INTERNATIONAL NICKEL STUDY GROUP

Outlook for Global Nickel Market in 2009-2010

"2009 China International Nickel and Cobalt Industry Forum"
Guangzhou, People's Republic of China

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Overview of the presentation

- INSG Information
- World Nickel Ore Production
- World Primary Nickel Production and Usage
- Prices and Stocks
- World Primary Nickel Balance
- Nickel Developments and Capacity
- INSG Nickel Forecasting Process
- World Primary Nickel Production, Usage and Balance 2007 to 2010
- Conclusions

INSG (1)

- Headquarters/Secretariat - Lisbon, Portugal
- Co-located with International Lead & Zinc and Copper Study Groups, with significant cost savings and synergies
- Membership and Contributions from 15 Countries and the European Community
- Meetings twice a year, held mainly in April/May and October, usually in Lisbon

INSG (2)

- An Autonomous International Governmental Organization
- Membership by both producing and user countries
- Significant role for industry representation
- Small Secretariat with professional staff of two, plus shared Secretary-General, Economist & Administrative Officer

INSG (3)

- Member Countries decide on Group's work
- Industry Advisors have major influence
- Avoids politicization
- Close contact with key industry associations, including Nickel Institute, ISSF
- Very strong support from Non Member Countries and Individual Companies

Member Countries

Australia	Greece	Norway	Germany (new full member)
Cuba	Portugal	Finland	
EC	Italy	Russian Federation	
Japan	Sweden	Netherlands	
France	Brazil	United Kingdom	

Objectives (1)

- to collect and publish improved statistics monthly on nickel markets - including production, usage (consumption), trade, stocks, prices and other statistics such as recycling
- to publish other information on nickel, such as data on industry facilities, environmental regulations and end use markets

Objectives (2)

- to provide a forum for discussions on nickel issues of interest to nickel producing and using (consuming) countries and their industries, including environmental issues
- to undertake economic analysis of nickel markets and related topics

Statistics

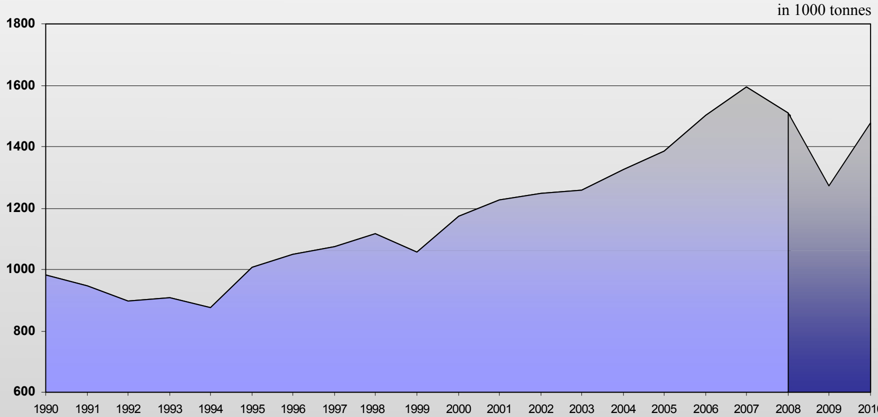
- Extensive range of statistics produced monthly
- Coverage includes mine production, primary nickel, nickel-bearing scrap
- Production, usage (consumption), stocks, trade
- Usage (consumption) data is particularly well regarded

Economic and Environmental issues

- Legislative: advising governments on impact of existing and new legislation on the nickel market
- Nickel Recycling
  - ✓ environmental impact: waste, primary resources
  - ✓ economic (market) impact: supply of nickel units from scrap
- Economic: studies on nickel supply and demand; country studies; trade issues; potential Common Fund for Commodities projects to promote nickel

