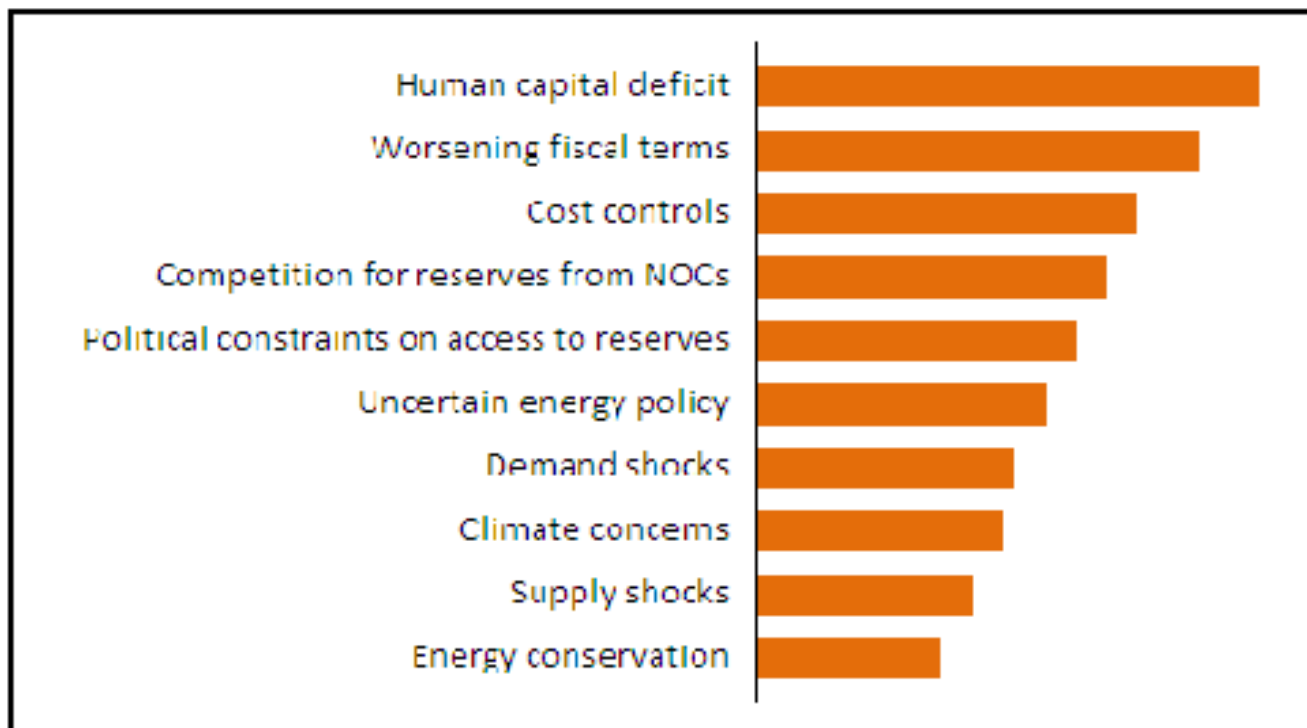


The Human Resource Challenge in the Gas Industry

13 April 2008

