

CIREC

MONTHLY NEWS

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

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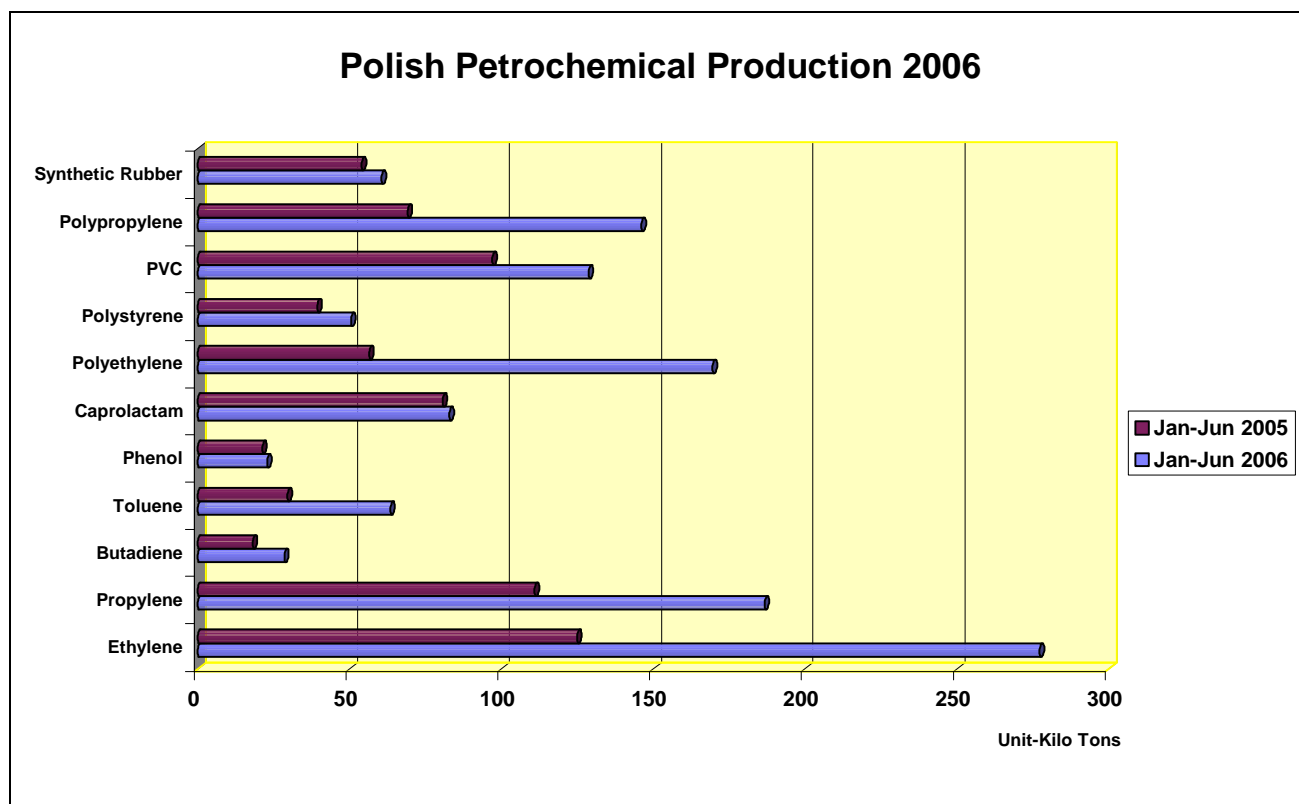
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Features from this issue

- ? From 2006, the Orlen chemical division has been redefined to include Anwil and Spolana. In Q2 2006, revenues in the chemical division were up 69.7% to zł 259,419 million. During that period there was a growth of sales' volumes of the key products in the division, such as PVC by 41.1%, caustic soda by 37.4% and PVC granulate by 60.1%.
- ? BorsodChem Nyrt's sales' revenues in the first half of 2006 totalled Ft 118.6 billion, 36.7% above 2005 due mainly to expanded capacities and favourable demand. Increased sales' revenues were driven by high MDI, aniline and PVC volumes. Other factors included the consolidation of Petrochemia Blachownia, and significantly higher TDI product prices compared to the same period in 2005.
- ? Spolchemie is in the process of doubling its liquid epoxy resins capacity at Usti nad Labem, which is scheduled to be onstream in Q3 2007 and will increase the capacity to 60,000 tpa of liquid epoxy resin. The expanded capacity will be incorporated into EPISPOL, the manufacturing joint venture with Dainippon (DIC Japan).
- ? At the start of August, SIBUR-Holding confirmed the expansion of the Kstovo cracker to 430,000 tpa of capacity. The EP-300 cracker is currently running at 262,000 tpa of capacity, and the expansion will cost around €126 million with a completion date set for 2008-2009.
- ? Orenburggazprom and SIBUR-Holding are creating a joint venture for the construction of plants for polyethylene and polypropylene at the Orenburg Helium Plant. These projects are being planned for the long term. Currently, the two companies are developing the business plan involving plant capacities, etc, with an investment fund required of around 45.1 billion roubles.
- ? SIBUR-Neftekhim is involved in talks with the Bashkortostan government for the purchase of a 17.5% stake in Polief. SIBUR-Neftekhim is interested in the PTA produced by Polief which is required by SIBUR-Holding at Tver and for future PET projects.
- ? Kuibyshevazot has started the construction of the engineering plastics plant at Shanghai in China. The ceremony took place on 18 July to mark the start of the construction of the joint venture, which is entitled Kuibyshevazot Engineering Plastics. Investment in the project will amount to \$9 million, with a pay-back of five years.
- ? Basell has agreed to sell its polypropylene technology to Tatneft for the Nizhnekamsk NPZ complex. The capacity of the new plant is planned at 200,000 tpa, and will be part of the refinery and petrochemical complex under Tatneft.
- ? Karpatneftekhim closed its chlorine and caustic soda plants as from 1 August 2006, in order to dismantle the equipment and replace the units with new membrane technology. The costs of the project amount to \$108 million. Capacity will amount to 200,000 tpa of chlorine, and will lay the foundation for the planned PVC project at Kalush.

