

# CIREC

## MONTHLY NEWS

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

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

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### ***Features from the June 2004 issue***

- The contract for Unipetrol between the Czech government and PKN Orlen will be signed very soon. PKN Orlen will pay 10% of the total purchase price, or Kc 1.31 billion, on the day that the contract is signed. The balance is to be paid upon the transfer of shares to PKN Orlen and approval of the deal by the European Commission.
- In the first quarter of 2004 BorsodChem-MCHZ (BC-MCHZ) saw an increase of 41.5% over the same period in 2003. Net profits in Q1 2004 totalled Kc 39.7 million, which was measured against only a 7.3% increase in sales' revenues. The increase in profits was due partly to the improvement in operating profit, but mostly the result of the benzene price hikes which aniline follows closely.
- With the completion of TVK's three-year, €430 million project in 2004, the company's revenues are likely to grow by 25% in 2005. The investment project is progressing according to plans, and is around 85% complete. The project includes the construction of a new olefin plant by Linde AG for €238 million, and a new €129 million polyethylene plant to be built by the Mitsui group.
- In the first quarter of 2004, the PKN Orlen Group generated its highest ever quarterly net profit of zł 397 million (11.8% higher than in the same period in Q1 2003). PKN Orlen's cost cutting programme in the first quarter generated zł 143 million of operational cost savings.
- British Vita has announced plans to open a foam conversion plant at Timisoara in the third quarter of 2004. Timisoara is one of the largest centres in Romania for the production of upholstered furniture. Romania has benefited from a rapid expansion in furniture and bedding manufacture, brought about from recent investments by West European furniture manufacturers.
- The East-Siberian gas company plans to conclude preliminary agreements in May 2004 on the deliveries of gas between the Kovykta GKM and the future consumers, including Angarsk Petrochemical Combine, the Angarsk Polymer Plant, Usolyekhimprom, and Sayanskhimplast. In the near future Sayanskkhimplast and Yuzhnoygiprogaz will consider the question of the construction of a gas processing unit at Sayansk for ethylene production.
- Khimvolokhno Amtel-Kuzbass at Kemerovo is now regularly supplying polyamide to China. Since the beginning of 2004, the company concluded four contracts to supply polyamide to China. At present, the monthly amount of exports totals 250 tons. The increase of supplies to China is being helped by prices for polyamide, which have grown 20% since the beginning of 2004.
- On 19 March 2004, a contract was signed for a project for the construction of a PET plant at Senezh. The plant is intended to produce bottle grade PET. MDM-bank is expected to receive a \$22 million loan from Commerzbank AG to finance a joint project with the Evroplast Group. The loan is to be provided for five years and guaranteed by Germany's Hermes agency.
- The Bank of Development of Kazakhstan (BRK) has signed an agreement regarding the initial financing, worth \$40 million, for the construction of a petrochemical complex in the Aktyubinsk Oblast. The aim of the project is the development of a modern complex for the production of methanol, ethylene, propylene, polyethylene, polypropylene, and other thermoplastics, based on local raw materials.

## **CENTRAL EUROPE**

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### **Czech Republic**

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(Czech crown, Kc, May 28, \$1 = 25.93, €1 = 31.76)

#### **Unipetrol**

The contract for Unipetrol between the Czech government and PKN Orlen will be signed very soon. PKN Orlen will pay 10% of the total purchase price, or Kc 1.31 billion, on the day that the contract is signed. The balance is to be paid upon the transfer of shares to PKN Orlen and approval of the deal by the European Commission.

PKN Orlen expects to pay the agreed Kc 13.05 billion for a 63% stake in Unipetrol predominantly from its own resources. Once that deal is completed, the consensus is that PKN will carry out the transactions it had negotiated beforehand with Agrofert and ConocoPhillips.

ConocoPhillips has stated that it wants to cooperate with Orlen as a joint shareholder in Ceska rafinérská (CeRa). Conoco currently has a 16.33% stake in CeRa, as part of the IOC consortium, which also includes Agip and Shell. Agrofert is interested in those Unipetrol units in which it already holds stakes, such as AliaChem, Agrobiochemie and Lovochemie. Agrofert is also in talks with Orlen on stakes on other units. However, the privatisation process is still in the early stages and there are still a number of varying potential scenarios of how the assets will eventually be managed.

#### **BC-MCHZ**

In the first quarter of 2004 BorsodChem-MCHZ (BC-MCHZ) saw an increase of 41.5% over the same period in 2003. Net profits in Q1 2004 totalled Kc 39.7 million, which was measured against only a 7.3% increase in sales' revenues. The increase in profits was due partly to the improvement in operating profit, but mostly the result of the benzene price hikes which aniline follows closely. BC-MCHZ plans to invest up to Kc 500 million this year in a new hydrogen unit and a hydrogenation line.

BorsodChem acquired MCHZ from AliaChem in 2000, principally as a source of aniline for its MDI plant at Kazincbarcika. At present, BorsodChem accounts for around half of the aniline consumption from Ostrava with the remainder targeted on exports.

MDI production at Kazincbarcika on an annual basis has grown by about 15% (see graphic on page 4) since the BorsodChem takeover. Aniline capacity at Ostrava is being further increased to meet additional MDI production, and also with the aim of commodity exports.

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### **Slovakia**

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(Slovak crown, SKK, May 28, \$1 = 32.73, €1 = 40.06)

#### **Slovnaft**

Slovnaft posted a net profit of SKK 1.85 billion in the first quarter of 2004, an increase of 30% from the same period in 2003. Slovnaft's Q1 sales slid, however, falling 12.7% in the first three months to SKK 15.7 billion. The results for the first quarter are the results of a constant increase in the efficiency of operations, ongoing cost-cutting, and synergies achieved with MOL. Slovnaft's Q1 operating profit rose to SKK 2.27 billion, up from SKK 1.8 billion in 1Q 2003. The company attributes the rise in operating profit to a higher margin on the purchase and selling price of gasoline. Revenues from the sale of refinery products were down by over 13% to SKK 10.49 billion. Revenues from the sale of petrochemical products fell 3.3% to SKK 2.84 billion. Slovnaft processed 1.34 million tons of oil in Q1 2004, a decline of 64,000 tons.

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### **Hungary**

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(Hungarian Forint, Ft, May 28, \$1 = 204.70, €1 = 250.79)

#### **TVK Q1 2004**

High feedstock costs continued to impact on TVK's profitability in the first quarter this year, adding 5-10% to the level recorded in the previous quarter at the end of 2003. The prices quoted for polymer products in European markets rose by 7-16% in the first quarter compared to Q4 2003, but each product category recorded lower

quoted prices than in Q1 2003. Due to the weakening of the dollar against the euro, integrated petrochemical margins increased by 15% in forint value compared to Q1 2003.

The sales' revenues of TVK Rt. reached Ft 35,861 million in Q1 2004, whilst the consolidated group level sales amounted to Ft 40,962 million. This represented increases of 7.9% and 9.4% respectively compared to Q1 2003. The increase of group level sales also includes the income from commercial subsidiaries for the sales of LDPE and PP produced by Slovnaft. The sales income of the parent company represented 88% of group level sales.

