

Mn Market in CIS and Kazakhstan

Eurasian Natural Resources Corporation

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Content of the Presentation

- Introduction to Kazakhstan
- Eurasian Natural Resources Corporation
- CIS Manganese Market Structure
- Summary of the Presentation

Introduction to Kazakhstan

- Map of Kazakhstan
- Mineral Reserves
- Basic Economic Indicators



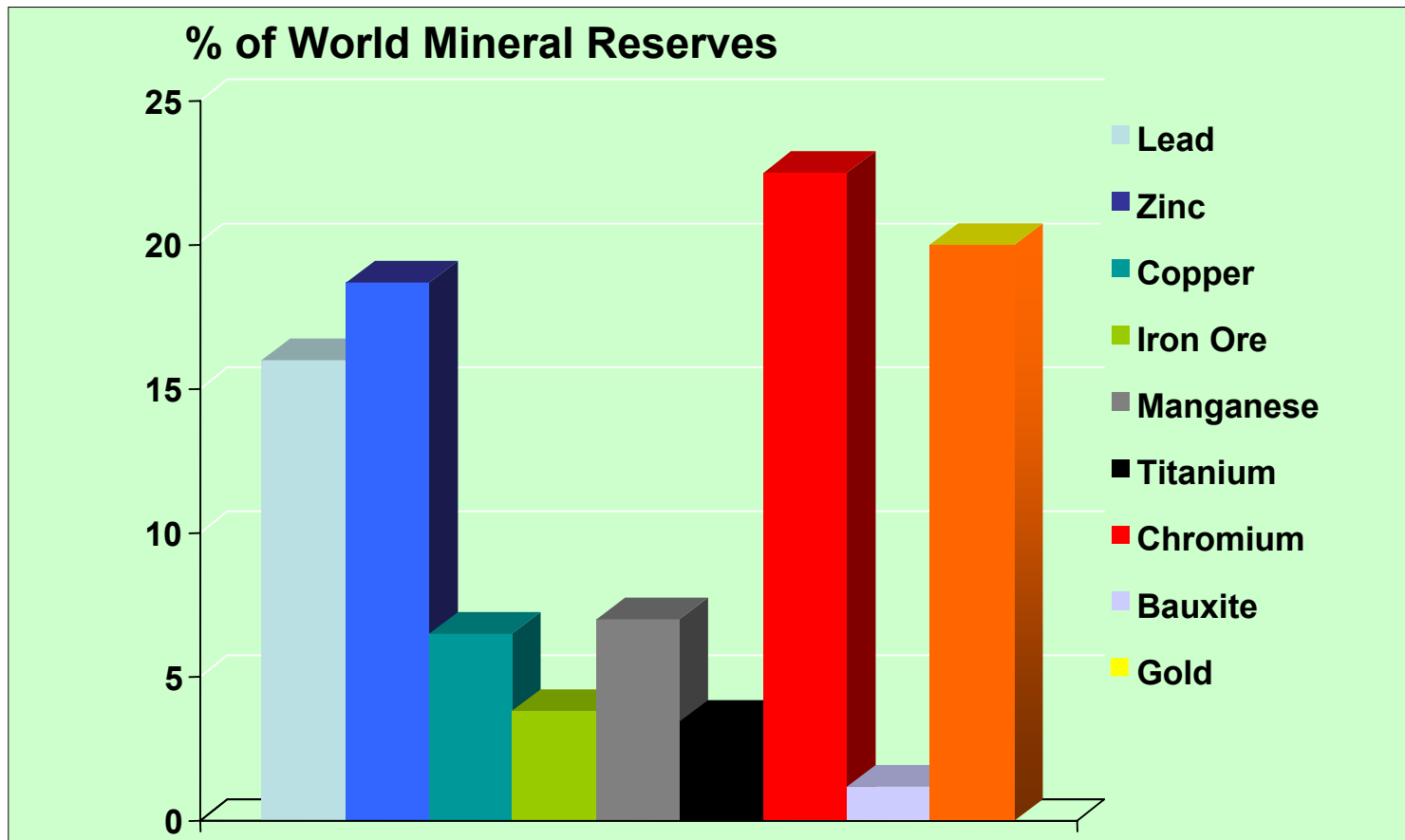
Map of Kazakhstan

- Population: 15 million
- Independence since 1991
- Currency: Tenge (KZT)
- GDP / PPP \$US 118.4billion (2004 est)



