

Specialty steels and alloys: consolidation and integration opportunities

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May 29, 2008



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What's Specialty?

Specialty steels

$Fe + C < 2\%$, $(Cr, Ni, Mo, etc.) > 5\%$

Engineering



Tool



Stainless



Bearing



Specialty alloys

Ni

$50\% < Ni < 80\%$, $Co < 16\%$,
 $W < 40\%$, $Re, B, Ti, Al < 1\%$,
rest - Fe



Ti

$76\% < Ti < 95\%$,
 $0,2 < Al < 8,2\%$, $0,2 < other$
alloys $< 12\%$



Al

$Al > 81,6\%$, $0,1\% < Cu < 3,8\%$,
 $0,5\% < Si < 13\%$,
 $0,1 < Mg, Zn, Fe, Mn, Ni, Ti < 1,5\%$



Rolling

Forging

Stamping

Investment
Casting

Mechanical
processing

Heat treatment

Aerospace



Nuclear Power



Electric Power



Oil&Gas



Military



Manufacturing



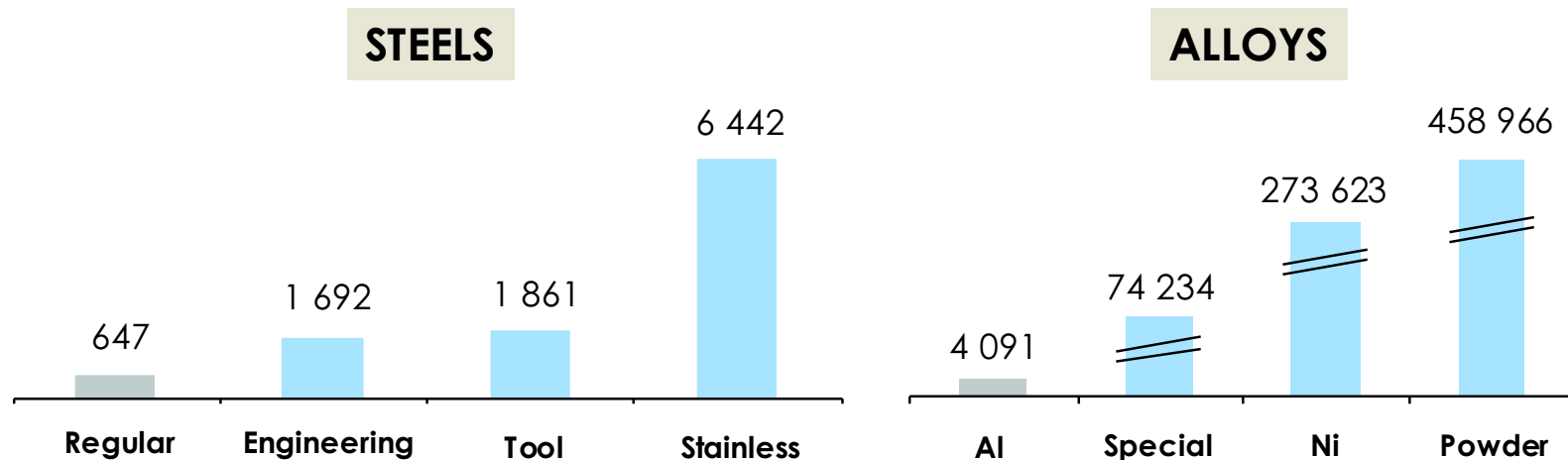
Equipment



What's in the Segment? (more or less)

- ✓ Complex production, wide range of specialized technologies and equipment.
- ✓ Complex chemical composition and processing/finishing. Mechanical and heat processing.
- ✓ Low quality tolerances. Staff qualification.
- ✓ Small-load furnaces. Small production batches. High value-added products.

Average price (estimate), 2007 (USD/T.)



Segment Trends – How to Compete?

- ✓ **Consolidation.** Volumes of corporate mergers are expected to continue leading to further emergence of larger players. Scale seems to matter in R&D-driven industry.
- ✓ **Specialization – Commoditization.** Stainless, tool and engineering steels are increasingly commoditized. Other specialty metals are increasingly made to order on long-term supplier-customer basis. Companies and facilities will continue to specialize – by product or target customers.
- ✓ **Vertical Integration.** Players large and small continue their push downstream, as technology demands tighter material-processing links.