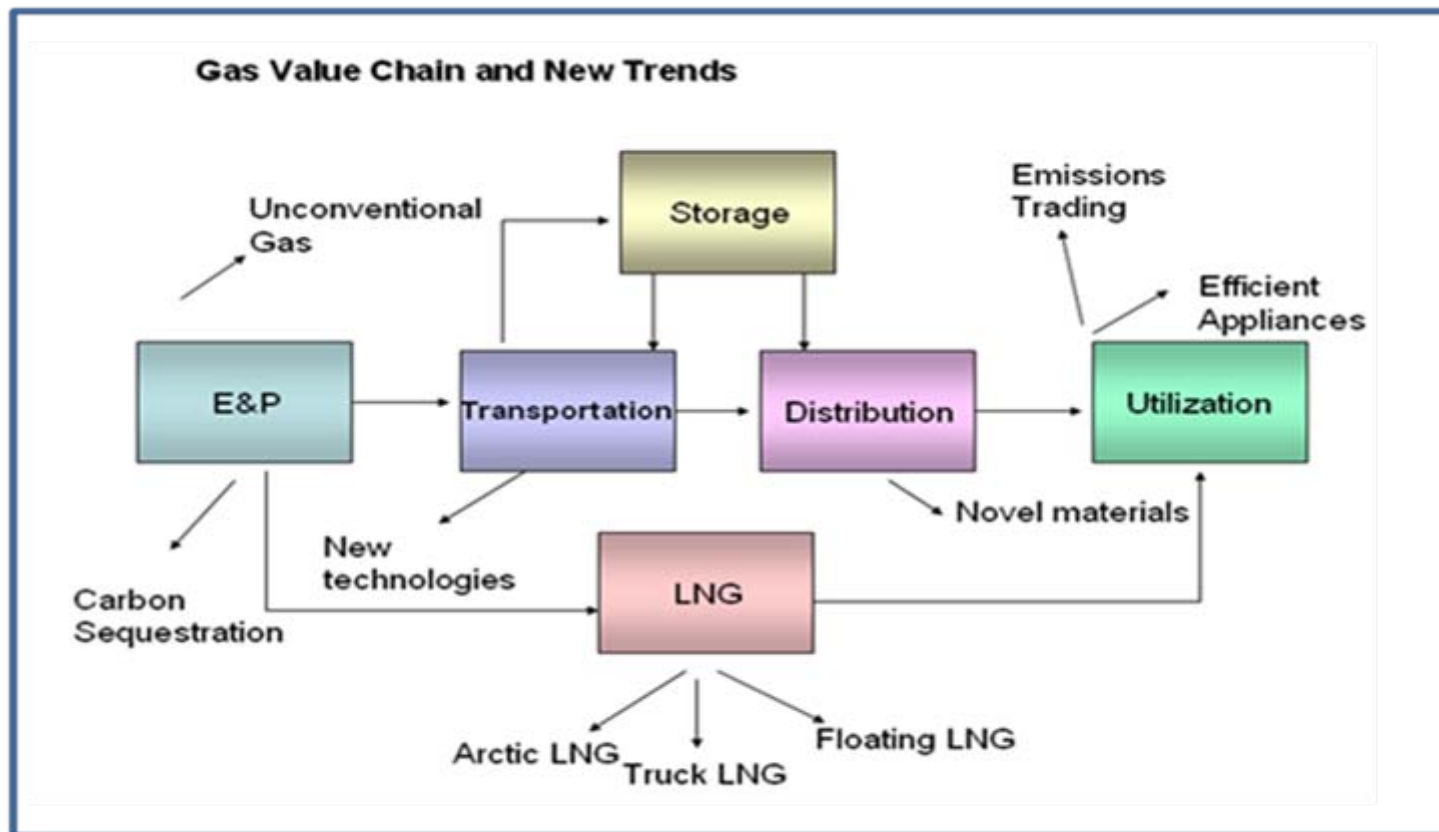
By:
Ho Sook Wah
Vice-Chairman
Coordination Committee
International Gas Union