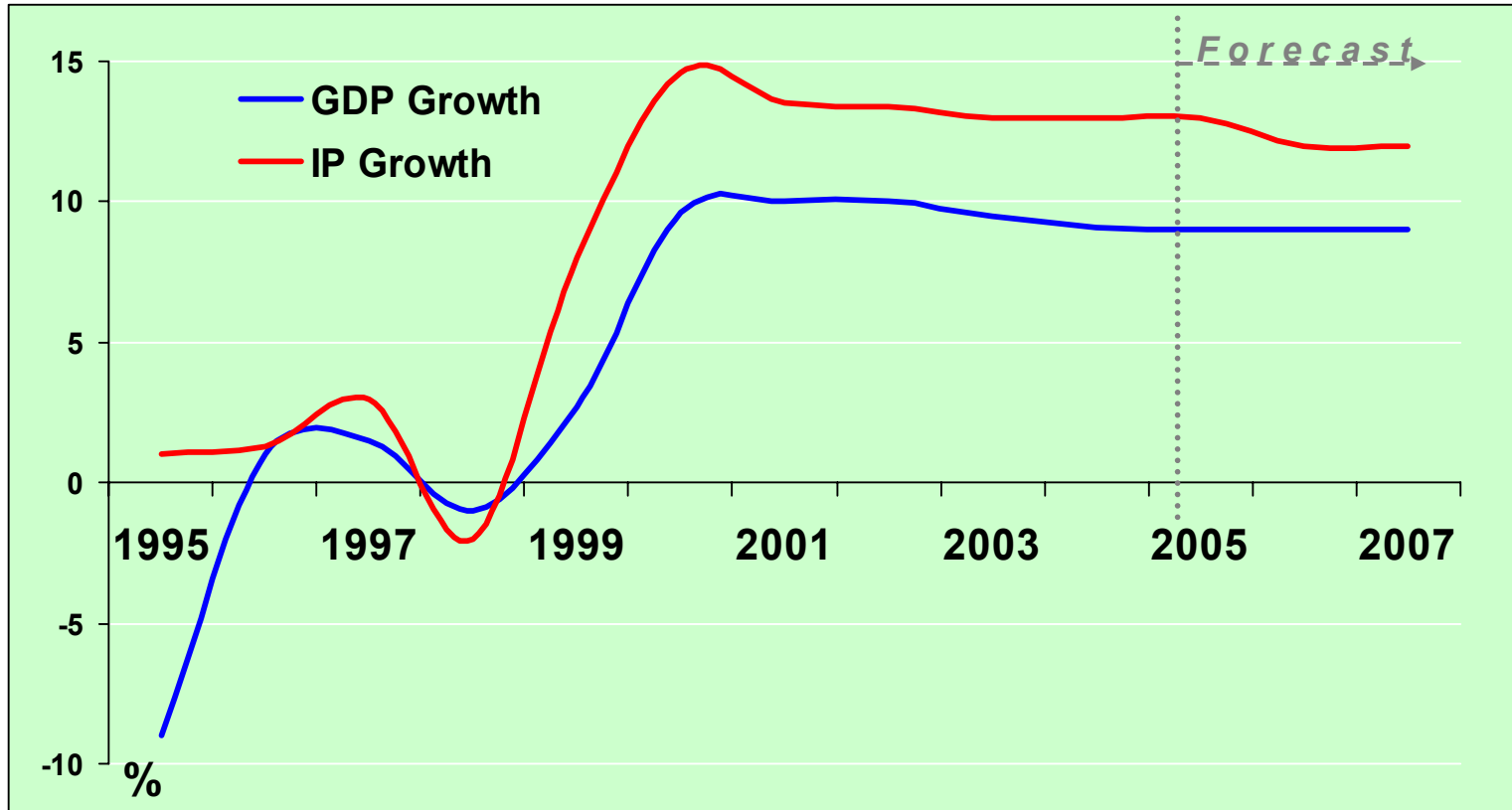


Mineral Reserves





Basic Economic Indicators



Eurasian Natural Resources Corporation

- Location of Mn Ore Mines and Smelters
- Mn Ore & Alloys Production
 - Mn Mines and Ore Quality
 - Aktobe Ferroalloys Smelter
 - Aksu Ferroalloys Smelter
- Mn Projects
 - Zhairem Mine Investments

Location of Mn Ore Mines and Smelters

Eurasian Natural Resources Corporation



Products 2004, tonnes

• HC FeCr	780 000	72%
• MC FeCr	40 000	4%
• LC FeCr	30 000	3%
• FeSiCr	42 000	4%
• FeSiMn	140 000	12%
• FeSi	60 000	5%
• Cr Metal	1 200	
<u>Alloys Production of 1 093 200 tonnes in total</u>		
• Cr Ore	2.6M	
• Mn Concentrate	700 000	

Manganese Ore Mines

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- **Tur Mine**
 - Reserves 10.8M tonnes
 - Mn content 22,8%
 - Fe 9%
 - **Vostochny Kamys Mine**
 - Reserves 3.9M tonnes
 - Mn Content 19%
 - Fe 4.8%
 - **Zhairem Mines**
 - Reserves 91M tonnes
 - Mn content 28%

Manganese Profile

- Total current enrichment capacity of 0.7M tonnes per year
- Low S (0,03-0,06%) and low P (0,03- 0,05%) content in the ore
- Proximity between ore mines, dressing plants and alloys smelters
- Captive energy/ coal resources
- Fully integrated producer of Mn alloys

Aktobe Ferroalloys Smelter

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- **Started production** 1943
 - **Capacity** 265 000 tonnes
 - **Furnaces** 16
 - **Captive power plant** 137MW
 - **Products** HC/MC/LC FeCr
Cr Metal
 - **ISO 9002 / ISO 14000**

