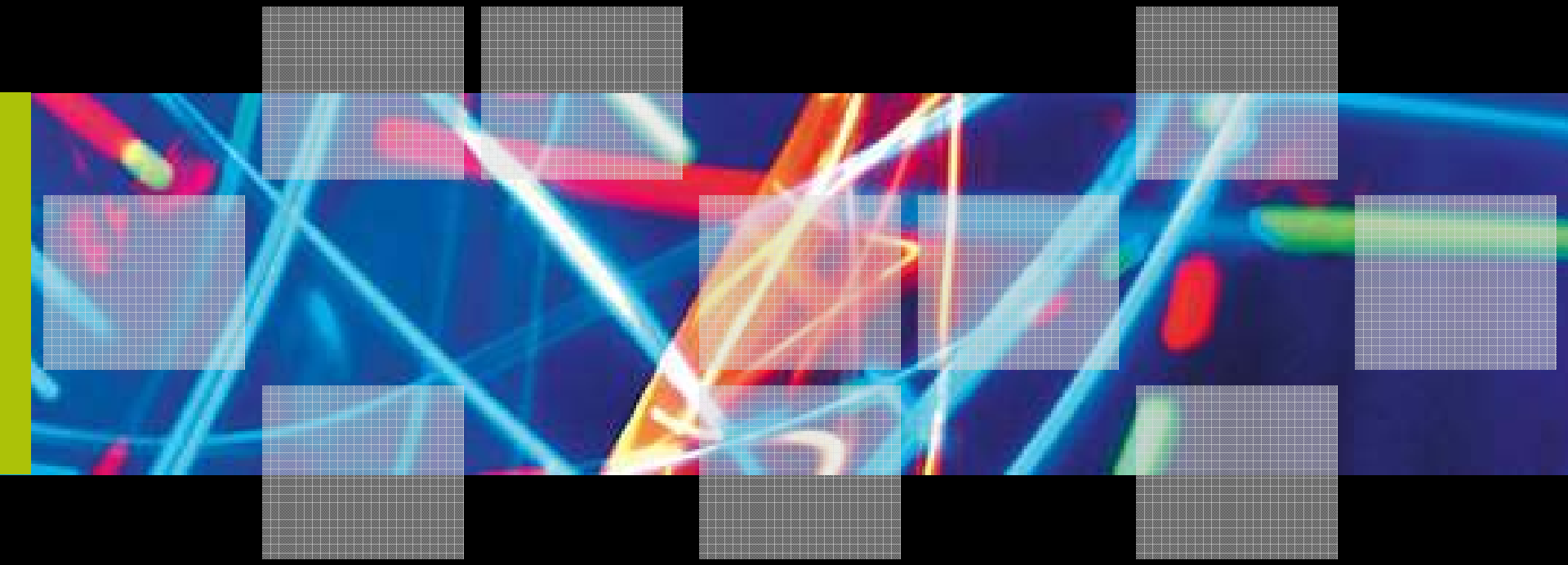


Rice Global E&C Forum :
The Challenges of Delivering on Tomorrow's Contracts

Neil Bruce: Chief Operating Officer AMEC Plc : 17th October 2006

Objectives and structure

Objectives

- To highlight some of the issues that we are facing
- Share how AMEC has addressed some of these issues in areas that are becoming increasingly important in the global energy arena

Structure

- How things have changed with time
- Where are we now?
- How might the future be?

AMEC Natural Resources - a summary

AMEC is the the world's third largest international design firm (based on revenues outside a firm's home country) and number 1 in both the US and Canada (*ENR Jan 2006*)

- A $2.1 billion business
- Offering a wide range of services across oil & gas, oil sands and minerals & metals
- Employing over 8000 people
- Providing asset development, asset support and a suite of specialist services
- Experts in delivering complex solutions
- A project integrator: developing local supply chains

A disclaimer

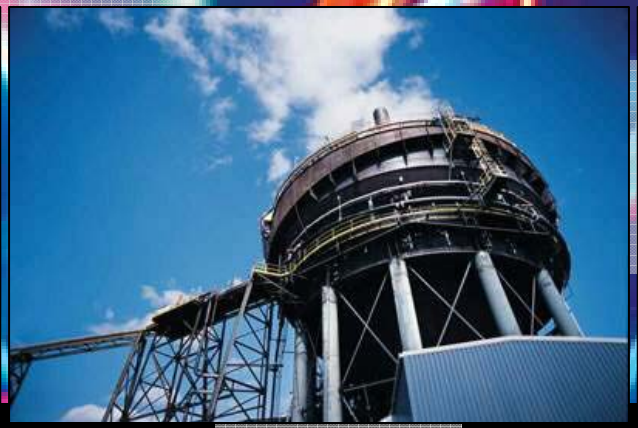
- This presentation represents perceptions from my (contractor's) viewpoint
- It is impossible to generalise across all markets

However…

- The views expressed are gleaned from experience
- AMEC has worked across a number of markets ……. and with a number of customers

