

# 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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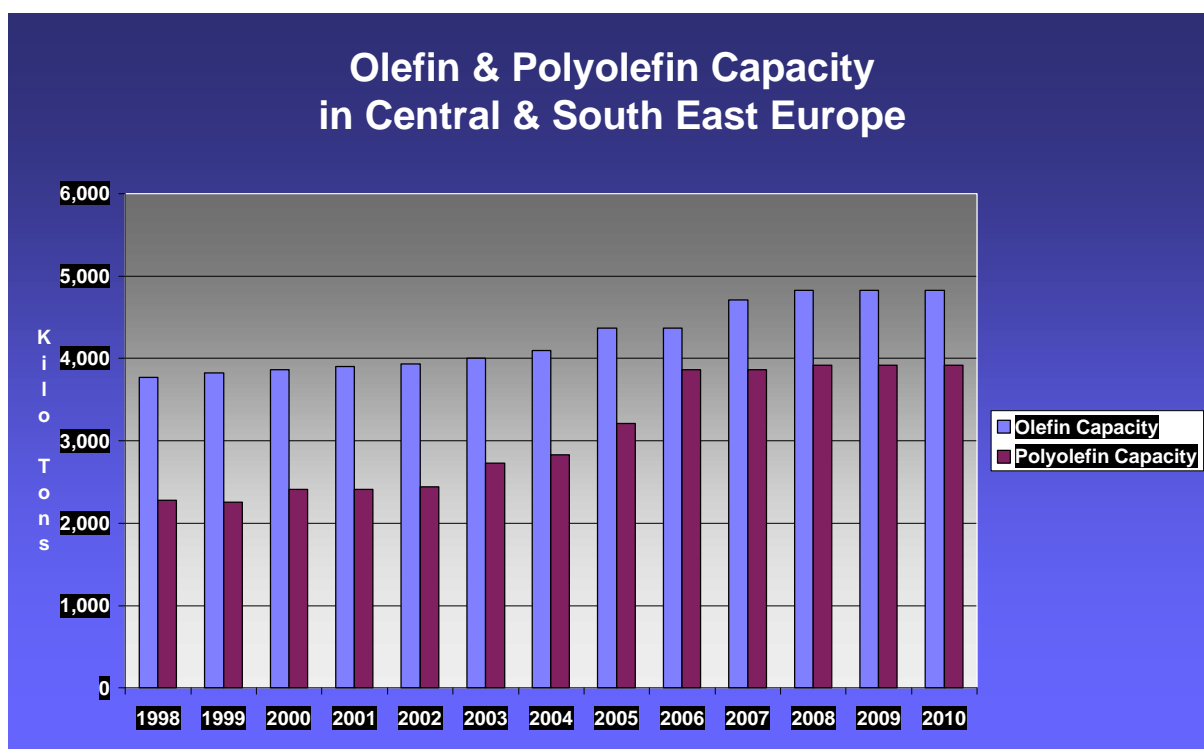
### ***Features from the January 2005 issue***

- The European Commission (EC) has approved the sale of Unipetrol to PKN Orlen. The Czech Finance Ministry said that the ruling by the European Commission left the question of Unipetrol's monopoly position on the Czech market as the last remaining obstacle to completion of the sale. The Czech Republic did not provide state aid in the sale of its 63% stake in Unipetrol to PKN Orlen, according to the EC.
- New EU rules aimed at regulating the chemical sector will affect smaller operations in Poland and generate a mountain of unnecessary paperwork, according to the Polish Chamber of the Chemical Industry (PCCI). Research indicates that the new legislation, known as REACH may even push small-scale operators out of business.
- The EBRD is waiting for approval to award Tolyattiazot a credit of \$100 million for a proposed project (in total worth \$160 million) of a complete revamp and modernisation of four older units and some ancillary facilities. The revamp programme will reduce both gas and electricity consumption and result in a capacity increase. The work will include detailed engineering for the revamp, supply of equipment, supervision of pre-fabrication and erection works, commissioning and test-running.
- Linde AG is currently investing \$100 million in three new air separation plants in the two regions. Each of these on-site plants will be operated by Linde Gas at the sites of three major customers located in the Czech Republic and Romania. With a total output of around 2,000 tons of oxygen per day, the plants will supply major consumers with gaseous oxygen and nitrogen via a pipeline.
- Svyazinvestneftekhim (SINKh), which is owned 100% by the Tatarstan republic, has sold its 54.5% stake in the Petrokam JV at Nizhnekamsk to Mineraloil Rohstoff Handel GmbH (MRH). Discussions have been underway for a year. SvyazinvestNeftekhim seems to have taken the decision to sell the stake in order to raise as much cash for the development of investment projects in the petrochemical sector in Tatarstan.
- Increasing demand for plastic films in the Russian market has thrown up the need for investment in the sector. For instance, from 1999 to 2003 the volumes of imports of PVC films into Russia grew from 23,000 tons to 145,000 tons. The greatest share of imported PVC films in 2003 were films of a thickness up to 10 micron (23.4% from total amount of import films PVC in 2003), a film thickness from 51 up to 60 micron (30.1%) and a film thickness from 21 up to 30 micron.
- LUKoil has presented a takeover plan to the Bashkortostan President for Polief, as part of the struggle for control over this complex at Blagoveshchensk, near Ufa. In the next few months, the complex will be put up for auction by the Russian Federal Property Fund. The owner of the sole Russian potential producer of PTA will control a market worth \$500 million in value.
- LUKoil has received the go-ahead for the long over due polypropylene project at Budyennovsk. The project capacity is 80,000 tpa and construction costs are estimated at €66 million. The project is targeted for a 2007 start-up.

### Ethylene supply in Central & South East Europe

TVK informed its shareholders at the start of December that the most important and largest construction of the company's petrochemical development programme, the Olefin-2 project, achieved its mechanical completion on 19 November 2004, as per schedule. As the graphic above shows the expansion of olefin capacity at TVK is also accompanied by an expansion of polyolefin capacity for 2005. The significant increase in 2005 and 2006 is supported by other projects by BOP (planned for August 2005) and Slovnaft. These developments will increase the proportionate ratio of polyolefin capacity for Central and South East Europe in total olefin capacity from around 60% in 1998 to levels over 80% by 2006-2007. The olefin capacities assume that Orlen will conclude its cracker expansion by 2008, and that also Slovnaft will add some new capacity.

