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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- Russian oil flows to Europe were cut off for several days at the start of 2007, following a disagreement over price with Belarus. This is the third time in as many years that energy supplies have been disrupted due to a dispute between Moscow and its former republics.
- Unipetrol plans to invest around €206 million in 2007, of which €108 million will be directed to modernisation of the ethylene and polypropylene facilities at Chemopetrol. Part of the remaining investment will be targeted on the butadiene installation at Kralupy.
- The Czech President recently stated that the accession of the Czech Republic and Slovakia to the European Union has brought little benefits to the chemical industries in the two countries.
- Technip has been awarded an engineering, procurement and construction management lump sum contract by PKN Orlen for a hydrogen plant, to be located at its refinery in Plock.
- SIBUR Holding has approved a project for the modernisation of the first line of the Yuzhniy Balskiy gas processing plant. This will raise processing capacity of associated gas from 0.92 billion cubic metres per annum to 1.5 billion cubic metres. Construction will start at the end of 2007.
- SIBUR-Holding has selected Fluor as the main contractor for the construction of the propylene and polypropylene project at Tobolsk. Tender documents will soon be prepared for the projecting, completing and construction of the plant.
- Nizhnekamskneftekhim increased synthetic rubber production by a total of 27.9% in 2006 over 2005 Polybutadiene production increased by 15.8% to 70,000 tons, and due to strong demand the company plans to increase capacity of this product to 150,000 tpa.
- Samaraorgsintez restarted the production of phenol and acetone in January at Novokuibyshevsk, after successful discussions were concluded with its neighbouring plant Neftekhimya.
- Kaustik signed a contract on 17 January with ChemieAnlagenbau Chemnitz for the reconstruction of the PVC plant at Sterlitamak. The project involves the replacement of the old technology for producing PVC, dating back to 60's.
- Azot at Kemerovo has approved its investment into a caprolactam upgrade worth 778.6 million roubles ($29.6 million) that aims to improve the productivity of the existing facilities.
- LUKoil-Neftekhim has set targets for Karpatneftekhim for 2007 which involves a reduction in raw material processing by 7.2% down to 622,400 tons. Ethylene capacity is expected to run at 89%; polyethylene at 101%, VCM at 49% and caustic soda 80%.
- The Shurtan gas-chemical complex in Uzbekistan is running at full capacity and is in need of expansion. Being the only polyethylene plant in Central Asia, product from the complex is sold on the domestic and regional market without much competition.

CENTRAL & SOUTH EAST EUROPE

Petrochemicals

Central European oil supply

Russian oil flows to Europe were cut off for several days at the start of 2007, following a disagreement over price with Belarus. This is the third time in as many years that energy supplies have been disrupted due to a dispute between Moscow and its former republics. Although the supply situation was resumed very quickly, the latest incident has reminded Central European states that alternative sources of crude need to be ready in the event that Russian supplies are disrupted for a longer period. The Polish segment of the Druzhba pipeline carries about 50 million tpa of oil, including 96% of Poland's oil, so Warsaw is concerned. Although Poland has reserves to cover 80 days' demand, should Russian supplies stop it would probably be forced to bring in crude by sea. Poland wants the EU to create a joint energy policy toward Russia.

The Czech Republic is in talks with the German operator of a pipeline across the Alps about oil deliveries to meet Czech demand, in the event of another interruption of shipments through a Russian pipeline. Mero CR, operator of the Czech Republic's two pipelines, Druzhba and IKL, is discussions with Deutsche Transalpine Oelleitung GmbH. The trans-alpine pipeline, known as TAL, runs from the Italian port of Terst to Karlsruhe, Germany, and is connected with the IKL pipe.

The Druzhba was constructed by the USSR in the 1960s to transport oil to the former Comecon bloc. It starts from Samara and runs through southern Belarus, where it splits into a northern and southern branch. The northern branch takes oil into Poland and from there to Germany. The southern branch runs through Ukraine to Slovakia, the Czech Republic and Hungary. The Czech Republic, which imported a record 8 million tons of crude in 2006, brought 5.5 million tons through the Druzhba. The rest came via IKL, also known as Ingolstadt pipeline.

The 349-km IKL was built by the Czechs in the period 1990-1995 and is connected with TAL in Vohburg, southern Germany. IKL has a capacity of 10 million tpa of crude, more than the country's total needs. Mero is adding a pump station to IKL and making other upgrades to increase capacity to 11.5 million tpa. The upgrade is expected to be completed in the middle of next year. Mero is also replacing three Druzhba pumps, that will also increase annual capacity to 11.5 million from current 9 million. The Czech section of Druzhba can be used to transport crude oil in the opposite direction, to Slovakia; increasing deliveries through IKL would also help supply Slovnaft.

Unipetrol-structural changes

Unipetrol plans to invest around €206 million in 2007, of which €108 million will be directed to modernisation of the ethylene and polypropylene facilities at Chemopetrol. Part of the remaining investment will be targeted on the butadiene installation at Kralupy. As from 1 January 2007, Unipetrol effected internal changes that separated the production and commercial aspects of the business, and simplify its legal structures. As a result of the structural changes that have been implemented, Unipetrol expects the new system of management to improve EBITDA by as much as €138 million (Kc 3.8 billion) by 2008.

Polish Chemical Production

Product	*Jan-Dec 2006*	*Jan-Dec 2005*
Ethylene	593.0	312.5
Propylene	413.0	248.8
Butadiene	61.3	40.9
Toluene	128.0	89.8
Phenol	44.5	43.5
Caprolactam	160.0	159.8
Polyethylene	369.0	146.4
Polystyrene	102.0	91.7
PVC	278.0	215.7
Syn Rubber	122.7	107.4
Pesticides	30.6	31.3

PKN Orlen-Dwory

PKN Orlen has signed three, multi-year agreements with Dwory for ethylbenzene sales. PKN Orlen will sell between 105-120,000 tpa of ethylbenzene to Dwory for a minimum period of 15 years, for an estimated total over the period of zl 6 billion, or around €1.563 billion.

