



CHINA'S ECONOMIC GROWTH AND ITS IMPACT ON MINERALS MARKET



Pierre Alla CEO Goro Nickel
New-Caledonia



CHINA Growing Role in Mineral Market

Raw material prices particularly mineral prices reflect the global economic growth

China, biggest producer and consumer of metals and minerals accounting for 16% of both world consumption and production

Bull run in steel and non ferrous metals markets driven by China's tremendous domestic growth in industrial and construction activity.

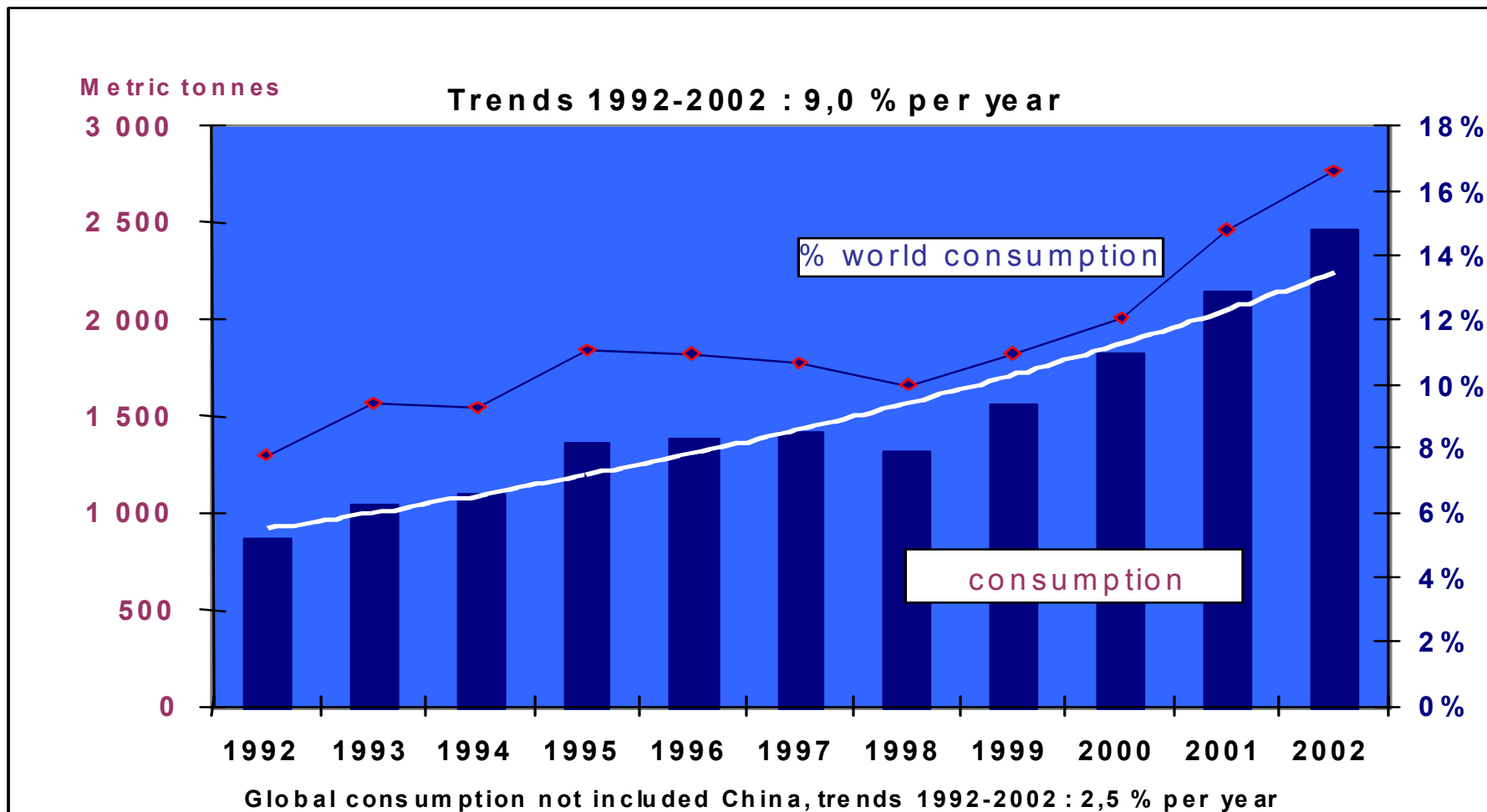


CHINA Prime Driver in Mineral and Metal Markets

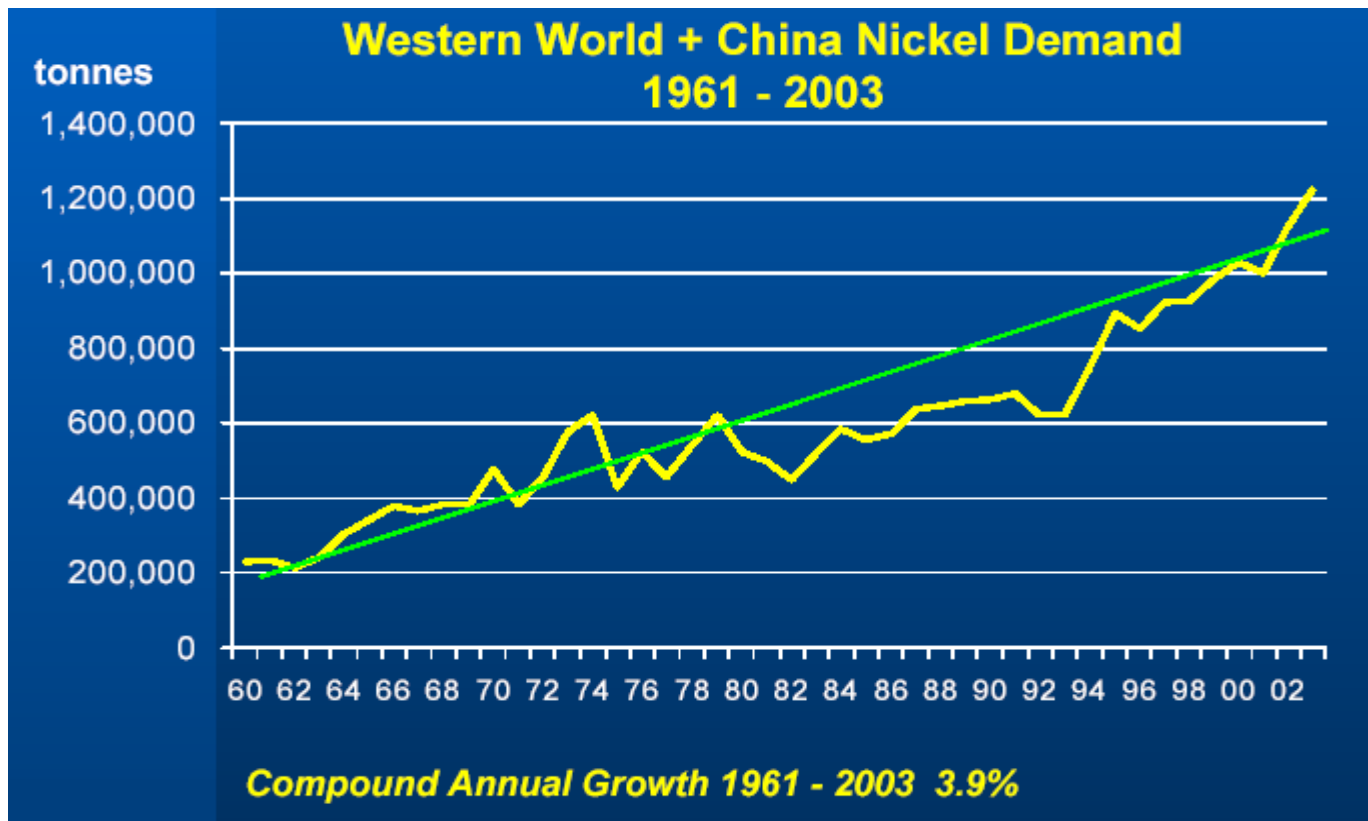
In 2002 China is for example on a worldwide ranking:

- 1st Aluminium Producer (17%) and the 2nd Consumer (16%)
- 1st Zinc Producer (22%) and the 1st Consumer (18%)
- 1st Consumer Stainless Steel (21%) , Iron ore (27%), Steel (25%)
- 3rd Copper Producer (10%) and the 1st Consumer(17%)...

