



**World Petroleum Council**  
The Global Forum for Oil and Gas  
Science, Technology, Economics and Management

# **The Constant Pursuit of Petroleum Self Sufficiency**

**Presentation to the  
FIESP 14th International Energy Meeting  
August 5th & 6th, 2013**



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Algeria  
Angola  
Argentina  
Australia  
Austria  
Azerbaijan  
Bahrain  
Belgium  
Brazil  
Canada  
China  
Colombia  
Croatia  
Cuba  
Czech  
Denmark  
Egypt  
Finland  
France  
Gabon  
Germany  
Hungary  
India

Indonesia  
Iran  
Israel  
Japan  
Kazakhstan

Kenya  
Korea  
Kuwait  
Libya  
Macedonia

Mexico  
Morocco  
Mozambique  
Netherlands  
Nigeria

Norway  
Oman  
Pakistan  
Panama  
Peru

Poland  
Portugal  
Qatar  
Romania  
Russia  
Saudi Arabia  
Serbia  
Sierra Leone  
Slovakia  
Slovenia  
South Africa  
Spain  
Suriname  
Sweden  
Thailand  
Trinidad &  
Tobago  
Turkey  
UK  
Uruguay  
USA  
Venezuela  
Vietnam



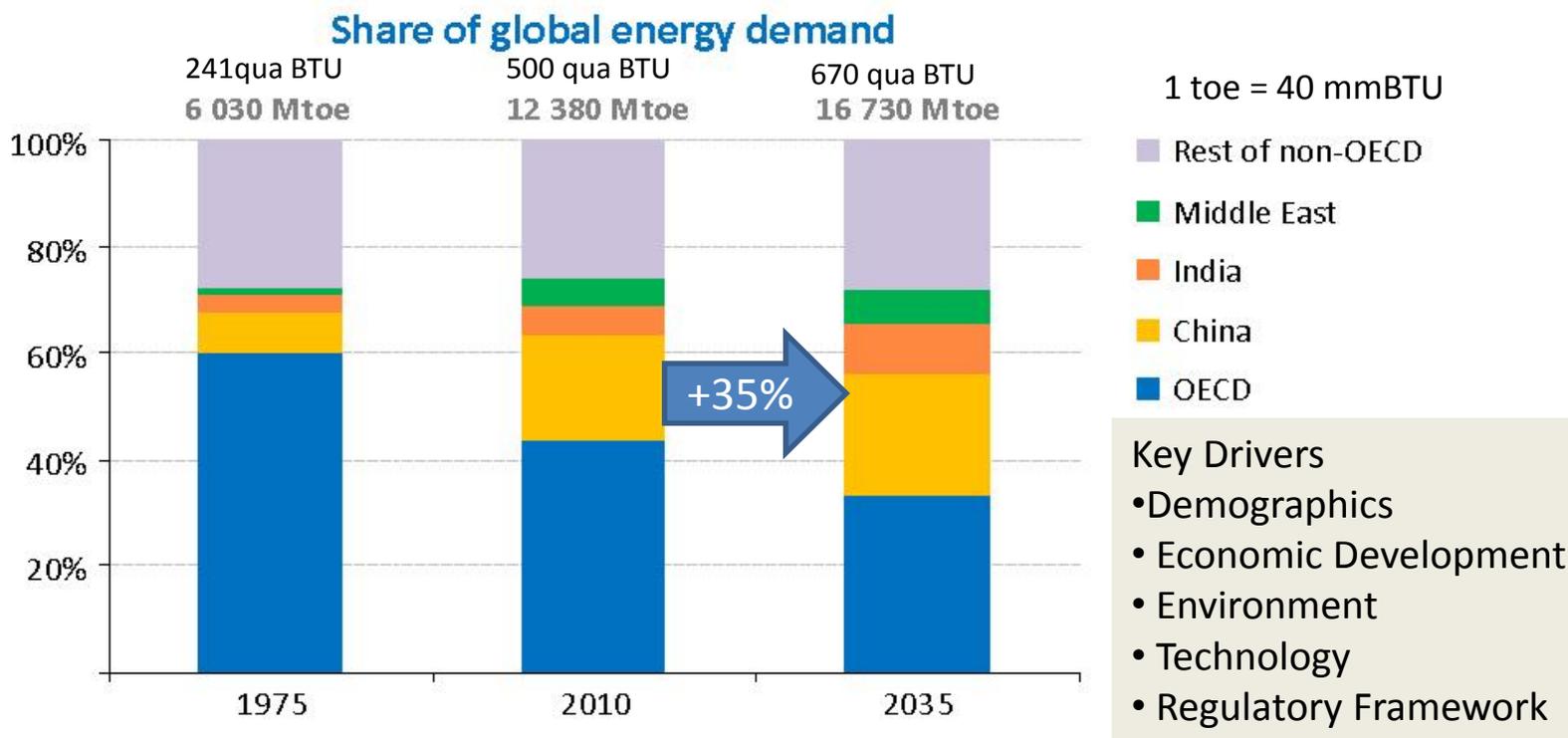
## MISSION

The mission of the World Petroleum Council is to promote the **sustainable** development, production and consumption of oil, gas and other energy resources for the benefit of all



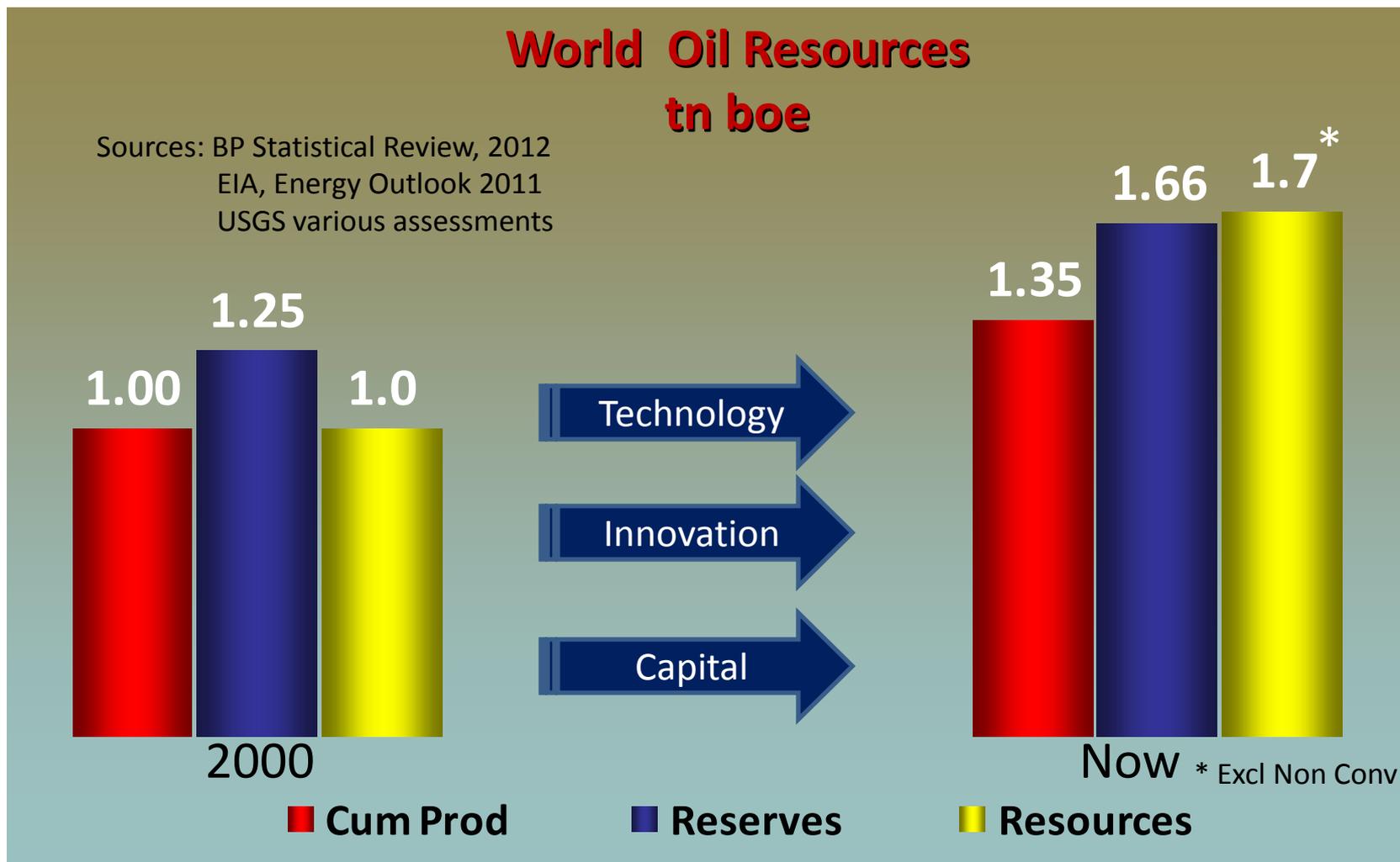
## Emerging economies steer energy markets