PKN Orlen will also sell Dwory 57-60,000 tpa per year of butadiene 1.3 for 15 years, and not less than a total of 897,000 tons in the total contract period. The estimated value of the order over the whole period is zl 2.5 billion. Thirdly, Orlen has said that it will sell a C4 fraction to Dwory, in amounts to be updated annually, but which in 2007 will be no less than 20,600 tons. The contract runs for 15 years, with an estimated value over the total period around zl 68 million.

PKN Orlen-hydrogen plant
Technip has been awarded an engineering, procurement and construction management lump sum contract by PKN Orlen for a hydrogen plant, to be located at its refinery in Plock. The hydrogen plant, based on Technip's proprietary technology, will have a capacity of 5 tons/hour. The hydrogen will then be used in the refinery to produce diesel oil in compliance with European norms. This will be the second hydrogen production facility executed by Technip for PKN Orlen.

Intermediates

ZA Pulawy-gas supply
ZA Pulawy, one of Poland's major users of gas at 850-900 million cubic metres per annum, has terminated its gas supply contract with the Hungarian supplier Emfesz. The contract was signed in March 2006. As Emfesz buys gas from RosUkrEnergo connected with Gazprom. Emfesz was supposed to provide gas at a cheaper price than from competitor PGNiG, the main supplier to Pulawy. The Hungarian company was supposed to sell to Pulawy 150 million cubic meters of gas in 2006, but did not meet its obligations as Emfesz failed to secure gas-transmission and storage contracts with Gaz System and PGNiG. The contracts were required under Polish law. The new management of ZA Pulawy has now changed its plans and is talking with PGNiG to find the best model of gas deliveries.

EU effects for CE chemical sector
The Czech President recently stated that the accession of the Czech Republic and Slovakia to the European Union has brought little benefits to the chemical industries in the two countries. The REACH directives, approved by the EU in December 2006, will require billions worth of investments in the chemical industry. Larger companies are not likely to be affected, but many Slovak and Czech chemical companies have said that the measure could threaten their existence.

The costs of introducing REACH for the Polish chemical industry have been estimated at least €344 million. At the same time the companies in the chemical sector are facing REACH, the CO2 allocations will also restrict expansion of production facilities and further development. The reduced CO2 emission limits for Slovakia set by the EU, for example, could cause hundreds of millions of crowns in losses to Slovak chemical producers. Insufficient quotas would force companies to purchase additional quotas, hurting profits. The European Commission has set the annual limit for Slovakia at 30.9 million tons of CO2, compared to the 41.3 million tons of emissions the country requested annually for the 2008-2012 period. The drop will especially affect large companies and could lead to job cuts and lower output. Chemical industry associations in Central Europe are pressuring Brussels to make greater concessions to new member states.

Anwil-Spolana
Anwil is reported to be buying out shares in Spolana from minority shareholders at Kc 162 per unit. Anwil bought 81.78% of shares of Spolana from Unipetrol for Kc 640 million on 13 November 2006. Anwil and PKN Orlen together own 95.1% of Spolana shares, enabling them to bid for the remaining shares.

Anwil-Spolana Totals

	Anwil	Spolana	Total
Annual turnover	€495 m	€225 m	€730 m

Capacity ktpa

	Anwil	Spolana	Total
PVC	300	130	490
VCM	300	130	490
PVC compounds	70	3	73
Chlorine	195	135	330
Chlorine for VCM	170	73	24
Fertilisers	950	210	1160

Unipetrol decided to sell Spolana as it is not considered to be the main line of the group's business, which is to focus on refineries, the petrochemical industry and fuel retail. Income from the sale of Spolana can be invested in these activities. The strategy of selling Spolana does not seem entirely clear from the outside, but Unipetrol is convinced that this move is necessary in order that the group go forward. As Spolana will remain in the Orlen family, relations with Chemopetrol will continue unaffected.

Spolana netted Kc 183 million in 2005, an improvement from Kc 118 million in 2004, which was a record over the past ten years. Sales increased to Kc 5.7 billion in 2005 from Kc 5.1 billion in 2004. Together with Anwil, it creates the largest producer of VCM-PVC in Central Europe. Both companies have fully integrated PVC production chains consisting of chlor alkali, EDC/VCM, PVC and PVC processing plants. Other synergies include ammonia for which Anwil has surplus capacity and Spolana consumes around 60,000 tpa for the

production of ammonia. At the same time, Spolana has spare capacity for hydrochloric acid, which can be used by Anwil for membrane cell electrolysis. Finally, ammonium sulphate produced by Spolana helps to widen Anwil's fertiliser portfolio.

ZA Kedzierzyn-privatisation
The Ministry of the Treasure is again trying to sell ZA Kedzierzyn, with the privatisation process to be officially launched in February. ZA Kedzierzyn needs funds for investment and this can only be fuelled by privatisation. The refusal of the Ministry to allow Petro Carbo Chem (PCC) to buy the chemical producer has meant that the process has had to be started all over again.

Anwil has confirmed that it is still interested in ZA Kedzierzyn, whilst PGNiG could also be possibly interested. However, foreign companies will probably not be interested in the transaction after the PCC case. Yara International, for example, has stated that it would not be interested in the privatisation of the Polish chemical sector as long as it is so political. This would seem to rule out any participation and would tend to keep ZA Kedzierzyn in Polish hands.

EURASIA, COMMONWEALTH OF INDEPENDENT STATES

Feedstocks

SIBUR-Holding, gas processing
SIBUR Holding has approved a project for the modernisation of the first line of the Yuzhniy Balskiy gas processing plant. This will raise processing capacity of associated gas from 0.92 billion cubic metres per annum to 1.5 billion cubic metres. Construction will start at the end of 2007. The second line of the processing plant will be reconstructed in 2008-2009 which will enable the plant to increase the processing capacity to 3 billion cubic metres per annum. SIBUR Holding is continuously increasing processing of associated gas, not only to remove an environmental problem but also to create additional feedstocks for the production of petrochemicals. In 2002 for example, the company processed 8.53 billion cubic metres of gas, compared to 13.94 billion cubic metres in 2006. The strategy of the development provides for the serious expansion of the gas-reprocessing capacities in West Siberia and an increase by 2011 in the volumes to 20 billion cubic metres per year.

