

# 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 this issue***

- ✍ The acquisition of 62.99% shares by PKN Orlen in 2005 has opened new opportunities for the Unipetrol Group, most of which include exploiting the opportunities that could arise through the so-called Partnership Programme.
- ✍ The contract between Nafta Polska and the German company Petro Carbo Chem (PCC) has been concluded, under which PCC has paid a total of zł 100 million for Zakłady Azotowe Kedzierzyn and a total of zł 365.8 million for Zakłady Azotowe Tarnow.
- ✍ At the end of March Nafta Polska signed an agreement to sell Organika Sarzyna and Zachem at Bydgoszcz. Ciech is to buy 80% of both companies. Ciech had agreed to pay zł 62.5 million (€15.9 million) for Zachem, but the price has been increased by 9% to zł 68.5 million.
- ✍ A new electrolysis plant for the production of chlorine and caustic soda solution was officially inaugurated for Anwil on 7 April 2006. The plant, located in Wloclawek, was constructed by Uhde and handed over to the customer in January 2006.
- ✍ Zakłady Azotowe Pulawy is the first Polish company to take advantage of the principle of third party access (TPA) to transmission networks and has engaged in cooperation with a second significant supplier of natural gas.
- ✍ Rompetrol has agreed to begin supplying polyethylene to Dow Chemicals from its Constanta location. A 14-year agreement between the two companies will involve Rompetrol supplying Dow with HDPE and LDPE from its petrochemical plant.
- ✍ The Tomsk region has announced the introduction of the second section of a special economic zone (OEZ), where Tomskneftekhim and SIBUR plan to construct a new petrochemical complex. The OEZ is located in the northern part of Tomsk and is not the first special economic zone of its kind in Russia, but does have top level government support.
- ✍ Polief started the second PTA line of 115,000 tpa at the start of April, raising total capacity at Blagoveshchensk to 230,000 tpa. Preparations were initiated on 16 March for starting the plant with regard to energy resources, raw materials and reagents.
- ✍ Mitsubishi has stated that it is ready to participate in the new natural gas projects in Sakhalin-2, and with Mitsui & Co is also examining the possibility of designing plants for processing of gas into ammonia and methanol.
- ✍ The major medium term problem facing the petrochemical industry in Belarus is the price of gas. Gazprom is planning to triple natural gas prices for Belarus starting in 2007. Belarus is the only country that is still not paying the market price for Russian gas, and thus benefits from the low price.
- ✍ Basell, KazMunaiGaz (KMG) and SAT have signed an agreement regarding plans for the construction of a large petrochemical complex in western Kazakhstan.

# CENTRAL EUROPE

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## Czech Republic

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(Czech crown, Kc, Apr 20.766 = 29.292, €1 = 29.243)

### Unipetrol

The acquisition of 62.99% shares by PKN Orlen in 2005 has opened new opportunities for the Unipetrol Group, most of which include exploiting the opportunities that could arise through the so-called Partnership Programme. As a result of the new alliance and involvement in the Orlen group, Unipetrol is aiming to increase the Kc 14.100 million in 2008 against Kc 9.698 in 2004, thus representing about a 45% increase. Most importantly, the new management of Unipetrol is anxious that the group is shown to more transparent than may have been seen in the past.

Major restructuring of the businesses which comprise Unipetrol is already underway, but will probably require many more measures before it starts to achieve the prescribed profitability levels. Unipetrol has performed an analysis of potential development opportunities of the capital group, and has redefined the company's business strategy with oil and petrochemical segments as key business areas. As a result of the analysis, the decision has been reached that Unipetrol will remain a vertically integrated group.

Production of petrochemicals, especially the focus towards olefins and polyolefins is considered as being in the deep interest of the group. Although Unipetrol intends to keep control over its petrochemical business, it has made exceptions and has embarked on a strategy of selling specific chemical assets such as Kaucuk and Spolana. The group has concluded that there is no significant value creation potential in styrene and polystyrene which explains why Kaucuk has been put for sale. There are various bidders interested in Kaucuk such as Agrofert and Dwory. The Dwory-Kaucuk alliance has long been vented as an ideal synergy, particularly in relation to butadiene. PVC and caprolactam have also been analysed as being too subscale and undercapitalised for Unipetrol to assure the required rate of return. This explains the wish to sell Spolana. Anwil remains favourite to secure the stake, although BorsodChem has also showed limited interest. Whilst the PVC assets could be helpful to Anwil the position on caprolactam is less clear. It has even been suggested that following the conclusion of the sale ZA Pulawy might consider a purchase of the Spolana caprolactam plant. In the past, the caprolactam plant has been too small to attract interest from West Europe.

Unipetrol hopes to complete the sale of Spolana at end of May. The two potential investors have already completed due diligence at Spolana, and Unipetrol could secure around Kc 1 billion for 82% in Spolana. Spolana ended 2005 with net profits of Kc 183 million after Kc 118 million a year earlier. The profit for 2005 was the best in ten years. The key criteria in the tender for Spolana are price, investment plans for the company, and maintained cooperation within the Unipetrol group. This latter goal tends to mean that Anwil is the only realistic option.

### Other Czech news

A number of Czech chemical producers have been affected by the floods, which have affected Central Europe in the past month. Spolana stopped production at the end of March due to local floods, and did not restart until shortly before Easter. This stoppage was not on the same scale of 2002, when devastating floods resulted in EDC and alpha olefins, amongst other products, leaking into the Elbe. The company's management was sharply criticized by the authorities and media for the way it managed the crisis. This latest stoppage has been handled with greater sensitivity, but there are still outside fears that the plant is vulnerable in the event of further large-scale floods. The costs of repair totalled Kc 1.5 billion in 2002, whilst only amounting to Kc 20 million in 2006.

Other producers affected by floods in March and April include the fertiliser producer Lovochemie and rubber producer Fatra at Napajedla, near Zlin. The shutdowns have cost each company several million crowns on a daily basis. Fatra expects to resume production prior to the end of April, but the estimate of flood damage is already placed at Kc 70–80 million.

### Gumotex

Czech polyurethane producer Gumotex at Breclav recorded a gross profit of Kc 9.2 million in 2005, down from Kc 10.8 million in 2004. The fall was due to higher cost inputs and energy, and to a strong crown. The company raised the share of exports in sales, which grew by almost 5% year-on-year to Kc 2.3 billion. Exports made up more than Kc 1.3 billion or 57% of total sales. The company with 1,770 staff invested about Kc 125 million in 2005. It moved part of its production to a new plant in Most, North Bohemia, where a new company, Gumotex Automotive, produces headrests for cars.

