

CIREC

MONTHLY NEWS

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

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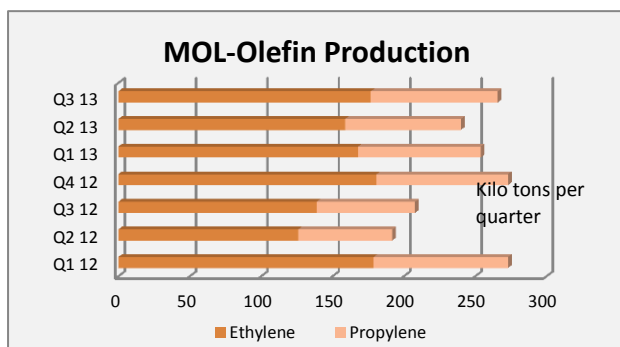
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CENTRAL & SOUTH EAST EUROPE

Petrochemicals



MOL Q3 2013

MOL reported a third-quarter loss of Ft 30.0 billion due principally to a write-down on the assets of the Mantua refinery in Italy, but overall the group reported improved earnings. Revenue of MOL's downstream business edged up 3% to Ft 1.312 billion, generating an operating loss of Ft 92.0 billion. Revenue of the upstream business had the main negative effect on the results falling 14% to Ft 155.2 billion whilst the operating profit fell 41% at Ft 42.4 billion. MOL intends to begin conversion of the Mantua refinery into a logistics hub in January of next year.

In the petrochemical sector, MOL is managing two new important projects, including a new LDPE plant at Bratislava and a butadiene plant at Tiszaújváros. These projects represent key investments for MOL's subsidiaries Slovnaft and TVK.

MOL's Olefin & Polyolefin Sales (unit-kilo tons)

| Product | Jan-Sep 13 | Jan-Sep 12 |
|-----------|------------|------------|
| Ethylene | 504 | 444 |
| Propylene | 256 | 229 |
| Product | Jan-Sep 13 | Jan-Sep 12 |
| LDPE | 110 | 121 |
| HDPE | 274 | 223 |
| PP | 320 | 321 |

Production volumes for petrochemicals for the MOL Group increased for the period January to September 2013 against 2012, effectively the result of much reduced maintenance time this year. Ethylene production (from TVK and Slovnaft) totalled 504,000 tons for the MOL Group in the first three quarters in 2013 against 444,000 tons in 2012. Propylene rose from 229,000 tons to 256,000 tons. Most of the ethylene increase can be attributed to TVK where also HDPE production rose significantly over 2012.

The financial picture for the third quarter was reflective of the Q1-Q3 period. MOL's revenue slipped 1% to Ft 4.01trillion in the first three quarters in 2013, but the cost of raw materials and consumables was flat at Ft 3.30 trillion. Operating costs rose 3% to Ft 4.05 trillion, causing operating profit to fall 86% to Ft 25.8 billion. In other business, MOL has authorised the executive board to prepare the sale of the group's stake in INA. MOL owns 49.1% of INA's shares, while the Croatian state holds 44.84%.

TVK's Sales' Revenues (Ft million)

| Exports | Jan-Sep 2013 | Jan-Sep 2012 |
|-------------|--------------|--------------|
| Olefin | 7,456 | 16,221 |
| LDPE | 3,455 | 8,939 |
| HDPE | 93,652 | 70,832 |
| PP | 42,176 | 36,588 |
| Domestic | Jan-Sep 2013 | Jan-Sep 2012 |
| Olefin | 97,889 | 86,311 |
| LDPE | 4,410 | 7,980 |
| HDPE | 9,270 | 9,054 |
| PP | 32,698 | 31,954 |
| Total Sales | Jan-Sep 2013 | Jan-Sep 2012 |
| Olefin | 105,345 | 102,532 |
| LDPE | 7,865 | 16,919 |
| HDPE | 102,922 | 79,886 |
| PP | 74,874 | 68,542 |
| Total | 291,006 | 267,879 |

TVK Q3 2013

TVK increased its operating profit (EBIT) in the third quarter by Ft 1 billion against the second quarter due to higher production and sales volumes, whilst the company was helped that prices of main energy sources were lower and by the strengthening of Euro against US dollar. Negative factors such as demand side weakness prevailed, but overall though for the first nine months TVK's operating profit improved by Ft 21 million to a total of Ft 11 billion.

The integrated petrochemical margin rose by 27% mainly due to decreasing naphtha prices and this was the major positive factor for TVK in Q3 2013 besides higher production and sales volumes. The higher volume of used olefin feedstock increased costs for TVK in the third quarter, although lower purchase prices offset some of the impact. Energy costs increased due to higher feedstock consumption and also that in 2012 TVK used its own tar for heat production keeping costs down, but natural gas was used in 2013.

The capacity utilisation rate for TVK increased by 8.1% in the third quarter against the second quarter and totalled 83.1% overall. HDPE production has been higher for TVK this year due to less maintenance although LDPE sales have been affected by plant outages. TVK achieved

48% of its sales revenues from export sales, including Italy (15%), Poland (15%), Germany (15%), Ukraine (6%), Czech Republic (6%), Romania (4%), Austria (4%) and Slovakia (2%).

**Central European Refining Volumes
(unit-million tons)**

| Company | Jan-Sep 13 | Jan-Sep 12 |
|---------------|------------|------------|
| INA | 3.0 | 3.1 |
| Lotos | 5.3 | 7.1 |
| LUKoil Bul | 3.8 | 4.6 |
| MOL | 9.7 | 9.3 |
| NIS | 2.2 | 1.5 |
| Orlen-Lietuva | 6.9 | 6.0 |
| Orlen-Plock | 11.2 | 11.3 |
| Petrom | 3.7 | 2.2 |
| Rompetrol | 2.8 | 3.0 |
| Slovnaft | 4.0 | 4.2 |
| Unipetrol | 2.7 | 3.0 |
| Total | 55.4 | 55.2 |

TVK aims to start butadiene project in Q2 2015

The major development in 2013 for TVK comprises the foundation for the butadiene-extraction unit, where construction work started in October. The contractor (Lurgi/OTF consortium) is currently undertaking the preparation of detailed design after landscaping and groundwork activity began in September.

The construction of the most important part of the project, the C4/C5 separation unit, is reported to be on schedule. The implementation of the other service units, including pipelines and other infrastructural tasks are in different stages. The planned commercial operation is considered feasible for the second quarter of 2015.

After the start-up of commercial production of butadiene, TVK and MOL's downstream division is expected to see significant benefits. The plant will create 32 new positions and it creates the possibility to start producing brand new products in the MOL Group by the extension of the petrochemical value chain.

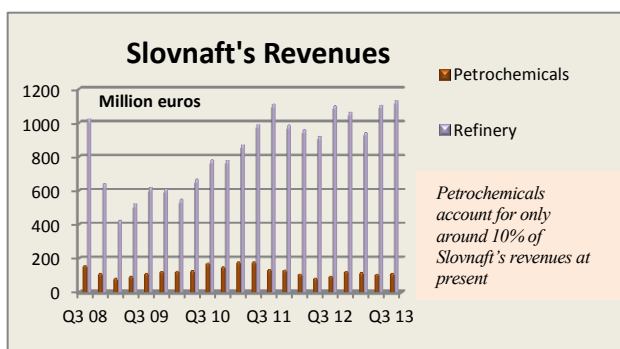
Central European S-SBR Projects

| Company | Capacity | Technology | Start-up date (projected) |
|---------|----------|-------------|---------------------------|
| MOL | 60,000 | JSR (Japan) | 2017 |
| Synthos | 100,000 | Goodyear | 2015 |

MOL-JSR synthetic rubber project (S-SBR)

Following the start of construction for the butadiene plant MOL and Japan Synthetic Rubber Corporation (JSR) have agreed to establish a jv to set up a plant in Hungary to produce synthetic rubber. JSR will hold 51% and MOL 49% in the jv. The

companies have filed for competition office approval, as required by Hungarian law. Provisionally the plant's capacity will be designed to produce 60,000 tpa of solution polymerization styrene-butadiene rubber (S-SBR), and production has been targeted to start in 2017. This will provide an outlet for the butadiene plant under construction at Tiszaújváros. Synthos in Poland has already started the construction of an S-SBR plant, with a capacity of 100,000 tpa, and this should be ready to start in 2015.



Slovnaft, Jan-Sep 2013

Slovnaft's oil product sales rose by 16% in the first three quarters of this year, mainly due to higher exports. Higher sales combined with the positive effects of the internal cost efficiency enabled Slovnaft to report a favourable economic result for the first three quarters. Conversely, declining domestic sales combined with weaker margins dampened the results.

In the third quarter the construction of a new polyethylene production line was started. The cost of construction of the LDPE plant is estimated at €200

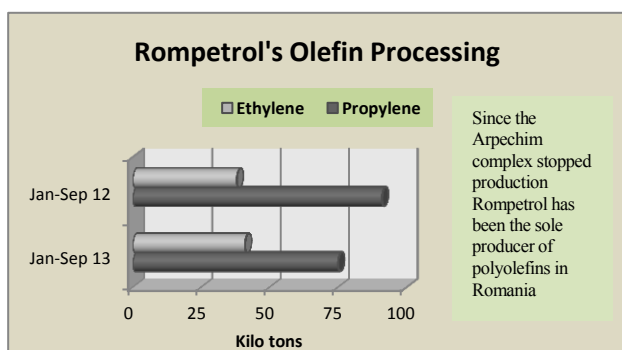
million and an additional €100 million will be needed to revamp the ethylene plant. Funds will be also required to be spent on associated logistics infrastructure. Slovnaft is financing investment through a combination of its own funds, loans from the EBRD and commercial bank loans. The new facility will replace seven older plants and produce polyethylene for a wide range of applications. The new plant will have a capacity of 220,000 tpa replacing the existing plant of 180,000 tpa.

Slovnaft's monomer and polymer production increased by 13% in the third quarter this year and totalled 87,000 tons. Total domestic sales in Q3 2013 decreased slightly (by 3%) as a result of lower demand. Total export sales in Q3 2013 increased by 19%, influenced by increased export activity.

Unipetrol-Czeska Rafinerksa & coal supply

Unipetrol agreed to buy the 16.3% stake in Česká Rafinérská held by Royal Dutch Shell as part of a plan to curb costs. Unipetrol will pay Shell \$27.2 million to raise its stake to 67.6%. Česká Rafinérská runs refineries in Kralupy and Litvinov and the deal is expected to be concluded early next year.

Unipetrol RPA has signed a long-term contract for the supply of coal from Severní energetická, lasting until the end of 2017. The volume of supply is expected to reach up to 1 million tpa of coal, and the contract will depend on the market price of and exchange rate. The agreement contributes to the development of the group's business, particularly in ensuring the stable and reliable sources of energy.



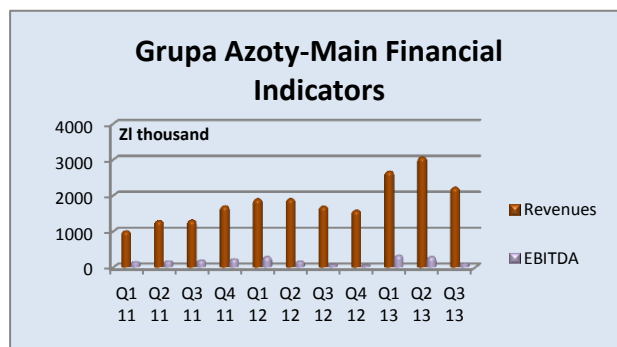
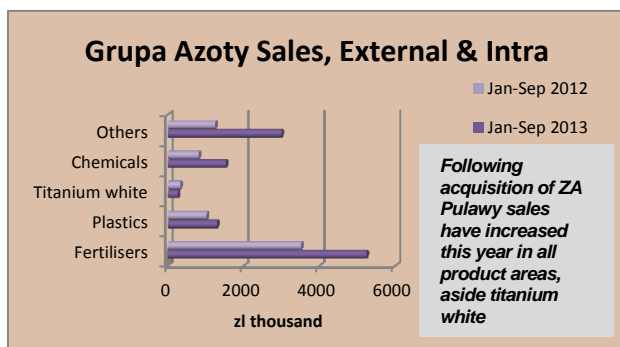
Rompetro Petrochemicals, Jan-Sep 2013

Revenues for Rompetro's petrochemical division amounted to \$171 million in the first nine months in 2013, 4% down on last year. The fall in revenues was due to a planned maintenance shutdown in March.

Similarly to Slovnaft in Slovakia, the petrochemical activities of the Rompetro Group represent a small part of the group revenues. From the end of November Rompetro has decided to integrate the petrochemical division into the refinery arm in order to cut costs and increase the overall efficiency of the group's operations.

Rompetro Petrochemicals is the only producer of propylene and polyethylene in Romania. Its assets amount to an estimated \$132 million. Recently Rompetro Rafinare completed revamping the coker unit at the Petromidia refinery, following an investment of around \$53 million. Following the \$1.3 billion investments supported by Rompetro Group between 2007 and 2012, Petromidia refinery increased its production capacity to 14,000 tons per day.

Chemicals



Grupa Azoty, third quarter 2013 & year to date results

Grupa Azoty's profit results were lower in the third quarter than expected due mostly to weak margins for the majority of products sold through the group. Sales for the third quarter were down noticeably against the second and first quarters in 2013. Overall though the three quarters were higher than in 2012, aside the titanium white division which is managed by ZCh Polce. The advantages of the amalgamation of the Pulawy group into Grupa Azoty have shown up in the large rises in revenue sales, but at this early stage of the acquisition are yet to filter through into tangible effects.