Segment Trends – Gotta Go Global?

Aerospace

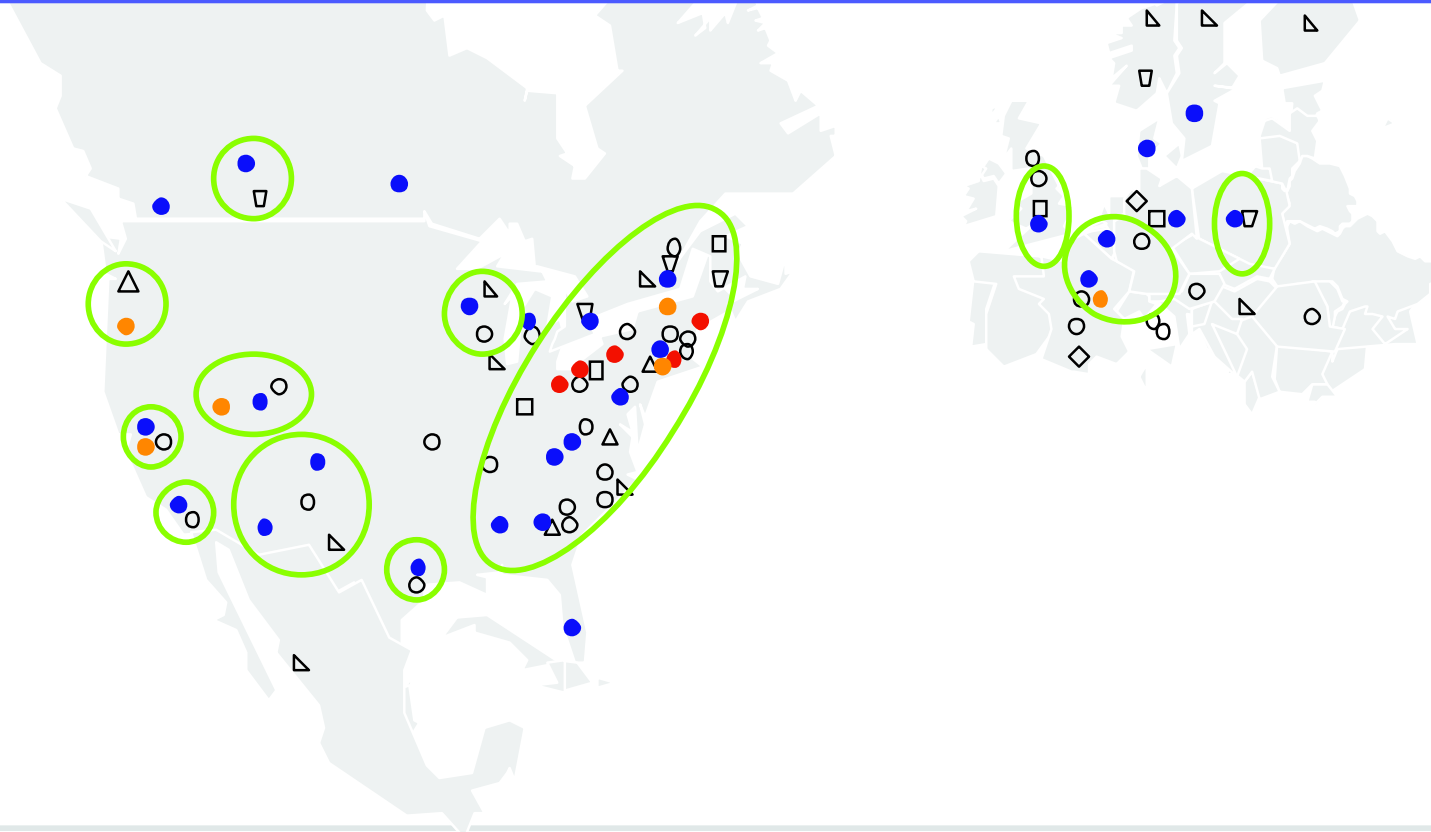
- △ - Boeing
- ◇ - Airbus
- ▵ - Bombardier