### ZA Tarnow & ZA Kedzierzyn

The contract between Nafta Polska and the German company Petro Carbo Chem (PCC) has been concluded, under which PCC has paid a total of zł 100 million for Zakłady Azotowe Kedzierzyn and a total of zł 365.8 million for Zakłady Azotowe Tarnow. These sums are zł 4 million and zł 29.8 million more than initially offered. In ZA Kedzierzyn, PCC will invest an additional zł 360 million, which is two and half times more than planned, and zł 500 million in ZA Tarnow which is also two and a half times more than originally offered. The change in the bid and planned investments levels are thought to have resulted by strong competition from Orlen-controlled Anwil, which was interested in acquiring the plants.

In order to complete the sale and privatisation of Tarnow a three-way agreement was signed recently at Nafta Polska regarding the right of property and the order of the use of caprolactam technology. The technology is the joint property of ZA Tarnow, ZA Pulawy, and the Institute of Industrial Chemistry in Warsaw. The agreement regulates the order of the use of technology of the production of caprolactam and outlines the principles of collaboration regarding sales of the technology.

New Products for PCC	
Product	Producer
Oxo Alcohols	ZA Kedzierzyn
Maleic Anhydride	ZA Kedzierzyn
Phthalic Anhydride	ZA Kedzierzyn
Plasticizers	ZA Kedzierzyn
PVC	ZA Tarnow
Caprolactam	ZA Tarnow
Acetal Copolymers	ZA Tarnow
Polyamide 6, 12	ZA Tarnow

The document outlines the principles of the use of technology of the production of cyclohexane, the participation of other owners in the use of this technology, the condition of the transfer of rights to it and the principles of collaboration in the sphere of the development of the technologies of the production of cyclohexane.

Devising an appropriate agreement over the caprolactam technology represented the final stages of the Tarnow privatisation. The impact of these acquisitions on PCC is far-reaching as it establishes a strong production base for the company in Central Europe. Some of the products

that have been added to the PCC portfolio are listed opposite.

### Ciech

At the end of March Nafta Polska signed an agreement to sell Organika Sarzyna and Zachem at Bydgoszcz. Ciech is to buy 80% of both companies. Ciech had agreed to pay zł 62.5 million (€15.9 million) for Zachem, but the price has been increased by 9% to zł 68.5 million. Ciech has agreed to invest zł 176.1 million against the sum zł 148.1 million which was originally agreed. These changes are the effect of the improving financial conditions at Zachem. There were no changes in the prices for the purchase of Sarzyna. Ciech will pay zł 244.5 million and invest zł 130 million.

New Products for Ciech	
Product	Producer
Epichlorohydrin	Zachem
Allyl Chloride	Zachem
TDI	Zachem
Polyurethane Foam	Zachem
Chlorine	Zachem
Herbicides	Organika Sarzyna
Pesticides	Organika Sarzyna
Fungicides	Organika Sarzyna
Epoxy resins	Organika Sarzyna
Polyester resins	Organika Sarzyna

As with PCC, the impact on Ciech's portfolio of products is far-reaching. Together with the addition of the new products above, the Ciech group is seeking to double its total revenues by 2008. Ciech forecasts that at the end of 2006 its sales will exceed zł 1.9 billion (€501.6 million), while net income will reach zł 121 million.

Sales will be lower in 2006 due to the sale of Petrochemia Blachownia to BorsodChem in 2005. Taking into account the acquisition of Zachem and Sarzyna, the group's revenue will increase to zł 3.5 billion and by 2008, after smaller takeovers, should reach zł 4 billion. The group's

sales in 2005 grew to zł 2.2 billion, while its net profit amounted to zł 103.6 million.

### Zachem

Ciech has already started production of epichlorohydrin at Zachem at its own cost. Epichlorohydrin, which is used largely to produce epoxy resins, is one of Zachem's main products and accounts for over 20% of the company's income. Global prices for epichlorohydrin are estimated to be increasing at a rate of 5% annually, with market growth of 3-5%. After a four month production break due to the lack of funds, Zachem restarted at the beginning of March.

Zachem has now become subject to an investigation by the Polish Internal Security Agency. The new management of Zachem suspects that the previous management adversely affected the company with certain commercial decisions. In the opinion of the current CEO, the company's management signed contracts in the years 2000-2004, running up to 2013, to buy toluenediamine (TDA) from a foreign supplier. Around 40% of Zachem's total expenditures is directed for the purchase of TDA, and Zachem is now trying to reach a new agreement that would prove more favourable.

Ciech has already started talks with ZA Pulawy to start TDA production, which would either reduce or eliminate the need to purchase TDA. Zachem has held a plan to construct its own TDA plant in Poland with a capacity of 50,000 tpa, but a shortage of funds has prevented progress on this project. In order to support investments at Zachem, Ciech wants to raise Zachem's capital by zł 50 million (€12.7 million). However, it still has zł 70 million of Zachem's debts to pay.

### **Zakłady Azotowe Pulawy**

Zakłady Azotowe Pulawy is the first Polish company to take advantage of the principle of third party access (TPA) to transmission networks and has engaged in cooperation with a second significant supplier of natural gas. Under the agreement, concluded with Emfesz NG Polska Sp. z o.o. on 27 March 2006, ZA Pulawy will purchase over 150 million m3 of gas, thus diversifying from its sole source of PGNiG.

The contract, which will remain in force until the end of 2008, was concluded with the Polish subsidiary of Emfesz, which is the largest independent Hungarian company trading in natural gas imported from Russia and Central Asia. ZA Pulawy considers that the procurement of an alternative source of gas supply will result in increased operational security, whilst at the same time driving down costs.

Dependence on a single source of gas supplies from PGNiG has had an adverse effect on ZA Pulawy on occasions, such as when gas supplies were disrupted in January and February 2006. The quantities of gas to be delivered under the contract with Emfesz remain within the limits set out by PGNiG issued in the second half of 2005. This provides for the possibility of satisfying 25% of our demand for gas from third-party sources.

ZA Pulawy consumes 850 million m3 of natural gas per year, which accounts for around 30% of the total costs incurred by the company. The price from the new supplier of gas price is a trade secret, but it is known to be lower than the price of the gas supplied by PGNiG.

ZA Pulawy's strategy provides for maintaining a production cost advantage over its competitors and increasing profitability. The value of investment projects currently under process by the company is in excess of zł 180 million. The total investment programme of the company amounts to around zł 700 million investment programme, of which zł 300 million was raised as part of a new share issue, which took place at the end of 2005.