TVK Rt's sales in the first quarter increased by Ft 2,617 compared to Q1 2003, including increases of Ft 2,225

<b>TVK Rt's sales by petrochemical division</b>			
<b>Q1 2004 (in Ft million)</b>			
<b>(Hungarian forint, Ft, May 28, \$1 = 204.70 €1 = 250.79)</b>			
<b>Product</b>	<b>Domestic</b>	<b>Export</b>	<b>Total</b>
Olefin	8,598	-	8,598
LDPE	2,740	2,394	5,134
HDPE	1,851	6,670	8,521
PP	5,795	6,542	12,337
Others	1,263	8	1,271
Effect on consolidation	43	5,058	5,101
Total	20,290	20,672	40,962

million and Ft 179 million in the polymer and the olefin product areas respectively. HDPE production recorded the largest increase in polymer sales of 10,900 tons. PP sales increased by 3,000 tons, whilst LDPE lost 2,500 tons against Q1 2003.

#### **TVK's capital expenditure in Q1 2004**

In Q1 2004, TVK's total capital expenditure totalled Ft 13,952 million, up 141% on Q1 2003. The increase resulted mainly from the Petrochemical

Development Project, representing 95% of the total capital expenditure. The total cost of the project is estimated at €430 million, of which €296 million was outlaid prior to 31 March 2004. The Polyethylene4 (PE-4) project is moving ahead quickly with more work completed in the first quarter. The Olefin-2 project is running slightly behind the PE-4 project, but progress has been made regarding on-site construction including the final fitting was carried out at the cracking furnaces.

#### **The effects of the TVK expansion**

<b>TVK's Capital expenditure under the Petrochemical Development Project (Ft million)</b>		
<b>Area of investment</b>	<b>Q1 2003</b>	<b>Q1 2004</b>
Petrochemical Project	5,511	13,262
Construction Olefin-2	4,313	8,409
Construction PE-4 plant	693	5,782
Other expenditure	505	-929

With the completion of TVK's three-year, €430 million project in 2004, the company's revenues are likely to grow by 25% in 2005. The investment project is progressing according to plans, and is around 85% complete. The project includes the construction of a new olefin plant by Linde AG for €238 million, and a new €129 million polyethylene plant to be built by the Mitsui group. The latter will double TVK's HDPE

production capacity from 210,000 tpa to 410,000 tpa. In addition, the ethylene production capacity will be raised from 360,000 to 610,000 tpa.

The ethylene storage tank being built for the new olefin plant will start to be filled up in June, while the new polyethylene plant should be completed by September-October, and the olefin plant itself by November. The completion of the olefin plant will mean that TVK will be able to fulfil the whole ethylene demand of BorsodChem, as well as TVK's need for polypropylene. Currently, TVK has to buy 70,000-80,000 tpa of polypropylene from MOL, while next year it will probably be able to sell 80,000 tons itself, which will likely be sold to Slovnaft. TVK's ethylene sales are set to rise from 80,000 tons to 150,000 tons next year, while polymer sales will increase from 600,000 to 800,000 tons. As a result, revenue per employee at the company could reach \$510,000 by 2005, compared to \$300,000 in 2001.

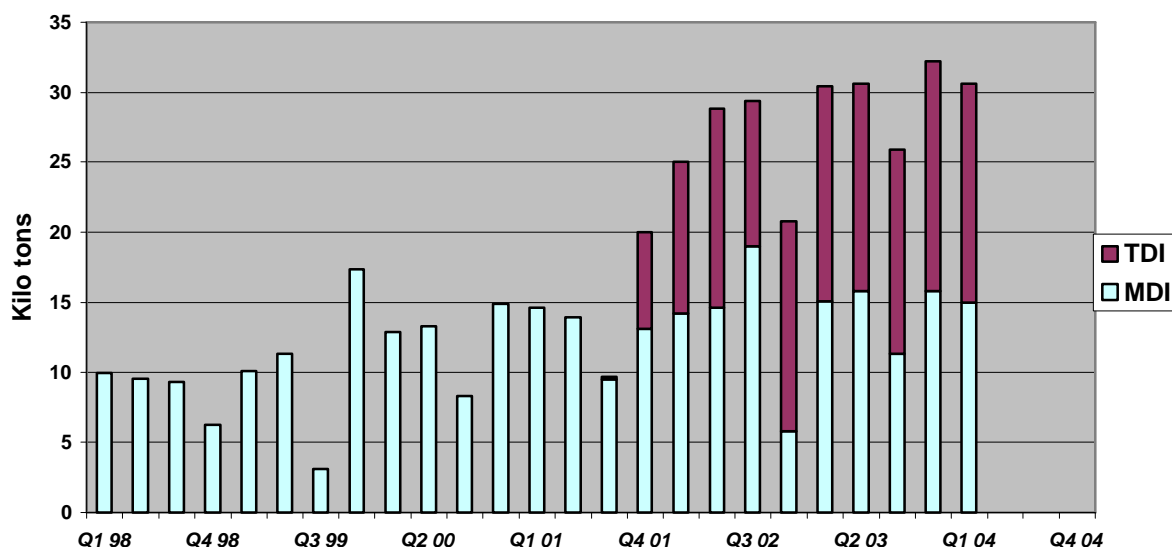
#### **BorsodChem Q1 2004**

High crude oil prices continued to impact on BorsodChem's first quarter performance in 2004. Notwithstanding, the profitability of the chlorine-vinyl chain line seems to have improved even if the price of caustic soda is close to historical lows. The BorsodChem Group was able to achieve a 3.1% increase in sales' revenues over Q1 in 2003. The company achieved full utilisation of its production capacities, with only MDI seeing a fall compared to Q1 2003. Apart from sales' revenues of Ft 35,312 million, operating profits were Ft 3,252 million, which represents a 9.2% share of sales' revenues.

The profitability of PVC resin improved over Q1 2003, as the average listing price of PVC resin was €29/ton higher in Q1 2004 against only an increase of €5/ton in ethylene prices. In 2003, the annual increase in demand for raw

materials of rigid and plasticized foams was higher than 10% in the Central-East European region, which serves as a good basis for the expansion of BorsodChem's MDI and TDI capacities.

### BorsodChem's Isocyanate Production



#### BorsodChem's Sales' Revenues (Hungarian Forint, Ft, May 28, \$1 = 204.70 €1= 250.9)

Product	(Ft mil) Q1 03	(Ft mil) Q1 04
<b>PVC resin</b>		
Domestic	957.5	999.2
Export	8,198.3	9,594.8
Total	9,155.8	10,594.0
<b>PVC compounds</b>		
Domestic	199.7	185.8
Export	833.5	1,119.5
Total	1,033.2	1,305.3
<b>MDI products</b>		
Domestic	11.5	18.2
Export	4,780.4	5,308.5
Total	4,791.9	5,326.7
<b>TDI products</b>		
Domestic	312.4	313.8
Export	6,874.5	5,858.3
Total	7,186.9	6,172.1
<b>Caustic soda</b>		
Domestic	660.9	503.3
Export	562.1	471.5
Total	1,223.0	974.8
<b>Aniline Export</b>	1,214.5	1,979.6
<b>Plastic finished and semi-finished products</b>		
Domestic	1,020.2	1,288.4
Export	1,236.0	1,410.1
Total	2,256.2	2,698.5
<b>Other products</b>		
Domestic	2,062.8	2,308.4
Export	5,322.6	3,953.0
Total	7,385.4	6,261.4
<b>Total sales</b>	<b>34,246.9</b>	<b>35,312.4</b>
Domestic sales	5,225.0	5,617.1
Export sales	29,021.9	29,695.3

The profitability of MDI was affected by a significant increase in the benzene price in Q1 2004. Whilst in Q4 2003 benzene was listed at a price of €375 /ton, Q1 2004 saw a benzene price of €444/ton and higher. There has been an increased demand for PVC compounds in export markets; prices have slightly improved compared to Q1 of 2003. In the market of PVC-based finished products the demand for PVC window profiles has grown significantly, while the moderate demand for flexible and rigid sheets continues to prevail.