Turbines

- - General Electric
- - Rolls Royce
- ▽ - Pratt & Whitney

Specialty metals

- - ATI
- - PCC
- - Carpenter Company





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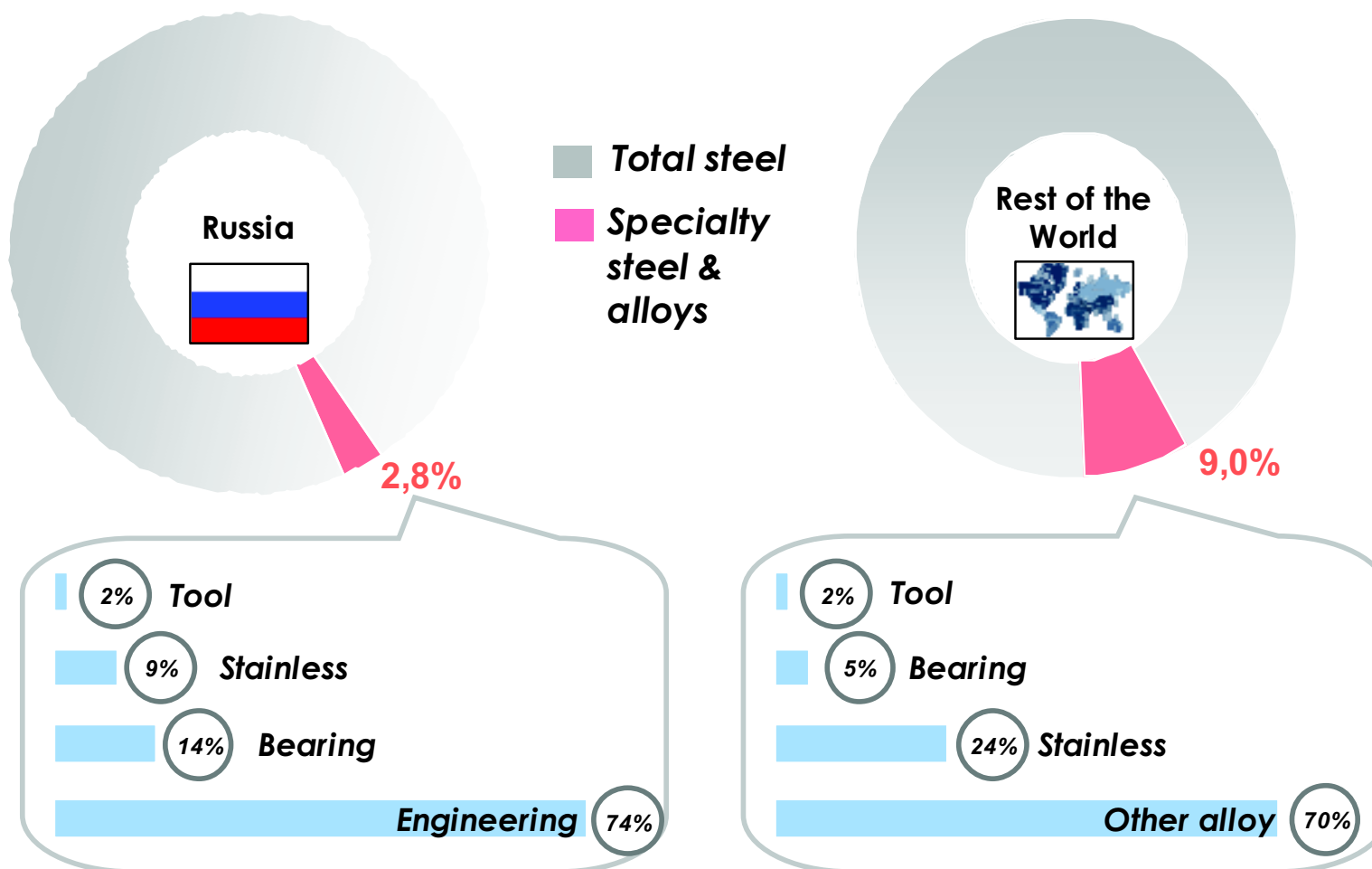


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Russian Metallurgy – How special?

