The Norwegian oilfield services analysis 2013
Contents

Introduction ......................................................... 3
Executive summary ............................................... 5
From 2011 to 2012 .................................................. 7
Activity on the Norwegian continental shelf ............... 8
Key export regions .................................................. 9
A large industry with great significance ...................... 11
Activity in the last five years ................................. 12
High activity across all segments ......................... 15
  • Reservoir/seismic ........................................... 16
  • Exploration and production drilling .................... 18
  • Engineering, fabrication and installation ............. 20
  • Operations ................................................... 22
  • Decommissioning ........................................... 24
Geographical distribution ....................................... 25
Projection for 2013 ............................................... 27
Methodology ......................................................... 29
Appendix: EBITDA per sub-segment and company size .... 30
About EY .............................................................. 31
Thought leadership ............................................ 33
Contacts .............................................................. 34
EY has been conducting the oilfield services (OFS) analysis every year since 2006. The report has been gradually extended to incorporate a greater number of geographic regions, analyses and performance metrics. The 2009 edition was the first analysis to cover the entire country, and in 2011, the first analysis on the UK OFS industry was issued. In the 2012 edition, we compared the development of the UK and the Norwegian OFS industries, as well as including the return on capital employed (ROCE) focus.

In this edition, we have combined the best from previous years’ reports with some new additions in the form of extension to existing analysis, as well as new analyses of the industry. The core data set cover the period 2008 to 2012, with an added analysis covering 2013, based on modelling the entire dataset by means of available financial information from the listed companies included in our database.

Methodology
A company is defined as a Norwegian OFS company if:
• At least 50% of its turnover is generated in the oil and gas sector
• It is a Norwegian-registered legal entity
• The company’s annual revenues exceeded NOK 20m at least once during the years 2008 to 2012

Value chain segments
• Reservoir/seismic
• Exploration and production (E&P) drilling
• Engineering, fabrication and installation
• Operations
• Decommissioning

Company size definition
• Large: above NOK1b in revenues
• Medium size: between NOK100m and NOK1b in revenues
• Small companies: below NOK100m in revenues

The stand-alone financial statements of each legal entity have been used to capture the financial and non-financial information included in our analysis of the sector. Large corporations, such as Aker Solutions ASA, have therefore not been analyzed as a group, but as the sum of their stand-alone legal entities. We have taken this approach in order to show a more detailed demographic view with regard to location and activities across the value chain. Intercompany transactions are therefore not eliminated when aggregating financial figures.

Each company has been linked to one geographic region only, based on the company’s business address.

Companies have also been linked to a single segment of the OFS value chain, based on each company’s main activity in the sector. Companies will most likely have activities in several geographic regions as well as across the value chain; however, this is not accounted for in the analysis.
The OFS industry in Norway has experienced a significant growth in both revenues and number of employees over the last five years. Our annual survey shows industry growth of 20% from 2008 to 2012, with accumulated OFS revenues of NOK385b in 2012. This growth has been supported by a growing oil price in combination with several new discoveries on the NCS, which again is a result of governmental stimulation programs introduced to increase NCS E&P activities. In the same period, the number of people employed in the industry increased by 21%, with 107,000 people employed across 814 companies in 2012. The OFS industry is of great significance to the Norwegian economy, and strong growth in the industry has helped to shield and cushion Norway from the severe economic downturn experienced in the rest of Europe in recent years.

Year 2012 marked an end of the negative trend in margins over the previous four years. Average EBIT margin increased for the first time in five years, and was up from an average of 5.5% in 2011 to an average of 8.2% in 2012. This has been a result of the development of the oil price and investments on the NCS over the past few years, leading back to the financial crisis in 2009 and 2010. At that time, a period of strong activity growth on the NCS was followed by a decline in oil prices and as a result postponement of projects, reduced investments and increased cost pressure in the oil field service industry. In 2011, the improvement in the oil price from an average of US$62 in 2009 to US$111 in 2011 led to a rapid recovery in activity, and investment levels on the NCS increased by 60% in the period 2010 to 2013. This strong growth led to capacity constraints and wage inflation, with EBIT-margins declining from 7.7% in 2009 to 5.5% in 2011. As a result, management in several companies took the lead to improve profitability and restructure its assets, leading to a stabilization of return on capital employed (ROCE) in 2011 and a more modest wage inflation in 2012. On the demand side, the combination of a strong oil price leading to improvements of operators’ cash flows as well as completion of low-margin contracts entered during the financial crisis, led to a relaxation of the price pressure experienced in previous years. Industry revenues increased by 9% compared to 2011, due to the continued high investment growth at 17% in 2012, thus supporting margin improvement on both the supply and the demand side in the industry.