In Q1 2004, the share of PVC resin in BorsodChem's total sales' revenues rose from 26.7% up to 30%, which is the first time for several quarters that PVC has actually gone up. Sales' revenues from aniline increased by 63%, along with a volume increase of 57%, which meant an increase of sales' revenues by Ft 765.1 million. Sales' revenues achieved from plastic semi-finished and finished products increased by 19.6%. The revenue increase is due to the rise in the sold volume by 20%

The geographical breakdown of BorsodChem's sales has changed with the Far East, owing particularly to the fast growth of China, starting to prove to be a good market in recent months. Sales were divided between domestic/Central & East Europe combined 46.1%, West Europe 42.9%, the Far East 4.0%, and others 7.0%.

**Pannonplast**

Pannonplast has decided to close the Szombathely-based plant of Moldin, which has been making losses for a couple of years. The loss of the Szombathely-based plant was Ft 1 billion last year and it exceeded Ft 220 million in the first quarter of 2004.

As a result of the closure Pannonplast has to lay off 230 employees. Pannonplast Engineering Plastics Plc. Created by the merger of Moldin Ltd. and Moldin 2000 Plc. with its headquarters at Székesfehérvár (production plants in Székesfehérvár and in Budapest) will continue to be a determining strategic partner of the company's multinational customers. As a result of the intensifying market competition and the globalization, a number of multinational companies in the industry have gradually relocated part of their European production to other regions. As a consequence, in addition to other related companies, the Szombathely-based Moldin has also experienced the continuous decrease of its orders in the past two years.

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**Poland**

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(Polish zloty, zł, May 28, \$1 = 3.80, €1 = 4.65)

**PKN ORLEN**

In the first quarter of 2004, the PKN Orlen Group generated its highest ever quarterly net profit of zł 397 million (11.8% higher than in the same period in Q1 2003). PKN Orlen's cost cutting programme in the first quarter generated zł 143 million of operational cost savings.

The Orlen Group's petrochemical sector achieved an operating profit of zł 202 million, with a 106% increase in comparison to the first quarter of 2003. The main driver behind the higher profits was the improved market conditions for fertilisers. Anwil increased its operating profit by zł 51 million, a 650% increase. The zł 12 million from Basell Orlen Polyolefins (BOP) also contributed to Orlen's consolidated result in 2004.

**Vopak**

Vopak has failed to reach an agreement with Polish authorities on the purchase of leading Polish fuel storage firm Naftobazy. No agreement could be reached on the minimum conditions that Vopak attached to the transaction. Nafta Polska recently gave Vopak until 31 May 2004 to decide whether it would buy a 51-65% stake in Naftobazy. Earlier talks on the sale had been linked to the potential founding of a nationwide integrated fuel logistics company, ZOL. However, Vopak and PKN Orlen failed to agree on conditions under which ZOL could be created, and further discussions focused solely on the sale of Naftobazy to the Dutch logistics company. Nafta Polska said recently that if the sides failed to reach an agreement, privatisation of Naftobazy would take another form, most likely the guise of an initial public offering on the Warsaw Stock Exchange. Naftobazy's fuel-storage capacity totals 1.5 million cubic metres.

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**SOUTH EAST EUROPE**

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**Romania**

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(Romanian Lei, May 28, \$1 = 33.36, €1 = 40.78)

According to the information received from official sources, the government of Romania has intentions to make some last minute legal changes in the process of privatisation of Petrom. The reason is the fear concerning the possibility of sell-offs and closures of capacities following the finalisation of the tender. The government is thus anxious to prevent this happening in all possible ways. LUKoil has voiced interest in some of the assets that could be sold off by the successful winner of the tender.

The looming privatisation of Petrom is expected to be a watershed in the fortunes of the Romanian petrochemical industry, with a number of projects likely to be activated combined other important developments such as the possible sell-off of Oltchim. The privatisation of Oltchim is linked directly to Petrom's position. Since 1990, Romania's petrochemical industry has languished in the doldrums largely as a result of its own policies, but also due to external factors such as the war in former Yugoslavia.

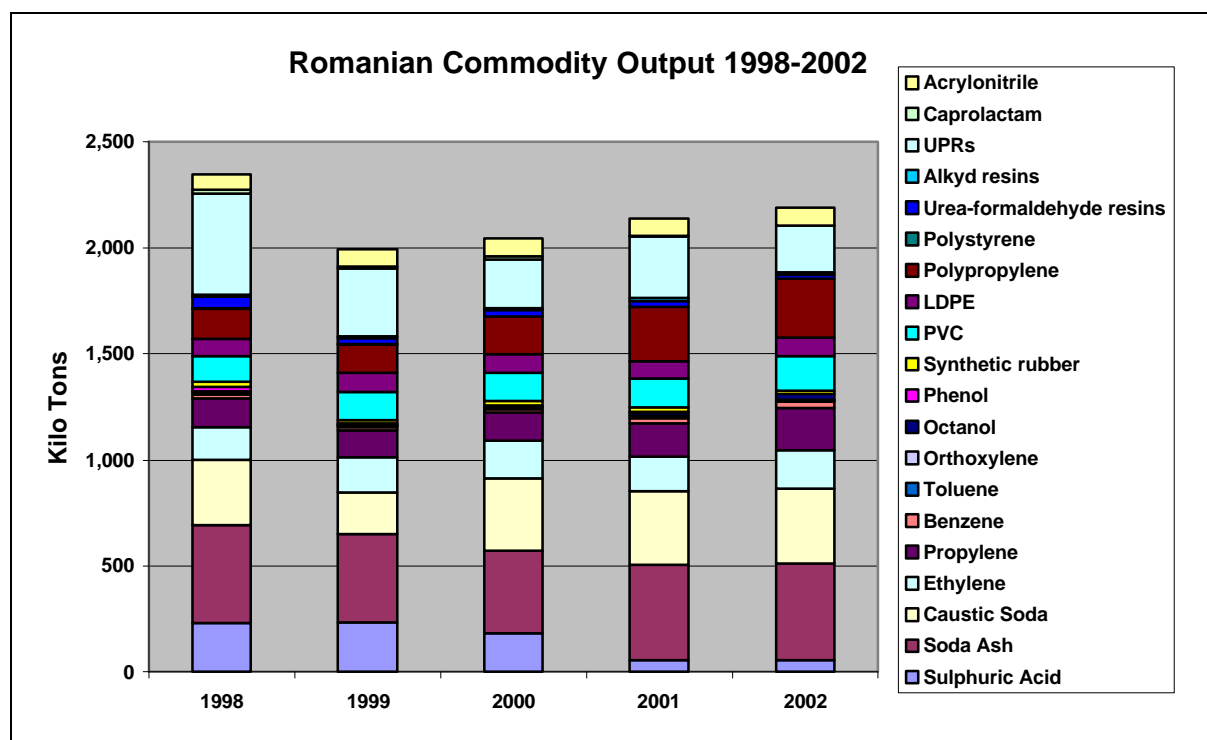
The last twelve months has seen slightly more optimism that the market may be about to start going forward, particularly with EU accession only three years away. This is starting to alert more interest from foreign companies, for example in May Romania's Industry Ministry officials met with Kellogg Brown and Roots to discuss potential cooperation in the petrochemical sector. Arpechim and Petrobrazi both have projects that need