South East Europe is unlikely to see much change in olefin supply prior to 2010, although Arpechim in Romania could upgrade. LUKoil-Neftochim has idle ethylene capacity which could restart if demand justified. Petromidia is well placed to develop further into petrochemicals, but any developments are more likely to happen towards the end of the decade. Propylene will be the monomer where shortages occur, particularly in Central Europe. The expansion of polypropylene capacity has not been matched by equal expansions in propylene capacity. Thus, oxo alcohol producers in the region and other propylene end-users may be forced elsewhere to purchase propylene supply.



### CENTRAL & SE EUROPE

#### Czech Republic

(Czech crown, Kc, Dec 20, \$1 = 22.71, €1 = 30.40)

#### Unipetrol

The European Commission (EC) has approved the sale of Unipetrol to PKN Orlen. The Czech Finance Ministry said that the ruling by the European Commission left the question of Unipetrol's monopoly position on the Czech market as the last remaining obstacle to completion of the sale. The Czech Republic did not provide state aid in the sale of its 63% stake in Unipetrol to PKN Orlen, according to the EC.

Efforts to restructure Unipetrol into autonomous business divisions may have helped accountability within the holding, but the view remains that the new owners of Unipetrol will be faced with even more far reaching decisions regarding the petrochemical plants following completion of the deal. The future of Spolana is uncertain for

example, whether or not it would become part of Anwil or be offloaded elsewhere. Important parts of the petrochemical division include the HDPE and polypropylene units at Litvinov which were introduced in 2003, replacing old units, whilst the rubber division at Kralupy is attractive plant in its own right.

Since the privatisation process started the government has maintained the argument that keeping Unipetrol together as one unit would attract a better price than selling it in constituent parts. However, this latter option may have actually been more beneficial to long term interests of the divisions concerned. It has long been suggested for example that there is natural synergy between Kaucuk and Dwory at Oswiecim in areas of ethylbenzene, synthetic rubber, etc, but such a merger is not feasible in the current setup at Unipetrol. Kaucuk has ethylbenzene, whilst Dwory needs this product.

Orlen has still not decided publicly what it will do with the petrochemical subsidiaries, but without any pipeline connections between Plock and Bohemia it is difficult to see an alignment in production and sales' strategies in the same way that has occurred with MOL and Slovnaft. True, there is also no pipeline between Tiszaújváros and Bratislava, but there is synergy between the different grades of polyethylene being produced by the two complexes.

#### **BC-MCHZ**

BorsodChem-MCHZ expects its sales to rise 42% to Kc 3.7 billion in 2004. Operating profit was expected to grow by nearly 8% to Kc 185.8 million, while net profit will dip to Kc 143.7 million, representing a decline of 21% against 2003. However, in 2003 the company had extraordinary revenues from the sale of its adhesives and formaldehyde production unit which were not included in 2004.

Sales rose mainly due to a growth in aniline production to a record 112,500 tons, as well as growth in sales to the Hungarian parent company. The volume of exports to Hungary increased by 53% to nearly Kc 1.5 billion, accounting for 36.3% of the company's total exports.

#### **Linde**

Linde AG is currently investing \$100 million in three new air separation plants in the two regions. Each of these on-site plants will be operated by Linde Gas at the sites of three major customers located in the Czech Republic and Romania. With a total output of around 2,000 tons of oxygen per day, the plants will supply major consumers with gaseous oxygen and nitrogen via a pipeline.

The largest of the three air separation plants is being installed by Linde Engineering in Vresova in the west of the Czech Republic, and will pipe oxygen and nitrogen to Sokolovská Uhelná, as of 2005. Sokolovská Uhelná needs the oxygen to gasify and partially oxidize lignite. During this process, a synthetic gas is produced that will be used as fuel for a steam and gas power station.

Recently, the Czech Republic saw another Linde air separation plant go into operation at the Kaucuk plant at Kralupy. Oxygen generated by the air separation plant will be used to produce styrene, while nitrogen will be piped to the Ceska rafinérská refinery.

The third air separation plant is currently being installed by Linde Engineering at Gaz Romania S.R.L. at Ramnicu Valcea. Based on a long-term supply agreement, the plant will pipe oxygen and nitrogen to Oltchim as from 2005. These gases are needed to produce VCM. This plant is the first modern air separation and gas liquefaction installation to be built since Romania became a parliamentary republic in 1990.

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#### **Poland**

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(Polish zloty, z<sup>3</sup>, Dec 20, \$1 = 3.07, €1 = 4.11)

#### **BOP**

Basell Orlen Polyolefins (BOP) plans to begin producing polypropylene and polyethylene at Plock by August 2005. The company reported towards the end of 2004 that the entire investment project is 80% completed. Basell expects the new plants to function at 80% of capacity within the first year of operation. The polypropylene facility will be able to produce 400,000 tpa, compared with the current plant, which can produce 150,000 tpa. The company will be able more than double production of polyethylene to 320,000 tpa at the new plant from the 140,000 tpa it can currently produce.

Until the new plants become operational Basell has been developing its market position through supplementary imports from its other plants. Imports of polyolefins are expected to reach 100,000 tons in 2005. Unlike the current polypropylene plant at Plock, which can only produce homopolymer grade, the new Basell plant will be able to produce copolymers.

#### **Dwory**

Poland's Treasury Ministry and three Polish investment funds, NFI Foksal, NFI Jupiter and Magna Polonia, planned to sell their stakes in Dwory during its 20 December initial public offering (IPO). The IPO consisted entirely of existing shares, accounting for 76.4% of Dwory. The Treasury holds 25.1% in Dwory, whilst NFI Foksal is the largest current shareholder with a 45.3% stake. After the IPO, a 23.6% Dwory stake will remain in the hands of existing shareholders.

Exports, sold mainly to West Europe, account for 32% of Dwory's sales. Investment plans of the company include a joint ethylbenzene production project with PKN Orlen. Dwory's investment in the project, currently being renegotiated with Orlen's new management, is likely to be in the range of z<sup>3</sup> 80 million.

#### **Ciech**

The Polish Treasury Ministry, which owns a 52% stake in Ciech, hopes to raise z<sup>3</sup>.210-250 million from the initial public offering of 8.2 million shares in early 2005. After floatation, the Treasury's share in Ciech is expected to fall to 37%. The capital raised has been earmarked by Ciech for investment into ZA Pulawy.

#### **Reach**

New EU rules aimed at regulating the chemical sector will affect smaller operations in Poland and generate a mountain of unnecessary paperwork, according to the Polish Chamber of the Chemical Industry (PCCI).

Research indicates that the new legislation, known as REACH may even push small-scale operators out of business. Data collected by the Industrial Chemistry Research Institute for the PCCI suggests that small companies (those employing an average production staff of 40) will face a 59% increase in production costs associated with the implementation of REACH regulations. Medium sized companies (with an average of 100 employees in the plant) would be hit by a 21% hike in costs, while large companies (with an average on site workforce of 750) would experience an 11% increase.