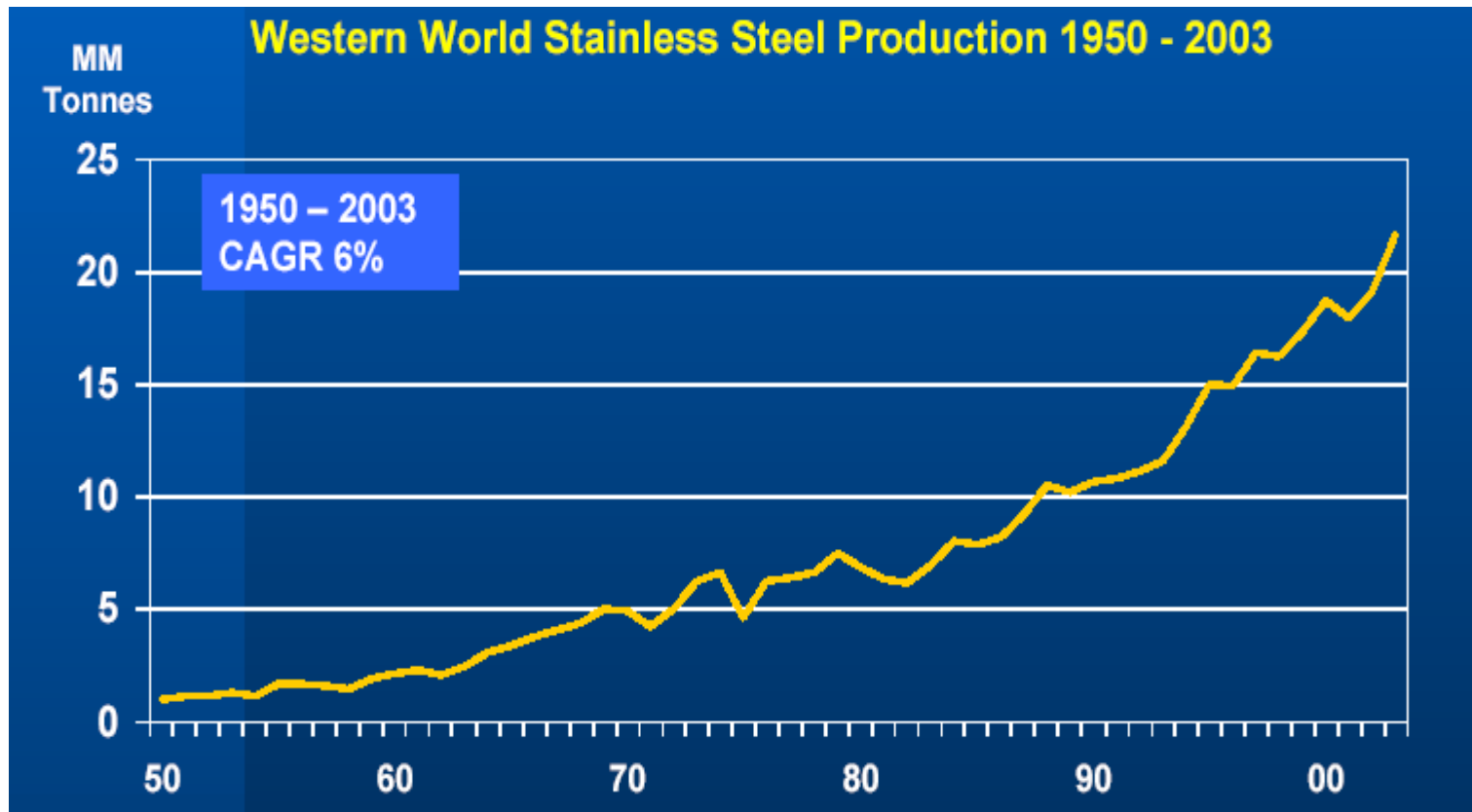
Copper Consumption in China



Nickel demand has grown historically at $\sim 4\%$ per annum – we expect growth to continue at this level going forward

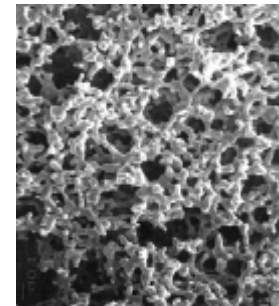
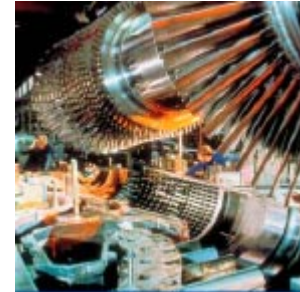
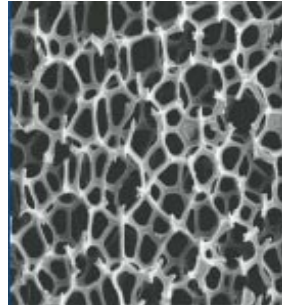
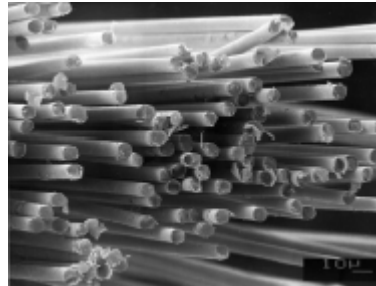


Demand growth has been driven by stainless steel production growth; averaging 6% for + 50 years

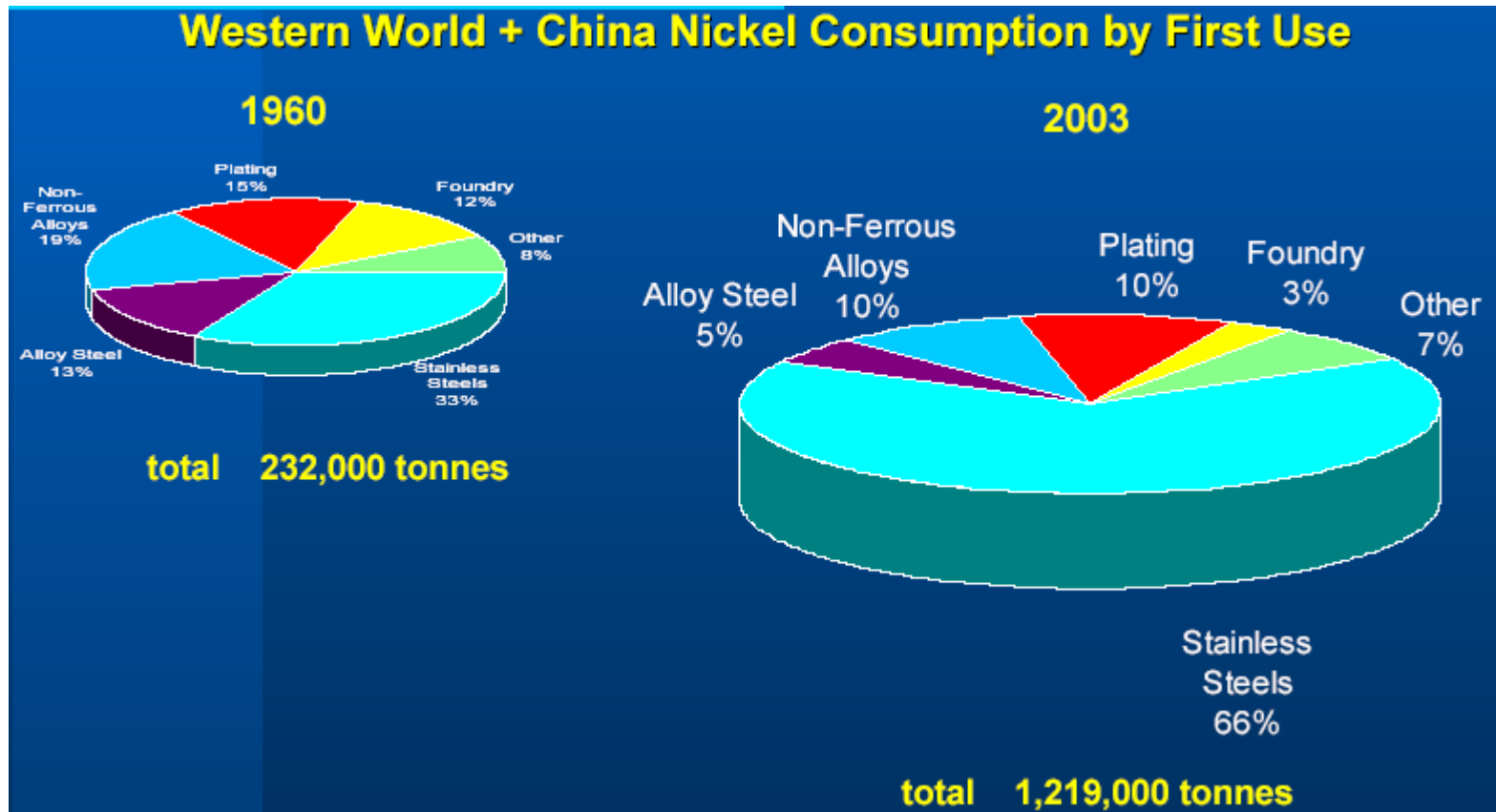


Nickel demand is supported by many applications which take advantage of nickel's unique characteristics

