 56,230 tons and expects that the total should reach 72-74,000 tons this year. Titan is one of the two producers of titanium dioxide in Ukraine, the other being Sumykhimprom in the north east of the country.

The Ukrainian government currently wants to create a titanium dioxide company based on Titan, with effective use of capacity for the production of titanic iron ores. The government holds a 100% ownership in Titan, but conditions are being created to attract an investor to which the capacities would be transferred with the aim of modernisation and reconstruction. The share of the investor in the new company is not expected to exceed 50%.

Titan commissioned the second line of the sulphuric acid production facility in July, with the project cost amounting to about only \$5 million having been developed in-house. This has facilitated an increase in the sulphuric acid

yield, and at the same time reducing power consumption, air emissions and, more importantly, to improve the system reliability performance. Before the second line was put into operation only two of four lines of 180,000 tpa were on stream due to substantial physical deterioration of the other units. The need for sulphuric acid supplies of more than 500,000 tpa to feed the production of titanium dioxide has been the reason behind the revamp. The company plans to increase titanium dioxide production up to 100,000 tpa within the next two years, which will substantially increase acid consumption. In order to meet new demand Titan is considering the construction of a new titanium dioxide plant with a capacity of 600,000 tpa.

Sumykhimprom is undertaking a reconstruction of its titanium dioxide plant this year which will increase capacity levels. In the first quarter of 2004 the company produced 10,322 tons. Reconstruction will help reduce raw material costs.

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### **Transcaucasus**

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#### **Azerichimia**

Plans to convert Azerichimia into a joint stock company are still being considered by the Azeri government, and until this idea turns into reality it may be difficult to envisage much progress in the country's petrochemical sector. The aim of creating a joint stock company is to unite the main chemical complexes; including the Ethylene-Propylene Plant, the Organic Synthesis Plant, the Kautschuk Synthesis Plant and the Surface-Activity Compounds Plant. The concept is that it will be a state-owned with the aim of drawing major investments to the industry.

Azerbaijan's problems in transition of the petrochemical sector to a market economy have been made much harder by the country's geopolitical location. The increase in raw material transportation costs by as much as a thousand fold, the steep rise in energy costs and obsolete production equipment, coupled with the need to find new supply sources and markets have been the main challenges facing Azerichimia. The falls in chemical production volumes and feedstocks have, in relative terms, been much greater than any other ex-Soviet state. Azerichimia is now seeking foreign investment to help it modernise and so develop the real potential of its petrochemical industry. All the plants, with the exception of the polyethylene plant, are based on Soviet technologies. The country needs polyethylene for domestic consumption, but the Sumgait LDPE plant is used only on a limited basis due to the low running of the cracker.

New methods have been examined for the production of polyethylene in Azerbaijan, such as the use of synthetic compressor oils based on propane-propylene fractions, or propylene from the EP-300 plant can be used as feedstock. Wide-scale tests of these oils in compressors have confirmed the possibility of using them to totally replace mineral oils in the production of high-pressure polyethylene.

Azerichimia has submitted two projects in the past year to the Ministry of Economic Development. One is worth around \$70 million and offers implementing the second phase of refurbishing of the ethylene production work at Sumgait. Azerichimia completed the referring feasibility study in conjunction with ABB.

The second phase of the EP-300 revamp includes upgrading furnaces, communications and control systems, as well as completion of the polypropylene plant with a capacity of 100,000 tpa. The main aim of the second revamp phase will take the capacity of EP-300 up to its original design of 300,000 tpa. The other project includes the revamp of the polyethylene production facilities which were constructed in the 1980s.

#### **Moscow-Azeri links**

Moscow Administration intends to purchase iodine-bromine, and 5,000 tons of calcium chloride from Azerbaijan, to clear Moscow roads from snow in the winter, and 20,000 tons of aluminium sulphate to clarify potable water. There is also an agreement with Azerbaijan for Moscow to buy 50,000 tpa of synthetic rubber and polyether tar.

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### **Central Asia**

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New equipment being introduced by the Turkmenbashi refinery will help to increase polypropylene capacity. Turkmenistan produced 40,600 tons of polypropylene for the first six months of 2004, which was 26% up on the same period last year. All of the production was sent for export. Exports of Turkmen gas increased 4% in the first half of 2004 to 23.3 billion cubic metres, of which more than 20 billion cubic metres were sent to Russia and Ukraine. Iran was the other major consumer.

**Contents Issue No 164**

<b>CZECH REPUBLIC .....</b>	<b>2</b>
Unipetrol .....	2
<b>SLOVAKIA .....</b>	<b>2</b>
<b>HUNGARY .....</b>	<b>2</b>
BorsodChem .....	2
MOL .....	3
<b>Poland .....</b>	<b>3</b>
PKN Orlen .....	3
Elana .....	3
Melamine .....	3
Other Polish news .....	3
<b>SLOVENIA .....</b>	<b>4</b>
<b>ROMANIA .....</b>	<b>5</b>
Petrom .....	5
Oltchim .....	5
<b>RUSSIA .....</b>	<b>5</b>
Russian supply/demand .....	5
<b>SIBUR .....</b>	<b>7</b>
Tomskneftekhim .....	8
<b>Tatarstan .....</b>	<b>8</b>
Nizhnekamskneftekhim .....	8
Kazanorgsintez .....	8
<b>Bashkortostan .....</b>	<b>9</b>
Salavatnefteorgsintez Q1 2004 .....	9
<b>Irkutsk .....</b>	<b>10</b>
Sayanskkhimplast .....	10
<b>Samara .....</b>	<b>10</b>
Novatek .....	10
<b>Evrokhim .....</b>	<b>10</b>
<b>Nizhniy Novgorod .....</b>	<b>10</b>
Korund .....	10
<b>Product news .....</b>	<b>11</b>
Polystyrene .....	11
PVC .....	11
Polypropylene .....	11
Tyres .....	12

Methanol.....	12
Hydroxylamine.....	12
Trichlorosilane .....	12
<b>Belarus.....</b>	<b>12</b>
Belarussian development strategy .....	12
Polymir .....	13
Belarussian prices .....	13
<b>Ukraine.....</b>	<b>13</b>
LUKOR.....	13
Titanium dioxide.....	13
<b>Transcaucasus.....</b>	<b>14</b>
Azerichimia .....	14
Moscow-Azeri links .....	14
<b>Central Asia .....</b>	<b>14</b>