This presentation introduces dynamics of the Russian styrene market and related products (incl. plastics, ethylene and benzene). The aim is to satisfy increasing curiosity of international aromatics players by sharing our extensive insights.

Prepared by subject-matter experts:

- Fred Holmberg - 20+ years of experience in Russia-EU chemicals trade
- NKNK/ Nizhex – Largest producer and distributor of Russian styrene
- EmergentSky – Strategy consulting company focused on Emerging Markets

**Russian Styrene Market Overview**

**MARKET DYNAMICS**

- On the territory of CIS, production of Styrene Monomer is concentrated in Russia
- Over the past 10 years, Russian SM market witnessed dynamic developments
  - Export of SM by Russian producers since early-to-mid 90’s
  - Local economic crisis of ’96-’98
  - Steady growth of production and export volumes since 1999
- Industry growth has been driven by global market fluctuations
  - Rising crude oil and benzene prices
- Today, domestic demand is growing, driven mainly by PS producers
- Existing production sites are extended and modernized

**KEY GROWTH DRIVERS**

**WORLD EB/SM MARKET TRENDS**

- ~60% of styrene is produced for export

**RECOVERY OF LOCAL ECONOMY**

- Growth in consumer purchasing power

**DOMESTIC INDUSTRIAL ACTIVITY**

- Developing construction, tare & packaging and machinery segments

**DOWNSTREAM PRODUCTION GROWTH**

- Start-up of new PS production units
Production of Styrene in Russia

HISTORIC PRODUCTION VOLUMES

YEAR-ON-YEAR GROWTH

1997-1998:
- Economy crisis in Russia and global trade recession

1999-2002:
- Recovery of local economy and global product demand

2003-2004:
- Increase in world crude oil prices and EB/SM market price levels
- Start-up of two PS plants (50KT – NKNK, 50KT – Kirishi)
- SNOS plant increased SM plate capacity from 40 to 200KT

2005-2007:
- Growing local demand from PS and SM co-polymers sectors
- Start-up of PS plant by NKNK (50KT)
- Perm/SIBUR plant increased SM capacity to 100KT

Key Styrene Producers

- Production of SM in the geographic region of Russia & CIS is located in 5 facilities
- NKNK accounts for ~48% of total market volume
- High capacity utilization of all plants (operating rates of 85-89%)

TOP STYRENE PRODUCERS (2006)

<table>
<thead>
<tr>
<th>COMPANY</th>
<th>ANNUAL OUTPUT</th>
<th>CAPACITY UTILIZATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. NIZHNEKAMSK NEFTEKHIM</td>
<td>~283 KT</td>
<td>100%</td>
</tr>
<tr>
<td>2. SALAVAT NEFTEORKINTEZ</td>
<td>~176 KT</td>
<td>80%</td>
</tr>
<tr>
<td>3. SIBUR HIMPROM</td>
<td>~75 KT</td>
<td>60%</td>
</tr>
<tr>
<td>4. PLASTIK</td>
<td>~30 KT</td>
<td>100%</td>
</tr>
<tr>
<td>5. ANGARSK POLYMER PLANT</td>
<td>~33 KT</td>
<td>70%</td>
</tr>
</tbody>
</table>

Voronezh SM plant, from 1949 year - 30 kt plate capacity; shut down in 1997 due to old equipment
Future Market Outlook

**PROJECTED PRODUCTION VOLUMES**

- Increase of operating rates from present 85-89% to 100% (+75KT p.a.)
- NKNK to extend capacity from 283KT to 300KT within 1.5 years (+17KT p.a.)
- SIBUR (Perm) to extend capacity from 100KT to 120KT in 2008 (+20KT p.a.)
- SIBUR (Uzlovaya) to extend capacity from 44KT to 60KT in 2008 (+16KT p.a.)
- Process adjustment and decrease in EB/SM index (+50-65KT p.a.)
- Intentions to re-start SM plant in Omsk where both PS and SBR producers are located

**ASSUMPTIONS**

- No new plant to be constructed in Russia in the next 3 years
- Planned capacity increases by local manufacturers are estimated at 140-150KT of styrene
- Key growth drivers - modernization of existing plants and process adjustments

**Export of Styrene from Russia**

**SHARE OF STYRENE EXPORT**

- Stable growth of SM export volumes post market recovery in late 90’s
  - Driven by healthy global market conditions and growing price levels of crude oil and derivatives
- Increase in domestic demand (new PS plants in 2003-2005), forced local SM producers make capacity increases to accommodate high export volumes
- Today, export share is ~56% of total SM volume produced in Russia

Top Export Countries ‘000 TNS in 2005
Appendix: Data Sources

**DATA SOURCES**

- The data in this report is based on official industry statistics, primary research findings and on commentary of our on-location product specialists
  - 2005 and historic statistics sources include Russian Federal Bureau of Statistics, Trade Federations and Market Reports
  - ‘Field research’ to obtain 2006 data and future trends
  - Interviews with Nizhex export team/ Europlastik group

**ASSUMPTIONS / NOTES**

- 2006 market volumes are estimated based on quotes supplied by local producers and market experts (not triangulated with official statistics)
- Variation in actual numbers may appear and should only be used to visualise market top-level structure

FOR MORE INFORMATION CONTACT EMERGENTSKY CONSULTING SERVICES
(info@emergentsky.com / www.emergentsky.com)

About Us:

**EmergentSky** is an international strategic consulting services provider with expertise in Emerging Markets.

Founded by management consultants experienced in advising Fortune100 organizations, EmergentSky combines functional knowledge across industries with in-depth understanding of Emerging Market dynamics.

We work with business leaders that wish to: Enter Emerging Markets; Expand footprint & improve performance; Build in-market resources & capabilities; Invest in attractive companies & sectors.

Our approach produces highly customized insights & solutions by leveraging our in-market resources incl. comprehensive contact networks and established relations with local experts.

EmergentSky is a trusted advisor to sectors such as Chemicals, Utilities, FMCG, Retail, Private Equity, Refining...

For more information visit [www.emergentsky.com](http://www.emergentsky.com)