The new regulatory framework, which is currently at the proposal stage, would affect enterprises manufacturing or importing more than one ton of a chemical substance per year, requiring them to register it in a central database. REACH sets out to promote health and environmental protection, while maintaining the competitiveness and enhancing the innovative capability of the EU chemicals industry.

<b>Croatian Chemical Output (unit tons)</b>		
<b>Product</b>	<b>Jan-Aug 2004</b>	<b>Jan-Aug 2003</b>
Ammonia	260,647	216,258
Nitric Acid	166,616	156,362
Inorganic Acids	134,414	102,620
Carbon Black	13,659	14,589
Plant Agents	5,437	3,871
Urea	277,101	216,337
Polyethylene	77,191	82,442
Resins	38,121	48,425
Detergents	36,736	38,369
Printing Inks	584	493
Coatings	23,917	21,846

Critics, though supporting these aims, say in reality extensive paperwork and tests that producers would be required to conduct, instead of improving operations, would simply damage their business. Critics argue that increased costs will harm the competitive prices offered by small plants and result in a reduction in liquidity, which could quickly force small scale producers out of business. Only niche enterprises would stand a chance of survival.

Opponents also highlight what they say is a major inconsistency in the regulations. REACH assess hazardousness on risk level and exposure level in terms of tonnage produced. The regulations in their current form would

require extensive paperwork and testing for high-volume producers of low risk substances. However, producers of low volume, high risk chemicals would need a minimal amount of administration and testing for registration.

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#### **Bulgaria**

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(Bulgarian lev Dec 20, \$1 = 1.46, €1 = 1.96)

LUKoil reported a net profit of 8.9 million leva for the first three quarters of 2004, a drop of 85.9% compared to the

corresponding period of 2003. The company's non-consolidated net profit came to 7.22 million leva for the first nine months of the year. Net consolidated sales revenue dropped by 7.34% per annum to 260.5 million leva.

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**Romania**

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**Procter & Gamble**

The Procter & Gamble (P&G) plant based in Timisoara (western Romania) has entered a phase of expansion, and the parent company's investment here has amounted to \$35 million over the last nine years. The company is considering means of trebling its turnover, which might come to fruition through the exports of the Timisoara-based plant.

Over 50% of the products manufactured inside the P&G Timisoara premises are exported to Serbia and Montenegro, the Russian Federation, Bosnia, Bulgaria, Ukraine and the Republic of Moldova.

**Rompetrol**

Rompetrol plans to invest \$25 million in a sulphuric acid plant located near the Petromidia refinery. The greenfield project is another Rompetrol step to make its petrochemical platform from Petromidia viable.

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**BALTIC STATES**

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Mazeikiu Nafta is considering the possibility of building a polypropylene unit. The cost of the plant has been estimated at around \$225 million and could be completed within two to three years.

It is far from unclear what will happen to the stake owned by YUKOS in Mazeikiu Nafta although the refinery is still receiving YUKOS crude. It expects to keep buying from Yuganskneftegaz who ever is the owner of the field.

The Lithuanian government rejected a request by YUKOS in December which had asked for a delay in increasing its stake in Mazeikiu Nafta. YUKOS currently holds a 53.7% stake in the Lithuanian refinery, acquired in 2002 from Williams. Under an agreement with the Lithuanian government, which holds a 40.6% stake in Mazeikiu Nafta, YUKOS has the right to buy 9.72% of newly issued shares for \$75 million. The same deal allows YUKOS to buy another 11.5% in the refinery from the government's own stake.

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**EURASIA, COMMONWEALTH OF INDEPENDENT STATES**

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**Russia**

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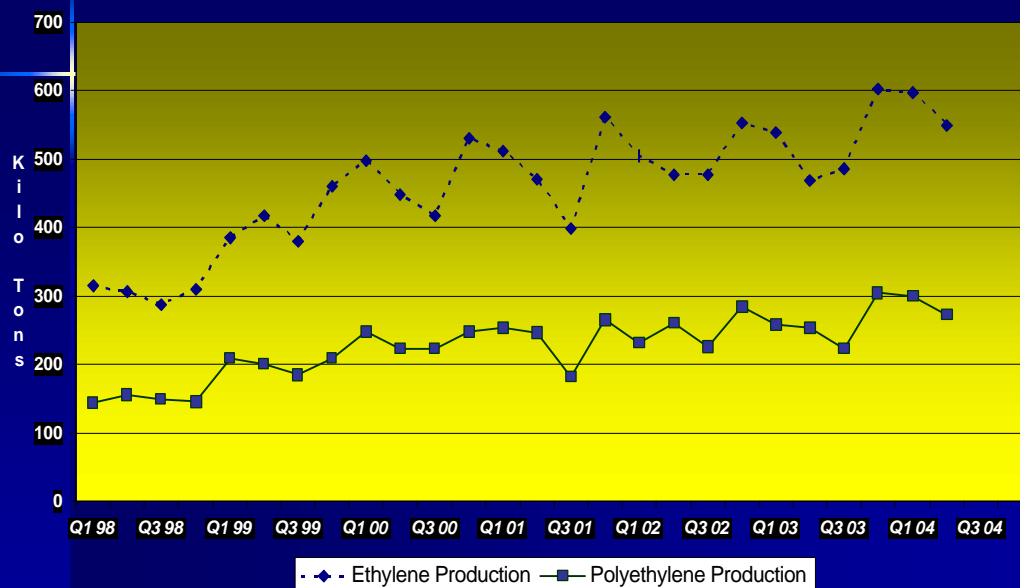
**(Rus rouble Dec 20, \$1 = 27.9040, €1= 37.3600)**

2005 may transpire to be an important year in the Russian chemical industry, in terms of investment decisions or at least setting the pre-conditions for investment. The slow moving investment cycle until now, at least in relation to demand, has reached the point where major injections of finance and ideas are required in order to meet rising consumption levels. PVC, for example, is expected to fall into deficit in 2006, a situation hardly imaginable five years ago.

Nearly 8,000 companies (no more than 10% are large or medium-sized) owning almost 7% of all of the country's industrial capital assets work in the chemical and petrochemical industries in Russia. Based on results for 2003, the industry accounted for 5.8% of total industrial output, and created a turnover worth more than 400 billion roubles.

