

Subsea 2012

Delivering World Class Projects and the challenges ahead

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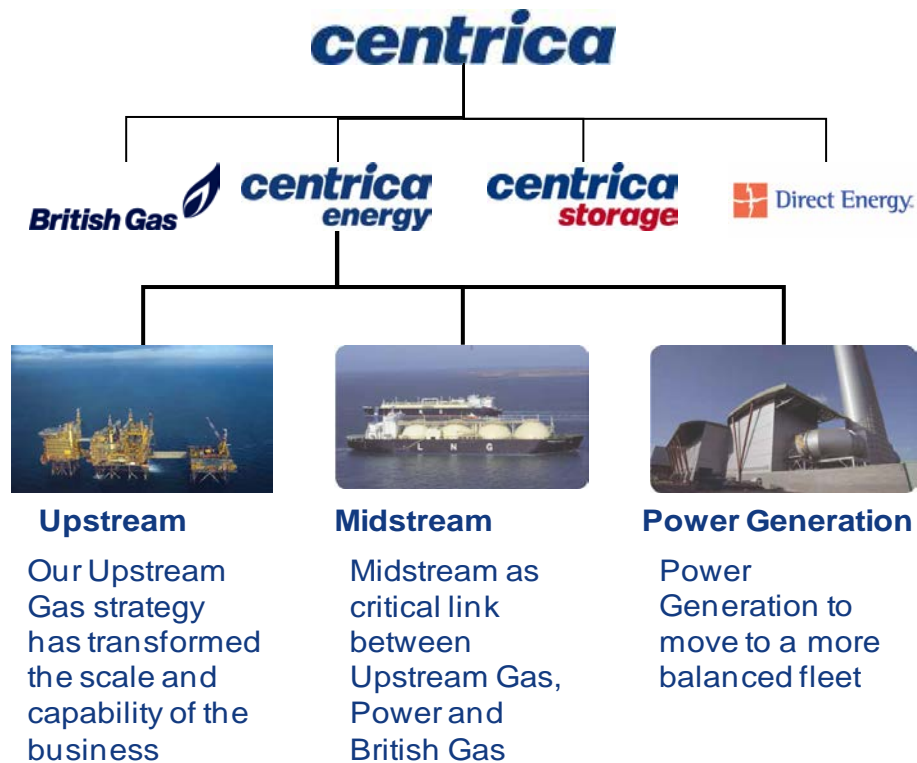
**centrica
energy**

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Agenda

1. **Centrica – what do we do?**
2. **The challenges ahead of us**
3. **Creating world class project delivery**
4. **Conclusions**

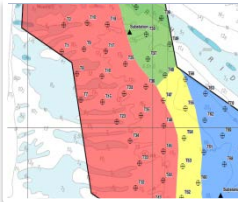
Centrica Energy has established itself as a growing energy company in its own right



Centrica Energy's purpose

- To provide all of the gas, power green credentials and shape to British Gas
- To provide an earnings hedge to the group
- To grow and deliver attractive returns to shareholders in its own right
 - operating profit doubled in the last 2 years from £525m in 2009 to approx. £1bn in 2011
 - Cash-flow for the next 4 years to 2015 of £5.2 billion covers planned capital expenditure

Offshore wind value chain



Effective project
development and
partnerships



Successful project
delivery



Efficient asset
operation

Offshore wind

- Deliver Lincs first power second half of 2012 (135MW¹)
- Complete the construction of Race Bank (290MW¹), FID 2012, first power 2015/16
- FID on Dooking Shoal or the most attractive Round 3 development project
- Continue pre-FID development for other options in our offshore wind pipeline

Further growth options

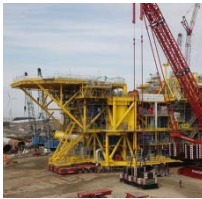
- New nuclear – FID for up to 4 reactors, subject to target returns, permissions and confidence in delivery capability
- Biomass – over 200MW of development options
- CCGT – options to construct up to 2 new plants