WORLD  
ENERGY  
OUTLOOK  
2012



**Global energy demand rises by over one-third in the period to 2035, underpinned by rising living standards in China, India & the Middle East**

Source: International Energy Agency, 2012

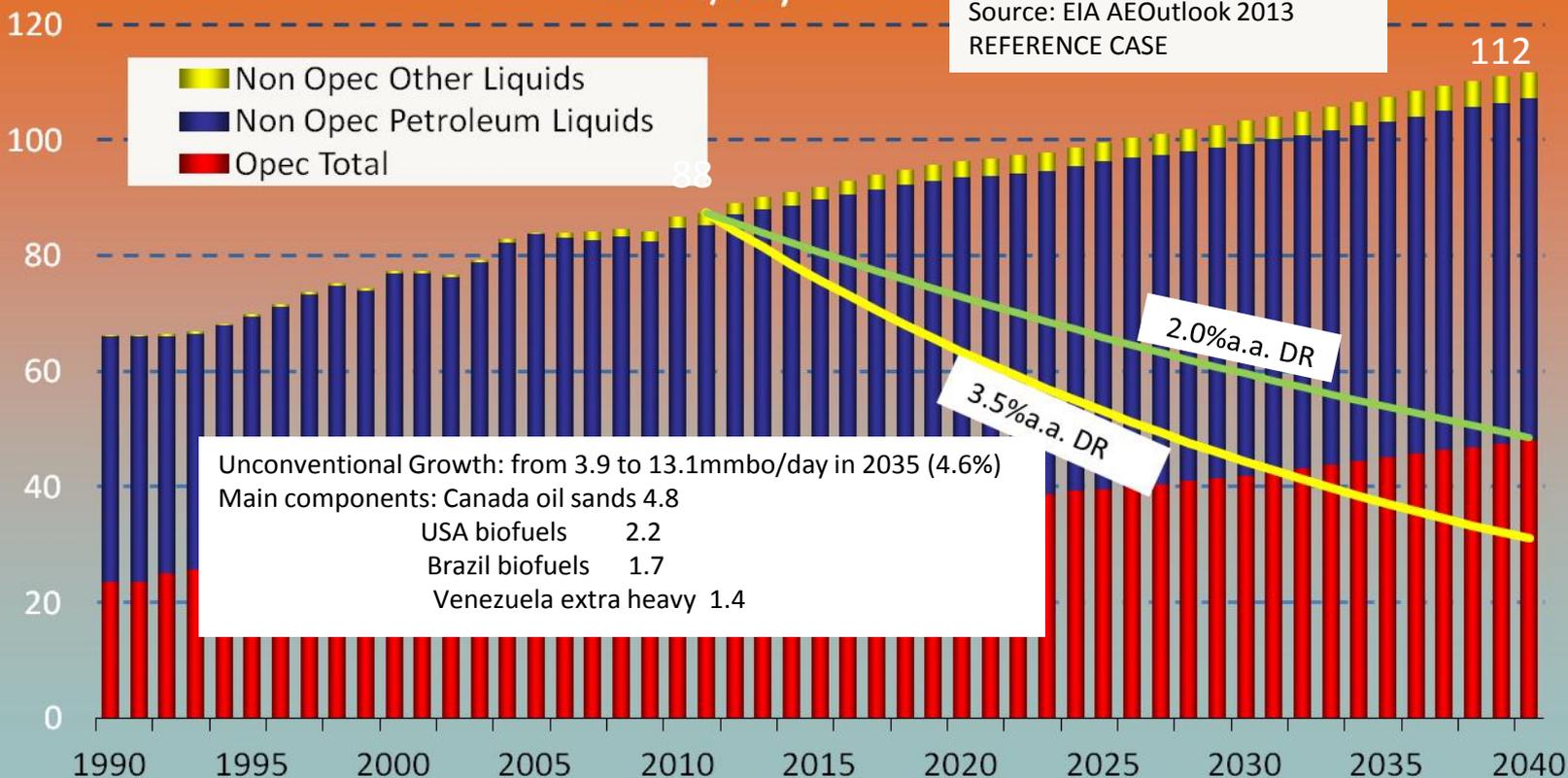




# The Oil Supply Challenge



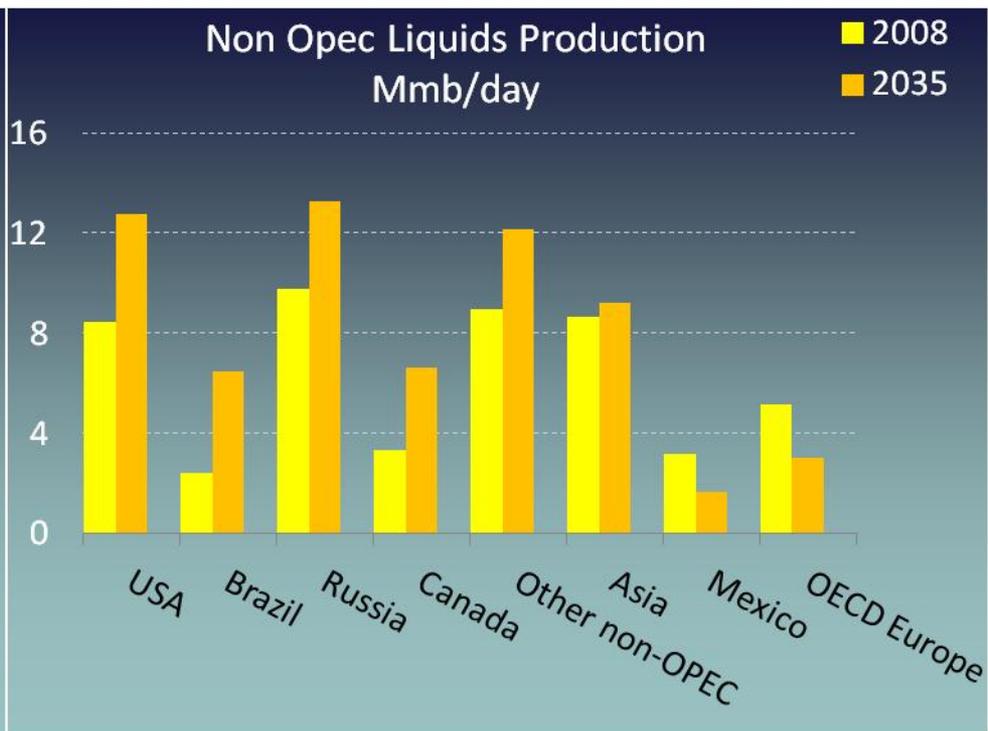
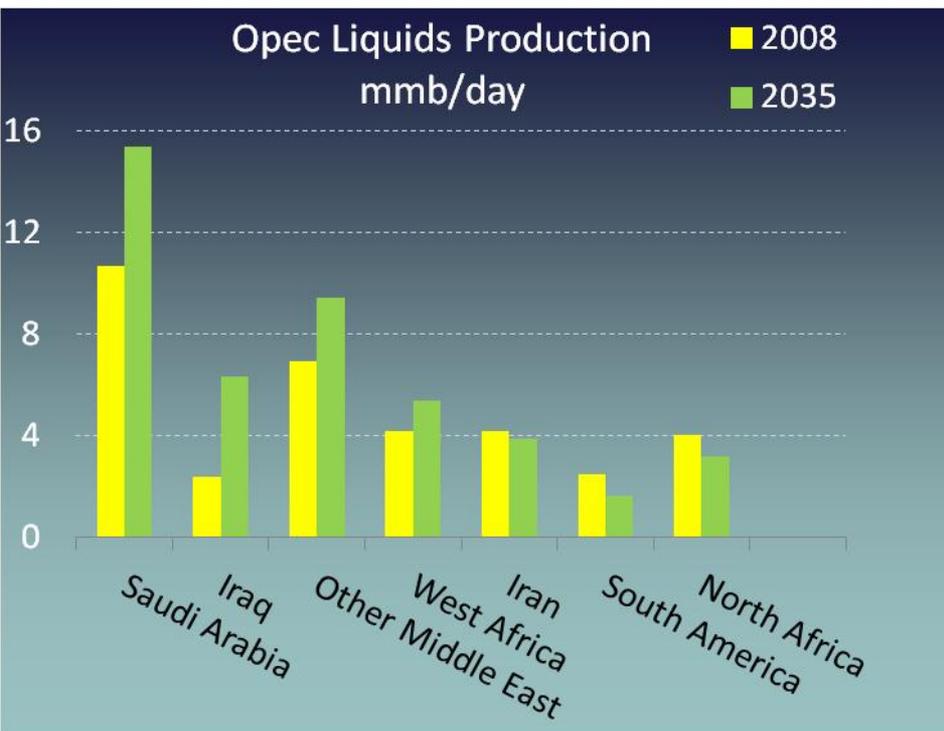
## World Crude Oil and Liquid Fuels Consumption MMb/day