AMEC Natural Resources – our markets

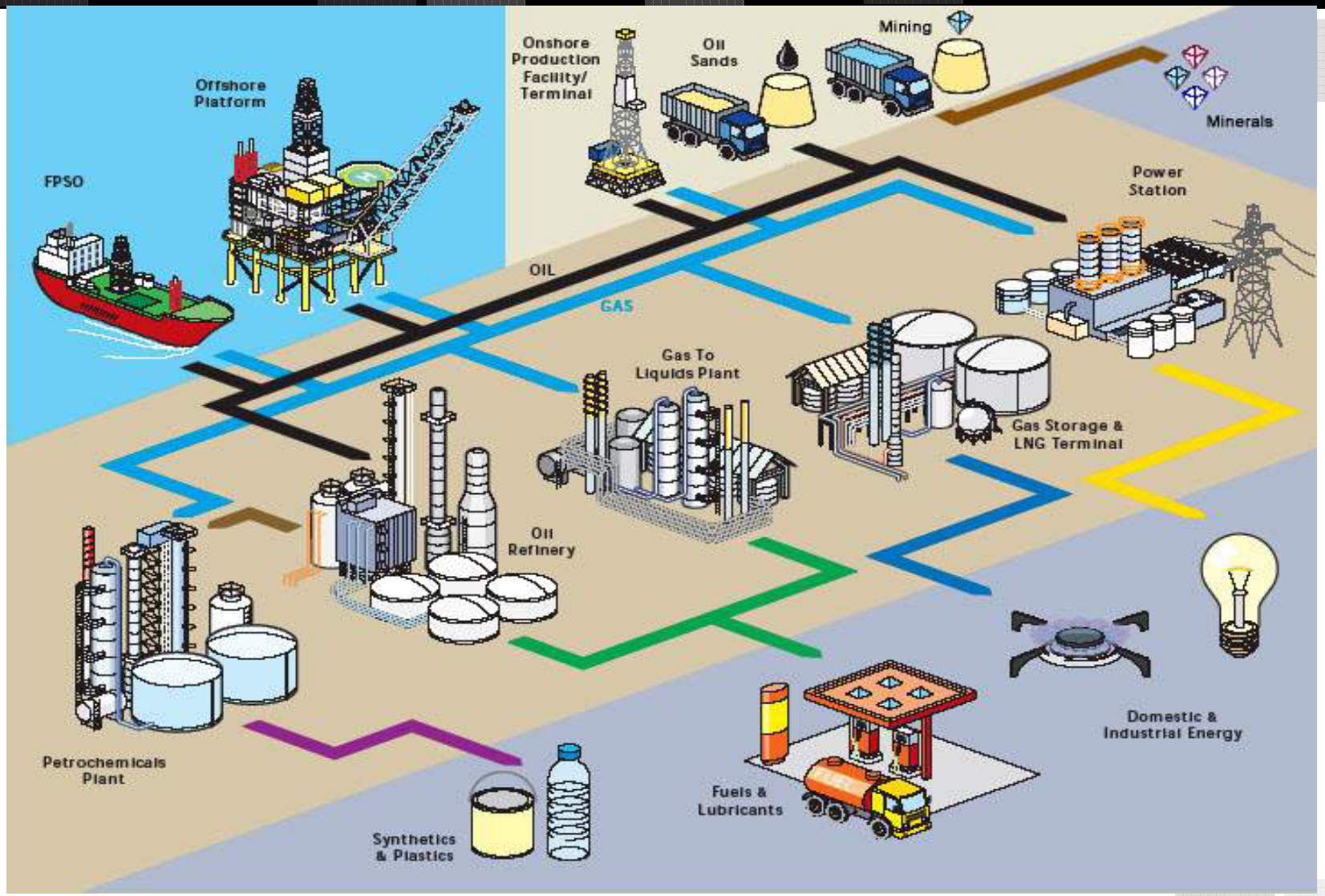
Oil and gas



Oil sands

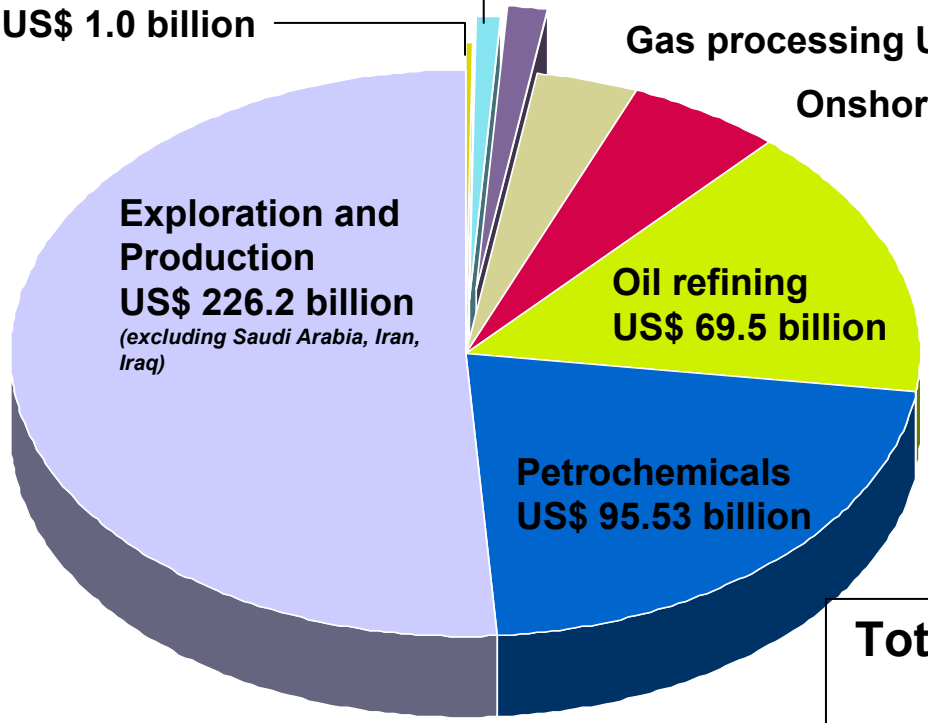
Minerals and metals

AMEC Natural Resources



AMEC Natural Resources – areas of operation

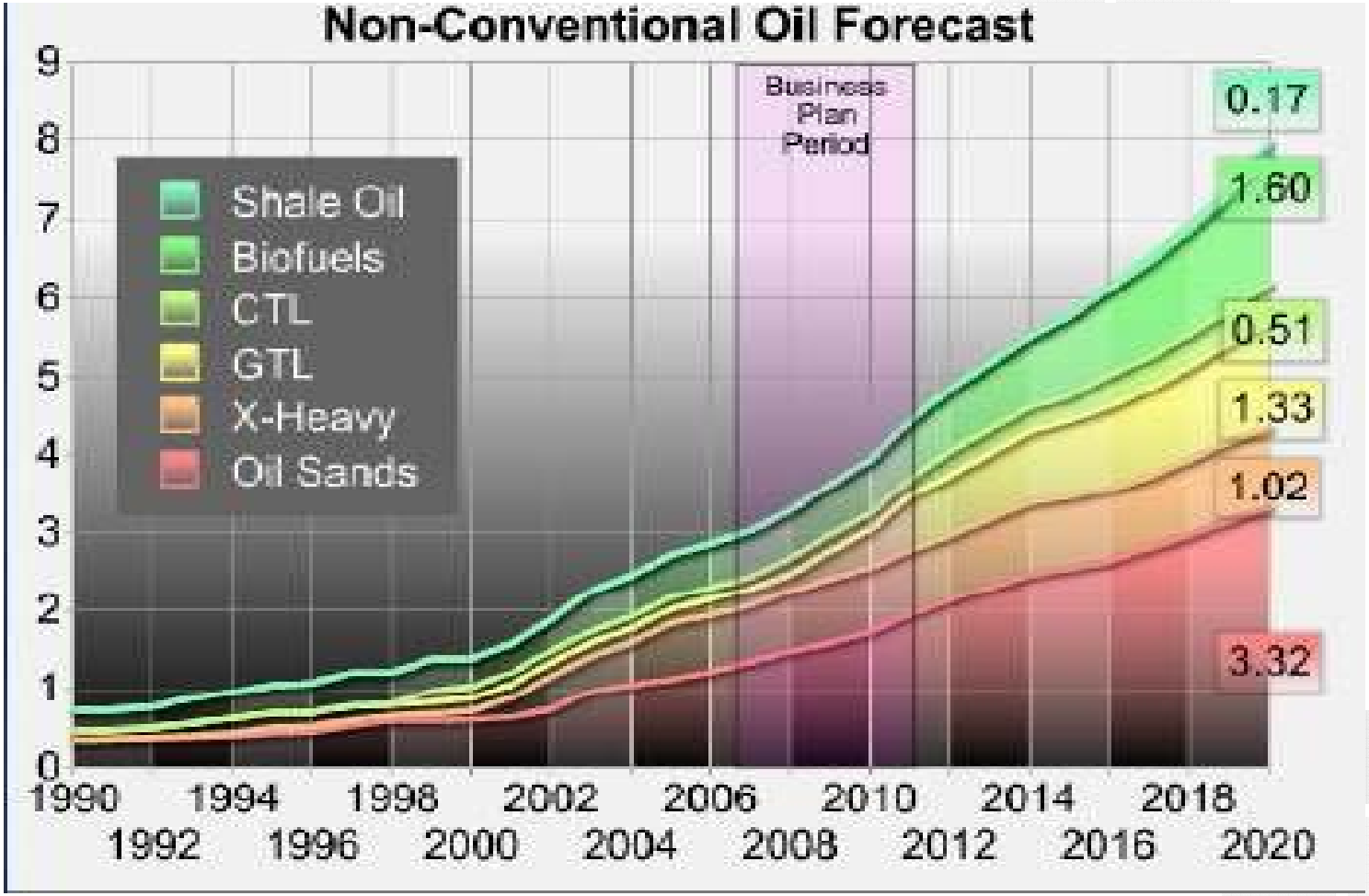
Spend will continue to rise in line with production (7% 04-05, 22% 05-06)