- Corrosion resistance
 - Marine environment, chemical, pulp and paper plants
- Superior strength at high temperature
 - Jet engines
- Superior strength at lower temperatures
 - Subways, rail cars
- Toughness
 - Drilling equipment
- Attractiveness
 - Plating



Stainless steel is the dominant use of nickel and is becoming an increasingly important end use market





Nickel Product – End Use Applications

○ Stainless Steel, Alloy Steel & Foundry

- Cathode
- Pellets
- Briquettes
- Ferro-nickel
- Discs
- Granules, Tonimet & Utility
 - Nickel oxide sinter

○ Non Ferrous Alloys (high nickel alloy)

- Cathode
- Pellets

○ Plating

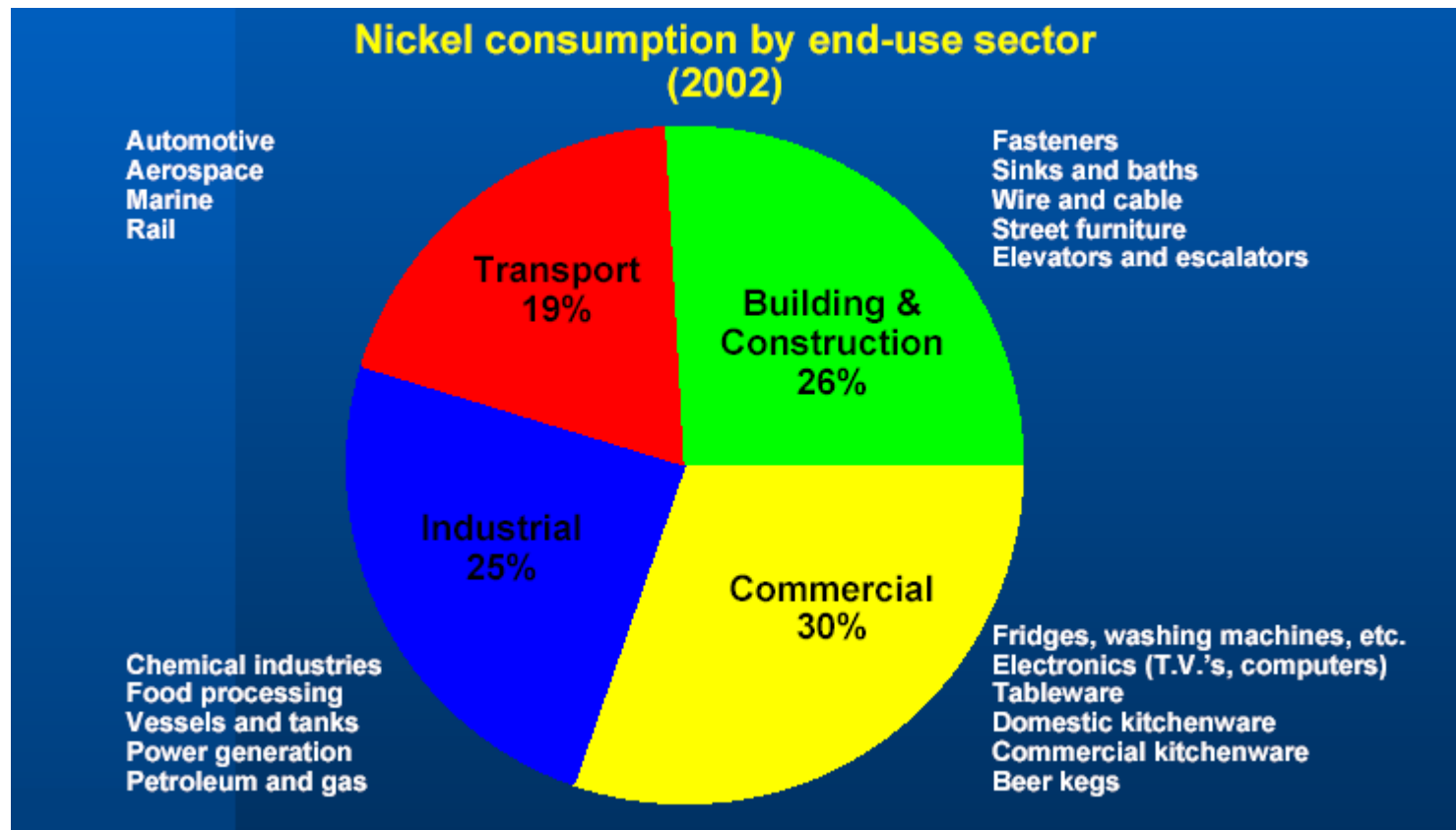
- Cathode
- Pellets
- Nickel sulfate and chloride

○ Others

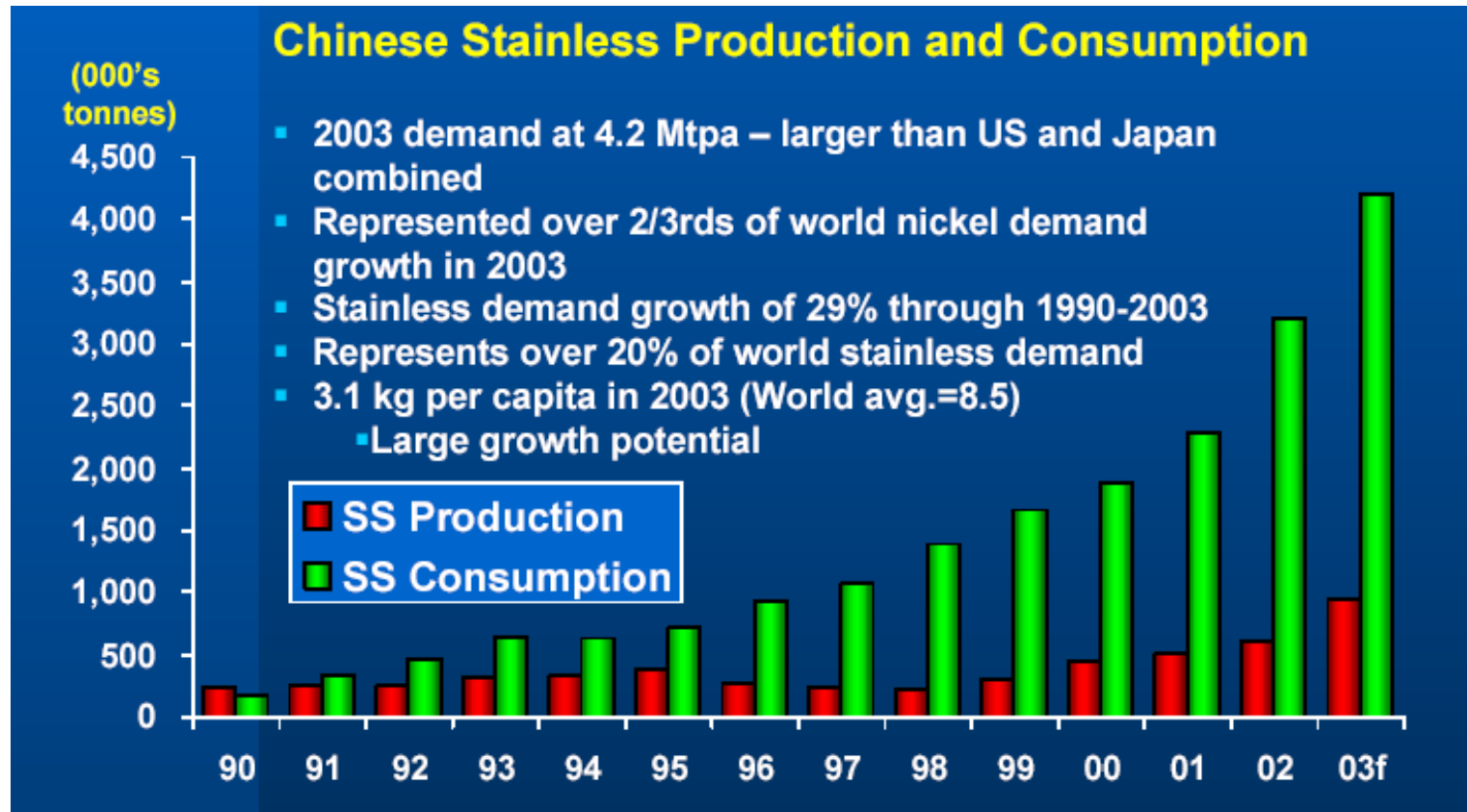
- Black nickel oxide
- Nickel sulfate and chloride
- Nickel carbonate
- Nickel hydroxide
- Nickel powder
- Flakes, foam, fibre