CENTRAL & SOUTH EAST EUROPE

Petrochemicals



Polish Production Jan-Jul 2106

In the first half of 2006, Polish chemical production increased by 35% over the same period in 2005. The increase was attributed mainly by higher volumes from the Plock petrochemical complex, in particular from the olefin cracker and the BOP polyolefins' units. Thus, the big climbers in the first part of the year were ethylene, propylene, polyethylene and polypropylene. Other products to have seen an increase this year include toluene, following the introduction of the new aromatics recovery unit in 2005. The investments in these new units have helped to arrest the decline of the chemical industry in Polish industrial performance, as for a decade or more imports of chemicals into Poland has been rising rapidly in response to growing demand. Domestic production has suffered from a lack of investment only until recent times. In addition to the expansion and modernisation of the Plock complex, other projects have taken place, or are under progress. Wloclawek has been the focus of investments by Anwil and SK Eurochem, whilst ZA Pulawy and Dwory have made important investments in melamine and styrene. These investment trends are expected to continue, with probably the largest project in the next few years consisting of a PTA plant at Plock.

PKN Orlen Financial Performance H1 2006

Total sales' revenues for PKN Orlen rose in the first half of 2006 by 36.1% or by zł 3.589 billion due to an increase in the group's third-party sales. Petrochemical division revenues rose by zł 924,126 million (80.9%), whilst chemical division revenues rose by zł 257,384 million (69.2%). The growth of sales' revenues is due in part to consolidation of assets from Unipetrol, and in part to high world commodity prices. In Q2 2006, the group saw an increase in operating costs by 39% due to a substantial expansion of business operations conducted by the PKN Orlen Capital Group. The group is expected to expand further, in view of the current talks with a group of six banks to secure financing for the \$2.34 billion purchase of AB Mazeikiu Nafta.

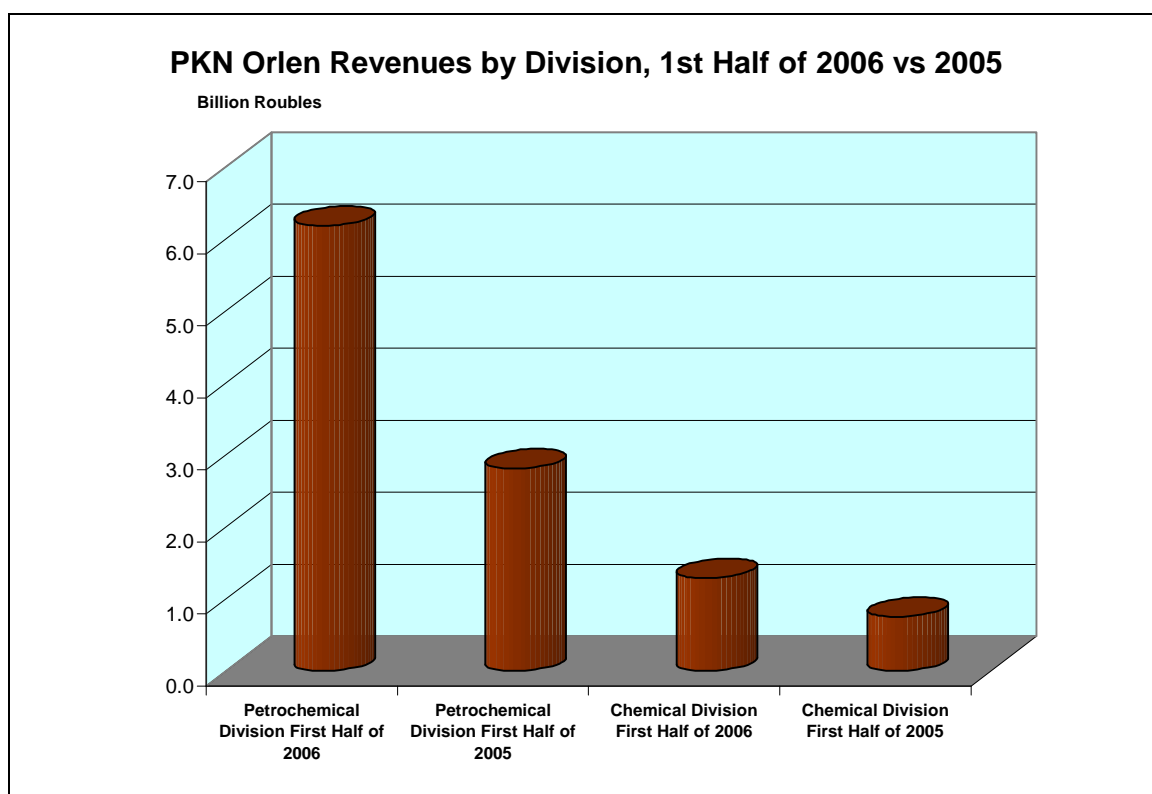
PKN Orlen Petrochemicals H1 2006

The PKN Orlen Group increased ethylene production at its two sites in Poland and the Czech Republic in the first half of the year by 136,000 tons, and propylene by 78,000 tons. The increases were mostly due to the

start-up of new Olefin II installations at Plock. However, the fall in petrochemical margins reduced profits by zł 55 million.

From 2006, PKN Orlen's chemical division was divided into two business areas: petrochemicals and chemicals. The new petrochemical division comprises PKN Orlen, Chemopetrol, Kaucuk, and Basell Orlen Polyolefins (BOP). In Q2 2006, the revenues of the petrochemical division were up by 77% (by zł 1.305 billion) over 2005. Positive results from the Unipetrol group companies, which generated zł 145 million in profit in the second quarter, were also aided by a higher operational profit of zł 20 million by BOP. Overall, however, PKN Orlen's profit was zł 112 million lower than Q2 2005, caused by additional purchases of ethylene and propylene by BOP and an emergency shutdown of the Olefin-11 installation in May.

The consolidation of Unipetrol's assets into the Orlen group helped increased sales of polyethylene by 97.7%, polypropylene by 130.1%, and ethylene by 252.3%, and benzene by 290.1%. The drop of orthoxylene sales in Q2 2006 was due to an overhaul of the xylene distillation column and furnace modernisation. Lower sales of ammonium nitrate result from decreased demand due to higher prices.



PKN Orlen Chemical Division H1 2006

From 2006, the Orlen chemical division has been redefined to include Anwil and Spolana. In Q2 2006, revenues in the chemical division were up 69.7% to zł 259,419 million. During that period there was a growth of sales' volumes of the key products in the division, such as PVC by 41.1%, caustic soda by 37.4% and PVC granulate by 60.1%. The operational profit of the chemical division grew in Q2 2006 by zł 31,268 million.