2007 steel production, tones




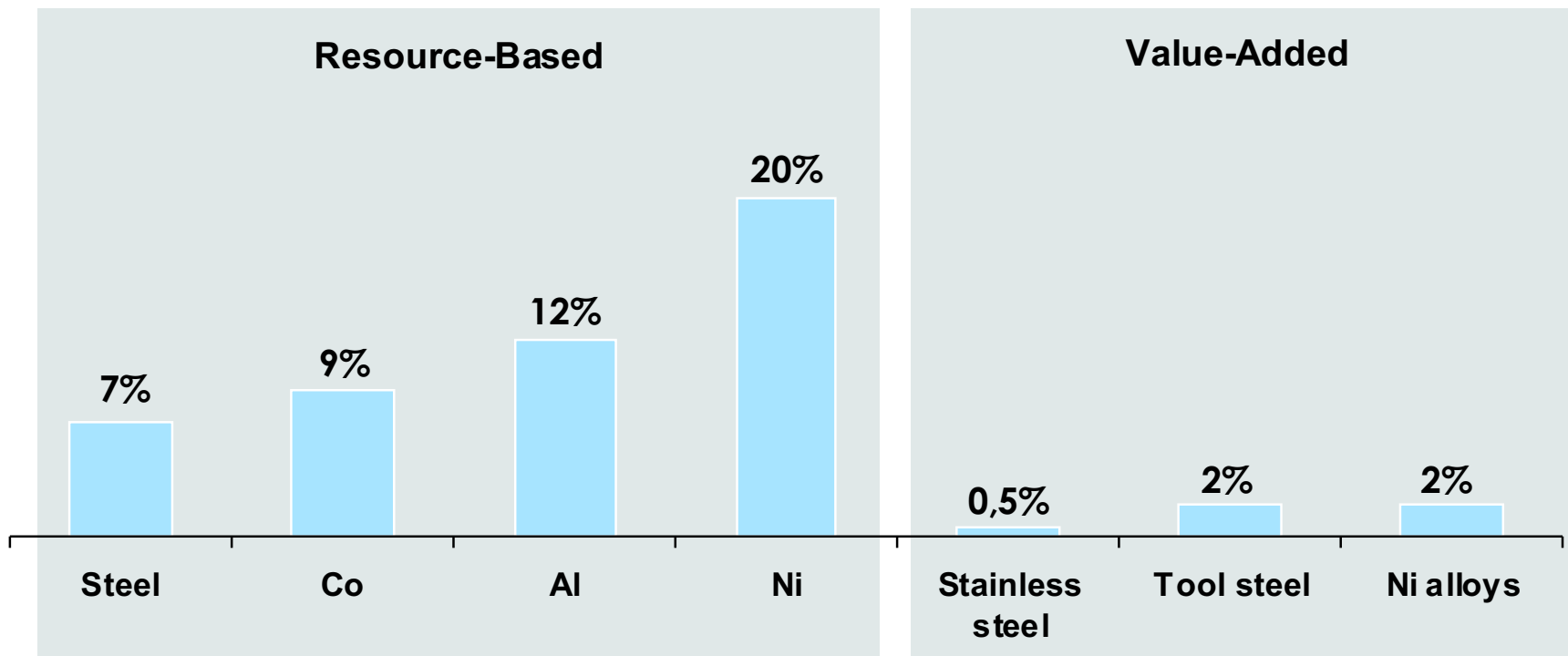
Source: Hatch, 2007

Source: SMI, 2008






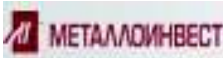

Russian Metallurgy – Flowing downstream?

