

# 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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- ✚ Strategic plans for HIP-Petrohemija comprise an expansion of HDPE and LDPE capacities, the construction of a new polypropylene plant and the modernisation of existing units
- ✚ Ciech member Organika-Sarzyna has started its new installation for the production of unsaturated polyester resins
- ✚ The jv for the PET project at Alabuga in Tatarstan was officially sealed at the end of August
- ✚ The net revenues of Rompetrol Petrochemicals rose by 75% in the first half of 2008 compared against the same period last year
- ✚ Construction has now started of the polypropylene plant at Tobolsk, which is expected to cost around 36 billion roubles
- ✚ Kazanorgsintez started its polycarbonate plant on 3 September, with a capacity of 65,000 tpa
- ✚ The investment programme for Perm based Galopolimer amounts to \$213 million over the next five years, and includes a transfer from mercury to membrane technology for the production of chlorine
- ✚ Dzerzhinsk Orgsteklo is currently seeking a partner to invest around €250 million into the construction of a new MMA plant at Dzerzhinsk
- ✚ Russian chemical exports to China dropped in the first half of 2008, as domestic Russian consumption continues to erode the availability for export.
- ✚ Salavatnefteorgsintez and SIBUR-Holding have signed a memorandum of mutual understanding in which the parties have declared an intention to create a jv
- ✚ Tomskneftekhim has selected Unipol technology for its planned new HDPE unit
- ✚ Shchekinoazot increased caprolactam predication by 2.9% in the first six months of 2008, with a much larger increase seen in liquid production
- ✚ Korund plans to invest about €100 million into the production of hydrocyanic acid at Dzerzhinsk
- ✚ Sroytransgaz is reported to have started the construction of the complex to produce ethylene and polyethylene (LDPE) at Novy Urengoy
- ✚ New PET & PTA plants for Ivanovo
- ✚ In the first seven months of 2008 chemical production revenues in Azerbaijan rose 57.8% against 2007
- ✚ In the period January-July 2008, Belarus increased chemical production by 2.5% against 2007
- ✚ Kazakhstan Petrochemical Industries has selected LyondellBasell's polyethylene (PE) and polypropylene (PP) technologies for three new plants

## CENTRAL & SOUTH EAST EUROPE

### Petrochemicals

#### Feedstock security

Oil supply uncertainty has risen following the conflict in the Caucasus and speculation that Russia may re-route some oil sales away from the Druzhba. Russian oil supplies to the Czech Republic continued to be down in August; at 74% of the contracted amount. The Czech Republic receives roughly two thirds of its consumption from Russia, while around 30% comes from Azerbaijan through the Baku-Tbilisi-Ceyhan pipeline before being transferred to Kralupy via the Transalpine (TAL) and IKL pipelines.

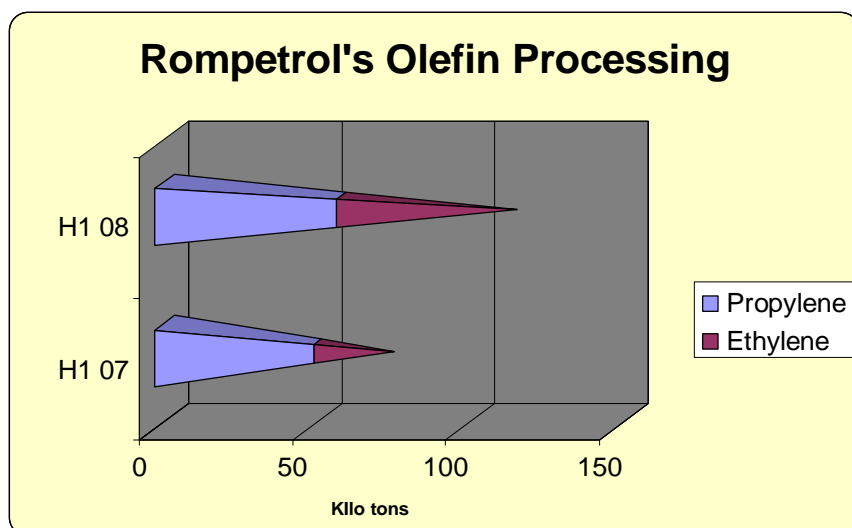
The cutbacks from Russia started in early July, and whilst worsening political relations have been cited as a cause the more likely reason is problems with the middlemen in Russia who are responsible for oil sales. In addition to the Druzhba, Unipetrol encountered minor problems in receiving oil via the IKL as a side-effect of the conflict in the Caucasus. Although any eventual shortfall in Azeri oil can be overcome by the IKL importing other sources, the refineries are likely to see increased oil costs.

As part of its oil supply diversification, the Czech Republic is negotiating to buy a share in the TAL. The state-run oil transit company Mero CR has put into operation two new large storage tanks for strategic oil reserves in the Central Crude Oil Tank Farm (CTR) at Nelahozeves in central Bohemia. The tanks with a volume of 125,000 cubic metres and will help to increase strategic oil reserves in the Czech Republic to more than 90 days. However, the EU recommends oil reserves for 120 days and so further investment will be necessary. Both tanks will be gradually filled with oil from Russia, transported through the Druzhba pipeline. The first tank is to be filled by the year's end, the other one by the end of the first half of next year.

The US will fund a feasibility study for a LNG import terminal in Lithuania under an agreement signed between the two countries. Lithuania is concerned about its growing dependence on Russian gas supplies, particularly with the planned shutdown of its Soviet-era nuclear power plant at the end of 2009. The study will look at the possibility of building a terminal with a capacity of 1.5 billion to 2.0 billion cubic metres of LNG and evaluate three possible sites, including one offshore. The terminal would be 80% state-owned, with the rest being taken by AB Achema, a private chemical producer.

#### Rompetrol H1 2008

The net revenues of Rompetrol Petrochemicals rose by 75% in the first half of 2008 against 2007, partly influenced by higher product prices and partly by higher volumes. Following the restart of the HDPE plant at Midia in 2007, the company processed almost double the quantity of ethylene which it sourced from Dow Chemicals. Efforts are underway to revive the Petromidia cracker, which after start-up should contribute further to turnover.



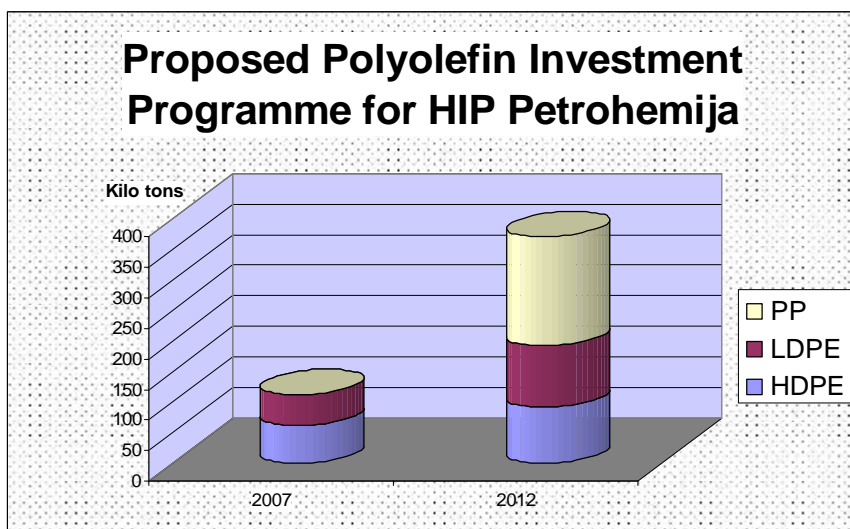
Despite the increase in revenues, Rompetrol's operational result fell below the expected target for the first half of 2008. The reasons for the lower EBITDA included diminishing margins due to high oil prices, combined with the effect of higher production costs related to the HDPE restart at the end of 2007. Higher costs were also seen in 2007 resulting in a fall in operating profit of 47% against 2006. In 2007, Rompetrol's polypropylene

production totalled 91,104 tons, and LDPE 58,000 tons. Whilst these volumes will be similar in 2008, around 60,000 tons of HDPE will also be produced.