Human Capital issue ranks highest among the major risks to business continuity



Source: Ernst & Young

Requirement for new skills is compounding the problem



Source: IGU Task Force 1

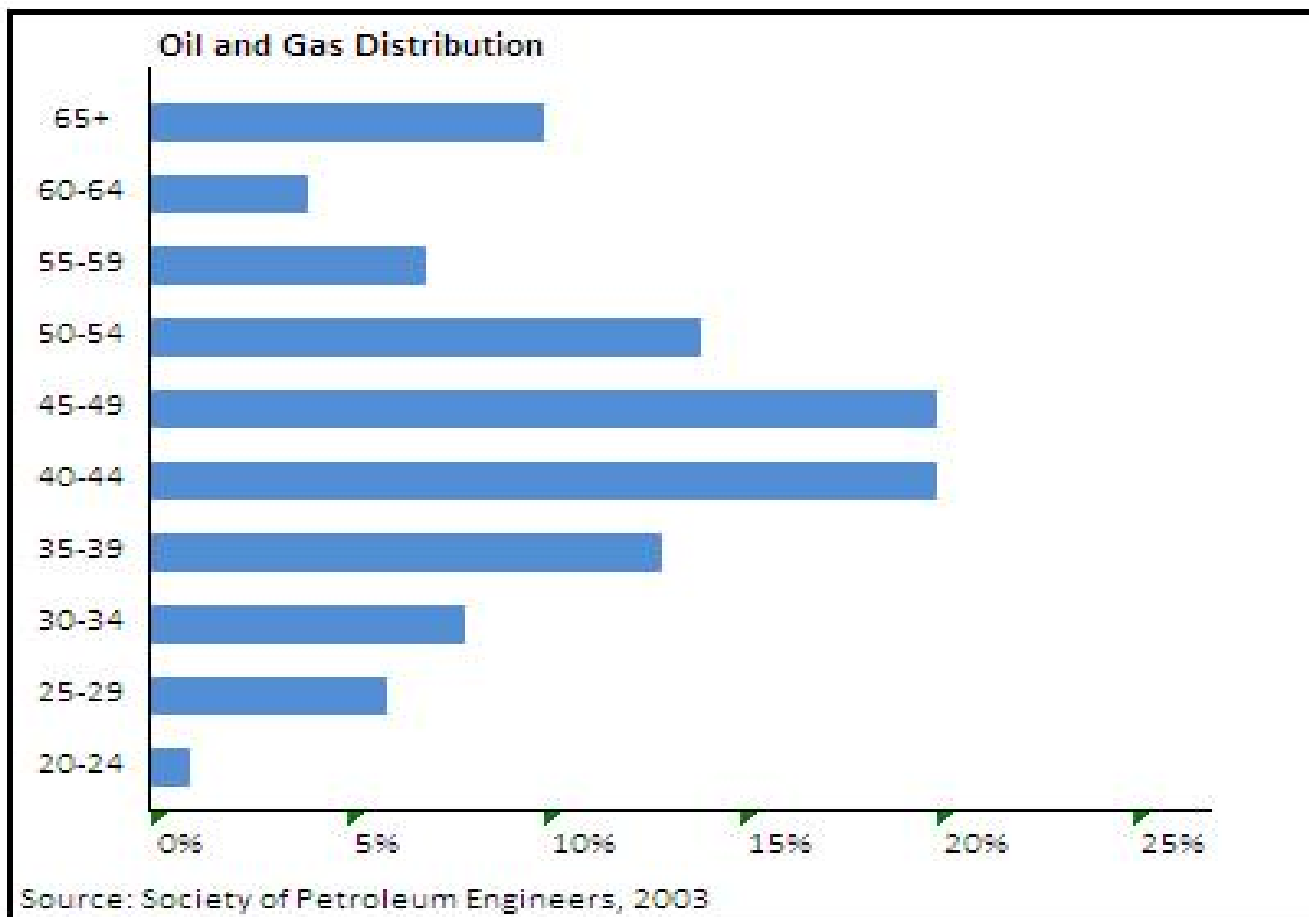
Factors causing this talent conundrum