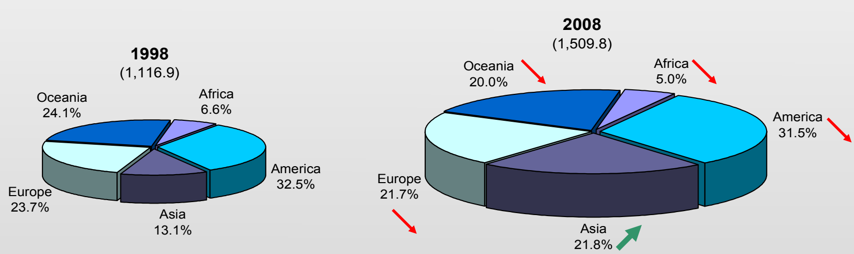
World Nickel Ore Production

in 1000 tonnes



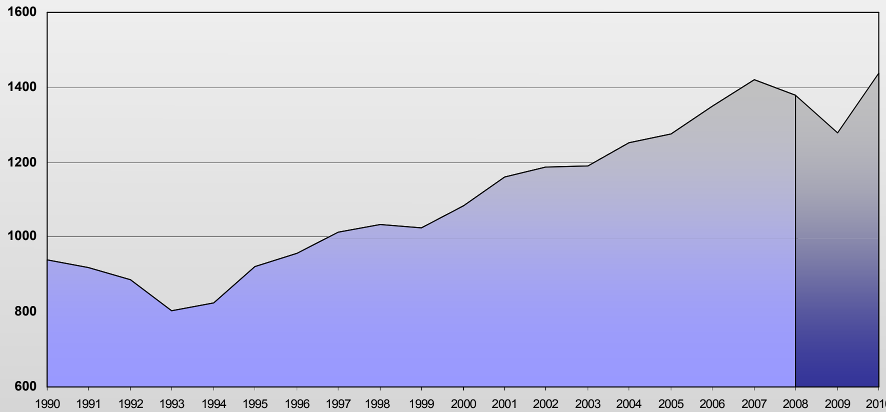
World Nickel Ore Production

in 1000 tonnes



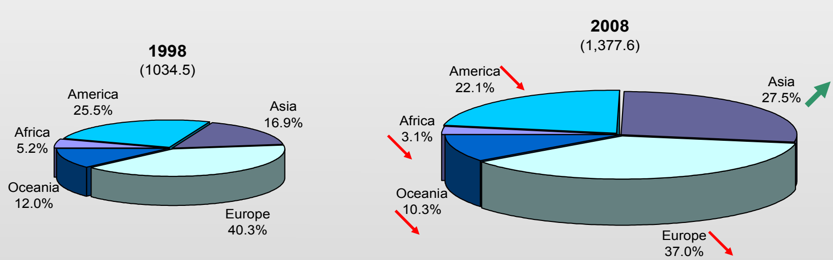
World Primary Nickel Production

in 1000 tonnes