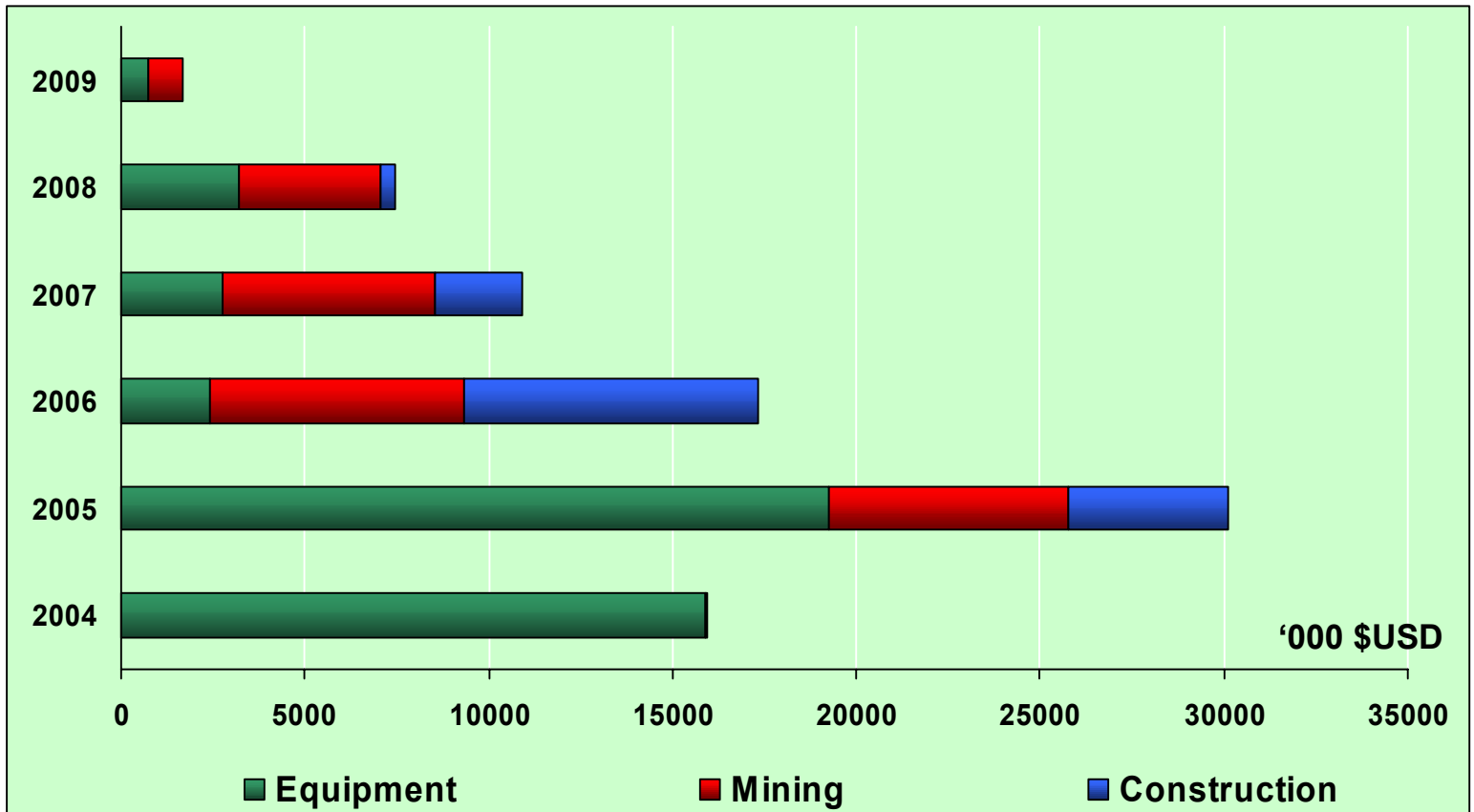
Aksu Ferroalloys Smelter

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- A photograph of the interior of the Aksu Ferroalloys Smelter. The scene is dimly lit, with a bright yellow glow emanating from a large industrial furnace or ladle in the center. A worker wearing a hard hat and safety gear is visible in the background, standing near a metal structure. The overall atmosphere is industrial and high-temperature.
- **Started production** 1967
 - **Capacity** 750 000 tonnes
 - **Furnaces** 26
 - **Captive power plant** 1200MW
 - **Products** HC FeCr, FeSi, SiMn
 - **ISO 9002**
 - **700 000 tpa Chrome Ore Pelletiser to start Autumn 2005**
 - **Upgrading of Material Handling Systems until end of 2005**
 - **Total Investments: 120 million USD**

Manganese Projects

- **New mining equipment installation**
- **Revitalization of existing dressing plant**
- **400 000 tpy new Dressing Plant at Vostochny Kamys Mine by year 2006**
- **Adding value by utilizing up to 80-90 % of Mn ore in- house**
- **Maximum utilization of existing furnace capacities for SiMn production**
- **Study the possibilities of producing FeMn**

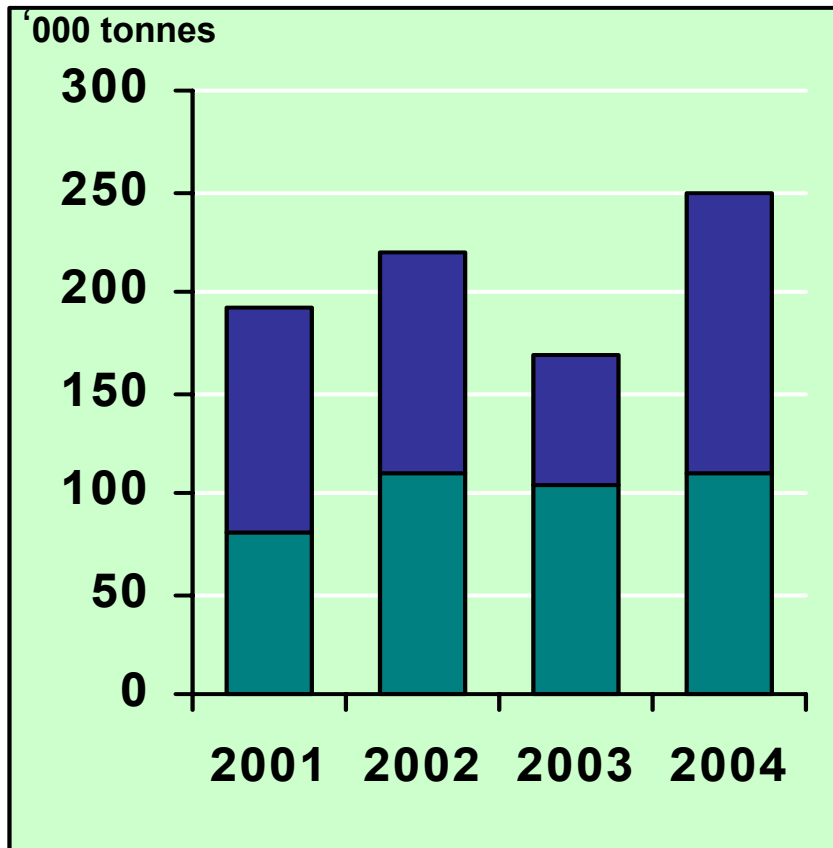
Investments in Zhairem GOK



CIS Mn Market Structure

- Russian and Ukraine Markets
 - Mn Alloys Production
 - Mn Concentrate Consumption
 - Mn Concentrate Imports and its Share in Total Deliveries
- CIS
 - Mn Alloys Production Share
 - Mn Alloys Consumption Growth
- Summary of the Presentation