Romp petrol Rafinare, the parent company, has made a cash contribution to the share capital of Rompetrol Petrochemicals of \$50 million in order to support investments. The project aims include an expansion in total polyolefin capacity to 500,000 tpa by 2012, and to restart the steam cracker (mothballed since 1996). Thus, whilst the capacities will be smaller than the main players in Central Europe, Rompetrol's petrochemical division is expected to play a more prominent role in the regional market.

#### **HIP-Petrohemija-integration with NIS?**

A number of interrelated issues are under review at HIP-Petrohemija, which will ultimately affect the company's direction over the next few years. These issues can be categorised as possible integration with NIS, a possible takeover by Gazprom and the implementation of the strategic investment programme. HIP-Petrohemija prepared a strategic operating and investment plan for the period 2008-2012, which should represent a base document for negotiations with Gazprom. Strategic plans for HIP Petrohemija comprise an expansion of HDPE and LDPE capacities, the construction of a new polypropylene plant and the modernisation of existing petrochemical units. The required investments for these projects in the next four years have been estimated in the range of €140 million. The main goals are primarily full operations of production capacities, improving operating efficiency, and an extension of the product range. The financial effects would be reflected through operating income which could increase annually by around 12%.



Whilst Gazprom's research into the possible acquisition of NIS is in process, consideration is continuing for the integration of HIP-Petrohemija into NIS. As far back as October 2003, the Serbian government took the decision that HIP-Petrohemija should be integrated with NIS due to its synergetic production base, and also as the two plants are located next door to each other at Pancevo. Consolidation was partly undertaken, as well as the ownership transformation, but the process was never completed meaning that NIS and HIP-Petrohemija remain two

separate companies. The advantages of integration with NIS for HIP Petrohemija include the stabilising of current operations and profitability, as well as an integrated development of the oil-petrochemical complex.

The prospects look favourable for a Russian takeover of NIS, together with Petrohemija, if a price can be agreed. In July, Gazprom stated that the value for NIS had declined since it offered \$630 million for 51% stake in January and so the price is still under negotiation. The refinery and petrochemical sale is part of Serbia's energy agreement with Russia that includes the construction of part of the South Stream gas pipeline across Serbian territory. South Stream has been seen as diverting some gas exported through Ukraine, instead of providing a new source of gas for Europe.

Should the privatisation process be restricted or is not completed, other sources of finance would probably be needed to support the investment plans for HIP Petrohemija. The programme drawn up by the company has been defined as crucial to future turnover and cash flow.

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#### **Chemicals**

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##### **New consortium approach for Polish chemical industry**

The chemical sector in Poland could be divided into two blocks after some innovative new structures have been made public in the past few weeks by the Treasury Ministry. The most surprising aspect is the potential sale of Anwil by PKN Orlen and Orlen's withdrawal from the fertiliser and PVC markets. Primarily the new structures being considered can be divided into a Ciech led consortium and a PGNiG led consortium, each with a strong interest in fertilisers.

Polish Chemical Production (unit-kilo tons)		
Product	Jan-Jul 08	Jan Jul 07
Caustic Soda	53.5	48.8
Soda Ash Light	194.7	211.9
Soda Ash Heavy	516.4	492.7
Ethylene	310.4	350.0
Propylene	217.3	205.4
Butadiene	31.4	33.3
Toluene	78.1	68.3
Phenol	25.5	29.3
Caprolactam	94.6	95.4
Polyethylene	197.3	224.7
Polystyrene	67.8	61.6
PVC	148.7	177.1
Polypropylene	143.3	169.0
Synthetic Rubber	76.4	74.2
Pesticides	22.6	21.5

In the near future, Ciech, ZA Tarnow and ZA Kedzierzyn could sign a consortium agreement which will mark the preliminary phase of the companies' integration. The consortium could also be concluded with purchasing Orlen's 84.79% stake in Anwil. The two fertiliser companies, at Tarnow and Kedzierzyn, are looking for cash to finance the investment of around zł.1.7 billion. According to initial proposals, 10-20% of the total would be provided by the companies with Ciech delivering 51% of the capital and fertiliser plants 49%. Whilst much of this is not new, the inclusion of Anwil to such a consortium comes as a major surprise. PKN Orlen has been quoted as saying in recent weeks that it does not wish to act as the consolidator of the Polish chemical industry and would much rather sell its chemical assets, notably Anwil. This line also seems to be supported by the Treasury Ministry.

The second grouping around PGNiG taking controlling stakes in Zakłady Chemiczne Police and Zakłady Azotowe Pulawy is still only idea, but seems to have the backing of the government. However, selling stakes of over 50% in Zakłady

Chemiczne Police and Zakłady Azotowe Pulawy to a third company (PGNiG) in which the state owns 85% cannot to some be described as full privatisation. It seems also that the government may have had a hand in suggesting the Ciech led consortium. The position will become clearer in the coming months.

#### **Ciech starts new plant for unsaturated polyester resins**

Ciech subsidiary Organika-Sarzyna has started its new installation for the production of unsaturated polyester resins (UPRs), which could add turnover of around zł 60 million per annum based on current resin prices. The capacity of the new plant is 10,000 tpa, which was constructed in a period of five months at a cost of zł 17.8 million. Total capacity for UPRs at Organika-Sarzyna now stands at 25,000 tpa. Automation and the increase of resins produced during one cycle will also make production more profitable. Currently, around 25% of UPRs from Organika-Sarzyna are exported.

The expansion of the UPR plant at Organika-Sarzyna follows the increase of epoxy resin capacity from 15,000 to 30,000 tpa in 2007. Organika-Sarzyna, as with Zachem, is part of Ciech's organic division in which investments of zł 124 million are planned by up to 2011.

#### **Spolchemie, Jan-Jun 2008**

Spolchemie generated sales of Kc 2.6 billion in the first half of 2008, 10% up on last year. Spolchemie raised sales of resins by 14%, which comprise almost three-quarters of total sales. Sales of low-molecular epoxy resins and modified epoxies have been increased due to the new capacity of the Epispol II epoxy-producing unit, which was started in autumn 2007. This year's profit has been influenced by the strengthening of the Czech crown, in view of the fact that the company exports around 90% of output.

#### **BorsodChem**

BorsodChem announced on 10 September that it had been forced to stop production unexpectedly in TDI production, due to a technical difficulty. The outage lasted for roughly five days and was expected to impact availability of TDI for the short term.

Polyplast Compound Werk, a subsidiary of compounding and masterbatch specialist Polyplast Müller, has acquired the PVC compounding business unit of BorsodChem.

#### **Central European Plastics**

Mitsubishi Plastics has taken the decision to construct a plant in Slovakia for plastic parts used in consumer electronics. The investment will amount to around \$27.2 million, and Mitsubishi aims to make the plant operational by September 2009. The facility is Mitsubishi Plastics' first in Central Europe, and will use injection-moulding machines to produce exterior parts for LCD televisions.



SKC Haas Polska (Poland) has started to produce specialised polyester optical and functional films used in manufacture of flat screens at a plant in the special economic zone of Walbrzych. SKC Haas Polska is a joint venture between Rohm and Haas and the Korean firm SKC. Currently, production at the joint venture occupies only two hectares of the site at Dzierzoniow, but this will be expanded by 2010.

### South East Europe

The Russian company Uralkhim has expressed interest in buying insolvent Bulgarian fertiliser producer Chimco. The total sales income of phthalic anhydride and paints producer Orgachim at Rousse amounted to 176.7 million leva in the period January-July, compared to 62.5 million leva in 2007. Aside higher income, higher costs for raw materials have led to a lower EBITDA by 4% compared to last year. Orgachim's operating profit, before administrative costs, has increased by 1.5 million leva or by 9% as a result of the improved efficiency of production operations, and the investments made in new energy-saving equipment.