Note: Nickel oxide sinter used to a limited extent in certain applications

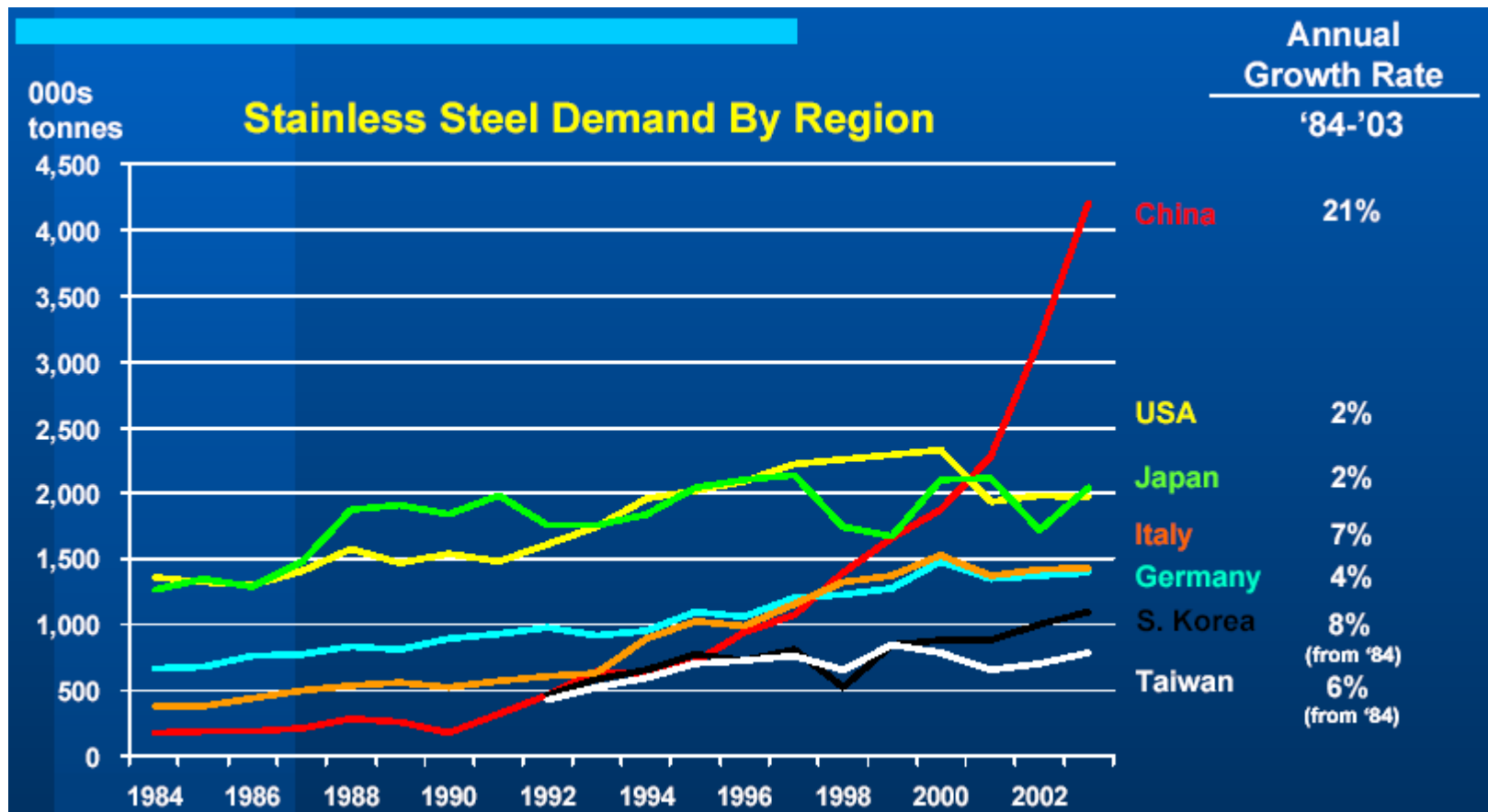
Nickel consumption is evenly distributed across many end-use sectors



Strong stainless demand growth in China will continue,
driving world nickel consumption



China has become the single largest market for Stainless steel demand with growth over 20% per year



China uses a high proportion of its stainless steel in industrial applications and construction, keeping much of the stainless in China

Jin Mao Building, Shanghai



The Jin Mao Building is the tallest building in China and the exterior features about 220 tonnes of stainless steel

Tsing Ma Bridge, Hong Kong

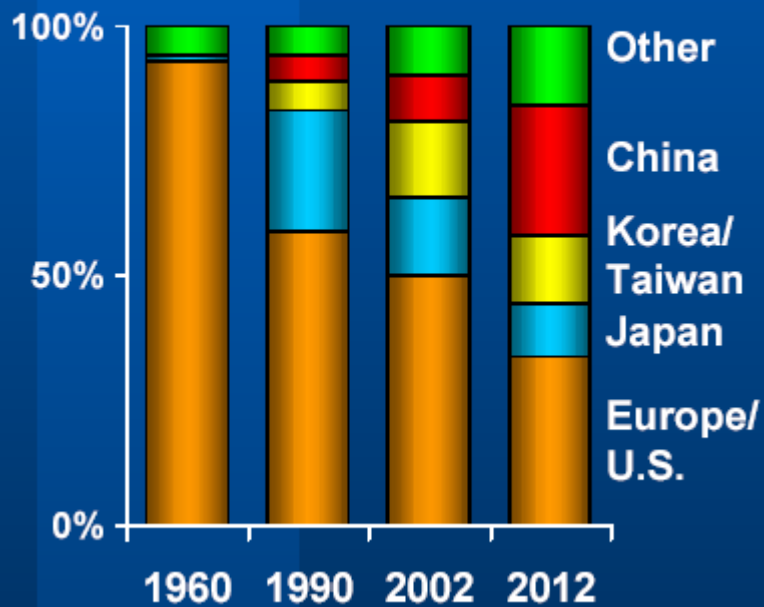


The Tsing Ma Bridge is the second longest bridge in the world and features a lower level fitted with 1,000 tonnes of stainless steel wind deflectors

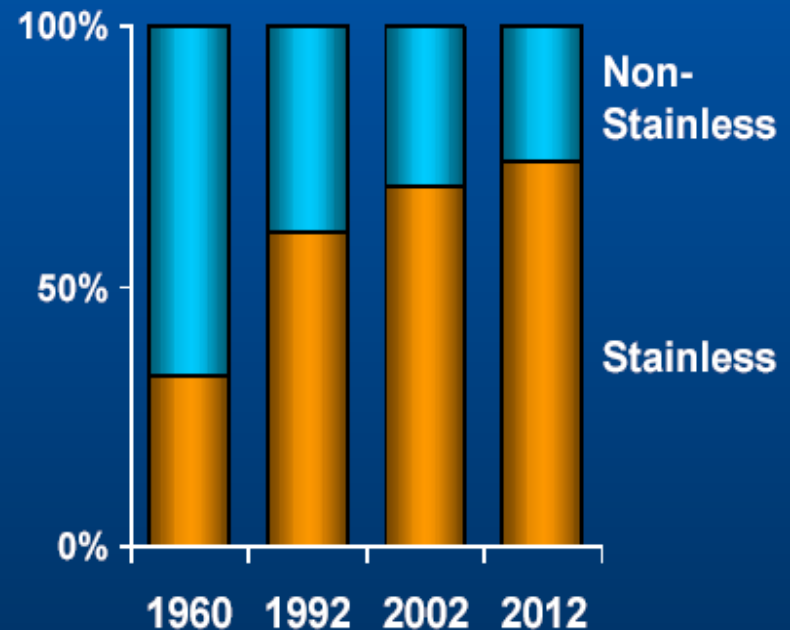
A high percentage of stainless in China is used in industrial applications