Mn Alloys Production in Russia



Major Producers 2004

SiMn

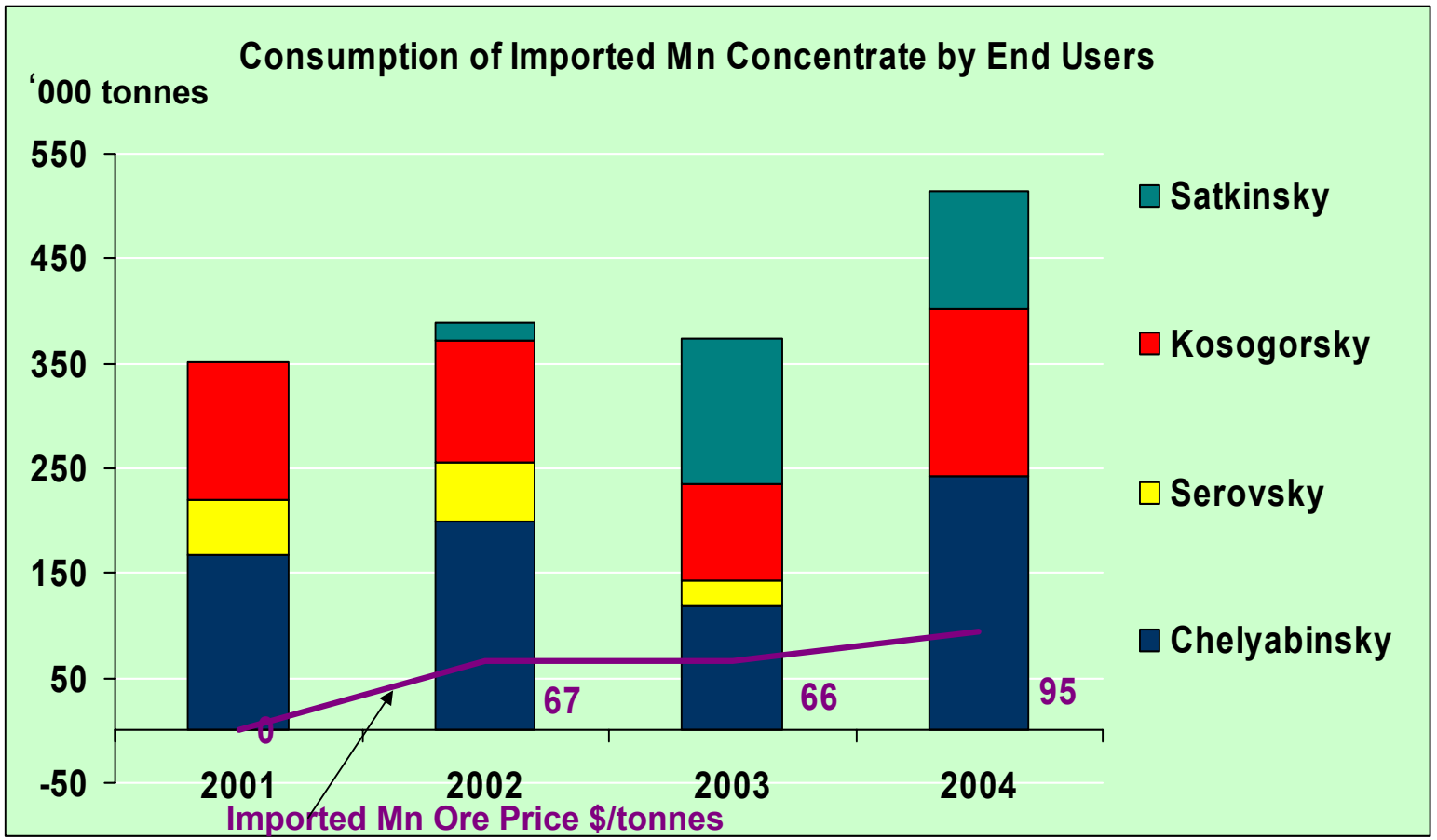
Chelyabinsky 97%

FeMn

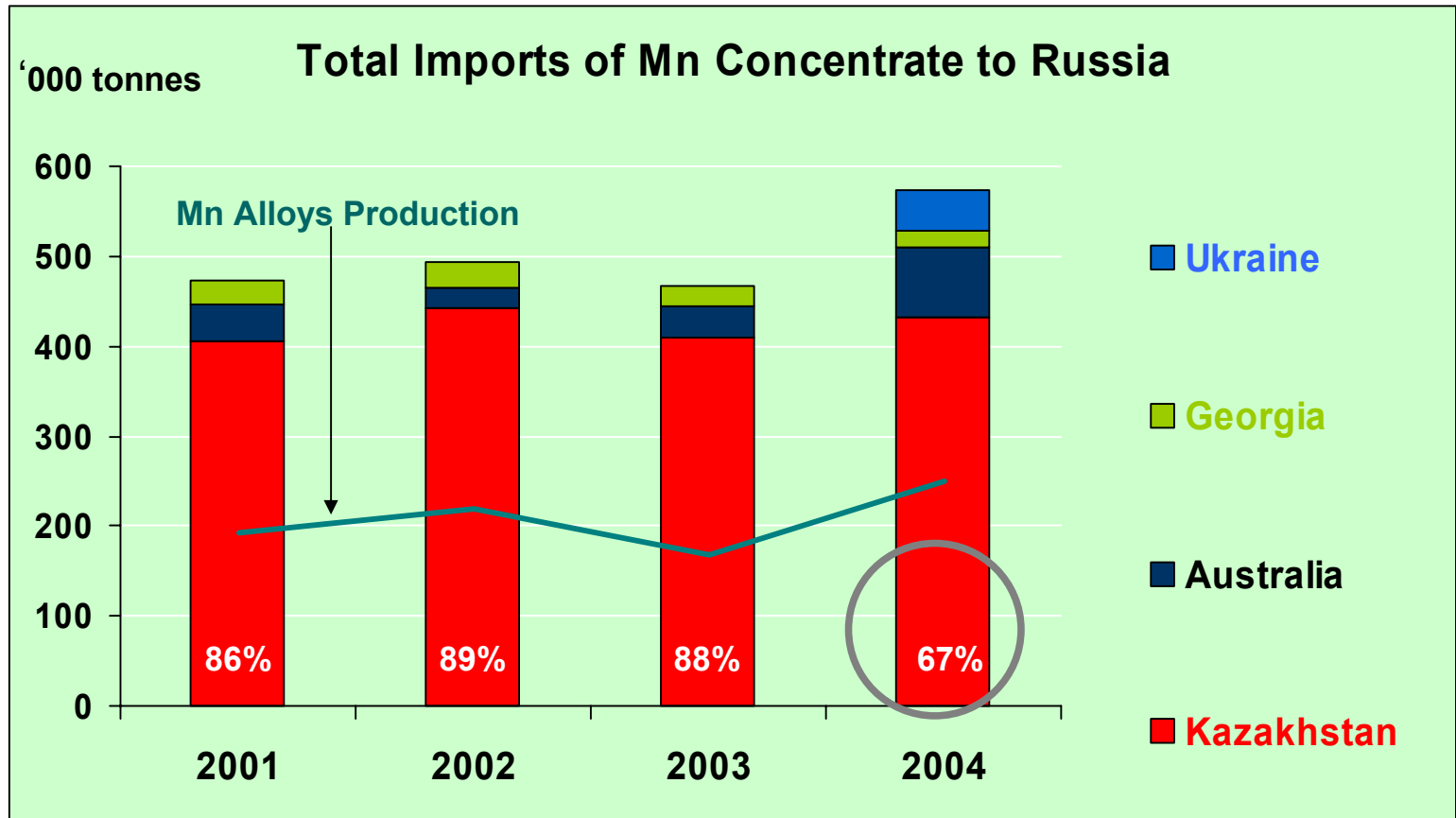
