

CIREC

MONTHLY NEWS

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

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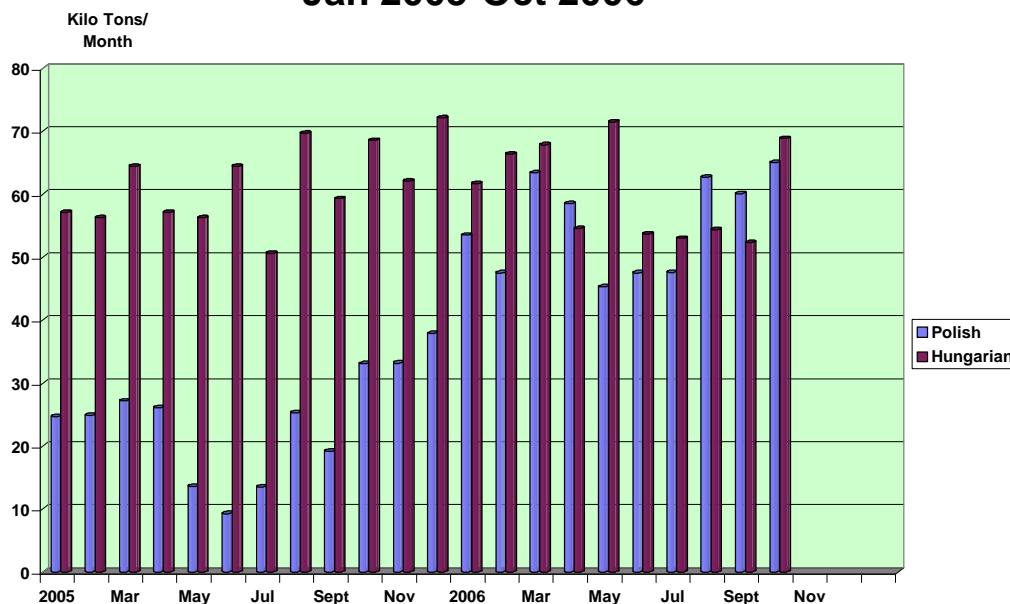
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Features from this issue

- ? Nizhnekamskneftekhim and the Association of Polymer Processing of Tatarstan have been in close contact to see how co-operation can be enhanced in the industrial zone at Nizhnekamsk. Questions are being examined about not only the production of polymers at Nizhnekamskneftekhim, but also methods of their sale. The main processors include Kamplast, Polymatic and Kama-Flex.
- ? Rompetrol Petrochemicals, which is part of the Rompetrol Group NV (TRG), expects turnover to grow by 40% in 2007 compared with 2006. This follows modernisation of the LDPE unit, and of the construction of a marine liquefied gas terminal. Both projects accounted for investments worth €25 million.
- ? Evrokhim opened its new Tankchem terminal at Sillamae in December, with a capacity of 1 million tpa. The terminal is designed to transport 700,000 tpa of methanol, and 300,000 tpa of acetic acid, mono and diethylene glycol.
- ? Renova Orgsintez has purchased 100% of shares in Neftekhimya at Novokuibyshevsk for \$70 million. The aims are to now invest around \$300 million in projects in the Samara region, with the goal of generating sales of approximately \$1 billion per year.
- ? Biakspen, in the Nizhniy Novgorod region, is planning to double its BOPP capacity from 17,000 tpa to 34,000 tpa, after reconstruction.
- ? The contract between SIBUR and Solvay to construct a new PVC plant in Russia could soon be finalised, possibly in the early part of 2007. Reports suggest that Solvay plans to invest around \$1 billion in the construction of a new VCM-PVC complex near Kstovo, in immediate proximity to the source of ethylene.
- ? Benzene production in Russia dropped sharply in the third quarter of 2006, due mostly to cracker outages at Salavat, Nizhnekamsk and most of all Budyennovsk. Of the benzene producers from the crackers only SIBUR-Neftekhim exceeded production volumes from the second quarter in 2006.
- ? LUKoil has been in discussions with foreign engineering groups regarding an increase in PTA and PET capacity at Blagoveshchensk. The aim is to double the existing capacity of 230,000 tpa for PTA, and also the 120,000 tpa of the forthcoming PET plant which is expected on stream soon.
- ? The future of the Russian petrochemical industry came under close examination of the government in December, being the latest industrial sector to receive attention from the top. Clearly, the rapid pace of developments has created a number of side issues.
- ? The Ukrainian Ministry of Industrial Policy is reviewing the prospects of restarting the idle LDPE plant at Severodonetsk. A minimal cost estimation for reviving production has been placed at €50 million, although most of that would be targeted on the idle ethylene plant at nearby Lisichansk.

CENTRAL & SOUTH EAST EUROPE

Petrochemicals

Polish & Hungarian Polyolefin Production
Jan 2005-Oct 2006**Hungarian vs. Polish Polyolefin Production Jan-Oct 2006**

The above graphic compares polyolefin production between Hungary and Poland, or more specifically TVK and Basell Orlen Polyolefins (BOP). Polish polyolefin production at Plock surpassed Hungarian polyolefin production at Tiszaújváros for the first time on a monthly basis in August 2006. TVK's production of polyethylene and polypropylene still remains much higher for the first ten months of 2006, but the gap is narrowing as BOP expands its production volumes.

If there is an advantage in terms of size, MOL has already incorporated Slovnaft along with TVK into its petrochemical division making it the largest single petrochemical company in Central Europe. However, the Orlen group is starting to challenge that position with interests in BOP and the integration of Unipetrol into its structure. PKN Orlen plans large-scale investment into aromatics, which in time will make it a broader petrochemical group than MOL.

Rompetrol-expansion plans

Rompetrol Petrochemicals, which is part of the Rompetrol Group NV (TRG), expects turnover to grow by 40% in 2007 compared with 2006. This follows modernisation of the LDPE unit, and of the construction of a marine liquefied gas terminal. Both projects accounted for investments worth €25 million. The company will produce up to 60,000 tpa of LDPE. The investment further included the construction of the only marine liquefied gas terminal in Romania, which allows supply of ethylene delivered by sea. An additional greenfield investment was aimed at building a new automatic packaging installation serving the LDPE plant.