An increase in the volumes of processing following oil gas is the most important goal of the company, and SIBUR-Holding is seeking co-operation with the producers of hydrocarbon raw materials. The major problem is the lack of infrastructure for the collection, transport and processing of associated gas, which is flared off in the Tyumen region.

Petrochemicals

Joint Russian ethylene project?
A meeting in January at the Ministry of Economic Development and Trade, involving Gazprom, representatives of the Tatar government and Bashkiria Khimya, resulted in a joint agreement that it was necessary to construct a new ethylene cracker with a capacity of 1 million tpa. The location of the proposed project is likely to be either at Orenburg or Kazan. Orenburg has the advantage of being next to the gas processing facilities, but Kazan has the advantage of being closer to the main markets for consumption and also it is located on the Volga-Urals pipeline. Thus, Kazan seems to have greater logic for any large cracker, but more infrastructure investment would be required to transport the feedstocks from Orenburg and other locations. The matter remains under review.

LUKoil- propylene
LUKoil and Koch Glitsch are examining possibilities for producing propylene from propane fractions at the LUKoil-Nizhnegorod refinery at Kstovo. he major consumer of propylene in the Nizhniy Novgorod region is Akrilat at Dzerzhinsk for the production of acrylic acid and esters. Shortages of propylene in the Russian market have helped instigate a wide range of research into different routes of propylene production. In 2006, LUKoil agreed with ABB Lummus Global to construct an FCC plant at the Perm refinery, including proprietary propylene purification process for the production of high purity polymer grade propylene.

Kazanorgsintez-2006

In 2006, Kazanorgsintez achieved a turnover of 15.770 billion roubles, with a gross profit of 3.313 billion roubles. Profitability was valued at 21.2%. The fourth quarter in 2006 was very successful for Kazanorgsintez in terms of polyethylene margins. The company was helped by the increase in ethane supplies from Orenburg which helped it to reduce costs. Profit in the four quarters of 2006 grew in comparison with 2005 by more than two fold. Investments were completed last year into the modernisation of two reactors at the HDPE plant, whilst assembly of equipment has started for the bisphenol A and polycarbonate plants. The full effects on turnover from these projects will start be seen by 2008-2009.

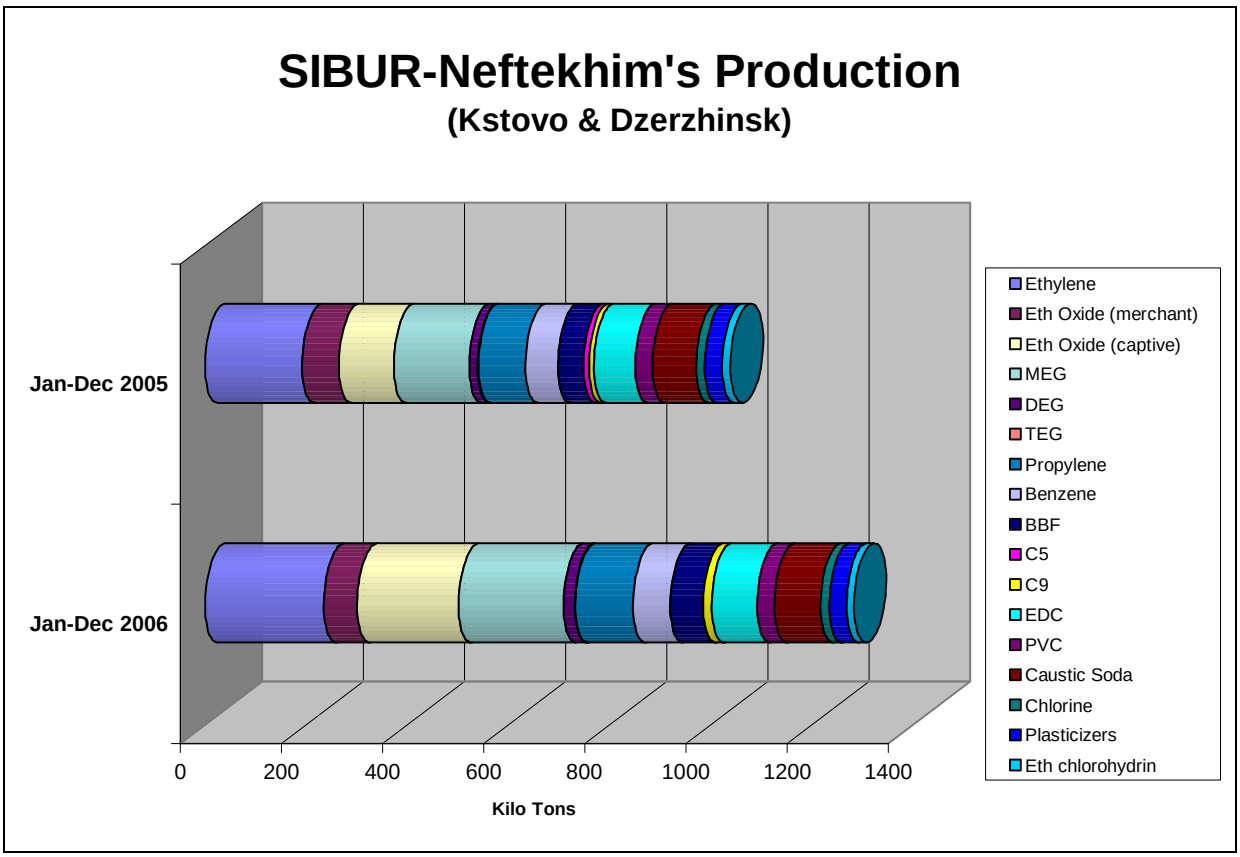
Kazanorgsintez has approved a credit line of up to €4.715 million from ABN AMRO, Niederlassung Deutschland and ABN AMRO Bank CJSC. The credit will be repaid by twenty successive equal half-year payments on redemption dates.