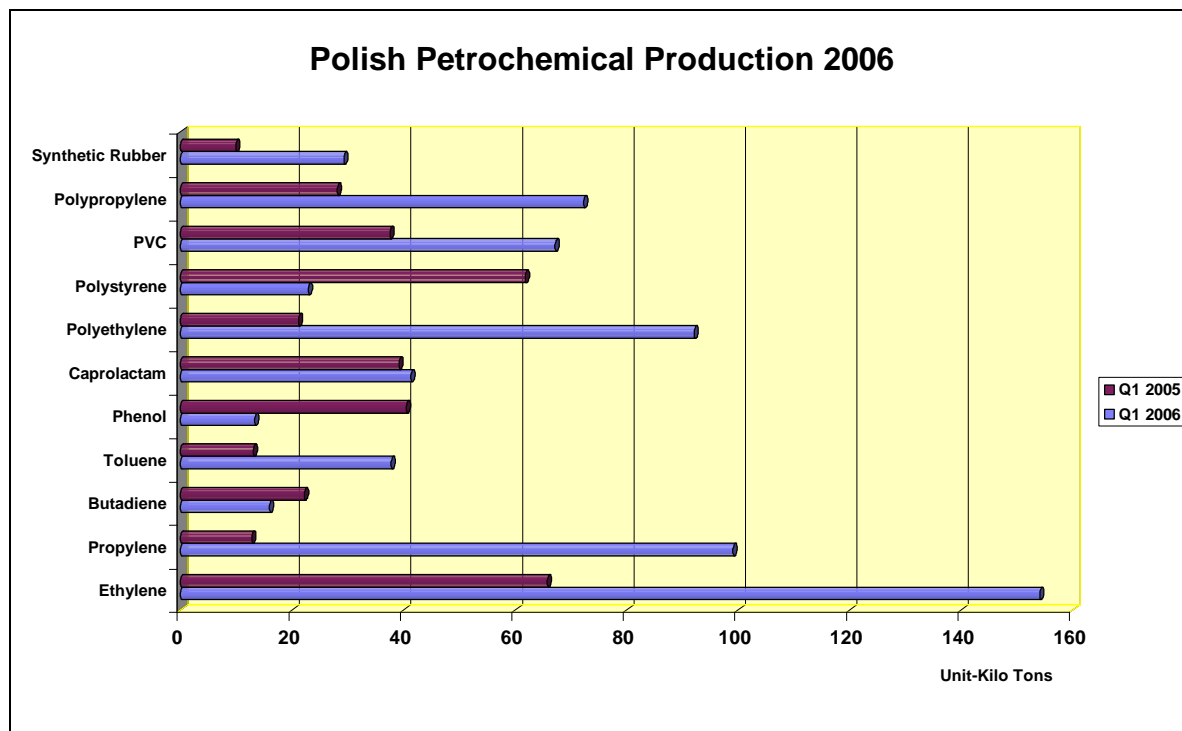
The most advanced project under progress is construction of the melamine recovery unit. This will make it possible for ZA Pulawy to additionally recover around 4,000 tpa of melamine, adding to the capacity of 92,000 tpa. The unit is scheduled for completion by the end of the first half of 2006, and should cost around zł 56 million.

New projects which have already been approved by ZA Pulawy include the modernisation of the caprolactam plant (with a view towards increasing the flake caprolactam production capacity). The modernisation of the sulphuric acid and oleum plant is also underway and the first stage is to be completed during the plant's overhaul shut-down, scheduled for September 2006.

Modernisation has started at the ammonia production centre, with a view to producing greater quantities of cheaper and higher quality ammonia. Additionally, ZA Pulawy is expanding into new market areas such as the production and sale of 32.5% ammonia water solution, a component used in the production of diesel fuels. The company is conducting research work connected with a biodiesel production project.

### **Growth in Polish production 2006**

Ethylene production in Poland almost doubled in the first three months of 2006, with most other petrochemical products seeing an increase. In addition to the increases in polyolefin production, increases were also seen in aromatics and toluene in particular following expansion of capacity at Plock in mid-2005. The major increase in aggregate petrochemical production levels is due largely to the BOP investments, combined with the olefin investments made by PKN Orlen. Aside polyethylene and polypropylene, caustic and chlorine production should see an increase in Poland this year following the introduction of the new plant at Anwil.



### Anwil

A new electrolysis plant for the production of chlorine and caustic soda solution was officially inaugurated for Anwil on 7 April 2006. The plant, located in Wloclawek, was constructed by Uhde and handed over to the customer in January 2006. Since then the plant has been on-stream with a capacity of 195,000 tpa of chlorine and 217,000 tpa of caustic soda solution. The original chlorine/caustic plant was built in the 1980s and the project to convert from diaphragm technology to membrane technology was started in 2004. Uhde's was responsible for the whole project at a cost of €20 million. The increase in capacity for the production of chlorine will support further expansion of PVC production.

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## Romania

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### Rompetrol

Rompetrol has agreed to begin supplying polyethylene to Dow Chemicals from its Constanta location. A 14-year agreement between the two companies will involve Rompetrol supplying Dow with HDPE and LDPE from its petrochemical plant. Output is expected to reach 100,000 tpa, with deliveries to Dow in the initial phase amounting to around 60,000 tpa. Dow has agreed to provide the ethylene supplies to Rompetrol until the Romanian company can start up its pyrolysis installation. No date has been yet established for a restart of the former Petromidia olefin complex.

Dow will provide also technical support and technical specifications of its polymers to Rompetrol. Dow brings market knowledge and its process technology to the table in this arrangement, while Rompetrol's strength and attraction to Dow is its strategic position in East Europe.