2007 production, tones

RUSSIA  as % of the  WORLD



Russian Specialty – Geography/Affiliation

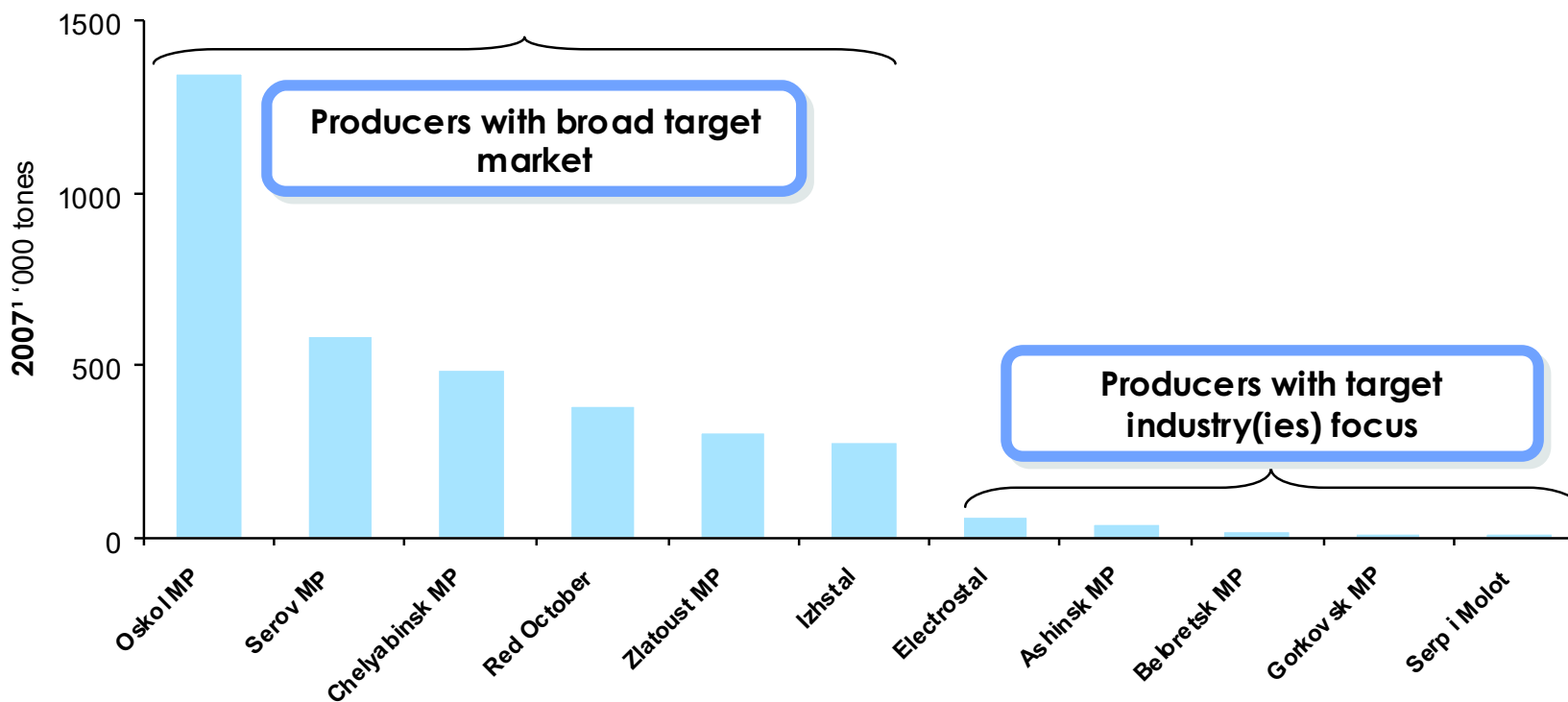
	<ul style="list-style-type: none"> Izhstal Beloretsk MP Chelyabinsk MP Urals Stampings Plant
	<ul style="list-style-type: none"> Red October SMK
	<ul style="list-style-type: none"> Belaya Kalitva MP Samara MP
	<ul style="list-style-type: none"> Zlatoust MZ Kuzmin MP
	<ul style="list-style-type: none"> Serov MP
	<ul style="list-style-type: none"> OEMK
	<ul style="list-style-type: none"> OMZ-Special Steels



● - Producers, included in metallurgical holdings
○ - Independent producers

Russian Specialty – How Focused?

- ✔ Product specialization is sporadic – almost universal free-for-all, but near monopoly in select sub-segments.
- ✔ Customer industry specialization – virtually non-existent.