Kosogorsky 52%

Satkinsky 48%

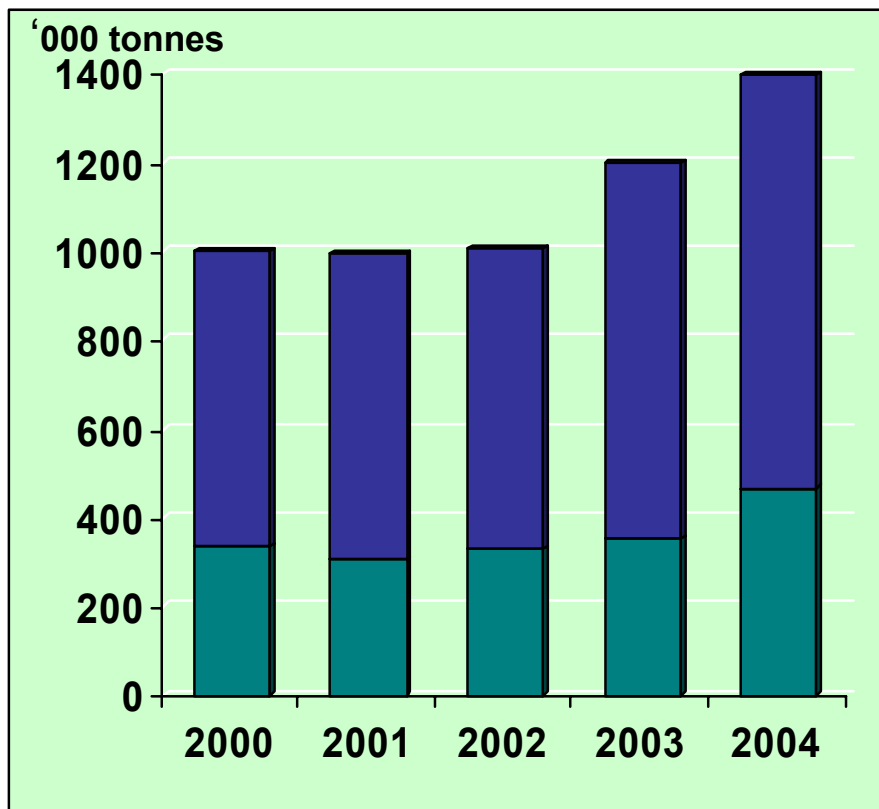
Consumption of Mn Concentrate in Russia



Import of Mn Concentrate to Russia