Restarting the LDPE unit is the first step of an extensive investment plan worth €320 million, intended to develop Rompetrol Petrochemicals over the next three years. The LDPE installation had been mothballed in 1996 due to lack of ethylene feedstock. Rominerv, TRG's general contractor, restarted operations in the second quarter of 2005 by overhauling and modernising the LDPE components (including compressors, the reactor, and extruder) and adjacent installations (cryogenic storage facility, warehouses).

**Romanian Chemical Production
Unit-Kilo Tons**

Product	2005	2004
Acrylonitrile	82.0	83.0
Alkyd resins	9.0	8.4
Ammonia	1400.0	1422.0
Benzene	48.5	49.0
Caustic Soda	409.0	414.0
Ethylene	181.0	176.0
Methanol	600.0	613.0
OXO alcohols	22.0	32.0
Polyethylene	84.0	84.0
Propylene	235.0	237.0
PVC	232.0	233.9
Soda Ash	400.0	398.0
Synthetic Rubber	14.0	12.0
Toluene	13.0	13.0
Urea-formald resins	24.0	22.4
Xylenes	4.0	4.0

The main ethylene supplier for the LDPE installation is Dow Chemicals. In April 2006, Rompetrol Petrochemicals entered a partnership agreement with Dow for the next 14 years, a duration comprising both the modernisation programme and subsequent development of the TRG petrochemical plant.

Rompetrol is also due to start operating an HDPE plant and a pyrolysis installation in March 2007 and March 2008 respectively, which involves total investments worth approximately €80 million. In 2005, polyethylene consumption in Romania amounted to around 90,000 tons, and in the first half of 2006 consumption reached a total of 55,000 tons. Growth is rising at around 8-10% per annum.

When the investment programme is finalised, the plan is that it will leave the company with a production capacity of 500,000 tpa of polymers and 200,000 tpa of ethylene.

Investment plans also include a new PET unit, set to cost €94.4 million, and by 2010 a polypropylene plant, to cost around €120 million.

Rompetrol Petrochemicals generated turnover worth above €90 million in the first nine months of 2006, up 20% compared to 2005. The EBITDA reached €5.1 million, 33% higher.

Romanian ethylene production

Ethylene production in Romania has changed little for the past decade, usually ranging between 160-180,000 tpa. As the current sole producer of ethylene, Arpechim's chief problem is that its future depends on Oltchim. Oltchim's consumption of ethylene for the production of VCM helps to maintain high utilisation rates at Arpechim, but privatisation could affect the balance.

Arpechim's owner OMV seems more focused on Petrobrazi, where it plans to invest up to €1 billion prior to 2010 in order to create the most modern refinery in South-East Europe. Around €100 million will be invested in Arpechim, but as with Doljchim Craiova it is not considered a core asset. OMV would have the legal right to sell Arpechim after 2009. Expansion plans have been outlined for Arpechim in recent years without success, and it now seems that by 2010 Rompetrol could assume the position of dominant producer of ethylene and petrochemicals in Romania

TVK-Aspen

In late 2006, TVK decided to implement Aspen technology at its two major new ethylene and polyethylene plants. These applications will enable TVK to improve the financial returns from the two plants by maximizing production, increasing yields, reducing waste material and improving product quality. In particular, the new Mitsui HDPE plant is being optimised using the aspenONE Advanced Process Control for Polymers application.

Intermediates/Chlorine

BorsodChem-Permira

Permira Advisers LLP has taken control of BorsodChem and boosted its stake in the company to 92.9% through a public purchase offer. The cost of the acquisition is estimated at more than \$1.1 billion.

Permira, which is investing in East Europe for the first time, is backing BorsodChem management's plans to invest €500 million to double capacity by 2011. Permira wants to benefit from growing demand for plastics in the region. Permira is buying a 52% stake in from Firthlione Ltd and Vienna Capital Partners (VCP). VCP will remain a 13% owner in the company after the buyout.

Chlorine market news

Zupa at Krusevac confirmed the signature of the contract with Brenntag, with an annual contract value of €5 million. Brenntag will buyout Zupa's full production of potassium chloride shells and solvents, while Zupa will continue selling independently its chlorine-based products manufactured at the plant.

In the past year, Zupa succeeded in restarting production, paid all overdue wages and reduced the company's debt from €11 million to €2 million. Zupa is also facing a repeated privatisation attempt, after the previous sale contract was cancelled.

Chimcomplex Borzesti posted a net profit worth around €0.52 million in the third quarter of 2006, up 30% against 2005. The company's turnover in the July-September period increased 26%, reaching €11.9 million. Chimcomplex's business in the first nine months of the year amounted to €36.8 million against €28.1 million. The good results were generated by favourable circumstances on the international market. Shutdowns allowed the company to increase export sales.

The stake of the state in Oltchim, a company whose annual business stands at about €500 million, has fallen from 95.7% to 53.2%, as a result of a court ruling. The state should theoretically incur an approximately €340 million loss due to the ruling. In exchange for the reduction of the value of the shares, the state has secured the debts owed to Oltchim, worth €71 million. The management of the state's interest in Oltchim was

transferred from the Ministry of Economy to the State Assets Resolution Authority (AVAS) at a time when the parties in the governing alliance are fighting over whether the companies now managed by the Ministry should or should not be transferred to the AVAS.

Sviloza-capacity increase

Sviloza at Svishtov in Bulgaria, which produces cellulose and synthetic fibres, has stated that it plans to triple its production capacity and retool production technologies. The project entails a capital raise from 6.6

million leva to 39.9 million leva through the issue of 33,290,170 new shares with a nominal and issue price of one leva each.

The minimum subscription target is set at 25 million new shares. Initially, Sviloza was aiming only to double its production capacity to 110,000 tons a year but further studies showed that target could be exceeded. The project is co-funded by the EBRD (€18 million) and the Nordic Investment Bank (€10 million).

