The background of the slide is a photograph of an oil pumpjack in silhouette against a dramatic sunset sky. The sun is a bright, glowing orb on the left side of the frame, partially obscured by clouds. The sky is filled with large, textured clouds that are illuminated from below, creating a warm orange and yellow glow. The pumpjack is a large, dark silhouette on the left side of the image, with its long arm extending upwards and to the right. The overall mood is industrial and serene.

Geoskill 2013

Friday 14th June 2013

EAGE CONFERENCE

The background of the slide is a photograph of an oil pumpjack in silhouette against a dramatic sunset sky. The sun is a bright, glowing orb on the left side of the frame, casting a warm orange and yellow light across the clouds. The pumpjack's long, angled arm and counterweight are clearly visible against the sky. The overall mood is industrial yet serene.

Geoskill 2013

SESSION: How to build local
capability content

Balancing the motivations
of Industry and University
within Partnerships

Pete Smith (RPS Energy)

- Context
- Example - BPI
- Example - UTT
- Balancing Motivations
- Conclusions
 - Critical Success Factors
 - Lessons Learnt
 - What could we have done differently

- Sovereign nations wish to build local capability content:
 - To build sustainable businesses
 - Create employment for nationals
 - To enhance concept of nationhood
- International Companies wish to help:
 - To build their sustainable business
 - To enhance skilled local workforce
 - To globally diversify and make profits

- Additional focus in hydrocarbon rich nations:
 - Hydrocarbon developments lead to few jobs
 - Creates economic imbalances in currency, employment and society
 - Planning is difficult – like winning the lottery!
- International Companies can help:
 - Social Responsibility
 - Usually not the company's core business
 - Requires allocated resources – money, people and time
 - Leveraging companies technical skills through educational partnerships is one way

BPI is a partnership between...

UK
Government

1999

2002

- \$40 million endowment to Cambridge over 15 years
- Managed by interdisciplinary Committee:
Earth Science, Maths, Engineering, Chemistry, Chem Eng
- Faculty Positions + Admin, computing, laboratory staff
- +\$5 million for new institute building + new laboratories
- Long-term, research into challenging problems

- Uniquely placed to provide the expertise and breadth needed for the Institute to be effective
- Cambridge University has a long history of multi-disciplinary collaboration in research
- Cambridge University is well respected across the world and provides a constant stream of people who wish to collaborate in research
- Cambridge brings diverse thinking to BP's Business

two-way dialogue

Inform BP of new and relevant research - new knowledge & innovative processes for industry

DIVERSE THINKING

Inform academics of technical challenges, operations and field data from within BP/oil industry

FUNDING AND SUPPORT

UTT is a partnership between...

Trinidad & Tobago
Government

International Universities

- Cambridge University (UK)
- Johns Hopkins Medicine (USA)
- University of Texas (USA)
- UBC (Canada)
- Southampton Solent (UK)
- DTU (Denmark)
- SAIT (Canada)
- University of the West Indies (Trinidad)

- Recognition that there is an insufficient supply of technically skilled workforce for the future
- Training system was overly complex and fragmented
- Shortage of “on-island” opportunities for Tertiary Education
 - Tertiary Education expansion from 10% to 20% of 18 year old population
 - Expansion in line with developed nation status

Comparison of Manpower Requirements and Output/Year

Level	Requirement /Year	Output /Year	Balance /Year
Professionals	620	204	- 416
Engineering Technician	1,310	120	- 1,190
Skilled Craftsmen & Machine Operators	1,030	500	- 530

UNIVERSITY OF TRINIDAD AND TOBAGO

UTT
TOBAGO ***New Sites***

W – Wallerfield

T – Tobago

OM – O'Meara

Existing Sites

PL – Point Lisas

C – Chaguaramas

M – Mayaro

SF – San Fernando

JD – John Donaldson

➤ University of Trinidad and Tobago:

- Ensures that students develop broad integrated skills that maximize the benefit of new and emerging technologies.
- Undertakes R&D activities that helps T&T develop technologies necessary for national wealth generation and future employment.

- Broadening the access to tertiary education for previously underserved groups
- Improving vertical and horizontal articulation in seamless national higher education system
- Improving effectiveness and efficiency of public tertiary education provision
- Improving the quality and relevance of public tertiary education and employability of graduates
- Contributing to attainment of 20% tertiary education participation rate
- Genuine partnership between Government, Industry and Community

- Partnerships have been important to UTT...
 - ...they have allowed swift course development
 - ...they have also allowed courses and research to be matched to local company requirements
 - ...they have allowed a rich new network of colleagues to develop joint R&D projects
 - ...they have allowed international companies to be involved in the community and seen to be beneficial stakeholders in the country
 - ...they have provided the challenge of continuous improvement by working with the very best international academics

National Government

- Insufficient supply of skilled workforce for economic growth
- Training system complex and fragmented
- Hydrocarbon revenue used for expansion of tertiary education
- Large population of 18-25 year olds and insufficient local employment
- Shortage of R&D and new business opportunities

International Oil Company

- Insufficient supply of skilled national workforce for future expansion
- Part of the companies social responsibility to the nation
- Window of opportunity where increased revenues - national stability and crime reduction - reducing cost of operations
- Increasing company diversity and potential future leadership

The 1st Petroleum Engineering Master's

- Critical Success Factors
 - You being there 100% of the time indicates your company's 100% commitment to the endeavour
 - Get your colleagues to visit - organise workshops, conferences, field trips...
 - Do whatever is needed to get the institution going forward – create your job and remember status is illusory so hand any kudos to others
 - Take your time to understand the culture

- Lessons Learnt
 - The academics don't necessarily want cash they may just want your companies interest and they want it sustained over a period of years
 - Operate at what ever level is required to move the project forward
 - Don't forget to remain attached to the Mother Ship

- What could we have done differently
 - More visits of academics into the companies technical groups – more networking increases the chance of establishing valuable collaborations
 - More longer term planning to stabilise the headless chicken syndrome – don't allow everything to be contingency
 - More outreach into schools and local industry
 - Learn as much as possible about the sensitivities of the local environment and keep learning

....and maybe the
greatest challenge?

.....how we our perceived!