investment, whilst Rompetrol is monitoring the market very closely regarding investments at its Petromidia complex.

### **Petrom**

Honeywell has recently signed a \$20-million contract with Petrom, which from autumn 2004 will provide equipment to upgrade Arpechim refinery. The equipment provided by Honeywell so far exceeds \$60-70 million. Petrom stated in May that it has signed two contracts with South Korea's LG Electronics and SK Corporation to upgrade the Petrobrazi refinery. Under the contract, the two companies will deliver an alkylation unit, which will produce additives needed for the EURO 3 and EURO 4-type fuels. The deal, worth €42.7 million, will be partially financed through an EBRD loan, while the rest will be covered by Petrom using a financing scheme. The EBRD will provide funds for the investment scheme conducted at Arpechim, which includes the equipment purchased by Petrom.

Petrom's turnover, total revenues and profit dropped last year below the 2002 results. The net turnover dropped from 72,721 billion lei to 71,345 billion lei, whereas the company's total revenues stood at 76,022 billion lei versus 78,510 billion lei in 2002. The net profit dropped from 2,282 billion lei to 1,440 billion lei. According to Petrom's management, the low results are the result of paying off some debts and also overhauling the two refineries Arpechim and Petrobrazi over a long period. The privatisation commission said that would start direct negotiations with OMV, to add to MOL and Occidental. The Petrom sale process is scheduled to be completed by end of June.



### **Oltchim**

Oltchim recorded a net profit of 89 billion lei in the first quarter of 2004, compared with a loss of 21 billion lei in the same period in 2003. Oltchim expects to end 2004 with a profit after recording a loss of 650 billion lei in 2003, which was due largely to interest on huge debts and high fixed costs. The company managed to increase turnover in Q1 2004 by around 60% and the company's sales during this period totalled 3,056 billion lei. Due to investments made over the past few years, Oltchim is now capable of running at full capacity in many of its units such as VCM and oxo alcohols. Export sales are expected by the company to reach \$250 million this year, against \$146 million in 2003.

### **Petrotel**

LUKoil has stated that it will restart the Petrotel refinery in September 2004, after the completion of the upgrading process. Previously LUKoil had said that the refinery would start activity by the end of May, but there is more work than originally thought. The LUKoil development plan includes the retail network expanding by up to 150

new filling stations. LUKoil Europe Holdings BV Holland, a subsidiary LUKoil, took the majority stake in the Petrotel refinery in 1998. Following the start-up, the refining capacity of Petrotel is expected to fall toward 2.5 million tpa, from previously 3.5 million tpa. LUKoil could possibly lodge an offer for Oltchim in a move to expand its business in Romania, particularly in view of the synergies with LUKOR at Kalush.

#### **British Vita – Timisoara**

British Vita has announced plans to open a foam conversion plant at Timisoara in the third quarter of 2004. Timisoara is one of the largest centres in Romania for the production of upholstered furniture. Romania has benefited from a rapid expansion in furniture and bedding manufacture, brought about from recent investments by West European furniture manufacturers. The products from this industry are largely for export out of Romania at present, but with a population of 22 million and a economy which may have turned the corner, this industry will gradually transfer its sales to the domestic market. Sited just 150km from Vita's new foam production facility at Paks in Hungary, the conversion factory at Timisoara will be supplied with block foam from Hungary when production comes on-stream later this year. New equipment is being installed during May and commissioning is planned for June

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## **BALTIC STATES**

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#### **Lithuanian PET project**

Zimmer AG has won a contract to build a PET bottle plant in Lithuania on behalf of Petrochemical Holding GmbH, a Vienna-based Austrian investment group with international activities. The plant, which will have a capacity of 154,000 tpa of PET granules, will be located at Klaipeda. Total investment in the project is calculated at about €65 million. Zimmer will take charge of supplying the technology, the engineering and the equipment and is responsible for supervising its assembly and commissioning, which is scheduled for the second half of 2005.

Zimmer AG was previously awarded a contract in November 2003 by Petrochemical Holding GmbH to build a polyester plant with the same capacity. It is also being built in Klaipeda, will have a capacity of 154,000 tpa and is planned to start operations in the first half of 2005. These projects with a total capacity of 310,000 tpa, if fully materialised, will make Petrochemical Holding GmbH one of the region's largest producers of granules for PET bottles.

To these projects, one needs to consider Dow's second plant (170,000 tpa) at Buna-Schopau, which will start up at the end of 2004. Overall, this would signify a huge incremental tonnage in close geographical proximity in a brief period of time. Some product (especially production in the Baltic States) will come to the EU, particularly to Germany and the new accession states. The rest will be targeted on the booming markets of Russia and the Ukraine where it will displace the South Korean suppliers, which are the traditional suppliers via the Trans Siberian railway.

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

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### **Russia**

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**(Rus rouble May 28, \$1 = 29.02, €1= 35.38)**

Russia has agreed to raise domestic gas prices in a landmark deal with the European Union, removing one of the major obstacles towards joining the WTO. At the same time, however, these changes will affect electricity prices for chemical producers, which will mean further pressure for restructuring and rationalisation.

In return for agreeing to these price hikes Russia has won key trade concessions from the EU in return for a pledge to ratify the Kyoto environment protocol on greenhouse gas emissions. Russian industrial users would see prices gradually increased from the current levels of \$27-28 (per thousand cubic meters) to between \$37-42 by 2006 and \$49-57 by 2010.

Russian imports of chemicals were up 22.9% in the first quarter of 2004. Imports of organic and inorganic chemicals increased 1.3 fold, polymers and rubber in 1,2 times. Import of chemical fibres increased by 17.8%, and threads by 16.5%.

Increased imports are contributing to growing confidence about the prospects for market growth in Russia. Whilst there are signs for strong sustainable growth in all types of commodity and speciality products, the investment cycle has been slow to follow these trends. Certain products such as PVC could easily fall into deficit in the next couple of years as domestic growth in the construction sector continues unabated.