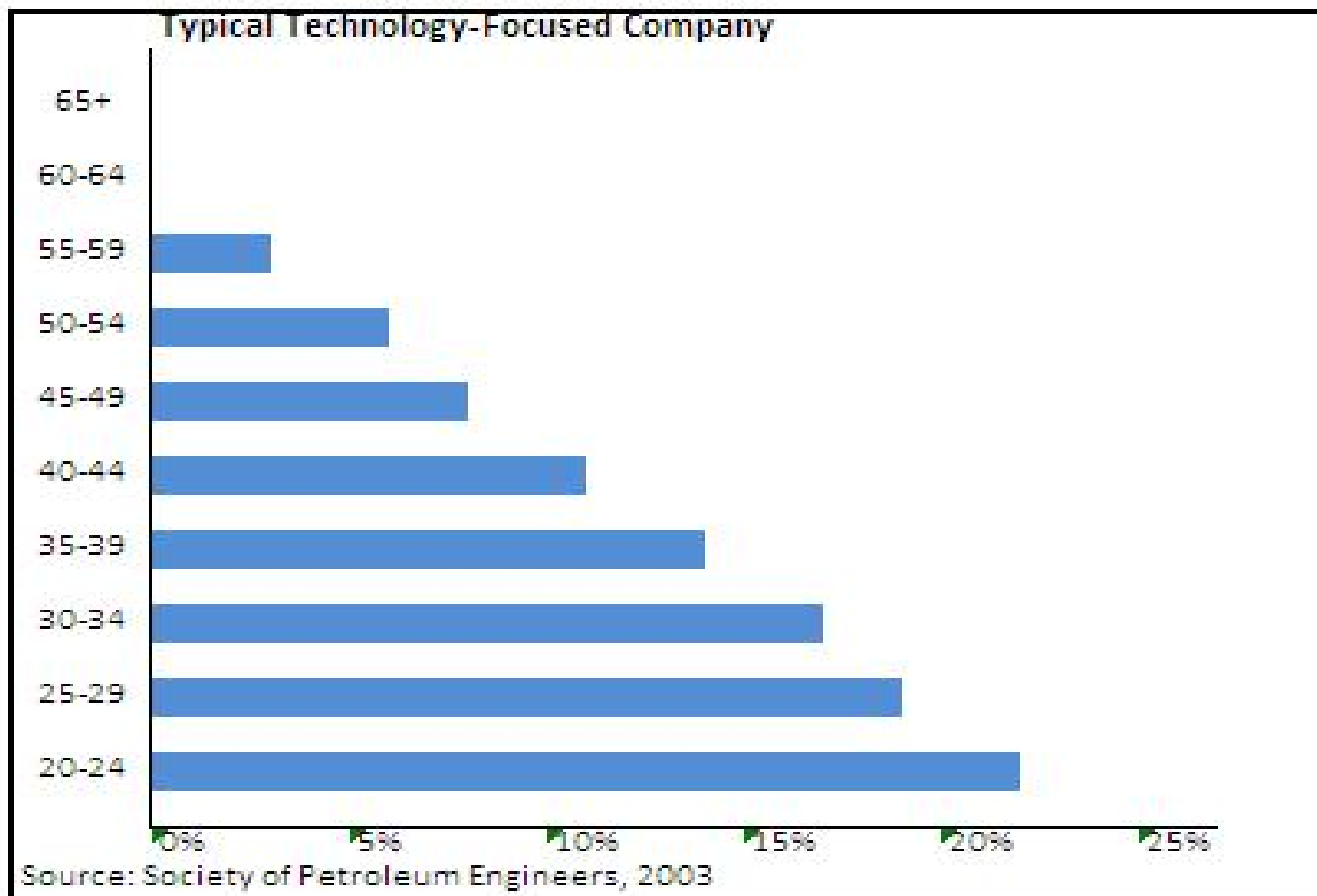
- Industry consolidation
- Negative public perception
- Industry cyclicality
- Aging workforce 
- Diminishing enrolment of critical courses 
- Time to autonomy 
- Mobility of workforce
- New generation of employees