Nizhnekamskneftekhim-turnover increase 2006

Nizhnekamskneftekhim increased turnover by 19% in 2006, totalling 47.649 billion roubles. Physical volumes increased by 5.5%, helped by the start-up of the new polypropylene plant. Profits before tax were in excess of 4 billion roubles. The company reduced harmful emissions into the environment by 1,700 tons in comparison to 2005. The styrene and polyether division achieved a turnover of 7 billion roubles in 2006, accounting for 16.7% of total company turnover and 17.8% of export revenues. Profitability of the company was rated at 9.9%, more than twice lower than Kazanorgsintez. The number of personnel at Nizhnekamskneftekhim totalled 20,149 at the end of 2006, with an average salary of 16,625 roubles per month.

SIBUR-Neftekhim increases production

SIBUR-Neftekhim increased feedstock processing of naphtha and liquid gases by 19% in 2006, reaching a total of 697,411 tons. Ethylene production at Kstovo increased by 21.8% over 2005, following modernisation which is ongoing. Full production figures for SIBUR-Neftekhim for 2006 can be seen in the CIREC Report Tool at www.cirec.net/report. Propylene also increased by 21.4%, but the company's largest increase was reserved for MEG (38%) following the revamp in 2005. Butane-butylene fractions also rose by 28.7%, totalling 64,647 tons, whilst C9 fractions rose 73.7% to 16,864 tons. At the chlorine section at Dzerzhinsk, caustic soda production increased by 5.7%, whilst chlorine rose 20.7% over 2005.



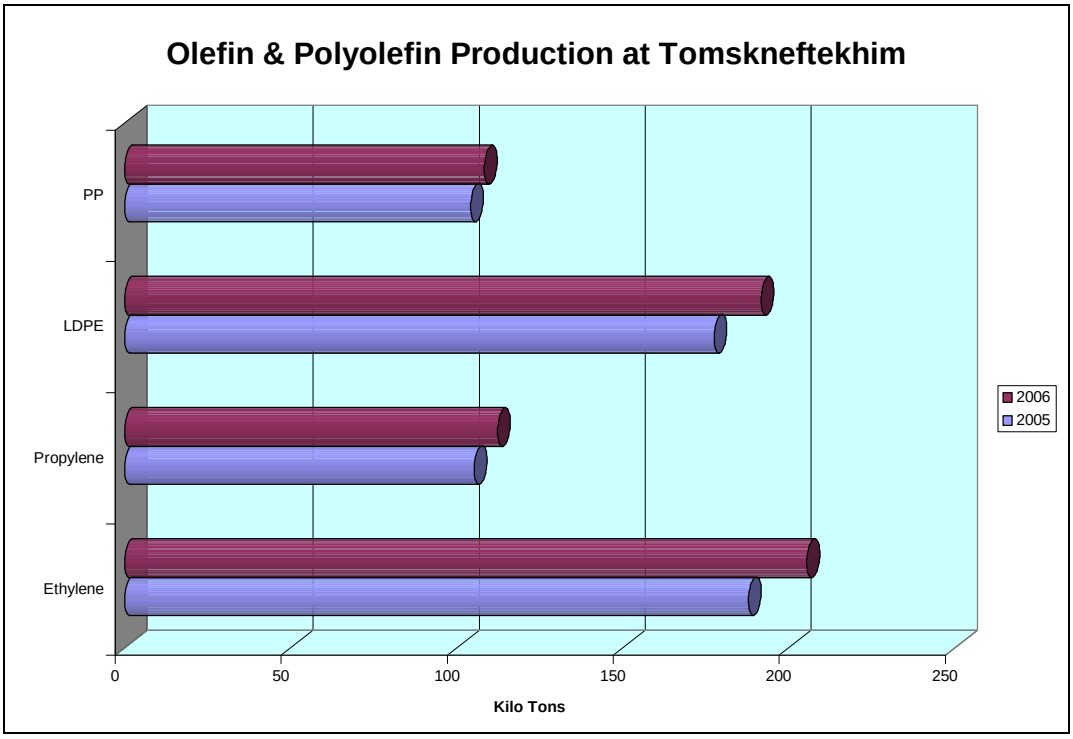
Polyolefins

Tobolsk propylene-PP project, Fluor

SIBUR-Holding has selected Fluor as the main contractor for the construction of the propylene and polypropylene project at Tobolsk. Tender documents will soon be prepared for the projecting, completing and construction of the plant. A final decision on the project's implementation will be made together with investment arrangements during the first half of 2007.

Under preliminary calculations, if the construction is started in 2007, the new facilities could be launched in the second half of 2010. The polypropylene plant's design capacity is expected to be between 450-500,000 tpa. A payback period of the project is estimated at seven years. The selection of Tobolsk for the project has been influenced by proximity to the sources of raw material, and the existing infrastructure.

As far known, the technology for the project is yet to be decided, but from an ecological angle the construction of the plant will help to resolve the problem of associated gas and reducing the risks connected with the transport of propane. The delivery of propane from the Tobolsk area to long haul users is possible only by rail transport, and this involves certain dangers. In addition, the cost of transport accounts for around 80% of the total price of propane.