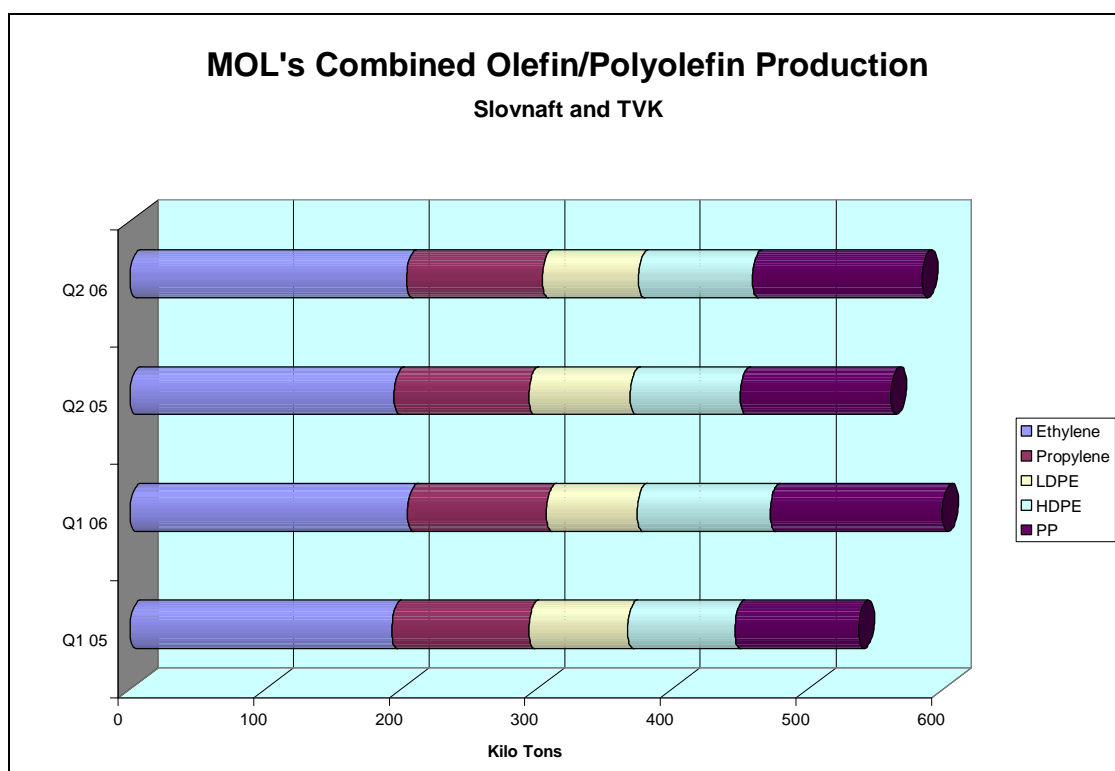
Unipetrol H1 2006

Unipetrol raised first-half sales by 18% to Kc 44.935 billion, whilst second-quarter consolidated net profit more than doubled in the first six months, totalling Kc 1.17 billion. Operating profit rose 58% to Kc 1.8 billion, with revenue advancing 22% to Kc 24.8 billion. Most units reported higher sales, above all Benzina, Chemopetrol and Unipetrol Rafinerie. Net profits of the group increased 11% to Kc 1.981 billion. High demand for refinery products above all in the second quarter of 2006 enabled the group to raise the volume of processed crude oil and improve financial results. Chemopetrol's sales grew on higher demand for polyethylene, polypropylene, and ethylene. Kaucuk recorded sales of Kc 5.6 billion, up by 1% on 2005. Net profit reached Kc 419 million. Spolana generated sales worth Kc 2.983 billion after Kc 2.995 billion in the same period in 2005. Net profit fell to Kc 138 million from Kc 162 million.

MOL Group H1 2006

Total output of olefins and polyolefins at MOL companies Slovnaft and TVK increased in the first two quarters of 2006 against 2005, due mainly to higher polypropylene volumes following the start-up of Slovnaft's new unit. In the first half of 2006, MOL's petrochemical division's operating profit fell to Ft 7.6 billion (\$35.9 million), compared to a Ft 13.3 billion (\$69.0 million) profit in H1 2005. The major negative effects were seen in the first quarter whilst in the second quarter the operating profit grew by Ft 0.2 billion to Ft 3.9 billion due to better integrated petrochemical margins, and higher sales. The total volume of petrochemical feedstock consumption in the MOL group grew by 104,400 tons in the first half of the year.

Operating profits were significantly influenced by weak market trends in the first quarter, although they were partly offset by the higher sales' volumes from new capacities. The situation improved in the second quarter, with the operating profit exceeding the profit from Q2 2005. Petrochemical integrated margins in the first half of 2006 fell by 4% compared to H1 2005. In first half of the year, polymer sales' increased by 14% to 565,000 tons due to the new capacities launched in 2005. The growth comes predominantly from HDPE and polypropylene, mainly as a result of the start up of the new HDPE plant at TVK, and the new polypropylene plant at Slovnaft. As a result of new capacity, the share of polypropylene in total MOL's total polymer sales rose to 44%, whilst HDPE rose to 32% and LDPE fell to 24%. In Hungary, MOL's polymer sales increased by 19,000 tons compared to 2005, while in Slovakia sales rose by 1,000 tons. In addition to polymers, the sales' volumes of olefins increased by 12%, as a result of the start up of new cracker at TVK and increased ethylene requirements at BorsodChem.

**TVK H1 2006**

In the first half of 2006, TVK group consolidated sales amounted to Ft 154,673 million, which represented an increase of 36% over 2005. Sales' revenues from the olefin sector were 42% up in the first half of 2006 over 2005 due to the higher operating rates at the new capacity. The group made 49% of its revenue from export sales, which was a 1% increase over 2005.

TVK's material costs amounted to Ft 121,537 million, of which 46% of the increase was due to increased feedstock purchases (naphtha and gas oil) and increased costs of energy. The rise in the price and the quantity of feedstock used was the underlying cause of increased feedstock costs, which was further exacerbated by exchange rate factors. As the petrochemical activities of Slovnaft have been unbundled into Slovnaft Petrochemicals s.r.o, as from 1 July 2006, the TVK Group will be co-operating on a tighter basis with its Slovak partner in future. Together, the two companies possess a total polymer capacity of 1.2 million.