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### **SIBUR**

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In the first quarter of 2004 SIBUR produced 2,532 million cubic metres of hydrocarbon raw materials, which was 14% up on the same period in 2003. The group produced 699,000 tons of LPGs, showing a growth of 15%; monomers 301,000 tons which was 12% up; synthetic rubber 157,000 tons showing a growth of 28%; and 118,000 tons of polymers which was 24% up. In terms of turnover SIBUR saw an increase of 38% in the first quarter to 19,391 billion roubles. Gross profits grew 34% from 2,061 million roubles to 2,768 million roubles.

Production for SIBUR in the main petrochemical commodities has grown solidly since the assets were united under the holding structure in the 1999-2001 timeframe. The graphic on page 7 shows the cumulative increases over the past five years which is largely the result of idle plants being restarted and under-performing plants being maximised, both of which have been made possible by constant feedstock supplies from SIBUR. What is apparent is that most of the capacity is now being run at its full capability and that the room for increases in above current production levels are limited, at least for 2004.

#### **SIBUR-Neftekhim**

Developments at Kstovo form an important part of SIBUR's strategy. With the cracker isolated from the Volga-Urals pipeline and therefore any surplus ethylene that might be available in that region, much depends on the modernisation and expansion of the Kstovo cracker. In 2004, SIBUR-Neftekhim plans to increase processing of

<b>SIBUR-Neftekhim's Production (unit-tons)</b>		
<b>Product</b>	<b>Jan-Apr 2004</b>	<b>Jan-Apr 2003</b>
Petrochemicals	238,715	189,015
Ethylene	69,641	56,461
Ethylene Oxide	21,878	14,893
MEG	53,613	52,004
DEG	6,577	5,565
TEG	434	342
Propylene	35,353	32,694
Benzene	25,214	19,921
BBF	17,258	18,528
C5	7,682	8,759
C9	5,820	5,214
EDC	28,964	18,512
PVC	11,013	14,270
Caustic Soda	28,031	33,096
Chlorine	5,115	5,549
Eth chlorohydrin	3,409	4,605

hydrocarbon raw material by 20% over 2003 up to 663,720 tons. The company plans to increase ethylene production by 21% to a level of 205,059, propylene by 19% up to 103,649 tons, chlorine by 18% up to 34,400 tons, and EDC by 8% up to 81,000 tons.

SIBUR-Neftekhim is intending to seal a contract with Tecnimont to construct a high density polyethylene plant with a capacity of 240,000 tpa, but the cracker has to be expanded simultaneously. In addition to polyethylene, an expansion of PVC capacity at Dzerzhinsk will add further pressure to the ethylene balance. Lurgi Life Science GmbH is currently undertaking a feasibility study for the PVC expansion (not for the first time however) which is to be completed by late 2004.

SIBUR-Neftekhim has decided not to make any dividend payments on 2003 performance, with the main bulk of the profit being spent for covering the previous year's losses and for development purposes. The company has decided to join a non-commercial partnership entitled Dzerzhinskregion which is an association representing the local chemical industry in Dzerzhinsk.

#### **Azot Kemerovo**

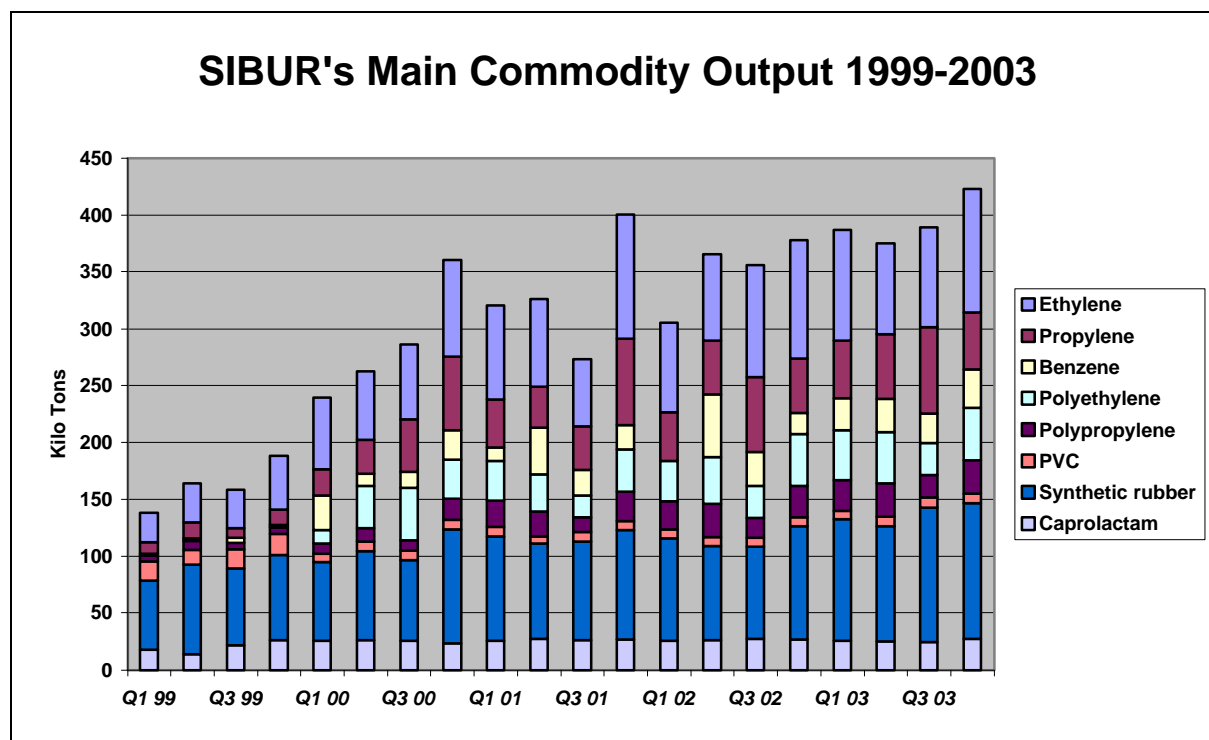
SIBUR's long term programme of modernisation for Azot at Kemerovo assumes three main directions; the maintenance of present capacities, the reduction of expenses in thermal and electric energy, and the construction of new units. The general amount of investments over this period is expected to be in the range of \$60-80 million.

The programme assumes capital maintenance of something between 500-550 million roubles per annum. It is expected that the level of capacity utilisation will stay no lower than 90-95% (in April the company achieved 96.5%). For a reduction of power inputs the programme envisages the construction of the boiler with a capacity of 75 tons of steam, and also the reconstruction of power-intensive unit for hydrogen supply, which is used for the production of caprolactam.



For the past four years Azot has seen heat-energy costs grow by more than double, and electric power by one and half times, and yet prices for Azot's production have increased only by around 40%. In 2004, Azot plans to produce 106,500 tons of caprolactam, 446,700 tons of urea and 712,400 tons of ammonium nitrate.

The development programme of the company also provides for the construction of new product units such as melamine. Azot wants to invest 2.1 billion roubles in a new melamine project (5-7,000 tpa) with 2007 set as a start-up date. Melamine is largely in deficit in the CIS, although there are some projects underway at present.