We expect the challenging cost environment in the OFS is to continue. Investments will remain high, but the oil price forward curve is pointing downward in the next five years. This effect will not be offset by the production increase on the NCS. This puts pressure on the operators’ cash flows. With this development, activity in the oilfield services industry will remain high, but price pressure will most probably continue. The industry will be forced to work together with operators to reduce costs, and we could expect increased collaboration between the OFS industry and operators going forward. Cost competition from Asia on engineering and fabrication services will most probably persist, putting additional focus on cost efficiency. Exposed companies will need to address their operating models and look for cost improvements, including outsourcing operations to more cost-efficient countries, or search for competitive advantages within quality, competence, capacity or availability. Companies with technologies which can open up new acreage, discover new resources, increase recovery rates or reduce costs will have a significant advantage, in particular those who can reduce the offshore infrastructure scope and number of personnel required on site.

There are indications that the strong industry revenue growth continued in 2013. Based on the development of listed companies per Q3 2013, we estimate a revenue growth for the Norwegian OFS industry in 2013 of 8-9% compared to the revenue growth of 9% in 2012. The growth is supported by the continued high investment growth on the NCS in 2013. Exports are becoming increasingly important and drove a large share of the growth in several of the listed corporations.

The outlook for the oilfield services industry is positive. Activity in the domestic market is expected to remain high and increasing, with several new fields coming into production in the coming years. Exports are increasing and Norwegian oilfield services companies are well positioned to further capitalize on growing offshore markets in both mature and developing regions. Substantial opportunities exist for the industry in the years to come.
Revenues increased 9% from 2011 to 2012

Revenues up from 2011
Industry revenues increased by 9% compared to 2011, and reached a total of NOK385b. This is the highest revenue recorded in our analysis to date, and the growth rate of 9% was higher than the growth rate of 8% from 2010 to 2011.

7,000 new direct employees in 2012
The number of people directly employed in the OFS sector increased by 7% in 2012, compared with 6% growth in 2011. In 2012, the industry employed 107,000.

Rising operating costs
Operating expenses increased by 9% from 2011 to 2012. The main contributors to the increase are cost of goods and labor costs, which increased by 16% and 11%, respectively. Other operating costs have been relatively stable since 2011, decreasing by 1%.

Increasing profitability
Average EBITDA margins increased by 2 percentage points compared to 2011. An average EBITDA margin of 12% is the highest level recorded since 2009.
Petroleum activity on the NCS is at a record high. High oil prices and recent discoveries have triggered large investments in the oil and gas sector, with several new fields planned to start production in the coming years. This includes projects such as the giant Johan Sverdrup, Aasta Hansten, Edvard Grieg, Norvarg and Goliat. Operators are also executing lifetime extension programs for several aging installations, such as Ekofisk, Statfjord and Troll.

Investments on the NCS grew toward 2009, but declined in 2010 due to the post-financial crisis dip which occurred as the oil price declined from the peak of US$147 in July 2008 to the bottom level of US$37 in early February 2009. Investments quickly picked up as the oil price recovered, with a 60% growth in investment levels between 2010 and 2013, leading to strong growth in the oilfield services sector. The Norwegian Petroleum Directorate (NPD) expects investments to stabilize toward 2018, with moderate growth of 2% toward 2015 before declining by 1% toward 2018.

Uncertainty about the oil price development, and increased focus among operators on present free cash flow are among the primary explanations behind the lower growth in the forecasted investment levels, as it has forced operators to revise their investment plans, leading to postponement of projects. Operators’ cash flows are currently high on the agenda due to a combination of dividend pressure from shareholders, cost escalation, more challenging oilfields and the oil price forward curve pointing downward.