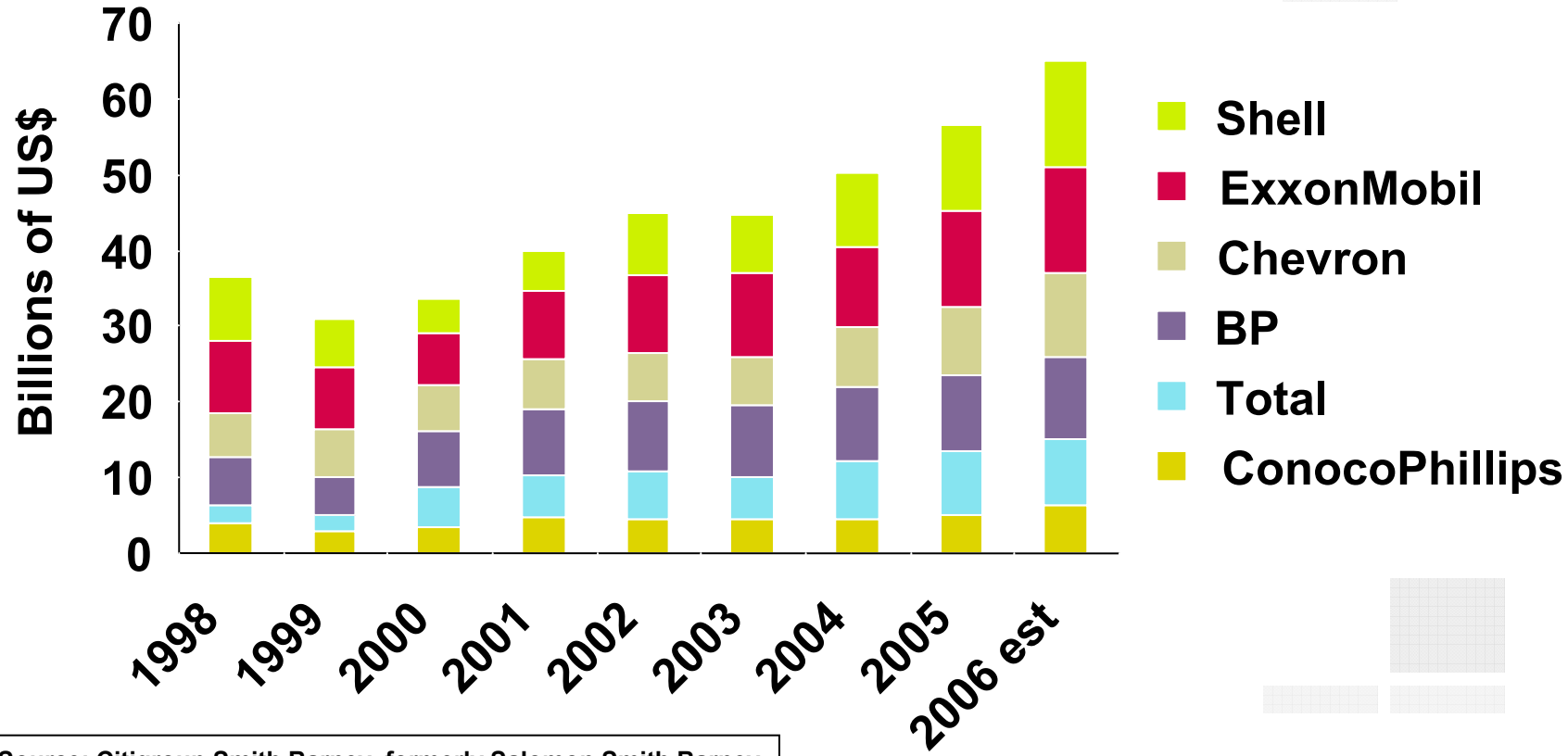
Total: US$ 442.6 billion in 2006

Sources: Annual E&P Survey (Citigroup Smith Barney), HPI Market Data 2006 (Hydrocarbon Processing), Oil & Gas Journal, CAPP