The dominant trends of demand growth in Asia and the increasing share of stainless, are expected to continue through the next decade

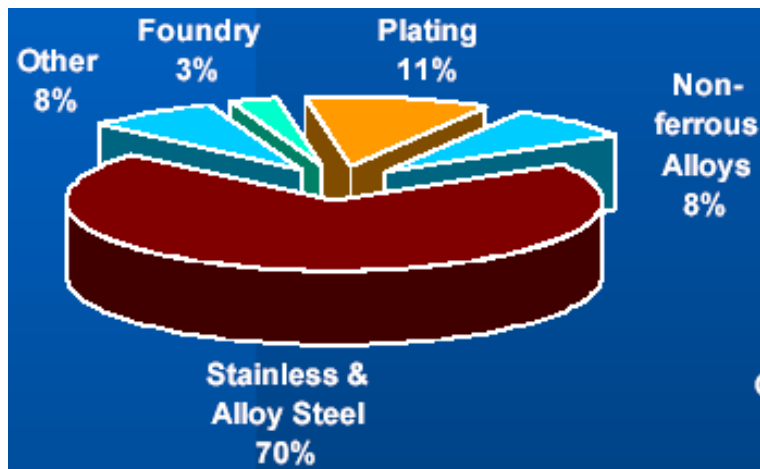
Nickel Demand by Region



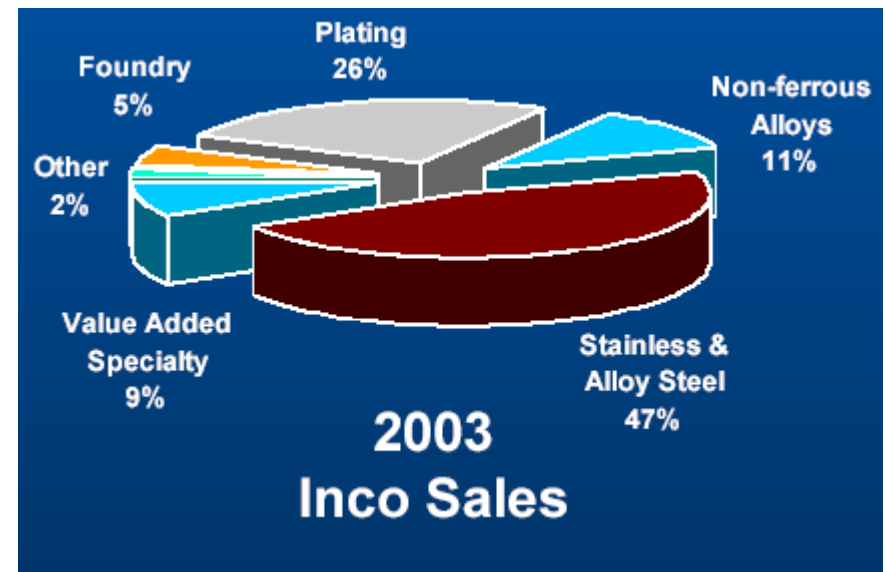
Nickel Demand by Product



Inco focuses on higher margin non-stainless segments, but Goro would allow further penetration into the growing stainless steel market



**World
Nickel Use**



2003 Inco sales: 213,890 tonnes

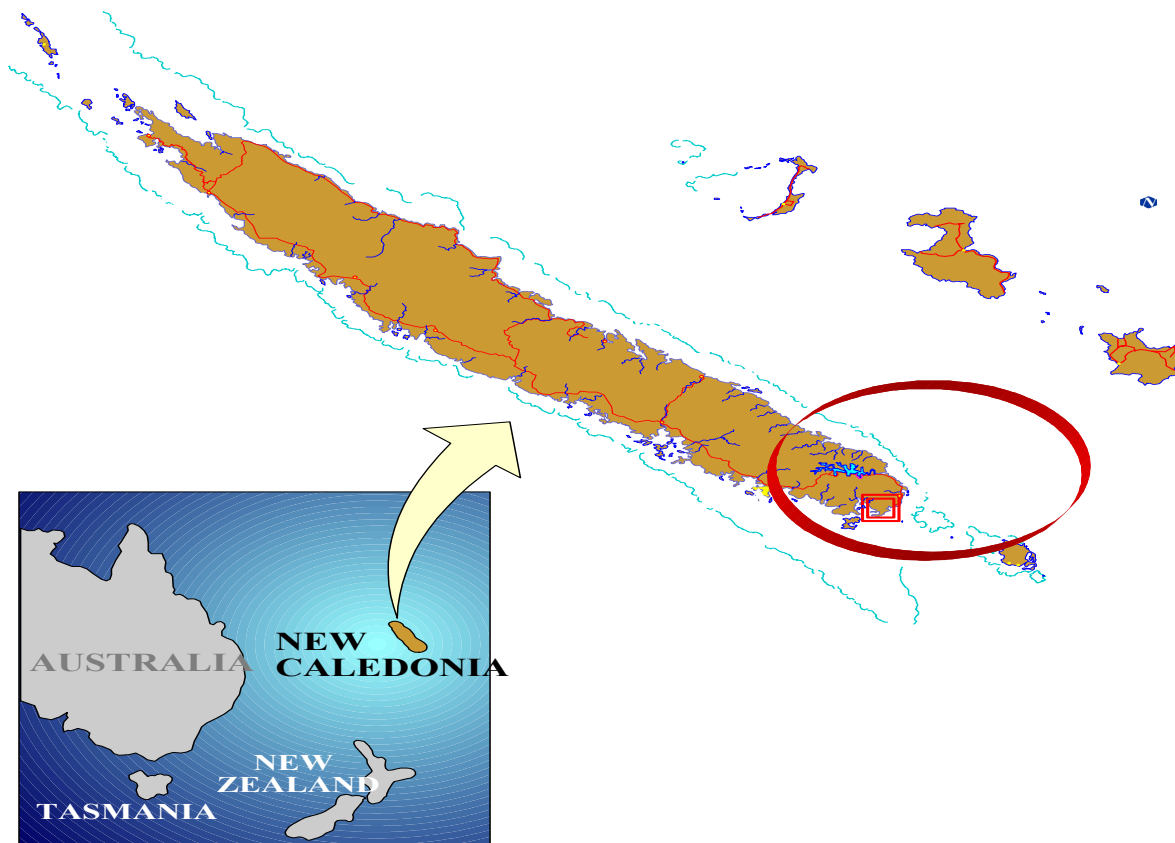


NICKEL IN NEW CALEDONIA : MAJOR ACTORS

INCO: Goro
greenfield project
in the South

FALCONBRIDGE:
Koniambo
greenfield project
in the North

SLN ERAMET:
Operating a
smelting plant &
4 mines





Goro Nickel Project - Project Summary



- Process plant production capacity : 55 000 tons of Nickel & 4 500 tons of Cobalt / year
- Mining production : 4 million tons / year
- Investment around US \$1.8 billion
- Approximately 2 500 created jobs (including 800 direct)