The activity levels in Norway are less affected by this development compared to regions with a higher share of E&P activities where the break-even price is higher, such as oil sands, shale oil and extra heavy oil. An analysis performed in 2012 showed that 97% of investments on the NCS are based on a break-even oil price below USD$80. The activity levels are also supported and motivated by a forecasted increase in NCS liquid production after more than a decade of decline, as a consequence of major new fields coming onstream, together with the effect of EOR/IOR investments toward mature fields.

The outlook for the OFS industry on the NCS remains strong. Only 40% of the NCS acreage is opened up for petroleum activity. According to NPD, only 44% of recoverable resources have been produced. As such, petroleum activity on the NCS is expected to last for at least another 30-40 years. Recent discoveries, high exploration activity, a high oil price, and a stable political and fiscal regime underpin investment and spending into the next decade. On the basis of the current activity and operator statements, further discoveries will follow.
Exports from the Norwegian OFS industry have grown over time and the 2012 export ratio is estimated to be 39% of 2012 OFS revenue, or NOK150b. The exports are directed toward global offshore markets, in particular the UK, Gulf of Mexico, Africa and Brazil. Offshore technology and assets, especially rigs, rig equipment, offshore vessels, subsea equipment and SURF, are the main export articles. On the basis of the predictions of development in these offshore regions, there are reasons to expect continued stable export activity going forward. However, there are risks associated with the development pace in the emerging regions.

Globally, the oil and gas sector has experienced a period of major capital investment, with double-digit growth in upstream expenditure. The uptick in investment has primarily been driven by the high level of activity in the US unconventional sector, the sanction of greenfield LNG projects in Australia and the rapid pace of development in Brazil and Norway that resulted in some capacity constraints.

The deepwater market is expected to see some of the strongest growth in the next five years, with increased activity levels expected in the US Gulf of Mexico, Brazil, Angola and Nigeria. Brazil is projected to become one of the world’s 10 largest oil producers by 2035, riding on the development of its pre-salt reserves. The main challenge the country faces in achieving this milestone is the phasing and pace of development.

In Nigeria, the main deterrents to investment are regulatory uncertainty and security concerns. The passage of the proposed Petroleum Industry Bill has encountered lengthy delays. The security situation in Nigeria continues to be volatile, but it is not an issue that is confined to the West African nation. Political instability in North Africa may similarly prompt companies to reevaluate future investments in the region. Investor attention is beginning to shift to relatively under-explored deepwater prospects in South and East Africa.

Australia is one deepwater region that is likely to see lower levels of activity compared to recent years. The investment in the next wave of Australian LNG liquefaction capacity is approaching a peak, with some large projects moving toward completion. Future investment in Australia is expected to be more incremental and focused on smaller developments or capacity enhancements to existing projects. Australia has sizable shale resources that could be developed if the regulatory regime is supportive.

In Russia, the proposed legislation to allow companies other than Gazprom to export LNG should spur investment. Development in Russia’s Arctic region is likely to be slow, but activity will increase as work programs agreed with international partners commence. Elsewhere, the Arctic exploration may face delays as the operators’ environmental protection and spill preparedness plans are more closely scrutinized by regulators.

Capital investments in oil and gas resources in the UK are predicted to reach £13.5b (NOK136b) in 2013, according to Oil & Gas UK. While this increase is partly due to higher costs, the region will mainly benefit from more investment in new developments and increased spend on asset integrity and extending field life. The renaissance is partly the result of the introduction of fiscal incentives to stimulate development. Investors have also been attracted by the relatively stable operating environment in the UK.
A large industry with great significance to the Norwegian economy

The Norwegian OFS industry includes 814 companies. In 2012, it directly employed 107,000 people and had a combined turnover of NOK385b, a result of strong growth over the last five years, with revenues increasing by 20% and the number of employees by 21% since 2008.

The OFS industry is of great significance to the Norwegian economy. It directly employs 4% of all the employees in Norway, accounting for 7% of value creation in mainland Norway and for 39% of all the exports from the mainland.

The number of companies in the OFS industry is increasing, and 133 companies have been added to the analysis in this edition, up 20% compared to the previous 2012 edition. We believe this growth to be a consequence of both mature small and medium-size suppliers turning toward oil and gas, as well as an ongoing high entrepreneurial and technology development culture within the Norwegian OFS sector setting up new OFS entities.