Grupa Azoty achieved revenues of zł 7.5 billion in the period January to September 2013 against zł 5.5 billion in 2012. The EBIT level fluctuated slightly below the level of the previous year, mainly due to the difficult situation in demand and pricing for mixed fertilisers, and raw materials for the plastics division. Fertilisers accounted for 56.5% of sales revenues for Grupa Azoty in the third quarter. Plastics accounted for 16% of sales, but achieved a loss due mainly to higher raw material costs. Caprolactam and polyamide both face margin pressure, reporting higher prices for benzene by 8.5% and phenol by 6.5%.

The newly formed chemicals division, including melamine and oxo alcohols, accounted for 19.6% of sales for Grupa Azoty in the third quarter. Oxo alcohols were subjected to high propylene price rises in the third quarter, although prices for normal butanol and 2-EH managed to correlate with the hikes in propylene due to stronger demand. Isobutanol sales upheld in the third quarter, although it was necessary to sell product to other regions outside the EU and at lower prices. Grupa Azoty ZAK reported a positive EBIT of zł 6 million in the period January to September this year, compared to a loss a year earlier. The net profit of the Kedzierzyn complex amounted to zł 3 million this year against a loss of zł 13 million in 2012.

Polish Chemical Production (unit-kilo tons)

| Product | Jan-Oct 13 | Jan-Oct 12 |
|-----------------------|-------------------|-------------------|
| Caustic Soda Liquid | 260.3 | 247.6 |
| Caustic Soda Solid | 67.0 | 52.5 |
| Soda Ash | 868.8 | 933.0 |
| Ethylene | 411.2 | 360.6 |
| Propylene | 295.2 | 263.6 |
| Butadiene | 44.6 | 45.6 |
| Toluene | 15.3 | 17.6 |
| Phenol | 28.5 | 29.8 |
| Caprolactam | 131.0 | 136.4 |
| Acetic Acid | 6.7 | 6.6 |
| Polyethylene | 288.9 | 260.8 |
| Polystyrene | 46.5 | 44.7 |
| EPS | 66.5 | 68.2 |
| PVC | 265.4 | 213.3 |
| Polypropylene | 219.9 | 200.2 |
| Synthetic Rubber | 163.1 | 160.2 |
| Ammonia (Gaseous) | 1057.8 | 1043.0 |
| Ammonia (Liquid) | 985.6 | 1067.4 |
| Pesticides | 17.8 | 20.5 |
| Nitric Acid | 1897.0 | 1926.0 |
| Nitrogen Fertilisers | 1493.0 | 1490.3 |
| Phosphate Fertilisers | 312.5 | 373.9 |
| Potassium Fertilisers | 254.8 | 287.3 |

Grupa Azoty agrees 85% stake in Siarkopol

Grupa Azoty and the Polish Treasury signed a memorandum of transfer on 21 November for 85% of shares in the sulphur producer Siarkopol. This represents the latest addition to the Azoty group, following the recent acquisition of phosphate deposits by ZCh Police in Senegal. Extending the value chain of its raw material base for Grupa Azoty is part of the strategy at cost reduction and vertical integration. Sulphur is used for a variety of products in the group.

Under the agreement, Azoty has pledged zł 30 million towards investment in Siarkopol. The most important tasks that the group wishes to undertake include the stabilisation of production and increasing the level and quality of granulated sulphur.

PCC Rokita, Jan-Sep 2013

PCC Rokita achieved revenues of zł 854 million in the first three quarters of this year, up by 11.2% over 2012. Operating profit amounted to zł 56.6 million, representing an increase of 20.7%. The ethoxylate subsidiary PCC Exol recorded an increase in profits by 37%.

The increase in revenue was mainly due to increased sales of products produced in the chlorine complex and the polyol division.

PCC Exol achieved revenues of zł 345.5 million in the period January to September, up 45.1% over 2012, and zł 4.3 million in net profit. Sales were directed to domestic and global markets. The company accrued 59.7% of revenues from the sale of surfactants used in the detergents and personal care, and 40.3% in industrial applications. PCC Exol generated a profit margin of 13.2% in the first three quarters in 2013.

Synthos, Jan-Sep 2013

Synthos generated profits of zł 82.4 million in the third quarter in 2013, zł 28.5 million less than in 2012. Revenues dropped from zł 1.58 billion in the third quarter last year to zł 1.4 billion in 2013. Among the negative factors included the weak economic situation in the EU and the lower-than-expected pace of China's development. The demand for tyres was dented by the economic environment, affecting rubber sales, whilst the construction industry also performed weakly.

Synthos-Main Product Revenues (zł thousand)

| Product Group | Jan-Sep 13 | Jan-Sep 12 |
|----------------------|-------------------|-------------------|
| Synthetic Rubber | 2346.4 | 3104.8 |
| Polystyrene | 1520.1 | 1436.0 |
| Dispersions | 88.5 | 85.9 |
| Energy | 197.4 | 172.3 |

Ciech Revenues-Organic Division (zł thousand)

| Product | Jan-Sep 2013 | Jan-Sep 2012 |
|--------------------|---------------------|---------------------|
| TDI | 49.5 | 419.7 |
| Resins | 314.6 | 364.2 |
| Polyurethane foams | 151.9 | 128.9 |
| Plastics | 30.2 | 29.5 |
| EPI | 1.7 | 51.8 |
| Total | 547.9 | 994.2 |

Ciech Revenues-Soda Division (zł thousand)

| Product | Jan-Sep 2013 | Jan-Sep 2012 |
|--------------------|---------------------|---------------------|
| Soda Ash Heavy | 809.3 | 827.2 |
| Soda Ash Light | 243.6 | 252.4 |
| Salt | 119.9 | 116.3 |
| Sodium Bicarbonate | 95.2 | 88.9 |
| Calcium Chloride | 16.7 | 11.5 |
| Total | 1284.6 | 1296.3 |

sodium bicarbonate.

The main factors affecting performance for Synthos this year have been the low prices of butadiene and synthetic rubber. Global butadiene supply has increased due to the commissioning of new production facilities in China and Taiwan, whilst European olefin producers are targeting C4 extraction in order to produce more butadiene.

Ciech-soda ash expansion

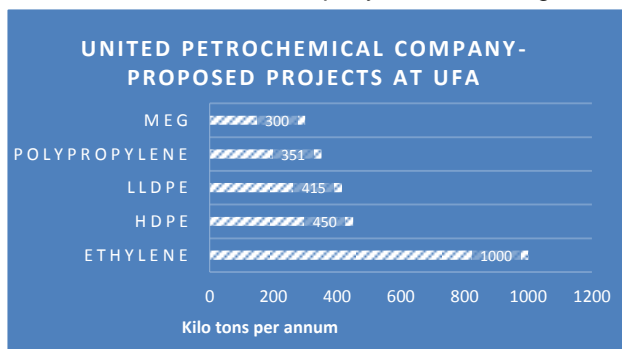
Ciech is considering the expansion of the soda ash facilities in the Pomeranian Special Economic Zone by 200,000 tpa, a project which could start in 2014. The costs of expansion are estimated at around zł 240 million and would require two years to complete. Currently, total production capacity of soda ash in the Ciech Group amounts to 2.2 million tpa, of which 1.2 million tpa is based in Poland using two plants, another 560,000 tpa in Germany and 440,000 tpa at the Govora plant in Romania. Out of the total production capacity about 200,000 tpa of soda ash is used for further processing in

RUSSIA

Russian petrochemical projects

United Petrochemical Company, PTA-PET projects and planned ethylene complex

United Petrochemical Company is considering the construction of a one million tpa cracker in Bashkortostan based on raw materials provided by Bashneft. United Petrochemical Company is contemplating project ideas that require investments of around \$5 billion for the production of PTA and PET and the establishment of a petrochemical complex at Ufa. The aim is to construct 1 million tpa of ethylene, requires an estimated \$4.5 billion in investment.



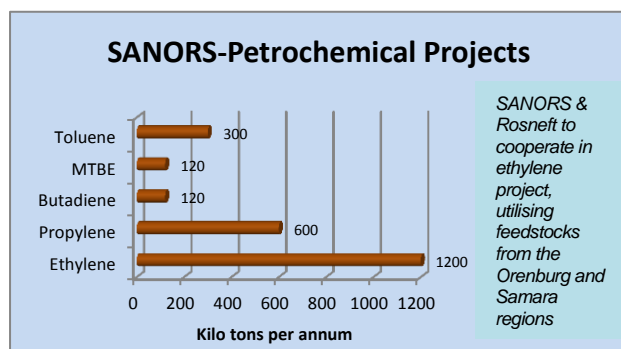
The ethylene complex is a bigger project and the FEED documentation is unlikely to be available before 2015.

United Petrochemical Company hopes to receive concessions from the government of Bashkortostan, such as exclusion for tax payments for up to ten years. Other benefits sought include infrastructural support in terms of rail/road links and electricity, gas and water supply.

At this early stage of project evaluation United Petrochemical Company is considering polymer projects for HDPE, LLDPE, polypropylene and MEG. United Petrochemical Company is a vertically integrated petrochemical group, which owns four enterprises in Bashkortostan including Ufaorgsintez, gas-processing plants Tuimazinskoye GLP and Shkapovskoye GPP and Bisphenol A. Ufakhimprom previously owned the bisphenol A plant.

SANORS-ethylene license in early 2014

SANORS expects to reach a decision on which ethylene technology it wishes to utilise by the end of January. Licensors under consideration include the Linde Group and Technip. In June 2013, SANORS and Rosneft signed an agreement on the principal terms of the joint venture, based on the gas processing assets of Rosneft and petrochemical assets of SANORS located respectively in the Orenburg and Samara regions.



processing 1 million tpa of feedstocks, including ethane-propane fraction, propane, isobutane, butane, isopentane, and pentane fractions.

SIBUR-Ust Luga terminal

In recent weeks SIBUR has received delivery of its new gas carrier SIBUR Tobol at Ust Luga, which will be used by SIBUR for regular year round transportation of LPG at the new terminal. LNG.SIBUR Tobol is the second vessel chartered by SIBUR. The first gas carrier SIBUR Voronezh arrived in Ust-Luga in September, and has already undertaken trips to deliver LPG to European consumers. The Voronezh and Tobol ships are both 159 metres long and have deadweight of 22,760 tons.

SIBUR-Portenergo began construction of a terminal for transshipment of LPG at the port of Ust-Luga in May 2010. This export terminal is to become the largest in Russia in terms of handling LPG. Its design capacity is 1.5 million tpa of LPG and 2.5 million tpa of light oil. The complex is located in the Leningrad region in the southern part of the bay of Gulf of Finland, and is designed to receive liquefied petroleum gas and light oil products from rail tank cars, storage and loading of sea-going vessels, including tankers and gas carriers.

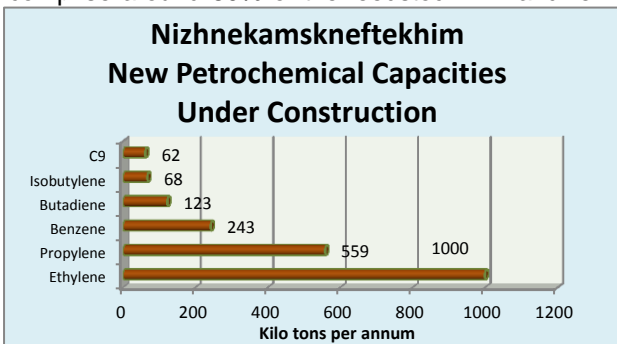
The design target of the cracker includes 1.2 million tpa of ethylene and 600,000 tpa of propylene. Other products that could be included in the complex include butadiene, toluene and MTBE. For the production of polymers SANORS is considering capacities of up to 2.5 million tpa and for organic chemicals 250,000 tpa.

SANORS-gas fractionating unit at Novokuibyshevsk

SANORS has commissioned central gas fractionation plant N2 (TSGFU-2) at Novokuibyshevsk after modernisation and technical re-equipment. With the introduction of TSGFU-2 SANORS is now capable of

Nizhnekamskneftekhim's ethylene project-feedstock mix

For the new 1 million tpa ethylene cracker project at Nizhnekamsk, Nizhnekamskneftekhim intends for naphtha to comprise around 80% of the feedstock mix and remainder made up from mixed raw materials, mostly propane



and butane. The naphtha is expected to be sourced in the main from the Taneko refinery, whilst propane-butane mixture will be available from internal production and from purchases from SIBUR's network of gas processing plants. The Taneko refinery at Nizhnekamsk has just started its new hydrogen unit and currently has the capacity to produce 600,000 tpa of naphtha, which is to be expanded as part of the investment programme.

The new ethylene complex at Nizhnekamsk is being designed to consist of four main process units, including the production of ethylene, butadiene extraction, pyrolysis gasoline hydrogenation and a Pyrotol unit for benzene production. Nizhnekamskneftekhim is currently in the pre-investment phase of the project. The company recently received the documentation for the FEED (front-end engineering design, revealed the design). The development of financial models should be completed by the end of the year.