Transpetrol

The Slovak government is considering the purchase of the 49% stake in Transpetrol from YUKOS, although Gazprom has shown interest also. YUKOS has evaluated its stake in Transpetrol at \$80-100 million, after acquiring the stake in 2002 for \$74 million. Transpetrol operates the Slovak part of the Druzhba oil pipeline through which about 10 million tpa of Russian oil flow to West Europe.

Intermediates/Derivatives

BorsodChem H1-2006

BorsodChem Nyrt's sales' revenues in the first half of 2006 totalled Ft 118.6 billion, 36.7% above 2005 due mainly to expanded capacities and favourable demand. Increased sales' revenues were driven by high MDI, aniline and PVC volumes. Other factors included the consolidation of Petrochemia Blachownia, and significantly higher TDI product prices compared to the same period in 2005.

On 28 June 2006, BorsodChem increased the capital in Petrochemia Blachownia by zł 8,000,000 to support future investments. Despite the positive turnover and operating margins, BorsodChem's overall Q2 profit fell sharply (by 96%) due mainly to losses on foreign currency loans. BorsodChem, which stated recently that it may receive a buyout offer from UK-based Permira Advisors LLP, has lost money on loans denominated in foreign currencies as the forint weakened against the euro.

The 36.7% increase in sales' revenues was accompanied with a 43.8% increase in costs, resulting from greater purchases of energy, ethylene, toluene and carbon monoxide to support additional production capacity. Exports accounted for 86% of sales' revenues, with the geographical breakdown of sales divided between domestic/Central Europe 41.4%, and West Europe 53.2%.

The BorsodChem Group achieved a Ft 12,589 million operating profit in H1 2006, which is 29.9% higher compared to 2005. The operating profit corresponds to a 10.6% margin, which was lower than the increase in sales' revenues. The main problem facing BorsodChem in the first half of the year has been raw material costs, with ethylene reaching €865/ton in the second quarter. The price of ethylene was €825/ton on average over H1 2006, which was €80/ton over H1 2005. Benzene prices saw increases in the second quarter, reaching €800 ton in June but averaging at €677/ton. Toluene, moreover, rose to \$952/ton by the end of Q2. Other factors affecting profit margins were energy costs and the €6/MWh increase in network usage fee since 1 January 2006 as an additional cost element.

Higher ethylene prices helped drive up PVC prices, combined with good demand from the building industry season. During the second quarter, BorsodChem's new MDI plant gradually attained and surpassed the 80% capacity utilisation level. The trial run of the 80,000 tpa chlorine plant was successfully launched and the plant is expected to be completed in Q3. The additional capacities of 35,000 tpa for PVC and 10,000 tpa for TDI are under construction are expected to be commissioned at the end of Q3 in line with a general maintenance shutdown.

Ethylbenzene, which is produced at Petrochemia Blachownia, increased the group's H1 sales' revenues by Ft 4.4 billion. Revenues of other products such as ammonia, hydrochloric acid solution, hypo, polystyrene, pre-polymer, formalin, special amines, benzene, toluene, ethanol etc. increased by 26%, which is mainly due to the inclusion of Petrochemia Blachownia.

Dwory's Product Capacity & Expansions

Product	2006	2007
KER (Emulsion Rubbers)	120	130
Solution Rubber (BR/sSBR)	0	40
Owiplan	72	72 + 40
Owispol	50	50
Winacet (Vinyl/acrylic dispersions)	40	40 + 30
Styrene	100	100 + 60

has a capacity of 80,000 tpa, and so the purchase by Dwory would mean that combined capacity would be not far behind Polimeri.

Dwory

Dwory has in recent years focused on restructuring which has helped to increase the company's competitiveness in the European market. The three main business subdivisions include synthetic rubber, styrene plastics, and vinyl/acrylic dispersions. In the E-SBR market, the company has a capacity of 120,000 tpa, which is the second largest in Europe after Polimeri Europa, which has a capacity of 230,000 tpa. Kaucuk at Kralupy

Investment strategy is aimed at expanding rubber and styrene capacity, the latter being dependent on a new ethylbenzene plant being constructed in conjunction with PKN Orlen. The Dwory S.A. Capital Group has been ranked 14th in the highest revenue growth category within the large chemical groups in Poland.

Epoxy Resins

Spolchemie is in the process of doubling its liquid epoxy resins capacity at Usti nad Labem, which is scheduled to be onstream in Q3 2007 and will increase the capacity to 60,000 tpa of liquid epoxy resin. The expanded capacity will be incorporated into EPISPOL, the manufacturing joint venture with Dainippon (DIC Japan). Spolchemie has been running flat out on liquid epoxy resin since the start of 2006. The initial 30,000 tpa capacity was sold out within a year of start up. The new epichlorhydrin (ECH) plant at Usti nad Labem is under construction and will be on stream in Q4 2006, as planned. This is the only new ECH capacity to be built in the world in 2006 set against a tight global shortage. Many epoxy producers have been forced to reduce output due to a lack of ECH.

Methanol/Ammonia

MSK Production/Exports			
Production	Unit	2004	2005
Methanol	Tons	156,832	134,921
Acetic Acid	Tons	80,372	71,427
Export	Unit	2004	2005
Methanol	Tons	114,618	71,965
Value	€000	21,280	17,646
Acetic Acid	Tons	85,230	71,965
Value	€000	27,700	34,400

MSK

At the beginning of July, both the Serbian Government and the mayor shareholder Srbijagas agreed to select an advisor and start activities for the privatisation of Methanol & Acetic Acid Complex (MSK). The value of MSK's capital is estimated to be about €69 million. MSK is located near Kikinda, which is about 130 km north of Belgrade. With capacities of 200,000 tpa for methanol

100,000 tpa for acetic acid, MSK owns about 250 rail-tanks and a reloading terminal in Port Bar on the Adriatic Sea. Construction of reloading facility at Danube-Tisa-Danube channel is in the planning phase.