Growth in Russian chemical production has been steadily slowing in the last five years, but this has mostly been a case of increased utilisation levels rather than new plants coming onstream. In 2004, a number of developments took place which signified a more proactive response to strong domestic demand. Regionally, Tatarstan saw the greatest movement with the LG venture at Nizhnekamsk and the announcement of major expansion plans by Kazanorgsintez. For Russia as a whole SIBUR's gradual recovery from the difficulties faced in 2002 means that the holding is much better placed to develop a strategic programme for its extensive range of plants.

## Russian PE vs Ethylene Production

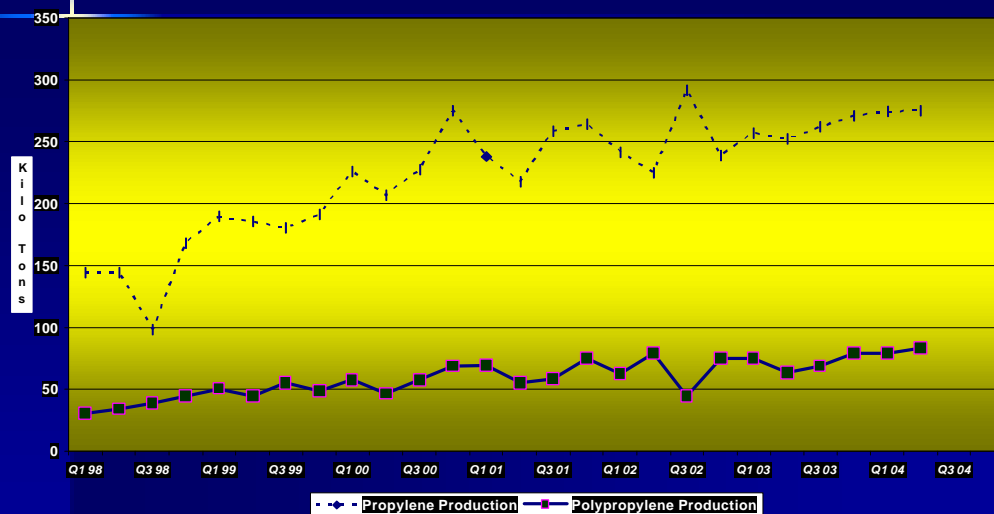


04/12/2004

[www.cirec.net/report](http://www.cirec.net/report)

12

## Russian PP vs Propylene Production



04/12/2004

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13

One of the main factors restricting growth in polymers and intermediates is the lack of monomer availability. Aside several expansions and the possibility of up to three new small (in relation to world standards) crackers there is no clear sign of a large-scale strategic programme that would give the impetus towards more derivative projects. Moreover, whilst ethylene supply may be addressed on a step by step basis, such as the expansion at Kstovo to meet the demands of the new polyethylene plant, the emphasis on gas liquids and ethane will provide little help for the propylene and benzene chains. It is the lack of these two monomers which could limit the development of new capacity for polypropylene and polystyrene, apart from other derivatives.

<b>Chinese Imports from Russia (unit kilo tons)</b>		
<b>Product</b>	<b>Jan-Sep 04</b>	<b>Jan-Sep 03</b>
HDPE	17,580	26,865
LDPE	72,949	82,355
PVC	65,611	112,077
PP	19,288	13,185
Caprolactam	71.142	51.826

CIREC has developed an online database which charts Russian production volumes by quarter by individual plant. The demonstration page can be found at <http://www.cirec.net/chemical-reports.shtml>, and if you have already subscribed to this new service the login is at <http://www.cirec.net/report>.

In December, a graphics tool was added that can instantly illustrate production trends by plant and also by product (broken down by individual plant). Combined with <http://www.cirec.net/search-database.shtml>, which is an online archive of CIREC Monthly News dating back to 1991 up to this issue, it means that the database system provides an extremely quick and cost efficient (if compared against attending conferences for example) method of finding answers and background to important issues in the region. The Russian statistics section will be extended in 2005 to incorporate capacity and eventually consumption data. If you would like details of how to gain access to either, or both, of the database sections please write to [als@cirec.net](mailto:als@cirec.net). Please note that it is not necessary to subscribe to the entire Russian statistics section, which consists of 28 products and over 80 plants. It is possible to select a product group such as olefins, aromatics, etc.

Russian exports of PVC to China fell by around 70% in the first three quarters of 2004 against 2003 as Russian domestic demand continued to increase. Anti-dumping measures introduced by China against Russian PVC sales have been substantially reduced from their original restrictions, but Russia's need to export PVC has declined sharply in the last couple of years. This has culminated in the announcement of a new €500 million project by Nikos and Solvay for a PVC plant to be constructed in the Volgograd region. The aim is that the plant will serve mainly the domestic market. Sayanskkhimpast also has plans to expand its PVC facilities, based on the current complex, in addition to developing its own sources of ethylene.

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### **SIBUR/Gazprom**

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#### **Feedstocks**

Sibneft will deliver 1.8 billion cubic metres of gas to SIBUR at prices agreed in 2005. The company may widen the deliveries by 600-800 of million cubic metres. In addition, the companies entered into an agreement to supply 600 of million cubic metres of dry stripped gas in 2005. Sibneft supplies gas to Noyabrsk NPP gas processing enterprise of SIBUR.

#### **Tobolsk-Neftekhim**

In January-October 2004, Tobolsk-Neftekhim increased the production of concentrated isobutylene by 7% to 28,000 tons. Butadiene production reached 143,000 tons, 93.3% of the level in January-October 2003. Butadiene fell due to the extended shutdown that took place at Tobolsk this year.

#### **Tomskneftekhim**

Group Alyans and SIBUR have signed an agreement regarding the sale of a controlling packet of shares in Tomsk Petrochemical Combine (TNKHK) and a moratorium on debts of the company controlled by Group Alyans.

Up to its bankruptcy in 1997 TNKHK consisted of four plants including polyethylene (160,000 tpa), polypropylene (100,000 tpa), urea resins (200,000 tpa) and formaldehyde (360,000 tpa). Since 1998, the production units have been run under two separate divisions Polimis and Metanol. Metanol has been incorporated under the control of VostokGazprom, whilst polymer production was transferred to a new company Tomsk Petrochemical Complex (TNKHZ), under the direction of SIBUR.

German companies Haver & Boecker and Beumer and Tomsneftekhim LLC have signed an agreement to deliver filling and loading machinery for the LDPE plant at Tomsk. A €500,000 production line is to be delivered and installed in 2005 as a part of the LDPE upgrade from 160,000 up to 220,000 tpa. SIBUR will allocate about 350 million roubles to boost LDPE production at Tomsneftekhim in 2005.