Russian Specialty – Technology

Technologically Russia lags behind developed countries

- **Outdated facilities – 30 years and older is common;**
- **Long-neglected R&D; skill drainage to flashier industries.**

Result of the post-Soviet collapse in demand

Technology/equipment distribution is sporadic

- **Most plants have repetitive sets of “conventional” equipment;**
- **Few plants with higher-end processes:
VIM* only at: Electrostal, Zlatoust MP and Chelyabinsk MP.**

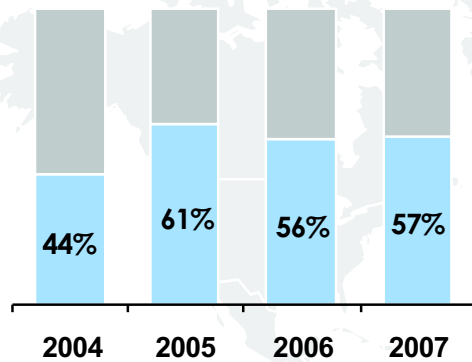
Remnant of the centrally-planned economy

Especially noticeable gap in finishing, labor/energy-saving and environmentally-friendly technology.

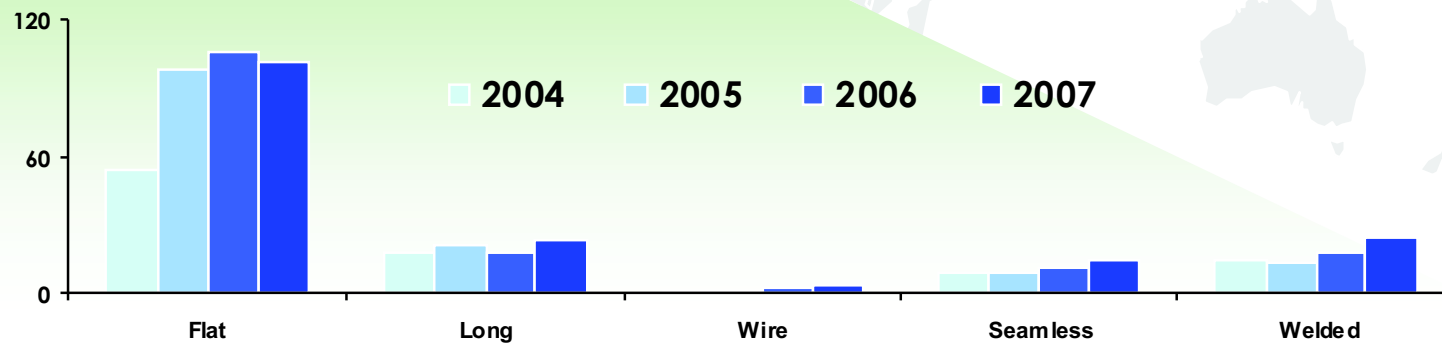
Result of input-costs distortion and traditionally low consumer and regulatory standards

Russian Specialty – Spotlight on Stainless

Share of import in domestic consumption, tones



Import volumes per category, '000 tones

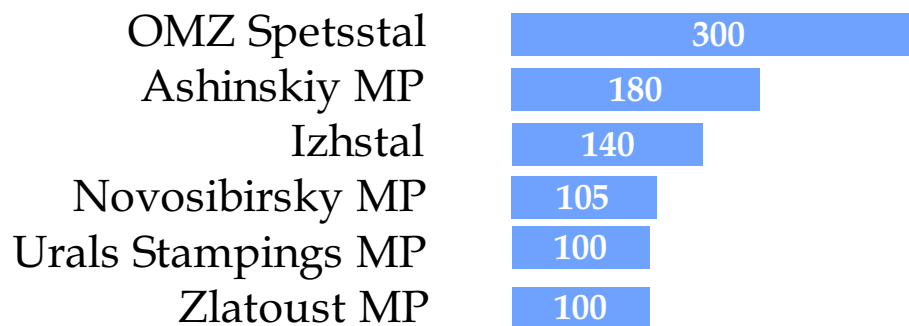


Russian Specialty – Capital Expenditures

- ✓ Numerous upgrade programs announced. These are generally perceived as highly duplicative.
- ✓ If realized these programs may bring excess capacity in select product lines leading to profitability decline, rather than gain.