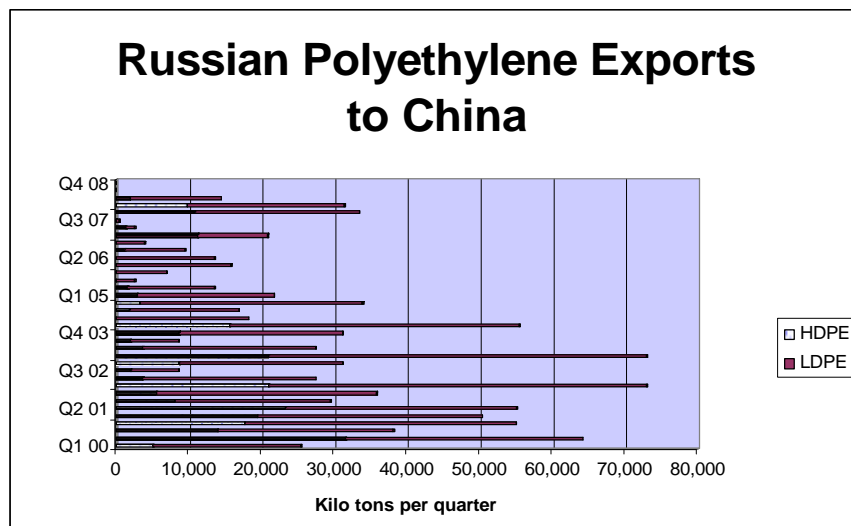
The Romanian fertiliser producer Azomures plans investments of between \$250-300 million in the next 2-3 years for the construction of an energy production unit, and the modernisation of the urea and ammonia facilities. The first project refers to reducing energy consumption, which implies reducing the impact of natural gas price by building an own power unit. The second project refers to modernising the urea and ammonia facilities, to reduce specific natural gas consumption and to produce new products. The complex will not be affected by increases in gas prices, as the company bought large stocks in 2007 when the gas price was lower. Azomures is controlled by Transworld Fertilisers Holding (55.97%), a company registered in Luxembourg and owned by Turkish investors.

## RUSSIA

### Russian production and trade

Methanol and ethylene production in Russia reached record quantities in the first seven months of 2008, a trend which is expected to continue for the rest of the year. Polyolefins are also starting to rise in volumes, although PVC production stays much the same due to the absence of new capacity. Whilst synthetic rubber production remains similar to previous years, there is far more concentration on higher added value types of rubber with some of the older grades being phased out.

Russian Petrochemical Production Jan-Jul 2008 (unit tons)	
Product	Jan-Jul 08
<b>Main petrochemicals</b>	
Methanol	2,168,980
Ethylene	1,404,256
Benzene	719,591
Styrene	358,956
Phenol	131,094
Acetic Acid	87,634
P Anhydride	61,857
<b>Polymers &amp; rubber</b>	
Synthetic Rubber	733,347
Polyethylene	763,825
PVC	359,350
Polypropylene	296,409
PVC plasticizers	177,526
Polystyrene	152,156



Russian chemical exports to China dropped slightly in the first half of 2008, due in part to increased domestic consumption and in part to competition. PTA exports stopped completely, as Polief started its own production of PET at Blagoveshchensk. Caprolactam exports dropped as Kuibyshevazot increased its captive consumption in the production of polyamide. In the polyolefin sector, polyethylene exports have been dropping for a number of years although there are signs that volumes are starting to pick up again, especially for HDPE. Since the expansion of the Kazanorgsintez plant for HDPE, Russia has started to see more

surplus available. Moreover, with the projected start-ups of the Nizhnekamsk and Salavat HDPE plants in the next 6-9 months, polyethylene availability is expected to increase and exports to China will probably rise.

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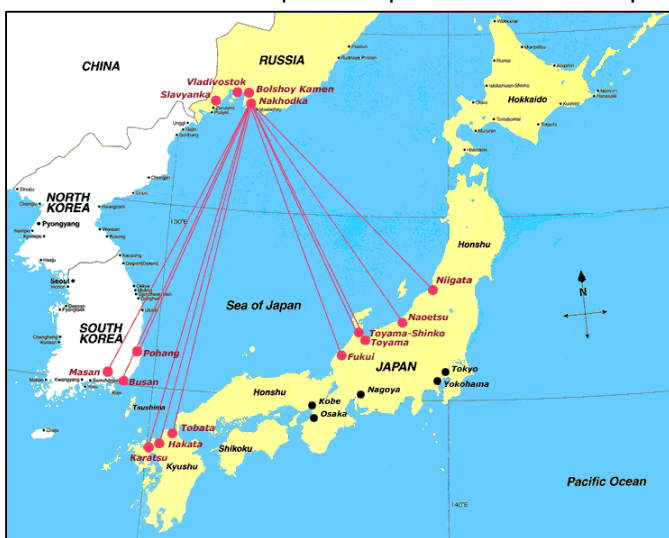
## Petrochemicals

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### Refinery news

The amount of investments into oil refining in Russia in the period 2009-2011 is expected to reach around 370 billion roubles, according to recent reports. This sum includes the two new refineries at Nizhnekamsk, and the modernisation of existing plants. By 2011, oil refining is expected to have risen 8% over 2007 to reach 247 million tons.

Plans continue to be assessed by Rosneft for a major refinery at Nakhodka in the Russian Far East, which could extend into the sphere of petrochemicals and plastics. Ideas remain in the formative stage, with the



proposed complex to be linked to the East Siberian-Pacific Ocean oil pipeline that is under construction. Rosneft previously had assessed the construction of a polyolefin and aromatics' complex at Konsomolsk. Rosneft acquired the Angarsk Polymer Plant from the disposed assets of YUKOS, but has had no other experience in petrochemicals. The complex at Nakhodka would initially be focused on exports to North and South East Asia, whilst at the same time contributing to the economic development of the Russian Far East. The location of Nakhodka and distribution shipping lanes are illustrated in the map opposite.

The small oil companies that comprise TAIF-NK in Tatarstan have set 2014 as the target date for start up of the third refinery at Nizhnekamsk. Instead of the 7 million tpa as previously planned, the capacity is now expected to reach 9 million tpa which would give a total capacity for refining at Nizhnekamsk of 23 million tpa. Tatar oil will be processed at the new TAIF-NK refinery which will require in the range of \$2.5 billion investment.

### Gas feedstocks

Yugragazpererabotka (the Yugra Gas Processing jv formed between TNK-BP and SIBUR-Holding in 2006), is currently starting a new oil absorption unit (MAU-3) at Nizhnevartovsk in West Siberia, which facilitates the separation of gas condensate from associated gas. Construction started in 2007 and was completed four months before scheduled. As a result of the start-up, processing of associated gas at Nizhnevartovsk will increase by 700 million cubic metres per annum to a total of 4.6 billion cubic metres. Further investments will lead to a processing capacity of 5 billion cubic metres per annum at Nizhnevartovsk by 2010. This is part of the programme in West Siberia on reducing flares into the environment and processing up to 95% of associated gas, whilst at the same time providing feedstocks for the petrochemical industry.

Yugragazpererabotka was established specifically by TNK-BP and SIBUR for the processing of associated gas. Both partners have an equal share in the jv that includes the Belozern gas processing plant, in addition to Nizhnevartovsk. From the processed gas, TNK-BP receives 100% dry gas whilst SIBUR-Holding receives liquid feedstocks for petrochemicals.

Tobolsk-Neftekhim has developed an investment project for an expansion of its central gas fractionation plant, which will increase capacity from 3 million tpa to 5.8 million tpa in the next three years. Kaucuk at Volzhskiy, which similarly to Tobolsk-Neftekhim is part of part of SIBUR-Holding, has started constructing a unit for producing propane-propylene fractions. This will allow the company to reduce production costs whilst at the same time reducing harmful emissions. The new plant is expected to come on stream in December 2008.

### SIBUR & Salavatnefteorgsintez sign jv memorandum

Salavatnefteorgsintez and SIBUR-Holding have signed a memorandum in which the parties have declared

an intention to create a JV, to be based at the Salavat complex. The JV is a relatively new idea and aims to develop the petrochemical facilities at Salavatnefteorgsintez and primarily to construct a new 750,000 tpa cracker for ethylene. Salavatnefteorgsintez is keen on the idea of developing synergies with SIBUR in the sphere of petrochemicals in order to benefit from integration and access to markets. Around \$1 billion is proposed as the investment budget into the joint project, which will be supplied largely by SIBUR. Salavatnefteorgsintez to supply the base for the project, in terms of location, infrastructure and refinery back-up.