Nokian decides against Czech plant

Nokian Tyres has decided against investing in a Kc 9 billion (€321 billion) plant at Valašské Mezíříčí, Central Moravia. Nokian's decision came the same time as it chose to expand its Russian production by 4 million tyres annually with a €40 million investment in a plant near St Petersburg. The Czech plant would have employed 900 people and produced 8 million tyres per year. The Czech site was one of many options the tyre maker examined, although local residents and environmental groups opposed its plans. Valašské Mezíříčí already has two pollution-generating plants: **chemical** company Deza and rubber producer CS Cabot.

Evrokhim chemical terminal

Evrokhim opened its new Tankchem terminal at Sillamae in December, with a capacity of 1 million tpa. The terminal is designed to transport 700,000 tpa of methanol, and 300,000 tpa of acetic acid, mono and diethylene glycol. Investments in the terminal cost €12 million, with another €6 million earmarked for construction of the second stage which should be completed in the middle of 2007. The capacity of the second line will comprise 500,000 tons, being oriented towards urea and ammonia shipments.

In addition to shipping around 250,000 tons of its own products, Evrokhim hopes to ship chemicals from other producers, such as Shchekinoazot, Metafrax, and also SIBUR-Neftekhim. Until the opening of the Tankchem terminal exports have depended on the Finnish ports (Hamina and Kotka), but the new terminal will help Evrokhim to optimise costs for transportation in addition to widening the capability for geographical distribution. The terminal is part of the free economic zone at Sillamae. The terminal is equipped with warehouse capacity to store 37,000 cubic metres of methanol and 6,000 cubic metres for other products.

Columbian Chemicals-carbon black

Columbian Chemicals is to expand its operations at its Columbian Tiszai Carbon, Ltd., plant at Tiszaújváros. The expansion includes the addition of tread and carcass capacity, increasing the facility's production capacity by over 50% to 90,000-105,000 tpa. Detailed engineering plans are underway, and construction will begin during the first quarter of 2007 and is scheduled to be completed by 2008.

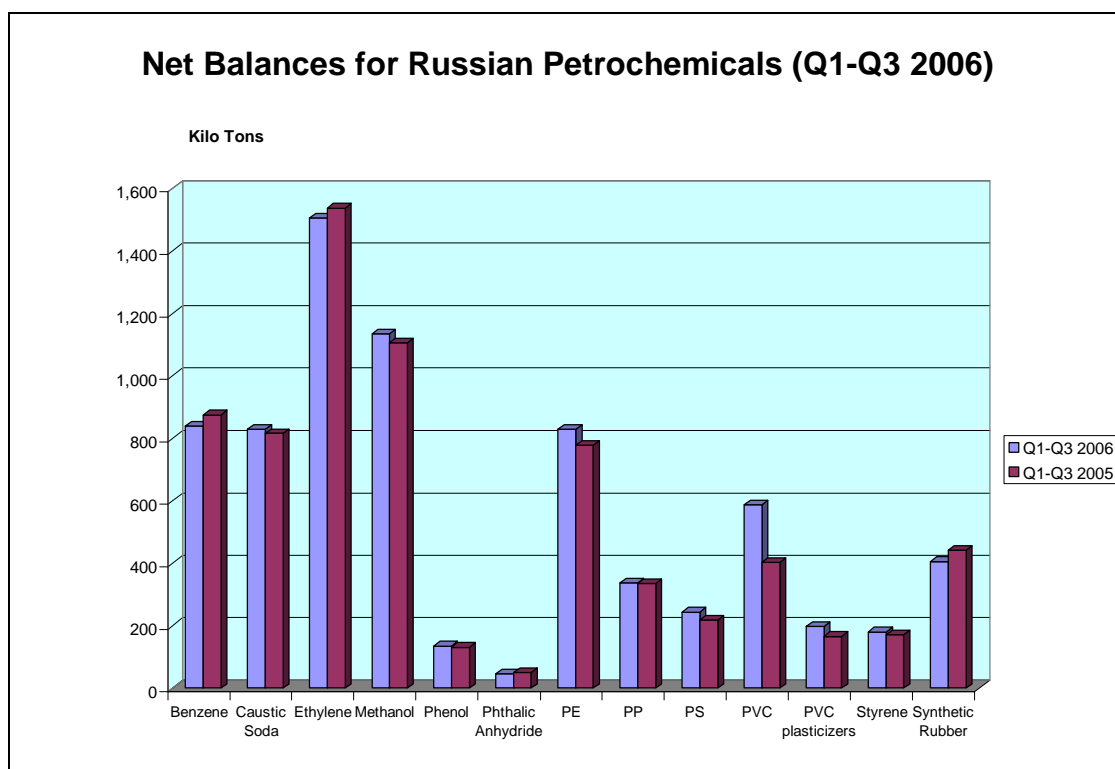
EURASIA, COMMONWEALTH OF INDEPENDENT STATES

Russian Gov't Chemical Strategy - 2015

The future of the Russian petrochemical industry came under close examination of the government in December, being the latest industrial sector to receive attention from the top. Clearly, the rapid pace of developments has created a number of side issues. As a result, together with the Ministry of Economy the Ministry of Energy has developed a programme for the Strategy of the Petrochemical Industry for the period up to 2015. The main aspects of the programme include the following:

- ✍ Ministry of Energy has already identified the needs of a growing chemical sector
- ✍ Co-operation between the regions and co-ordination of policy with the federal government
- ✍ Create an environment conducive to investment, such as reducing taxes, providing other means of incentive
- ✍ Investing in infrastructure such as rail and road to improve transport links

In 2005, the contribution of the chemical sector to Russian GDP was 1.6%, whilst amounting to 10.4% of total industrial production. The industry's progress has been helped by being largely grouped into a number of important holding companies such as SIBUR-Holding, Evrokhim, LUKoil-Neftekhim, Renova-Orgsintez, Nitol and Nikos. These groups produce a substantial share of total chemical production in Russia, and are responsible for the majority of investment decisions. The government recognises the role these companies play and has no desire to interfere with decisions, but feels it can play a role in creating an environment conducive to investment.



Although there is now a good momentum in investment activity in Russian petrochemicals, the fact remains that the sums invested in 2005 were only 47% of the total invested in 1991. A lack of capital has thus restricted the modernisation of existing facilities and construction of new plants.