1. Lynn and Inner Dowsing

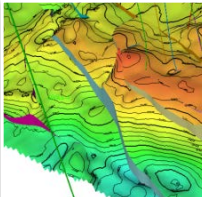
Deploying distinctive capabilities in Upstream



World-class stewardship
of production hubs



Delivering challenging
mid-size capital projects



Targeted exploration in
known basins and
subsurface models



Strategic
acquisitions and
partnerships

- Grow upstream production
 - Delivering additional value from upstream, building on our distinctive capabilities
 - Maintaining an appropriate level of our energy hedge
- Targeted blend of organic growth and acquisition
 - Production, exploration and development opportunities to ensure a balanced, sustainable reserve base
 - Focus on the Atlantic Basin

Future portfolio

Wind Farms

Race bank
Docking Shoal
No in pre FID

Storage

Rough development
Baird

Trinidad

Block 22
Block 1ab

UK

Cygnus
Kew
Rhyl
Bligh
Cedar
GKA developments
Pegasus
Olympus
Morecombe Terraces
Whitehaven
Ventnor

Norway

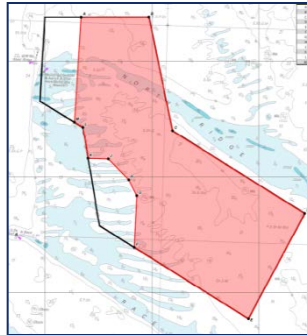
Butch
Cooper
Maria
Atla
New developments with Statoil

Holland

Kew
Groove development
Chiswick Beta

Future M&A activity

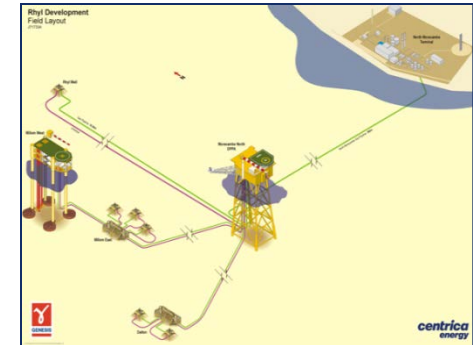
Racebank Wind Farm



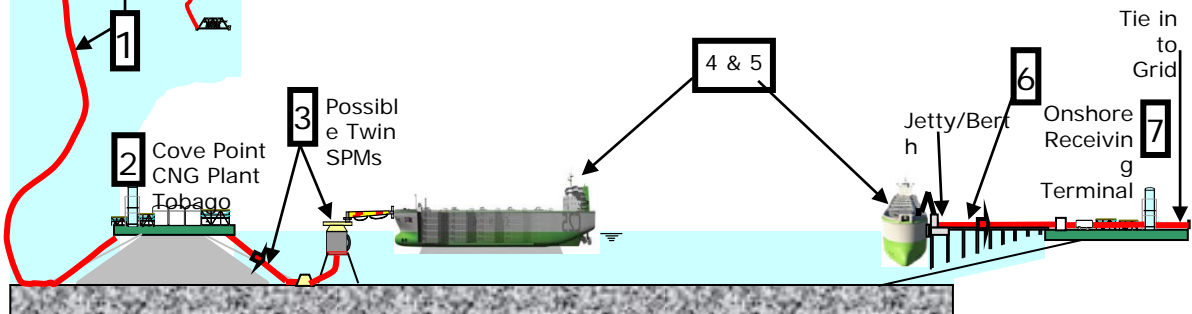
Cygnus



Rhyl



Block 22 Tobago
Option 1



- The portfolio will continue to grow in the future
- The portfolio is diverse across power, storage and upstream
- It has some interesting technical and economic challenges to overcome
- We could spend as much as £26 billion up to 2020

Global outlook and the challenges ahead (1)