### Rubber

SIBUR expects that in the autumn of 2004 it will be able to start a batch production of green tyres at the Yaroslavl tyre plant. Green tyres is the new term being used by Russian tyre manufacturers, which should translate into in high fuel profitability and improved safety. The production of green tyres is based on a mixture of special rubber DSSK (divinyl styrene rubber) with other raw material components, which provides tyres with better resistance and, accordingly, allows vehicles to save large amounts of fuel in comparison with normal tyres. In addition, the rubber mixture DSSK provides the best coupling properties on a wet covering that promotes an increase of a level of safety.

The Russian market is at present based mostly on so-called black tyres, which are produced from standard synthetic and natural rubbers. In order to support the production of green tyres SIBUR subsidiary Voronezhskintezkaucuk started the production of DSSK in January 2004. Production from Voronezh is now being delivered to the Yaroslavl tyre plant.

Together with polybutadiene and polyisoprene rubber, which are also produced by SIBUR, DSSK makes the complete set of necessary raw materials for the production of modern tyres. The DSSK unit at Voronezh is designed with a capacity of 50,000 tpa, and will initially be focused on export activity until the domestic market in Russia and elsewhere in the CIS develops.

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### Nizhnekamskneftekhim

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### BASF

Nizhnekamskneftekhim has been in talks with BASF regarding the search for new directions in co-operation between the two companies. Both parties have presented packages of proposals on different concepts and directions. These include the development of new units at Nizhnekamsk, in particular regarding the production of acrylic dispersions, and in more commercial areas such as sales of Nizhnekamskneftekhim's production in Europe through BASF channels. This is where Nizhnekamskneftekhim sees big potential for co-operation. In

return, BASF sees major growth opportunities in Russia and sees Nizhnekamskneftekhim as a reliable and solid partner.

The initial joint venture between the two companies, which was formed several years ago, focused on the production of polyurethane systems at Nizhnekamsk. Other potential joint projects, or areas of co-operation, have tended to be shelved by both companies with some degree of stalemate. It seems that the potential has been reviewed once again and that it could lead to new projects emerging at Nizhnekamsk. If some success can be seen symbolically these developments may be very good for the prospects other jvs in Russia.

### **Energy**

Nizhnekamskneftekhim has signed a contract with Nuovo Piguone for the supply of three gas systems with a total capacity of 75 MW for the Nizhnekamsk power station TETS-1. According to the contract the equipment will arrive by May 2005. It will take around eleven months for the installation to be carried out. The total cost of the project is \$40 million and represents the first stage of the reconstruction of Nizhnekamsk TETS-1. With this purpose Nizhnekamskneftekhim and Tatenergo have founded Neftekhimenergo based on a 50/50 share division. The second stage of the programme includes the replacement of out-of-date equipment at TETS-1 and input of installations with a total capacity of 225 MW. The complete energy project should come to the end by 2009.

Since 2000, Nizhnekamskneftekhim has attached much significance to its programme of development in energy consumption. In the first quarter of 2004 the company estimates that it has saved 96,700 Gigacalories of thermal energy and 6,7 million. Kilowatt/hr of electric energy compared with the same period last year. The economic benefits of the reduction in energy consumption translate into reduced expenditure of 46 million roubles in the first quarter.

### **Polystyrene**

Nizhnekamskneftekhim continues to work on its grades of freon polystyrene, after the first trial lot of this polymer was produced in September 2003. The samples that were sent to all of the large refrigerator manufacturers have produced positive responses regarding the physicommechanical and chemical properties. Evroplastik, which is responsible for trade for Nizhnekamskneftekhim, sees big demand prospects for freon grades of polystyrene in the domestic market.

The largest suppliers of freon polystyrene on the Russian market are currently BASF and Dow Chemical Russian polystyrene producers have already started to add pressure to foreign suppliers in the markets for packaging and home appliances, and continue to produce new grades of polymers, Evroplastik has started sales of two new grades of polystyrene produced by Nizhnekamskneftekhim, such as 524Â and 945.

### **Polyethylene**

Nizhnekamskneftekhim is assessing the five potential PE technology suppliers with the aim of concluding a contract in the near future to build a 200,000 tpa plant. The licensors under review include Basell and Mitsui. Nizhnekamskneftekhim originally planned to announce the winner in March 2004, but has delayed the decision due to new conditions being added.

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### **Kazanorgsintez**

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Kazanorgsintez and Univation Technologies have signed a contract on rendering a license for the design, construction, manufacturing and sales of polyethylene of linear and bi-module structure. The project provides for the modernisation of two of three working polymerisation lines of low-pressured polyethylene, bringing the total output capacity of low pressure polyethylene to 440,000 tpa. The third line will not be modernised. Kazanorgsintez produced 199,600 tons of HDPE in 2003, from a total of 384,300 tons of polyethylene.

The project should be completed in 2006 by which time the company plans to occupy to 60% of CIS market. The Unipol license costs \$16 million, and part of the money was provided by TAIF, with the rest provided by Kazanorgsintez. Univation Technologies will supply consulting support in setting in operation and adjustment of the equipment and will grant technical documentation.

### **Polycarbonate**

Contracts for constructing new units for bisphenol A and polycarbonate are expected to be signed in June or July 2004. Kazanorgsintez's polycarbonate project will include a capacity of 65,000 tpa based on 70,000 tpa of bisphenol A. The polycarbonate plant is being built largely owing to the heavy surplus in phenol and acetone at Kazanorgsintez. Due to the high costs and shortages of benzene selling phenol on the merchant market has

become very unprofitable and therefore the need has grown for derivative capacity, particularly in product areas such as polycarbonate where there is very little production in Russia. Kazanorgsintez will use technology that does not involve phosgene.

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### **Orenburg**

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In order to provide raw materials for the polyethylene expansion at Kazan a complementary project will be undertaken to increase the capacity of ethane production at the Orenburg helium plant. Kazanorgsintez and Orenburggazprom have signed a protocol of joint activity, which provides for modernisation of ethane producing plants. Kazanorgsintez would receive raw materials, as compensation for money invested in modernisation. Currently, the Orenburg plant supplies about 400,000 tpa of ethane to Kazanorgsintez. As a result of modernisation, this volume could be increased to 700,000 tpa, and later on to 1.5 million tpa.

The required investments in the project are estimated at \$120 million. One of the key issues is the share of processing in the raw material deliveries of Gazprom to Kazanorgsintez. Orenburggazprom has undertaken to provide sufficient raw materials to Kazanorgsintez up to 2011. In turn, Orenburggazprom will establish at Orenburg a polyethylene pipe and film production unit, based on polyethylene produced by Kazanorgsintez. These arrangements are to be sealed by agreements made between the Tatarstan government and Gazprom.

The increase in deliveries of ethane will allow Kazanorgsintez to increase volumes of ethylene production from 334,000 tons in 2004 to 600,000 tons by 2006.

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### **Irkutsk**

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#### **Kovytko**

The East-Siberian gas company plans to conclude preliminary agreements in May 2004 on the deliveries of gas between the Kovytko GKM and the future consumers, including Angarsk Petrochemical Combine, the Angarsk Polymer Plant, Usolyekhimprom, and Sayanskkhimplast. In the near future Sayanskkhimplast and Yuzhnoygiprogaz will consider the question of the construction of a gas processing unit at Sayansk for ethylene production.