Russian Chemical Production (unit-kilo tons)

| Product | Jan-Oct 13 | Jan-Oct 12 |
|-----------------------|------------|------------|
| Caustic Soda | 852 | 893 |
| Soda Ash | 2,047 | 2,374 |
| Ethylene | 2,175 | 1,905 |
| Propylene | 1,044 | 925 |
| Benzene | 984 | 892 |
| Xylenes | 401 | 404 |
| Styrene | 553 | 453 |
| Phenol | 234 | 230 |
| Ammonia | 11,826 | 12,408 |
| Nitrogen Fertilisers | 6,698 | 6,656 |
| Phosphate Fertilisers | 2,596 | 2,566 |
| Potash Fertilisers | 5,766 | 5,455 |
| Plastics in Bulk | 4,978 | 4,559 |
| Polyethylene | 1,511 | 1,297 |
| Polystyrene | 375 | 332 |
| PVC | 532 | 527 |
| Polypropylene | 686 | 593 |
| Polyamide | 113 | 96 |
| Synthetic Rubber | 1,238 | 1,181 |
| Synthetic Fibres | 115 | 111 |

Last year Nizhnekamskneftekhim chose licensors for the project, and entered into an agreement with Lummus for ethylene production. It also concluded agreements with Ineos for polyethylene (600,000 tpa), Basell for polypropylene (400,000 tpa). A regional hearing was held in November for the environmental impact assessment (EIA) of the planned activities for the construction of the new complex.

SIBUR-Belogorsk petrochemical prospects

Although it can be described as a long-term concept SIBUR is in the early stages of considering the construction of a gas chemical complex at Belogorsk, based on ethane produced at the projected Belogorsk GPP under Gazprom's investment plans. Gazprom and SIBUR have already signed a memorandum on cooperation in the creation of a gas processing plant and a gas chemical complex at Belogorsk in the Amur region and Russian Far East.

The parties have agreed to work together to create a large processing complex based on feedstocks from the eastern regions of Irkutsk and Yakutia. Gazprom has to date outlined preliminary plans to build a gas processing plant at Belogorsk up to 60 billion cubic metres per annum, which will extract ethane and other valuable components. From this feedstock base SIBUR could create a gas chemical complex using the ethane

from Belogorsk to obtain monomers.

The Far East represents the region where the potentially the greatest investment in petrochemicals in Russia could take place. The obvious attraction is China and South East Asia and the possibility to monetize feedstocks. Should the project ideas at Nakhodka and other locations in the Far East materialise the Russian Ministry of Economy has speculated that total polymer production capacity in Russia could reach 5.6 million tpa by 2030.

| Potential Russian Far East Petrochemical Projects 2015-2025 | |
|---|--|
| Location | Project Status, Concept or in Planning |
| Angarsk | Existing Angarsk Polymer Plant could be expanded based on gas feedstocks. Rosneft assessing options |
| Belogorsk | New-helium & gas-chemical complex. Gazprom and SIBUR have formed prelim agreements for polymer projects |
| Nakhodka | Eastern Petrochemical Company (Rosneft). Project underway, but questions remain over feedstocks via ESPO |
| Sayansk | Sayanskkhimplast could be converted from PVC producer to petrochemical complex, using ethane feedstocks |
| Ussolye-Sibirsk | Revival of defunct chemical site following collapse of Nitel's polysilicon business? |
| Ust Kut | Irkutsk Oil Company to utilise local feedstocks to produce polymers, aided by support from EBRD |

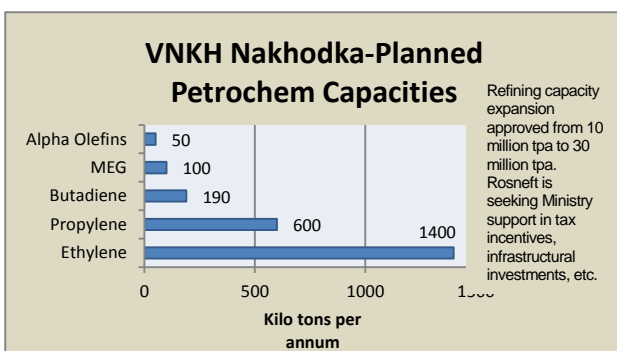
According to the development programme, Gazprom plans to start producing at Chayanda deposits in 2016, before proceeding to Kovytk. The Chayanda field is the base for the Yakutia gas production centre. Gas reserves of the field for C1 + C2 reserves amount to an estimated 1.3 trillion cubic metres of gas, and 79.1 million tons of recoverable oil and condensate reserves.

| Gazprom's Hydrocarbon Fields in Irkutsk/Yakutia | | |
|--|-----------------|-----------------|
| Field/Deposit | C1 + C2 | Condensates |
| Chayanda | 1.3 trillion m3 | 79 million tons |
| Kovytk | 1.5 trillion m3 | 77 million tons |

Gazprom started its pilot development work at Kovytk in October 2011 and this will last until 2017 before the field is put into production. Kovytk gas reserves in category A + B + C1 + C2 reserves amount to 1.5 trillion cubic metres and 77 million tons of gas condensate.

Until recently large deposits in the Irkutsk region were blocked from usage and development, preventing further progress in downstream areas such as petrochemicals. However in 2011, following the debacle with TNK-BP Gazprom won the right to develop the Kovytk and at the same time started to look at the prospects for building a petrochemical complex at Sayansk.

Sayanskhimplast has been planning investments in petrochemicals for up to a decade, but has been prevented from undertaking these plans due to complications in ownership of the Kovytk deposits. In addition to Sayansk, Angarsk could be used for developing gas based chemical units converting from naphtha which it currently uses for ethylene production. Even Usolye-Sibirsk, the site of the now defunct Nitol polycrystalline plant, is under consideration for possible investment. Hence, the Irkutsk region has huge potential for petrochemicals, and particularly now as many of the major barriers to development have been removed.



Eastern Petrochemical Company (VNKH) project & Ministry support

The Board of Directors of Rosneft decided in November to proceed with plans to increase the refining capacity of the Eastern Petrochemical Company (VNKH) from 10 to 30 million tpa. In order to comply with the increase in capacity it has been necessary to change the location of the plant to the Elizarova Partizansk Padi district in the Primorsk Kray. Investment in the construction of the three phases of \$1.3 trillion.

Rosneft has asked the relevant agencies to provide a number of tax incentives, including income tax and property for the project to build the first stage of VNHK. The company has also proposed the possibility of state funding of infrastructure construction of the project.

The Ministry of Energy plans in the near future to decide whether state support should be allocated to Rosneft for the construction of the VNHK complex. Rosneft recently sent requests to the Ministry of Energy, Ministry of Economic Development, Ministry of Finance and other departments of the substantiation of investment in the project of building VNHK, and information on internal rate of return. The VNHK project involves the construction of three phases with a total capacity of 24 million tpa of oil and 6.8 million tpa of naphtha. The estimated cost of the project has been tabled 1.313 trillion roubles. The project will be provided with raw materials from its own resource base, but will require an expansion of the East Siberian Pacific Ocean (ESPO) pipeline from the current capacity of 50 million tpa to 80 million tpa by 2020 and to 91 million tpa by 2028.

| Russian LPG Production (unit-kilo tons) | | |
|--|------------|------------|
| Producer | Jan-Oct 13 | Jan-Oct 12 |
| SIBUR | 2.7 | 2.5 |
| LUKoil | 0.9 | 0.9 |
| Nizhnekamskneftekhim | 0.9 | 0.9 |
| Surgutneftegaz | 0.5 | 0.6 |
| Gazprom | 2.2 | 1.9 |
| Gazprom Neft | 0.4 | 0.4 |
| Rosneft | 0.4 | 0.1 |
| Slavneft | 0.2 | 0.2 |
| Others | 0.6 | 1.0 |
| Total | 8.8 | 8.4 |

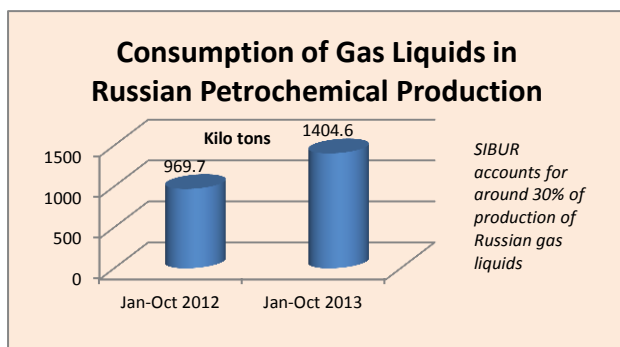
Rosneft has asked Gazprom to increase gas supplies to VNHK from 1.7 billion to 4.3 billion cubic metres per annum. To increase the supply Rosneft proposes to build a gas pipeline linking Gazprom's main pipeline Sakhalin-Khabarovsk-Vladivostok to the city of Nakhodka, with a connection point near Novolitovsk Partizansk in the Primorsk Kray.

Russian petrochemical producers & markets

Russian feedstock supplies, Jan-Oct 2013

C4 imports totalled 4,000 tons in October, 41% less than in

September. The main reason for the reduction in imports was low demand. Nizhnekamskneftekhim reduced imports by 46% to 3,000 tons. Imports for C4s into Russia amounted to 50,700 tons in January to October 2013, 50% less than in 2012.



Russian propane supplies to the petrochemical industry amounted 137,090 tons in the period January to October 2013, 29% less than in 2012. The majority of the propane sales, from the total of 583,310 tons, has been directed to the fuel division.

For January to October 2013, sales of LPGs to Russian petrochemical plants totalled 1.404 million tons against 0.969 million tons in 2012. Russian petrochemical plants bought 162,040 tons of gas liquids in October, 11% up on September. The increase in consumption was due to

more purchases by Nizhnekamskneftekhim. TAIF bought 50,290 tons of natural gas liquids, 1.5 times more than in September. SIBUR-Kstovo also increased the consumption of these products to 38,280 tons (+19%).

Propylene Domestic Shipments by Russian Producers
unit-kilo tons)

| Company | Q1 13 | Q2 13 | Q3 13 |
|-----------------------|-------|-------|-------|
| Angarsk Polymer Plant | 16.4 | 18.1 | 9.8 |
| Omsk Kaucuk | 2.7 | 0.0 | 0.1 |
| SIBUR-Neftekhim | 28.4 | 20.5 | 32.3 |
| Akrilat | 0.0 | 2.0 | 0.0 |
| LUKoil-NNOS | 37.6 | 33.5 | 38.5 |
| Tomskneftekhim | 0.0 | 0.1 | 0.1 |
| Stavrolen | 1.2 | 1.8 | 0.0 |
| Total | 86.3 | 75.9 | 80.8 |

Merchant naphtha sales to Russian petrochemical plants amounted to 104,700 tons in October, 2% down on September. In the first ten months in 2013 Russian sales of naphtha to the petrochemical sector totalled 897,500 tons against 571,500 tons in 2012.

Purchases of naphtha were up 27% over 2012 due mainly to the restart of the Stavrolen cracker which was mostly idle in the first ten months last year. Other plants have tended to balance their naphtha consumption against LPG purchases. For example, Tomskneftekhim reduced purchases of naphtha from 48,100 tons in September to 32,000 tons in October, influenced by higher LPG usage.

Russian propane-propylene fractions

Russian producers shipped 17,000 tons of propane-propylene fractions to the domestic market in October, 1.7 times less than in September. The main reason for the reduction was lower availability from Gazprom Neft at Omsk, falling 10.1 times to 973 tons. The Ryazan refinery sold 11,900 tons in October, 14% down whilst Slavneft-Yanos increased sales 33% to 3,800 tons. Exports of Russian propane-propylene fractions amounted to 40,400 tons in January October 2013, 1.5 times more than in 2012. The Ryazan refinery was responsible for 93% of exports.

Russian Styrene Production
(unit-kilo tons)

| Producer | Jan-Oct 13 | Jan-Oct 12 |
|---------------------------|------------|------------|
| Nizhnekamskneftekhim | 201.9 | 168.5 |
| Angarsk Polymer Plant | 26.3 | 27.0 |
| SIBUR-Khimprom | 81.3 | 86.7 |
| Gazprom Neftekhim Salavat | 145.5 | 103.0 |
| Plastik, Uzlovaya | 48.5 | 54.6 |
| Total | 503.5 | 439.8 |

Russian styrene, Jan-Oct 2013

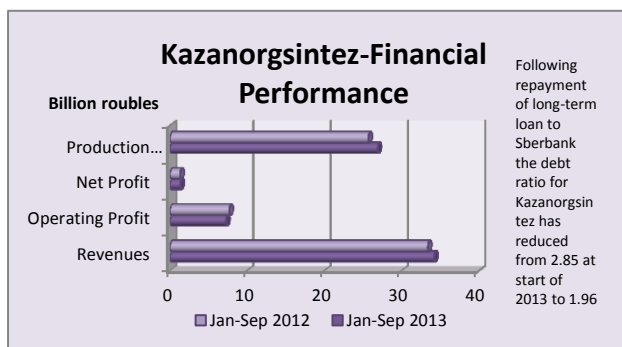
Styrene production rose 46% in October to 57,100 tons. Maintenance was carried out in September at plants, including Plastik at Uzlovaya and Angarsk Polymer Plant. Plastik increased production by 2.5 times to 5,000 tons and Angarsk polymer Plant by 2.2 times to 3,200 tons. In addition, Nizhnekamskneftekhim increased operating time by 1.6 times to 22,900 tons. Russian styrene production totalled 503,500 tons in the first ten months in 2013, 17% up on 2012.