The prospects look favourable for creating a major petrochemical complex at Salavat, which may turn out to be larger than the proposed investments at Budyennovsk by LUKoil-Neftekhim. The question of feedstocks and exact project plans are yet to be decided, but irrespective of the final programme gas liquids are expected to have an important role to play. In the first half of 2008, Salavatnefteorgsintez secured gas condensate supplies through Gazprom from processing plants at Orenburg, Astrakhan and Surgut which collectively accounted for 27.3% of total feedstock purchases. Expansions are already underway in petrochemicals, excluding any agreements with SIBUR. In the first quarter of 2009 for instance, Salavatnefteorgsintez will start up its new 120,000 tpa polyethylene plant. Other projects include 70,000 tpa of impact polystyrene and 50,000 tpa of foam polystyrene.

In the first half of 2008, turnover increased for Salavatnefteorgsintez from 41.708 billion roubles in 2007 to 60.47 billion roubles. Net profits jumped from 2.01 billion roubles in 2007 to 5.34 billion roubles in 2008. Although turnover at Salavatnefteorgsintez easily exceeds Nizhnekamskneftekhim, a large part of the revenues stem from refinery products. Whilst turnover increased sharply for SIBUR-Holding in the second quarter of 2008, rising to 56.302 billion roubles, profitability was affected by feedstock prices and the inability to pass on these increases to its products.

#### **SIBUR management buy-out suspended**

The banking arm of Gazprom, Gazprombank, has suspended talks over the proposed sale of SIBUR-Holding to SIBUR's management due to current market conditions. The bank said that the two sides could return to the issue in the future, when market conditions for external financing improve. The stock market in Moscow was forced to close for several consecutive days in the week commencing 15 September, leading to a lack of investor confidence. Other factors may also have affected the transaction going through quickly.

In April this year, Gazprombank agreed to sell its shares in SIBUR Holding to its five top-managers, for a 50% stake plus one share, for 53.5 billion roubles. On 2 June, the transaction was approved by the Russian antimonopoly commission (FAS) to be coordinated through the Cyprus based Hidron Holdings Limited.

#### **Nizhnekamskneftekhim-Jan-Jun 2008**

Nizhnekamskneftekhim is planning an expansion of its oligomer division due to strong demand. In the first seven months of 2008 Nizhnekamskneftekhim produced 195,000 tons of oligomers; propylene trimer output exceeded its target by 10%, with neonols exceeding the target by 16%.

In the first half of 2008, commodity sales totalled 36.8 billion roubles for Nizhnekamskneftekhim or 33% higher than in 2007. The best results came from the sales of butyl rubber, isoprene and polybutadiene rubber. Other profitable products included neonols, polypropylene, polystyrene and polyethers. The net profit for reached 3.66 billion roubles, up 150% on 2007. At the same time the company is making money, average wages have risen from 18,800 roubles per month in June 2007 to 24,100 roubles in June 2008, reflecting an increase of 27.8%. TAIF has increased its stake and controlling interest in Nizhnekamskneftekhim, which has been interpreted in some quarters that the company could be put up for sale. TAIF was created specifically for the consolidation of shares in the Tatarstan petrochemical sector, and owns around a quarter of Nizhnekamskneftekhim.

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### **Bulk polymers**

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#### **Russian polyolefin markets**

Polyethylene consumption in Russia increased 3% in the first half of 2008, amounting to an estimated total of 745,860 tons. LDPE consumption measured 303,250 against 302,470 tons in 2007, whilst HDPE consumption increased by 2% and totalled 391,830 tons. LLDPE consumption was 42,600 tons in the first

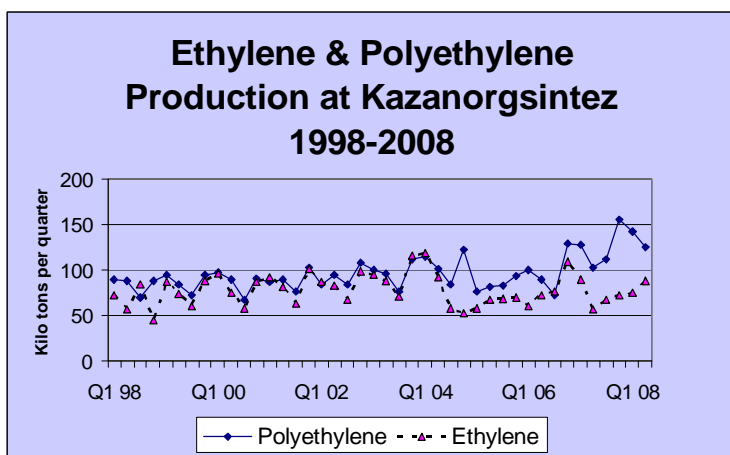
half of the year, which was 28% up on 2007. Significant changes in the domestic HDPE market are expected to take place in 2009, with the launch of plants at Nizhnekamsk and Salavat. For Nizhnekamskneftekhim, the initial product mix will include about eight base HDPE brands, including PE-100 pipe grade.

Stavrolen has introduced a new compounding unit for polyethylene, with a capacity of 20 tons per hour. This is part of the investment programme to replace old equipment in the polyethylene production process. The new line has been installed by Kobe Steel, and is equipped with the latest control systems. It will facilitate the production of higher quality polyethylene and improve the distribution process. Stavrolen stopped olefin production in August for 4-5 days due to electrical problems, causing minor problems. The temporary shutdown in August provided a short term threat to raw material supplies for Saratovorgsintez, which depends on Stavrolen for propylene in order to produce acrylonitrile. With the Kalush plant in Ukraine currently idle, LUKoil-Neftekhim only has Budyennovsk for propylene supply. In April this year, Stavrolen was forced to stop polypropylene production due to a fire, and the plant has only recently restarted.

Feedstock Price Changes for Ufaorgsintez (roubles per ton)		
Product	Q2 2007	Q2 2008
Ethylene	14,000	15,400
Propylene	14,000	16,800
Propane fractions	2,800	3,923

Tomskneftekhim, which resulted in one fatality. Last summer was a bad time for Russian plant safety, with a series of accidents taking place over a couple of months.

In other matters, Ufaorgsintez has reported losses from polyolefin sales for the second quarter due mainly to rising feedstock prices, as illustrated in the table opposite. Inostrakh paid 24.7 million roubles to Tomskneftekhim for the losses incurred on the plant explosion in 2007. The explosion occurred on 2 August 2007 at the polyethylene unit at



#### Kazanorgsintez

Despite a 19% increase in turnover in the first half of 2008, Kazanorgsintez has faced tighter margins, as costs for raw materials, energy and transport have all risen sharply in the past twelve months. Product prices have not risen by the same degree. Therefore the company's main efforts have been directed towards improving efficiency across the board, especially for energy and raw materials. Similarly to Nizhnekamskneftekhim, wage inflation has been very noticeable. The average wages of employees of the company in comparison with the first half of 2007 rose 32.7% to 15,495 roubles per month.

As the graphic above illustrates although peaking at over 150,000 tons of polyethylene production in Q4 2007, the company has been unable to maintain these levels of utilisation due to a shortage of ethylene. Over the past decade the gap between ethylene and polyethylene has been continually widening. Hence, the need to tie up new ethane supply agreements to feed the almost completed ethylene expansion.

Kazanorgsintez Competitors (Domestic)	
Product	Company
HDPE	Stavrolen
LDPE	Tomskneftekhim
LDPE	Angarsk Polymer Plant
LDPE	Ufaorgsintez
LDPE	Sevilen
LDPE	Salavatnefteorgsintez
PE pipes	Polyplastik
PE pipes	Techstroy
Bisphenol A	Ufakhimprom

Kazanorgsintez is attempting to maintain its role in Russia as the leading producer of polyethylene, although it is facing increasing competition from other producers. The current competitors for Kazanorgsintez are shown in the table opposite, for polyethylene and bisphenol A.