Forthcoming Events

12-13 October 2006, Budapest

[1st Russia, Central, Eastern Europe \(CEE\) Rubber and Tire Conference](#)

CMT

17-19 October 2006, Budapest

[Central and Eastern European Refining and Petrochemicals 9th Annual Roundtable](#)

WRA

EURASIA, COMMONWEALTH OF INDEPENDENT STATES

Russian chemical industry in first half of 2006

In the first half of 2006, Russian chemical production increased 2.5% in volume over 2005, with the second quarter showing 4% growth. Russian industrial output rose 6% in the second quarter, with the first half of the year seeing growth of 4.8%. Russian oil refining grew 6.1% in the same period to 105.999 million tons, with 53.3 million tons being processed in the second quarter.

In July, Russia produced 244,000 tons of methanol, 38,100 tons of styrene, 70,300 tons of benzene, 123,000 tons of ethylene and 19,800 tons of phenol. Production was lower in July for many petrochemicals due maintenance shutdowns. PVC and polyethylene production witnessed the biggest falls. Production of resins and plastics amounted to 261,000 tons which represented a 2.36% increase over 2005, but 21,000 tons down on June 2006. Full quarterly production data for these products can be viewed at www.cirec.net/report.

Export Duties for Russian Petrochemicals, as from 20 August 2006 (\$/ton)

Product	Duty 20/8/06	Previous Duty
Propane	158.1	146.9
Butane	158.1	146.9
Ethylene	158.1	146.9
Propylene	158.1	146.9
Butadiene	158.1	146.9

Despite increases in profitability for many chemical companies in the past two years, the industry is limited by its narrowness and concentration on certain product areas. In the first half of 2006, foreign investment in the Russian chemical industry totalled around 40% higher than in the same period in 2005, but it is still seen as not enough to prepare the industry for future demand growth. Although the population is in slight decline at present, spending power is increasing, particularly in the major conurbations such as Moscow and St Petersburg.

Investment into the Russian chemical industry in the first half of 2006 totalled \$628 million, with \$228 million coming from Switzerland, \$77 million from the UK, and \$53 million from Cyprus. In view of the number of projects that are under planning, or already under construction, the investment flows are expected to rise sharply in the next two years.

From 20 August, export duties for petrochemicals reached record levels after new government instructions. The higher duties are part of the government policy to deter products being shipped for export rather than being sold on the domestic market.

Petrochemicals/Olefins

SIBUR-Holding-Turnover H1 2006

SIBUR-Holding's turnover totalled 56.359 billion roubles in the first half of 2006, which was 6.9 billion roubles higher than in 2005. Profit before tax rose by 3.22 billion roubles to 13.867 billion roubles, whilst net profits rose by 3.3 billion roubles to 8.787 billion roubles. As the largest petrochemical holding in Russia, SIBUR-Holding consists of 26 production subsidiaries, located in 21 regions, with a total of 85,000 employees. SIBUR-Holding was created on 1 July 2005 and replaced AKS Holding officially by the end of the year. At the end of 2005, the charter capital of SIBUR-Holding was 40.1 billion roubles. Ownership is comprised of Gazprom with 25% and Gazprombank with 75% minus one share.

SIBUR-Neftekhim-Ethylene

At the start of August, SIBUR-Holding confirmed the expansion of the Kstovo cracker to 430,000 tpa of capacity. The EP-300 cracker is currently running at 262,000 tpa of capacity, and the expansion will cost around €126 million with a completion date set for 2008-2009. The project is designed to meet existing captive requirements and also the proposed PVC project in the Nizhniy Novgorod region. With a proposed capacity of 330,000 tpa, the current ethylene cracker at Kstovo would be unable to meet the full demands for VCM. At present, ethylene produced at Kstovo is consumed in the production of ethylene oxide and 34,000 tpa of PVC.

The expansion of the ethylene cracker at Kstovo has started with the introduction of two new furnaces F-120 and F-130 for hydrocarbon processing. In the 2005-2006 period, the company has undertaken a revamp and expansion of the ethylene oxide and glycol plans at Dzerzhinsk.

The furnaces were developed by KTI using a modern automatised system from the Japanese company Yokogawa. Each furnace processes 24 tons per hour, using either gas or liquids. The cracker capacity will be raised initially to 360,000 tpa, before eventually rising to 430,000 tpa.

Tobolsk-Neftekhim-Butadiene

Tobolsk-Neftekhim's butadiene unit has worked at design capacity for two years, with production in the first half of 2006 exceeding 2005 by 2%. Total production increased by 21.7% in the first half of 2006, including the processing of 1.159 million tons of raw materials. The increase was facilitated by the modernisation of the Central Gas Fractionating Unit. This allowed an increase in propane production by 30% in the first half of 2006, reaching 149,000 tons, with isobutane and butane production increasing 15.4% and 7% respectively.

TAIF

The TAIF Group in Tatarstan has stated that it will use all instruments of the financial and stock markets to increase its corporate transparency and investment appeal of each of its businesses. The two forthcoming

bond issues worth 9 billion roubles will be followed by the attraction of a syndicated loan. In 2007, TAIF is planning to secure an international credit rating. In 2008-2009, an IPO of the Group's enterprises is supposed to be held, including that of Nizhnekamskneftekhim, Kazanorgsintez, and TAIF-NK CJSC.

Tatneft-Nizhnekamsk Project

A government commission has been evaluating the financing options for the Tatneft petrochemical project at Nizhnekamsk. Tatneft plans to spend 6.5 billion roubles this year on the refining and petrochemical complex at Nizhnekamsk. The total project will require a sum of 130.3 billion roubles, with BNP Paribas acting as the main financier.

Nizhnekamskneftekhim-Turnover 2006

Nizhnekamskneftekhim has forecasted a turnover of 45.02 billion roubles for 2006. Turnover will be helped by the introduction of the new polypropylene unit and also the gas turbine unit at the Nizhnekamsk power station. Looking further ahead, the company has set a target of 130 billion roubles for turnover by 2012, although how much of this increase is linked to higher production volumes and how much to higher prices is not clear.

One of the main energy based projects under the framework of joint reconstruction of Nizhnekamsk Thermal Power Station includes the installation of the GTU-75 gas turbine unit. All of the imported equipment (gas turbines, generators, compressors) has been mounted on the foundation and its piping is currently being prepared. Start-up of the unit is scheduled for November this year.