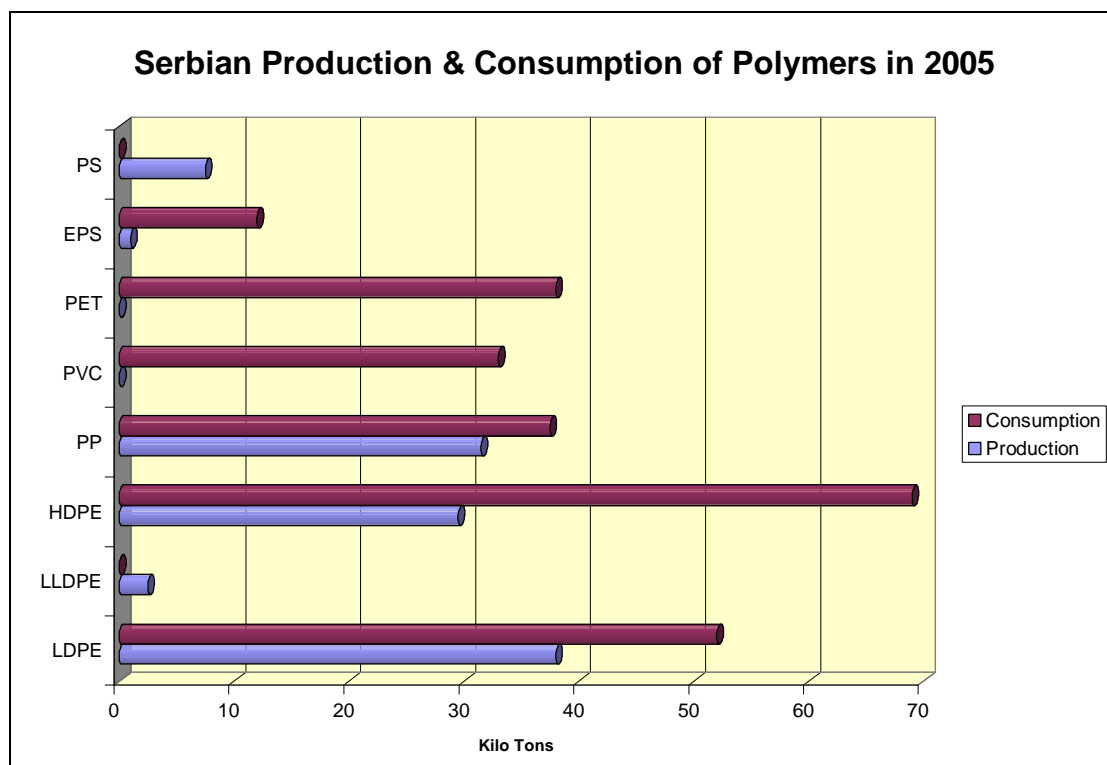
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## Serbia

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In 2005, Serbian consumption of polymers and synthetic resins totalled 248,500 tons, representing a rise of around 4% against 2004. Imports of polymers and resins into Serbia totalled 197,630 tons in 2005, whilst exports amounted to 110,800 tons. Exports consisted largely of HDPE, LDPE, PP, urea resins, and smaller quantities of phenolic resins, acrylic resins and nitrocellulose). For the most part, consumption of polymers outstrips production quite significantly.

Investment ideas for the redevelopment of the Petrohemija complex at Pancevo have been outlined and involve an overhaul of the current facilities, but such projects are unlikely to move forward until the privatisation of the ownership position of the company is decided. Last year, Petrohemija made improvements to the 75,000 tpa HDPE plant through new instrumentation installed by Invensys Process Systems. Measures introduced resulted in higher production starting in October 2005 with 7,000 tons.



LUKoil-Neftochim's Petrochemical Production at Bourgas (unit-kilo tons)				
Product	2004	2003	2002	2001
Polyethylene	70.3	71.6	64.4	68.9
Polypropylene	64.8	64.3	56.3	61.6
Acrylonitrile	20.8	18.0	17.3	16.6
Styrene	7.9	12.8	13.8	13.2
Polystyrene	0.5	9.3	8.3	9.8
Benzene	20.0	10.8	6.2	9.7
Toluene	20.1	25.3	26.0	28.6
Xylenes	11.9	14.9	14.6	17.8
MEG	71.3	69.1	63.1	73.4
Source : LUKoil				

required.

## Bulgaria

LUKoil Neftochim at Bourgas expects to increase crude oil processing at Bourgas to 7 million tons in 2006, up from 6.5 million tons in 2005. Regarding petrochemicals, LUKoil Europe has placed a major order for the supply of furnace radiant tubes for four furnaces at the ethylene plant at Bourgas. This investment is aimed at improving quality and reliability of production. Petrochemical production for the period 2001-2004 is shown in the table opposite. The main ethylene derivatives are MEG and polyethylene. The second cracker at Bourgas remains idle, but could be restarted if demand

## EURASIA, COMMONWEALTH OF INDEPENDENT STATES

### Russia

(Rus rouble Apr 20, \$1 = 28.646, €1= 34.043)

#### Chemical trade

Russian chemical exports witnessed a slight decline in the first quarter of 2006, but imports remain very strong. Imports of chemical products rose 25.3% over 2005 to reach a total of \$1.548 billion in the first quarter. The largest increase was seen in the area of pharmaceutical products, whilst polymers and rubbers increased by 20% and organic chemicals by 18.4%. Chemical thread imports increased 21.5% in the first quarter and fibres by 16.3%.

Government trade policy is being influenced to some extent by the worsening trade balance for chemical products. Whereas several years ago, the government was intent on protecting domestic producers of petrochemicals from cheaper imports, the position has now turned to the point where domestic producers are unable to meet all of the growing demand and that imports of some products should be actively encouraged.

As a result, government ministries are looking at removing or reducing import duties on certain polymers that will allow domestic consumers to purchase more without limitation. As a sign of the tight supply side for raw materials Russian export customs duties for petrochemicals were increased at the start of April from \$120.7/ton to \$137.9/ton for benzene, toluene, xylenes, propane, butanes, ethylene, propylene, butylene and butadiene, other liquefied gases, etc.