Increasing importance of non-conventional oil



IOC exploration and production expenditure continues to rise

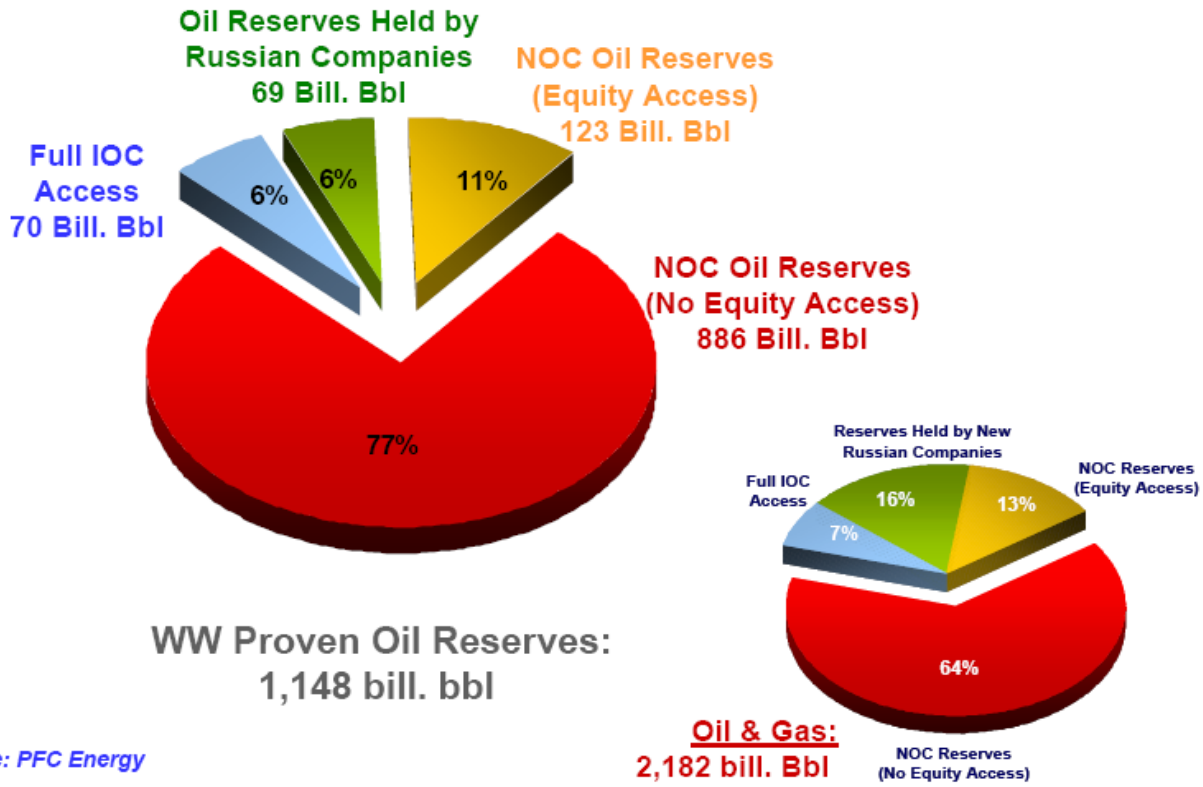


Source: Citigroup Smith Barney, formerly Salomon Smith Barney

The importance of NOCs

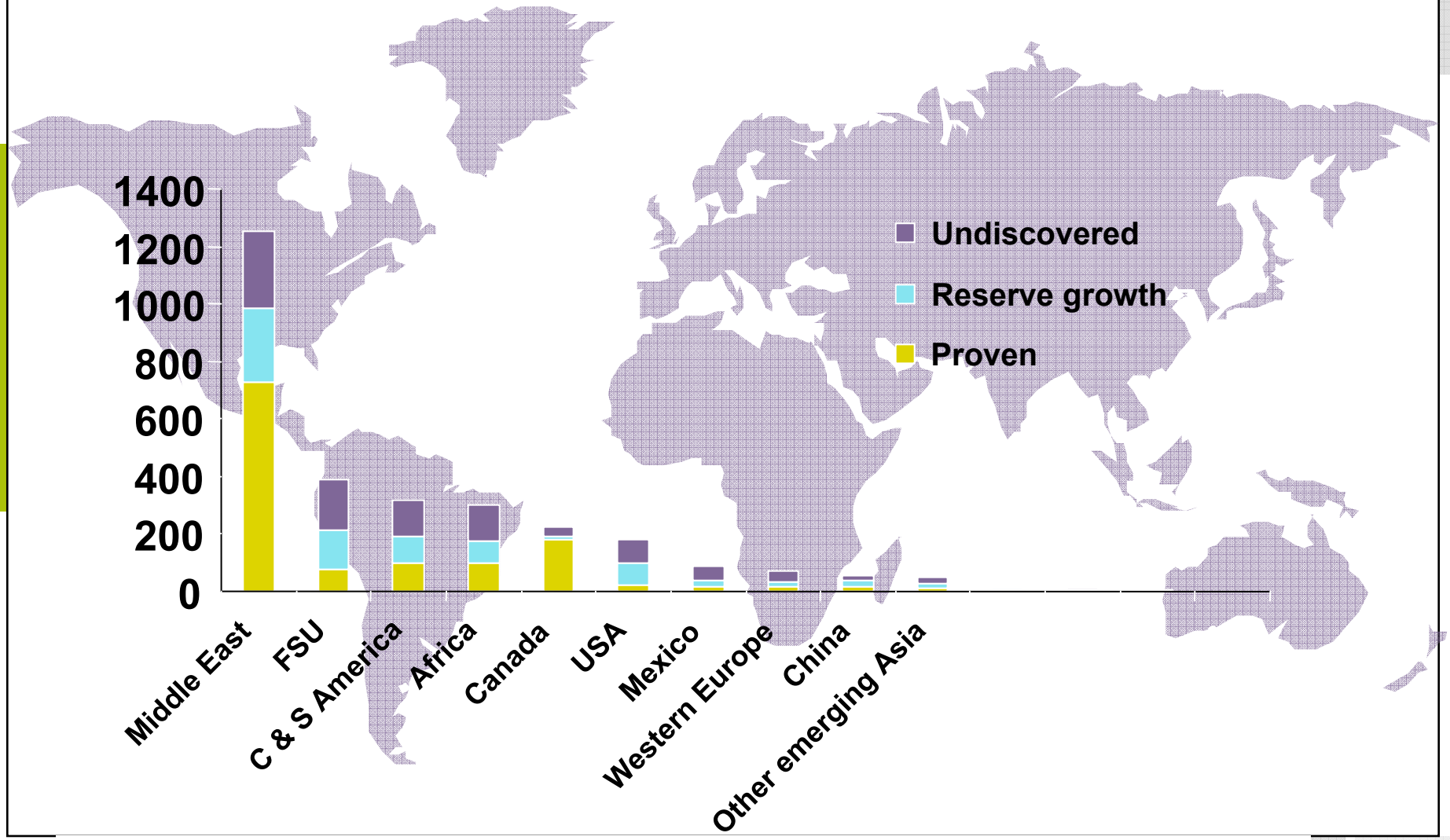
Why Focus on NOCs?