Russian styrene producers sold 8,000 tons on the Russian domestic market in October, unchanged from September. Gazprom Neftekhim Salavat increased by 13% to 6,700 tons. SIBUR-Khimprom reduced sales by 1.7 times to 907 tons. In the period January to October 2013, producers shipped 78,200 tons of styrene to the domestic market, 7% more than in 2012.

Styrene exports dropped 2.5 times in October against September to 4,600 tons. Gazprom Neftekhim Salavat exported only 2,800 tons in October against 11,000 tons in September, due primarily to lower imports from Stirol in Ukraine. Russian exports totalled 99,100 tons in the first ten months in 2013, 6% less than in 2012.

Kazanorgsintez, Jan-Sep 2013 debt reduction

Financial results for Kazanorgsintez in the period January to September this year were not dissimilar to performance in 2012. However, they appear to be quite successful compared to other Russian chemical producers in this reporting period. A large number of chemical companies in Russia reported negative results for the third quarter, but Kazanorgsintez has remained fairly stable even if the operating profit did decline slightly.

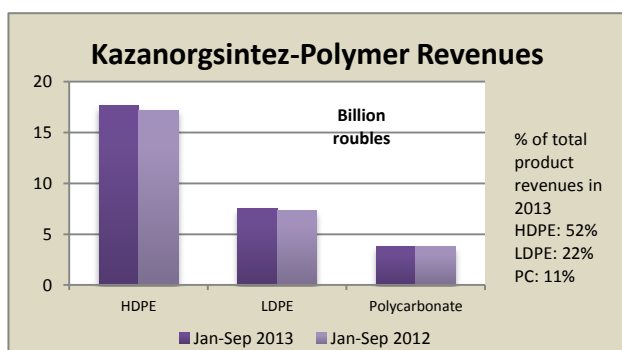


The main achievement for the company this year has been the reduction of the total amount of outstanding loans by 15.7% to 19.519 billion roubles. The volume of long-term debt at the end of the third quarter amounted to 17.365 billion roubles, which is 19.7% less than the beginning of the year.

Thus, the debt ratio for Kazanorgsintez has improved from 2.85 in January to September 2012 to 1.96 in 2013. The improved index was mainly due to early redemption of long-term loan from Sberbank, which affected the

decrease in long-term debt by 7.6 billion roubles or 28.3%. Labour productivity for the first 9 months of 2013 amounted to 4,193 roubles per worker, 2.3% higher than in 2012. The increase has been mainly driven from the increase in sales revenue in 2013.

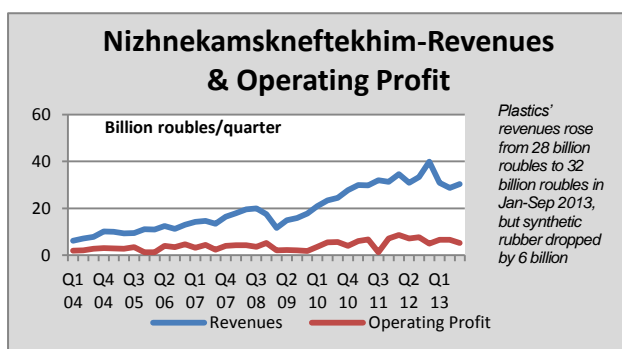
HDPE remains the dominant product for Kazanorgsintez, accounting for over half of the company's revenues. Kazanorgsintez undertakes ongoing development of a new range of branded products in order to satisfy the requirements of both individual customers and the demands of the market as a whole. A new batch of LDPE for cable applications has been introduced this year, whilst the incorporation of Neftekhimsevilin at Kazan has added new assets for LDPE development.



In the olefin section, Kazanorgsintez has stabilised the system for the ethylene refrigeration cycle, and has reduced the cost of ethylene production on the E-500 unit by lowering the consumption of energy per unit of output. Measures have also been undertaken to reduce the costs of isopentane and hexene purchases, by reducing their consumption per unit.

Other technical improvements designed to reduce costs have taken place in the polycarbonate and bisphenol divisions, thereby reducing the cost of production

through the cumene process.



Nizhnekamskneftekhim, Jan-Sep 2013

The net profit for Nizhnekamskneftekhim for January to September 2013 dropped by 56.2% against 2012 to 6.5 billion roubles. The company's revenue fell by 6% to 89.9 billion roubles, mainly due to the problems in the synthetic rubber division.

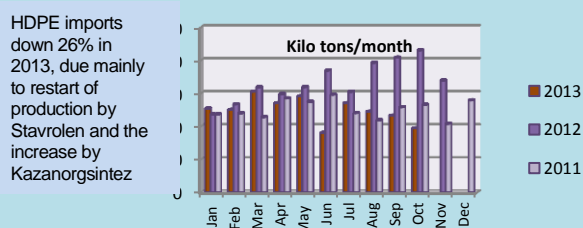
Low demand from the tyre industry has impacted heavily on sales of synthetic rubber, in both volume and price. Major consumers of synthetic rubber produced by Nizhnekamskneftekhim include Michelin, Goodyear, Pirelli, Continental, Bridgestone and Belshina, all of

which have been affected by the weak market conditions. Despite low demand Nizhnekamskneftekhim plans to increase production for synthetic rubber to 630,000 tons from 600,000 tons in 2012.

Revenues from plastics rose by 14% in the first three quarters against 2012, due in part to the expansion of polystyrene capacity. In effect, revenues from plastics totalled 32 billion roubles in January to September 2013 against 41 billion roubles from rubber. Synthetic rubber represents Nizhnekamskneftekhim's traditional core area of production, but plastics in the form of polyolefins and polystyrene have only been produced for less than a decade.

Bulk Polymers

Russian HDPE Imports



Russian HDPE market, Jan-Oct 2013

Imports of HDPE into Russia amounted to 249,500 tons in the period January to October 2013, 26% down on 2012. LLDPE imports to Russia totalled 171,000 tons in January-October 2013, up 24% over 2012.

The fall in HDPE imports is due partly to higher domestic production and partly due to the decline in demand for some application areas. Pipe grade HDPE has witnessed the biggest drop in demand from imports, with volumes dropping from 101,600 tons in the first ten months in 2012 to 62,000 tons in 2013.

Russian HDPE production totalled 836,200 tons in January to October 2013, 1.5 times higher than in 2012. Domestic production is still insufficient to meet demand on the Russian market where import activity remains an important part of the supply chain. Imports comprised 24% of Russian HDPE consumption in 2013 to date against 40% in 2012. From January to October 2013 Russian consumption of HDPE increased overall by 17.9%. Production rose 58.5% due to the restart of the Stavrolen plant, and higher output at the other three plants. Russian producers increased capacity utilisation to 90% in 2013 against 69% in 2012. Kazanorgsintez remains the leader amongst the Russian HDPE producers.

Russian Polypropylene Market
(unit-kilo tons)

| | Jan-Oct 13 | Jan-Oct 12 |
|-------------|------------|------------|
| Production | 674.5 | 542.9 |
| Imports | 174.4 | 217.0 |
| Exports | 81.0 | 28.7 |
| S/D Balance | 767.9 | 731.2 |

Russian polypropylene market, Jan-Oct 2013

Imports of polypropylene dropped 18% in October against September to 14,100 tons. The two new plants at Omsk and Tobolsk are expected to erode import dependence in 2014, particularly for homopolymer. For January to October 2013 Russian imports of homopolymer polypropylene totalled 67,200 tons against 121,700 tons in the same period in 2012.

The position is different with block copolymers, which rose in January to October 2013 to 47,300 tons against 45,700 tons in 2012. This was due to increased demand in the sector of injection moulding. Imports of stat-propylene copolymer (PP-random) decreased from 41,800 tons in January to October 2012 to 31,000 tons this year.

Polyom reaches 100,000 tons of polypropylene

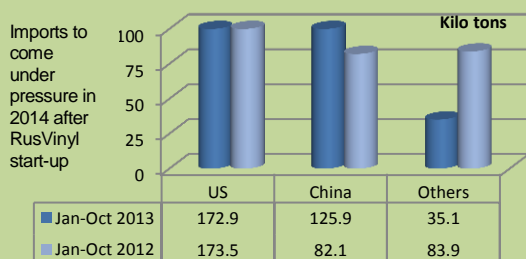
Polyom reached 100,000 tons of polypropylene production on 25 November, after starting in May this year. The plant is running at 22.5 tons per hour and forms the basis for the petrochemical cluster in the Omsk region managed by the Titan holding. The plant ships about 600-700 tons daily to Russian and foreign processors. The plant can produce around 100 different grades of polypropylene.

Russian polypropylene exports totalled 81,400 tons in January to October 2013, against 28,700 tons in the same period last year. More than 95% of the total export of propylene homopolymer. The increase in export activity is expected to rise significantly in 2014, particularly when the Tobolsk plant attains higher capacity utilisation. The main importers of Russian polypropylene at present are China and Ukraine.

Russian PVC market, Jan-Oct 2013

PVC imports into Russia totalled 334,000 tons in January to October 2013, 4% down on 2012. The total for the ten months this year from the US was 172,900 tons compared to 173,500 tons in the same period last year. Imports from China totalled 125,900 tons in January to October 2013 against 82,100 tons in 2012. European suppliers delivered 33,200 tons to the Russian market in January-October 2013 against 35,800 tons in 2012.

Russian PVC Imports



RusVinyl plans to start PVC production in mid-2014. 86% of construction has been completed, whilst 99.8% of design has been undertaken and 98.5% of the supply of equipment and materials by 98.5%. Completion of construction is scheduled for the end of 2013, and commissioning is expected to start in early 2014.

RusVinyl has completed the construction of the logistics platform, which occupies a total area of 7.76 hectares.

Energy company IES and RusVinyl have signed long-term contracts heating at unregulated prices. Under the agreement, Novogorkovsk CHP in TKG-6/10 years will deliver to RusVinyl heat in steam and hot water in a volume of 500,000 Gcal per annum, and 1.5 million tpa of chemically desalinated water.



Russian PET market, Jan-Oct 2013

Russian PET production dropped 7% in January to October this year to 353,700 tons, whilst consumption fell 9% to 487,300 tons. Outages have been the main cause of the slight drop, particularly the Senezh plant which has had problems since the late summer.

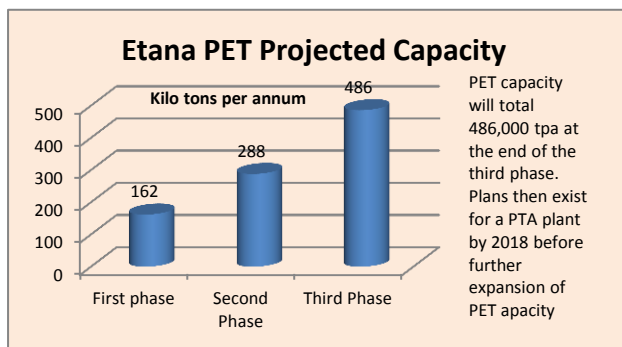
Polief is also undertaking a planned maintenance turnaround in late November which probably means that the totals for the end of year will be lower than in 2012. Volume trading was slightly up in November after Alko-Naphtha stopped the production of PET in the first half of

November for scheduled maintenance.

Imports of PET in Russia in January-October 2013 fell by 7% against 2012 to 146,600 tons. Imports of virgin PET-granulate decreased by 9% to 140,000 tons. Domestic supplies increased by 18,400 tons in 2013 compared to January-October 2012, amounting to 314,000 tons. Imports are expected to finish 2013 at around 166,000 tons. The Senezh PET plant has also been inactive, but both plants are expected to restart in early December. Recycled PET, which is a sector in its embryonic stages in Russia, increased 55% in the period January to October 2013 to 6,800 tons.

Russian PET projects at Polief & Etana

Polief's expansion of PET capacity at Blagoveshchensk has received approvals from the Republic of Bashkortostan. The project is around half completed at present and involves an expansion of capacity from 140,000 tpa to 210,000 tpa. The project was originally intended to be completed by the end of 2013, but the start-up date has been delayed at least until 2014.



Etana hopes to complete its PET project by 2015, although that will amount to the full 486,000 tpa of capacity as being constructed. The PET project is being located in the economic zone Agroindustrial Park Plana in the region Kabardino-Balkaria. Technology for the PET plant is being supplied by Uhde-Inventa Fisher and Buhler. Etana believes that the technology that it has selected, Uhde Inventa Fisher and Buhler, is superior to the licences used by other producers in Russia.

Due to the use of updated technology, Etana has estimated that its cost per ton of PET production would be 6.58% lower than its nearest domestic competitor Alko-Naphtha. Raw materials logistics are likely to present the main challenge to the viability of the PET plant in the first years of operation, but plans to construct a PTA complex with a capacity of 450,000 tpa are in the planning stage. Further ahead Etana plans to expand PET capacity in the period 2020-2025 to 730,000 tpa and PTA to 200,000 tpa.

Russian Polystyrene Market (unit-kilo tons)

| | Jan-Oct 13 | Jan-Oct 12 |
|-------------|------------|------------|
| Production | 333.8 | 285.1 |
| Imports | 179.0 | 195.1 |
| Exports | 58.5 | 45.0 |
| S/D Balance | 454.3 | 435.2 |

Russian polystyrene market, Jan-Oct 2013

Exports of Russian polystyrene increased by 30% in January to October 2013 to 58,500 tons, principally due to the increase in production by SIBUR-Khimprom and Nizhnekamskneftekhim. Russian imports of polystyrene in January-October amounted to 179,000 tons, down 9% against 2012.