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**SIBUR Holding**

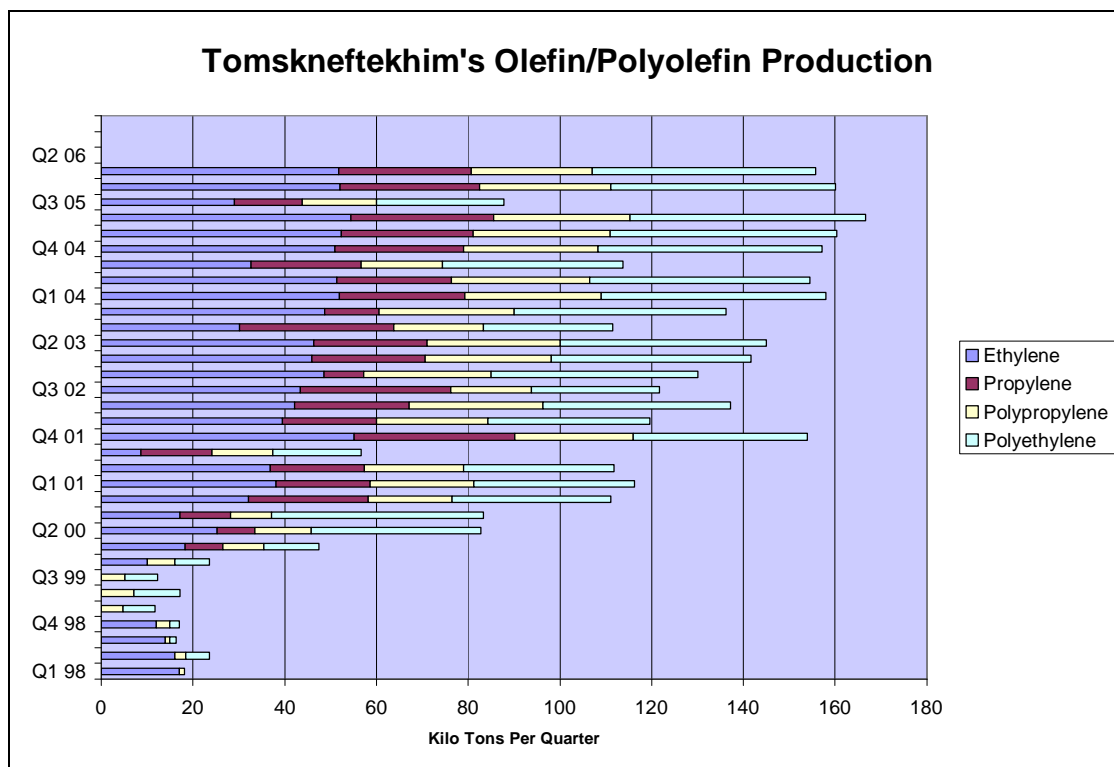
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SIBUR-Holding has stated that in addition to modernisation of existing production facilities, its future strategy will be based on expanding production capacity and acquiring shares in other petrochemical companies. Having been through some monumental changes in the past few years, SIBUR-Holding is now better placed to develop a longer strategy over a 5-10 year period. In the period 2003-2005 the company succeeded in tackling the problems of bankruptcies and property disputes, and laying the foundations for the current structure.

Emphasis has been attached to increasing production volumes and a simultaneous reduction in operating expenses. Other goals have included the optimisation of working capital, an increase in price transparency, and devising a programme of capital investments directed towards the modernisation of the existing production units.

As a result of some of these measures the SIBUR group, consisting of a total of 27 plants, increased its turnover by more than 3.5 times in the period 2002 to 2005. SIBUR's total turnover reached 99.5 billion roubles in 2005, against 85.5 million roubles in 2004. Gross profits increased from 16.977 billion roubles to 23.3 billion roubles, whilst net profits fell from 7.2 billion roubles to 5.6 billion roubles.

A major part of SIBUR-Holding's investment strategy is currently focused on Tomsk and Tobolsk, details of which are outlined below.

**Tomskneftekhim**

The Tomsk region has announced the introduction of the second section of a special economic zone (OEZ), where Tomskneftekhim and SIBUR plan to construct a new petrochemical complex. The OEZ is located in the northern part of Tomsk and is not the first special economic zone of its kind in Russia, but does have top level government support.



Special conditions have been configured for the development of a strong petrochemical base in the OEZ. Experimental laboratories for the initial development of the complex are located next to the Tomskneftekhim site. SIBUR-Holding started official financing of the project from 7 March 2006.

The project is based on a gas processing complex construction of which is to start in 2007. The cost of the project is estimated between €750 million and €1 billion. The gas chemical complex will include a gas refinery, which will provide raw materials for Tomskneftekhim, and additional capacity for ethylene and polyethylene. The cost of the gas pipeline and the gas processing plant amounts to €250-300 million. The cost of reconstructing the EP-300 cracker, thereby increasing capacity and integrating the pyrolysis of ethane, is estimated at €100 million. The cost of a new HDPE plant, which is central to the project plans, could amount to between €400-600 million.

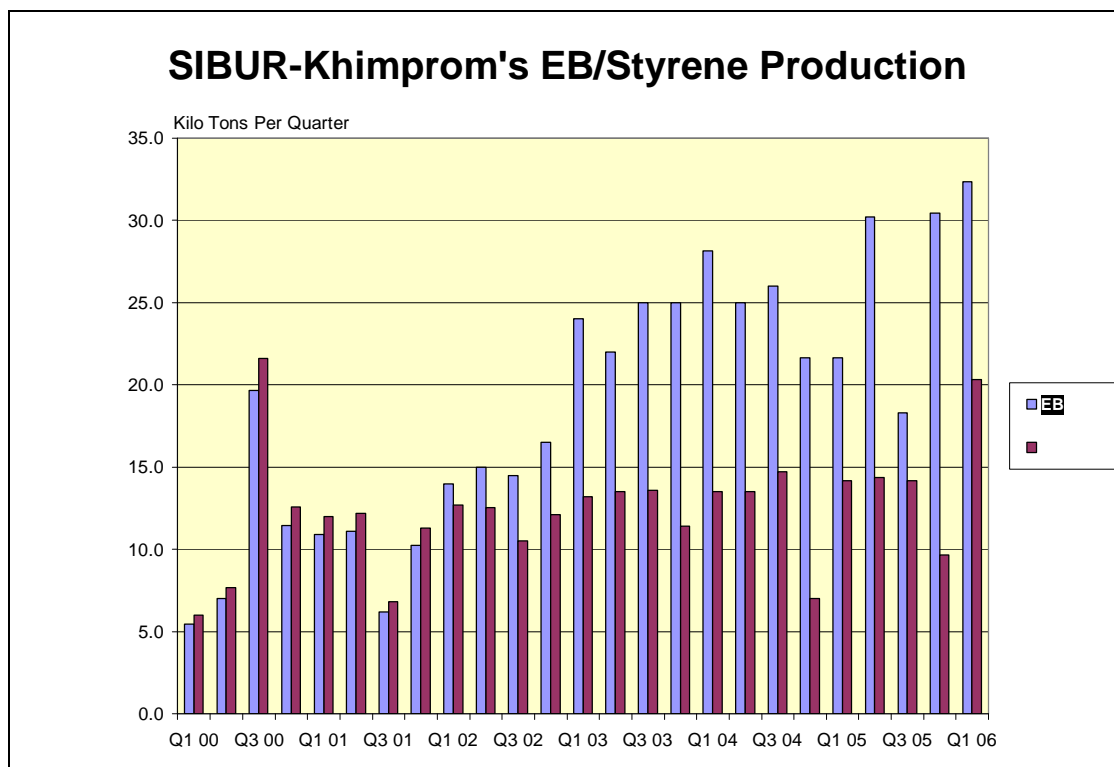
The Nizhnevartovsk-Parabel-Kuzbass pipeline will provide gas for the complex. Consumption of 6.5 billion cubic metres of gas per annum will provide 285,000 tpa of ethane and 489,000 tpa of C3 components. Raw materials will be provided from Nizhnevartovsk and Beloenergo GPK, with other sources coming from Mildzhinsk gas condensate deposit which is owned by Vostokgazprom and the Luginetsk oil deposits owned by Tomskneft.