### **SIBUR-Neftekhim**

SIBUR-Neftekhim recorded 8.30 billion roubles in turnover for the first three quarters of 2004 which was 21% lower than in the same period in 2003. The Dzerzhinsk division of SIBUR-Neftekhim achieved 5.9 billion of the 8.3 billion roubles.

Over the course of 2004, SIBUR-Neftekhim has spent a total of 550 million roubles on the introduction of two new investments. The first is the creation of the LPG base for the production of petrochemicals, which will help to reduce the dependency on naphtha, and the second is the new F-110 furnace.

SIBUR Neftekhim recently launched a pilot unit for the new F-110 hydrocarbon pyrolysis reactor (pyrolysis furnace). This modern pyrolysis furnace of the last generation at Kstovo was produced by KTI in the first half of 1990s. However, installation was suspended due to the financial problems faced by the plant. The F-110 efficiency is about 95% with the production rate being 24 tons/hour of raw material. The furnace is equipped with automatic control system controlled from Yokogawa, which facilitates control over production.

The F-110 utilises both liquid and gas feedstocks, and its new distinctive feature is the built-in superheater providing higher utilisation of waste-gas heat. Also, there is a new type of coil pipe and new burners, etc.

These structural alterations combined provide an improved raw material economy and facilitate increases in the production of ethylene, propylene and benzene. The launch of the F-110 will allow the stabilisation of the overhaul schedule at Kstovo. The next prospective project lies in the substitution and modernization of compressor and column equipment, launching of more furnaces of the same type and increasing of the plant capacity, at first, up to 360,000 tpa of ethylene and then up to a level of 430,000 tpa.

The expansion of ethylene is essential for the planned investments in polyethylene. SIBUR-Neftekhim is expected to select the general contractor and the licensor for the construction of the new polyethylene plant by the end of the first quarter in 2005. There are two main contenders for the project, Tecnimont in conjunction with Basell technology and Technip in conjunction with Mitsui technology.

In September 2001, SIBUR-Neftekhim signed the contract for the polyethylene plant with Tecnimont, but due to the financial difficulties in SIBUR at the beginning of 2002 this project was put on hold. Since 2003, SIBUR-Neftekhim has revived its investment programme. A new tender has been issued in order to take account of the new technological improvements.

### **Novy Urengoy**

Gazprom plans to attract up to \$500 million in credit for the construction of projects in the Novy Urengoy region, including the petrochemical complex. The project has been outstanding for many years due to a lack of finance. It would when completed provide another 300,000 tpa of LDPE which could be used by the domestic market. Earlier there were plans to send the product to China, but the domestic market has moved on very quickly in recent years and also all the new projects either announced or under planning are focused on HDPE.

### **Togliattikauchuk**

At the start of December 2004, Goodyear agreed with Togliattikauchuk for purchases of isoprene rubber for Goodyear's European plants, and butyl rubber for the plants in Asia and Japan. In addition, Goodyear negotiated with Togliattikauchuk about their intent to buy a batch of SKI-3 rubber for the production trials in one of the company plants.

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## **Tatarstan**

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### **Kazanorgsintez**

Kazanorgsintez has signed a contract with Idemitsu Kosan Co, Asahi Kasei Chemicals and Toyo Engineering for the purchase of the license, and the basic project construction for new units for bisphenol-A and polycarbonate. Mitsui has acted as the project co-ordinator. This project not only means the production



of high added value polymers, but also provides an outlet for disposing of significant emissions of CO<sub>2</sub> in Kazan.

This represents the first of three projects within the framework of the strategic programme which was developed by Kazanorgsintez (KOS) and TAIF in April 2004. Projects will be financed by Sberbank and the Japanese Export-Import Bank.

Both production units, of which there are no other types in Russia, are planned for introduction in the first half of 2007. The capacity for the bisphenol A plant is 70,000 tpa, at a capital cost of \$102,540 million, whilst the polycarbonate plant will have a capacity of 65,000 tpa and will cost \$196,330 million. Both plants will have a five year pay back period. The bisphenol A-polycarbonate projects will be an extension of the phenol chain at Kazanorgsintez.

The strategic programme developed by KOS up to 2011 plans to increase ethylene capacity up to 1.2 million tpa and polyethylene capacity up to 1.1 million tpa. As a result of this programme the company's turnover will exceed \$1.2 billion with a profit from sales of \$520 million.

The other project being implemented in 2005 by KOS involves the modernisation of the HDPE facilities. The modernisation of the HDPE plant will facilitate 440,000 tpa of new grades, including linear and bimodal structures. The total capacity of the HDPE capacity will increase from 200,000 tpa to 510,000 tpa at a cost of \$120 million. The modernisation process will commence in the fourth quarter of 2005, with a three year construction period. KOS expects that by early 2008 total polyethylene capacity will have risen to 700,000 tpa. The Japanese Export-Import Bank will provide 85% of the finance required for the equipment for the project, whilst Sberbank is ready to provide its own guarantees for this credit. In May 2004, KOS è Univation technologies concluded a contract for the license for linear and bimodal polyethylene.

In the first ten months of 2004 Kazanorgsintez achieved a sales turnover of 9.4 billion roubles, which was 32.1% above the same period in 2003. The company book profit is about 2.7 billion roubles, which is 37.8% above the target figure. The company has spent 926.7 million roubles on the modernisation of the Ethylene-200 plant.

#### **Nizhnekamskneftekhim**

On 9 December, Nizhnekamskneftekhim signed a contract with Basell for the construction of a 230,000 tpa HDPE plant. This follows the first signing of a contract for a 180,000 tpa polypropylene plant with Basell.

In the first eleven months of 2004 Nizhnekamskneftekhim increased the production of isoprene to 167,004 tons, which was up by 4.6% over the same period in 2003. In the same period, the company produced 73,395 tons of butyl rubber (12% growth), 229,566 tons of styrene (a 0.3% fall), including 189,231 tons of marketable styrene (a 12.2% reduction), and 126,538 tons of MEG (9.6% growth).

Butyl rubber production included 5,500 tons of halobutyl rubber after Nizhnekamskneftekhim launched the unit in April 2004. In 2005 a new system of polymerisation will be introduced; total capacity of butyl and halobutyl rubber amounts to 100,000 tpa. Brombutyl rubber grade BBK-232 produced at the butyl rubber plant at Nizhnekamskneftekhim has been certified and approved for use at all of Michelin's European plants.

Regarding neonols, Nizhnekamskneftekhim has recently achieved record levels of production reaching 765 tons on a daily basis. In the period January-November 2004, the neonol plant at Nizhnekamsk produced 109,000 tons which was 35% higher than in 2003.