Main Product Sales for Kazanorgsintez Q2 06

Product	% Share of Sales
LDPE	45.1
HDPE	23.1
Pipes	8.4

Main Production Costs for Kazanorgsintez Q2 06

Category	% Share of Costs
Feedstocks/Raw Materials	54.36
Fuel/Energy	12.76
Labour Costs	15.19
Social Costs	3.67

Kazanorgsintez Raw Material Suppliers Q2 06

Raw Material	Supplier	% of Purchases
Ethane	Gazprom	67
	Tatneft	27
Ethylene	NKNK	100
Propane	SIBUR-Holding	53
Butane	Imexneftekhim	45
	SIBUR-Holding	25
Benzene	Belis	22
	SIBUR-Holding	30
	Megapride	20
	Severstal	17

Kazanorgsintez-Quarterly Update

In the first half of 2006, Kazanorgsintez achieved a turnover of 7,009 billion roubles, 5.4% higher than in 2005. The main problem facing the company continues to be the lack of ethane from the Orenburg Helium Plant, and the cost of feedstocks in general. Average wages for the company increased 23% this year to 18,246 roubles per month.

In the second quarter of 2006, feedstocks and raw material purchases accounted for 54.36% of total expenditures made by Kazanorgsintez. The main suppliers of raw materials to Kazanorgsintez in Q2 were Gazprom, SIBUR-Holding, and Nizhnekamskneftekhim. In view of the problems at Orenburg, ethane only accounted for 12.7% of total feedstock purchases whilst propane-butane fractions amounted to 16%.

An important part of the feedstock process is the construction of a new gas fractionation unit at Kazan, which will allow the use of alternative forms of raw material. This could include SPBT (a mixture of propane-butane), SHFLU (wide fraction of light hydrocarbons), and FUM (fraction of hydrocarbons multicomponent). In addition to the expansion of

existing ethylene capacity, Kazanorgsintez is optimistic that in the longer term future that an ethylene pipeline connection will be built between Kstovo and Kazan.

Kazanorgsintez is represented in seven separate federal regions in Russia, with the largest volume of polyethylene consumption taking place in the Central and Privolzhskiy regions. The main export destinations include China, Finland, Ukraine, etc. Whilst polyethylene is the main exported product, Finland purchases phenol and acetone.

Project Schedule for Kazanorgsintez

December 2006 – Completed reconstruction of the ethylene units EP-60-2, E-100, E-200

Supporting the expansion of HDPE capacity, the company is also in the process of reconstructing the ethylene units (EP-60-2, E-100, E-200), with an increase in total ethylene capacity to 640,000 tpa. These expansions could be completed by the end of 2006. The combined modernisation of the ethylene units is taking place under the project management of Technip Benelux. Aside the expansion in capacity, the goals are to improve the technical and economic levels of production, the consumption of raw materials and energy resources, and also an improvement in the ecological conditions of the complex.

2nd Quarter 2007 - Completion of the bisphenol A plant with a capacity of 70,000 tpa

The new bisphenol A plant is expected to start in the second quarter of 2007r. From 1 September, the company will start the modernisation of the phenol plant which will increase capacity to 65,000 tpa, which represents a 1.6 fold increase over the current level.

2nd or 3rd Quarter 2007 - Completion of polycarbonate plant with a capacity of 65,000 tpa

The polycarbonate plant is currently in the process of assembly

Long Term Strategic Projects up to 2011

- 1 Construction of a new 600,000 tpa ethylene plant
- 2 Construction of new bimodal polyethylene and polypropylene plants
- 3 An increase in ethane deliveries to the complex of up to 1.2 million tpa

Polyolefins

Orenburggazprom-Polyolefins

Orenburggazprom and SIBUR-Holding are creating a joint venture for the construction of plants for polyethylene and polypropylene at the Orenburg Helium Plant. These projects are being planned for the long term. Currently, the two companies are developing the business plan involving plant capacities, etc, with an investment fund required of around 45.1 billion roubles. This will consist of 21.6 billion roubles for the polypropylene plant and 23.5 billion roubles for the polyethylene plant.

SIBUR-Holding is undertaking three similar projects for polymer production, at Tobolsk-Neftekhim, Nizhnyi Novgorod and Tomskneftekhim. Orenburggazprom aims to become fully integrated from the production of gas through to petrochemicals. Orenburggazprom has the capacity to process 37.5 billion cubic metres of gas per annum and 6.26 million tpa of condensate.

The first of the projects being considered by Orenburggazprom?, involves a 450,000 tpa polypropylene plant which is scheduled to be completed by 2012. The polyethylene plant, with a capacity of 650,000 tpa, is scheduled for completion by 2016. Funds would be borrowed under the guarantees of SIBUR-Holding, or under the guarantees of Gazprom. The main intentions of these plants are that production should be sold on the domestic market, but there may be some surplus for export to Asia depending on market conditions. SIBUR-Holding already works closely with Orenburggazprom, with supplies of SHFLU being supplied to the Novokuibyshevsk Petrochemical Combine.

Tatneft-Nizhnekamsk NPZ-Basell

Basell has agreed to sell its polypropylene technology to Tatneft for the Nizhnekamsk NPZ complex. The capacity of the new plant is planned at 200,000 tpa, and will be part of the refinery and petrochemical complex under Tatneft. The refinery projects are the first priority, with the polypropylene plant planned for completion in 2010. A government commission has been evaluating the financing options for the Tatneft petrochemical project at Nizhnekamsk.

Nizhnekamskneftekhim-Polypropylene

Commissioning works have begun at polypropylene plant at Nizhnekamskneftekhim. Flushing and hydraulic tests on vessels and piping, the running in of electrical equipment, tests of safety valves, etc, were all in

progress by the middle of August. Start-up of polypropylene plant with the capacity of 180,000 tpa is scheduled for September this year.

Nizhnekamskneftekhim-Polystyrene

Nizhnekamskneftekhim stopped the production of general purpose polystyrene on 23 August due to technical reasons. The plant will restart at the end of September. The plant was started in mid 2005 following the start-up of the first polystyrene plant in mid 2003. Both plants have capacities of 50,000 tpa.

Kazanorgsintez-HDPE Expansion

The expansion and modernisation of the HDPE plant at Kazanorgsintez, which will take capacity from 210,000 tpa, to 510,000 tpa, is nearing completion. The project started in January 2005 and has involved the introduction of contemporary catalysts, and also the introduction of new equipment.