Tomskneftekhim-2006

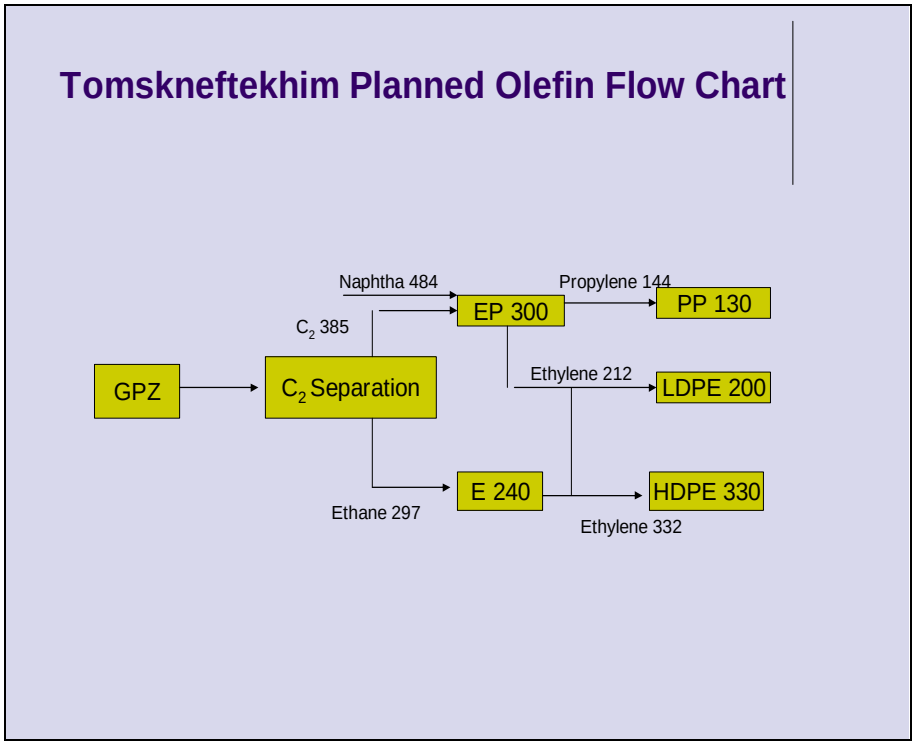
In 2006, Tomskneftekhim's olefin and polyolefin production increased over 2005, with ethylene production rising by 9.43% and propylene by 6.93%. Production of ethylene totalled 20,918 tons in December 2006, nearly a record total. Tomskneftekhim suffered a minor outage on 4 January due to electrical problems, thus stopping ethylene production for a short period, but this is not expected to affect first quarter targets. The increase in propylene production enabled the complex to meet the full requirements of the polypropylene plant, compared to previous years where extra monomer purchases have been necessary. In 2006, the polypropylene plant achieved the highest production volume in its 25-year history. Other production volumes for Tomskneftekhim included 100,939 tons of urea-formaldehyde resin, 89,238 tons of formaldehyde, 66,536 tons of butane-butylene fractions and 17,345 tons of C9. Packaging materials totalled 344,714 tons for 2006. This year will be very important for the development of Tomskneftekhim, as detailed below.

Tomskneftekhim-new petrochemical complex

During the course of 2004-2005, SIBUR-Holding and Tomskneftekhim undertook research into the effectiveness of various gases from the main gas pipeline Nizhnevartovsk-Parabel-Kuzbass, with the aim of

identifying a reliable and secure feedstock for Tomskneftekhim's current production and expansion plans. SIBUR-Holding and Tomskneftekhim decided that the main goal was to process gas, which involved the reconstruction of the existing production facilities, initially intended for processing of straight run gasoline or naphtha, and the construction of a new petrochemical complex. Linde was selected as the main project contractor in 2005 for the construction of a gas chemical complex in the Tomsk region.

SIBUR-Holding invested 903 million roubles in Tomskneftekhim in 2006. directed towards the increase in production and the introduction of new technology designed to reduce costs. In 2007, LDPE capacity is set to rise from 170,000 tpa to 200,000 tpa. The bigger plans of Tomskneftekhim involve an €800 million investment project which will enable the company to increase polyolefin capacity to a total of 660,000 tpa. Aside increasing production levels, project plans will also have ecological benefits.



At present, the pyrolysis unit at Tomsk is based 60% on liquid gases and 40% on naphtha. Further increases in gas consumption requires the significant modernisation of the pyrolysis unit. The main problem of Tomskneftekhim is the significant distance from naphtha and gas sources. The cost of transport comprises 30%, and sometimes more, of the total cost of feedstock. Hence, a search has been underway for alternative sources of raw material, and this will be solved to a large extent by the new pipeline connection trunk to the Nizhnevartovsk-Parabel-Kuzbass pipeline which will provide gas for the complex. Consumption of 6.5 billion cubic metres of gas per annum will extract a total of 700,000 tpa of ethane, propane, and butane. Raw materials will be provided from Nizhnevartovsk and Beloenergo gas processing plants, with other sources being supplied from the Mildzhinsk gas condensate deposit which is owned by Vostokgazprom, and the Luginetsk oil deposits owned by Tomskneft.

The project construction of the gas-chemical complex involves the pyrolysis of ethane into ethylene with a capacity of 240,000 tpa, the production of polyethylene with a capacity of 330,000 tpa, and the modernisation of the existing plant capacities of pyrolysis and productions of polypropylene and polyethylene. The modernisation of the existing pyrolysis unit includes adaptation of part of the furnaces to processing liquid gases, with an increase in the conversion to 90%, and the modernisation of compressor equipment. The modernisation of the polypropylene unit provides for the building of a new unit of polymerization based on Spheripol technology, with a capacity of 130,000 tpa (with the possibility of rising to 180,000 tpa).

One of the main objectives of the new SIBUR-Tomskneftekhim complex is the production of high molecular polyethylene. In 2007, experimental production of 300 tons is expected to be followed in 2008 and 2009 by 600 tons. Around $20 million will be invested in the development of the new advanced plant, which is

expected to produce 30,000-50,000 tpa by 2010. In the next few years around 800 million roubles is planned for investment into the development of the northern zone at Tomsk. SIBUR-Holding is behind the creation of the economic northern zone

Aromatics & derivatives

Phenol-Samaraorgsintez
Samaraorgsintez restarted the production of phenol and acetone in January at Novokuibyshevsk, after successful discussions were concluded with its neighbouring plant Neftekhimya. In the autumn of 2006, Neftekhimya increased prices for propane-propylene fractions and railway sidings almost by three times. These measures were sufficient to stop production at Samaraorgsintez on 1 October, and although the plant was restarted on 14 October, it was closed again on 20 November until the start of 2007. Estimated losses from idle plants for the whole year cost approximately €100 million roubles.

Renova Orgsintez, which only recently acquired control of Neftekhimya, was keen to see the conflict ended and for Samaraorgsintez to restart production. Now that Renova-Orgsintez has acquired Neftekhimya, it seems only a matter of time before Renova-Orgsintez gets control of Samaraorgsintez which is important for its project plans in the Samara region.

Samaraorgsintez and Neftekhimya are located on the areas of the former plant Ethanol, but the infrastructure of both companies belongs to Neftekhimya. The main user of phenol from Samaraorgsintez is Kuibyshevazot, which had been forced to reduce caprolactam production in December 2006, but has now had deliveries resumed. Phenol from Novokuibyshevsk comprises more than 60% of the total volume of the deliveries of this product, and it is very difficult to switch quickly to other phenol suppliers.