#### **MHR**

Svyazinvestneftekhim (SINKh), which is owned 100% by the Tatarstan republic, has sold its 54.5% stake in the Petrokam jv at Nizhnekamsk to Mineraloil Rohstoff Handel GmbH (MRH). Discussions have been underway for a year. SvyazinvestNeftekhim seems to have taken the decision to sell the stake in order to raise as much cash for the development of investment projects in the petrochemical sector in Tatarstan.

Petrokam was created as a jv with MRH at the Nizhnekamskneftekhim complex in 1987. The venture was converted into share holdings in 2000. The function of the jv was the construction and operation of the ethylene oxide and glycol plants. When the company was converted into a shareholding company in 2000 shares were distributed between MRH and Nizhnekamskneftekhim in the ratio of 45.5% and 54.5%. In the meantime the

shareholding held by Nizhnekamskneftekhim in Petrokam has been transferred in charter capital to Svyazinvestneftekhim.

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**Bashkortostan**

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**Polief**

LUKoil has presented a takeover plan to the Bashkortostan President for Polief, as part of the struggle for control over this complex at Blagoveshchensk, near Ufa. In the next few months, the complex will be put up for auction by the Russian Federal Property Fund. The owner of the sole Russian potential producer of PTA will control a market worth \$500 million in value.

SIBUR was the first company in Russia to launch the production of PET at Tver. However, it has proved hard to achieve a profitable operation of the plant, as imported PTA is sold at a price nearly that of the imported PET. Hence, Gazprom is interested in the acquisition of the Polief plant as having its own source of PTA production in Russia could make the SIBUR-PETF operation profitable. It will also help SIBUR to support two new PET projects which are under review at present.

Polief's projected capacity is 230,000 tpa of PTA and eventually 120,000 tpa of PET. At present, 100% of the company's shares belong to state property. However, neither the Bashkortostan local budget, nor the federal budget has the funds for completing the construction of the plant. Thus, it was decided to privatise the company by selling 100% of its shares to a private investor. However, all the three auctions for its sale failed in 2003 due to the absence of bids. As a result, its privatisation was rescheduled for 2004.

Around 85% of the PTA plant is completed, but substantial funds are required to finish the project. The initial price of shares has been determined approximately at \$100 million although possibly the potential of the enterprise is immeasurably higher. Annually, the complex could be capable of earning \$172 million in profit.

Gazprom started to show interest in the Blagoveshchensk project in September 2004, but now LUKoil is competing for Polief. LUKoil claims that it could make Polief profitable within 1.5-2 years. LUKoil has offered two options for involvement in Polief, the purchase of shares in Polief through an auction or a behind the scenes transfer of shares.

There is a view that LUKoil has a good chance of taking control over the Blagoveshchensk combine. Demand for PET in the Russian Federation is estimated currently at levels of 350-400,000 tpa, with annual growth rates of 10-12%.

**SNOS**

Salavatnefteorgsintez (SNOS) saw a decline in profitability of 40% to 814 million roubles in the third quarter of 2004. This reduction was due to increased raw material prices and increases in export tariffs. In 2003, SNOS achieved a turnover of 18.54 billion roubles, with a net profit of 1,575 billion roubles. In November, 2004 there was a successful accommodation on the Moscow Interbank Stock Exchange of the second bonded loan in volume in 3 billion roubles. The sum will go into the construction of the catalytic cracking unit.

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**LUKoil-Neftekhim**

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**Saratovorgsintez**

Starting from December 2004, Saratovorgsintez will start the deliveries of polyacrylonitrile (PAN) bundle to the Russian nuclear fuel company TVEL. TVEL was created in 1996 under the Decree of the President of the Russian Federation for achieving the goal to increase the efficiency of nuclear fuel cycle enterprises.

Russia currently imports PAN bundle from Europe, namely from Hungary. The demothballing of PAN bundle production facility at Saratovorgsintez will help LUKoil-Neftekhim to achieve higher commercial targets, whilst also helping the nuclear power generation industry. Saratovorgsintez is the only Russian polyacrylic fibre producer.

**Budyennovsk PP plant**

LUKoil is about to start investing in the construction of the polypropylene plant at Budyennovsk. The project is now being spoken of in terms of a 2008 start-up. At this stage most of the polypropylene will go towards export, although by 2008 the market situation could require that this product is sold on the domestic market.

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**Irkutsk**

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**Usolyekhimprom**

NITOL together with Usolyekhimprom has created a programme for the development of the up to 2008. The main directions of the programme include not only increases and modernisation of existing capacity, but also development of new technologies and new kinds of production.

In addition to industrial potential the programme is focusing on ecological improvement, particularly for epichlorohydrin production. NITOL and Usolyekhimprom plan to introduce the production of methyl cellulose, with other projects including the reconstruction of the calcium carbide plant. In 2005, it is planned to build CFC-3 unit, to start the large-scale formaldehyde unit, to double the capacity of the pentaerythritol installation.

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**Samara**

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**Kuibyshevazot**

The IFC has approved a credit for Kuibyshevazot at the beginning of November, 2004 for investment into the expansion of polyamide-6 capacity and the development of its own benzene facilities. The contract is expected to be signed at the beginning of 2005. A sum of \$15 million has been granted by the IFC. The interest rate under the credit will be lower than from Russian banks.

Kuibyshevazot wants to build a 100,000 tpa benzene unit to feed caprolactam production which will cost in total around \$30 million. By 2006 it is planned to increase the volume of caprolactam capacity from 130,000 tpa up to 220,000 tpa, and this also will require additional investments.

**Togliattiazot**

The EBRD is waiting for approval to award Tolyattiazot a credit of \$100 million for a proposed project (in total worth \$160 million) of a complete revamp and modernisation of four older units and some ancillary facilities. The revamp programme will reduce both gas and electricity consumption and result in a capacity increase. The work will include detailed engineering for the revamp, supply of equipment, supervision of pre-fabrication and erection works, commissioning and test-running.

The proposed investment will result in substantial energy savings and environmental benefits, labour efficiency via use of modern technology and implementation of world-best technologies and know-how. Additionally, the proposed investment will support and promote improved corporate governance of the company.

Togliattiazot has approached EBRD for this financing of a modernisation programme of the existing production facilities, (revamp of the ammonia plant) which is likely to result in significant environmental benefits, in particular substantial energy savings. It has been classified as B/1 requiring an environmental analysis and audit, including the transportation and nearly completed port facilities in Volna.