Petroleum Liquids: conventional oil and condensate, tight oil, shale oil, extra heavy oil, natural gas liquids and refinery gains  
Other Liquids: , biofuels, GTL, CTL and kerogen to liquids



# Opec and Non Opec Liquid Production Changes

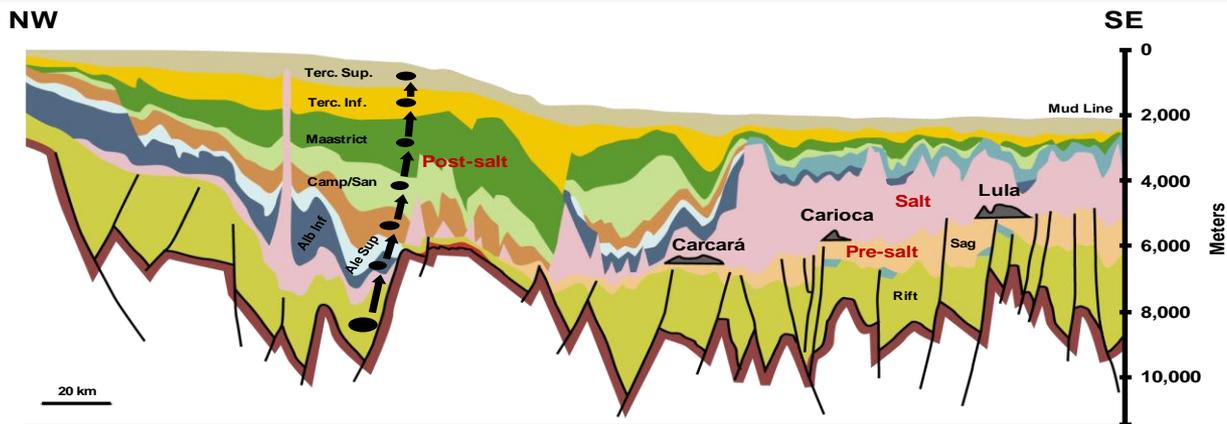


Liquids: Conventional (oil, condensate, natural gas plant liquids, refinery gains)  
Non-Conventional (oil sands, extra heavy oil, biofuels, GTL, CTL)