Samaraorgsintez is one of the five producers of phenol in Russia, with the largest producers being Ufaorgsintez and Kazanorgsintez. Consumption increased from 120,000 tons in 2000 to 182,000 tons in 2005. Exports in 2005 amounted to 62,400 tons. Samaraorgsintez has the capacity to produce 4,000 and 1,600 tons per month of phenol and acetone respectively. Neftekhimya is responsible for producing ethanol.

Azot Kemerovo-caprolactam
Azot at Kemerovo has approved its investment into a caprolactam upgrade worth 778.6 million roubles ($29.6 million) that aims to improve the productivity of the existing facilities. The modernisation will help reduce the energy consumption of the plant, increase the efficiency of the existing fractionating columns, and phase out outdated units. The project is due for completion in 2009.

The upgrade will include implementation of a modern process management system with a safe emergency protection. Koch Chemical technology Group (Switzerland) and Yokogawa (Japan) will take part in the project. Until recently, Azot saw the upgrade only within the framework of turnaround. Now the company, as part of SIBUR-Holding, is targeting an extensive modernisation in line with a long-term strategy.

Kuibyshevazot-2006
Kuibyshevazot increased the production of caprolactam by 2.6% in 2006 over 2005, despite the problems with the supply of benzene and phenol. This was the major factor affecting financial performance of the company, where turnover fell by 4.7% to 12.7 billion roubles and profitability from sales fell 18.3% in 2005 to 7.1%. Deliveries for the domestic market composed 3.7 billion roubles, which is 0.2 billion roubles higher than in 2005.

The company increased polyamide-6 production by 36.5% in 2006 following expansion, with polyamide threads rising 14.2% and cord fibres by 2.4 fold. Benzene shortages were caused by outages at a number of Russian crackers in the second half of 2006. As a result, Kuibyshevazot was forced to use expensive imported benzene for the production of caprolactam.

The major investments in 2006 involved the start of the second line for polyamide-6 production with a capacity of 50,000 tpa. This raised total capacity to 73,000 tpa. In the past year, design and research has been carried for the expansion of the caprolactam plant, the modernisation of the hydroxylamine sulphate unit, and the construction of a high pressure supply line for the production of ammonia and hydrogen.

Synthetic Rubber

Nizhnekamskneftekhim-synthetic rubber
Nizhnekamskneftekhim increased synthetic rubber production by a total of 27.9% in 2006 over 2005 Polybutadiene production increased by 15.8% to 70,000 tons, and due to strong demand the company plans to increase capacity of this product to 150,000 tpa.

On 17 January, Nizhnekamskneftekhim officially opened the second halogenated butyl rubber (HBR) plant with a capacity of 25,000 tpa, thus raising total capacity at in the butyl/halobutyl division to 120,000 tpa. The decision to expand capacity by Nizhnekamskneftekhim was taken at the end of 2004, the same year as the company installed the first 25,000 tpa HBR plant

The protocol for the purchase of the second line was signed in January 2005. Construction started in November 2005 before being completed on 16 December 2006. Local company Tatneftkhimpremstroy constructed the equipment. Nizhnekamskneftekhim is the only producer of HBR in Russia, of which 95% of production is exported. The range of products include chlorbutyl and brombutyl rubber, which conform to world standards.

In 2007, Nizhnekamskneftekhim expects to produce 45-50,000 tons of HBR. By 2012, the company plans to have increased HBR capacity to 100,000 tpa. Currently, global HBR capacity stands at 250,000 tpa between the three producers Nizhnekamskneftekhim, Exxon. Global demand is rising at somewhere between 5-7%. In December, Nizhnekamskneftekhim signed agreements for the sale HBR in 2007 with Michelin, Bridgestone, Goodyear and Continental, for contracts for the first quarter of this year. In addition, efforts are being made to sell into the Korean and Chinese markets. Aside exports, Nizhnekamskneftekhim is making inroads into the domestic market. Local tyre manufacturer Nizhnekamskshina in 2006 started to purchase local HBR over imported product, having been convinced of comparable quality. Further domestic growth is expected in line with the development of the tyre industry.

Voronezhsintezkaucuk-thermoelastoplastics
Voronezhsintezkaucuk plans to start a new line in the near future for the production of thermoelastoplastics. The new line will have a capacity if 40,000 tpa and has required 1.5 billion roubles in investment. Product is intended for the domestic market. Voronezhsintezkaucuk has been assisted in the investment project by mother company SIBUR-Holding. The development of thermoelastoplastics helps to expand SIBUR's range of rubber products. Until recently, the country has depended on imported thermoelastoplastics (used in the production of roofings and road surfaces) until production was started at Uralkhimplast and Poliplastik Technopol. SIBUR-Holding expects the new plant at Voronezhsintezkaucuk will be the largest in Russia.

KVART-new elastomer plant
Kamsko-Volzhskoe Industrial Rubber Article Association (KVART, Kazan) soon plans to start the production of thermoplastic elastomers. The project is worth 104.5 million roubles, including a repayment period of around seven years. The main characteristics of the product include vulcanization properties. Turnover from the plant could provide around 211 million roubles per annum in the output. The elastomers are used in automobile construction, machine building, agriculture, cable and electrical engineering industry. Raw materials such as ethylene-propylene rubber and polypropylene will be provided by Nizhnekamskneftekhim.

PVC-Chlorine

Kaustik-ChemieAnlagenbau
Kaustik signed a contract on 17 January with ChemieAnlagenbau Chemnitz for the reconstruction of the PVC plant at Sterlitamak. The project involves the replacement of the old technology for producing PVC, dating back to 60's. The capacity will be raised in the first stage to 180,000 tpa. In the course of 2007-2009, Kaustik plans to invest €400 million into the development of PVC production. The eventual aim is to expand PVC capacity to 400,000 tpa, but questions of ethylene supply would need to be resolved initially.

Kaustik increased sales revenue by 32.5% in 2006 to reach 9.7 billion roubles. Of the total, 1.496 billion roubles were derived from export earnings. Caustic production increased by 4.4% in 2006, PVC by 0.8%, epichlorohydrin by 8.5% and perchloroethylene by 6.6%. Full production numbers can be seen at www.cirec.net/report.

