



**British  
Geological Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL



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# ARE THERE ENOUGH GEOLOGISTS IN THE WORLD TO MEET DEMAND?

*45th CCOP Annual Session*

*Geoscience Context in Response to the Current Global Issues*

*David Ovadia*

Kingsley Dunham Centre

Keyworth

Nottingham NG12 5GG

Tel 0115 936 3100

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## FINEX '08 Exploration meets the city

**Wednesday 24 September**  
08.30 Registration

**Porphyry and epithermal systems – scientific and technical challenges**  
Chair - *John Thompson Teck Cominco Limited*

09.00 Porphyry and epithermal systems – science-driven exploration successes: the Sir Julius Wernher Memorial Lecture  
*Richard Sillitoe – consultant*

09.35 Miocene magmatism and gold exploration in Turkey.  
*Bob Foster – Stratex International plc*

10.00 Building a gold-focused mining company on porphyry- and epithermal assets  
*Patrick Forward – European Goldfields*

10.25 Tea/coffee

**Africa- irresistible or still the DarkContinent?**  
Chair – *Sandy Archibald IAEG*

10.55 Challenges and rewards in gold exploration in sub-Saharan Africa  
*Jon Forster – Axmin Inc*

11.25 Zinc exploration in North Africa  
*Gordon Riddler – Maghreb Minerals plc*

11.50 Gold, diamonds, and iron ore exploration successes in West Africa  
*Luis da Silva – Mano River Resources*

12.15 Exploration and risk management in Africa  
*Warren Johnstone – MSA Group (UK)*

12.40 Sponsored Lunch

15.00 Tea/coffee

**The skills gap**  
Chair - *Gordon Riddler Maghreb Minerals plc*

15.30 The emerging skills shortage in the minerals industry - potential constraints on future sustainable development.  
*John Thompson – Teck Cominco Limited*

16.00 Panel discussion  
*Gordon Riddler, Bob Pine, Bill Birch, Liv Carroll*

16.30 Closing words by Chair  
*Graham Smith*

17.10 Sponsored cocktail party



**The Geological Society, Burlington House, Piccadilly W1J 0BG**  
[www.Londonfinex.com](http://www.Londonfinex.com)  
[www.geol{soc.org.uk/finex08](http://www.geol{soc.org.uk/finex08)

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# Geological Society FINEX Conference, London, September 2008

The skills gap  
Chair - *Gordon Riddler*  
*Maghreb Minerals plc*  
15.30 The emerging skills shortage in the minerals industry - potential constraints on future sustainable development.  
*John Thompson – Teck Cominco Limited*  
16.00 Panel discussion  
*Gordon Riddler, Bob Pine, Bill Birch, Liv Carroll*

## MINERALS COUNCIL OF AUSTRALIA

# > MEDIA RELEASE

24 MARCH 2005

### INDUSTRY/ACADEMIA TO ADDRESS SKILLS SHORTAGES: "MINING EDUCATION AUSTRALIA"

The Minerals Council of Australia, (MCA) and three of Australia's leading mining universities are joining forces to establish the first ever national school of mining engineering as a key part of the industry's response to the chronic skills shortage restricting the growth of Australia's biggest export earner.

To be called Mining Education Australia, the proposed national school of mining engineering will be a formal partnership between the MCA's Minerals Tertiary Education Council (MTEC)\*, Curtin University of Technology, the University of NSW, and the University of Queensland.

MCA Chief Executive, Mr Mitchell H. Hooke, says developing the collaborative university program is part of the MCA's nationally coordinated strategy for the minerals industry to overcome the well-documented global shortage of professionals and tradespeople.

"Australia's supply of mining engineers has halved in the past five years, falling well short of current, much less future demand as the minerals industry expands to meet Asia's extensive consumption of minerals.

