



Society of Mining Professors

18th Annual General Meeting

Belgrade, Serbia

Session 3 Industry Committee

25 June 2007

- **Introduction – Chris Cross (Rio Tinto), Committee Co-ordinator**
- **Gerard Rheinberger, Rio Tinto Exploration Manager Africa/Europe**
- **Harald Lissberg, Wirtgen GmbH Project Manager Mining Division**
- **Pedrag Lazarevic, Atlas Copco**
Manager Construction and Mining Technique
- **Mac Canby, Phelps Dodge Exploration Corp,**
Director of Euroasian Exploration
- **Dejan Kozelj, Manager Serbia, Phelps Dodge**



Outline of session

Brief introduction

Presentations – each speaker has a maximum of 20 minutes

Brief questions after each presentation

Final discussion and questions



The mining world has changed since our last meeting in Kosice

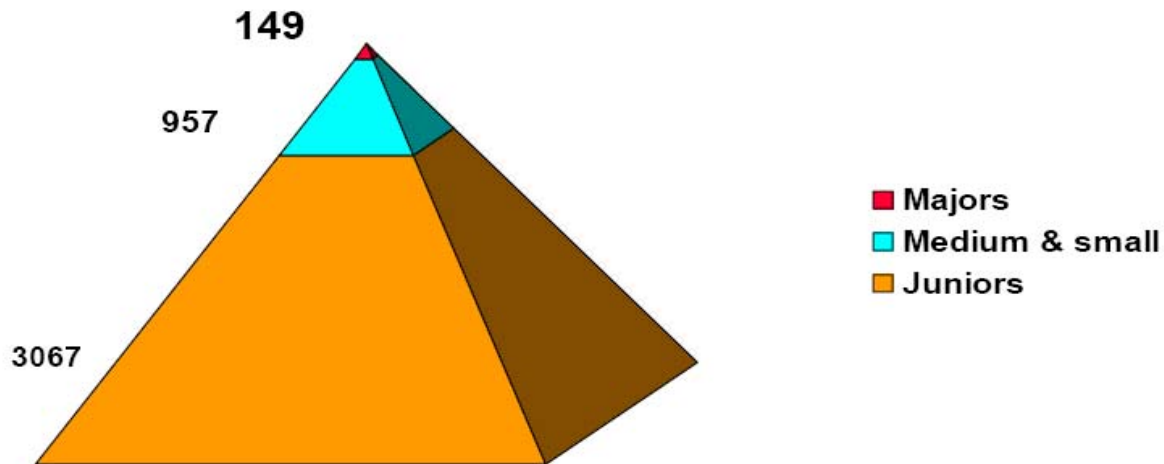
Acquisitions of major companies has accelerated forming very large groups, which are global in their approach and dominate production in key materials – copper, nickel, iron to mention a few

- Corus has become part of Tata Steel Group
- Inco has become part of Companhia Vale do Rio Doce (CVRD)
- Phelps Dodge has become part of Freeport-McMoRan group
- Falconbridge has become part of Xstrata
- Rio Tinto has a major re-structuring exercise to bring it well into the 21st century mining philosophy, including:-
 - ▶ A new Technology group for accelerated take up of new technology.
 - ▶ Joint ventures –
 - with Norilsk for exploration in Russia
 - With BP - *Hydrogen Energy* to develop low carbon energy projects around the world.



MINING COMPANIES

Total 4 100 companies



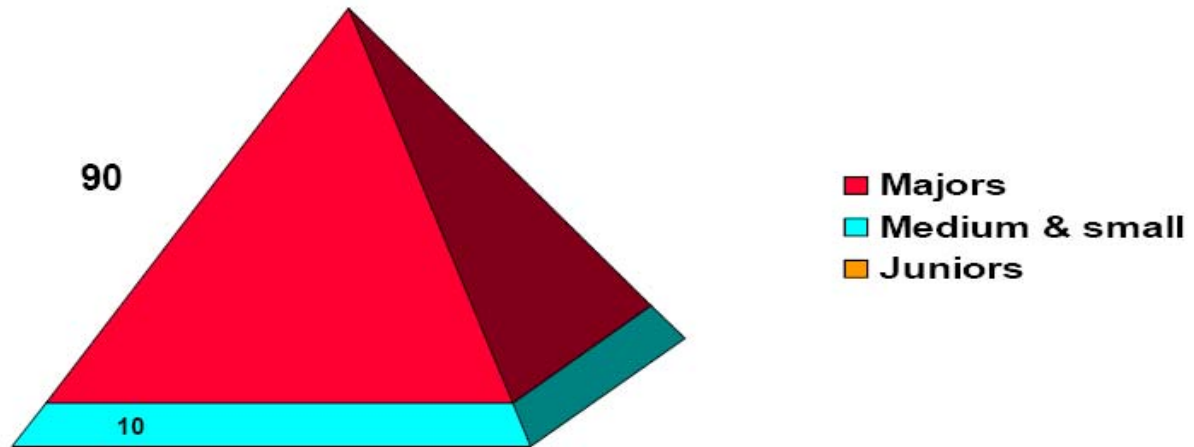
Source: Raw Materials Data, Stockholm 2006.





CONTROL OF MINING

Metals total 250 billion USD



Source: Raw Materials Data, Stockholm 2006.





What does this mean for the Society of Mining Professors

- Fewer sources of funding for research and graduate recruitment
 - ▶ Need to establish effective contacts between new mining groups and universities.
 - ▶ Old contacts may disappear, merge or move, company policy may change
- However, logic says mining companies will need much more research and still need to employ many more graduates in the future, not least because of retirement issue
 - ▶ Mining process need innovation to address the appalling inefficiency of existing processes
 - ▶ New mining and processing technologies needed to meet the new challenges
 - **Deeper underground**
 - **Economic pressures**
 - **Sustainability**



What to do

- Lobby mining companies over support for education and research
 - ▶ By direct contact with local companies including those belonging to majors
 - ▶ By direct contact with major company HQ
- Use intermediates, research brokers and networks
 - ▶ Society of Mining Professors
 - ▶ FEMP
 - ▶ ETP SMR
 - ▶ AMIRA www.amira.com.au
 - ▶ CAMIRO www.camiro.org
 - ▶ MIRO www.miro.co.uk