In order to develop the project Linde and Mitsubishi Corp have been enrolled by SIBUR-Holding to provide assistance. Mitsubishi has indicated that it can help with financing of the gas processing plant through the Japanese bank JBIC.

#### **Tobolsk-Neftekhim**

In addition to the development of Tomsk, SIBUR-Holding has also been formulating its programme for investment at Tobolsk-Neftekhim. The plans largely include the development of polyolefins, initially with the construction of a propane dehydrogenation plant in the period 2007-2009, together with a polypropylene unit of up to 500,000 tpa. The value of the project is estimated at \$750 million. The new projects are to be managed under the new subsidiary name Tobolsk-Polimer.

In the period 2009-2012, the outline plan is to construct an olefin pyrolysis plant at Tobolsk with a capacity of up to 500,000 tpa, and also more capacity for polypropylene of up to 400,000 tpa. The value of this project is estimated in the range of \$1.3 billion. These project ideas are still in the early stages, but it is probably wise of SIBUR-Holding to let other producers know the general intentions.





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**Tatarstan**

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**Tatneft Petrochemical Project**

The Russian Ministry Of Economic Development (MERT) has stated that it is ready to help with investments into the planned major petrochemical complex planned by Tatneft at Nizhnekamsk. The total cost of the project is placed at 6.4237 billion roubles, which will include the development of a total geographical area of 396 hectares.

Work at present is focused on the building of a temporary highway and temporary high-voltage electric line. The production of terephthalic acid (PTA) will play an important part of the petrochemical plant, which will also include linear alkylbenzenes and polypropylene. These plants will not be seen until 2010 under the plans laid out by Tatneft.

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**Nizhnekamskneftekhim**

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**Ethylene**

The FAS (anti-monopoly commission) has stated that Nizhnekamskneftekhim is required to transfer 71 million roubles to the Tatarstan state budget, after being considered to have hiked up the transport price of ethylene unjustifiably to Kaustik at Sterlitamak.

As Nizhnekamskneftekhim controls a large share of the Russian ethylene market, it will be required in future to inform the FAS about the assumed increase in ethylene tariffs. This involves the transport of ethylene via the main ethylene pipeline in the Volga-Urals region, which runs via Salavat-Sterlitamak-Ufa-Nizhnekamsk-Kazan.

**Project update**

Nizhnekamskneftekhim and the Russian Ministry of Energy have examined possibilities for investing Russian funds into project plans at Nizhnekamsk. The company plans to invest a total of \$940 million in production projects up to 2010, which represents a completely separate investment strategy from the Tatneft project. The expansion of the ethylene complex to 600,000 tpa represents a major strategic goal, which will be necessary to provide the ethylene for the 230,000 tpa HDPE plant. Start-up is scheduled for 2008. The polypropylene project, as reported, is close to completion and other projects under construction or planning include polystyrene suspension (50,000 tpa), DSSK rubber (50,000 tpa) and ABS plastics (70,000 tpa).

As a result of these investments, Nizhnekamskneftekhim intends to raise profits to 15 billion roubles (about \$541 million) by 2010, compared to 6.4 billion roubles (about \$231 million) in 2005. The target is to expand commodity output to 66 billion roubles (about \$2.4 billion), and increase budget payments to 10 billion roubles (about \$370 million).

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**Kazanorgsintez**

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Kazanorgsintez and the Ministry of Economy and Industry of Tatarstan have reached agreement over tax-breaks, based on new investments. The agreement will enter force from the third quarter of 2006, and it will run until the third quarter of 2011. The tax breaks will be allowed on profits achieved directly from the investment projects under progress. This agreement covers HDPE plant, with an increase in capacity from 200,000 tpa to 510,000 tpa, and the ethylene plant increase to 640,000 tpa. This is in addition to the bisphenol A and polycarbonate projects.

The Federal Service for Supervision in the Field of Consumers' Protection and Human Safety has granted Kazanorgsintez a permit for its low-density linear polyethylene production. The LLDPE plant, built under license from Univation Technologies, conforms to the necessary quality for the production of high-duty film intended for packaging, etc.

Kazanorgsintez has completed an upgrade of its hydrogen production to cover the increased demand for ethylene. The capacity of the new unit is 240 kg per hour of pure hydrogen.

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**Bashkortostan**

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**Polief**

Polief started the second PTA line of 115,000 tpa at the start of April, raising total capacity at Blagoveshchensk to 230,000 tpa. Preparations were initiated on 16 March for starting the plant with regard to energy resources, raw materials and reagents. The first line (that was opened in late 2005) was closed temporarily for a maintenance turnaround at the end of March, which at the same time allowed the final stages of the second line to be completed.

Polief produced 14,400 tons of PTA in the first two months of operation in 2005, most of which was consumed internally by SIBUR-PETF. In February 2006 more than 2,000 tons of PTA was exported from Polief to China, but export opportunities are likely to be limited by domestic requirements.

In addition to SIBUR-PETF at Tver, Polief now has a new domestic consumer Evroplast in the Moscow region, which has recently started its PET plant. Moreover, Polief will require PTA for captive consumption after the completion of the PET plant at Blagoveshchensk, scheduled for start-up in December 2006. As with the PTA plants, the PET equipment was purchased in the 1980s. Originally, it was planned to produce a range of polyester fibres, but the plant will now be limited to PET.

After the acquisition of Polief by Selena in 2005, the PET project was scheduled to start in February 2006 but problems over ownership and court battles with SIBUR and LUKoil-Neftekhim made it impossible to draw on financing for completing the construction.

**SNOS**

Salavatnefteorgsintez plans to invest 4.8 billion roubles in 2006 in new plant facilities, with finance coming from the 3 billion-rouble bond issue that was established in December 2004. The main project under construction at present is the 120,000 tpa HDPE plant. Salavatnefteorgsintez also plans other projects, including butyl acetate, 2-ethylhexanol and orthoxylene.