Sayanskkhimplast 2006
Sayanskkhimplast increased PVC production in 2006 by 3.2% over 2005. Production of cables increased by 17% after investments, and comprised 11,600 tons. The production of shoe plastic material was reduced by 21% to 215,000 tons, whilst window profile production increased by 8.2%. Sayanskkhimplast in 2006 was the first Russian chlorine producer to introduce membrane technology, and the installation downtime in the summer resulted in a small fall in caustic and chlorine production (see www.cirec.net/report for results). Currently the revamped chlorine section is running at about 90-96% of capacity, and targets have been set for this year for 160,700 tons of caustic and 142,600 tons of chlorine. In 2007, Sayanskkhimplast plans to complete the second stage of the reconstruction of VCM unit.

Kirovo-Chipetskiy Chemical Combine
Kirovo-Chipetskiy Chemical Combine (KCKK) is close to starting construction of a new plant for the production of chloroform, based on methane technology. The current chlorine technology used by KCKK in chloroform production is around twice more expensive than product produced by Khimprom at Volgograd. Thus, KCKK has spent the best part of the last year looking to develop a new production route. Eventually, the board reached the decision to invest $20 million and will be financed from internally generated funds.

The new plant will be ready in around 18 months from the start of construction. One of the leading design institutes in Russia will take charge of the design functions. The capacity of the new unit will be 45,000 tpa, which will make it possible to fully meet its own needs of the polymer plant and the neighbouring Galogen plant. As a by-product, the new plant will produce 15,000 tpa of methylene chloride, which it plans to sell on the open market.

Nikokhim-magnesium chloride
Nikokhim has started up a first line for the production of magnesium chloride at the Kaustik production site at Volgograd. The plant will have a capacity of 30,000 tpa after investments of €1.75 million. The new line is first plant for the production of magnesium chloride in Russia. Until now, product has been imported.

The start of flaked magnesium chloride production is the first part of a development programme by Nikomag, a subsidiary of Nikokhim. Nikomag aims to develop the production of high-purity (99.5%) magnesium oxide and hydroxide, to replace the imports into Russia from Europe, USA and Israel. Further ahead, Nikomag plans to create the largest plant in the world for magnesium products based on brine from bischofite.

In December 2004, Kaustik acquired a license with a period of 25 years for the development of bischofite in the Volgograd region which is considered to have very large and unique reserves. Production capacity could rise eventually to 60,000 tpa.

Kaustik-Volgograd, 2006
Kaustik finished 2006 with a turnover of 3.4 billion roubles, which was roughly the same as 2005. Under owner Nikokhim, Kaustik focused in 2006 on the development of a multiprofile chemical park in the Volgograd region. At present, talks are being conducted with potential participants, consisting mostly of international chemical companies. Physical volumes for Kaustik changed little in 2006, although the production of caustic soda granular increased 29%. Caustic soda production for Russia can be seen at www.cirec.net/report. In 2006, Kaustik introduced additional furnaces for the synthesis of hydrochloric acid and started a new installation for the extraction of mercury after the production of chlorine and caustic.

Methanol

Togliattiazot
Togliattiazot has completed the expansion of the methanol facilities which has increased total capacity from 450,000 tpa to a total of 1 million tpa. The expansion of capacity will increase export availability from the plant, in addition to providing more product for captive needs.

Novocherkassk Synthetic Products Plant
Novocherkassk Plant of Synthetic Products plans to invest $500 million into its production facilities and currently, negotiations are underway with work expected to start in around a year's time. Methanol is one of the products where focus is on expansion. In 2006, the company undertook maintenance at the methanol plant and increased capacity to 150,000 tpa which will be in operation in 2007. Besides methanol, Novocherkassk Plant of Synthetic Products intends to invest in acetic acid and formaldehyde production.

Capital Increases in Russian Petrochemical & Chemical Related Industries				
Place in top 300 Russian companies			Capital Value ($ million)	
30/06/06	30/06/05	Company	30/06/06	30/06/05
26	32	Uralalkali	3,128.2	1,412.7
46	48	Silvinit	1,565.2	751.3
52	40	Nizhnekamskneftekhim	1,434.0	1,039.3
56	59	Akron	1,287.6	575.5
64	56	Salavatnefteorgsintez	992.5	634.9
69	80	Yaroslavlorgsintez	932.7	373.1
72	88	Novoil (Ufa)	893.7	325.7
73	83	Ufaneftekhim	868.7	364.8
81	87	Azot Togliatti	776.9	339.9
82	72	LUKoil-Kstovo refinery	762.9	424.9
88	67	Kazanorgsintez	698.0	496.3
91	143	Moscow NPZ	679.9	130.1
95	129	Soda Sterlitamak	632.3	172.5
97	79	Azot Nevinnomyssk	618.5	374.5
99	114	Azot Novomoskovsk	612.4	223.7
110	141	Metafrax	490.2	132.1
121	112	Ammophos	416.2	232.4
125	99	Kalina	370.6	284.0
130	127	Azot Kemerovo	360.4	176.8
134	147	Ufaorgsintez	343.4	129.1
135	189	Kirovo-Chepetsk Chemical Combine	338.6	69.0
139	85	Apatit	330.6	355.5
141	170	Tuapse NPZ	323.3	87.4
151	123	Novosibirsk Chemical Concentrates Plant	273.4	190.2
153	226	Saratov NPZ	269.3	41.1
157	144	Drogobuzh	259.6	129.8
161	--	Veropharm	249.3	--
167	161	Azot Berezniki	227.3	101.5
172	180	Orsknefteorgsintez	214.5	76.0
190	158	Azot Cherepovets	159.8	108.7
206	152	Nizhnekamskshina	127.5	123.3
210	212	Omskshina	121.3	48.5
212	195	Voronezhsintezkaucuk	121.0	63.3
287	--	Amtel Volga	60.5	--
Totals			20,940.9	9,987.9

Capital values in Russian chemical industry

Capital values in the Russian chemical industry have increased sharply in the past two years, as shown by the following table which lists all types of companies ranging from feedstocks to pharmaceuticals. Chemical companies still are lagging behind other sectors, but broadly speaking capital values have more than doubled in the past two years as companies have turned to the stock market for share issues, etc. Increases in production activity have also helped. Metafrax, for example, saw three-fold increase in 2006 over 2005,

which takes the company close to $500 million in value. The company states that the growth in capitalisation is due to the introduction of new capacity.