During the reconstruction process, a whole range of new technological lines have been constructed and put into use. Three reactors have been upgraded allowing modifications of polyethylene from new catalysts. Moreover, the compressor stations for nitrogen have been started and the gas blower for the pneumatic transport systems which is intended for the transport of polyethylene from the polymerisation shop. The main creditors are Sberbank, ABN AMRO and the Japanese bank for the international collaboration JBIC.

In September-October this year, Kazanorgsintez expects to start the production of PE-100 pipes, the first producer in Russia of this pipe range. PE-100 pipes have the advantage over PE-80 pipes of less thickness without deterioration of properties, whilst the resistance to the propagation of cracks almost 10 times greater.

Aromatics & derivatives

Polief-SIBUR-Neftekhim

SIBUR-Neftekhim is involved in talks with the Bashkortostan government for the purchase of a 17.5% stake in Polief. SIBUR-Neftekhim is interested in the PTA produced by Polief which is required by SIBUR-Holding at Tver and for future PET projects.

The construction of the PET plant at Blagoveshchensk is progressing to schedule. The plant is expected to be completed by the end of 2006. Some of the main construction will take place in September.

On 12 August, Polief's total production of PTA surpassed 100,000 tons since start-up. Production numbers for Polief up to the end of the second quarter of 2006 can be seen at www.cirec.net/report. Domestic consumers of PTA include SIBUR-PETF and Evroplast, which accounted for 15,000 tons from Polief and about 29% of total sales. The largest share of sales was sent to China, but in the third quarter, the company plans to sell all of its production on the domestic market. Captive sales are likely to take a substantial part of PTA sales from 2007.

Kuibyshevazot Engineering Plastics

Kuibyshevazot has started the construction of the engineering plastics plant at Shanghai in China. The ceremony took place on 18 July to mark the start of the construction of the joint venture, which is entitled Kuibyshevazot Engineering Plastics. Investment in the project will amount to \$9 million, with a pay-back of five years. Production at Shanghai will be based on Kuibyshevazot's own polyamide-6. The capacity of the new plant at Shanghai is 9,900 tpa, and Kuibyshevazot expects to supply up to 7,000 tpa of polyamide-6 from its plant in Samara. Investments into the project will amount to around \$9 million. The equipment is being provided by Berstorff (Germany) and is to be shipped in November 2006. The plant should start operating in early 2007. Kuibyshevazot Engineering Plastics was registered in September 2005, in which Kuibyshevazot holds a controlling stake in the joint venture.

Kuibyshevazot made the selection of Shanghai for the project in response to the high Chinese demand for compounds. Kuibyshevazot states that annual growth in demand for engineering plastics in China ranges from 16-30%, against 6-8% on a global basis. At present, the company is studying the demands of the users of production in China based on trial sales of compounds, produced at the Volgaplast venture in Russia.

Kuibyshevazot-Other Investments

Kuibyshevazot invested 431.8 million roubles in the first half of 2006, with various projects aimed at reducing costs in the production of ammonium nitrate and urea. One of the main goals is to build a new air

separation unit which is planned for start-up in 2007. For the caprolactam plant the production of hydroxylaminesulphate is being modernised. This measure will make it possible to stabilize the process and to increase the production of hydroxylaminesulphate. In the cyclohexanone unit, a new circulating compressor for hydrogen is being installed which should reduce hydrogen consumption.

Kuibyshevazot saw its turnover decline by 4.9% in the first half of 2006, whilst profits also fell due to higher raw material and transport prices. Caprolactam production increased by 6.9% and polyamide-6 by 1.9%. Kuibyshevazot's financial position is considered stable in view of the low level of debts to the government and also the strong liquidity position of the company. Kuibyshevazot is located in the Samara region where the chemical and petrochemical industries represent the second most important economic sector. In 2005, the chemical industry in the Samara region declined 3.9% in output, a large part of which was due to the problems at YUKOS. The chemical industry in the Samara region comprises of Novokuibyshevsk Petrochemical Combine, Samaraorgsintez, Togliattikauchuk, Plastik, Kuibyshevazot, Togliattiazot, Transammonia, etc.

PVC-Chlorine

SIBUR-Holding-PVC project

The site for the new PVC project in the Nizhniy Novgorod region should be decided before the end of August, or some time early in September. The four possible locations include two sites at Kstovo and two sites at Dzerzhinsk. The advantage of Kstovo is the local availability of ethylene, whilst Dzerzhinsk has the

Russian PVC Market Balance (Unit-Kilo Tons)		
Category	2004	2005
Production	563.4	579.7
Export	141.9	87.0
Import	51.7	77.6
Consumption	473.1	570.3

advantage of the existing Kaprolaktam infrastructure. The construction of the 330,000 tpa plant is planned to start in 2008, with a completion/start-up aimed for Q3-Q4 2010. The tender process is expected to start in the first quarter of 2007, with an estimated total project cost of 18-20.5 billion roubles. At present, the PVC plant at Kaprolaktam has a capacity of 34,000 tpa.

Plastkard

In July, Plastkard produced the first 1,000 tons of its new grade of PVC 6669JS, which will be used for high quality window profiles and doors. The expanded capacity amounts to 10,000 tpa. The design capacity of the PVC plant operated by Plastkard was 65,000 tpa prior to the new additional capacity, although this has been exceeded the design capacity in the past two years.

Plastics

Dzerzhinsk Orgsteklo

In the near future, Dzerzhinsk Orgsteklo (DOS) plans to increase the capacity of hydrocyanic acid by 10%. The project is part of the company's development programme for the next 5-7 years. Other aspects of the programme include the modernisation of the acetone cyanohydrin plant for the processing of hydrocyanic acid, and to increase the capacity of the methyl of methacrylate (MMA) unit up to 46,000 tpa. The increase will include flexible technology for the production of butyl methacrylate and isobutyl methacrylate, and to also increase the capacity of extrusion lines for acrylic glass up to 600 tons per month.

Dzerzhinsk Chemical Plant-DOP

Dzerzhinsk Chemical Plant, which was created in July 2005 on the base of the former company Zarya, started the production of DOP at the polymer division at the end the July, start of August. The building of the vapour conduit has been completed between the Dzerzhinsk Chemical Plant with the local Sverdlov plant.