- Energy sector capex spend 2012 – 2035 **International Energy agency*
 - Estimated \$38 trillion to meet security of supply
 - Oil and Gas \$20 trillion
 - Power \$18 trillion
- Oil and gas capex sector spend 2001 – 2012 **Schlumberger Business Consulting*
 - 2001 estimated spend \$125 billion (50 - \$1b+ projects per year)
 - 2012 estimated spend \$500 billion to \$600 billion (200 - £1b+ projects per year)
 - Fourfold increase in expenditure in last 10 years
 - Forward expenditure \$600 billion plus per year
- Oil and gas capex increases from 2011 – 2012
 - Independent Oil and Gas companies + 21% (15% of market spend)
 - National Oil and Gas companies + 15% (50% of market spend)
 - Integrated Oil and Gas companies + 8% (35% of market spend)
- Some estimates on capex are much higher depending on report

Global outlook and the challenges ahead (2)

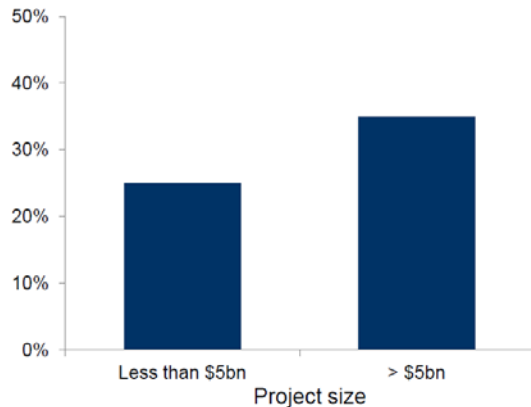
- Project performance (% of large projects over running over 50%)
 - 1997 10%
 - 2005 15%
 - 2011 28%
 - 2015 Predicted to be even worse
 - Today only 30% of projects fully meet customers' expectations
- Key Issues to consider
 - Global business environment is getting more challenging
 - Projects are becoming more complex
 - People are becoming the bottleneck rather than access to capital
 - Supply chain is stretched in many areas
 - Major change in businesses increases risk of failures

Report on causes of capital project issues

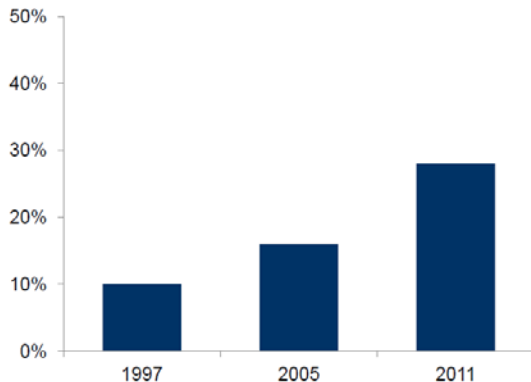
Concerns

E&P Capex projects have significant overruns – trend has worsened over the past 15 years

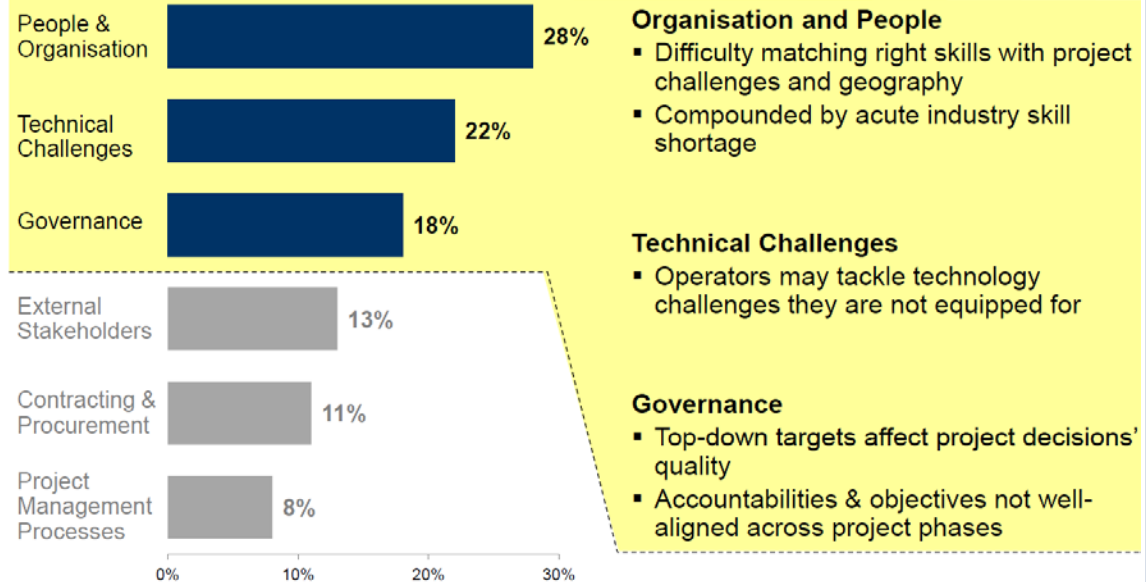
Share of projects with >50% budget overruns