Russian Trade Q1-Q3 2006 (Unit-Kilo Tons)		
Russian Chemical Exports		
Product	Q1-Q3 2006	Q1-Q3 2005
Acetone	21.7	42.8
Ammonia	2,719.8	2,268
Benzene	4	18
Caprolactam	157	129
Carbon Black	217	259
Caustic Soda	106	122
Methanol	1,095	1,055
Phenol	32	49
PE	124	111
PP	19	17
PS	45	22
PVC	15	77
Soda Ash	409	396
Styrene	251	261
Synthetic Fibres	34	39
Synthetic Rubber	504	448
Russian Chemical Imports		
Product	Q1-Q3 2006	Q1-Q3 2005
PE	124	111
PP	117	91
PS	96	77
PVC	159	50
Styrene	251	261
Synthetic Fibres	77	79

Investment activity depends on a large extent on the development of new sources of hydrocarbon feedstock, particularly ethane and to a lesser extent naphtha, and developing new forms of production for benzene and propylene. More general factors such as infrastructure, such as transport links and energy, can also impose limitations on the ability to make proper use of such investments.

One aspect the government is trying to address is the lack of integration, at least compared with other countries, between refining and petrochemicals. A rough estimate was made that for every one ton of refined oil in Russia only 11 kg of petrochemicals are produced, which compares in 28 kg in the USA, 35 kg in Japan and 42 kg in Germany.

Since 2000, the volume of the imports of chemical and petrochemical production has grown annually. In the absence of domestic capacity expansions, the Russian market has seen product deliveries from Europe and Asia for usage in areas such as plastics and paints, etc.

A Russian government initiative to create special economic zones (SEZ) is expected to help the chemical industry. Companies seeking to invest in the

SEZs will benefit from lower taxes and duties. The most advanced plans in the chemical and petrochemical sectors are for SEZs at Tomsk and Elabuga.

The unit was developed by experts at Tomskneftekhim by SIBUR-Holding and a local catalysts institute. A plant producing biaxially oriented PS film has been established at the Elabuga SEZ, processing raw materials from NKNK. Other plants are being established at the SEZs. Establishing the SEZs will give added impetus to the chemical industry, alerting the global business community to new investment opportunities in Russia, RCU says. Government initiatives in the fertilizers sector are also presenting growth opportunities.

Petrochemicals

Nizhnekamskneftekhim ethylene expansion

Ethylene production at Nizhnekamskneftekhim increased by 15,000 tons in 2006 over 2005, achieving the company's highest level since production started in 1977. Progress is continuing with the gradual step by step expansion of capacity to 600,000 tpa. In 2006, the company replaced equipment for the production of propylene, in addition to introducing a new system for control and accident-prevention protection. The company is currently installing a new SRT-VI furnace.

Nizhnekamskneftekhim is starting to consider its position beyond the ongoing ethylene expansion to 600,000 tpa, with the aim of increasing capacity to over 1 million tpa coupled with further expansions in polyolefins. Other long-term plans for investment in the 2012-2015 periods include increases in synthetic rubber capacity. Investments amount to 130-140 billion roubles. By 2010, the company hopes to have increased turnover to 65 billion roubles, with gross profits rising to 15 billion.

In 2007, Nizhnekamskneftekhim plans to introduce a new styrene-butadiene rubber plant with a capacity of 50,000 tpa, and also to increase the butyl and HBR plants to a total of 120,000 tpa. The new HDPE plant will come onstream in 2008 with a capacity of 230,000 tpa. This will be followed in 2009 with the completion of the ethylene expansion to 600,000 tpa.

Renova Orgsintez, Samara projects

Renova Orgsintez has purchased 100% of shares in Neftekhimya at Novokuibyshevsk for \$70 million. The aims are to now invest around \$300 million in projects in the Samara region, with the goal of generating sales of approximately \$1 billion per year. The new complex will be incorporated with the Promsintez plant at Chapayevsk and Volgokhimprom, both located in the vicinity. It is planned to create an ethylene pipeline between the plants, facilitating the production of PVC. Finance for investments will come largely from Vneshtorgbank and Petrocommerz, besides Renova's own funds.

Renova-Orgsintez Investment Plans**Samara Region**

Product	Capacity (ktpa)
Ethylene	200
Propylene	60
Benzene	100
Toluene	40
Nitrobenzene	80
Aniline	40
Polyisocyanates	60
Chlorine	n/a
PVC	400?

For these project ideas to go ahead it will first be necessary to find common ground with the other Novokuibyshevsk chemical company Samaraorgsintez. Neftekhimya was created in 2000 on the base of the former Samara Plant of Synthetic Alcohol and capacity includes 50,000 tpa of ethanol. At the same time of the transaction for Neftekhimya, Renova-Orgsintez concluded agreements for the purchase of ethane from Zaykinsk in the Orenburg area, which is controlled by TNK-BP. Agreements were also reached with YUKOS for feedstock supplies from Neftegorskiy and Otradrnskiy. The Volgokhimprom site is located 17 km from Novokuibyshevsk. This is an idle area of production at the moment, but it does have the advantages of a mooring outlet to the Volga. Salt

deposits are located a further 25 km from the plant, which will act as the main source of brine. At the same time, Renova-Orgsintez aims to solve the problems of brine deliveries to its subsidiary Khimprom at Volgograd. Khimprom has encountered problems in the past year from its traditional supplier and neighbour Kaustik.

**Major producers of petrochemicals in Russia,
based on physical capacity**

Year 2006	Year 2011 estimate
1. SIBUR-Holding	1. SIBUR-Holding
2. NKNK	2. Kazanorgsintez
3. Salavatnefteorgsintez	3. NKNK
4. LUKoil-Neftekhim	4. Salavatnefteorgsintez
5. Kazanorgsintez	5. Renova-Orgsintez

Volgokhimprom will naturally focus on chlorine chain products, such as caustic soda including the needs of the project at Komi-Aluminium. PVC capacity was initially planned at 400,000 tpa at Volgograd, but this now seems more likely to be based in the Samara region. An ethylene plant of 200,000 tpa is planned at Novokuibyshevsk, together with propylene (60,000 tpa), benzene with 100,000 tpa and toluene with 20-40,000 tpa. The benzene will be used for

the production of nitrobenzene by Promsintez at Chapayevsk, leading to 50,000 tpa of aniline and 100,000 tpa of isocyanates. Dinitrotoluene will also be produced with a capacity of 75,000 tpa.