Salavatnefteorgsintez has recently completed a second stage in the modernisation process of the Monomer division. The reason for modernisation has been partly to increase the volume of benzene production, which is required for the production of ethylbenzene and styrene. The ethylbenzene plant at Salavat was started in 2004; it should have been completed a decade earlier but was delayed by a lack of finance and the transitional effects following the break-up of the USSR. It provides Salavatnefteorgsintez with the basis for cost-effective production of polystyrene, although at present is selling around 75% of styrene production on the merchant market.

For the provision of project capacity of 200,000 tpa of styrene and 230,000 tpa of ethylbenzene, the company requires 173,000 tpa of benzene, of which 30,200 tpa is currently purchased from external sources. Additional benzene is met through sources from the Volga Region, although the supply situation is tight and possibly none of the producers can grant long term supply.

Due to supply side uncertainty, Salavatnefteorgsintez has set an increase of its own production of benzene as a priority for investment. Regarding the ethylene situation, similar supply pressures exist although Salavatnefteorgsintez is able to provide the maximum requirement for the ethylbenzene plant, which is 63,000 tons of ethylene. This may become more of an issue after the start-up of the new polyethylene plant that is under construction. Salavatnefteorgsintez has seen supply of ethylene tighten in recent months, and has been unable to meet the full requirements of Kaustik at Sterlitamak for VCM production.

**Kaustik**

The most significant investment project being undertaken by Kaustik at Sterlitamak is the increase of PVC capacity. By 2007, the company aims to be able to produce 230,000 tpa and this will rise to 400,000 tpa by 2010. The expansion in capacity is being driven by the increased Russian demand for PVC. The main challenge facing Kaustik is ethylene supply, however, which is already tight from the main supplier Salavatnefteorgsintez. The possibility of securing long term contracts from other suppliers such as Nizhnekamskneftekhim and Kazanorgsintez seems remote, due to increasing captive requirements at these plants. As a result, Kaustik is considering constructing its own ethylene plant but it remains unclear how realistic the prospects are for such a project. The company has recently been officially declared bankrupt and project financing on a larger scale could prove a problem.

Regarding current production levels, Kaustik produced 41,385 tons of caustic soda in the first two months of 2006, 1.4% less than in 2005. PVC production totalled 27,514 tons or 1% higher, and plasticizers 9,293 tons or 28.4% higher than last year.

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**Product/Company News**

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**LUKoil-Neftekhim**

On 4 April LUKoil-Neftekhim held talks with the Stavropol region regarding the construction of the 120,000 tpa polypropylene plant at Stavrolen and consideration of the prospects for expanding monomer capacity at Budyennovsk. LUKoil-Neftekhim has made it known for some time that it wants to construct large-scale petrochemical capacity. Budyennovsk has the advantage of the existing structure of Stavrolen, but lacks proximity to feedstock sources compared to the North Caspian. Other potential locations have been under review such as Volgograd or Astrakhan, and also LUKoil-Neftekhim has cited Kazakhstan as a possible investment opportunity. At the moment there seems no decisive clarity about the project strategy, and there is some pressure for LUKoil-Neftekhim to resolve this issue quickly if it is to progress in petrochemicals.

**Methanol**

Mitsubishi has stated that it is ready to participate in the new natural gas projects in Sakhalin-2, and with Mitsui & Co is also examining the possibility of designing plants for processing of gas into ammonia and methanol.

In the first quarter of 2006 Metanol produced 216,800 tons of methanol at Tomsk, which was 30% up than in Q1 2005. The plant exported 122,000 tons. The increase in production was cited by Vostokgazprom, which owns Metanol, due to the reconstruction last year. The main focus of Metanol in 2006-2007 is an increase in the reliability of plant equipment. The amount of investments into acquisition and replacement of equipment in 2006 will be 72 million roubles. The company has developed a major reconstruction programme running up to 2015.

**Resins**

On 5 April Metafrax held the opening ceremony for the start-up of the new industrial resin plant at Gubakha under the jv MetaDynea. Investment into the project cost €3 million, and the plant capacity is 30,000 tpa based on Dynea technology. The new unit will be oriented towards the domestic market for heat saving materials and water systems. The jv MetaDynea was set up in March 2004 with the first urea-formaldehyde plant with a capacity of 180,000 tpa being introduced in 2005.

**Shchekinoazot**

Shchekinoazot plans to start the production of urea-formaldehyde concentrate on 17 May 2006, with a capacity of 50-80,000 tpa of formalin. Product from the plant will be sold in the Central and Southern regions of Russia where there is large-scale development in the wood processing industry. Cisterns from stainless steel will be used for the transport of urea-formaldehyde concentrate, which were designed by Azovmash in Ukraine.

**PVC**

The threat of deficit in PVC supplies in Russia has come under government scrutiny, and the Ministry of Economy and Trade (MERT) is considering a decision whether to reduce import duties on PVC from 15% to 0%. This would be welcome news for the producers of windows, linoleum, pipes, etc, but equally may be damaging for the domestic PVC producers in terms of price competition.

A number of PVC capacity expansions are in progress in Russia or under review, but even if all projects materialise it will not be until 2009-2010 before the effects of the additional capacity will be seen. Exports of PVC have fallen in Russia from around 90% of total production in 2002 to around 20% of production in 2005. Sayanskkhimplast has gradually reduced the export portion of its production over the past two to three years. In 2003, exports accounted for 89% of PVC production, but this fell to 17% in 2005. In 2006, the company intends to direct the entire volume of output toward the domestic market.

If the Ministry of Economy and Trade reduces the duties to zero, it will most likely mean that the consumers will hold the upper hand in price negotiations. Producers based on acetylene may be affected first, but the ethylene producers such as Kaustik, SIBUR-Neftekhim and Sayanskkhimplast will feel the effects in due

course. The benefits will be felt by consumers will have greater choice of purchasing power, and it would may help to force the producers to become more competitive.

Sayanskkhimplast plans in 2006 to produce 245,000 tons of PVC. The marginal increase over 2005 should be facilitated after modernisation, which will help to reduce the number of stoppages. During June-July 2006. the company will transfer the production of chlorine and caustic soda to the new technology. This will mean that it will be able to achieve self-sufficiency in raw material supplies.