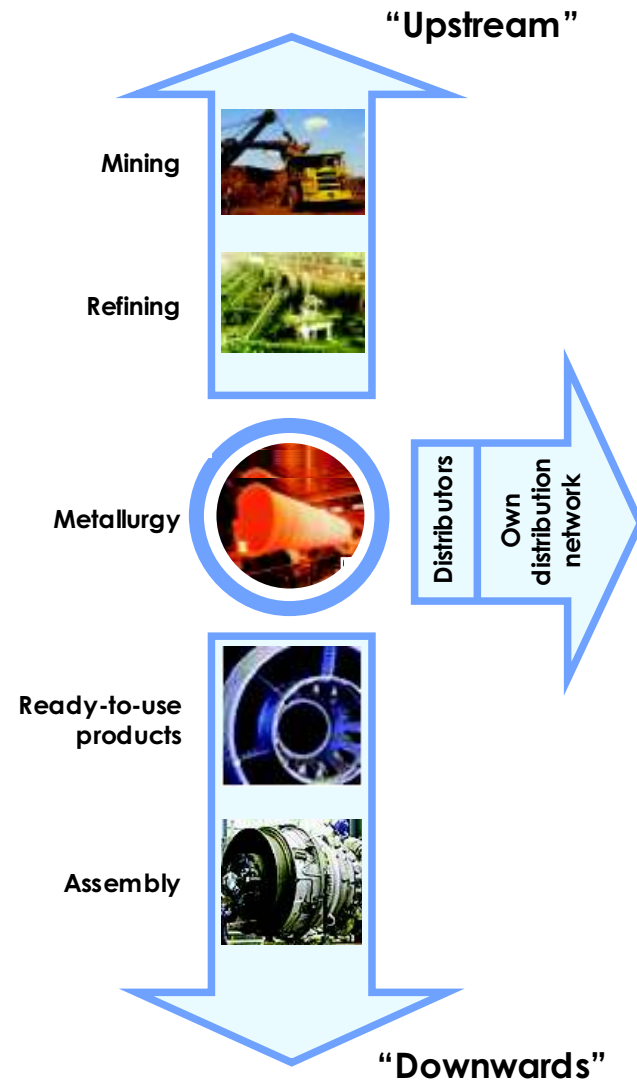
Selected announced CapEx programs 2007-2012*

(US\$ mln.)



“Traditional” Vertical Integration Drivers

- ✓ Raw materials availability control
- ✓ Managing profitability along the value chain
- ✓ Additional revenue center
- ✓ Risk diversification
- ✓ Better client relationship management
- ✓ Forward looking “market feeling”



Vertical integration examples



Steel focus

Alloy focus

	RAW MATERIALS	METALLURGY	PROCESSING	MANUFACTURING
	Green	Green	Grey	Grey
	Green	Green	Grey	Grey
	Green	Green	Grey	Green
	Green	Green	Green	Grey
	Grey	Green	Green	Grey
	Grey	Green	Green	Green
	Grey	Green	Green	Green
	Grey	Green	Green	Green
	Grey	Green	Green	Green

Russia – Perceived Trends

Economy “Demand”

Strong economy growth driven by booming natural resources.

Re-emerging industrial sector:
- economic growth
- government development programs

Instances of manufacturing relocation from W.Europe to Russia/E.Europe

Specialty Metals “Supply”

Suboptimal domestic industry structure.
Underutilized capacity.

Technology gap.
Outdated quality standards

Historically (centrally planned) strong cooperation links among manufacturers

Is there a way to capitalize on them?



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RSS – Overview

Origins

Registered in 2006, formed in early 2007.
 Founding shareholders – RosOboronExport, Midland.

Assets

- * Red October (Volgograd), acquired in March 2007.
- * SMK (Moscow region), acquired in January 2008.



Products and Volumes



Portfolio

Specialty and regular steels:
 Carbon, Engineering, Tool,
 Bearing, etc.
 Main customers: Metallurgy,
 Manufacturing, Automotive, etc.

Alloys and Super alloys: Ni, Co, Al,
 etc.
 Main customers: Aerospace,
 Engine, Automotive, etc.

Production tonnes

530,000

31,000



RSS – Strategic objectives

MISSION

Serve the growing demand for higher-end metallurgical products from technology-driven engineering industries.



VISION

Build an international metallurgical company with a balanced product portfolio, well-defined target markets and competitive facilities.



STRATEGY

- Consolidation of complementary producers of specialty steels and alloys;
- Restructuring of the acquired assets to optimize costs;
- Integrated CapEx programs;
- Push into value added products.



Q & A



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