#### Novy Urengoy PE project

Sroytransgaz is reported to have started the construction of the complex to produce ethylene and polyethylene (LDPE) at Novy Urengoy, in the Yamal-Nenets region of West Siberia. The capacity of the polyethylene plant is set to be 400,000 tpa, with ethane feedstocks being supplied locally and thus creating a full



chain of production. The ethylene plant is based on technology supplied by Linde, whilst the polyethylene equipment was supplied by Salzgitter based on Basell technology.

Aside the construction of a gas chemical plant, the complex will also include capacity to produce wide fractions of hydrocarbons and methane fractions. The general project designer has been selected as Vmipigasdobych from Saratov, which specialises in gas production. The main project managers are to be Linde, Tecnimont and VNIPneft. The Novy Urengoy plant is owned 100% by Gazprom and a period of three years has been allocated for the construction of the gas chemical complex.

#### **Tomskneftekhim-Univation agreement**

Tomskneftekhim has selected Unipol technology for its planned new HDPE unit, which is expected to have a capacity of 140,000 tpa. The project is part of SIBUR's strategy to develop and expand its position in polyolefins. Unipol technology was selected due to its gas-phase process and capability to produce PE-100 grade for pipes. Part of the investment programme for Tomskneftekhim includes an expansion in ethylene capacity to 380,000 tpa, and the construction of a new polypropylene plant with a capacity of 200,000 tpa. These plans have been phased back due to SIBUR not being able to guarantee the supply of gas liquids by pipeline to the complex. However, these plans maybe revived at a later date.

#### **Tobolsk-Polimer, PP construction underway**

Construction has started of the polypropylene plant at Tobolsk, which is expected to cost around 36 billion roubles in total. The start-up date for the 500,000 tpa polypropylene plant has been set for March 2011. SIBUR-Holding plans to invest around 50 billion roubles in a second phase of development at Tobolsk, involving ethylene, polyethylene and additional volumes of propylene. Originally, Novatek was included in the project as a partner, but SIBUR has now decided that that this is not necessary. Whether that will mean Novatek will return to the Omsk polypropylene project as a feedstock supplier remains unclear. Tobolsk is roughly 700 km north west from Omsk and thus the two plants could be competing for the same regional market share. Although demand has been robust over the past few years, and is expected to continue for a little while, the trend will inevitably slow at some stage.

#### **Russian PVC investments & market**

Kaustik at Sterlitamak has started the programme for expansion of the VCM-PVC facilities, which initially be increased to 200,000 tpa for each product by 2010 before expanding to 400,000 tpa by 2013. Prior to the end of 2009, the shareholders of Bashkiriya Khimya have allocated €60 million for the initial expansion. Investments into the civil-engineering design of the RusVinyl complex at Kstovo have been reduced marginally from €650 million to €600 million.

The Omsk region has seen a decline of 30% consumption in PVC profiles in 2008 over 2007, which could increase further. PVC consumption in Russia totalled around 850,000 tons in 2007, of which around 40% went into construction (including window profiles) and 25% into packaging. Growth prospects for PVC for the next few years have previously been estimated in the range of 8 to 15% per annum. However, with consumption running at less robust rates in certain regions, growth may soften temporarily. Around 280,000 tons of PVC imports were seen in 2007, with Germany and China being the main sources. Russian PVC production is currently totalling around 600,000 tpa, or 1.3% of the world total.

Raw Material Changes for Plastkard Volgograd	
Product	% rise Q2 08 vs. Q2 07
Mercury Chloride	15
Natural Gas	26
Coal	60
Butyl Cellulose	13
DOP	10
Caustic Soda	84

#### **Plastkard, Jan-Jun 2008**

Profitability increased significantly for Plastkard at Volgograd in Q2 2008 compared to the first quarter due to reduced expenses. This is despite the fact that raw material costs have risen, as shown by the table opposite. Prices of raw materials increased dramatically in the second quarter this year.

Plastkard states in its second quarter report that its concerned over the reduced availability of credit that might affect operating activity in the near term. However, an even more dangerous threat is thought to stem from inflation, which is predicted to rise over 20% per annum in Russia in the 2008-2010 period. Plastkard aims to produce between 93-95,000 tons of PVC this year, whilst longer term is aiming to expand capacity to 150,000 tpa after investment.

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**Aromatics & derivatives**

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**Indorama considers investment in the Ivanovo region, PTA & PET**

The Ivanovo region governor, Indorama and Evroplast signed a protocol of intention in mid-September to build a synthetic fibre plant in the Ivanovo region, valued at around 50 billion roubles. The protocol was signed as part of the programme to create a textile industry cluster in the region, based on the traditions of textile production in Ivanovo.

Together with Evroplast, Indorama will try to select a 100-hectare land plot in the region to build a new plant. Indorama is aiming to produce polyesters and PET, the latter with a capacity of 200,000 tpa. PTA is also a major consideration in the proposed project, and a capacity of 700,000 tpa has been mentioned although still under assessment. Such a plant would outstrip Polief's PTA plant at Blagoveshchensk, which is being expanded from 230,000 tpa to 600,000 tpa. However, Polief is located closer to paraxylene supplies and it is not from clear where paraxylene could be sourced for a plant at Ivanovo. Evroplast already produces PET and may become a consumer of PTA from the proposed plant. The whole investment process is still in the formative stages, but underlines the potential for expansion in Russian PTA capacity.

**KP Bars Holdings-PET project**

The jv for the PET project at Alabuga in Tatarstan was officially sealed at the end of August. The venture KP Bars Holdings B.V. was approved and finalised by the Cabinet of Ministers of Tatarstan. Investments into the project are expected to amount to €100 million, resulting in a PET plant capacity of 300,000 tpa. The jv has been created through KP Chemical of South Korea and the Tatarstan bank AK Bars. Technology for the project is still being evaluated from potential licensors Buhler, Uhde Inventa Fischer and Lurgi Zimmer. PTA supplies for the PET plant are expected to be delivered from KP Chemical's new plant to Alabuga in China.

**Shchekinoazot, Jan-Jun 2008**

Shchekinoazot increased caprolactam production by 2.9% in the first six months of 2008, with liquid caprolactam production seeing the largest rise. This followed a revamp of the plant in March, which also led to an increase in polyamide production at the subsidiary Khimvolokno. As a result, the consumption of caprolactam rose from 150 to 160 tons per day. Around 80% of liquid caprolactam produced by Shchekinoazot is processed at Khimvolokno. Despite the increase in production, costs for caprolactam have been reduced by lowering consumption of raw materials by 2% overall. At the same time electrical energy was reduced by 9% and steam by 13%.

Shchekinoazot is currently designing the installation of a cyclohexanol plant, which is being transferred from Strazske in Slovakia. The first equipment delivery from Strazske is expected by the middle of October, and will eventually provide a complete plant with a capacity of 130,000 tpa. Start-up is planned for the end of 2010.

The completion of the new methanol plant at Shchekinoazot is another significant event for the company, in addition to providing a boost to the local economy in the Tula region of European Russia. The new 450,000 tpa plant will replace the existing 360,000 tpa plant, and is being constructed by Haldor Topsoe.

In 2007, Shchekinoazot created a jv with the US company Hexion for the production of phenol and urea formaldehyde resins. The project is of importance to Shchekinoazot in order to provide an outlet for the formalin production. The phenol-formaldehyde plant is still under construction, with the design stage now complete and the installation of equipment underway. The plant size is 55,000 tpa and it is expected to be operational in 2010.

**Kazanorgsintez-polycarbonate start-up**

Kazanorgsintez started its polycarbonate plant officially on 3 September, with a capacity of 65,000 tpa. The first molecules of polycarbonate were produced by the end of August and full production is expected by the end of the year. Until now there has been no domestic production of polycarbonate, with consumers being solely dependent on imports from the West. In the first seven months of 2008, Russia imported 24,080 tons which was 7,410 tons higher than in the same period in 2007. For the whole of last year, imports totalled 33,870 tons and this the market is expanding quickly.

New processing plants have been started in September at both Kazan and Omsk, thus increasing the size of the domestic market. Kazanorgsintez has also started a new installation for the production of carbon dioxide for usage in the production of polycarbonate. With the start-up of polycarbonate, it means that Kazanorgsintez produces the full chain from phenol and acetone through to bisphenol A.