The decline is due in part to increased domestic production by Nizhnekamskneftekhim for GPPS and ABS. Despite the expansion of

Russian production capacity ABS imports grew 8% in January-October 2013 to 36,500 tons whilst HIPS rose by 11% to 24,600 tons. EPS imports dropped 17% to 60,000 tons.

Aromatics & derivatives

Russian Benzene Production (unit-kilo tons)

| Producer | Q1-Q3 13 | Q1-Q3 12 |
|-----------------------------|----------|----------|
| Altay-Koks | 9.9 | 23.5 |
| Angarsk Polymer Plant | 55.3 | 53.2 |
| Chelyabinsk MK | 10.6 | 14.2 |
| Gazprom Neft | 87.6 | 68.2 |
| Koks | 0.0 | 18.9 |
| LUKoil-Neftekhim | 30.6 | 0.0 |
| LUKoil-Permnefteorgsintez | 34.9 | 24.0 |
| Magnitogorsk MK | 45.6 | 48.2 |
| Nizhnekamskneftekhim | 139.7 | 133.2 |
| Novolipetsk MK | 25.2 | 15.9 |
| Gazprom Neftekhim Salavat | 100.3 | 61.8 |
| Severstal | 28.6 | 21.5 |
| SIBUR Kstovo | 55.1 | 43.5 |
| Slavneft-Yaroslavlorgsintez | 44.8 | 48.3 |
| Kirishinefteorgsintez | 43.7 | 42.7 |
| Ryazan Refinery | 26.7 | 25.8 |
| Ufaneftekhim | 62.1 | 62.2 |
| Ural Steel | 5.0 | 5.7 |
| Uralorgsintez | 47.6 | 52.4 |
| Zapsib Metallurgical | 42.8 | 42.8 |
| Others | 7.4 | 6.1 |
| Total | 903.6 | 811.9 |

Russian benzene sales, Jan-Oct 2013

Russian benzene production in the first three quarters in 2013 amounted to 903,600 tons, against 811,900 tons in the same period in 2012. The factors explaining the rise in 2013 include the restart of the Stavrolen plant and much higher production at Gazprom Neftekhim Salavat and Gazprom Neft. Some coke based producers reduced production, but these falls were offset by marginal increases from producers in the metallurgical industry.

Russian benzene production rose 23% in October to 106,900 tons. Following maintenance Nizhnekamskneftekhim increased production by 4.2 times to 15,800 tons and Angarsk Polymer Plant by 2.1 times to 7,900 tons. In addition, Ufaneftekhim increased production 34% to 5,800 tons and the Ryazan refinery by 22% to 5,800 tons.

Plants where reductions took place included Uralorgsintez which reduced production by 6% to 4,600 tons and Novokuibyshevsk Petrochemical Company which produced 1,100 tons or 2.6 times less than in September. Russian benzene production totalled 1.010 million tons in the period January to October 2013, 14% more in 2012.

Russia imported 29,900 tons of benzene in January to October 2013, 8% down on 2012. Most of the decline was due to less production in Ukraine. Russian imports of benzene from Kazakhstan totalled 2,800 tons in January to October, 1.5 times more than in 2012.

Russian orthoxylene, Jan-Oct 2013

Orthoxylene exports from Russia totalled 37,000 tons in the period January to October 2013, 2% less than in 2012. October deliveries amounted to 3,700 tons, 9% less than in September. Gazprom Neft shipped 3,300 tons of orthoxylene in October (89% of total Russian exports), most of which went to Finland. Ufaneftekhim exported the remaining 400 tons whilst Kirishinefteorgsintez has been focused on the domestic market since August.

Russian Paraxylene Market (unit-kilo tons)

| Domestic Sales | Q1 13 | Q2 13 | Q3 13 |
|-----------------------|-------|-------|-------|
| Gazprom Neftekhim | 13.9 | 9.4 | 13.5 |
| Ufaneftekhim | 29.9 | 30.0 | 27.8 |
| Kirishinefteorgsintez | 0.0 | 0.0 | 0.0 |
| Total | 43.8 | 39.4 | 41.3 |
| Export | Q1 13 | Q2 13 | Q3 13 |
| Gazprom Neftekhim | 8.8 | 14.9 | 17.3 |
| Ufaneftekhim | 3.0 | 3.4 | 2.1 |
| Kirishinefteorgsintez | 8.1 | 18.4 | 9.9 |
| Total | 19.8 | 36.7 | 29.4 |
| Production | Q1 13 | Q2 13 | Q3 13 |
| Gazprom Neftekhim | 28.0 | 30.0 | 33.4 |
| Ufaneftekhim | 33.0 | 34.0 | 32.1 |
| Kirishinefteorgsintez | 14.7 | 21.0 | 10.1 |
| Total | 75.7 | 85.0 | 75.6 |

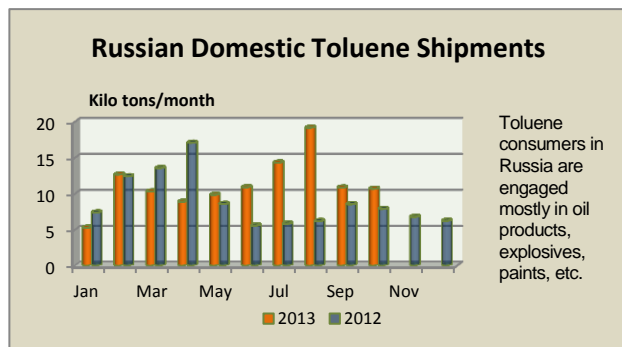
Russian sales of orthoxylene on the domestic market amounted to 104,200 tons in January to October this year which was 8% down on 2012.

Russian PTA project plans

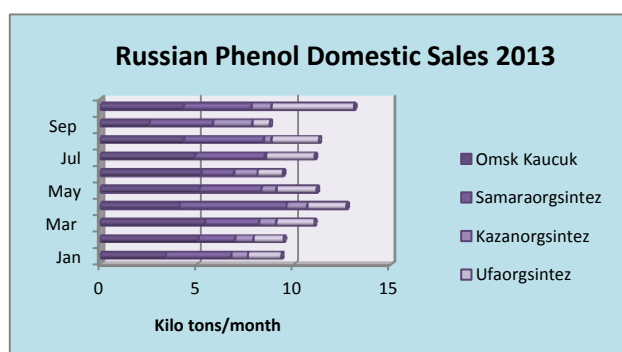
Gazprom Neft has not yet taken a decision on the project of expansion of the aromatics complex at the Omsk refinery, which could signify whether the proposed PTA plant will be built. The main product under consideration is paraxylene which Gazprom Neft is considering expanding by around 40%. The project is viewed solely in conjunction with the project of this resource base PTA and PET. The concerns of Gazprom Neft rest on the volatility of the paraxylene market. SIBUR is also involved with Gazprom Neft and could help finance a PTA plant if the paraxylene plant is expanded. Potential capacities for PTA under consideration include 350,000 tpa, based on a 50.50 jv basis.

In southern Russia Etana (sometimes written Ethan) in the Kabardino-Balkaria region is laying out plans for a PTA plant for 2018 start-up. Details of the proposed project are yet to be outlined,

particularly over the question of paraxylene although the pending Atyrau plant in Kazakhstan could present an option. Between the start-up of the PET plant, planned for 2016, and the start-up of the PTA plant in 2018 Etana intends to source PTA from various sources in Europe, South Asia and the Far East.



2012.



Russian toluene, Jan-Oct 2013

Russian toluene rail shipments to domestic customers totalled 113,100 tons in January to October 2013, 18% more than in 2012. Toluene rail deliveries amounted to 10,100 tons in October, which was 12% less than in September 2013.

The main consumer of commercial toluene in Russia in October was the gas station Remstroy in the Moscow Region, which specialises in retail sales of motor fuels. Russia produced 34,700 tons of toluene in October, 12% more than in September and 31% higher than in October

Russian phenol market 2013

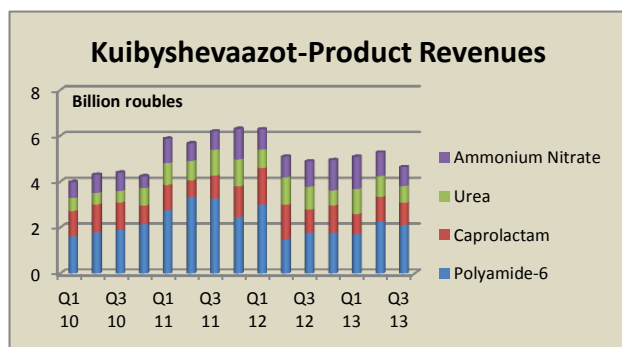
Phenol supply in Russia has tended to tighten in the second half in 2013, in contrast to the first half of the year when supply exceeded demand. As a result of the market imbalance in the second half of 2013 the price of domestically produced phenol has risen affecting margins for the main derivatives such as bisphenol A and phenol-formaldehyde resins. In the first three quarters in 2013 Russian phenol production totalled 206,200 tons, 2% up on the same period of 2012.

Samaraorgsintez and Omsk Kaucuk increased volumes of production of phenol by only 1% in January to September 2013, while Kazanorgsintez and Ufaorgsintez (both consuming phenol captively) increased production by 2% and 13% respectively. Full plant data for Russian phenol production can be viewed on the Statistical Database at <http://www.cirec.net/StatDb.aspx>.

| Russian Phenol Market (unit-kilo tons) | | |
|---|------------|------------|
| | Jan-Sep 13 | Jan-Sep 12 |
| Production | 206.2 | 204.1 |
| Exports | 16.7 | 10.2 |
| Imports | 3.6 | 6.8 |
| Market Balance | 199.8 | 207.3 |

Sales on the domestic market amounted to 95,700 tons in the first nine months, 4% less than in 2012. The only import source this year has been from Borealis in Finland, where shipments totalled 1,163 tons in the first nine months in 2013. Export activity has diminished sharply in recent years due to the growth of domestic demand, particularly bisphenol A. The market seems destined to oscillate between marginal surplus and deficit for the next year or two, but at some stage a new plant will need to be considered.

In October, Russian producers increased domestic shipments by 45% over September to 12,000 tons. Following maintenance Omsk Kaucuk sold 4,400 tons in October, 70% more than in September. Samaraorgsintez increased its export shipments of phenol in October, increasing five times against September to 2,100 tons. The main consumers included Poland and Latvia. Imports from Borealis in Finland dropped twice in October against September to 635 tons.



Caprolactam revenues declined by 28.6% in the first three quarters in 2013, whilst physical sales were down by 12,800 tons. For polyamide, revenues fell 2.7%, whilst physical sales fell by 1,500 tons or 1.8% against 2012. Urea revenues fell 6.2% although physical sales rose 6.6% or by 15,600 tons.

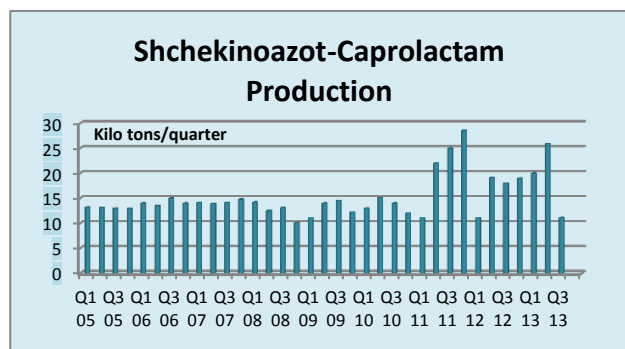
Kuibyshevaazot. Jan-Sep 2013

Revenues for Kuibyshevaazot dropped 4.4% in the first nine months in 2013 to 20.5 billion roubles. The net profit declined vs. 22.3% to 2.1 billion roubles.

Kurskhhimvolokno-capacity expansion

Kurskhhimvolokno, which is owned by Kuibyshevazot, has been devised a programme for doubling the capacity of technical and textile yarn in 2014-2015. Capacity currently stands at 700-800 tons of each product per month. This expansion will be achieved through a full replacement of equipment. By 2020 Kurskhhimvolokno has set a target of growth by 1.9 times against 2012 involving the full range of products such as staple fibres, polyamide and cord tissue.

Kurskhhimvolokno already has the largest market share of technical yarns in Russia and doubling the capacity would thus raise the need for export activity. Activity at some parts of Kurskhhimvolokno was suspended in mid-November for 30 days due to repeated violations of fire safety. During the 30 days the plant management is required to eliminate the violation.



Shchekinoazot-caprolactam modernisation

Caprolactam production at Shchekinoazot has begun operating at its new design capacity of 168 tons/day after the project modernisation was completed during the recent turnaround maintenance. Production dropped in the third quarter this year due to planned outage. As a result of the modernisation programme benzene consumption per ton of caprolactam has been reduced to the lowest ratio of the three Russian plants, comprising 941 kg.

Shchekinoazot has also completed the installation and launch of the new hydrogen plant B-26 both for application at the M-450 methanol plant and revamped caprolactam plant. The stability of the B-26 dependent production of ammonia and carbon dioxide, the normal operation of caprolactam production.