Goro Nickel Project - The elements of the project



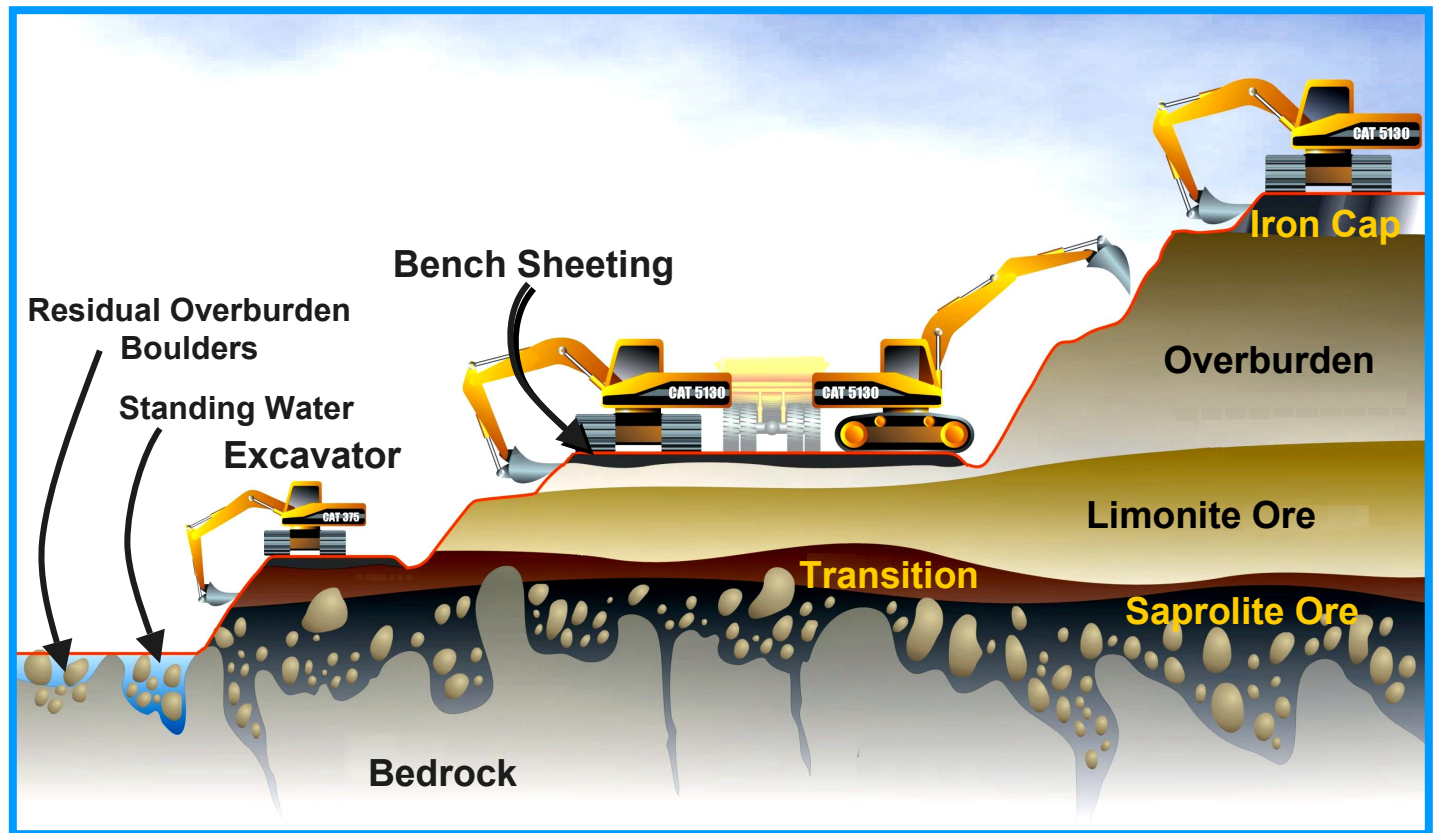
INCO

- An open pit mine
- An ore preparation
- A process plant
- A power station
- A port
- A camp