Because They Control the Resources



Source: PFC Energy

World oil reserves



Source: International Energy Outlook 2005 - Washington, DC, US Department of Energy, Energy Information Administration

Industry challenges

THE TIMES
26th August 2006

Staff and rigs shortages put oil firms over barrel
A critical shortage of skilled workers and of drilling equipment is preventing the oil industry increasing production.

SUNDAY BUSINESS POST
2nd July 2006
Crude oil could rise to $100 a barrel.

A leading Irish oil industry expert has warned that crude oil prices could yet soar close to $100 a barrel if the US steps up pressure on Iran.

OIL DAILY
Lack of infrastructure hampers Canada's oil sands developers
27th April 2006

A dearth of basic infrastructure, not lack of prospects, capital or technology, may delay development of northern Alberta's billions of barrels of oil sands as much as rising construction and operating costs and shortages of skilled labor, according to speakers at the Canadian Energy Research Institute's oil conference this week.

AP Associated Press
Shell Oil president says politics constrain access to resources
9th September 2006

There are still plentiful energy resources around the world but "pragmatic realities" can get in the way of tapping them, the president of Shell Oil Co., told a Kansas State University audience.

ipr Info-Prod Research (Middle East) Ltd.
$70MLN Cost Overrun for South Pars Phases 9,10
10th August 2006

According to "Tehran Times", offshore phases 9 and 10 of the South Pars Oil and Gas Field Development Plan have so far cost $70 million more than the contract envisioned, Iranian Offshore Engineering Company (IOEC) project manager Nozar Arian announced.

DOWJONES
Nigeria Brass LNG Continues Despite Costs Up a Third
1st June 2006

Investment costs for the $3 billion-plus Brass liquified natural gas project in Nigeria have risen considerably because of a tight commodities market, but the partners still plan to move ahead with it, Nigeria's Oil Minister Edmund Daukoru said Thursday.

How things have changed with time

In the Past:

- Oil Co had people, but projects limited by competition for capital
- Contractors were managed more by Customers
- Behaviours sometimes were ‘Customer / Contractor’
- Contracts / bidding was cost-focused

Now:

- Plenty of capital, OIL Co's PM people depleted, resource is the contractor's
- Contractor's skill / scope increased

- Behaviours
- Contracts

Questionable whether they have changed sufficiently to address the new market challenges

AMEC Natural Resources
- Challenges of delivering on tomorrow's contracts

- Resource constraints
- Difficult environments
- Non-conventional oil and gas
- Materials and equipment costs
- Political agendas
- Environmental protection
- Health and safety assurance
- Commercial risks

AMEC Natural Resources
- Challenges of delivering on tomorrow's contracts

- Resource constraints
- Difficult environments
- Non-conventional oil and gas
- Materials and equipment costs
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- Environmental protection
- Health and safety assurance
- Commercial risks

Focusing on these three today
- going to tell three stories

Resource constraints in FSU – AMEC's response

- Why is the Caspian so strategically important?
  - proximity to the energy-hungry Asian countries such as China
  - high production capability – the potential to hit 5.1 million bpd by 2015
  - huge export potential over the next decade
  - political influences – both China and Japan have undertaken intergovernmental initiatives with the Central Asian countries

- AMEC Natural Resources in Azerbaijan
  - simultaneous construction of world-class fabrication yard with fabrication of 14,500 tonne platform
  - successful melding of three companies with different cultures and languages
  - training of local people to international standards

Resources - ATA Yard in 2002

Resources - ATA Yard in 2004

AMEC Natural Resources in Azerbaijan

- Workforce of over 1,900 employed
  - 51% of professional personnel and 82% of non-professional personnel recruited locally
- 36 Azerbaijani companies sub-contracted to provide various services within yard upgrades and overall project execution
- AMEC has provided the workforce with 115,683 hours of skills training and 53,350 hours of safety training to recognised industry standards:
  - 1,400 people
  - 8,000 site inductions – 4 languages
  - 85 safety courses
  - 45 personnel fully trained and experienced in both ERC (Emergency Response Centre) and CMT (Crisis Management Team)
  - AMEC could not have delivered without a local solution

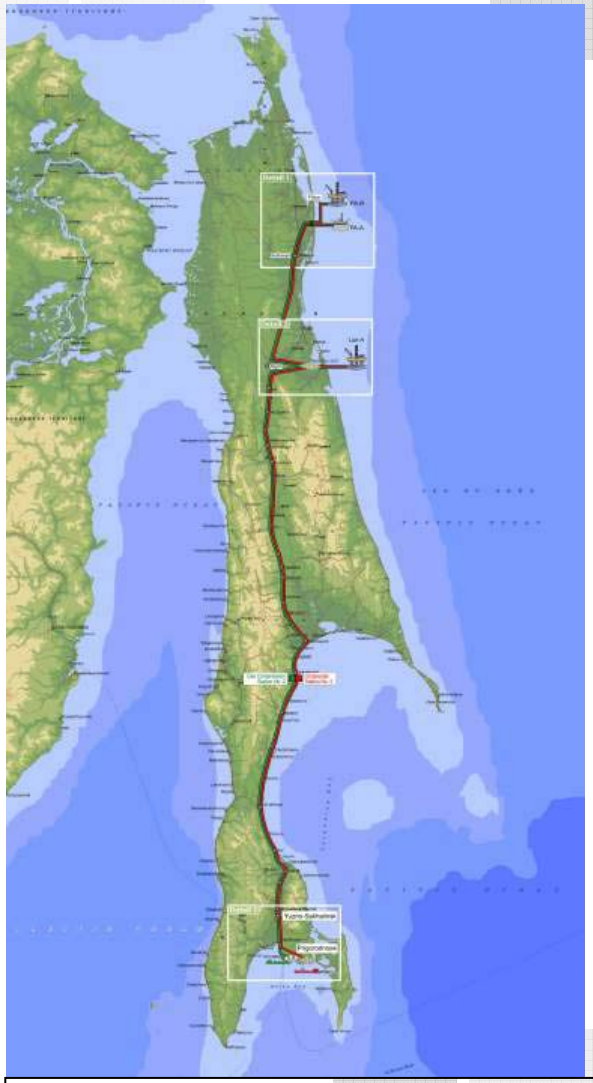
Difficult environments – AMEC's response

- AMEC Natural Resources has developed:
  - Breadth of capability across the oil, gas and mining industries
  - Breadth of capability spanning service life of the assets
    - from conceptual design to operations & maintenance
    - remote support from centres of excellence across the regions
  - Expertise and innovation
    - specialist in large, complex facilities
    - blend of North Sea and Gulf of Mexico approaches
    - market leader in brownfield developments
    - deepwater developments
    - Arctic environments
    - earthquake-prone regions
  - In-house specialist consultancy services
    - training and development
    - environmental studies

