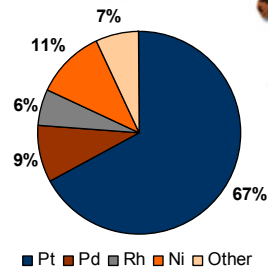


## Nickel

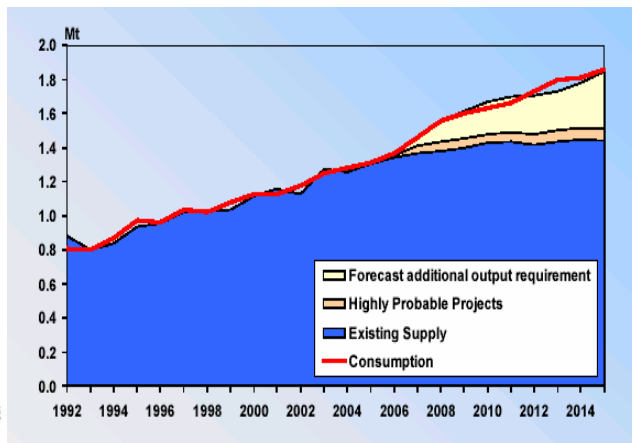
➤ *Nickel is not diversification but growth in one of Implats most important metals*

### ➤ PGM Growth Issues

- Western Limb – mature
- Opportunities
  - Eastern Limb – technically challenging
  - Zimbabwe – political risk
  - worldwide – few new discoveries
- Possible buffer for cyclical substitution pricing of PGMs
- Implats has produced Ni and Co for thirty years



## Nickel fundamentals



Global primary nickel supply balance, Source Brook Hunt October 2004



## Madagascar



## About Madagascar

- World's fourth largest island, 500 kilometres off east coast of Southern Africa
- Population of approx 17 million
- Independent since 1960
- Democratic republic
- Legal system based on French civil law
- Current government elected in 2002



## **Favourable investment climate**

- Legal stability for duration of mining permit
- International dispute arbitration recognized and sovereign immunity waived
- Favourable Tax regime



## **Economic performance**

- Debt relief of US\$834m last year
- Recent announcements from the G8 on further debt relief
- Growth rate of 5%
- Projected growth for 2005 – 6.3%
- Inflation under control
- Supportive government





## Ambatovy project history

- Project was 100% owned by Dynatec Inc of Toronto
- Previously owned and drilled by Phelps Dodge
  - swapped out for equity in Dynatec worth US\$70 million
- Bankable Feasibility Study completed for a processing plant and refinery in Madagascar
- Dynatec/Implats relationship since 1968



## Ambatovy project history, cont'd

- Implats has bought 50% of the project in JV with Dynatec in May 2005
- A third partner is being sought to dilute ownership



## Ambatovy - a strategic investment

- 37.5% equity in the JV company for each of Implats and Dynatec (third party off-taker 25%)
- Implats buy-in cost of \$50m (paid to Dynatec who will re-invest in Project)
- Dynatec responsible for Madagascan operations
- Implats responsible for the construction, commissioning and operation of an additional nickel refinery at Springs to treat 80 000 tpa nickel and 5 800 tpa of cobalt



## Key statistics

- Reserves: 125m tonnes grading  
1.04% nickel and 0.1% cobalt
- Production: 60 000 tonnes nickel and 5 600 tonnes cobalt per annum at steady state from Madagacar
- Project life: 27 years
- Capital cost: \$2.05 billion (assumes refinery in SA)
- Operating cost: \$1.66/lb; \$0.64/lb after by-product credits
- IRR: 15-20%  
(nickel at \$3,5/lb; cobalt \$10/lb)



## Why is Ambatovy so good?

- Homogenous and thick ore reserve
- Lowest operating cost producer
- Appropriate capital efficiency



## Costs

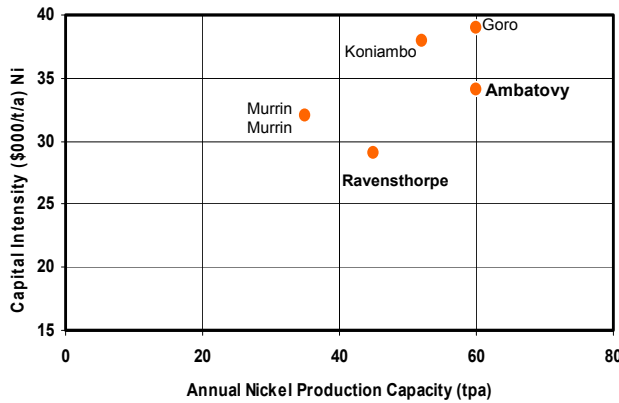
- **CAPITAL** US\$2.05bn
- **IRR** 15 - 20%

- ***Additionally***

- savings on current capital expenditure program at Springs
- savings on the current unit cost of all metals