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### Plastics

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#### **Dzerzhinsk Orgsteklo-new MMA plant**

Dzerzhinsk Orgsteklo (DOS) is currently seeking a partner to invest around €250 million into the construction of a new MMA plant in which the aim is to make use of contemporary technologies. The capacity of the new plant is yet to be decided, but the company is considering options between 50-100,000 tpa. The old plant that has closed had a capacity of 22,500 tpa, whilst DOS also possesses capacity for extrusion is 10,000 tpa and block acrylic glass 11,000 tpa.

DOS closed its MMA plant in June due to the dramatic rise in raw material costs since the start of the year. The company also closed shops for the production of hydrocyanic acid, acetone cyanohydrin and ammonium sulphate. From September, DOS has started to secure imported raw materials for producing PMMA. The other Russian MMA producer, Saratovorgsintez, stopped production in May this year due to rising losses. In the period between December, 2007 until June 2008, the price for sulphuric acid rose from 1,200 roubles to 3,700 roubles per ton, whilst oleum rose from 1,600 roubles to 8,700 roubles per ton. Whilst the MMA price had doubled since the start of 2008, it was no where near enough to cover the costs of raw materials.

In the first half of 2008, DOS incurred a loss of 71.611 million roubles compared against a net profit of 30.489 million roubles in 2007. The main competitor for DOS is Destek, which was founded partly by Degussa. DOS has started a new unit that has expanded the capacity for extruded organic glass by 30%. This will meet the full demand of Russia and other countries in the CIS region. The market has been rising rapidly in recent years, with growth rates of around 20%. In 2007, the company signed a contract with Breyer for the supply of an additional extrusion line which was delivered in June 2008. In the first half of 2008, Russia consumed 10,300 tons of PMMA sheets which was 63% higher than in 2007. The largest source of imports of sheet plastics is Germany.

#### **Galogen-investment programme**

The investment programme for Perm based Galopolimer amounts to \$213 million over the next five years, including a transfer from mercury to membrane technology for the production of chlorine. The West Ural branch of Sberbank has become the financial partner for the investment programme of Galopolimer, under which it will invest 2.5 billion roubles into the development and expansion of the holding's production capacities.

Its main subsidiary Galogen at Perm is currently reconstructing its extrusion lines, where it produces products for export. Galogen is expanding rapidly and aims to become the market leader in Russia for fluorinated polymers. In the recent shutdown at Galogen, preparations were made for expanding capacities for hydrogen fluoride which is used both captively and by partner company Kirovo-Chipetskiy Chemical Combine. In 2007, Galopolimer produced 12,500 tons of fluorinated polymers, and more than 300,000 tons of inorganic products. In the first quarter of 2008, the company increased profits by 35%.

#### **Dow-Izolan**

Dow Izolan, the jv between Dow Chemical and Izolan, has seen the start of construction in the new state-of-the-art polyurethane systems facility at Vladimir. The new plant will help Dow Izolan to enhance its service to Russian customers serving the automotive, consumer, footwear, furniture, appliance and construction markets.

#### **New units start for polycarbonate sheets**

Kronos at Omsk started two lines in September for the production of sheets of cellular polycarbonate. The capacities of the two new lines total 10,000 tpa of cellular polycarbonate and 6,000 tpa of polypropylene. The new industrial lines were installed by the Italian company B.G. Plast. Sheets with such thickness as 16 mm are used in building objects.

The Kazan company Safplast opened a new plant on 11 September for the production of polycarbonate sheets. The capacity of the unit is 10,000 tpa, with the possibility to expand to 14,000 tpa at a later date. The plant will produce cellular (6,000 tpa) and monolithic sheets (4,000 tpa) from polycarbonate under the brand Novattro. The company expects to occupy around half of the Russian market, although expects to face competition from Kronos. Russia's other producers of polycarbonate sheets are small and have met a minor part of the domestic market, which was estimated at around 20,000 tpa for 2007 and growing at 20% per annum. In the first phase of operation, Safplast will buy polycarbonate from Bayer and BASF although as Kazanorgsintez has just started its polycarbonate plant a transition to this source may be considered.

#### Other plastics news

At the beginning of August Uralkhimplast started the production of polymer-covered resins, which are used in bore holes for the oil industry where the temperature drops to -35 C. About 8,000 domestic bore holes in Yakutia, Sakhalin, and West Siberia all require such resins. Uralkhimplast invested \$9 million in the project, which can produce up to 30,000 tpa.

In 2009, Penopleks will start a new plant for production of polystyrene insulation materials at Irkutsk. Investments into the project will comprise €10 million. The capacity of the plant will be 100,000 cubic metres of extruded polystyrene, which is smaller than the company's main plant at Kirishi of 500,000. In 2007, Penopleks produced 1.8 million cubic metres at its combined plants at Kirishi, Perm, Taganrog and Novosibirsk. By 2009, after the start-up of the new plants at Irkutsk and Kazakhstan total capacity will rise to 2.4 million cubic metres per annum. Penopleks exports around 20% of production, with its main focus on the domestic market which is growing in the range of 15%.

### Methanol & gas based chemicals

#### Metafrax

In the first half of 2008, Metafrax recorded good profit levels, with raw material cost rises being met with higher product prices. The most important cost factor, apart from raw materials, has been the change

Metafrax Raw Material Suppliers Q2 08		Supplier	Price Changes
Product	Supplier	Share	Q2 08 vs. Q2 07
Ammonia	SIBUR-Mineral Fertilisers	98%	+ 75%
Urea	Togliattiazot	18%	+46.5%
	Kuibyshevazot	42%	
	SIBUR-Mineral Fertilisers)	40%	
Caprolactam	Kuibyshevazot	29%	No change
	Azot Kemerovo	71%	
Acetaldehyde	Dzerzhinskhiimprom	12%	+26.5%
	Azot Nevinnomyssk	80%	
Caustic Soda	Kirovo-Chipetskiy CC	12%	+20.4%
	Sibmamagement (Sayansk)	88%	
Electricity	Permenergosbit	99.9%	No change
Natural gas	Permregiongaz	93.9%	+ 85%

prices for rail transportation. The company's geographical position in the North Urals means that it is completely dependent on rail for shipping products to customers or to ports for export. The main raw material suppliers for Metafrax are shown in the table above, whilst a summary of the position for Metafrax in its own product markets is shown below.

#### Yakutia project-OMZ

OMZ has finished the acquisition of 100% ownership in the Czech company Cheteng Engineering, after both companies announced the

Share of Metafrax Production in Russia	
Product	% 2007
Methanol	28
Formalin	69
Urea-formaldehyde resins	61
Pentaerythitol	83
Utopin	70

construction of a methanol and gas chemical complex in Yakutia. Cheteng Engineering and OMZ are both contractors.

Aside the construction of the 450,000 tpa methanol plant in Yakutia, OMZ is also involved in starting the terminal on the Sea of Azov. The Azov chemical export terminal, which started construction six years ago, is expected to become operative in September this year. Originally, the Azovproduct terminal was constructed to serve methanol exports from the Novocherkassk Plant of Synthetic

Products, which are currently sent through the Ukrainian ports. However, it has become apparent that shipping methanol via Azovproduct is too complicated and the terminal will not serving its original purpose. The Italian company Triboldi was involved in the project construction, with the total cost estimated at €26 million.

**Azot Kemerovo**

Azot at Kemerovo increased ammonia production by 4.4% in the first seven months of 2008 to 604,340 tons, whilst caprolactam production rose by 1.9% to 68,488 tons. Azot completed the reconstruction of the ammonia-2 plant last year, increasing capacity from 450,000 tpa to 560,000 tpa. In the caprolactam division, a new packaging line for crystalline product has been installed which has made it possible to expand on exports and reduce costs.

SIBUR and Yokokawa have created a technical centre at the Azot complex at Kemerovo, to follow similar centres at SIBUR-Neftekhim and Tobolsk-Neftekhim, and Salavatnefteorgsintez. The work of centre will help control of the production processes of enterprise. Azot has already been transferred from SIBUR-Holding into the structure SIBUR-Mineral Fertilisers. Capacity utilisation of the company last year was 94.5%, which was 4.4% higher than in 2006. Ammonium nitrate rose 18.3% to 905,954 tons, whilst caprolactam rose 0.5% to 117,000 tons. Urea production increased 12.8% to 531,000 tons, and dimethylformamide 18.3% to 4,100 tons.