Example – AMEC Natural Resources on Sakhalin Island

- SEIC Sakhalin 2 - pioneering project in Russian Far East
  - new hydrocarbons basin
  - one of the largest offshore developments worldwide
  - remote location - logistical challenges
  - severe climatic and seismic conditions
  - World's largest integrated oil and gas decks

- AMEC's workscope:
  - definition engineering phase
  - detailed design
  - procurement of main equipment items
  - support to construction, commissioning and hook-up



AMEC Natural Resources on Sakhalin Island

Challenges to Overcome:

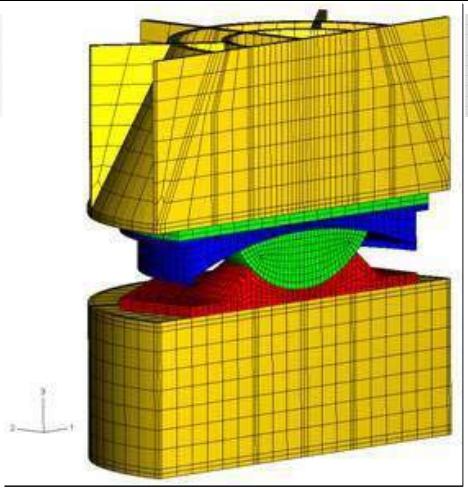
- ice
- wave impact
- seismic activity
- extreme variations in temperature
- maximization of Russian content
- Russian Design Institutes
- management of Russian Approvals process

Piltun-Ashtokhskoye – 28,000 tonnes

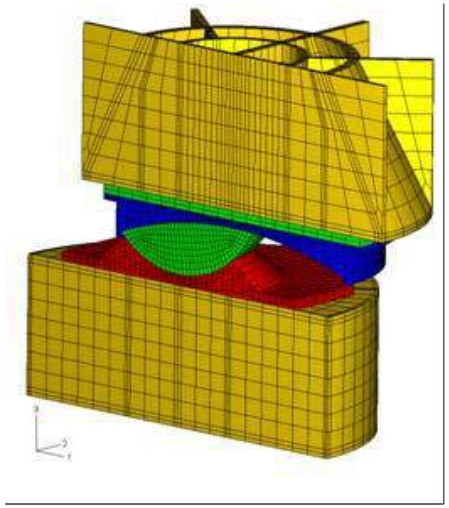
Lunskoye – 22,000 tonnes

AMEC Natural Resources on Sakhalin Island - World-class engineering solutions

- First offshore application of friction pendulum bearing (FPB) technology
- Isolates topsides from concrete gravity base structure to compensate for:
  - seismic events
  - wave action
  - sea ice loading
  - thermal contraction
- Record-breaking floatover operation to install Lunskoye deck in June 2006
- Engineering technology recognised at OTC Conference 2005



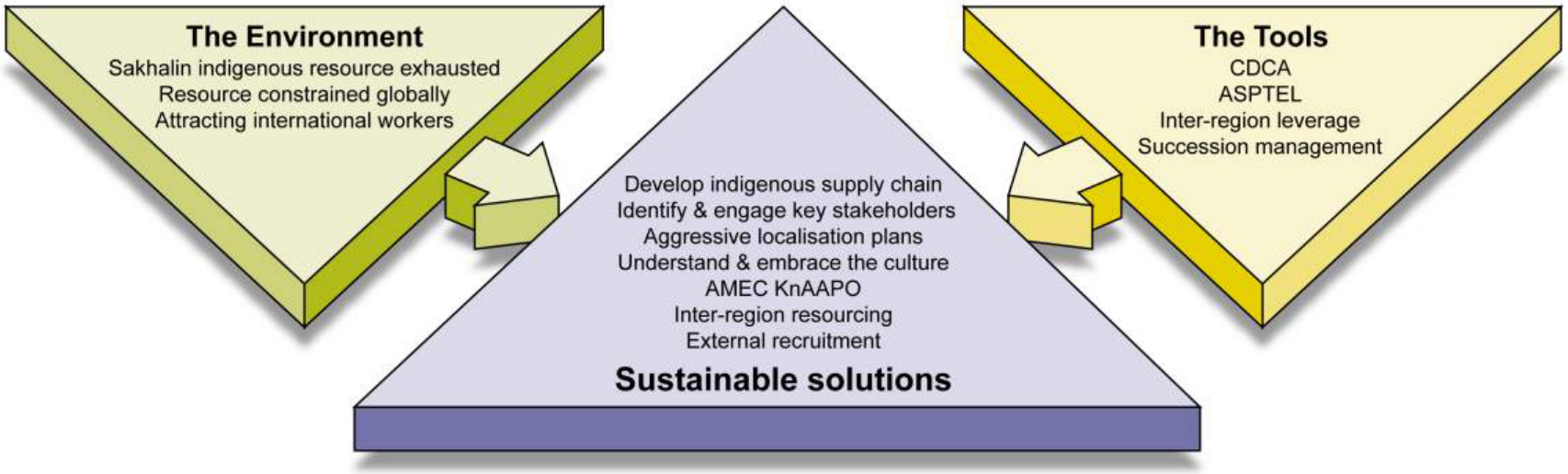
Centralised FPB



Offset FPB

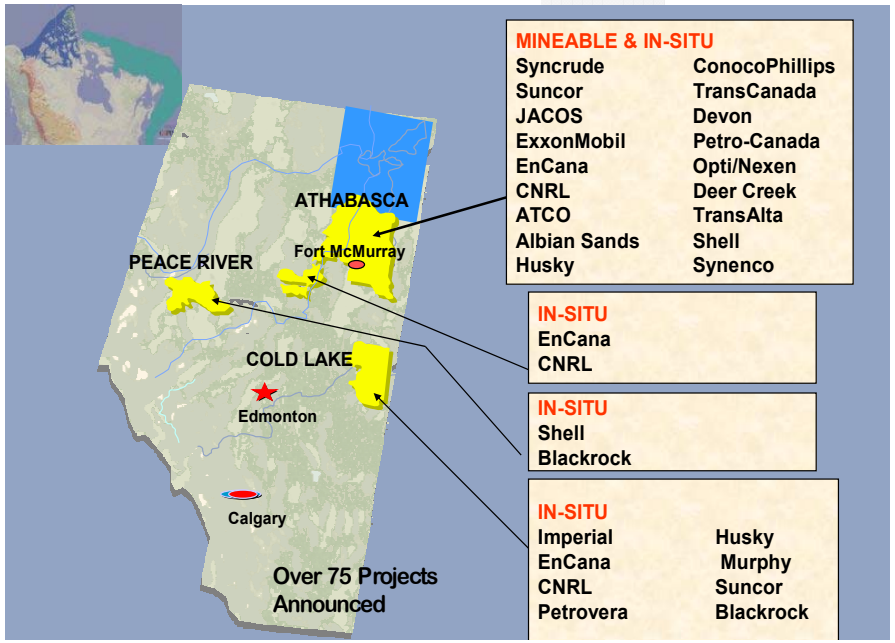
AMEC Natural Resources on Sakhalin Island - Technology & resourcing solutions