The most important task for these plans to progress is to find an agreement with Volgokhimprom and also to settle any problems with Samaraorgsintez. Assuming the plans for investment go ahead, it would propel Renova-Orgsintez into the top five companies in Russia for the production of organic chemicals and polymers, as listed below:

PVC-Chlorine

SIBUR-Holding, PVC project

The contract between SIBUR and Solvay to construct a new PVC plant in Russia could soon be finalised, possibly in the early part of 2007. Reports suggest that Solvay plans to invest around \$1 billion in the construction of a new VCM-PVC complex near Kstovo, in immediate proximity to the source of ethylene.

The aim is to construct a plant with a capacity of 330,000 tpa of PVC with a future plan to raise capacity to 500,000 tpa. One of the main hurdles for the project has been to convince the local authorities in the Nizhny Novgorod region that the new plant conforms to the local environmental laws, and does not present a risk to the ecology of the region. The construction of the PVC plant should start in 2008 and should be completed

in third quarter of 2010 if all conditions are met. Tenders for the equipment suppliers for the new plant are expected to start sometime in 2007.

Caustic-chlorine news

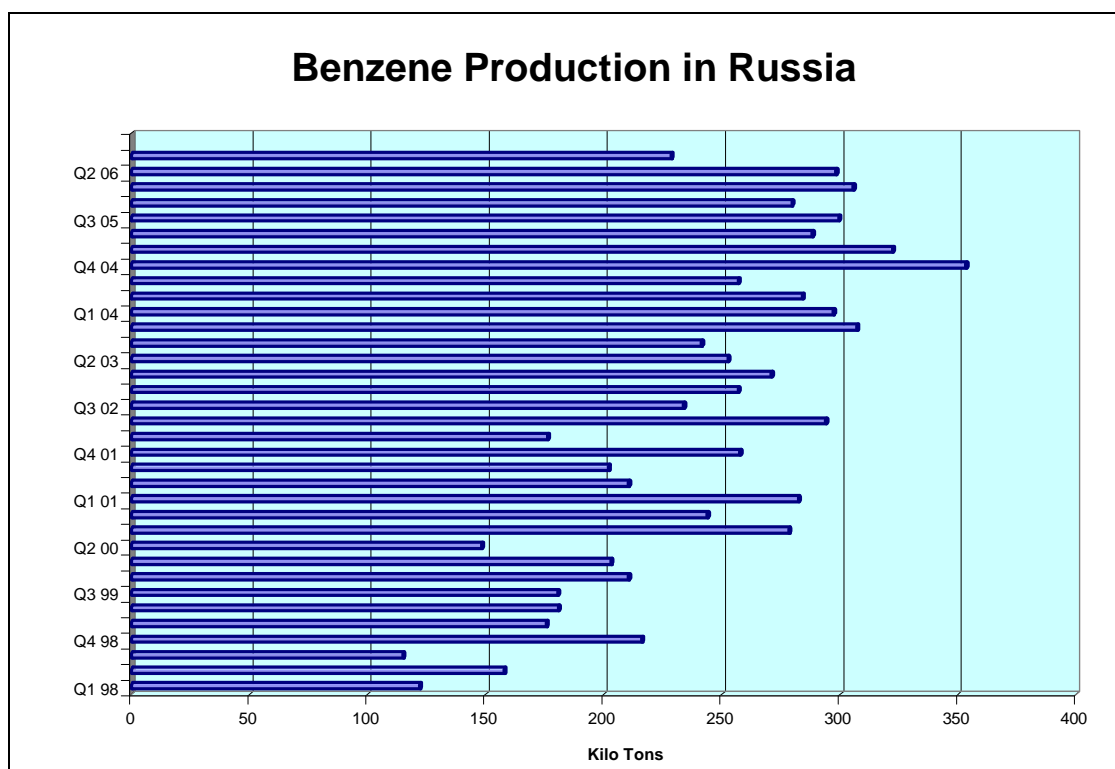
Khimprom at Volgograd has started the third line for the production of flaked caustic soda, which will make it possible to increase production by around 50% to 600 tons per month. Aims are to increase capacity of flaked caustic production to 1,200 tons per month. Production of flaked caustic at Khimprom started at the end of 2003 and around 50% of sales come from exports.

In the period January to November 2006 Kaustik at Volgograd increased caustic soda production by 22.7% (by 2,400 tons), chlorine by 14.2% (by 572 tons; and chloroparaffins by 15.1% (26 tons). Merchant sales from the company totalled 3.1 billion cubic metres which was 7% higher than the same period last year.

Khimprom at Kemerovo increased production of caustic soda by 5% in the first eleven months of 2006, with chlorine increasing 6%. The largest increases were seen by the company in the production of propylene oxide by 65% and propylene glycol by 24%.

In 2006, the main efforts of Khimprom were directed towards the reconstruction of production facilities at Kemerovo and the expansion of the product range. Other objectives include the completion of the boiler room and the further increases in chlorine processing into calcium chloride. In October-November 2006, Khimprom conducted trials for the first production and when the unit is ready, it will help to reduce the volume of chlorine shipments. The main production process involves electrolysis, of which chlorine and caustic soda are the resulting products. The process is very energy intensive and demands much electricity and heat. Within the cost structure for production, energy costs account for as much as 50% of total production costs.

Aromatics



Russian benzene supply

Benzene production in Russia dropped sharply in the third quarter of 2006, due mostly to cracker outages at Salavat, Nizhnekamsk and most of all Budyennovsk. Of the benzene producers from the crackers only SIBUR-Neftekhim exceeded production volumes from the second quarter in 2006. Until the situation had become more stable by October, imports of benzene were arriving into Russia from Poland, Rumania and Germany. By November and December, when producers were back to normal many consumers did not

need to buy as much product from domestic producers, leaving the market in surplus balance. As a result, benzene prices dropped 10-20% against October.