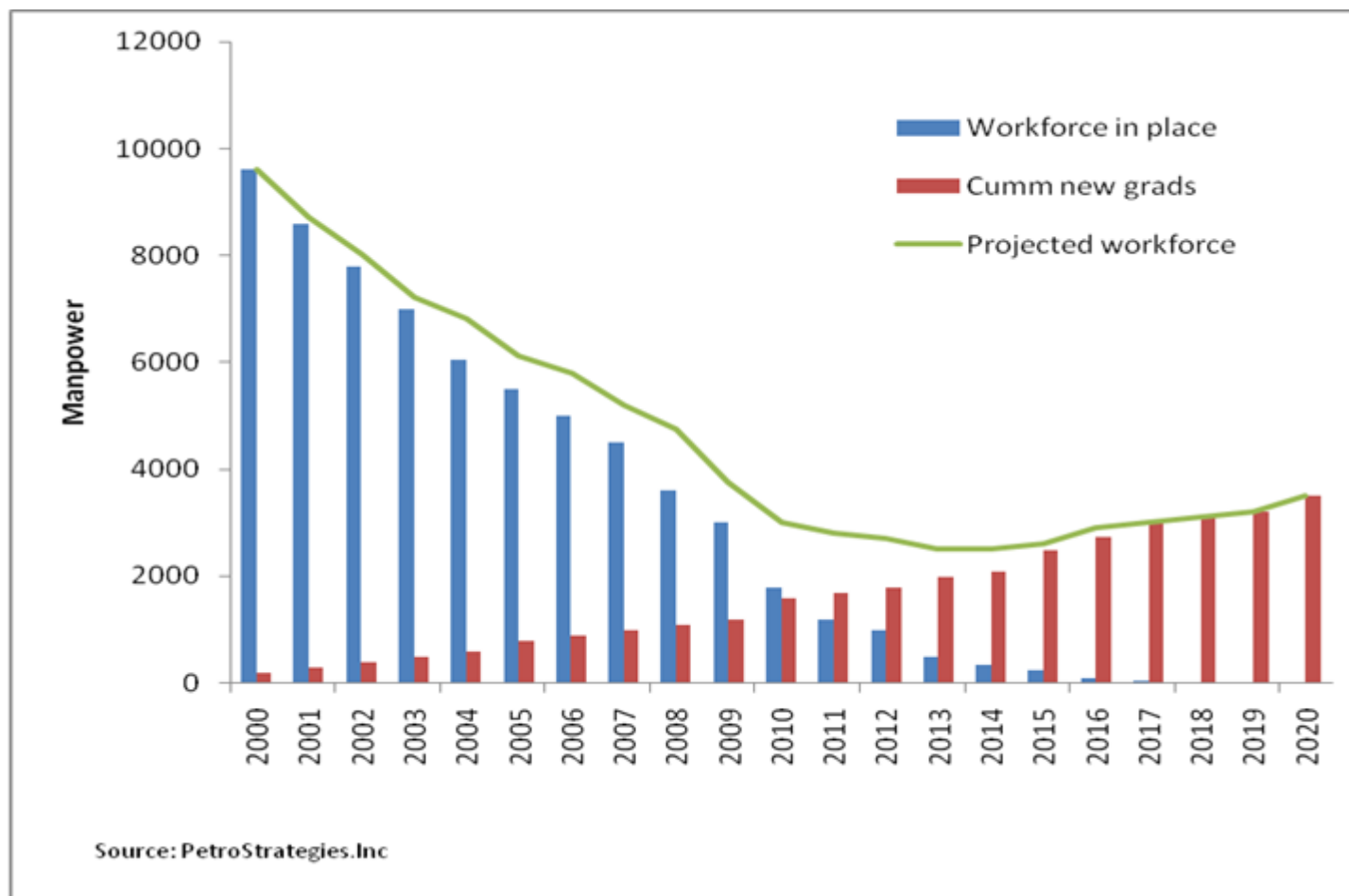
Workforce age distribution - Oil and Gas Industry



Workforce age distribution - Typical Technology Company



Workforce projection - Oil & Gas Industry



Technical/specialised skills are in short supply



Top 8 scarce skills

- 1 Petroleum Engineering
- 2 Engineering Analyst or Technician
- 3 Geology
- 4 Geophysics
- 5 Multiskilled Maintenance Crafts
- 6 Geosciences Analysts or Technicians
- 7 Process/Production Operators
- 8 Mechanical Engineering