- World-class technology from centres of expertise
- Local resource and delivery solutions



Non-conventional oil and gas - AMEC's response

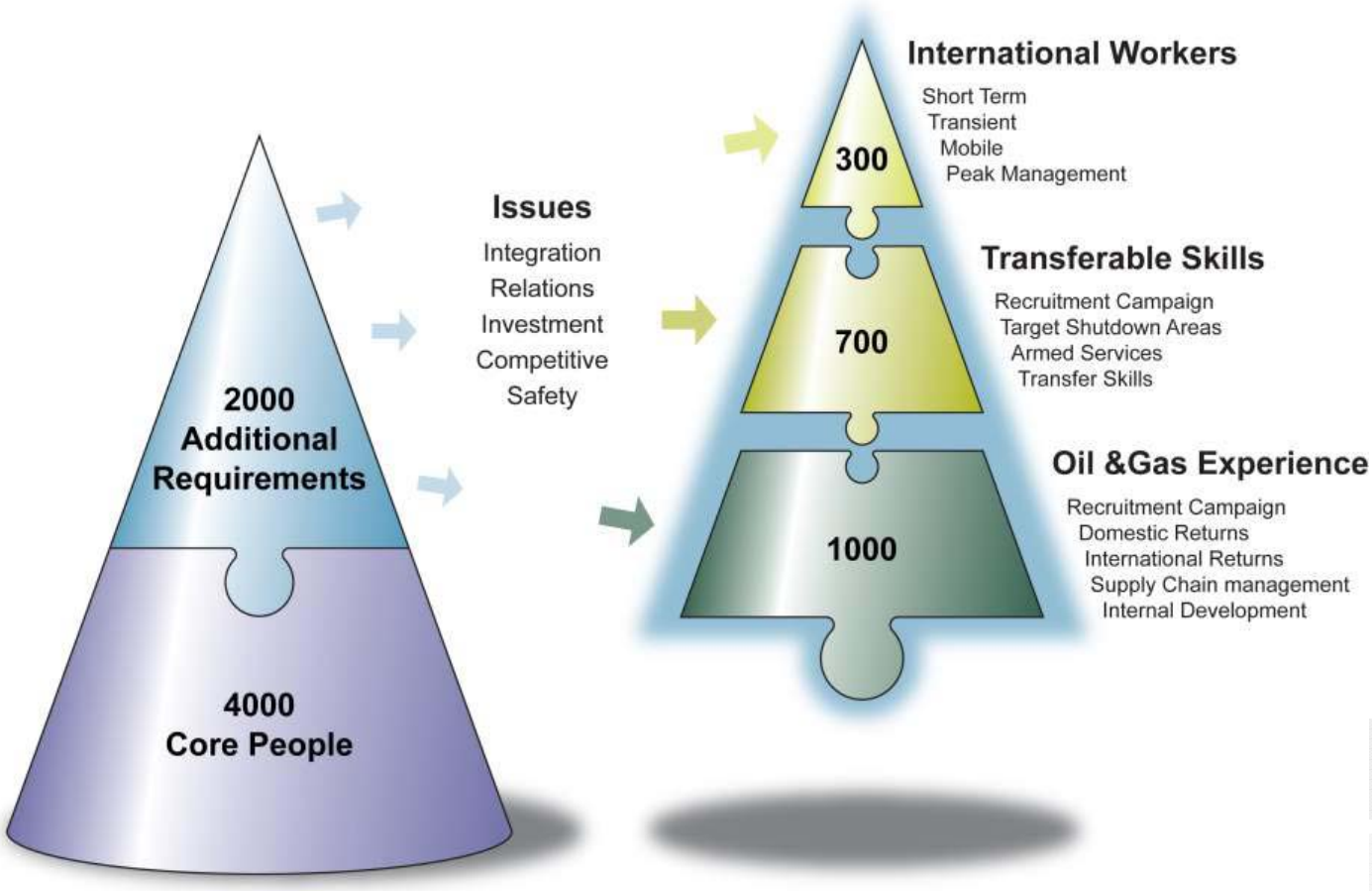
- Oil sands mining in Northern Alberta, Canada
  - AMEC is the industry leader in design and development of new oil sand mine facilities
  - AMEC has worked on every mineable oil sands lease in the region
  - Specialist expertise in key technologies:
    - low temperature extraction
    - tailings settling
    - hydrotransportation
    - floation



AMEC Natural Resources in Northern Canada

- Albian Sands Energy – Muskeg River project:
- Shell, Western Oil Sands, Chevron
- 155,000 bpd of bitumen
- CAPEX $1,900 M
- AMEC's workscope:
  - project management
  - feasibility study
  - engineering
  - procurement
  - construction management