Karpov Chemical Plant-Polystyrene

At the end of July, the Karpov chemical plant at Mendeleyevsk in Tatarstan opened a new extrusion foam polystyrene line. Supplies of polystyrene will be provided by Nizhnekamskneftekhim. The new production line has been created under the framework of the Nizhnekamsk industrial region, and will have a capacity of 55,000 cubic meters per annum. Nizhnekamskneftekhim holds a 32.5% stake in the Karpov plant, with TAIF holding 48.1%.

Methanol/Ammonia

Akron-new low methanol formaldehyde plant

Akron at Novgorod has completed its new unit for the production of formaldehyde, with production starting in July. The unit has a capacity of 75,000 tpa and will produce formaldehyde with a lower content of methanol and also urea-formaldehyde concentrate. The urea-formaldehyde plant will have a capacity of 105,000 tpa and construction will be completed in September 2006.

On 30 July, eleven days after its commissioning, Akron's new low-methanol formalin unit reached its design capacity of 225 tons per day. The new facilities are environmentally advanced, ensuring the lowest possible emissions. Akron invested over \$20 million in the construction of the formaldehyde unit as part of its \$1.4 billion investment programme up to 2015.

Evrokhim Plants

Evrokhim produced a total of 266,000 tons of methanol in the first half of 2006 from its two sites at Novomoskovsk and Nevinnomyssk, 3% up on 2005. Both plants produce a wide range of other products. In the first half of 2006, Azot at Novomoskovsk increased caustic soda production by 20% and chlorine by 66.4% against the first half of 2005. Methanol production was increased 5.6% in the first half of the year. Nevinnomyssk Azot increased butyl acetate production 17.8% to 9,990 tons, whilst butanols increased by 4.7%. The Nevinnomyssk plant exported less acetic acid in the first half of the year, with domestic market sales taking a more important role. Also, Azot has been in talks over supplies of methanol to Azerbaijan. Production numbers for both Azot at Novomoskovsk and Nevinnomyssk up to the end of the second quarter of 2006 can be seen at www.cirec.net/report.

Metanol Tomsk

Metanol at Tomsk plans a maintenance shutdown from 4 September, with the main aim being the reloading of catalyst. New equipment, which has been developed at the Novosibirsk Institute of Catalysis, will be used for applying the catalyst. Since the start of 2006, Metanol has produced 508,000 tons of methanol, and the plant is expected to produce a total of 753,000 tons for the complete year. Together with its associate partner Metafrax, methanol production should total around 1.6 million tons for 2006.

Azot Kemerovo

SIBUR-Holding has revised its investment strategy towards Azot at Kemerovo, by increasing the total sum by 70% or to 5.7 billion roubles. The programme of the modernisation includes six major projects, such as the reconstruction of the ammonia-2 plant and urea shop; the reconstruction of the ammonium nitrate plant and the rectification of the caprolactam plant. Other projects include the construction of new shop for hydrogen. The rise in investments is connected with the reconstruction of the aggregate of ammonia-1 plant, and an increase in the production of crystalline caprolactam.

Azot has started the maintenance shutdown on the ammonia-2 plant, which will last for two months for the replacement of pipe equipment and the introduction of a new automatised control system. Companies involved in the project include Haldor Topsoe, Calderis, Manoir Industries, and Yokogawa. The maintenance shutdown will lead to an increase in ammonia capacity from 1360 tons to 1700/day.

Ukraine

Lukor-Karpatneftekhim

Karpatneftekhim closed its chlorine and caustic soda plants as from 1 August 2006, in order to dismantle the equipment and replace the units with new membrane technology. The costs of the project amount to \$108 million. Capacity will amount to 200,000 tpa of chlorine, and will lay the foundation for the planned PVC project at Kalush.

LUKoil-Neftekhim signed a contract in Augusts with Uhde for the supplies of equipment for the PVC suspension plant at Karpatneftekhim. The 300,000 tpa plant is expected to be ready for production by February 2009. Effectively, the Kalush complex will be one of two PVC producers in the CIS which produces both its own chlorine and ethylene. SIBUR-Neftekhim is the other producer with the same level of integration, whilst Sayanskkhimplast could join this pair of companies if it succeeds in constructing its own ethylene plant.

Regarding chlorine at Kalush, two original shops were put into operation in 1973 and 1983 respectively. Complete reconstruction of this product division, by introducing advanced membrane technology, will facilitate an increase in a higher level of work safety and improved reliability in protecting the environment from harmful substances. In 2007, the company has set a forecast of producing 182,500 tons of chlorine and 56,900 tons of caustic soda. This is forecast to rise in 2008 to 280,800 tons and 184,600 tons respectively. The total investment planned by LUKoil-Neftekhim into Lukor amounts to \$130 million, the result, of which will mean that Lukor-Karpatneftekhim will be the first caustic producer in the CIS to operate this technology. Uhde is supplying the equipment for the project.

In the olefin division, Lukor plans to increase feedstock processing from 548,600 tons to 680,600 tons, that will facilitate an increase in the production of monomers ethylene, propylene and benzene.

Titanium Dioxide

Sumykhimprom produced 23,100 tons of titanium dioxide in the first half of 2006, with roughly 95% of sales being exported. Crimean Titan reduced production by 2% to 42,676 tons in the first half of the year.

Azot Severodonetsk

In the first half of 2006, Azot's net profit reached 12.3 million hryvnia which was 147.3 million hryvnia lower than in 2005. Turnover increased by 5.5% to 1.164 billion hryvnia, but profitability was affected by higher gas prices. From February 2006, the price of gas rose to \$95 per thousand cubic metres. To this can be added another \$13 per thousand cubic metres for border costs and also the cost of transport to the plant.

Azot is investing \$14 million into the construction of an air-separation unit, which should be ready for operation by the end of 2007. The new technology should facilitate a 50% reduction in electricity consumption in 2008, to 460 kilowatts per thousand cubic metres. Annually, the company will be able to save up to \$3 million.

Currencies

(Czech crown, Kc, \$1 = 22.400, €1 = 28.409)
 (Hungarian Forint, Ft, \$1 = 211.1, €1 = 276.39)
 (Polish zloty, zl, \$1 = 3.117, €1 = 3.9953)
 (Ukrainian hryvnia, \$1 = 5.0252, €1 = 6.7370)
 (Rus rouble, \$1 = 26.890, €1 = 34.103)

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