Synthetic Rubber

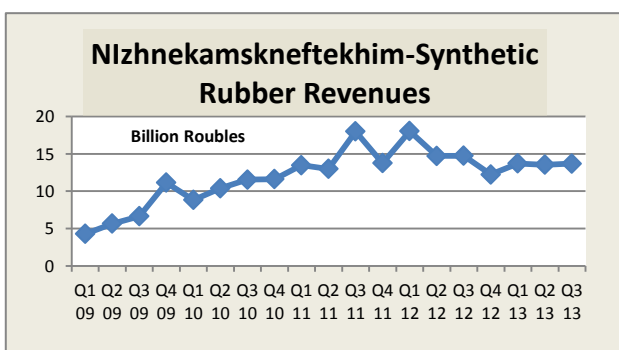
Russian Synthetic Rubber Market (unit-kilo tons)

| | Q1 13 | Q2 13 | Q3 13 |
|-------------|-------|-------|-------|
| Production | 417.0 | 359.0 | 336.0 |
| Exports | 255.8 | 219.4 | 217.7 |
| Imports | 43.1 | 43.1 | 43.1 |
| S/D Balance | 204.3 | 182.7 | 161.4 |

Nizhnekamsneftekhim synthetic rubber sales Q3 2013

Nizhnekamsneftekhim recorded a reduction of 12.7% in synthetic rubber revenues in the period January to September 2013 to 40.989 billion roubles. Revenue from sales of products of organic synthesis decreased by 12.7% to 12.924 billion roubles, whilst plastics and synthetic resins increased by 14.4% to 32.256 billion roubles.

Labour productivity for the first three quarters in 2013 decreased in 2013 by 396,800 roubles per worker to 5,606,000 roubles. This was due mainly to the impact of falling prices in synthetic rubber sales. The company attributed the overall results to a challenging market environment characterized by price volatility and fluctuations in demand. As an exporter of rubber products Nizhnekamsneftekhim has been subject to the weakness in the European tyre industry despite long term agreements with the major tyre producers.



Synthetic rubber revenues as a component of total sales revenues for Nizhnekamsneftekhim dropped from 49.1% in 2012 to 45.6% in 2013. By comparison, plastics (including polyolefins and polystyrene), rose from 29.5% in 2012 to 35.9%.

The company exported 84.08% of its isoprene rubber production in the first three quarters in 2013 and 97.71% of butyl rubber. Most of the remaining domestic sales for both products were shipped to consumers in Tatarstan.

In 2014, Nizhnekamsneftekhim plans to expand its capacity for butadiene rubber SKD-N up to 150,000 tpa, whilst butyl and halobutyl rubber will be extended to 200,000 tpa. Another project that could be completed at Nizhnekamsk next year is for the expansion of the isoprene rubber plant to 280,000 tpa.

SIBUR & Russian Roads

SIBUR and Russian Roads (GC Highways) signed an agreement on cooperation in the field of road construction, production and application of polymeric materials in road construction. The parties intend to develop activities aimed at the development of the transport sector in terms of ensuring construction, repair and maintenance of

roads in Russia using polymers and modern road-building materials.

Russian tyre market Jan-Sep 2013

Consumption in the Russian tyre market in the first nine months of 2013 was 1% lower against 2012 to 46.06 million units. The market has been affected this year by lower demand and that scenario may extend into 2014, or at least for the first half of the year. Projections have been made by Kordiant that the tyre market will rise on average by 2% in the period up to 2020 thus bringing the total market to around 66 million tyres. The most active sectors of the market are expected to comprise include steel truck and light truck tyres and passenger car tyres.

Falling demand for tyres in Russia and a simultaneous increase in production has led to an increase in exports. Russia exported 18% more tyres in the period January to September 2013 mainly through Nokian and Pirelli. Imports fell 5% in the first three quarters in 2013 mainly car tyres were affected where volumes were down 10%. Some increases were noted in other sectors. China and South Korea accounted for 36% of tyre imports into Russia in the period January to September 2013.

Signing an agreement with one of the largest manufacturers of advanced geosynthetic materials will help to improve the quality of road construction and development of the transport industry. The agreement is valid until the end of 2016 and can be further extended by agreement of the parties.

Togliattikaucuk-Belshina

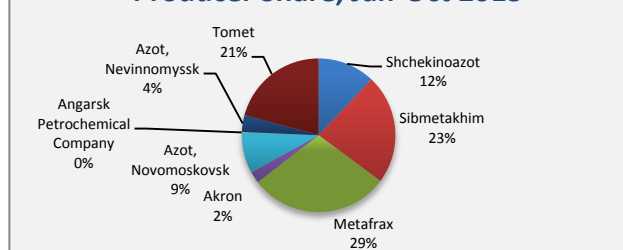
Togliattikaucuk successfully passed the audit of the Belarusian tyre company Belshina, which has been a consumer of rubber produced at Togliatti more than a decade. The company has confirmed the status of the priority supplier that provides timely release of raw materials required quality and quantity.

Currently Belshina uses copolymer rubber and butyl rubber in the process of tyre production, and now wishes

to use another brand of copolymer producer by Togliattikaucuk.

Methanol & Ammonia

Russian Methanol Production by Producer Share, Jan-Oct 2013



Russian methanol market, Jan-Oct 2013

Methanol production in Russia totalled 283,000 tons in October, 16% up on September. Metafrax accounted for 32% of the total. Production volumes in November have been affected by the maintenance on one line by Tomet at Togliatti, although this line is expected to be restarted in December. Russian production of methanol totalled 2.877 million tons in January to October 2013, against 2.704 million tons in the same period in 2012.

Russian methanol exports amounted to 101,000 tons in October, 10% more than September. Maintenance at

Tomet at Togliatti in October partly affected methanol export availability, but this outage was offset by the restart of production at Shchekinoazot.

Methanol Domestic Sales by Russian Producers Jan-Oct 2013 (unit-kilo tons)

| Company | Production | Domestic Merchant | Exports | Captive |
|-------------------|------------|-------------------|---------|---------|
| Azot Nevinnomyssk | 102.3 | 30.0 | 0.0 | 72.3 |
| Azot Novomoskovsk | 246.5 | 84.0 | 99.1 | 63.4 |
| Metafrax | 846.0 | 340.6 | 340.4 | 165.0 |
| Sibmetakhim | 663.9 | 337.8 | 307.3 | 18.8 |
| Togliattiazot | 597.5 | 293.0 | 221.1 | 83.3 |
| Shchekinoazot | 347.4 | 41.4 | 231.8 | 74.2 |
| Akron | 71.2 | 15.0 | 9.4 | 46.8 |
| Angarsk PC | 2.7 | 0.0 | 0.0 | 2.7 |
| Total | 2877.5 | 1141.8 | 1209.1 | 526.6 |

Metafrax and Shchekinoazot accounted for 55% of Russian methanol exports in October, Shchekinoazot shipping 28,100 tons. Russian companies scheduled shipments of 10,800 tons of methanol through Odessa in November against 10,200 tons in October. Shchekinoazot and Tomet undertook most of these shipments

Domestic market sales of methanol amounted to 109,700 tons in October, 6% less than September. Tomet sold 14,900 tons in October, 54% down on the previous month. Methanol sales on the Russian merchant market totalled 1.152 million tons in the first ten months in 2013. Nizhnekamskneftekhim was the largest single buyer, taking 210,000 tons.

Metafrax, ammonia and urea projects

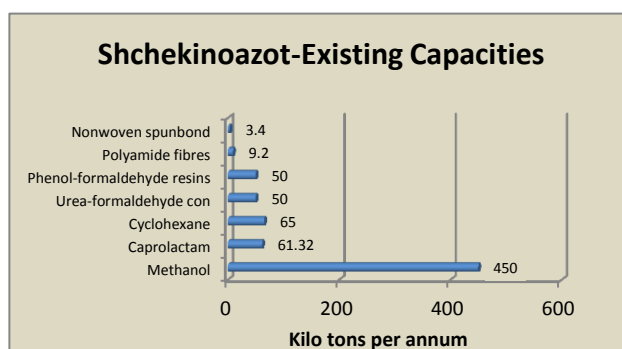
Metafrax has made progression regarding its major strategic project and outlined plans to direct \$1 billion towards investment by 2020, concentrating \$700-800 million on the construction of facilities for ammonia and urea. The company is considering two capacity options for urea ranging from 400,000 tpa to 600,000 tpa. If construction can start in 2015 as planned, the new facility could be launched in 2017-2018. Metafrax also plans to renovate the production of pentaerythritol in 2014-2016. The cost of the project is estimated at €20 million resulting in an increase in capacity of 6,000 tpa.

| Russian Chemical Commodity Exports | | | | |
|------------------------------------|------------|------------|------------|------------|
| | Jan-Sep 13 | Jan-Sep 13 | Jan-Sep 12 | Jan-Sep 12 |
| Product | Kilo tons | USD Mil | Kilo tons | USD Mil |
| Ammonia | 2,488 | 1,226 | 2,197 | 997 |
| Methanol | 1,062 | 375 | 1,114 | 321 |
| Nitrogen Fertilisers | 8,801 | 2,608 | 8,277 | 2,627 |
| Potash | 4,699 | 1,683 | 6,011 | 2,460 |
| Mixed Fertilisers | 6,925 | 2,851 | 6,753 | 3,101 |
| Synthetic Rubber | 693 | 1,805 | 643 | 2,059 |

Metafrax may seek to attract a co-investor to support the construction of ammonia and urea plants at Gubakha. Urea consumption requirements for Metafrax stand currently at around 300,000 tpa, and could increase to 400,000 tpa after the full incorporation of the Dynea plant in Austria which was recently purchased by Metafrax. A final decision on the project is expected in December 2013. Construction could be started in 2015, with the launch planned for 2017-2018.

Shchekinoazot-Haldor Topsoe, methanol & ammonia plant

Shchekinoazot has signed a contract with Haldor Topsoe for licensing and basic engineering for an installation for the combined production of methanol and ammonia. The total investment required for the project is estimated at 270 million euros. The plant capacity agreed between Shchekinoazot and Haldor Topsoe consists of 1,350 tons/day of methanol and 415 tons/day of ammonia. The basic design of the plant is scheduled for completion by the summer of 2014, in 2017 is scheduled to start production.



This type of methanol-ammonia project has not been used until now where the emphasis is stand-alone production of each product. Moreover, in this project at Shchekino methanol will represent the dominant of the two products, producing around 490,000 tpa. Ammonia capacity is to be designed to produce 150,000 tpa. This project is more complicated than the M-450 project which was introduced in September 2011, thereby replacing the old methanol plant of 365,000 tpa. More capital is required to support construction, and certainly more time is needed to complete the project.

| Uralkhim Production (unit-kilo tons) | | |
|--------------------------------------|--------------|--------------|
| Product | Jan-Sep 13 | Jan-Sep 12 |
| Ammonium nitrate | 2,029 | 1,898 |
| Ammonia | 562.6 | 577.6 |
| Urea | 851.4 | 856.5 |
| Complex fertilisers | 468.4 | 462.1 |
| Phosphate fertilisers | 333.3 | 349.9 |
| Other fertilisers | 11.0 | 11.2 |
| Other chemical | 237.4 | 242.5 |
| Total | 4,493 | 4,398 |

Uralkhim, Jan-Sep 2013

Uralkhim increased production by 2% in the first nine months compared with the same period last year to 4.49 million tons. Production of ammonium nitrate and its derivatives amounted to 2.03 million tons, an increase of 7%. Ammonia production decreased by 3% to 562,600 tons and urea production decreased by 1% to 851,400 tons.

Fosagro-ammonia project

Fosagro has begun the construction of its new ammonia complex with a production capacity of 760,000 tpa at Cherepovets. This is the first new ammonia unit to be built in Russia in over 20 years.

Total investment in the project with the construction of infrastructure will exceed 25 billion roubles. The plant start-up and production are both scheduled to start in 2017.

The advantages of the new plant, which will use technology supplied by Mitsubishi Heavy Industries (MHI), include 20% less specific consumption of natural gas than the industry average in Russia (currently 945 cubic m/m). Operating costs are also 20% lower than those of the two existing units managed by Fosagro at Cherepovets. The project will allow Fosagro to increase capacity for the production of ammonia by 70%, and create the necessary foundation for the further development of the chemical complex at Cherepovets. Part of the

ammonia produced will be supplied to the free market. The consortium building the ammonia plant includes companies Sojitz and Renaissance Construction besides MHI, whilst the licensor is Haldor Topsoe.

| Akron Production (unit-kilo tons) | | |
|--|-------------------|-------------------|
| Product | Jan-Sep 13 | Jan-Sep 12 |
| Ammonia | 1428.6 | 1339.8 |
| Internal consumption | 1313.2 | 1223.1 |
| Urea | 499.9 | 432.2 |
| Internal consumption | 271.2 | 242.3 |
| Methanol | 62.3 | 59.7 |
| Internal consumption | 51.8 | 54.7 |
| Formaldehyde | 101.2 | 106.3 |
| Internal consumption | 94.5 | 93.6 |
| Urea-formaldehyde resins | 126.4 | 129.5 |
| Calcium carbonate | 186.6 | 234.8 |

Fosagro reduced its net profit in January-September 2013 almost by half against 2012 to 9.094 million roubles. Revenue rose 3% to 81.276 billion roubles, whilst the EBITDA decreased by 27% to 19.897 billion roubles. As a result of higher costs for the purchase of ammonia from third-party vendors the group's gross profit in nitrogen fertilisers decreased by 44% to 3.75 billion roubles.