AMEC Natural Resources in Northern Canada
Managing the resourcing challenges



AMEC Natural Resources
Delivering tomorrow's projects

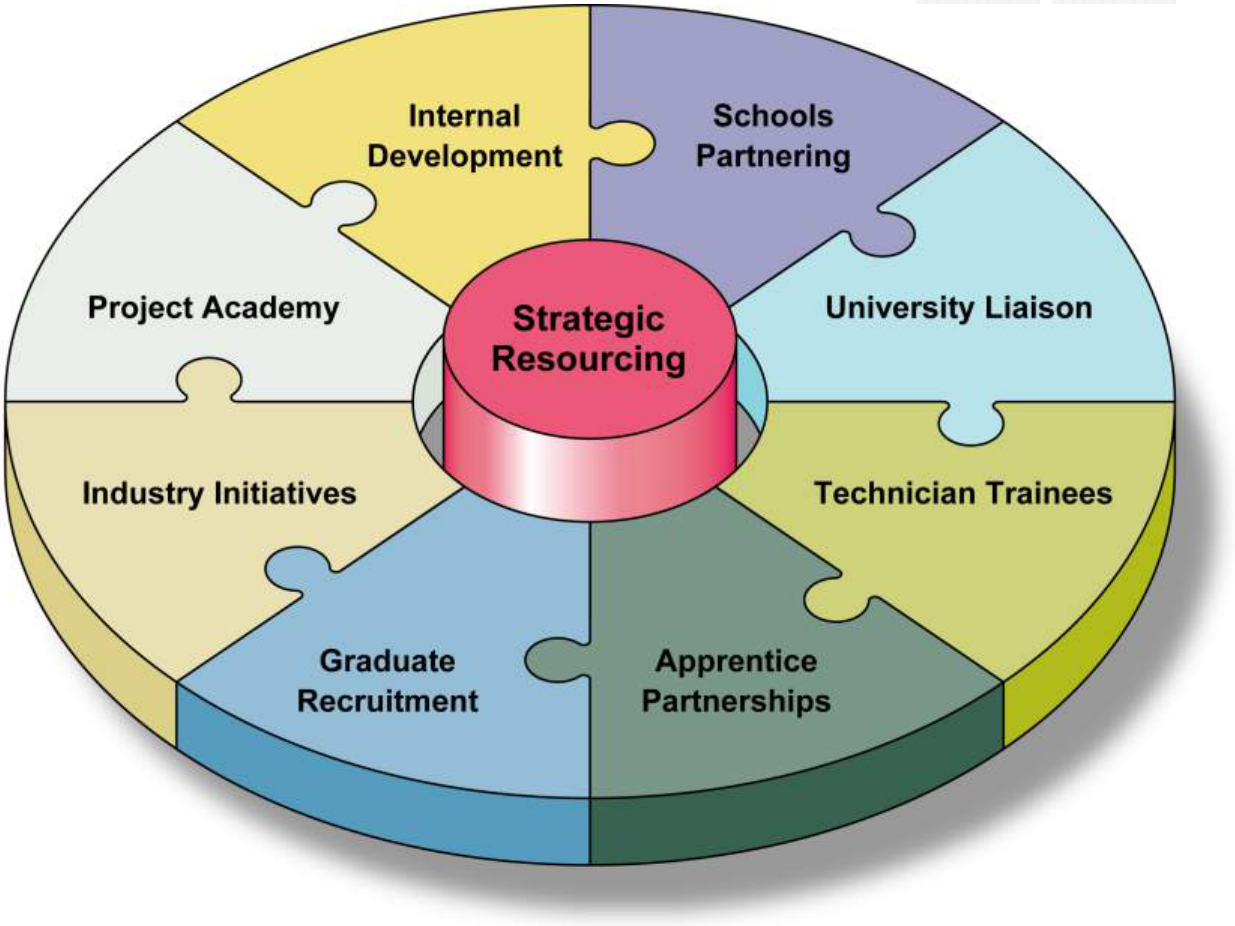
Challenges:

- Resource constraints and local political agendas
- Difficult environments and non-conventional oil and gas
- Materials and equipment costs and commercial risks
- Environmental protection and Health & Safety assurance

Responses:

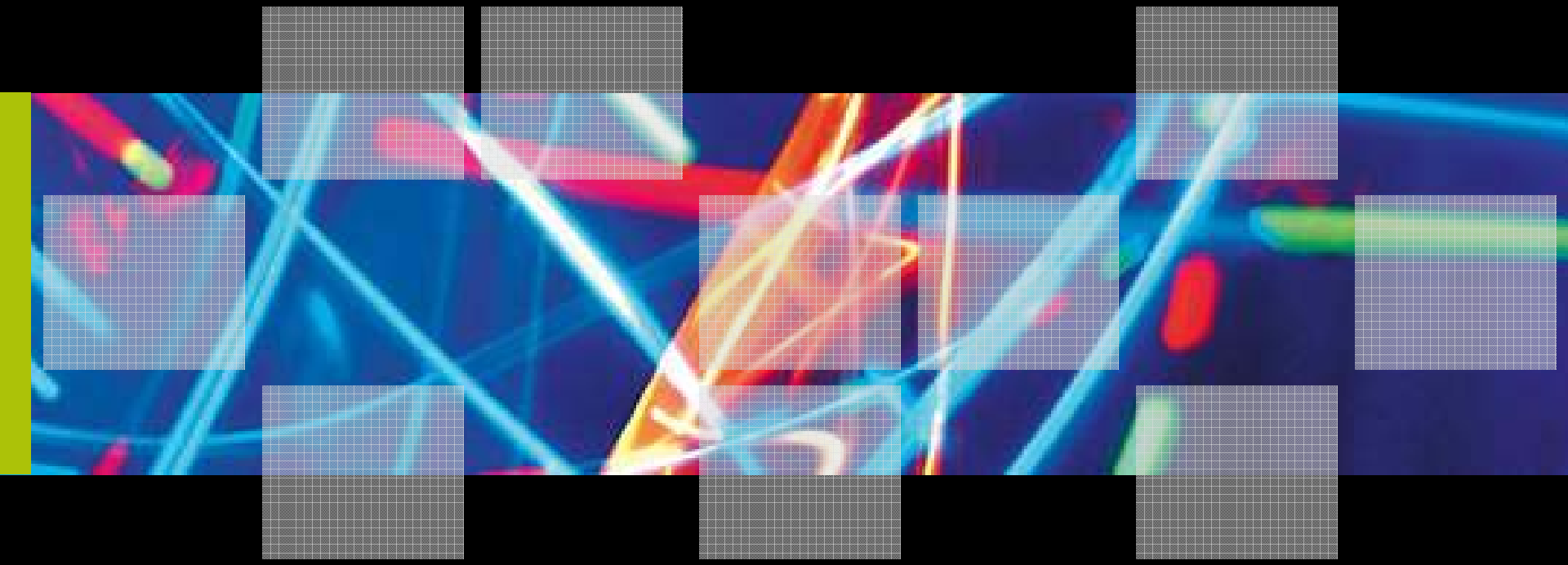
- A regional business model
  - With Global Technical Excellence
  - Global strategic resourcing
- Technical expertise / Track record
- Risk management
- Corporate Social responsibility

AMEC Natural Resources – strategic resourcing



AMEC Natural Resources - delivering tomorrow's projects

- AMEC has made significant changes to how it operates
  - offices in most major oil and gas development areas
  - in-house capability in ‘front-end’ services such as training and environmental services
- “Thinking Globally …..Acting Locally”
  - mixing economies of scale / global knowledge sharing
  - local content / sustainability
- Future business models will be dependent upon this mix
  - AMEC will concentrate on technical excellence in our engineering centres: Houston, Vancouver, Calgary, London, Aberdeen, Perth
  - recruit and train local workforce in all major strategic regions
  - the days of the US / UK expat travelling the world to solve the problems has truly gone
- World-class technology and multi national workforce is the only solution



Thank you

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