Mn Alloys Production in Ukraine



Major Producers 2004

SiMn

Nicopol 68%

Zaporozhsky 32%

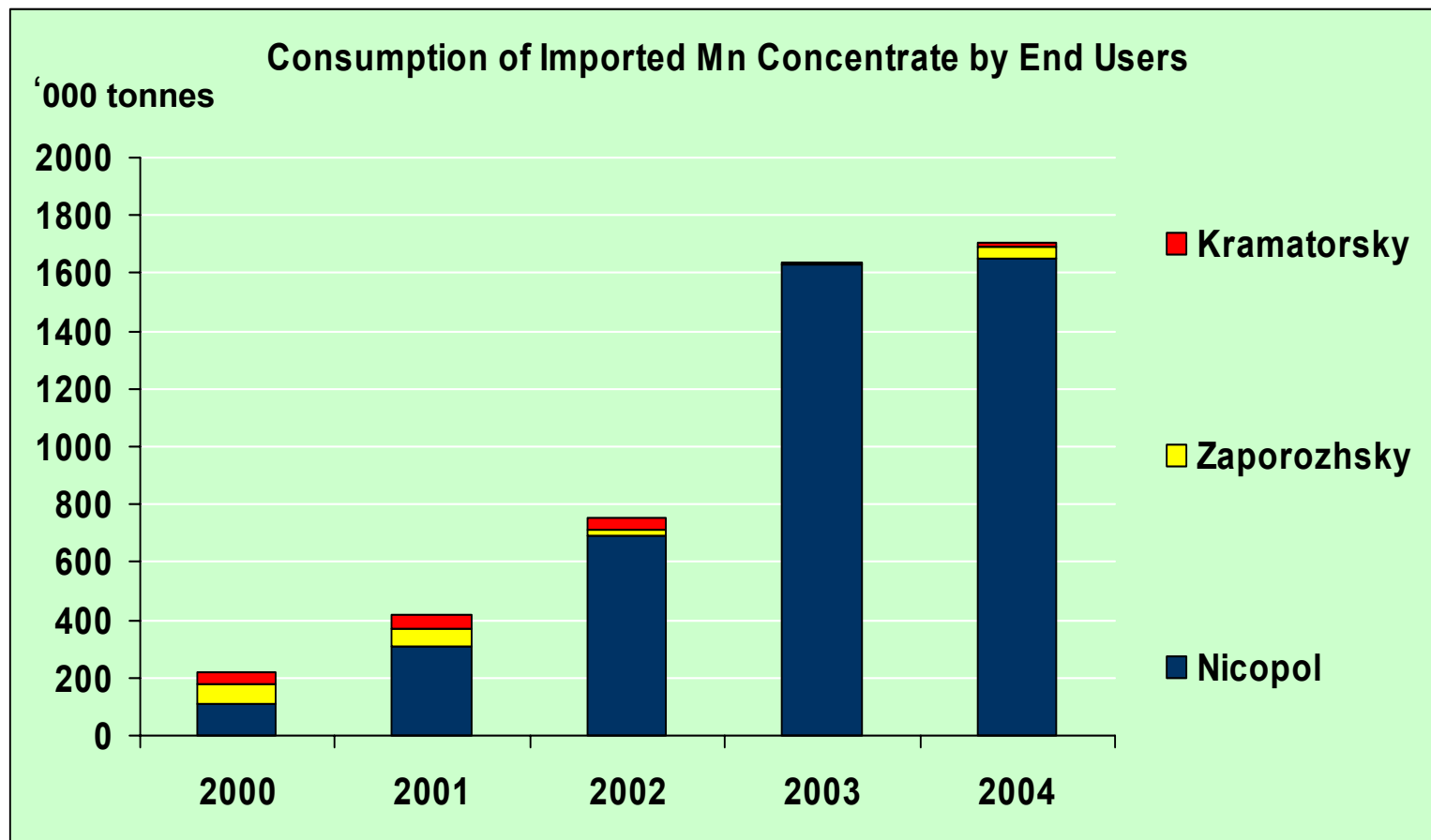
FeMn

Nicopol 65%