Although the market had returned to some normality by the fourth quarter, the fact remains that benzene production at present is struggling to keep up with consumption needs. With many new ethylene projects targeted on ethane feedstocks, the prospects of increasing benzene from crackers are limited. Already the market is considered tight for supply with non-integrated derivative producers feeling the effects. Kuibyshevazot, for instance, was forced to import benzene in 2006, which drove up its costs and hit margins sharply. The introduction of the new Tatneft plant at Nizhnekamsk, by 2010-2011, will be of great benefit to the market, as will the Kuibyshevazot project if it is completed. Probably other sources of benzene will need to be developed, research is being conducted into using associated gas as a feedstock source, and expanding the volume of coal based benzene.

The main focus of coal based benzene in production can be found in the three plants in the Kemerovo region. These include the West Siberian Metallurgical Combine at Novokutznetsk, Koks at Kemerovo, and Kuznetsk Metallurgical Works at Novokutznetsk. Together they account for more than 100,000 tpa of benzene production, which is around half of the total production of all coal based benzene.

Growth in benzene derivative consumption in Russia over the next few years is expected to put considerable on benzene supply availability until new projects come onstream. Some of the projects under construction and planning are listed below.

<i>Company</i>	<i>Location</i>	<i>Project</i>	<i>Classification</i>	<i>Capacity ktpa</i>	<i>Project Stage</i>	<i>Start- up Date</i>
Korund	Dzerzhinsk	Aniline	New Plant	80	Planning	2011
Kuibyshevazot	Samara	Caprolactam	Expansion & Modernisation	+95	Ongoing construction	2010
Kuibyshevazot	Samara	Polyamide-6	Expansion	+72.250	Planning & Construction	2008
Kuibyshevazot	Samara	Benzene Monomer	New Plant	100	Planning	2011
Nizhnekamskneftekhim	Nizhnekamsk	Ethylbenzene	Expansion & Modernisation	+200	Planning	2011
Nizhnekamskneftekhim	Nizhnekamsk	Benzene Monomer	New plant	+100	Planning	2011
Rosneft-Komsomolsk NPZ	Komsomolsk-on-Amur	Benzene Monomer	New Plant	400	Planning	2011
Renova-Orgsintez	Novokuibyshevsk	Benzene Monomer	New Plant	100	Planning	2011
Renova-Orgsintez	Chapayevsk	Aniline	New Plant	50	Planning	2011
Tatneft	Nizhnekamsk	LAB	New plant	80	Planning	2010
Tatneft	Nizhnekamsk	Benzene Monomer	New plant	250	Planning	2010
Volzhskiy Orgsintez	Volzhskiy	Nitrobenzene	New Plant	80	Planning	2010

Azot Kemerovo, caprolactam expansion

Azot has allocated 778.6 million roubles or \$29.6 million for the planned reconstruction of the caprolactam unit. The modernisation will reduce the amount of energy consumption and to increase capacity. The project is set for completion for 2009. Koch Chemical Technology Group and Yokogawa are involved in the project.

Polief-PTA full utilisation

LUKoil has been in discussions with foreign engineering groups regarding an increase in PTA and PET capacity at Blagoveshchensk. The aim is to double the existing capacity of 230,000 tpa for PTA, and also the 120,000 tpa of the forthcoming PET plant which is expected on stream soon.

PTA capacity at Blagoveshchensk is considered insufficient to meet the future demands of PET production in Russia. Capacity for PET should have reached 516,000 tpa by the start of 2008. Even at present, imports of PTA are arriving from China and that trend could increase following the start-up of the new PET plant by

Polief in early 2007. The problem facing PTA production is a lack of paraxylene. The local refinery to Blagoveshchensk (Ufaneftekhim) has no excess capacity and would need to expand. Omsk refinery could provide additional paraxylene, but transport costs could eat into profit margins. Tatneft is planning to construct a new paraxylene plant at Nizhnekamsk, but this could be used in full by the linked PTA and PET plants which are also planned.

At the start of 2007, SIBUR-Holding and LUKoil-Neftekhim plan to complete the purchase of shares in Polief. Shares will be acquisitioned through a jv company called Domestic Polymers. This will take control of Polief away from Selena. It may help to co-ordinate decisions regarding the complete chain from paraxylene to PET.

Plastics

Biaksplen-BOPP

Biaksplen, in the Nizhniy Novgorod region, is planning to double its BOPP capacity from 17,000 tpa to 34,000 tpa, after reconstruction. Biaksplen was founded in 2003 in the Balakhne area of the Nizhniy Novgorod region, with a joint ownership between Fordinbridge Trading Ltd (50%) and a Moscow company. The construction of the first BOPP plant at Balakhne was undertaken by the French company DMT and started in October 2004. With a capacity of 17,000 tpa, the plant started up at the end of 2005 at a cost of €30 million.

The second line for BOPP production, also with a capacity of 17,000 tpa, will start up in August-September 2007. Work is already underway, with construction costs estimated at €40 million which is being financed through Gazprombank and Societe Generale. The second line will comprise the production of more than 40 types of films, including some product for exports.

Biaksplen has received tax privileges from the regional government, with a reduction of 25% in tax on profits for up to seven years.

Grinn Plastik-BOPP

Grinn Plastik at Kursk started its second BOPP line on 22 December, taking capacity to a total of 35,000 tpa. The first line was started in February 2005. The construction value of the second line is estimated at €60 million, with the equipment provided by DMT. Grinn Plastik produces all types of three layered BOPP.

Nizhnekamskneftekhim-polymer processors

Nizhnekamskneftekhim and the Association of Polymer Processing of Tatarstan have been in close contact to see how co-operation can be enhanced in the industrial zone at Nizhnekamsk. Questions are being examined about not only the production of polymers at Nizhnekamskneftekhim, but also methods of their sale. The main processors include Kamplast, Polymatic and Kama-Flex. From the fourth quarter of 2006 Nizhnekamskneftekhim was able to offer polypropylene from its new plant, to supplement polystyrene. Polyethylene will become available in 2008 after the completion of the HDPE plant at Nizhnekamsk. Nizhnekamskneftekhim is aiming to sell part of its output to local processors.