Akron, Jan-Sep 2013

The Akron Group increased the production of fertilisers by 6% in the first nine months in 2013 to 3.9 million tons. Ammonia production rose 7% to 1.428 million tons. Demand for nitrogen fertilisers remained strong. Organic chemical production fell 2% to 290,000 tons and inorganic chemicals by 12% to 505,100 tons.

Plastics

Tekhnonikol-XPS plant at Khabarovsk

Technonikol Corporation has opened a new plant for XPS production at Khabarovsk in the Russian Far East, with a capacity of 135,000 cubic metres per annum. Commissioning of the new plant will meet the growing demand for high-quality building materials from consumers in East Siberia, the Far East, Yakutia, and also allow it to export to the Asia-Pacific region. The volume of investment in the project amounted to 230 million roubles. Technonikol controls 35 production sites in Russia and CIS countries and produces a wide range of products for the building, such as roll roofing materials, polymeric membrane for flat roofs, insulation materials, etc.

Tatkhimplast-polypropylene composites

Tatkhimplast is preparing to launch the production of polypropylene composites for automotive components in the Kazan area of Tatarstan. The capacity of the first stage will be 12,000 tpa with a projected annual turnover of 1.2 billion roubles. In 2015 Tatkhimplast plans to launch a second phase and to increase the capacity by around a half.

Tatkhimplast intends to supply the composites to the Russian and CIS market, most of which are imported at present. Tatkhimplast is using equipment supplied by Krauss Maffei, whilst polypropylene will be purchased from Nizhnekamskneftekhim.

The plastic automotive components market has been rising rapidly recently due to the localisation of the assembly of foreign cars in Russia. In 2012 the market demand in Russia for polyolefin composites was estimated at 127,000 tons for polypropylene and 53,000 tons for polyethylene.

BOPP plant-Tomsk

The new BOPP plant at Tomsk was launched in November, comprising a capacity of 38,000 tpa. The industrial start line will meet the needs of markets Siberian and Urals federal districts. It is planned to export to CIS countries and Europe. The advantage main of the Tomsk plant against other BOPP plants in Russia is proximity to raw materials at the Tomskneftekhim site. The line of 38,000 tpa will represent the seventh unit in the Biakspen group.

BOPP plant-Novokuibyshevsk

Biakspen is close to the final stages of installation for the new BOPP line at Novokuibyshevsk. The new plant has a capacity of 30.500 tpa based on equipment provided by Bruckner Maschinenbau. To date, the installation of auxiliary equipment has been completed and the status of construction was estimated at around 90% in early November. The products from the new plant, which will start in 2014, will be supplied to the Russian market as well as exported to the CIS.

Waterfall Pro-BOPP

Waterfall Pro, a subsidiary of the holding Megapolis Group, aims to complete construction of its BOPP plant at Shakhty in the Rostov region in 2014. The project cost is estimated at 3.9 billion roubles, with the capacity of the plant designed at 60,000 tpa. Megapolis has signed a preliminary agreement for polypropylene supplies with SIBUR to ensure supply of raw materials at the time of start-up.

Plant construction involves the installation of two complete lines for the production of BOPP film. The company aims to provide BOPP for the food and processing industry in Russia, as well as export. The main scope of the company's products will comprise the packaging of food product sector, accounting for more than half of sales. Megapolis is a diversified Russian holding, working in the energy sector, development, and light industry. The project is likely to benefit from recent measures introduced by the Ministry of Industry to provide federal subsidies to chemical sector companies on loans for plastics processing. The Waterfall Pro project meets the criteria to qualify for these subsidies.

Organic Products

**Russian Butanol Exports
(unit-kilo tons)**

| | <i>Jan-Oct 13</i> | <i>Jan-Oct 12</i> |
|------------|-------------------|-------------------|
| N-Butanol | 64.5 | 68.6 |
| Isobutanol | 50.0 | 71.4 |
| Total | 114.5 | 139.9 |

Russian butanol market, Jan-Oct 2013

Exports of butanols from Russia amounted to 13,400 tons in October, 5.3 times higher than in September. The rise in export activity followed the resumption of production at the Angarsk refinery after scheduled maintenance. China was the main destination for Russian exports, accounting for 69% of shipments. Exports of butanols totalled 119,500 tons in January to October 2013, 15% less than in 2012.

Domestic sales of butanols amounted to 4,900 tons in October, 1% more than in September. Normal butanols comprised 85% of the market. The largest consumer of butanols in October was the Aktilat division of SIBUR-Neftekhim, which uses n-butanol as a raw material in the production of butyl acrylate. Aktilat purchased 1,170 tons followed by Dmitrievsky Chemical Company (which produces butyl acetate) with 1,500 tons. Other consumers included Volzhskiy Orgsintez, Sredneuralsky smelter, Kamenskvolokno and Roshalsky Plant of Plasticizers. Sales of butanols on the domestic market totalled 50,600 tons in the period January to October 2013 which is 21% less than in 2012. Normal butanols comprised 88% of Russian consumption.

Russian Butanol Production (unit-kilo tons)

| <i>N-Butanol</i> | <i>Jan-Oct 13</i> | <i>Jan-Oct 12</i> |
|---------------------------|-------------------|-------------------|
| Angarsk Petrochemical | 20.1 | 17.5 |
| Evrokhim | 11.7 | 13.7 |
| Gazprom Neftekhim Salavat | 50.4 | 66.2 |
| SIBUR-Khimprom | 20.9 | 20.8 |
| Total | 103.1 | 118.2 |
| <i>Isobutanol</i> | <i>Jan-Oct 13</i> | <i>Jan-Oct 12</i> |
| Angarsk Petrochemical | 10.8 | 9.3 |
| Gazprom Neftekhim Salavat | 24.0 | 27.7 |
| SIBUR-Khimprom | 33.7 | 34.6 |
| Total | 68.6 | 71.5 |

Gazprom Neftekhim Salavat produced 6,600 tons of butanols in October, 38% of Russian production. SIBUR-Khimprom produced 6,100 tons (35%), Angarsk Petrochemical Company 2,900 tons (17%) and Azot at Nevinomyssk 1,800 tons (10%). Production for October amounted to 17,420 tons, 45% up on September when maintenance at Angarsk was undertaken. For January to October 2013 Russian butanol production totalled 174,100 tons, 16% down on 2012 and this was largely due to the accident at Salavat in May affecting one line. Normal butanol accounted for 61% of total production.

SIBUR Neftekhim finished planned maintenance work on its acrylic acid and acrylate facilities in October. The outage lasted from 1 October to 17 October. During the repair at sites of synthesis of acrylic acid and butyl acrylate sediment filters and devices were cleaned, including washed heat exchangers, tanks and refrigeration equipment, parts and components are replaced by dynamic equipment, audited valves and connecting nodes.

Russian phthalic anhydride market, Jan-Oct 2013

Phthalic exports amounted to 2,900 tons in October, 35% less than in September. The reduction was due to the stoppage for repairs by Kamteks-Khimprom. Exports totalled 56,700 tons in the period January to October 2013, 27% more than in 2012.

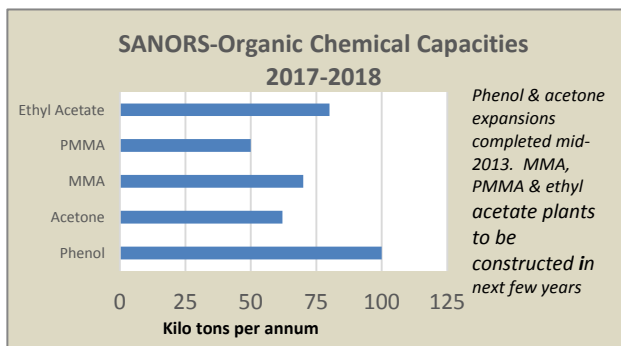
Production of phthalic anhydride totalled 83,200 tons in January to October 2013, 4% up on 2012. Kamteks-Khimprom increased production from 71,300 tons to 74,800 tons. Kamteks-Khimprom underwent maintenance in October, and thus reduced production by 79% against September to 2,030 tons. The only other Russian producer Gazprom Neftekhim Salavat, which uses phthalic anhydride for captive consumption, produced 670 tons in October.

SANORS-PMMA & MMA projects

SANORS and Maxiglas Corporation (Taiwan) have signed a letter of intent for the use of polymethyl methacrylate (PMMA) technology at Novokuibyshevsk. In addition, SANORS and Mitsubishi Gas Chemicals (MGC) have signed a memorandum of key terms in the license agreements and treaties technical support for the project construction of the production of methyl methacrylate (MMA).

SANORS plans to build a PMMA plant with a capacity of 50,000 tpa and a MMA plant with a capacity of 70,000 tpa. The production of PMMA will consist of two production lines, including four core brands of polymer and copolymers of different brands. Construction is scheduled to begin in 2015, and to be completed by 2018. Finance for the projects is being negotiated with the Japan Bank for International Cooperation (JBIC), in addition to supplementary roles being provided by the Russian banks Sberbank, Gazprombank, VTB and VEB to pay for the technology and equipment from Japan.

The polymerisation technology provided by Maxiglas Corporation is widely used in the production of high-resolution LCD displays, automotive components and aerospace industries, consumer electronics and industrial electronics. Toyo Engineering is expected to undertake construction for both the PMMA and MMA projects. Contracts are expected to be signed in January 2014.



SANORS-ethyl acetate project

SANORS and Johnson Matthey Davy Technology have signed a memorandum of understanding for the basic terms of cooperation for technology licenses and production of ethyl acetate. In addition, the parties have fixed terms of preparation of all documentation required to sign the final agreement.

The license agreement involves the transfer of licenses and technology for use in an ethyl acetate plant, which SANORS intends to build at Novokuibyshevsk. The capacity of the new plant is projected to total 80,000

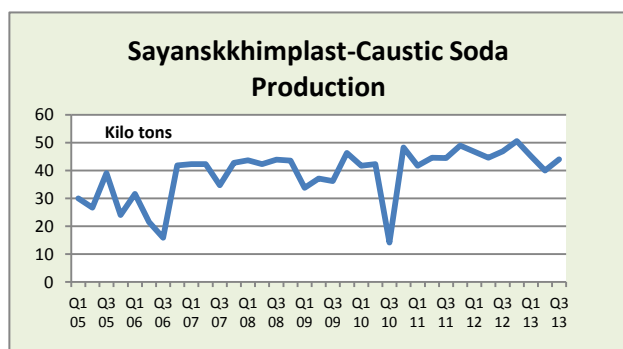
tpa. Ethyl acetate is produced in small volumes in Russia, but the equipment is outdated and the product does not meet Western quality standards.

Ethyl acetate is used in the manufacture of paints, packaging material manufacturing, pharmaceuticals, electronics, textile and food industries. Global production capacity for the production of ethyl acetate stands at 4.2 million tpa. SANORS produces large volumes of ethanol, which provides the feedstock for ethyl acetate. In 2012 the group produced 84,000 tons which is 58% of total ethanol production in Russia. Most of the production at Novokuibyshevsk is exported to Europe for ethyl acetate production.

Chlorine

Sayanskkhimplast completes chlorine-caustic soda expansion

Sayanskkhimplast has completed a project for installation and commissioning of the ninth electrolyzer in production of chlorine and caustic soda. This has increased chlorine capacity to 200,000 tpa. Sayanskkhimplast is the only current Russian chlorine producer which uses the membrane method of production. The conversion was undertaken seven years ago, thus reducing harmful impacts on the environment and also reducing the amount of energy consumption per ton of PVC.



Despite the commissioning of the ninth electrolyzer, raising capacity to 200,000 tpa, the company has held plans for several years for an expansion of chlorine production to 400,000 tpa. In April 2012 Sayanskkhimplast signed a contract with Chemieanlagenbau Chemnitz for the construction of the cell and the ninth retooling installation evaporation of caustic soda.

This has now been completed and operations started in November 2013. This means that at current VCM-PVC capacity it is possible to meet full internal demand

without the need to transport supplementary volumes of chlorine by rail. In order to service the outward flow of product earlier this year Uralkriomash entered into a contract with Sayanskkhimplast for delivery of 100 chemical tanks for caustic soda.

| Russian Caustic Soda Balance (unit-kilo tons) | | |
|--|----------|----------|
| | Q1-Q3 13 | Q1-Q3 12 |
| Production | 757.6 | 803.1 |
| Exports | 118.0 | 116.8 |
| Imports | 37.0 | 27.6 |
| S/D Balance | 676.6 | 713.8 |

The short to medium term investment plans for Sayanskkhimplast include the complete modernisation of the power supply to membrane electrolysis. The longer term plan comprises another ten units of new cells in order to achieve capacity of 400,000 tpa of chlorine.

Russian chlorine producers 2013

Despite being in the process of bankruptcy production figures for individual products by Khimprom at Volgograd showed an increase in the third quarter compared to the first half of 2013.