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**Perm**

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**Metafrax**

Metafrax plans to invest 850 million roubles into the production operations in 2005. Metafrax had been planning to invest 1.3 billion roubles in 2005, but as the gas, power, railway carriage tariffs have not been approved so far, it was decided to cut investments. In 2004, 932 million roubles was spent on construction and production upgrades. These funds were used to upgrade the methanol facilities; whilst the second urea-formaldehyde concentrate (CFC) installation was also completed.

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**Product News**

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**Petrochemicals**

Surgutneftegaz plans to start the construction of a petrochemical complex worth of \$600-700 million in the Surgut region in 2005. This project will be started after finishing the modernisation of the company's gas processing plant, which is to be the raw material supplier to the new complex. Surgutneftegaz is in negotiations with several foreign companies regarding technology options.

## **PVC**

Solvay and Nikos have signed an agreement regarding mutual interest in building a new PVC plant at Volgograd. The document provides the basis for the JV and the start of construction in the middle of a new PVC plant at the Kaustik site at Volgograd. The plant will have a capacity of 200,000 tpa initially.

It is planned that the plant will consist of a state of the art integrated unit. It will use chlorine produced already at Kaustik and possibly its own ethylene sources based on LPGs. The PVC plant is expected to start up in 2008, with a further expansion of capacity up to 400,000 tpa at a later date. PVC consumption has been rising rapidly since the recovery of the Russian economy following the de facto rouble devaluation in August 1998. Between 1999 and 2003 consumption doubled which has meant that Russia's export volumes have been in steady decline. The market is expected to reach around 600,000 tons by 2007.

The first part stage of co-operation between Solvay and Nikos took place in the formation of the Soligran JV for PVC compounds. The PVC project takes that co-operation a major step forward. In fact, the current main Russian PVC producer Sayanskkhimplast forecast recently that its PVC production will not be able to meet Russian demand by 2006. The deficit in PVC supply for the internal market will increase further in 2007 and 2008, according to Sayanskkhimplast. The company's own plans, based on the Kovytko gas project developments, mean that PVC capacity will be increased to 400,000 tpa.

By 2010, Russian demand for PVC is forecast to reach 950,000 tpa and even after the expansion of Sayanskkhimplast's plant there will still be a deficit of around 230,000 tons. However, these forecasts were made prior to the announcement by Nikos and so at least this will balance the market for a period. These capacity numbers up to 2010 for PVC and the other main polymers and petrochemicals will be available at [www.cirec.net/report](http://www.cirec.net/report) in 2005.

The main challenges to Sayanskkhimplast will not come from other PVC producers, but from the lack of ethylene and petrochemical feedstocks. Although Sayanskkhimplast has reduced its export deliveries its geographical position in East Siberia means that it is difficult to ignore the Chinese market and thus the company is looking to maintain sales of above 100,000 tpa to China.

Sayanskkhimplast has been in talks for some time with Technip and Oxyvinyls of the US regarding the reconstruction of the VCM and PVC facilities. The challenges have been to define bottlenecks and the direction of the reconstruction and expansion of capacity up to 400,000 tpa.

A contract for both VCM and PVC projects is expected to be concluded by the end of 2005. Then the sum of expenses for reconstruction will be determined.

Standard & Poor's has confirmed a rating for Volgograd companies Plastkard and Kaustik of  $\tilde{N}\tilde{N}\tilde{N} +$  on the international scale and ruBB + on a national scale that reflects an adequate level of liquidity in the short-term prospect. Both companies belong to Nikos. Nikoskhim-Invest has granted \$25 million under partial guarantees to Plastkard and Kaustik (with the offer in December, 2004), is confirmed at a level ruBB +.)

## **Plastics**

Penoplex Spb and Berstorff signed a contract on the supply of the equipment for the EPS slabs production. The contract has a preliminary value of \$8 million. Two lines, Schaumtandex ZE 60/KE 150 and ZE75/KE 250, of more than 1 ton/hour capacity are to be supplied to Penoplex by Berstorff. The new equipment is intended for the Perm affiliate of Penoplex. Under the contract terms, there will be also supplied equipment for the wastes and packaging recycling. In 1998, the EPS slabs production was launched in the St Petersburg region, and the production of EPS profiles was started in 2004. The company controls around 60% of the market. In Russia, EPS slabs are mainly used as insulating in construction and as covering for oil and gas pipes.

The Belgian-Russian plastics JV Soligran could challenge for around a quarter of the Russian PVC compositions in the next year or two. This is partly a reason for constructing the JV's own PVC plant at Volgograd. In Russia, there are no more than nine manufacturers of the similar materials which together produce around 5,000 tpa of polymer. Formed in June 2003, Soligran belongs to Solvay and Nikos. The company is based on two Nikos units, Tver Poligran and Volgograd Nikoplast-Volga.

A number of new plastics conversion plants have started recently. A new plant for the production of PVC doors and windows has started at Novosibirsk, having been 100% financed by foreign capital. The capacity

of the plant is 9,600 products per annum. In the Moscow region, a PVC compound unit has been opened by VEKA. In the Tula region a plant was opened in October by TOETI for the production of polyethylene pipes for housing and gas sector applications. The pipes are estimated to have a 50 year life span. The line is intended for the production of pipes for drinking and technical water supply.

VarioPak, a supplier of materials and the equipment for packing, and Naksan Plastic (Turkey) have agreed to invest €25 million in the construction of a plant for packaging films. The capacity of the unit will be 30,000 tpa. The first stage of the project involves the production of stretch-film, with a capacity of 1,500 tons/month as from February 2005.

The second stage of the project will begin in March, when new lines for packing multilayered bubbly film and polypropylene film will be started. Co-operation between VarioPak and Naksan began Plastic in 1999.

In terms of new projects Sumitomo Corporation has started the construction of a plant for plastic packaging recycling in St Petersburg. The project cost is evaluated to cost \$15 million. The plant will have 1,500 tpa of capacity.

### **Plastic films**

Increasing demand for plastic films in the Russian market has thrown up the need for investment in the sector. For instance, from 1999 to 2003 the volumes of imports of PVC films into Russia grew from 23,000 tons to 145,000 tons. The greatest share of imported PVC films in 2003 were films of a thickness up to 10 micron (23.4% from total amount of import films PVC in 2003), a film thickness from 51 up to 60 micron (30.1%) and a film thickness from 21 up to 30 micron.

Bakery products are the main application for food film PVC. There is some competition from polyolefin film that could affect PVC, but not to the extent that it phases out PVC films in total.