"Employment in the minerals industry climbed 12 per cent last year and is forecast to continue to rise -- a scenario that is backed by the MCA and its member companies' existing investment in

“Around 50% of professional exploration and production (E&P) staff are aged 40-50, while only around 15% are in their early 20s to mid-30s. It forecasts that up to half of the workforce will retire within 10 years”

*[Resourcing the challenges of maturity – an oil industry view, 2005,  
Report by Booz Allen Hamilton]*



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Geological Engineer  
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Geophysical Specialist  
Geophysicist  
Geoscientist  
Geosupport Engineer  
Engineering Geologist  
Ground Engineer  
Contaminated Land Specialist

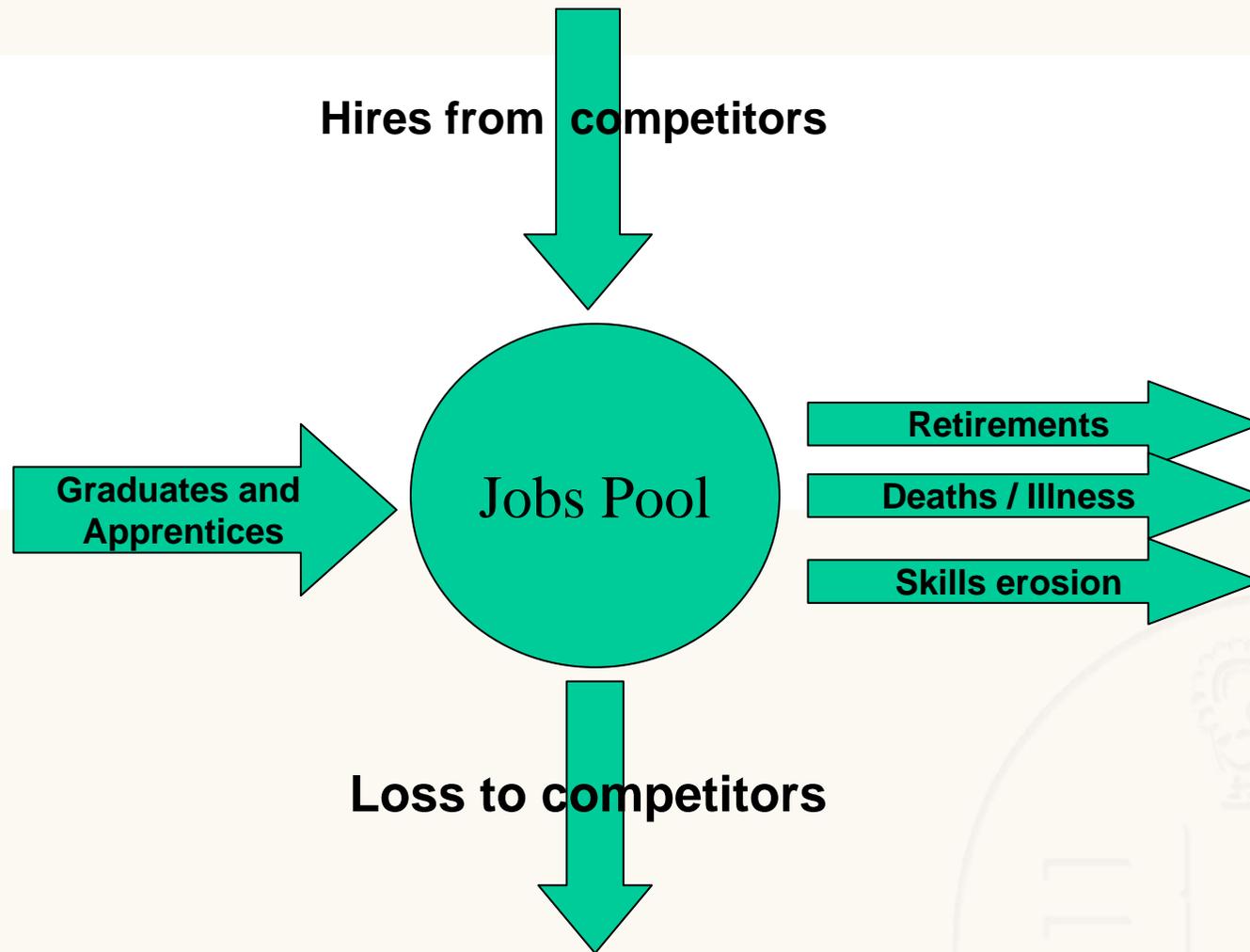