Goro Nickel Project – An open pit mine



INCO



Goro Nickel Project - A process plant



INCO

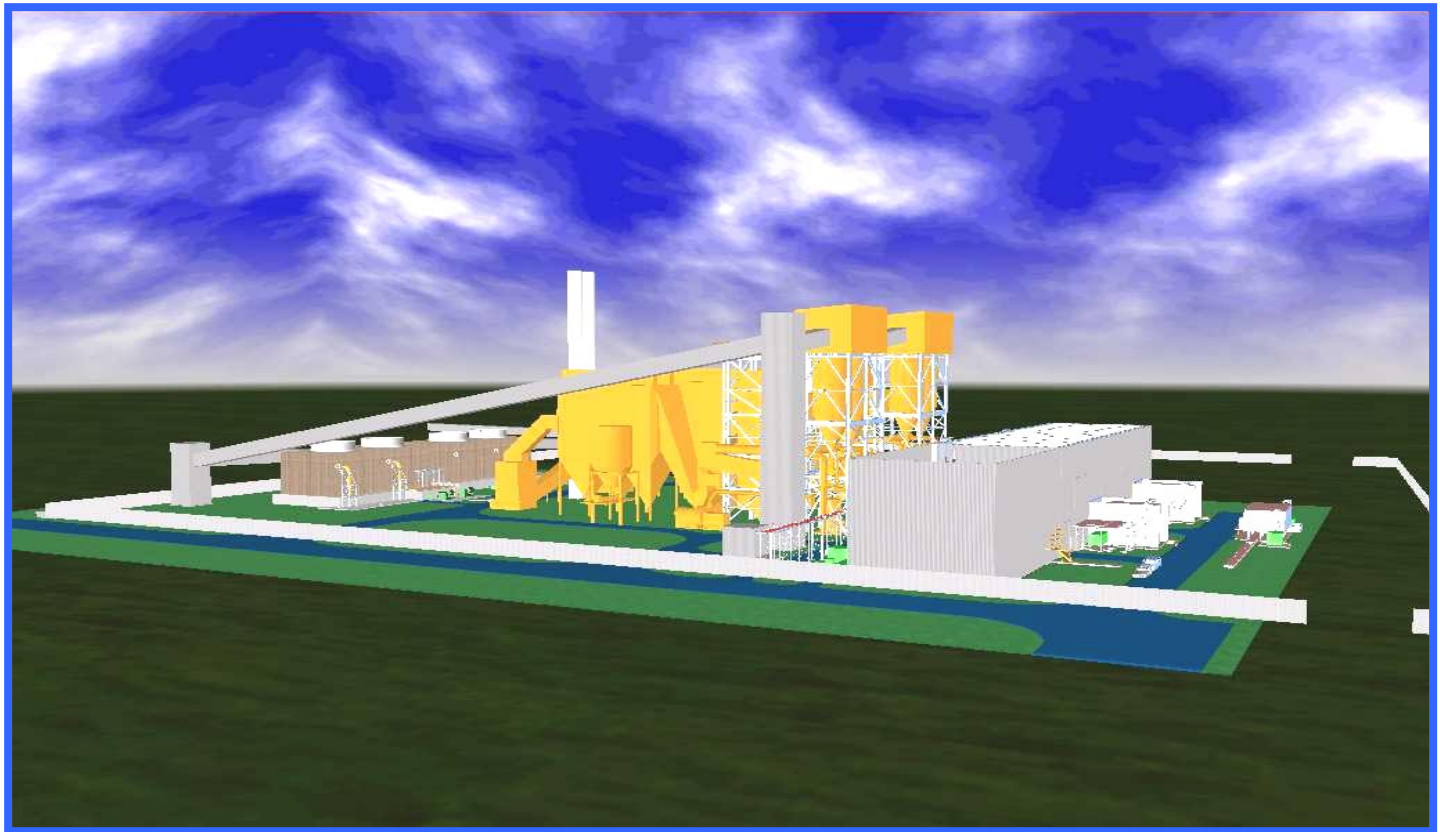




Goro Nickel Project – A power station



INCO

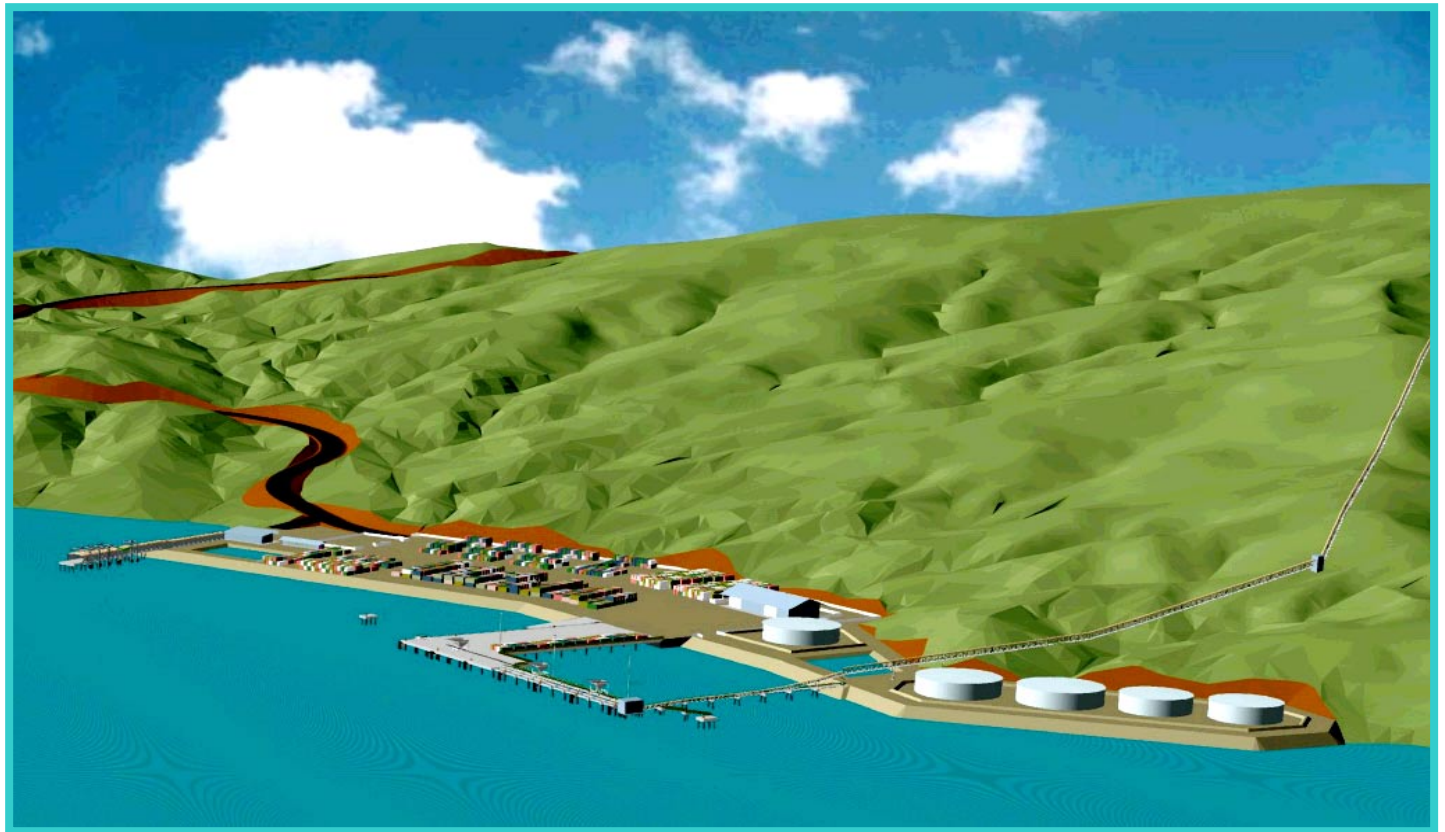




Goro Nickel Project - A port



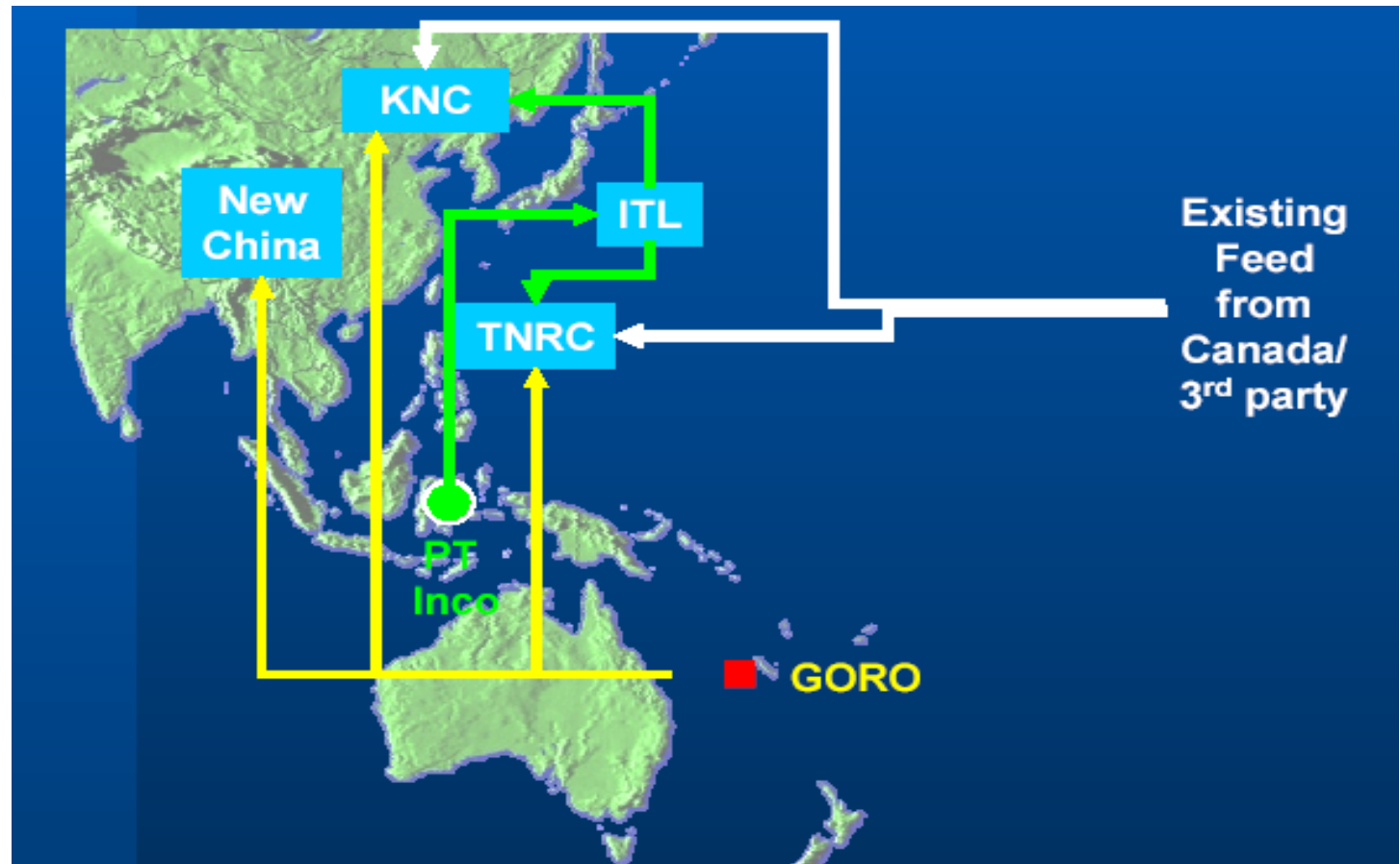
INCO



Goro Nickel - The nickel oxide production is well-suited for the stainless and Asian markets that will provide the bulk of nickel market growth over the next decade