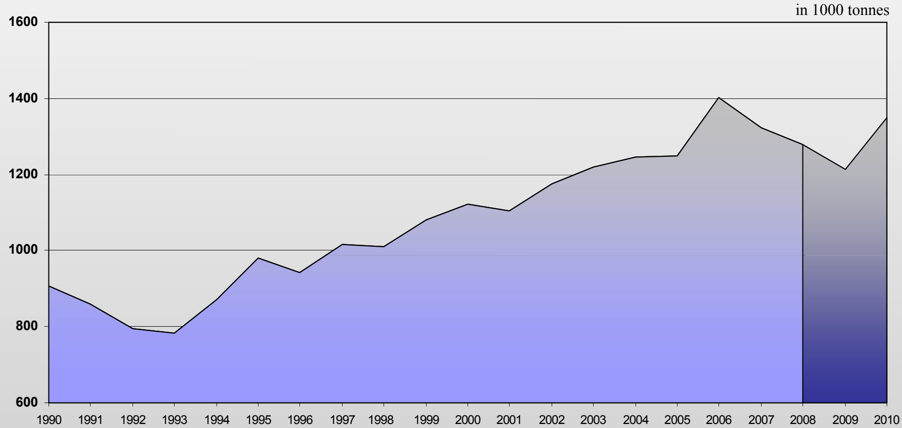
World Primary Nickel Production

in 1000 tonnes



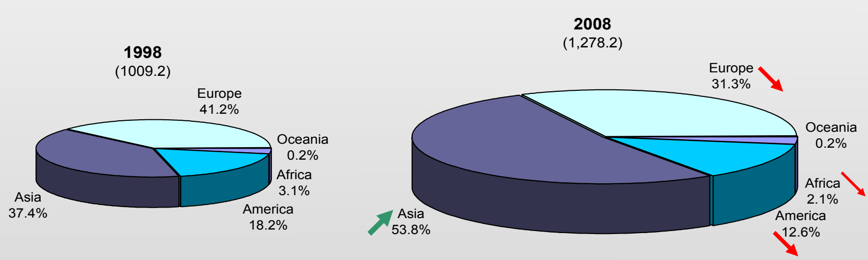
World Primary Nickel Usage (consumption)

in 1000 tonnes

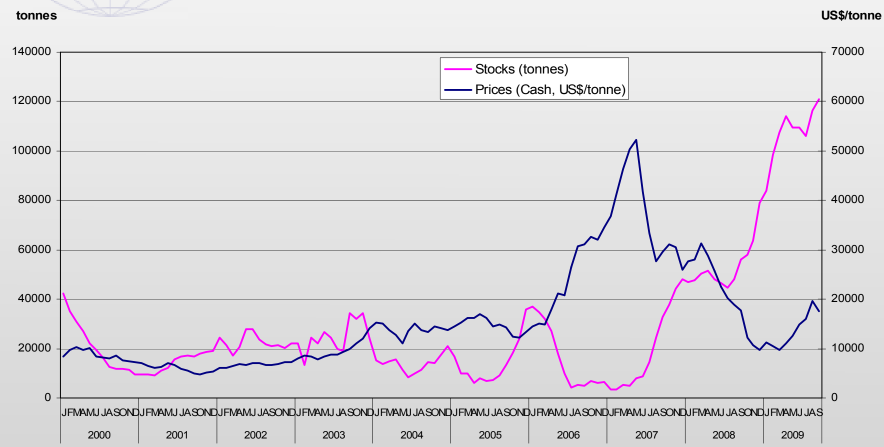


World Primary Nickel Usage (consumption)