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**Ukraine**

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(Ukrainian hryvnia, Apr 20, \$1 = 4.9955, €1 = 5.8964)

**PVC market**

LUKoil-Neftekhim is reviewing the possibility of building a PVC plant at its Karpatneftekhim division at Kalush, with a capacity of 300.000 tpa at an estimated cost of \$170 million. The main emphasis of Karpatneftekhim is the construction of the new chlorine-caustic facilities at Kalush at a cost of €110 million. The construction of the plant will facilitate an increase in caustic soda capacity up to 200,000 tpa. Uhde is providing the equipment.

The reasons for considering the construction of a new PVC plant at Kalush are two-fold; firstly to make more profitable use of the VCM production and secondly to take advantage of the growing consumption of PVC in Ukraine. In 2005, total PVC consumption is estimated to have grown in Ukraine by 29% over 2004. Most of the consumption is currently based on imported PVC, with the only domestic producer being Khimprom at Pervomaisk, near Kharkhov, which depends on Karpatneftekhim for VCM supply. In 2005, Khimprom produced 10,300 tons of PVC suspension grade.

Consumption of PVC is being fuelled by new conversion capacity. In 2005, the import of rigid compounds into Ukraine was reduced by 24% as Ukrainian processors started to develop their own production.

The largest suppliers of PVC suspension to the Ukrainian market include BorsodChem, Kaustik at Sterlitamak and Sayanskkhimplast. NCHZ from Slovakia increased its market portion almost two-fold in 2005, whilst Anwil increased from 1.7% in 2004 to 6.1% in 2005. Consumption of PVC paste grew by 27 % in 2005, with the main supplies of being Vinnolit, Vestolit, Norsk Hydro and NCHZ. Whilst the main focus is on PVC suspension grade, there is still a strong and growing demand for paste in the Ukrainian market.

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**Belarus**

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The major medium term problem facing the petrochemical industry in Belarus is the price of gas. Gazprom is planning to triple natural gas prices for Belarus starting in 2007. Belarus is the only country that is still not paying the market price for Russian gas, and thus benefits from the low price. The former Soviet republic is currently paying \$46.68 per 1,000 cubic metres of natural gas, compared with figures of \$110 for the Caucasian republics of Armenia and Georgia, and \$230 for Ukraine. The increase in prices will have serious consequences for Belarus. Even an increase in gas prices up to \$100 per thousand cubic metres would impact heavily on consumers such as Azot at Grodno where gas prices account for around 70% of costs. Moving towards the full market price could result in the plant being forced to stop production completely.

**Mogilevkhimvolokno**

On 24 March, Mogilevkhimvolokno started the production of polyester high-strength technical threads and high-modulus threads with low shrinkage (HMLS). In April, it is planned to achieve production of 200 tons per month. The special feature of high-strength technical threads is the high tensile strength. This production is intended for the application in the production of rigging articles, ropes, ropes. HMLS threads possess increased adhesion to rubber, by the high modulus of elasticity and by low shrinkage.

**BOPS**

In the first half of April, Multipack started the new BOPS film plant at Gomel. Reaching the design capacity of 20,250 tpa is planned in June-July of 2006. The new plant is the largest and most advanced of its kind in Europe. The facility has been designed to be capable of producing rigid and flexible polystyrene-based film.

The target markets are rigid film for thermoforming food and non-food containers, film for label applications and flexible food wraps.

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**Caucasus/Central Asia**

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In January-March 2006, Azerkhiymya increased the production of nearly all chemical products against the same period in 2005. Caustic soda production increased by 40.2%, propylene by 94.7% ethylene 2 times, and polyethylene 2.1 times. A new pipe plant has been opened at Ruhabat near Ashgabat in Turkmenistan. The plant producing polyethylene, polypropylene, fibreglass and thermoplastic pipes reinforced with steel wires of various diameters as well as hoses and tubes for drip irrigation, was built by Turkish company ERKU on the turnkey basis at a cost of almost \$85 million. The capacity of the plant in round-the-clock operation mode is over 30,000 running km of products per annum.

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**Kazakhstan**

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Basell, KazMunaiGaz (KMG) and SAT have signed an agreement regarding plans for the construction of a large petrochemical complex in western Kazakhstan. Tengiz and Kashagan have been identified as locations for the development of the petrochemical industry in Kazakhstan that will eventually lead to the production of 2 million tpa of products.

In the first quarter of 2006, the government undertook a road show for presenting the prospects for the petrochemical industry in Kazakhstan, and the establishment of a special economic zone in the Atyrau region. In February 2006 it was decided to create a JV for the processing of raw materials into petrochemicals, including polyethylene and polypropylene. This brought Basell into the equation and resulted in the agreement with KMG regarding the proposed complex.

The project being considered involves the construction of an ethane-cracking plant at Kulsar and a petrochemical complex at Atyrau. The petrochemical complex would consist of polyethylene based on ethane and a propane dehydrogenation plant for polypropylene. A general completion date has been set for 2010.

Basell plans to participate in the project not only as a supplier of technology, but also as a shareholder and a provider for support for product sales. The long term strategy view of the Kazakh government is to reduce the dependency on the fuel-energy complex as a source of revenue for the country, and to diversify into other downstream sectors. In the western part of Kazakhstan, where the attention is targeted, the aim is to develop production facilities for polyethylene, polypropylene, styrene, and polystyrene, MEG and methanol, etc.

A plan has been drawn up whereby a gas processing plant will be constructed with a capacity of 14 billion cubic metres per annum. Of this total, 5.5 billion cubic metres would be devoted to usage for gas-chemical production and the remainder for the processing of methane. In addition, the complex will process 500,000 tpa of gas condensate. Raw materials for the complex will be supplied from the deposits of the North Caspian through a JV created between LUKoil and KMG. LUKoil-Neftekhim plans to take part in this project development and has thrown the idea of constructing an olefin plant (and possibly also a methanol-olefin plant) next to the gas processing plant, but is far too early to reach any conclusions. LUKoil-Neftekhim is examining a host of alternative possibilities for the development of olefins either in Kazakhstan or Russia, but seems unclear about the end-market for these products.

**Benzene**

The technical and economic study (TEO) for the production of benzene at the Atyrau refinery (ANPZ) has been undertaken by Marubeni and Kosmo and transferred to the customer KazMunaiGaz (KMG). Reconstruction of ANPZ is being undertaken with the participation of Japanese capital.

According to the preliminary estimations, the cost of the project will require around \$250 million. Production of benzene will amount to 150,000 tpa and would be targeted towards the development of ethylbenzene, styrene and polystyrene. Polystyrene is already produced in Kazakhstan at Aktau, but production has been limited in recent years by feedstock shortages.

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