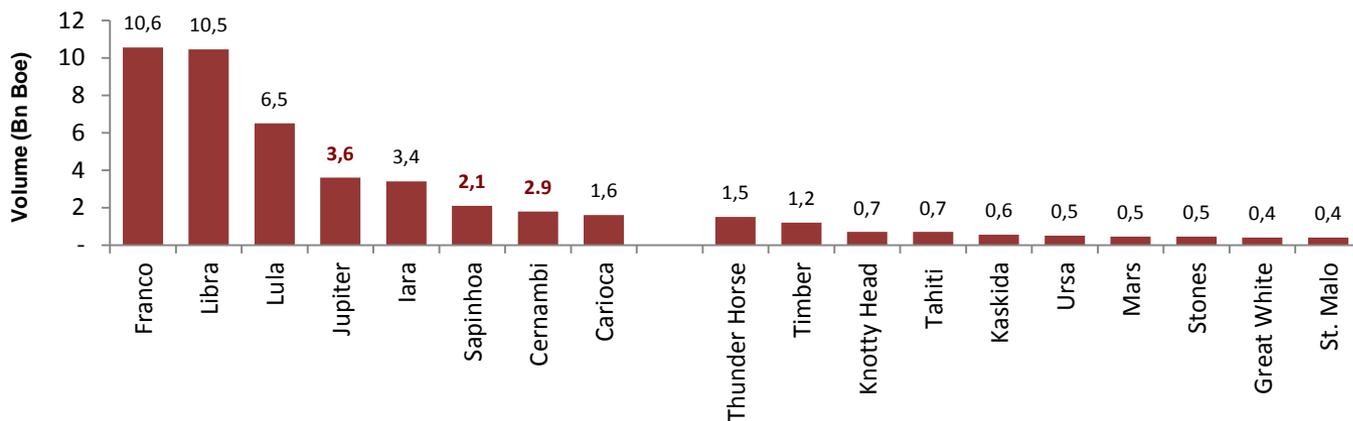
Source: EIA , International Energy Outlook  
Issue: October 2011



## General Regional Geological Section - Santos Basin



## Comparison of ten Largest Accumulations in Santos Basin Vs. Gulf of Mexico



Source: : Company Information, Petrobras.

- Barra's portfolio is centered in one of the most sought after exploration basins in the world
- Unmatched petroleum system components:
  - Rift phase rich source rock
  - Rift and Sag thick limestone reservoirs
  - Thick salt layer provides perfect seal
- Local salt layer windows allow hydrocarbon upward migration to post salt turbidites reservoirs
- Pre-Salt Geologic success ratio (discoveries highly likely to be developed) ~75%, among the largest in any exploration play



## Society

### Regulatory Principles

- Steady & transparent access to resources
- Stable and balanced contractual terms
- Clear HSE rules and rigorous enforcement
- Promotion of local, yet globally competitive, goods and services

### Governance Principles

- Remuneration of risk and capital, assuring shareholder's long term return
- Return of proportional share of wealth to society
- Safe operations with positive environmental impact
- Ethics and transparency as part of the business model



- Brazil has a unique opportunity to become a key international energy player for many decades to come
- Self sufficiency should not be an objective in itself
- Self sufficiency, and more, will be a consequence of the right policies, investment and innovation



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# **Responsibly Energising a Growing World**

**We hope to see you at the 21<sup>st</sup> WPC  
in Moscow, June 15<sup>th</sup> – 19<sup>th</sup>, 2014**