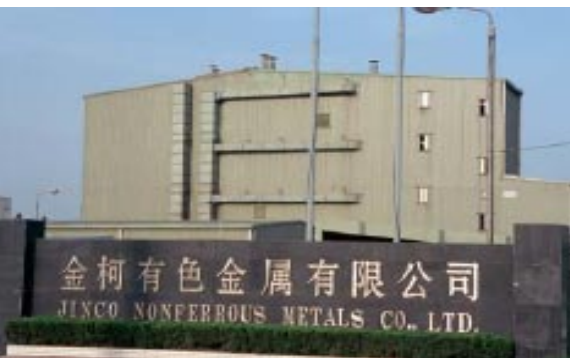


INCO



Goro Nickel - In the Asian market through joint ventures

Jinco Non-Ferrous Metals Company



Korea Nickel ONSAN



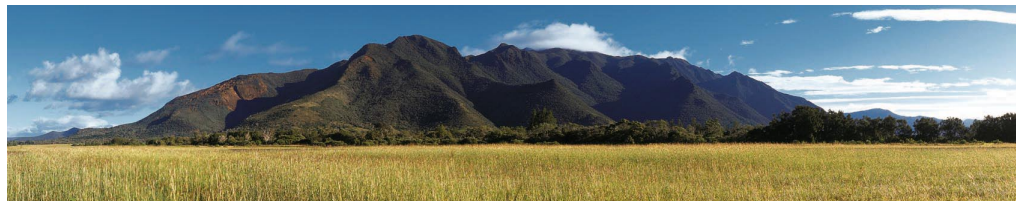
Inco TNC Limited Matsuzaka Plant



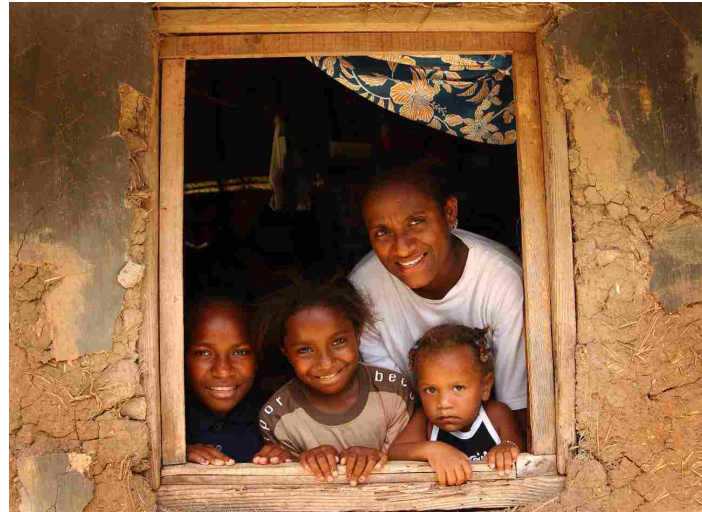
Taiwan Nickel Refining Company



Koniambo Project



Koniambo Project – Partner Profiles



- ✓ 51 % SMSP –largest exporter of nickel laterite from New Caledonia;
- ✓ 49 % Falconbridge – world's 3rd largest nickel producer;



Koniambo Project - Project Summary

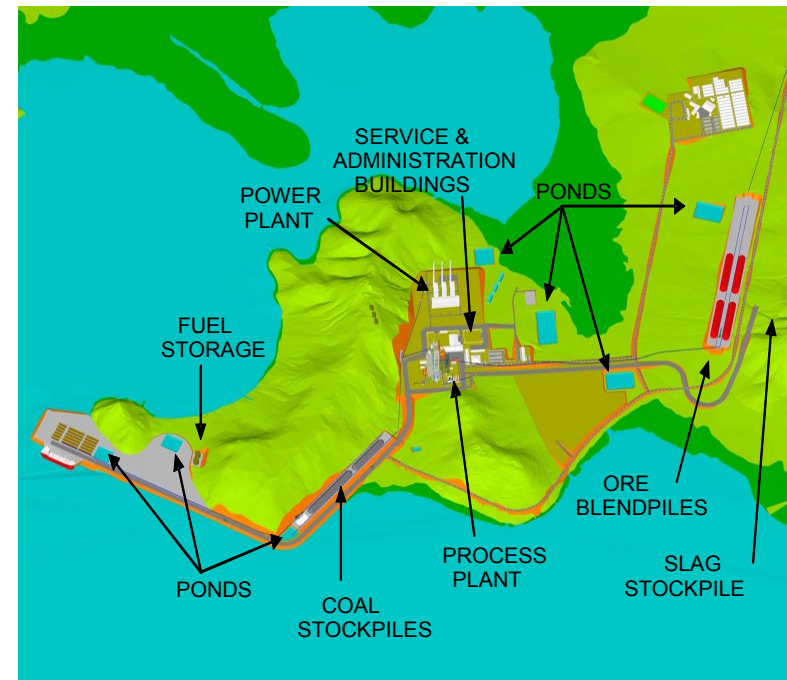


- ✓ One of the largest and highest grade undeveloped sources of nickel in the world
- ✓ Ore mined by open pit methods and processed in a modern pyro plant to produce 60 ktpy nickel in ferronickel
- ✓ US\$150 million approximate annual operating cost
- ✓ US\$1,500 million approximate total capital cost
- ✓ 36 month construction period from project approval
- ✓ Scheduled construction start mid 2005
- ✓ Production start mid 2008.

Koniambo Project – Infrastructure



- ✓ a conveyor, a mine access road and utility corridor
- ✓ Process plant : 60 000 TNi
- ✓ a 250 MW coal fired CFB power plant plus two 40 MW diesel fired combustion turbines
- ✓ a port and a dredged channel dedicated for 50 ktons vessels
- ✓ Site utilities, services and support buildings
- ✓ Surface water and waste, slag and ash disposal facilities





Koniambo Project – Human Resources



- ✓ Approximately 870 permanent positions in the operating phase (2008 and after)
- ✓ Up to 1500 temporary positions in the construction phase (2005 to 2008)
- ✓ Approximately 2000 indirect and spin-off jobs.





Le Nickel – SLN – The ERAMET Group



LE NICKEL-SLN

- ERAMET is a French Group with Head Office in Paris
Major shareholders are : SODRAME + CEIR (37,4%), Public (29,9%), AREVA + BRGM (27,6%), STCPI (5,1%)
- ERAMET is a fully integrated mining and metallurgical Company, it is a producer of non ferrous-metals and of non-ferrous metal chemicals and by-products, of special high quality steel, of nickel alloys and superalloys, and heavy duty components for industry.



- Turnover : 2 100 millions euros
- Staff : 14.545
- Internet site : [//www.eramet.fr](http://www.eramet.fr)



Le Nickel – SLN – ERAMET – 3 Areas of Business



LE NICKEL-SLN

ERAMET Alloys

Turnover : 720 M (Euros)

Staff: 5 128

Special high quality steel making, nickel alloys and superalloys, and metal products from these and also from aluminium and titanium, including: Bar, sheet, wire, strip, coil and profiles. Castings and die casts...

ERAMET Nickel

Turnover : 501 M (Euros)

Staff : 2 357

Production of ferro-nickels and of high purity nickel.

Nickel and Cobalt Salts

Tungsten and cobalt powder making

ERAMET Manganese

Turnover : 879 M (Euros)

Staff: 7 060

Production of manganese alloys (ferro-manganese and silicomanganese) and refined alloys and chemical by-products including their Oxides, Sulphates and Chlorides

Industrial Services : recovery and recycling of metals contained in catalyst used in the petroleum industry, batteries and acids from the electronic industry

A producer of high quality carbon black



Le Nickel – SLN – Summary



LE NICKEL-SLN

World Position :

- First producer of ferro nickel in the world
- One of three only high grade nickel metal producer in the world

Markets :

- Stainless Steel Industries (ferro nickel)
- Aviation Industry, power production, electronics, surface treatment, coinage (high purity nickel)
- Chemical Industry (nickel chloride)

Production :

- From 4 mines (THIO, NEPOUI, KOUAOUA and TIEBAGHI) and the smelter in NOUMEA
- 59 000 tonnes of contained Nickel (2002) as ferronickel and nickel matte
- Increase in production to 75 000 tonnes in 2006

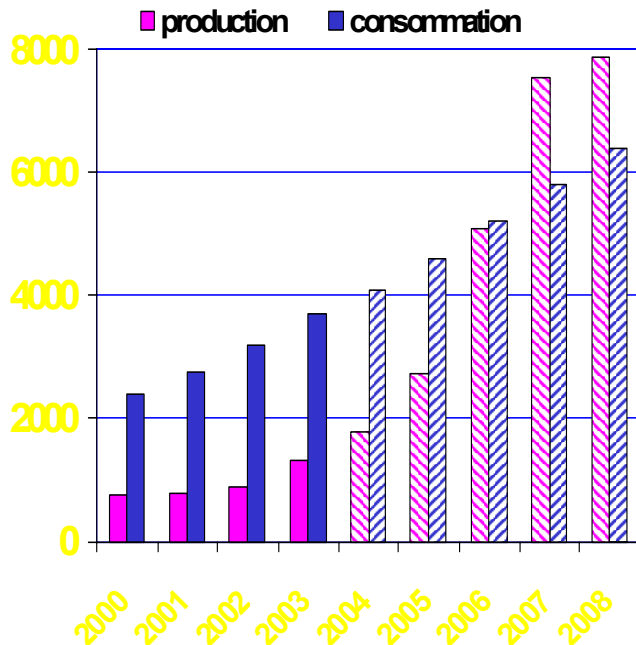


Le Nickel – SLN – Nickel Market – China's market growth



LE NICKEL-SLN

Production Stainless Steel in China (kt)



Strong growth in 2003 in all sectors:

- Apparent consumption : + 24 % in 2003 / 2002.
- Stainless Imports : + 18 % from January to September 2003 compared to the same period in 2002.
- Domestic Production : + 58 % in 2nd half 2003 compared to the 1st half 2003.
- Prediction of production growth capacities in the coming years...



Conclusion

How will China's extraordinary economic growth contribute to regional sustainable development?