Kazanorgsintez-PPND (pipe plant)

Kazanorgsintez has installed extrusion equipment supplied by Battenfeld at the PPND plant. These comprise two extrusion lines for the production of pipes, with a diameter of 315-500 mm and 630-800 mm. The first production from the new equipment is expected by the start of March 2007. The delivery of German equipment is the first stage of the three-year programme of modernising pipe production and replacement of the existing extrusion lines. In January-September 2006, Kazanorgsintez' net income slid by 14.5% to 1.148 billion roubles from 1.342 billion roubles in the same period of last year. Its proceeds grew by 8.1% to 10.903 billion from 10.086 billion in January-September 2005.

Methanol

Russian gas prices

In November, the Russian government considered a rise in gas prices from \$45.3 per thousand cubic metres up to \$80 per thousand cubic metres. This followed statements in October from the Russian Industry and Energy Ministry that said the country could face natural gas shortage of 4.2 billion cubic metres in 2007.

The decision to increase prices was not implemented, but it seems that the matter will come up again before too long. If the Russian Industry and Energy Ministry's plan had been accepted, Gazprom was expected to sell 60-90 billion cubic metres of gas at \$80, thus raising its 2007 sales by \$2-4 billion. The remaining domestic supplies of 210-240 billion cubic metres were estimated to be delivered to the country's energy sector and retail customers at 51.8/tcm. The current low gas prices encourage high consumption rates, such as methanol.

Project Plans for Novochoerkassk 2011-2012

Product	Capacity
Urea	840,000 tpa
Syngas block	4.2 billion cm
Methanol	1 million tpa
Ammonia	500,000 tpa

Novochoerkassk Synthetic Products Plant

Financial group RusInkor, which owns the Novochoerkassk Synthetic Products Plant (NSPP), plans to invest around \$500 million in the complex over the next four years with the following projects.

In the short term, NSPP plans to increase its methanol capacity to 160,000 tpa in 2007, from its current level

of 130,000 tpa. Novochoerkassk Synthetic Products Plant started in 1952, and was converted into a joint stock company in 2003. In January 2006, Orion (a daughter company of RusInkor) took 100% ownership of NSPP which was legalised in May 2006.

Angarsk Petrochemical Company-MTBE

Angarsk Petrochemical Company has started its new MTBE unit, with a capacity of 6,000 tpa, four months earlier than planned. Construction cost 4.5 million and raw materials are being supplied in-house.

Metanol-Tomsk

In the first eleven months of 2006, Metanol at Tomsk produced 720,000 tons of methanol which was ahead of the pre-year plan. Market conditions justified increased production, whilst also the reconstruction of reactors in 2005 helped increase productivity levels. Metanol planned to produce another 72,000 tons of methanol in December, which would mean achieving over 800,000 tons for the first time since the plant started in the 1980s.

Yamal Gas Processing Plant

The construction of the base of the first Line of the Yamal Gas Processing Chemical Plant (YGKhK) is not expected to start earlier than 2008. It was initially planned to start work in 2007, but it seems that the foundations for the project will only commence next year.

Documents for the "ecological examination" of the new complex and what impact it would have are currently being completed. In late 2006, a protocol was signed with a number of Finnish companies for distribution of the final product, including Vopak. This will involve the study of the design of a terminal at the Obskiy station near Labitnang], from which it will dispatch methanol.

The project plans involve the construction of a 500,000 tpa methanol plant, requiring in the range of \$130-140 million. The conclusion of plant for the design capacity is provided during two and one-half of years. The second part of the project provides for an increase in its capacity.

Projects beyond these initial developments envisage conversion of methanol into downstream products and securing other products such as polyethylene and mineral fertilisers. The complete investment plan should be completed by 2011-2012.

Ukraine

Ukrainian gas prices

At the end of October, Rosukrenergo AG and Ukgazenergo signed an annex to the treaty on purchase/sale of gas for 2006-2010 dated 2 February 2006. Under this agreement, Ukraine will receive at least 55 billion cubic metres of Central Asian gas at \$130 per thousand cubic metres in 2007. Whether the recent death of President Niyazov of Turkmenistan will affect gas deliveries remains to be seen, but it seems as if the agreement will stand.

The Russian side has also agreed on the amount of gas to be supplied in 2008-2009. Gas prices will be based on the economy of natural gas purchases in Central Asian countries. Under Russian-Ukrainian agreements, Kiev is buying gas from Rosukrenergo at \$95 per thousand cubic metres this year.

Despite the increases, gas prices for Ukraine will be among the lowest in the former Soviet republics. Moldova already pays \$160 per thousand cubic metres, and the Baltic countries pay from \$160 to \$200. Georgia, Armenia and Azerbaijan at present buy gas at \$110, but Gazprom, the Russian state-owned gas monopoly, intends to revise them soon. Georgia, for instance, expects prices to rise to \$170-\$260. .

Azot Severodonetsk-gas prices

Azot's turnover increased 9.6% to \$397.7 million in the first ten months of 2006, but at the same time the net profit of the company fell by 16 times to \$2.483 million. Although gas prices rose in 2006, the company was restricted by government instructions which prevented increases being passed onto the domestic consumer.

In 2005, the average price of natural gas for Azot amounted to \$67 (338 hryvnia) per thousand cubic metres. The price rose at the start of in 2006 to \$104 (526 hryvnia). From 1 November 2006, the cost of natural gas increased to 545 hryvnia (\$108), without taking into account transport and VAT. From 1 January 2007, the price of natural gas in Ukraine will be \$130 (654 hryvnia) per thousand cubic metres. Supplies of gas to Azot come from Ukrigasenergo, the sole supplier in the Ukraine. Azot has stated that due to higher gas costs from 1 January it may be forced to reduce, or even stop production of certain lines.