in 1000 tonnes

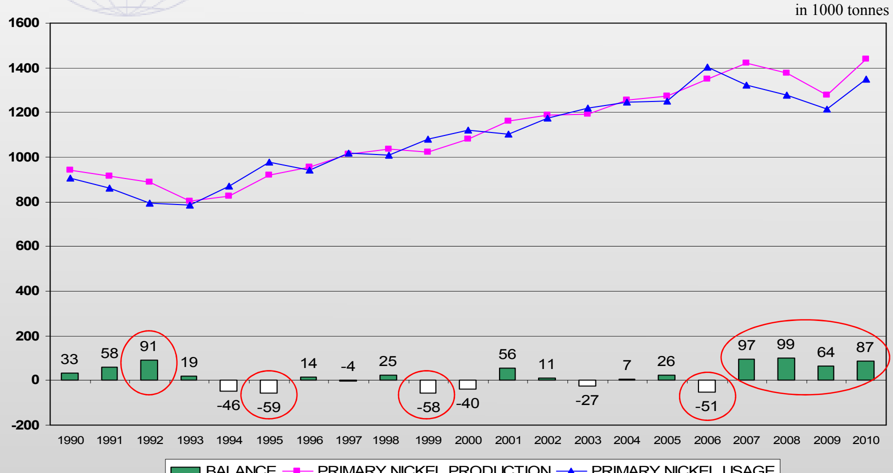


LME prices and stocks

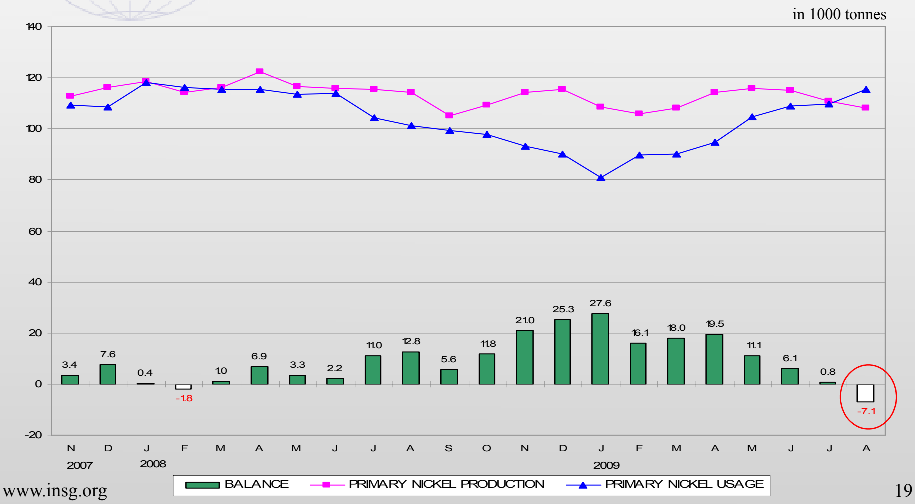


World Primary Nickel Balance - annual

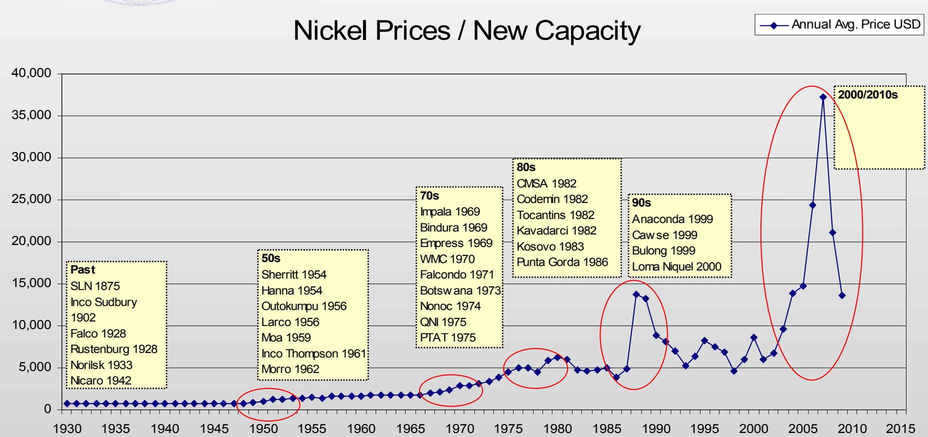
in 1000 tonnes



World Primary Nickel Balance - monthly



Nickel Developments

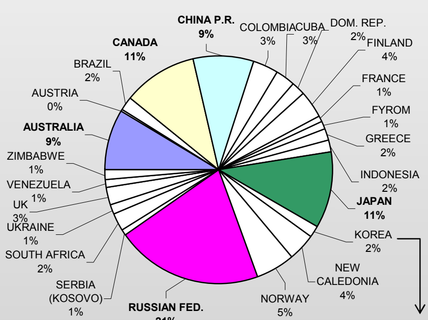


New World Primary Refined Nickel Capacity in 2008

- World nickel refined capacity in 2008 increased by over 47 000 tpa, or 3%, compared with 2007’s figure, according to INSG data
- A mix of brown and green field expansions
- World total refined capacity was over 1.58 Mtpa in 2008
- World capacity utilization was over 87%
- The figures above exclude nickel pig iron production capacity in China, which could be considerable