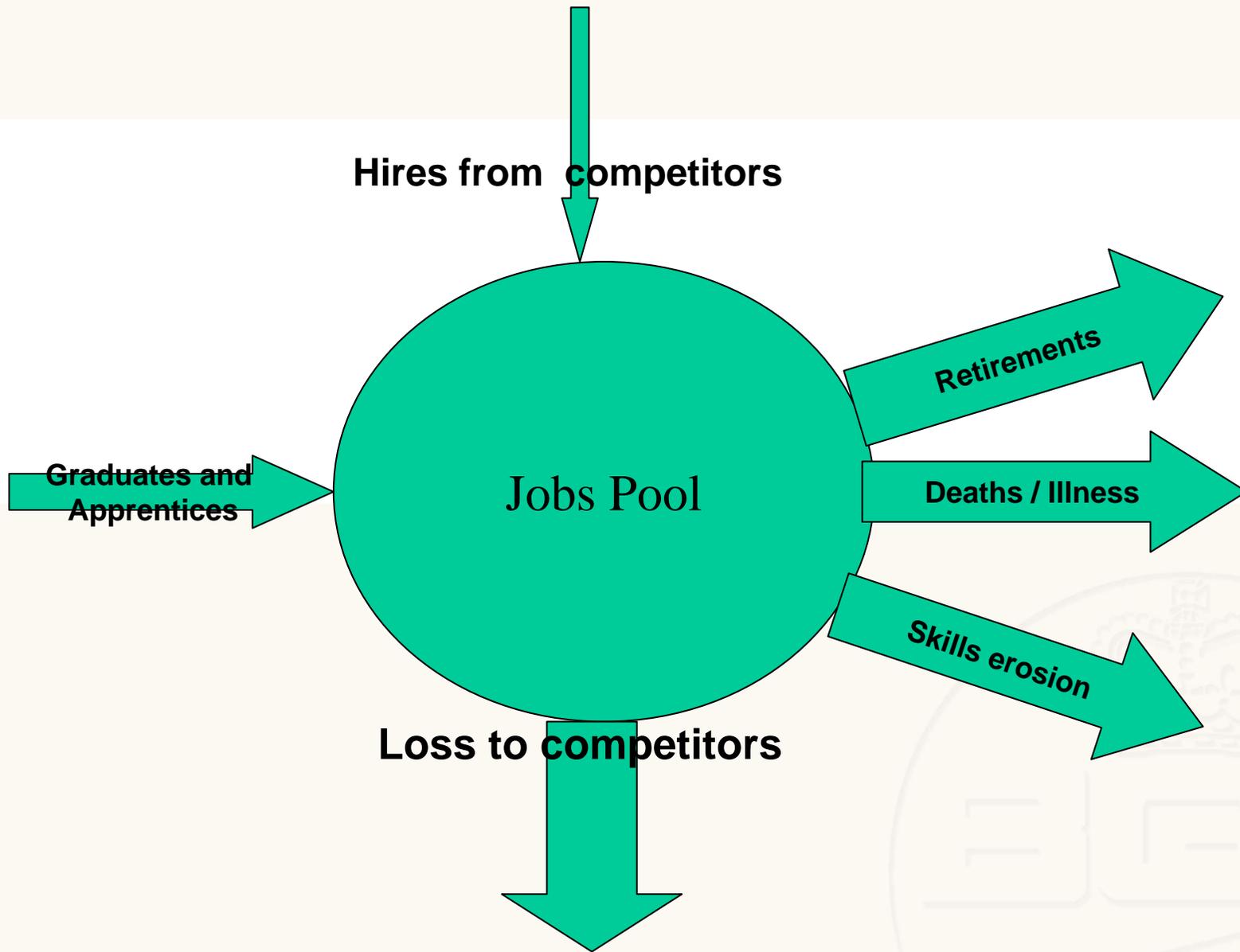
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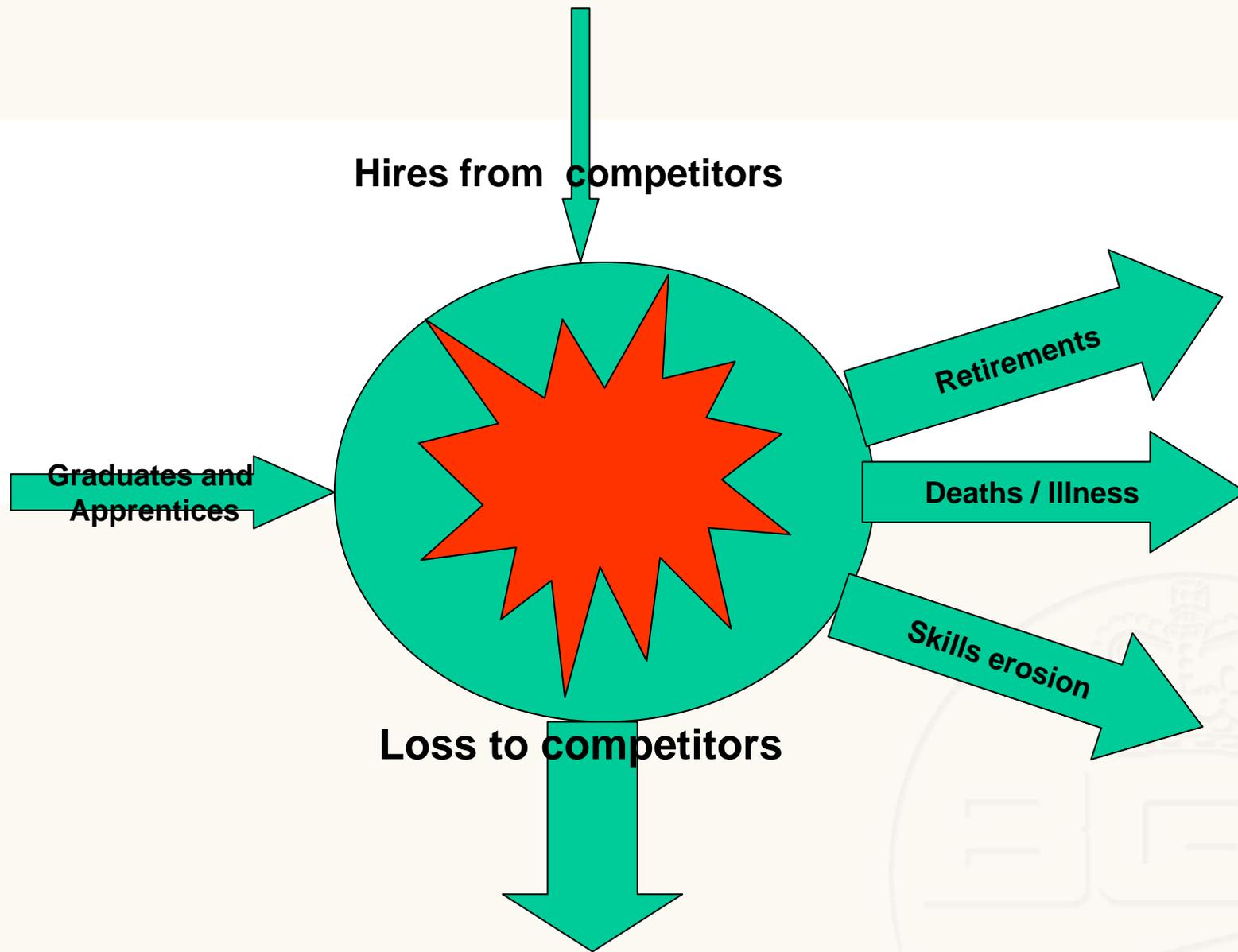
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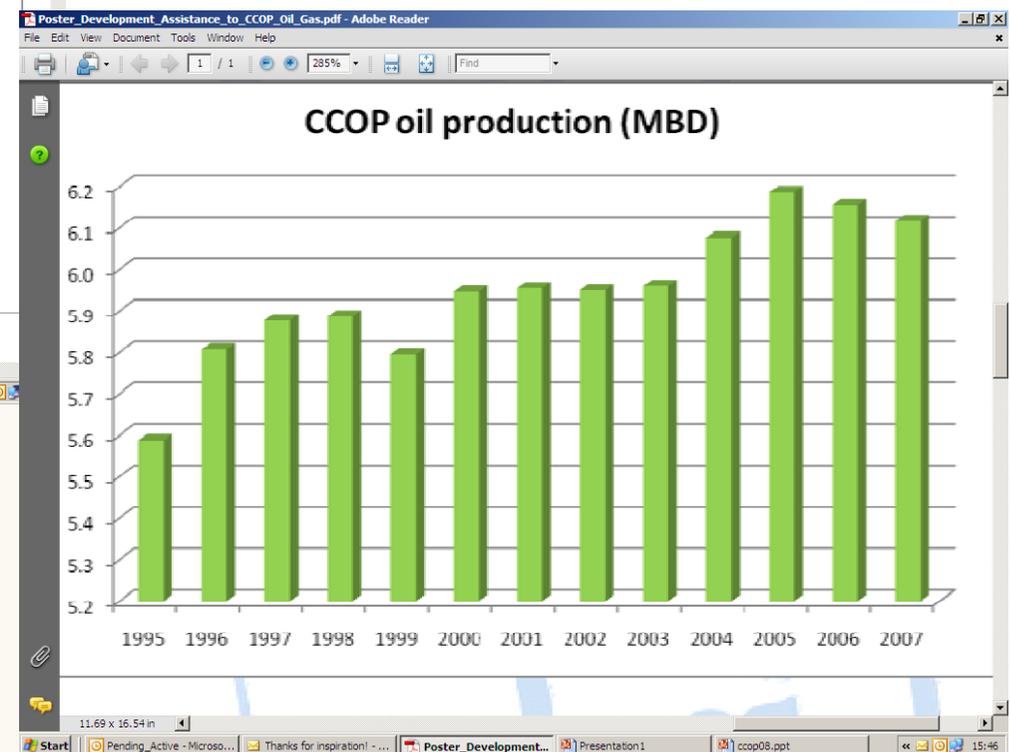
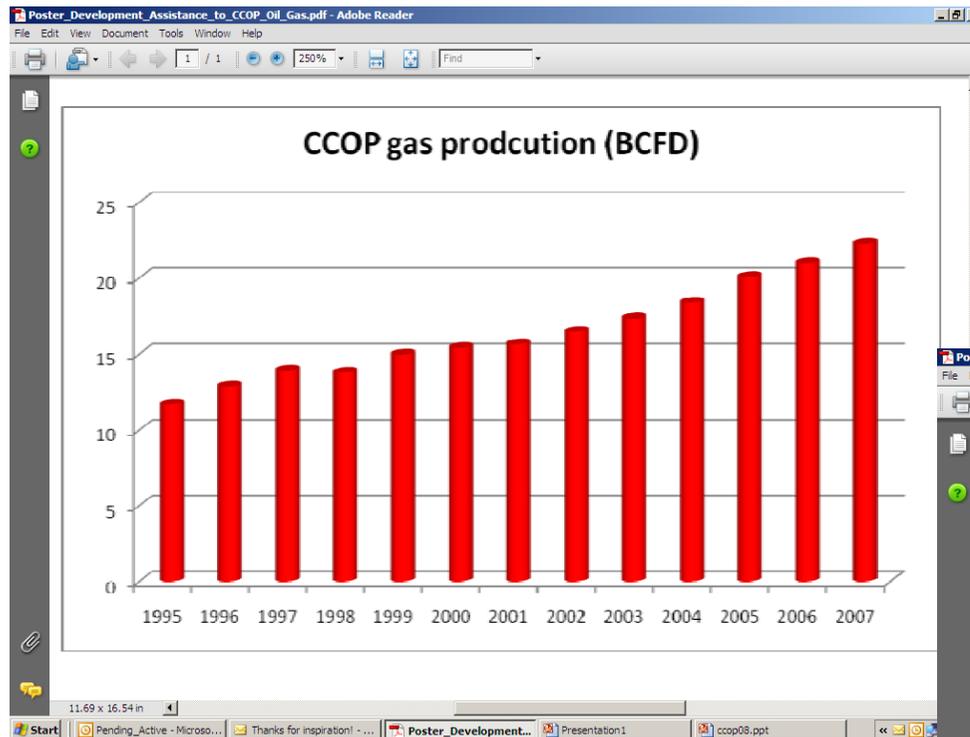