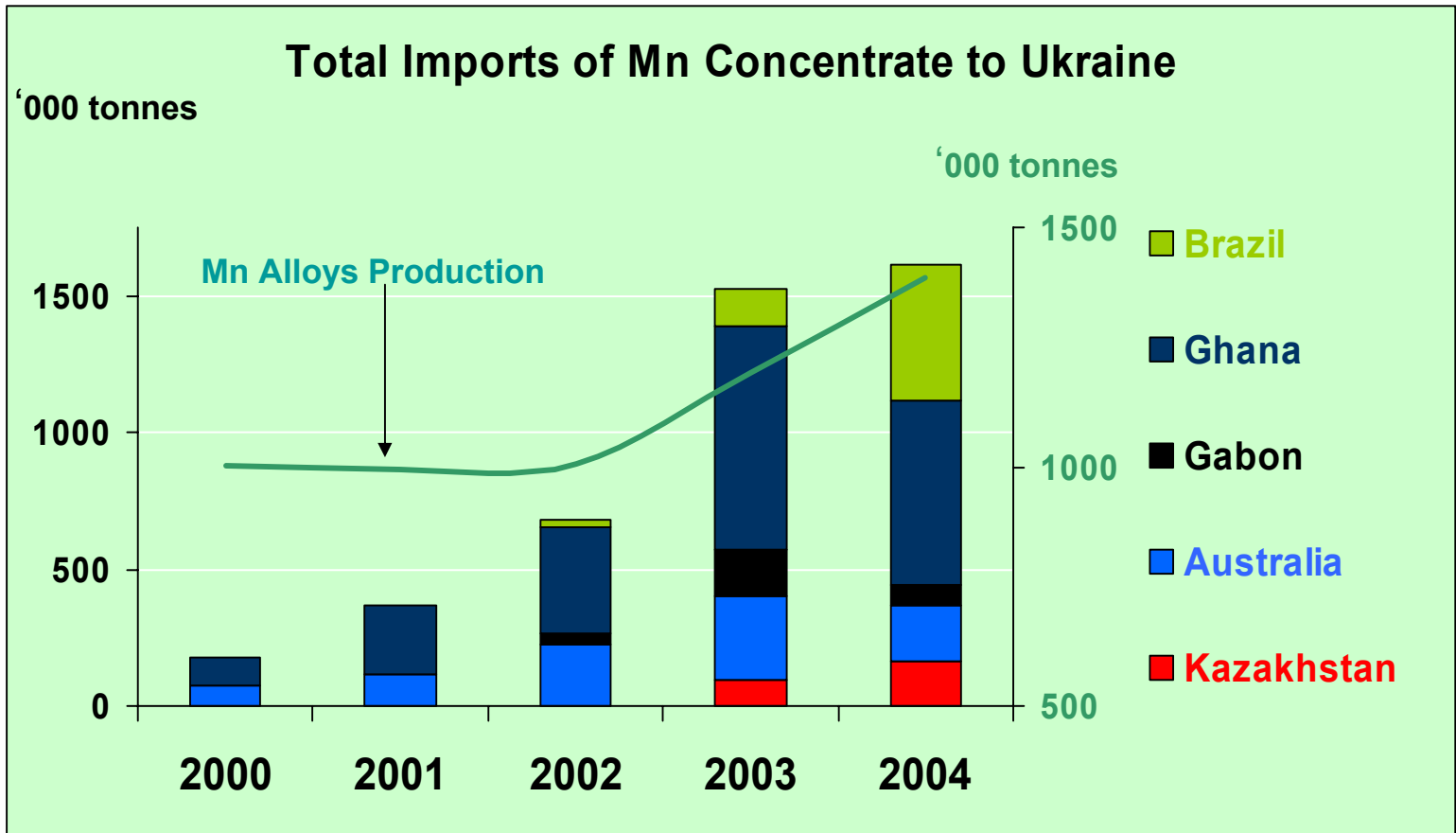
Kramatorsky 18%

Zaporozhsky 17%

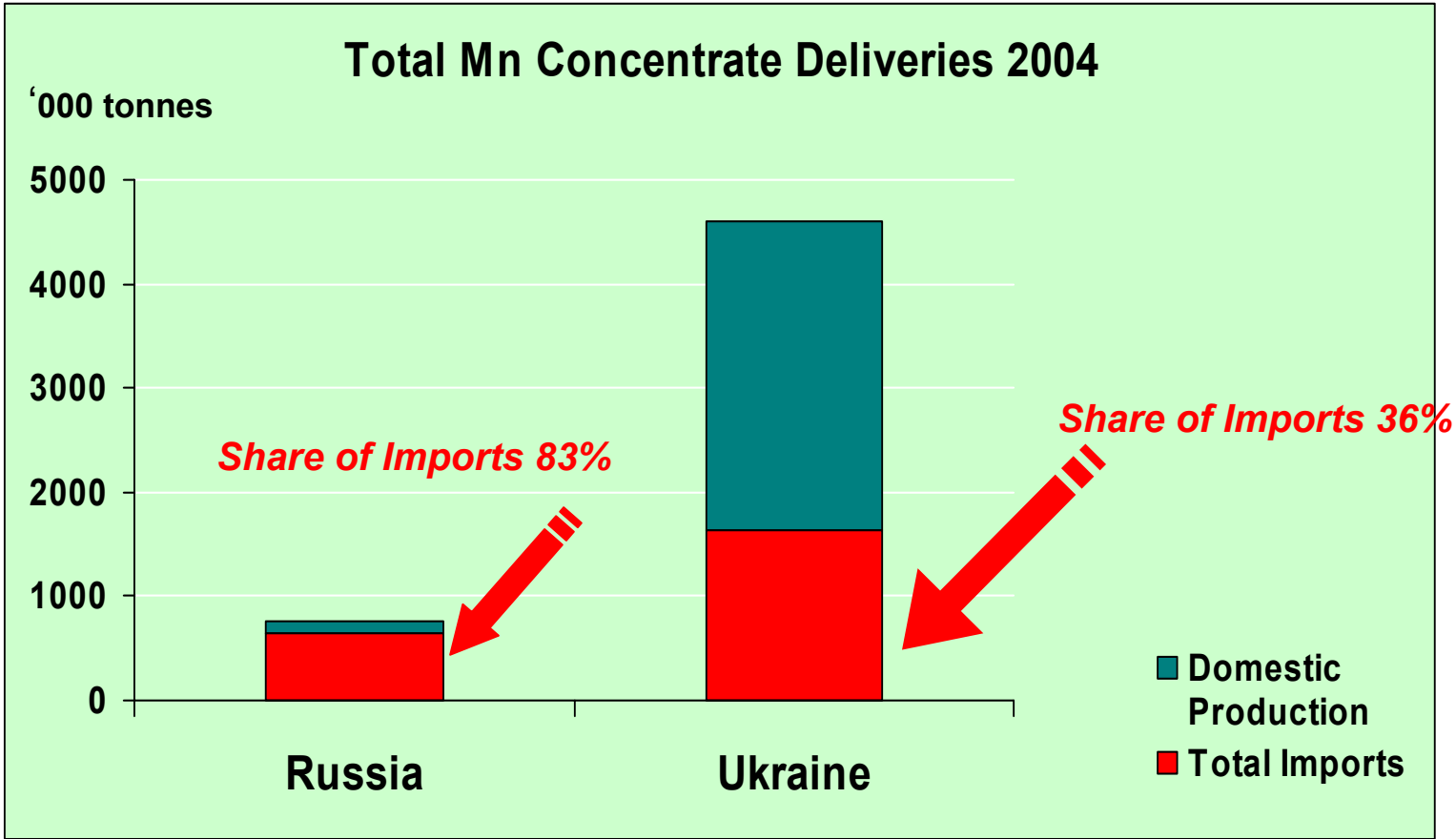
Consumption of Mn Concentrate in Ukraine