UralMetanolGroup-equity increase
The Federal Service for financial markets has registered an emission of shares for UralMetanolGroup worth 260 million roubles. This represents a 47 fold increase in share values, with a total value of 265.6 million roubles. Shares are divided 50-50 between Itera and Uralkhimplast.

The main project of UralMetanolGroup is the construction of a methanol unit with a capacity of 400,000 tpa. A subsequent project involves the construction of propylene and polypropylene which is being evaluated by Lurgi. The aim is to produce polypropylene grades 400, 450, and 470 which are not produced in any quantities in Russia. Negotiations are being conducted with technology licensors. Poerner acting as a complex consultant for the methanol project.

Plastics

Dow-Krukovo
The Dow Chemical Company has started production at a facility in Krukovo, roughly 40km from Moscow. The plant is Dow's first in Russia and it will produce Styrofoam. The strategic aim is to establish Dow as an important and integral player in the building industry in Russia. In 2006, Dow and Russian polyurethane specialist Izolan announced a joint venture. Dow Izolan is expected to require more than one hundred employees and there are plans to build a new production plant close to Vladimir, 170km northeast of Moscow, within the next two years.

PE films-Kazan
Oriental-Print Company at Kazan started up and adjustment works of the equipment complex to manufacture single- and multi-layer polyethylene film were conducted by Oriental-Print Company at one of the Kazan-based enterprises. Both kinds of products are made by sleeve extrusion.

PET recycling
Katok-K in Tatarstan has opened a PET recycling plant with a capacity of 500 tpa. The processing of PET waste is seen as a positive economic move considering the cost of 1 kg of virgin PET is roughly €1 compared to €0.30 for recycled product. Consumption of PET in Russia reached a total of 569,400 tons in 2005, with the first half of 2006 showing around 390,000 tons. The recycled product will be used largely from supermarkets and other outlets in the Volga region, but it will not include PET bottles.

Ukraine

Ukrainian Polymer Trade 2006

Product Jan-Sep 2006 (Unit-Tons)	
Polyethylene	
Export	
HDPE	85,296
Import	
HDPE	102,806
LDPE	104,067
LLDPE	17,952
Polypropylene	
Export	40,032
Import	34,034
PVC	
Export	10,852
Import	79,992

Karpatneftekhim-2007 targets
LUKoil-Neftekhim has set targets for Karpatneftekhim for 2007 which involves a reduction in raw material processing by 7.2% down to 622,400 tons. Ethylene capacity is expected to run at 89%; polyethylene at 101%, VCM at 49% and caustic soda 80%. Karpatneftekhim expects problems with chlorine supply for VCM production, to the tune of 60,500 tons.

At the same time, work will continue with the suspension PVC plant, for which equipment should start to be installed at the end of 2007. The equipment is costing €74 million out of a total €113 million planned for investment this year.

In December 2006, Karpatneftekhim processed 56,987 tons of raw materials, and produced 17,980 tons of ethylene. VCM production amounted to 12,000 tons and caustic soda 4,580 tons. In January, Karpatneftekhim expects to process 64,099 tons of pyrolysis raw materials and to produce 20,189 tons of ethylene. The production of VCM was expected to rise to 16,750 tons, whilst caustic soda was expected to reach 5,284 tons.

Construction has started of the new chlorine-caustic plant at Kalush which is costing in the range of $500 million. The capacity of the plants will comprise 181,000 tpa of chlorine and 206,000 tpa of caustic soda, with project completion expected October 2007 and start-up planned for January 2008. The project construction and supplies of equipment are being organised by Uhde.

Azot-gas prices

Azot at Severodonetsk has stressed that gas prices have risen too high for Ukrainian chemical industry to be able to compete. For such large companies as Azot, which consume each month around 150 million cubic metres of gas, prices are making it difficult to survive. The current price of $130 per thousand cubic metres eventually totals around $200 after transport and VAT costs are added in.

Belarus

Mozyr NPZ-benzene

Mozyr NPZ reports that it has installed its new benzene unit with a capacity of 50,000 tpa. According to the plant, the total volume of production will be sold to Azot at Grodno, mainly for the production of caprolactam. Azot has had problems in recent years securing benzene feedstock from Russia and this new plant will help to ensure that caprolactam production runs uninterrupted. In addition, the extraction of benzene from the high-knock rating gasolines at the Mozyr refinery will make it possible to improve quality gasoline.

Central Asia

Shurtan-expansion plans

The Shurtan gas-chemical complex in Uzbekistan is running at full capacity and is in need of expansion. Being the only polyethylene plant in Central Asia, product from the complex is sold on the domestic and regional market without much competition. In fact, exports have dwindled to the point where Uzbekistan could need to import more product, and this is the reason behind thoughts of further investment. The development of the Shurtan complex has facilitated the profitable and economic use of Uzbek gas reserves which contain a high content of ethane, propane, and butane.

From 2002 to 2006, sales of polyethylene have increased 8.6 fold. Currently, ideas are being considered for the expansion of capacity and widening of range of polyethylene production, in addition to assessing the possibilities for new products such as polypropylene and PVC. The Shurtan field, which began producing in 1980 and is the second biggest in the country after Gazli, accounted for approximately 36% of Uzbekistan's total natural gas output in 2005 so the region’s reserves are extremely advantageous.

Pending projects in western Kazakhstan could affect the perceived prospects for new capacity, but with demand raising for all types of polymers quickly in Uzbekistan it seems that there is good momentum to support new investments.

Currencies

(Czech crown, Kc, $1= 21.761, €1 = 28.130)
(Hungarian Forint, Ft, $1 = 198.49, €1 = 256.58)
(Polish zloty, zl, $1 =3.0378, €1 =3.9270)
(Ukrainian hryvnia, $1 = 5.0560, €1 = 6.5359)
(Rus rouble, $1 = 26.575, €1= 34.353)

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