Other products besides ethylene that will be produced at Sayansk include helium. Russia Petroleum, which is controlled by TNK-BP, plans to extract helium gas in a venture with NPO Geliimash and Sayanskkhimplast. The partners will invest \$40 million to extract seven billion cubic metres per annum of helium gas. Kovytko is estimated to hold a quarter of the world's helium reserves and is considered a strategic resource under Russian law. The partners in the project plan to sell helium domestically and for export.

#### **Sayanskkhimplast**

Sayanskkhimplast's caustic soda production increased 2.7% in the first five months of 2004, totalling 49,700 tons. PVC production increased 10.7% to 101,600 tons. The amount of capital investment undertaken by Sayanskkhimplast in 2004 will amount to 950 million roubles, of which 430 million roubles will be made available from its own funds. Reconstruction will include the modernisation of the pyrolysis furnaces for EDC production and the conversion of chlorine from mercury to membrane technology.

The Savings Bank of the Russian Federation (Sberbank) will provide €22 million of the €40 million required for the conversion. In July 2004, the company plans to start a new boiler-house for burning hydrogen, which will facilitate lower power inputs by around 10%. In the long term the company aims to increase PVC capacity up to 500,000 tpa to meet the growing demand in Russia. Sayanskkhimplast's production of PVC in 2003 was 215,857 tons, 1.7% up on 2002.

Sayanskkhimplast's long term development programme is intertwined with Kovytko gas condensate deposits. The company aims to reduce costs for energy consumption and gradually phase out the dependence on the local energy company Irkutskenergo. In terms of products Sayanskkhimplast aims to focus on the conversion of PVC into finished products such as in profiles, cables, etc. In addition to the conversion from mercury to membrane Sayanskkhimplast is looking to introduce new technology to eliminate mercury from the environment.

#### **Usolyekhimprom**

In 2004, Usolyekhimprom believes that it can increase production volumes and the company has several plans to modernise the production facilities. Over the May-June period a new unit will be commissioned to deposit the epichlorohydrin wastes into the exhausted brine well. The thermal medium circulation circuit will be implemented

and the production facilities will be shifted to softened water process. Increased production of neutral calcium hypochloride will require the replacement of filters, pelletisers, etc.

The company plans to set up the production of caustic soda solution through the lye carbonatization process, which will help to reduce production costs. In 2004, these steps will facilitate any increase in capacity of epichlorohydrin to 30,000 tpa, neutral calcium hypochloride up to 18,000 tpa, and trichloroethylene up to 40,000 tpa.

This programme will require increased chlorine production and thus Usolyekhimprom plans to overhaul the electrolysis hall. The aim is to replace the BK-50 electrolyzers with the more powerful model BK-60 at the diaphragm electrolysis facility. Other plans include an overhaul of the first carbide furnace which stopped production in September 2003. A contract with NIIGIPROHIM (St. Petersburg) has been made in order to overhaul and commission this facility as soon as possible.

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### **Product news**

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#### **BOPP**

In addition to the Novatek BOPP project at Samara another BOPP project is also underway in Russia at Kursk which is scheduled to be completed in December 2004-January 2005. The project is being undertaken by GRINN at a cost of €55 million, which is financed by a French bank in close interaction with the Russian bank Sberbank. The first equipment is expected to arrive in July from the French company DMT. DMT is a major global supplier of turnkey solutions for the production of Biax films.

#### **Fibres**

Khimvolokhno Amtel-Kuzbass at Kemerovo is now regularly supplying polyamide to China. Since the beginning of 2004, the company concluded four contracts to supply polyamide to China. At present, the monthly amount of exports totals 250 tons. The increase of supplies to China is being helped by prices for polyamide, which have grown 20% since the beginning of 2004. The contract price of polyamide at the Russian-Chinese border has now reached \$1,700 per ton.

Khimvolokhno Amtel-Kuzbass was established in 2001 following the insolvency of Khimvolokhno, Kemerovo. The owner of the company is Amtel, a Moscow holding which includes three tyre manufacturing facilities in Russia (Kirov, Voronezh, and Krasnoyarsk) and one in Ukraine (Belaya Tserkov). It also includes the Volgograd Carbon Black Plant, and Krasnoyarsk General Mechanical Rubber Goods Plant.

In April 2004, Kuibyshevazot produced the first consignment of high-strength industrial yarn. The technology and production equipment was provided by Noyvallesina. The Barmag AG spin-draw winding installation used at the plant facilitates the production of a high-strength yarn with a specific breaking load of at least 85 sN/tex.

The manufacturing process consists of three main stages: spinning, drawing, and winding; twisting; and cord fabric production. The first stage is already operating, and at the other two, equipment setup and pre-start testing is in process. At the end of May, the company plans to start the second stage of production and to begin producing twisted yarn, and in June, cord fabric production will begin. Samples of the cord fabric will be sent to consumers for homologation, which will take three to six months. Commercial yarn will be on sale starting from June, and cord fabric, from Q3-Q4 2004. The plant will have a capacity of 7,000 tpa for high-strength yarn with 94, 144, and 187 tex, and 6,660 tons, or 12,000 running metres for 30/302 KNTS, 22/222 KNTS, and 15/152 KNTS cord fabrics.

Kuibyshevazot began building the high-strength yarn line in 2002. The feedstock used is granular polyamide 6 which the company produces from its own caprolactam. The granular unit was put into operation in December 2003.

#### **PET**

On 19 March 2004, a contract was signed for a project for the construction of a PET plant at Senezh. The plant is intended to produce bottle grade PET. MDM-bank is expected to receive a \$22 million loan from Commerzbank AG to finance a joint project with the Evroplast Group. The loan is to be provided for five years and guaranteed by Germany's Hermes agency. The Senezh plant includes two operational lines with a total capacity of 180,000 tpa. The first line is to be launched at the end of 2005 and the second at the end of 2006. The equipment is to be supplied by Inventa Fisher and Buhler. T

he Evroplast Group, established in 1997, incorporates seven plants. The Senezh project represents an important stage of vertical integration in the Europlast group. Coordination of process from delivery of raw material for manufacture PET-granules before shipment of end production (PET-preforms) will allow the company to provide not only stability of deliveries of production, but also to be independent in raw material supply.

#### **Methanol**

Vostochny Port at Nakhodka, jointly with Vostokgazprom, has introduced the first part of the methanol terminal which has a capacity of 500,000 tpa. Capacity will be increased stage by stage to 1 million tpa by 2006. The terminal is designed mainly to ship product from Metanol at Tomsk, which is owned by Vostokgazprom, to the Far East to consumers such as Mitsubishi and Mitsui. After producing 753,000 tons in 2003, Metanol expects that production will climb to 820,000 tpa in the next few years.

#### **Isocyanates**

The main trend seen in the Russian isocyanate market over the past few years has been in the growth of imports. The volume of the Russian isocyanate market is estimated at between 56,000-58,000 tpa, of which consumption is comprised 99% of imports. The market is currently worth \$32-35 million in value terms. In 2002, Russia imported 58,000 tons of isocyanates, with the main import sources being Germany including Bayer and Dow Deutschland as the main suppliers. BASF and Elastogran are also noticeable. The most popular product amongst Russian polyurethane producers is called Desmodur produced by Bayer. In 2002, Russia exported around 400 tons of isocyanates, most of which were exported to the CIS with the main destination Kazakhstan.