Trends of projects with >50% budget overruns



Key causes of capital project issues:
(relative issue weight (%) given)



Organisation and People

- Difficulty matching right skills with project challenges and geography
- Compounded by acute industry skill shortage

Technical Challenges

- Operators may tackle technology challenges they are not equipped for

Governance

- Top-down targets affect project decisions' quality
- Accountabilities & objectives not well-aligned across project phases

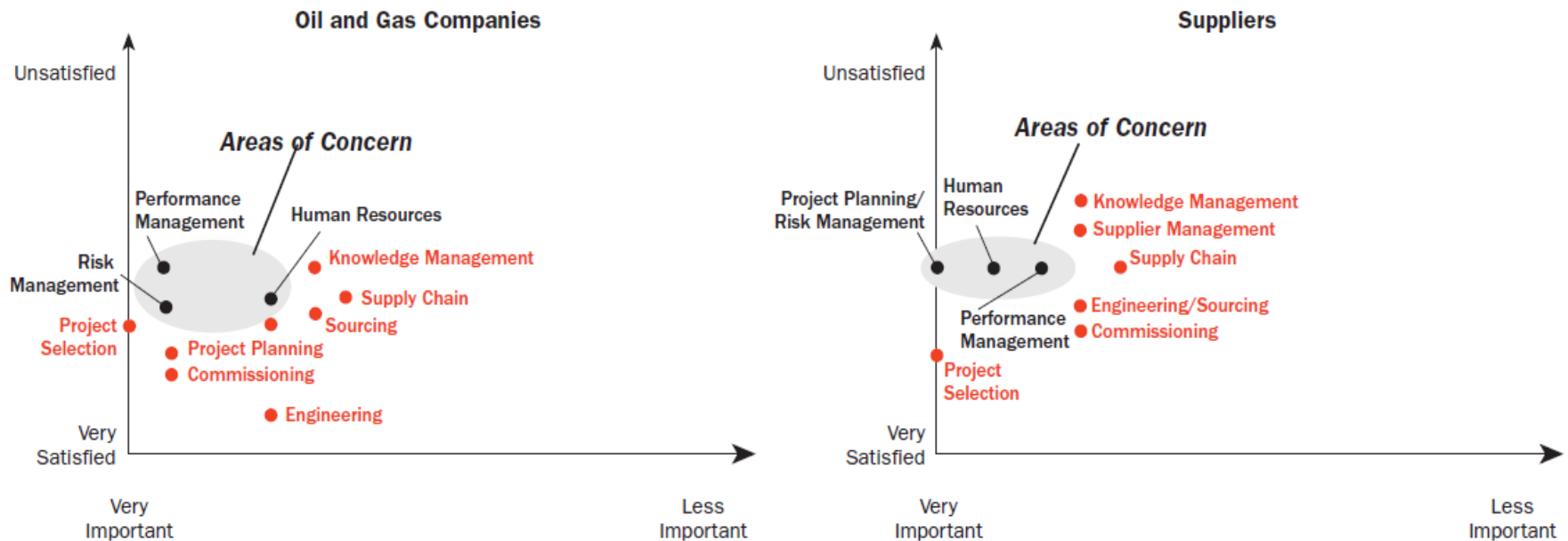
Key concern areas:

- Resources
- Technical Challenges
- Governance

Booz | Allen | Hamilton report on capital projects

Concerns

Oil and Gas Companies' Views of Project Performance Versus Suppliers' Views of Project Performance



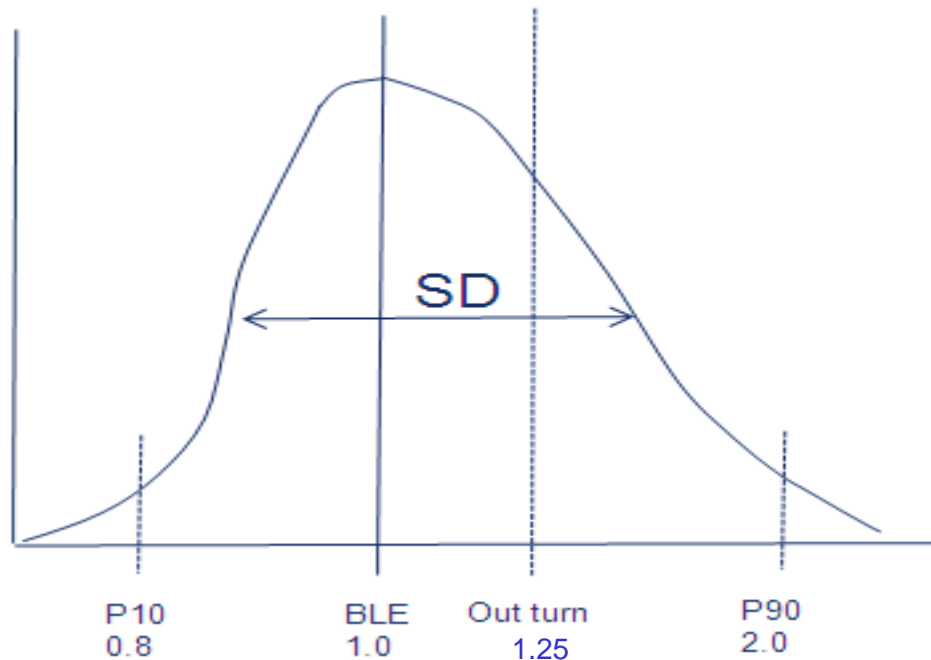
Source: Booz Allen Hamilton

Key concern areas:

- Risk Management
- Performance Management
- Resources
- Knowledge Management

Booz, Allen and Hamilton Report

What does world class capital project delivery mean to Centrica?



- Reduce base line estimate
- Reduce standard deviation
- Meet customer expectations
- Achieve operational excellence
- Externally benchmarked
- Minimise regret costs
- Maintain our reputation

What does world class capital project delivery mean for Centrica Energy?

To achieve world class project performance, excellence must be achieved in each of the six elements



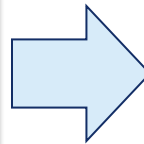
What does world class capital project performance mean for Centrica Energy?

6 key priorities 2011 - 2013

“Excellence in each of these areas will enable Centrica Energy to deliver world class performance”

Outcomes

- A shared and **systematic way** of developing and delivering projects.
- Relentless focus at the **development phase** (pre-FID)
- A fully **capable team** engaged at the right time
- Effective **contractor, supplier and stakeholder management**
- Robust **planning** and **risk management**
- Benchmarking, reporting and **assurance**



- Cost & time
- Quality & value
- Expectations met
- Reputation
- Health, safety and environment

Conclusions

1. The business environment to get projects delivered within customers' expectations is going to become more **challenging**
2. With 30% of large projects overrunning by over 50% and over 70% of all projects failing to meet customers' expectations we do need to take another look at how we deliver capital projects in the wider sense, considering how we **manage the business** as well as the project
3. The biggest issue is access to the right level of **resources** with the right competency, capability and capacity to deliver effectively
4. We need to look at potential future trends and ensure that we have the best strategy for the **supply chain** from a contractor management and relationship management perspective
5. Where it really counts is how we work together harnessing the power of teams to deliver both pioneering spirit and high performance in the **development phase**