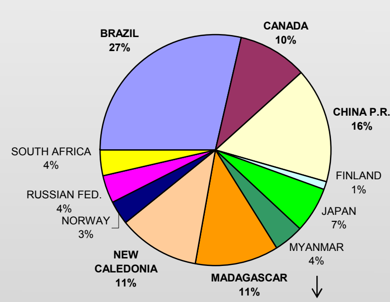
Refined Nickel Capacity by Country

2008: ≈ 1.5Mt



New producing country

New committed developments: ≈ 0.5Mt



New producing countries

Nickel Capacity on Stream / Ramp Up in 2010

Name/Country	Product	Mode	Est. Production	Remarks
Posco / Korea	FeNi	Ramp Up	Max 30 000	Own use
Goro / New Caledonia	Semi	Ramp Up	Max 30 000	To China & Other
Coral Bay II / Philippines	Semi	Ramp Up	10 000	To Japan
Talvivaara / Finland	Semi	Ramp Up	Max 30 000	For Finland
Ramu / PNG	Semi	Start Up	10 000	To China
Santa Rita / Brazil	Conc.	Start Up	25 000	Brazil & Finland
Munali / Zambia	Conc.	Ramp Up	Max 10 000	To China

INSG Nickel Forecasting Process Twice a Year

- Send out questionnaire to Members for submission of data
- Contact Industry outside and inside of Member countries
- Draw up preliminary forecast
- Discuss preliminary forecast with Industry Experts and make appropriate adjustments
- Prepare forecast for presentation at meeting
- At meeting discuss and include latest up-dates to the forecast
- Agreed forecast accepted as official INSG document.

World Primary Nickel Production 2007 to 2010

in 1000 tonnes

Area	2007	2008	% change	2009	% change	2010	% change
Africa	49.1	42.1	-14.3	35.0	-16.9	40.0	14.3
America	321.7	304.8	-5.3	236.0	-22.6	286.0	21.2
Asia	379.4	378.6	-0.2	397.3	4.9	445.1	12.0
Europe	513.7	510.2	-0.7	446.0	-12.6	492.0	10.3
Oceania	156.2	141.9	-9.1	164.5	15.9	174.0	5.8
Total	**1420.2**	**1377.6**	**-3.0**	**1278.8**	-7.2	**1437.1**	12.4

World Primary Nickel Usage 2007 to 2010

in 1000 tonnes

Area	2007	2008	% change	2009	% change	2010	% change
Africa	33.6	27.0	-19.6	37.0	37.0	38.1	3.0
America	171.4	160.5	-6.4	119.9	-25.3	149.9	25.0
Asia	690.9	688.3	-0.4	736.2	7.0	810.3	10.1
Europe	423.9	399.6	-5.7	318.5	-20.3	348.2	9.3
Oceania	2.9	2.9	0.0	3.1	6.9	3.2	3.2
Total	**1322.7**	**1278.2**	**-3.4**	**1214.7**	**-5.0**	**1349.7**	**11.1**

World Primary Nickel Balance 2007 to 2010

in 1000 tonnes

Area	2007	2008	% change	2009	% change	2010	% change
Production	1420.2	1377.6	-3.0	1278.8	-7.2	1437.1	12.4
Usage	1322.7	1278.2	-3.4	1214.7	-5.0	1349.7	11.1
Balance	**97.5**	**99.4**		**64.1**		**87.4**	

Conclusions (1)

- Primary nickel usage down by 5% in 2009, but could increase by 11% in 2010
- Primary nickel projects are starting to come into production and up to 0.5Mt have been identified as committed
- Primary nickel production is estimated to decline by 7% in 2009 and a recover by 12% in 2010

Conclusions (2)

- Sufficient primary nickel units should be available in, at least, the short to medium term
- China will remain the most important market for primary nickel
- The nickel market will remain very volatile.

INTERNATIONAL NICKEL STUDY GROUP

Many thanks for your kind attention!

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