More than half of Russian polyurethane manufacturers use TDI, including isomers. Isocyanate consumption can be broken down into TDI 59%, MDI 40% and the rest 1%. From the mid-1980s onwards there have been no technical improvements to the Soviet built plants, whilst at the same time foreign producers have introduced new technology, reducing costs, improving quality, etc. project is the last priority at the moment).

Unless measures are taken this product could possibly vanish from production altogether. Whilst isocyanate production has been in decline in the past few years its main end-use outlet, polyurethanes, has been seeing strong and consistent growth. At present, 97% of isocyanates go towards the production of polyurethane foam of all types. In the past five years, the demand for isocyanates in Russia has been growing 5-8% per annum based on polyurethane consumption. It is expected that in the next two to three years these growth trends will even increase above these levels.

#### **Caustic soda/PVC**

Caustic soda and PVC trader United Trade Company (ETK) has been suspended following a decision taken by the Arbitration court of Moscow. ETK has been suspended on the basis of conducting business on behalf of caustic and PVC suspension producers under monopoly conditions. ETK has appealed against the decision and the instruction of the Ministry on an antimonopoly policy (MAP). This hearing will be heard on 21 June. ETK considers that it has been victimised and that in fact its policies had actually been stabilising the market.

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### **Belarus**

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#### **Belarussian privatisation**

After a lack of success to date in privatisation the Belarussian government has now decided to change the original conditions and sell stakes of up to 50% in the republic's petrochemical companies. Strategic investors would be required to be interested in developing the Belarussian petrochemical companies.

The Belarussian government planned originally to sell packets of shares such as in Naftan (43.27% for \$476 million), Polymir (43.19% for \$311 million), Grodno Azot (43.08% for \$293 million) and Grodno Khimvolokhno (43.66% for \$71 million). However, the tender fell through due to a lack of bids and interest at those price levels. Surgutneftegaz was considered as the most probable applicant for purchase of shares in Naftan as is the supplier of raw material to the plant, but price proved a deterrent which ended any possibility of a deal being done.

#### **Mogilevkhimvolokhno**

Inventa Fisher GmbH has won the tender from Mogilevkhimvolokhno for a PET plant, with a capacity of 80,000 tpa. This is the largest of the projects being undertaken by Mogilevkhimvolokhno and is worth around €40 million. Currently, the company has a capacity of 124,000 tpa of PET. The purchase of a modern unit for continuous polymerisation and the production of PET granules, will allow the company to close down out-of-date 44,000 tpa plant. Thus, the total capacity of PET will increase up to 160,000 tpa, whilst at the same time the cost price of

production will be reduced. The new unit is intended to be started up in 2006, with the payback period estimated at five years.

Mogilevkhimvolokhno has co-operated for many years with the Omsk refinery in Russia, which is a part of Sibneft, for supplies of paraxylene. Sibneft and Slavneft have invested certain sums into projects at Mogilevkhimvolokhno, and have provided stable deliveries of paraxylene to this plant. In addition to paraxylene, Itera has suggested to the Belarussian government to undertake other investment projects at Mogilevkhimvolokhno.

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### **Ukraine**

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**(Ukrainian hryvnia, May 28, \$1 = 5.33, €1 = 6.50)**

In the first quarter of 2004 Ukrainian production in the chemical and petrochemical industry increased by 19.9% in comparison with January-March 2003. Varnishes and paints saw an increase of 19.4%, pharmaceuticals by 17.4%, artificial and synthetic fibres by 63.2%. A significant increase in production was seen in the production of rubber (42.2%) and plastics (45.5%). Adipic acid production also increased.

Amongst the producers Sumyhimprom's production grew by 210% in the first quarter. Several factors lay behind the increase, with the growth of compound fertiliser production at 193% and for phosphoric acid at 195%. Titanium dioxide production increased by 127% and sulphuric acid by 78% after the capacity overhaul. In the first quarter the company's turnover was worth \$21.9 million.

In the next two years two plants will be constructed in Ukraine, under EU standards, for processing PET-containers. One of the plants will be constructed in the Donetsk region and will serve the southeast region of Ukraine, and another in the west of the country to be constructed either at Ternopol or the Ivano-Frankovsk region. The start of the construction period for the first plant is planned before the end of this year, and construction of plant in the west of Ukraine will begin at the beginning of 2005. In the Donetsk area, an Italian company has already won the state tender for the equipment.

#### **LUKOR**

Following meetings with Linde LUKOR has agreed a plan for the construction of a new C4-C5 unit, in conjunction with the polyolefin division. The capacity of the unit will be 90,700 tpa, and LUKoil-Neftekhim will act as the project guarantor. Under the contract between LUKOR and Linde, from March 2004, the German partners will provide the delivery of equipment and spare parts for the installation within 13 months from the date of signing the document. The construction will be carried out by LUKOR.

Commissioning of an installation for the hydrogenation of C4-C5 fractions is part of LUKoil-Neftekhim's investment programme at a cost of \$260 million. The programme provides for a radical reconstruction of the chlorine and caustic soda facilities, and also construction of new installations, in particular, for the production of PVC and its own power unit, etc.

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### **Transcaucasus**

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Itera announced in late May a plan to build a large urea plant in Georgia. The facility would produce up to 1 million tpa of urea, with the total cost of the project estimated at \$250 million. The plant would be located near Poti or Batumi, both of which are Black Sea ports. Itera also planned to invest \$14 million within the next two years in the modernization of the Azot chemical plant at Rustavi.

Since it took up provisional management of a 90% stake in Azot two years ago, Itera has put \$6 million in production rehabilitation and has made the plant double its output. Georgia still owes \$103 million to Itera for natural gas received from the company. The sum includes public sector arrears of \$46 million, which Itera proposes settling via taking ownership of the 90% stake in Azot it is managing.

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### **Kazakhstan**

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#### **Kazakh petrochemical project**

The Bank of Development of Kazakhstan (BRK) has signed an agreement regarding the initial financing, worth \$40 million, for the construction of a petrochemical complex in the Aktyubinsk Oblast. The aim of the project is the

development of a modern complex for the production of methanol, ethylene, propylene, polyethylene, polypropylene, and other thermoplastics, based on local raw materials.

Gas deposits from the Zhanazholsk deposit will be used as the feedstock base, whilst the use of gas from Uzbekistan and Turkmenistan is also possible. The capacity will be designed to process 1,228,000 tpa of gas, with a planned start up in 2006 and full production in 2007. BRK is carrying out an effective state investment policy, in which this project realizes one of the primary goals, to promote the development of new hi-tech manufacture in the republic.

The civil-engineering design of a petrochemical factory in Aktyubinsk areas is included into the programme of development of a fuel and energy complex and petrochemical branch of the country. It corresponds to priorities of Strategy of industrial-innovative development up to 2015. However, similar project plans have been outlined before only to disappear later on. What can be said is that the processing of hydrocarbons in Kazakhstan is limited mostly to the separation of oil and gas, with very little development in the further use of petrochemical raw materials. Thus, such a project would represent a major step forward for the industry.

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