Douglas-Westwood: Our Business

- Established 1990
- Aberdeen, Canterbury, London, New York, Singapore & Houston

Activity & Service Lines
- Business strategy & consulting
- Commercial due-diligence
- Market research & analysis
- Published market studies

Large, Diversified Client Base
- 1000 projects, 72 countries
- Leading global corporates
- Energy majors and their suppliers
- Investment banks & PE firms
- Government agencies
Global Energy Demand Is Expected To Grow....

- Energy intensity reaching/reached limits in many OECD countries
- Developing economies will continue to drive global energy demand

Source: BP 2013
Global Energy Demand

- Europe & N American consumption is almost flat-lining
- Many others growing strongly but from a small base

**Growth since 2000**

<table>
<thead>
<tr>
<th>Region</th>
<th>Growth Rate</th>
</tr>
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<tbody>
<tr>
<td>Asia Pacific</td>
<td>92%</td>
</tr>
<tr>
<td>Africa</td>
<td>47%</td>
</tr>
<tr>
<td>Middle East</td>
<td>81%</td>
</tr>
<tr>
<td>Europe</td>
<td>4%</td>
</tr>
<tr>
<td>S&amp;C America</td>
<td>42%</td>
</tr>
<tr>
<td>N America</td>
<td>-1%</td>
</tr>
</tbody>
</table>

Source: BP 2013
Energy Use By Type Is Changing

- 60% of oil is used in transportation (OECD countries) but in some it is >70%
Macro Views

ROV Market Drivers

ROV Market Outlook

Conclusions
Three Major Themes Driving Increased ROV Demand

- Growing offshore production
- Growing deepwater production
- Growing offshore gas production

- Global Oil & Gas Supply 1970-2020
- Offshore Supply by Depth 1970-2020
- Offshore Supply by Type 1970-2020
Drilling To Increase In Deepwater

- Deepwater Drilling (Indexed to 2007)
- Shallow Water Drilling (Indexed to 2007)

Subsea Hardware Market Growing

- $135bn Capex forecast 2012-16
- ‘Golden Triangle’ to form 65%
- Subsea gas export lines to dominate other regions’ spend
- $35bn spend on production hardware and $39bn on SURF

Source: World Subsea Hardware Market 2012-2016 (Douglas-Westwood)
Deepwater Capex to rise by 90%

- Five-year Capex to total $223bn
- ‘Golden Triangle’ $174bn of spend
- Asia (20%) is a high-growth opportunity from a small base
- $78bn on drilling & completion of subsea wells

Major Cost And Margin Challenges For IOCs

**Structural costs:**
- geology (HPHT deep & complex)
- remote locations
- extreme conditions (deepwater, arctic)
- marginal fields

**Durable costs:**
- forex rates (e.g. Aus)

**Transient costs:**
- manufacturing bottlenecks
- certain labour shortages
- elevated drillship dayrates

*Combined data for BG, BP, COP, CVX, ENI, OXY, PBR, RDS, STO, TOT, XOM
Source: Bloomberg via Phibro Trading LLC*
E&P Costs – Brazil Is Struggling

“2013 will be worse” (Petrobras CEO February 2013)

- 2% production decline in 2012 to 2 mbpd. And 0% to -2% in 2013?
- Implicit 11% natural decline rate
- 17% QoQ underlying lifting cost increase (11% excluding wage increases)
- Why? High exploration expenses and impact of local content policies
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Global ROV Expenditure

- Significant growth in global ROV operations expenditure is forecast for all regions with the exception of the Middle East, and Eastern Europe & FSU.
- Global expenditure is expected to rise from $1,347m in 2013 to $1,878m in 2017.
- Africa remains the largest regional market throughout the forecast period, with total ROV expenditure set to increase from $324m in 2013 to $547m in 2017.
- The number of ROV days is expected to increase from 122,958 days in 2013 to 139,476 days in 2017.
• This is driven primarily by E&A and development well drilling support requirements
• E&A drilling support contributes the largest proportion of future work for ROVs, making up almost 41% of demand days over 2013-2017.
• Trunkline installation days remain steady during the forecast period, as large projects in Asia, the Americas and Europe can take years to complete.
Macro Views

ROV Market Drivers

ROV Market Outlook

Conclusions
• Macro fundamentals are strong and support continued investment in the energy sector
• Increased investment in offshore and deepwater oil and gas production will support continued ROV demand
• Increasing costs are not sustainable and further delays and potential cancellation of projects are expected
Thank You