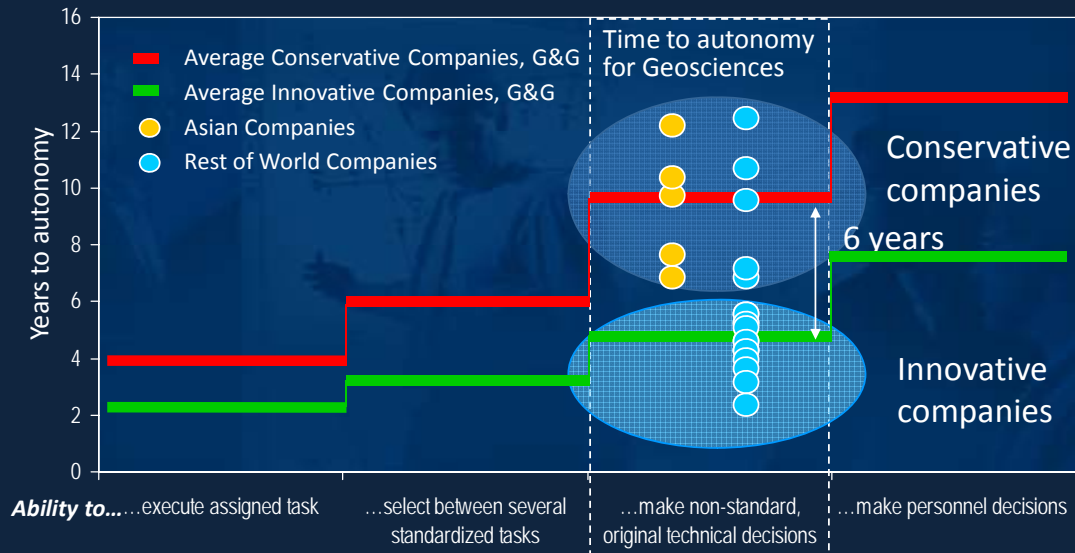
"Real skill shortage in senior technical appointments, engineering, geologists, geophysicists, reservoir engineers, petroleum engineers, drillers, " Bob Greenwood, head of U.K. oil and gas practice

Source: API 2004 Workforce Challenge Survey



Lead time to autonomy - Geoscientists

Time to Autonomy in Geosciences



Source: Source: Schlumberger Business Consulting 2006 O&G HR Benchmark



IGU will undertake 2 special projects to address HR issues



**Building Strategic
Human Capital**



**Nurturing Future
Generations**

Special Projects under the Malaysian Triennium - Task Forces



Building Strategic Human Capital

- 1) To understand the key issues impacting the attraction and retention of talents in the gas industry.
- 2) To develop a strategic approach to human capacity building to ensure sufficient capable manpower are available at the right time and place for the future sustainability and integrity of the gas industry.

Special Projects under the Malaysian Triennium - Task Forces



Nurturing Future Generations

- 1) To develop a comprehensive approach to nurture the future generations towards the energy industry.
- 2) To implement specific programmes to address the Youth during the 2009-2012 triennium and WGC.

Strategic Questions facing the Oil & Gas Industry



- **What are the factors contributing to the looming shortage of oil and gas workers and what are the implications for the future sustainability and safety of the industry?**
- **How to develop, deploy and connect employees through the industry's boom and bust cycles?**
- **How could the oil and gas companies respond to the changing needs of a new generation of resource – the Generation Y? How do companies incorporate diversity and inclusion as part of the HR strategies?**
- **What can the industry do to overcome the recruitment and retention challenges it faces?**
- **What is the role of the government, the education institutions and the industry in addressing the talent conundrum in the oil and gas industry and how can they effectively execute the role?**
- **Are there best practices being implemented by countries and companies which could be shared across the industry?**

We welcome you.....



Thank you