Results were also better in relation to the same period last year. Khimprom produced 1,700 tons of Freon 22 in the third quarter, one of the most profitable products produced by the company. Another product showing improvement this year is perchloroethylene, where production amounted to 114 tons in the third quarter which was 3 tons more than for the whole of 2012. Khimprom is the sole producer of perchloroethylene in Russia, in addition to being the only producer of PVC paste. Its current financial predicament in some respects is thought to be largely attributable to the how company has been managed in recent years.

| Khimprom-Novosibirsk, Product Sales Jan-Sep 2013 | | |
|---|------------------------------|---|
| <i>Product</i> | <i>Sales (kilo tons)</i> | <i>Product Revenues (million roubles)</i> |
| Liquid Chlorine | 1.986 | 28.527 |
| Hydrochloric Acid | 3.521 | 20.13 |
| Caustic Soda | 2.345 | 165.516 |
| Calcium Chloride | 4.01 | 17.891 |
| Tris-(β-chloropropyl) phosphate (TCPP) | 0.9564 | 61.323 |
| Tri-chloro-ethyl-phosphate | 1579.8 | 100.042 |
| Trichosilane | 0.5834 | 40.216 |

Khimprom at Novosibirsk saw its net profit falling 37.7 times in the first three quarters in 2013 compared with 2012 to 4.108 million roubles. Revenues decreased by 2.6% to 4.08 billion roubles. Costs increased by 0.2% to 3.08 billion roubles, and Khimprom's performance does tend to mirror the scale of the challenge facing all of the Russian chlorine and caustic producers. Electricity prices for chlorine plants in Russia are estimated to be 1.4 times higher than in the US, and 8.4 times higher than in China. Moreover, the

requirement for maintenance of railway transportation containers can add another 30% in costs.

Aluminium chloride-possible stoppage at Sterlitamak

Kazanorgsintez and Nizhnekamskneftekhim have complained to the authorities in Bashkortostan over the decision taken by Bashkir Soda to close the production of aluminium chloride at Sterlitamak. The announcement was a complete surprise to the petrochemical companies in Tatarstan which is used as a catalyst for the alkylation of benzene with ethylene. Samara-nefteorgsintez is also affected. If aluminium chloride production is stopped

| Belarusian Chemical Output (unit-kilo tons) | | |
|--|-------------------|-------------------|
| <i>Fertilisers</i> | <i>Jan-Oct 13</i> | <i>Jan-Oct 12</i> |
| Potassium Fertilisers | 3671.7 | 4276.8 |
| Nitrogen Fertilisers | 680.2 | 679.5 |
| Phosphate Fertilisers | 265.1 | 233.7 |
| Ammonia | 838.4 | 775.3 |
| Sulphuric Acid | 760.0 | 632.0 |
| <i>Petrochemicals</i> | <i>Jan-Oct 13</i> | <i>Jan-Oct 12</i> |
| Ethylene | 193.0 | 195.1 |
| Benzene | 109.0 | 107.7 |
| Caprolactam | 104.6 | 98.5 |
| Polyethylene | 113.6 | 116.2 |
| PET | 153.5 | 166.8 |

petrochemical producers will be forced to import more expensive counterparts. The reasons for closing the plant are thought to be due to outdated technical equipment.

Belarus

Belarusian chemical production & trade

Following the cartel issues between Belaruskali and Uralkali potassium fertiliser production has been reduced significantly and probably will not resume in full until the spring.

Petrochemical production has been fairly stable in Belarus this year, although polyethylene and PET were down slightly based on the first ten months. Benzene production totalled 109,000

tons in January to October, against 107,700 tons in 2012. Naftan produced 8,400 tons of benzene in October, 7% less than in September.

Naftan has announced a tender for the purchase of propylene with delivery in January-December 2014. The annual procurement volume is divided into three lots at 6,000 tons per month with the delivery of 500 tons during January-December 2014. Applications for participation in the competition are accepted until 3 December 2013.

| Azot Grodno Production (unit-kilo tons) | | |
|--|-------------------|-------------------|
| <i>Product</i> | <i>Jan-Oct 13</i> | <i>Jan-Oct 12</i> |
| Methanol | 57.7 | 61.4 |
| Caprolactam | 104.6 | 98.6 |
| Polyamide primary | 61.9 | 42.3 |
| Polyamide filled | 8.7 | 8.9 |
| Ammonia | 838.4 | 842.8 |
| Urea | 778.0 | 788.0 |
| Fertilisers | 618.6 | 621.9 |

In Belarusian foreign trade, Lakokraska at Lida exported 3,640 tons of phthalic anhydride in January to October this year, 29% down on 2012. Exports of potash fertilisers have suffered after the breakup between Uralkali and Belaruskali and will not be improved in the short term as market prices keep falling. Belarusian Railways has established preferential tariff conditions for liquefied petroleum gas (LPG), which is exported from West Siberia, including Tobolsk.

Azot Grodno, Jan-Oct 2013

Azot reduced caprolactam production in October by 15% to 7,800 tons, but overall increased production by 7% in the first ten months in 2013 to 104,600 tons. Rosneft has been in talks with

Belneftekhim regarding the supply of natural gas to Azot, which consumes about 2 billion cubic metres of gas per annum. Currently Gazprom provides Azot with all of its gas. Azot is undertaking a project to build a nitric acid plant with a capacity of 1,200 tons per day. The company has already signed a contract with ThyssenKrupp Uhde GmbH to license, design, supply of equipment and services for the project.

Ukraine



Ukrainian benzene market

Due to low demand, Ukrainian companies increased exports of benzene 1.6 times against September to 4,800 tons in October. Zaporozhkoks sold on 1,500 tons of benzene, 28 times more than in September. Yasinovsky Coke increased its exports by 2.7 times to 919 tons, whilst Ukratnafta reduced shipments by 4% to 2,400 tons. For the period January to October 2013 Ukraine exported 43,300 tons of benzene, 8% down on 2012.

Domestic consumption of benzene has been affected by the stop of caprolactam production at Cherkassy. At the same time, adipic acid production at Rovno and Severodonetsk is not expected to restart in the near future. Sales of benzene in the Ukrainian domestic market amounted to 9,300 tons in January to October 2013, 2.7 fold less than in 2012. Domestic shipments have been sourced from Ukratnafta (69%), Yasinovsky Coke (22%), and Zaporozhkoks 9%.

Azot Severodonetsk 2013

Azot at Severodonetsk produced 119,000 tons of methanol in the period January to October 2013, 20% less than in 2012. The company sold only 700 tons in October due to maintenance, but has sold more methanol in November. In October Ukrtransgaz concluded a tender with Azot for a methanol contract for 950 tons. Prices were higher this year than in 2012 due to the effect of an import duty on Russian methanol imports. A rate of 58% applies to all producers except Evrokhim which is zero and Shchekinoazot 9%.

| Ukrainian Chemical Production (unit-kilo tons) | | |
|---|------------|------------|
| Product | Jan-Oct 13 | Jan-Oct 12 |
| Ammonia | 3026.0 | 4140.6 |
| Caprolactam | 22.8 | 25.2 |
| Carbon Black | 40.2 | 46.4 |
| Caustic Soda | 41.6 | 120.3 |
| Ethylene | 0.0 | 128.2 |
| Methanol | 119.7 | 146.8 |
| Polyethylene | 0.0 | 54.7 |
| Polypropylene | 0.0 | 25.5 |
| Polystyrene | 11.4 | 15.1 |
| PVC | 0.0 | 115.1 |
| Propylene | 0.0 | 55.2 |
| Soda Ash | 446.8 | 545.5 |
| Titanium Dioxide | 123.393 | 125.3 |
| Urea | 2293.8 | 2598.1 |

Azot's total turnover dropped 13.9% in the first three quarters in 2013 to 45 billion hryvnia. The reduction is attributed to the lower volumes of ammonia, where production dropped over 60% against the same period in 2012. Ammonia production has been faced with technical problems. In other product areas production has been marginally lower for products such as potassium and sodium nitrate, acetate, PVA dispersion and PVA. The production of adipic acid has been suspended due to a lack of margins between benzene purchases the product price. Exports accounted for 57.3% of total sales in the first three quarters in 2013.

Azot is currently introducing a new automated process control system in its ammonia plant, designed to reduce energy costs and increase productivity. The daily output of ammonia plant 1-B will increase from 1,360 to 1,580 tons. At present each ton of ammonia requires 37.3 cubic metres of gas. Azot halted the production of urea in early September.

Ukrainian polymers. Jan-Oct 2013

Imports of polystyrene and styrene plastics into Ukraine decreased by 3% in the first three quarters of 2013 and totalled 49,700 tons. Imports of EPS and GPPS fell by 15% in January-September 2013, whilst the consumption of ABS plastics in the country decreased by 8%. Whilst imports were down exports of Ukrainian EPS and GPPS rose 5% to 6,200 tons in January-September 2013.

PET imports into Ukraine totalled 146,000 tons in the period January-October 2013, up by 6% from 2012. HDPE imports dropped slightly in October following the restart of the Kalush plant, although overall polyethylene imports rose 6% against September to 21,000 tons.

Ukrainian Polymer Imports (unit-kilo tons)

| Product | Jan-Oct 13 | Jan-Oct 12 |
|---------|------------|------------|
| LDPE | 81.9 | 94.3 |
| HDPE | 115.5 | 103.0 |
| LLDPE | 48.3 | 91.1 |
| PP | 112.0 | 62.8 |
| PET | 146.0 | 137.0 |

Imports of HDPE totalled 115,500 tons in January-October 2013 compared to 103,500 tons in 2012. Total imports of polyethylene and copolymers of ethylene to Ukraine decreased to 255,700 tons in the first ten months of the year, against 268,700 tons in 2012. Karpatneftekhim began the start-up of the PVC plant in the second week of October, with production scheduled to restart on 1 November. Olefin production restarted on 10 September.

Polypropylene imports totalled 112,000 tons in the first ten months in 2013, 23% up on 2012. Polycarbonate imports increased by 15% to 3,600 tons in January-October 2013 compared to the same period last year. The largest importers of polycarbonate to Ukraine over the first ten months of this year were SABIC with a share of 32%, Bayer (30%), Dijmex Europe and Styron (each for 11%).

Caucasus-Central Asia

AzMeCo-methanol

AzMeCo is preparing to launch the sale and export of methanol through a terminal in Georgia, which is close to completion. By the end of January 2014 AzMeCo plans to have started shipments. Production currently stands at 1,500-1,600 tons a day, and from March 2014 the plant's capacity should rise to 2,000 tons per day. BP has agreed an offtake agreement with AzMeCo.

Domestic demand for methanol in Azerbaijan is currently around 20,000 tons, and thus most of the 720,000 tpa capacity is targeted for export. Part of the production will be sold to BP, as part of the licence agreement for the methanol plant. From the point of view of logistics, AzMeCo can use rail links to Europe and the port Poti in Georgia. Despite the production of methanol in Russia, the company has received orders for around 50,000 tons from Russian buyers. Turkey also plans to purchase 100,000 tons from AzMeCo.

Uzbekistan-chemical projects

Uzkimyo sanoat (Uzkhimprom) is with Uzbekneftegaz in order to complete the construction of gas chemical complex at Navoi by 2018, including the production of olefins. The project cost is estimated at \$1.2 billion. The new complex comprises the production of 190,000 tpa of ethylene, 90,000 tpa of caustic soda, 500,000 tpa of methanol and 150,000 tpa of PVC. Uzkhimprom was formed in March 2001, and includes 43 companies and organisations.

Earlier this year Navoi azot decided not to proceed with the construction of a proposed vinyl acetate plant due to the economic inefficiency of the project. The cost of production was evaluated at \$2,500/ton against the average global price stands at \$1,800/ton. The project was worth \$30 million, providing for the construction of a plant with a capacity of 20,000 tpa based on the liquid-phase method.

The Uzbek government has issued a resolution regarding the UzKorGasChemical project which concerns the construction of Ustyurt gas chemical complex at the Surgil field. Foreign contractors including GS Engineering & Construction Corp, Samsung Engineering and Hyundai Engineering (all South Korea) have submitted proposals on the design of the Ustyurt Gas Chemical Complex with use of international standards in construction, fire safety, etc.

AzMeCo aims to begin to provide services on construction of large chemical and petrochemical plants. The new subsidiary AzMeCo Construction involves experts which built the methanol plant in Azerbaijan. In the next three to five Azerbaijan intends to build a melamine plant with a capacity of 60,000 tpa, which is to be located close to AzMeCo's methanol plant. Plans exist for the construction of an application unit for the production of multilayer laminates and paints, etc.

Air Liquide-Uzbekneftegaz

Air Liquide and Uzbekneftegaz have signed a memorandum in the sphere of industrial gas production. By the end of this year the two companies aim to conclude arrangements for the construction of a plant producing 300 tons/day of oxygen. Investments in the project are estimated at \$50 million.

Uzkimyo sanoat-soda ash expansion started

Uzkimyo sanoat started construction of the second phase of the soda ash plant at Kungrad in November. Kungrad Soda Plant has reached full capacity of 100,000 tpa from the first phase of investment, which was completed in August 2006.

Around 80% of production is sold on the Uzbek domestic market, including customers in the glass industry

Uzstroy materiali and energy industry Uzbekneftegaz and Uzbekenergo. The plant is now being expanded to 200,000 tpa of capacity due to increasing demand. The plant is supplied exclusively by domestic raw materials, salt from the Barsakelmes field, located 53 km from Kungrad and limestone from Dzhamansayskom which is 250 km away.

Relevant Currencies

Czech crown. Kc. \$1= 20.753. €1= 25.833: Hungarian Forint. Ft. \$1= 229.448. €1= 288.154: Polish zloty. zl. \$1=3.414. €1=4.280: Bulgarian leva: \$1 = 1.5956. €1= 1.557: Romanian Lei. \$1 = 3.555. €1= 4.463: Croatian Kuna HRK. \$1 = 5.998. €1= 7.530: Ukrainian hryvnia. \$1=8.07. €1= 10.140: Rus rouble. \$1= 33.192. €1= 41.867

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