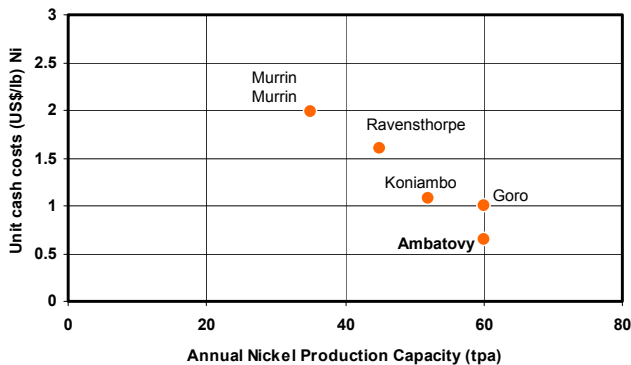
## Capital intensity



- Sufficient capital to ensure high plant availability and quicker ramp-up
- Goro includes \$300m initial write-off
- Ravensthorpe is currently underestimated (UBS)
- Koniambo – expensive pyrometallurgical process



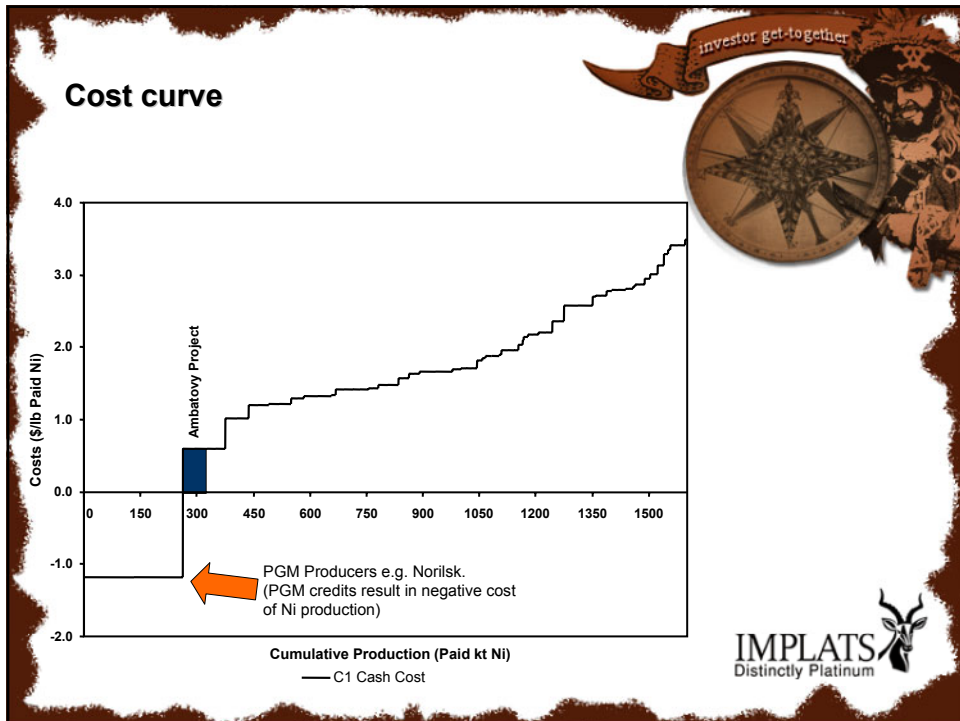
## Cash operating costs, cont'd



- Lowest operating cost of all laterites
- Low Mg = low acid costs
- Low SiO<sub>2</sub> = quick kinetics = high recoveries
- High by-product credits







- ## Flow sheet summary
- Mining (Ambatovy)
    - no blasting, milling or crushing required
    - 195 km pipeline to process plant
  - Processing (Toamasina)
    - pressure Acid Leach process as used at Moa Bay (Cuba)
    - no step - outs from Moa Bay flowsheet
    - requires power plant, acid plant and hydrogen sulphide plant in Madagascar
- investor get-together
- IMPLATS  
Distinctly Platinum

## Flow sheet summary, cont'd

- Refining (Springs)
  - classical BMR flowsheet
  - cobalt solvent extraction is new to Impala
  - pilot plant at Springs



## Why refine in Springs?

- Leverage the current skills base in Springs
- Potentially quicker ramp-up of refinery
- Piggy back onto the existing infrastructure
- Potentially higher revenue from ammonium sulphate credit
- Hydrogen availability
- ISO Quality and Environmental systems
- Implats' LME listing



## Why is Ambatovy so good for Implats

- Favourable cobalt ratios/credits
- Strong ammonium sulphate revenues in RSA
- Reduction of current BMR direct cost (low JV Opex)
- Saving on future expansion capex
- Leveraging Impala skills and expertise
- Leveraging the hydrogen pipeline fixed costs
- LME listing of nickel briquettes



## Current status / way forward

- JV signed with Implats and Dynatec
- Actively seek a third partner
- Initiate financing activities
- EIA progressing well. Scoping background document completed and submitted to the department
- Feasibility – detailed engineering study on schedule



## Milestones

- Definitive Cost Estimate completed by February 2006
- Third partner signed up by February 2006
- EIA completed first quarter 2006
- Board approval – March 2006
- Construction April 2006 to end 2008
- Commissioning and first metal production – early 2009



## Conclusions

- World-class project
- Falls within Implats' strategy
- Entails a total exposure of <US\$1bn
- Yields a return to Implats of 15 – 20%
- The JVA incorporates a number of exits for Implats





# Investor Get-together

Wednesday, 29 June 2005

IMPLATS  
Distinctly Platinum