Worldwide Chemical (IBE Trade) has invested \$123 million into modernising the ammonia unit in the first two years of its ownership of Azot. The methanol and acetic acid plants have also undergone modernisation, whilst VAM capacity has been doubled. Gas consumption has also been reduced significantly. Increases have been to capacity of 10,000 tpa of urea, 1,000 tpa of adipic acid, 25,000 tpa of methanol, and 12,000 tpa of urea-formaldehyde resins.

Azot Severodonetsk-PE plant

The Ukrainian Ministry of Industrial Policy is reviewing the prospects of restarting the idle LDPE plant at Severodonetsk. A minimal cost estimation for reviving production has been placed at €50 million, although most of that would be targeted on the idle ethylene plant at nearby Lisichansk. The subject of reviving the polyethylene plant at Severodonetsk has been assessed in the past, with ethylene being the major problem. Whilst most of the Azot complex is owned by Worldwide Chemical (IBE Trade), the polyethylene plant remains under government ownership and has been taken off the list of enterprises not being subject to privatization. However, it is possible that Worldwide Chemical could play an important part in the restart of the polyethylene plant, if it is decided to try in some way to use methanol as a feedstock.

Karpatneftekhim-polyethylene production

At the start of 2006, Karpatneftekhim set a yearly production target of 107,000 tons of polyethylene, but even by the end of the third quarter the company had produced already 90,000 tpa. Technical improvements have meant that it has been possible to reduce the amount of ethylene usage from 1.025 to 1.019 tons per ton of polyethylene production. Other improvements have included the reduction of electric energy usage from 0.44-0.46 to 0.435 thousand kW/h. per ton of polyethylene.

Karpatneftekhim processed 61,281 tons of raw materials in November, which was higher than expected. The reason for the increase was the use of more naphtha than butane. VCM production has been slowing in recent months due to the lower exports to Romania. In November, Karpatneftekhim increased chlorine production from 130 tons to 140 tons per day. The increase was due to the replacement of equipment in the caustic-chlorine complex; from 1 January the production level was set to rise to 150 tons per day.

Stirol Gorlovka

Stirol at Gorlovka has introduced the second line for the production of foam polystyrene, raising total capacity to 50,000 tpa. The long term goal is to increase capacity to 75,000 tpa. The technology for the second line was supplied by PSTI.

In January-September 2006, the company's sales increased by 13.3% to €387,858, while profits amounted to €31,500. During 2006, five new production lines were commissioned, including the new line for foam polystyrene.

Sumykhimprom

Sumykhimprom has confirmed its investment programme for 2007 which involves spending of around \$20 million. Most of this total will be directed towards the reconstruction of the titanium oxide plant. The company is planning to install a second unit for the production of titanium white, with construction to be completed in the first quarter of 2007. By the middle of the year, Sumykhimprom plans to finish building and to start up the new automatic installation of hydrolysis, with a capacity of 50,000 tpa.

Belarus

Belarussian oil prices

Belneftekhim has suspended all 2007 contracts with Russian oil companies, saying that the economy will suffer huge losses if Belarusian companies continue buying oil from Russia. The move is linked to Russia's decision to impose an export duty of \$180.1 per ton on crude oil delivered to Belarus. The two oil refineries in Belarus will have to scale down their production following the suspension of the supplies. This could hurt contacts between Belarusian petrochemical companies and Russian enterprises. In particular, it could affect SIBUR which supplies Polimir at Novopolotsk with gas and petrochemical materials, and in exchange buys chemical products from the Belarusian company.

Belarussian gas prices

Belarus narrowly escaped a winter energy crisis after a last-minute deal on gas prices was struck with Gazprom. Gazprom had said it would cut off supplies to Belarus, also threatening fuel supplies to European countries served by the Belarus pipeline, if a deal was not reached by midnight on 31 December 2006. The five-year contract will require Belarus to pay \$100 per thousand cubic metres, a steep rise against the previous tariff of \$45, but a reduction from the \$105 that Gazprom had demanded. The agreement requires Belarus to pay gradually increasing prices after the current contract until world market levels are reached by 2011.

Grodno Azot could have been forced to completely stop production had gas supply been disrupted. Azot is one of the most important industrial users of gas in Belarus with an average annual volume of gas consumption at about 1.5 billion cubic metres. Besides fertilisers, the company has the capacity to produce 55,400 tpa of methanol and 111,200 tpa of caprolactam.

Mozyr-NPZ

Mozyr has started the construction of the new benzene plant, which is part of the refinery's reconstruction. The capacity of the new plant is 55,000 tpa.

Itera-Belpak

Itera and Belarus have agreed conditions for the sale of the Belarussian side of 50% shares in the PET JV Belpak at Mogilev. Moglievkhimvolokhno is the other major shareholder with a 45% stake. Itera acquired 50% of shares in Belpak in 2000 from Eastman Chemical and the Pepsi-Co European branch. In May 2006, Itera proposed to Belarussian government that it wished to buy the other shares in Belpak. Agreement has now been reached over debts.

Kazakhstan

Benzene

The production of benzene at the Atyrau refinery (ANPZ) is expected to start by 2010, in conjunction with the catalytic reforming unit with a capacity of 800,000 tpa.

The technical and economic study (TEO) for the production of benzene at the Atyrau refinery (ANPZ) was been undertaken by Marubeni and Kosmo and transferred to the customer KazMunaiGaz (KMG) last year. Reconstruction of ANPZ is being undertaken with the participation of Japanese capital. Public hearings have approved the production of benzene on the environment. According to the preliminary estimations, the cost of the project will require in the order of \$250 million. Production of benzene will amount to 150,000 tpa and would be targeted towards the development of ethylbenzene, styrene and polystyrene. Benzene is intended to be used by the Aktau Plastics Plant for the production of ethylbenzene.

Currencies

(Czech crown, Kc, \$1 = 22.639, €1 = 28.382)
(Hungarian Forint, Ft, \$1 = 209.32, €1 = 262.42)
(Polish zloty, zl, \$1 = 3.0927, €1 = 3.8770)
(Ukrainian hryvnia, \$1 = 5.0550, €1 = 6.3362)
(Rus rouble, \$1 = 26.929, €1 = 33.754)

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