# Growth in oil and gas production, CCOP region

igg.ac.uk



From Nguyen Hong Minh, CCOP, Poster at 33<sup>rd</sup> IGC  
Session EME-02, Oslo, 2008





Copper cash LME daily official price. Source: Metal Bulletin, 2008

## Mine production of copper

tonnes (metal content)

Country	2002	2003	2004	2005	2006
Albania	—	—	642	1 696	400
Armenia	16 641	18 068	17 700	16 400	17 800
Bulgaria	84 400	91 600	79 600	82 700	99 000
Cyprus	3 700	2 500	—	—	900
Finland	14 400	14 900	15 500	15 000	13 000
Georgia	*13 000	14 700	*12 000	*6 000	14 600
Macedonia	4 739	618	—	4 799	7 054
Poland	502 800	503 544	530 768	511 799	497 200
Portugal	77 227	77 581	95 700	89 541	78 660
Romania	19 323	23 389	20 380	16 286	12 179
Russia	662 100	630 000	630 000	660 000	675 000
Serbia	—	—	—	—	11 100
Serbia and Montenegro	23 100	15 500	13 800	11 600	—
Spain	1 248	635	1 308	7 358	8 700
Sweden	71 991	83 143	82 415	87 068	86 746
Turkey	48 217	43 245	38 876	30 067	*30 000
Botswana	21 590	24 289	21 195	26 704	24 255
Congo, Democratic Republic	28 000	56 900	69 600	98 000	131 400
Mauritania	...	...	...	...	5 031
Morocco	4 994	4 818	4 400	*4 000	4 500
Namibia	18 040	16 175	11 174	10 157	6 262
South Africa	90 000	89 338	85 710	85 000	89 700
Tanzania	4 200	3 715	4 240	3 661	3 285
Australia	879 000	830 000	854 000	935 000	875 000
Papua New Guinea	211 315	202 300	173 370	192 978	194 355
<b>World Total</b>	<b>13 500 000</b>	<b>13 700 000</b>	<b>14 600 000</b>	<b>14 900 000</b>	<b>15 100 000</b>

Note(s):-

(a) Years ended 31 March following that stated

# Membership of the Geological Society of London

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	2002	2003	2004	2005	2006	2007	2008
<b>Fellows</b>	<b>9081</b>	<b>9105</b>	<b>9184</b>	<b>9262</b>	<b>9312</b>	<b>9365</b>	<b>9676</b>
<b>Chartered Geologists</b>	<b>2040</b>	<b>2083</b>	<b>2134</b>	<b>2176</b>	<b>2175</b>	<b>2165</b>	<b>2147</b>

	2002	2003	2004	2005	2006	2007	2008
<b>60 or over</b>	<b>997</b>	<b>1043</b>	<b>1090</b>	<b>1148</b>	<b>1173</b>	<b>1264</b>	<b>1382</b>



# Consequences

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- Demand > supply = higher costs and insecurity for companies / countries
- Dependence on short term consultants with reduced loyalty and technology / skills transfers
- Failure to exploit fully the resource potential
- Higher commodity prices feed into global inflation and recession



# Solutions

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## Train and retain geologists:

- ✓ Use the “elderly” to train the trainers
- ✓ Upgrade facilities and improve the image of geology
- ✓ Cooperate with industry; make it easy for survey and academic staff to move into industry and return
- ✓ Work with industry to make employment family friendly
- ✓ Improve social and health conditions and knowledge (eg AIDS-awareness)
- ✓ Influence government and industry decision makers
- ✓
- ✓
- ✓ Geological survey organisations can act as a catalyst towards solutions



**“Not one barrel of oil was ever found  
by a lawyer or an economist”**

*Mr Helge Lund, Chief Executive, Statoil Hydro, at 33<sup>rd</sup> IGC, Oslo 2008*

**Thank you**