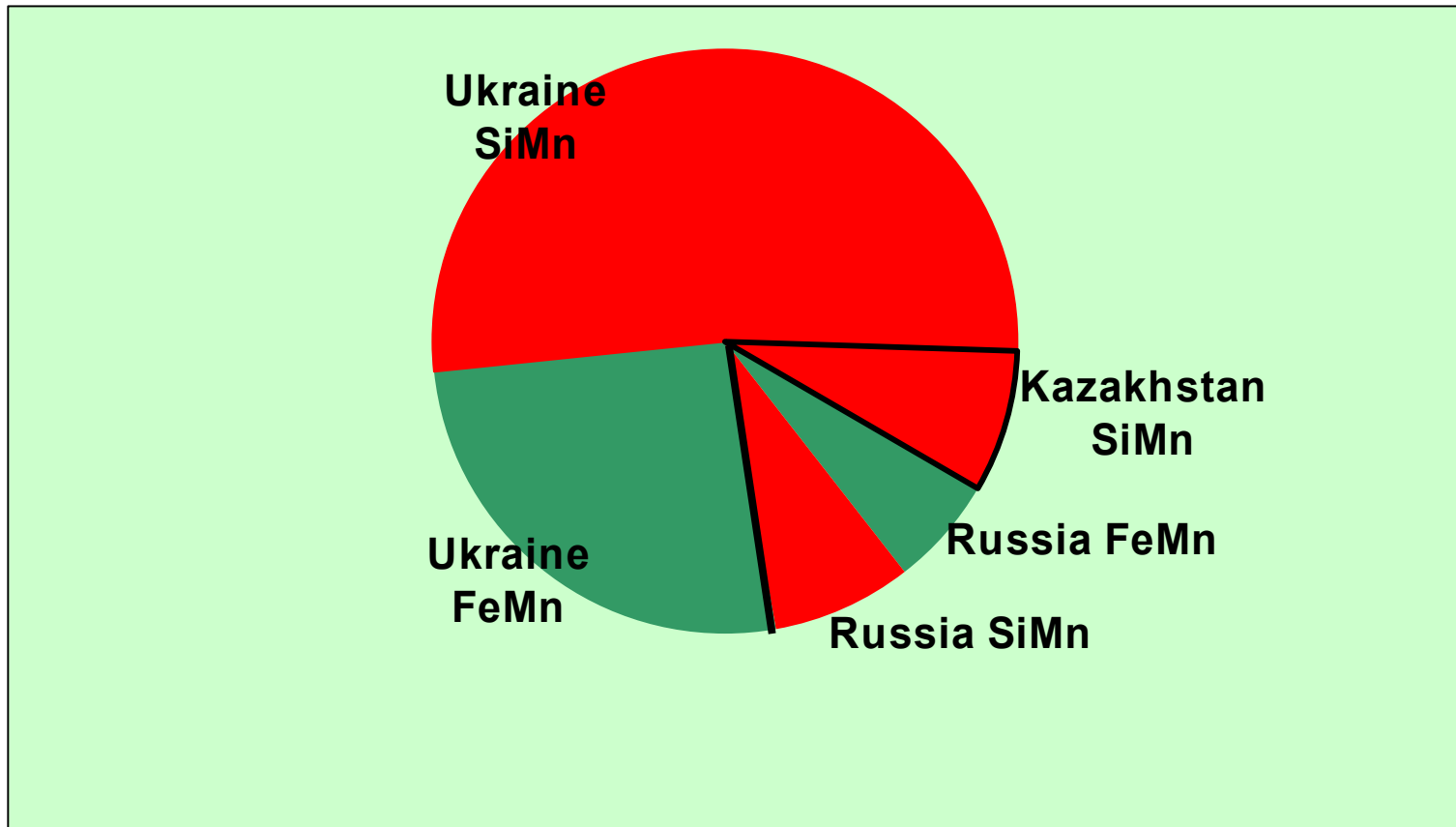
Import of Mn Concentrate to Ukraine



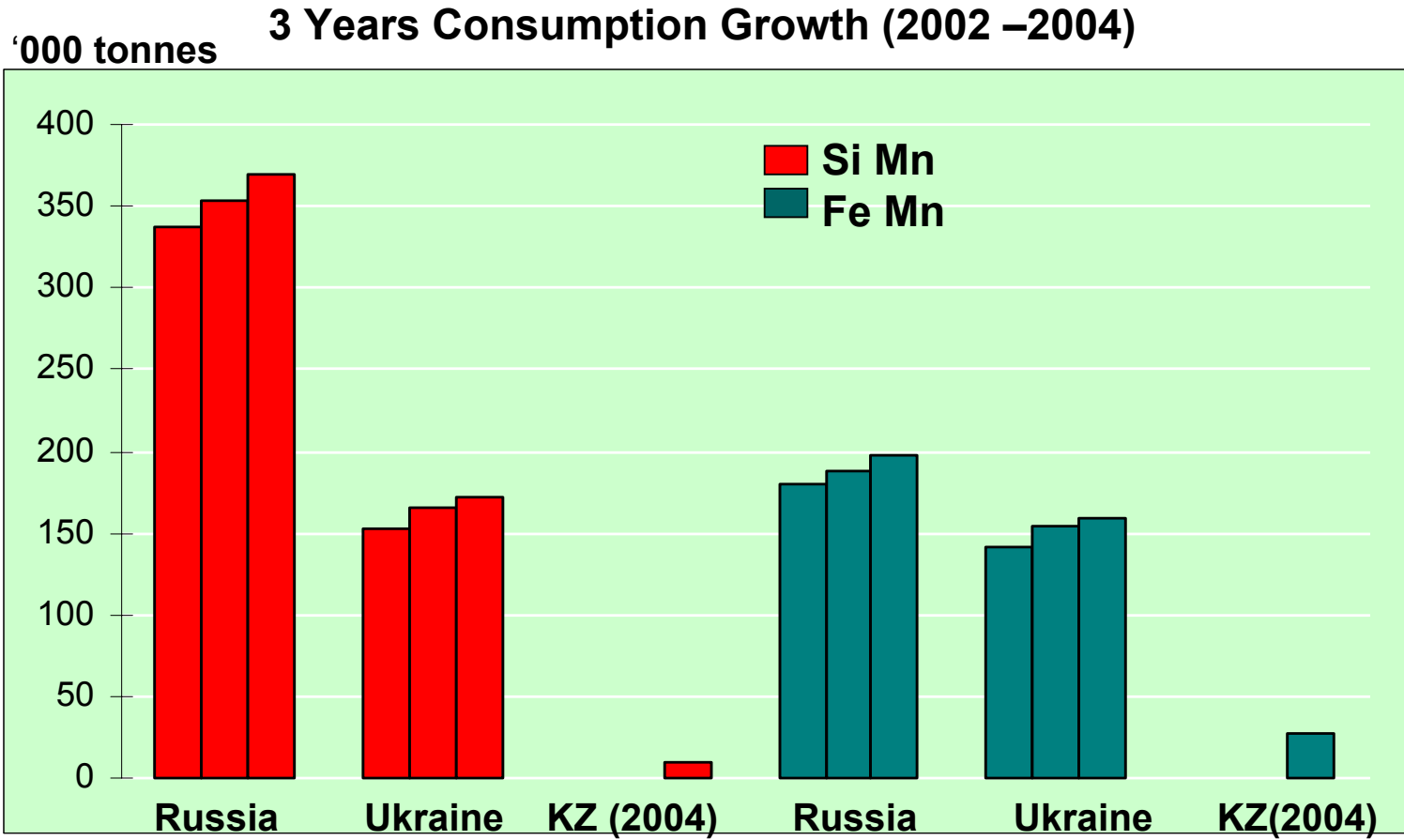
Mn Concentrate Deliveries



CIS Mn Alloys Production Share



CIS Mn Alloys Consumption Growth



Summary

- Ukraine is and will remain the dominant Mn alloys producer of the region. The effect, if any, of the change in the political environment to the shareholders' structure and output of Nicopol has to be seen. But in any case it will be only a temporary effect
- The demand for **low P and S** products will require mixing with imported Mn ores for the **Russian and Ukraine** producers of alloys

Summary (contd.)

- **Eurasian Natural Resources Corporation** is the only truly integrated producer of Mn alloys in the region
- The acquisition of **Zhairem GOK** allows the doubling of Mn alloys production in **KazChrome** without any additional investment in smelter capacities
- The central location of the facilities of KazChrome between the target markets in Russia and North West China allows easy and competitive access to these markets