Another area of growth is polystyrene films. Omsk Chemical Company and Brückner recently signed a contract for a turn key project for the production of BOPS films. By conditions of the contract Brückner will not only provide the delivery of the equipment and its installation, but also provide an extensive programme of support including training of the personnel, optimisation of the consumption in raw materials, assistance in preliminary marketing, etc. Start-up of a line is planned for the end of 2005 and will have a capacity of 20,000 tpa.

In the first three quarters of 2004, BOPP consumption in Russia is estimated to have reached 69,500 tons which is 18% higher than in 2003. At present, there is no domestic production but two new plants are scheduled to come onstream in 2005. NOVATEK's BOPP film plant at Samara, which is estimated at €40 million in value, is planned for start-up in 2005 with a capacity of 25,000 tpa.

Biaxplen in the Nizhniy Novgorod region plans to start up its new plant, with a capacity of 15,560 tpa, in June 2005. This project cost €21.4 million of which €18.4 million was spent on equipment. Annual sales, based on current prices, could reach \$29.6 million with a profit of \$8.8 million. The project has been supported by the French company DMT.

The food packaging sector accounts for the bulk of BOPP film consumption, and amounts to about 60% to its total use in Russia. The main foodstuff industry consumers of BOPP films include producers of bakery products, confectionary, cereals, etc.

### **Methanol**

Shchekinoazot has started a tender for the selection of a project manager for the construction of methanol plant. The company plans to build a new methanol plant with a capacity of 450,000 tpa, at a cost of €50 million. Lurgi, Haldor Topse and GNLPI Khimtehnologiya (Severodonetsk) are all considering the project. The new plant is expected to be running within two years and if considered unprofitable the old plant will close.

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## **Ukraine**

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### **Titan**

Crimea-based GAK Titan and the German company RSJ Beteiligungsgesellschaft GmbH have established a joint venture entitled Crimea Titan, with a chartered capital of \$139 million. The participation of GAK Titan in the joint

venture is \$69 million or 50%+1 share, with RSJ Beteiligungsgesellschaft GmbH paying the same but owning 50%-1 share. The Ukrainian government wants to create a complex for the extraction of titanium ores and the production of titanium dioxide under Crimea Titan.

RSJ Erste Beteiligungsgesellschaft plans to invest \$110 million into the new company in the next few years. These funds will be spent on upgrading in order to increase titanium dioxide production volumes from 78,000 tpa in 2004 up to 88,000 tpa in 2006, and the construction of a new sulphuric acid plant by 2007. Crimea Titan is the largest titanium dioxide producer in the CIS. In the first half of 2004 titanium dioxide production grew by 61.1% up to 36,411 tons.

#### **Other Ukrainian news**

Khimprom at Pervomaisk in the Karkhov region restored PVC suspension production in October. In the first three quarters of 2004 Crimean Soda produced 483,000 tons of soda ash which was 20% more than in the same period in 2003.

#### **Linosa**

Linosa expects that the polypropylene market in Ukraine in 2005 will grow to 75-76,000 tpa. Demand is estimated to have grown by about 18% in 2004. This year polypropylene prices have increased by more than 50%. In 2003, the Lisichansk refinery produced 78,000 tons of polypropylene, whilst in the period January-September it was 72,100 tons. Estimates for 2005 include growth of production on the range of 3-5%.

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### **Belarus**

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#### **Lakokraska**

Three projects totalling \$9.5 million have been included in the production upgrade programme adopted by Lida-based Lakokraska. The most resource intensive project is retooling of the phthalic anhydride unit, which would boost the production capacity from 24,000 tpa up to 48,000 tpa. The project provides for a capital outlay of \$8.5 million, with an expected payout period of three years.

The project side benefits will include the generation of high pressure steam, which would enable the company to reduce power costs by \$1.444. The use of new technology will result in the reduction of the standard consumption of orthoxylene.

The investment programme also includes the upgrade and expansion of the water based paint facilities. Production will be increased up to 7,000 tpa by 2010, while the profit margin will grow from the current 5% up to 10.8%. The third project of the programme is upgrading the existing coatings production lines using brand new nano-technologies, which would enable an increase of existing plant capacity and improve the competitive edge.

The Lakokraska upgrade programme will be financed partly by the Belneftekhim Group. The company management is also considering an equity issue in order to engage a strategic investor.

#### **Fibre plant news**

The process of the certification of the environment management system (EMS), according to the ISO 14000 international standards, is in the documentation development stage at Grodno Khimvolokhno. The system trial will start in the middle of 2005 and will last for approximately half a year.

Mogilevkhimvolokhno will soon start up the new unit for the production of composite materials based on PET. With the start-up of the new unit Mogilevkhimvolokhno will be the only plant in the CIS to produce composite materials from its own polyethers. Products have shown a higher price than products based on Russian phenolic resins, although they are not subject to the same fluctuations.

**Contents Issue No 169**

Ethylene supply in Central & South East Europe .....	2
<b>CENTRAL &amp; SE EUROPE.....</b>	<b>2</b>
Unipetrol .....	2
BC-MCHZ.....	3
Linde .....	3
BOP .....	3
Dwory .....	4
Ciech.....	4
Reach.....	4
Procter & Gamble .....	5
Rompetrol.....	5
<b>BALTIC STATES.....</b>	<b>5</b>
<b>RUSSIA.....</b>	<b>5</b>
<b>SIBUR/Gazprom .....</b>	<b>7</b>
Feedstocks .....	7
Tobolsk-Neftekhim .....	7
Tomskneftekhim .....	7
SIBUR-Neftekhim .....	8
Novy Urengoy.....	8
Togliattikauchuk.....	8
<b>Tatarstan.....</b>	<b>8</b>
Kazanorgsintez .....	8
Nizhnekamskneftekhim .....	9
MHR .....	9
<b>Bashkortostan .....</b>	<b>10</b>
Polief .....	10
SNOS .....	10
<b>LUKoil-Neftekhim.....</b>	<b>10</b>
Saratovorgsintez.....	10
Budyennovsk PP plant.....	10
<b>Irkutsk .....</b>	<b>11</b>
Usolyekhimprom .....	11
<b>Samara .....</b>	<b>11</b>
Kuibyshevazot .....	11
Togliattiazot .....	11
<b>Perm .....</b>	<b>11</b>
Metafrax .....	11
<b>Product News .....</b>	<b>11</b>
Petrochemicals .....	11
PVC.....	12
Plastics.....	12
Plastic films .....	13
Methanol.....	13

<b>Ukraine .....</b>	<b>13</b>
Titan .....	13
Other Ukrainian news .....	14
Linos .....	14
 <b>Belarus .....</b>	 <b>14</b>
Lakokraska .....	14
Fibre plant news .....	14