**Russian government extends fertiliser duties**

The Russian government's decision not to introduce export quotas for mineral fertilisers, but to prolong the validity period of export duties is seen as moderately positive for Russian mineral fertiliser producers. Duties are considered far less significant for companies' profitability than quotas. Some producers feared at the start of September that the Russian government could double or triple export duties on mineral fertilisers if producers did not sell to domestic farmers at an acceptable price.

Export duties have been extended to late 2009 before a review will be made, but the government hopes that quotas will help to reduce exports by around 2 million tons which would double the availability on the domestic market. The Russian Ministry for Economic Development views the quotas as unfeasible, since Russian mineral fertiliser producers fully satisfy domestic demand, and growth of demand is limited solely by agricultural consumers' ability to purchase fertilisers. However, collective farms and agriculture in general in Russia are attracting greater interest from investment funds due to high world food prices, and the government considers it important not to impose restrictions on fertiliser availability.

**Mendeleevsk methanol & ammonia project**

The Russian Foreign Trade and Investment Bank (VEB) has approved a loan of \$350 million for the construction of the methanol and ammonia plant at Mendeleevsk in Tatarstan. The total cost of the project is \$972.7 million and is to be based at the fertiliser producer Mendeleevskazot. The complex will have the capacity to produce 717,000 tpa of ammonia, 230,000 tpa of methanol and 717,000 tpa of urea. Haldor Topsoe (Denmark) is responsible for the construction of the complex, together with the Japanese company Sojitz Corporation.

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**Chlorine chemicals**

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**Khimprom-Volgograd**

Khimprom at Volgograd recorded a net loss of 57.9 million roubles in the first half of the year, which was way down on the same period in 2007. Rising costs have affected profit margins, whilst energy and steam have risen 27.6% and 15.4% respectively. Raw material prices have even been higher, as illustrated in the table opposite. The majority of Khimprom's raw materials are purchased from domestic sources, whilst most of the sales go to the domestic and CIS markets. Whilst costs have risen, product prices charged by Khimprom have also climbed against 2007 with PVC rising 24.7%, calcium carbide by 52.7%, chloroparaffins by 57.3% and chloroform by 21.8%. Khimprom interprets its losses this year down primarily to financing problems which have prevented a constant flow of raw materials, whilst one of the ongoing problems for the company is the deterioration of equipment resulting in occasional stoppages.

**Khimprom Volgograd, Raw Material Changes (Q2 08 vs. Q2 07)**

<b>Product</b>	<b>Percentage</b>
Anthracite	76.5
Phosphoric Acid	51.7
VCM	57.0
LDPE	22.4
Acetic acid?	24.1
Butanols	14.6
Sulphur?	389.8
Vinyl Acetate	39.7
Coke	65.0
Methanol	24.4
Oleum	269.3



**Russian caustic soda market**

Russian caustic soda production was 1% down in the first seven months of 2008, totalling 754,900 tons. Of the ten caustic producers in Russia, only three produce more than 150,000 tpa. These include Kaustik at Sterlitamak, Kaustik at Volgograd and Sayanskkhimplast. On the Russian market, domestic producers shipped 394,000 tons of liquid caustic in the first seven months of 2008, which was an estimated 0.5% higher than in 2007. Sayanskkhimplast increased deliveries by 5.2 %, to 90,700 tons, Kaustik (Sterlitamak) by 6.5 %, to 65,600 tons, whilst Usolyekhimprom increased by 22%, to 51,100 tons. Imports into Russia are small, with only 9,400 tons imported in the first seven months of 2008 or 14.5% up on 2007. The main source of imports is China. Exports from Russia outside of the CIS are also relatively small, with 23,600 tons shipped overseas in the period January-July. In the CIS however, exports to Ukraine, Uzbekistan and Kazakhstan are more significant and the total of liquid caustic exports in the first seven months totalled 112,500 tons. Caustic soda in solid form saw an increase of 10.3% in the first seven months of 2008, to 19,300 tons. Solid caustic sales are divided between Kaustik at Volgograd and Kaustik at Sterlitamak.

**New sodium hypochlorite planned for Moscow area**

Wassertechnik Essen GmbH, a subsidiary of the Austrian company EVN AG, has commissioned Chemieanlagenbau Chemnitz GmbH to plan and construct a sodium hypochlorite plant based on chlorine membrane electrolysis. The design capacity of the plant comprises 60,000 tpa and will be located at Moscow, with commissioning planned for 2011. The aim of the project is to replace the chlorine gas used to treat drinking water with sodium hypochlorite, which could be a major contribution in safeguarding the supply of quality drinking water in Moscow. After the successful commissioning of the first chlorine membrane electrolysis plant in Russia at Sayanskkhimplast, and another project under construction at Berezniki, this will represent the third plant for CAC in Russia.

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**Other products**

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**Korund-new unit for hydrocyanic acid**

Korund at Dzerzhinsk plans to invest about €100 million into the production of hydrocyanic acid. The new plant is expected to be up and running by 2010, and will replace the hydrocyanic acid that was previously bought from Dzerzhinsk Orgsteklo (DOS). DOS stopped production of hydrocyanic acid in June this year, together with MMA. The termination of deliveries of hydrocyanic acid from DOS has meant that Korund has had to start imports, as it was the only Russian plant operating.

**Synthetic rubber news**

Voronezhskintezkavkuk increased profits by 24% in the first half of 2008, on the back of strong rubber sales. Profitability for all grades rubber has reached 11%. The plant has started introducing equipment for the expansion of thermoelastomer capacity from 27,000 tpa to 35,000 tpa. In the first eight months of 2008, Voronezhskintezkavkuk produced a total of 154,069 tons of synthetic rubber, running at an average profitability of 20%.

Nizhnegorod Linoleum is to invest \$3.8 million in the production of ethylene-propylene-diene monomer (EPDM) in order to expand the output of rubber products for the use in the automotive industry. The new plant will be built in the industrial zone of Kstovo.

Pirelli and Rostekhnologi (Russian Technologies State Corporation) have reached agreement to set up a JV to construct a tyre plant, with a capacity of 4.2 million pieces per annum. Togliattikavkuk will provide the synthetic rubber for the planned unit.

Amtel-Vredestein halted production at its Kirov plant in August due to a working capital shortage. The Dutch-based company, which has had debt refinancing problems, said it would resume production when it receives a second tranche of a stabilization loan to be provided by SIBUR-Russian Tyres. Amtel-Vredestein, which operates production facilities in Voronezh and Kirov, in addition to its Dutch affiliate Vredestein Banden, said it was taking steps to ensure that the Kirov plant will return to normal operating rates and inventory levels as soon as possible. Amtel-Vredestein said shareholders agreed to a bid from SIBUR-Russian Tyres, leading to a reverse takeover. Amtel's owners agreed to swap about 159 million new shares for all of SIBUR-Russian Tyres. SIBUR-Russian Tyres leading position in truck and agro tyres segments will be complemented by Amtel's domination in passenger car and light truck tyres.

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**Ukraine**

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**Oil refining & gas condensate processing declines in Ukraine**

The volume of oil refining and gas condensate in Ukraine for the period January-August this year totalled 7.438 million tons, which was 24.1% lower than in 2007. Domestic sources of crude accounted for 35.2% of total, with 60.2% provided from Russian imports. This year imports from Russia have declined due to higher prices and this is the main reason behind the fall in refining levels.

**Karpatneftekhim faces further short term problems**

In order to become independent in Ukraine, Karpatneftekhim is constructing its own power source which will provide sufficient steam for the petrochemical complex. This power station should be operational by Q1 2010. A new company LUKOIL Energy and Gaz Kalush has been created to manage the project. The new PVC plant under construction at Kalush is expected to start in 2012

**Ukrainian Chemical  
Production  
(unit-kilo tons)**

<b>Product</b>	<b>Jan-Aug 08</b>
Acetic Acid	108,169
Adipic Acid	20,537
Benzene -95%	167,948
Benzene +95%	124,146
Caprolactam	38,855
Caustic Soda	62,900
Ethylene	85,030
Formaldehyde	56,076
Methanol	120,580
Polyethylene	48,412
Polypropylene	64,341
Polystyrene	27,157
Polyvinyl Acetate	6,857
Propylene	37,759
Soda Ash	655,100
Titanium Dioxide	93,193
Toluene	4,610

**EBRD to support Ukrainian chemical producers in relation to REACH**

The EBRD has launched a series of training programmes and workshops across Ukraine to help the country's chemical industry understand the impact of REACH. The REACH regulation requires all companies exporting chemicals, mixtures of chemicals or products that release chemicals to 'pre-register' their substances with the European Chemicals Agency in Finland by 30 November 2008, or to have confirmed that their European customers have done so. The training programme began with a high-level seminar for industry leaders, ministries and trade associations in Kiev on 22 September.

**Other news**

OstChem Holding AG has secured credits from Commerzbank AG for building a new plant for the production of sulphuric acid at Crimean Titan. The credit will comprise €31 million at an overall project cost of €55 million. The remaining €24 million will be invested from OstChem's own resources. The new plant will have a capacity of 600,000 tpa, and will increase the total capacity from Crimean Titan to around 900,000 tpa by 2011. As a result, OstChem will become the largest producer of sulphuric acid in Ukraine with

around 50% of total capacity. Additional sulphuric acid is required to meet the demand for increased production of titanium dioxide by Crimean Titan.

In the first seven months of 2008, Sumykhimprom increased sulphuric acid production by 3.6% to 268,000 tons. Other products included phosphoric acid with 44,400 tons and 24,860 tons of titanium dioxide, both of which were 0.6% up on 2007.

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**Belarus**

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**US government eases sanctions on two Belarussian chemical companies**

The US Administration has suspended some economic sanctions against Belarus, which will help Lakokraska at Lida and Polotsk Steklovolokno. The move follows the release of several opposition activists by Belarusian authorities. The improved conditions will allow the completion of the revamp of the phthalic anhydride plant for Lakokraska at Lida. The automation system will be put by Honeywell, whilst the equipment for the new phthalic line had been blocked by the US Ministry of Finance. This will now be shipped to Belarus and installed. Glass fibre producer Polotsk- Steklovolokno is now expected to renew deliveries to the USA. About 14-15% of production is sold on the domestic market, and thus the company is heavily reliant on exports.

**Belarussian petrochemical equity**

LUKoil and Rosneft have revived their interest in acquiring Naftan and Polymir, and may need to compete against one another to secure the equity stakes from Belarussian government. The Belarussian government has stated that the winner in securing a controlling stake in Nafta or Polymir is likely to be the company that provides the best investment programme. Other important factors are that the new owner should have sufficient raw material surpluses to be able to maintain operating rates at the Naftan refinery and the Polymir petrochemical

complex. Ideally, the Belarussian government would like to sell Naftan and Polymir in one package to maintain the unity between the two companies and to promote the process of integration from refining to petrochemicals and plastics.

Polymir has devised an investment programme for expanding its capacities in olefins and polyolefins up to 2011-2012, including increases in other petrochemicals. The capacity changes planned by Polimir include 400,000 tpa of ethylene, 150,000 tpa of HDPE, 150,000 tpa of polypropylene and 105,000 tpa of MEG.

#### **Moglievkhimvolokno-PET**

PET consumption has grown quickly in Belarus over the past few years, rising 8% in 2007 over 2006 and in

<b>Belarussian PET Supply/Demand Balance (kilo tons)</b>				
	<b>H1 08</b>	<b>H1 07</b>	<b>2007</b>	<b>2006</b>
Production	118.0	101.7	204.0	172.9
Export	29.9	29.0	58.0	53.9
Import	1.0	0.6	2.0	3.6
Market Balance	90.0	73.8	148.0	114.7

the first half of 2008 by 22%. Imports are very small, with Moglievkhimvolokno providing nearly all of the production for the domestic market. Whilst demand has risen at home, the increase in production at Mogliev has enabled exports of PET to keep pace with previous years. Until now, Russia has represented the largest market

for Belarussian PET but with the start-up of the second line at Polief export opportunities are expected by Moglievkhimvolokno to dwindle. As a result, the company foresees a shift towards Ukraine where the demand for PET is rising and there is an absence of domestic production.

<b>Belarussian Chemical Production (unit kilo tons)</b>		
<b>Fertilisers</b>	<b>Jan-Jul 08</b>	<b>Jan-Jul 07</b>
Potassium Fertilisers	3160	3062
Nitrogen Fertilisers	452	452
Phos Fertilisers	94	91
Ammonia	602	614
Sulphuric Acid	488	450
<b>Petrochemicals</b>	<b>Jan-Jul 08</b>	<b>Jan-Jul 07</b>
Ethylene	89	81
Benzene	60	61
Caprolactam	77	71
Phthalic Anhydride	10	15
Polyethylene	84	80
PET	134	120

#### **Belarussian chemical production**

In the period January-July 2008, Belarus increased chemical production by 2.5% over the same period in 2007. Benzene production was unchanged at 60,500 tons, but caprolactam rose 9% to 76,770 tons. Ethylene and polyethylene, produced at Polotsk, increased by 9% and 6% respectively. The largest increase was seen in PET production at Moglievkhimvolokno, which rose 12% to 134,200 tons for the first seven months of the year. At the same time, fibre production fell 1.2% to 129,700 tons.

#### **Grodno Azot, Jan-Aug 2008**

In the first eight months of 2008 Azot at Grodno increased turnover by 16.3% over 2007. Demand has been strongest this year for methanol and caprolactam, with production increases of 55.5% and 9.2% respectively. Also this year, the company has produced 56,298 tons of biodiesel fuel after start up at the end of 2007.

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### **Central Asia/Transcaucasus**

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#### **Azerbaijan, Jan-Jul 2008**

In the first seven months of 2008 chemical production revenues in Azerbaijan rose 57.8% against the same period in 2007. The fall in chemical production in Azerbaijan in 2007 was attributed to problems at Azerkhiymya, which was forced to stop production through tax problems and the rise in raw material costs. In physical terms, caustic soda production increased 67.7% in the first seven months of 2008, to 15,200 tons, propylene by 59.1% to 20,900 tons and polyethylene 64.8% to 33,800 tons. Isopropanol increased 43.7% to 12,200 tons.

Russian military actions in Georgia and recognition of independence of Abkhazia and South Ossetia could put a break on economic development in the Caucasus. Azerbaijan is already being affected as an innocent party in the dispute and concern is that if Russia prevents the Georgian port of Poti from operating, what impact will that have on its oil industry. Drilling equipment for the oil industry in Azerbaijan nearly all comes through Poti, so it is of vital importance. For exports of oil Azerbaijan can choose between the Baku-Tbilisi-Ceyhan (BTC), Baku-Supsa and Baku-Novorossiysk pipelines.

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**Kazakhstan**

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**Kazakhstan Petrochemical Industries-LyondellBasell**

Kazakhstan Petrochemical Industries, in which LyondellBasell is holding a minority interest, has selected LyondellBasell's polyethylene (PE) and polypropylene (PP) technologies for three new plants that will have a combined capacity of 1.3 million tpa of polyolefins. The plants will be constructed at the petrochemical complex at Karabatan in Kazakhstan. The complex will include a 400,000 tpa unit based on Spherilene technology, a 400,000 tpa LDPE unit based on Lupotech T process technology and a 500,000 tpa PP plant based on Spherizone technology. The three world-scale plants are scheduled for start up in 2013, and will aim to supply the markets of Central Asia and Russia.

**Relevant Currencies**

(Czech crown. Kc. \$1 = 16.650. €1 = 23.970): (Hungarian Forint. Ft. \$1 = 166.612. €1 = 240.410): (Polish zloty. zł. \$2.297. €1 = 3.2992): (Romanian New Lei. \$1 = 2.5372. €1 = 3.6725). (Ukrainian hryvnia. \$1 = 4.9850. €1 = 7.2150): (Rus rouble. \$1 = 25.366. €1 = 36.716)

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