There is a considerable diversity in companies with respect to revenues and number of employees. Large companies in the industry generally provide a wide range of services across the value chain, and many of these are global players. Small companies tend to be more specialized and focus on a narrower part of the value chain or specific technologies.

Companies grouped by turnover — 2012

<table>
<thead>
<tr>
<th>NOKm</th>
<th>No. of companies</th>
<th>Sum of revenues</th>
<th>No. of employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;100</td>
<td>347</td>
<td>16,980,978</td>
<td>10,660</td>
</tr>
<tr>
<td>100-1,000</td>
<td>395</td>
<td>126,887,697</td>
<td>39,262</td>
</tr>
<tr>
<td>&gt;1,000</td>
<td>72</td>
<td>240,814,087</td>
<td>57,079</td>
</tr>
<tr>
<td>Total</td>
<td>814</td>
<td>384,682,762</td>
<td>107,001</td>
</tr>
</tbody>
</table>

Revenues by company size

Top 10 companies (2012 revenues)
- National Oilwell Varco Norway AS
- FMC Kongsberg Subsea AS
- Aibel AS
- Rolls-Royce Marine AS
- Yard Group AS
- Aker Subsea AS
- Aker Solutions MMO AS
- Schlumberger Norge AS
- Subsea 7 Norway NUF
- PGS Geophysical AS
Activity in the OFS industry has increased by 20% over the last five years

Activity in the OFS industry has increased continuously since the financial crisis in 2009. High exploration activity on the NCS, new fields coming into production, significant activity on existing installations and increasing exports are the main drivers behind the growth. Year 2012 was a turning point after years of declining margins and increasing profitability pressure in the industry. The margin shift in 2012 was likely a consequence of OFS management structuring investments and capacity in line with demand.

Both revenues and the number of employees increased by approximately 20% over the years from 2008 to 2012, whereas labor costs and other operating costs increased by close to 40% over the same period. In addition to the increased employment, this was caused by an increase in labor cost per employee of 16% from 2008 to 2012. The average salaries in the Norwegian industry also increased by 16% over the years from 2008 to 2012. The growth in labor costs per employee has fluctuated throughout the period, and was 3% in 2012 compared with 6% in 2011. Yet another factor to the labor cost increase is the rise in employees among segments with in-demand experience and skill sets, thus further adding pressure on personnel cost.

The development of more marginal and challenging oil fields has led to increased cost focus among global oil and gas firms. The financial crisis exacerbated this effect on the OFS industry, with demand falling below capacity as investments on the NCS declined and projects were being postponed. The subsequent competition and price pressures have had a particularly prominent impact on small companies, where margins declined most significantly. As the financial crisis lowered companies’ expectations of the future, they may have been tempted to submit lower-margin bids for contracts. As the activity in the oil and gas industry quickly recovered after 2010, several OFS firms have been left with long-term supply contracts with low margins while facing increased costs.

The recovery started with the increased oil price in 2009-11, leading to a strong increase in operators’ cash flow and thus relaxation of the price pressure on activity planned for 2012. Investment levels on the NCS increased by 37% from 2010 to 2012, leading to a revenue increase in the OFS industry of 14% in this period. The consequence of the sudden activity increase was wage inflation and cost escalation. Management took the lead to restructure assets and improve profitability, of which the cost focus leading to a more modest wage inflation in 2012 and an improvement in ROCE. EBIT-margins improved from 5.5% in 2011 to 8.2% in 2012.
Increased profitability pushed 2012 average ROCE up 3% year-on-year

Capital employed represents the aggregated capital invested in the industry; it increased by NOK36b from 2011 to 2012 – the highest year-on-year increase observed in the five-year period. High investments during 2007-08 were followed by some signs of overcapacity in the industry after the financial crisis in 2009 and 2010, thus an observed downward adjustment of the capital employed in 2011. The subsequent increase in 2012 was particularly significant within certain segments, such as rig companies, seismic equipment, well services, surface and subsea. All of these segments experienced revenue growth and higher EBITDA margins in 2012.

The funding in the period has been challenged by the combination of economic difficulties in the Eurozone and stricter regulation around bank-lending policies. Debt has become increasingly difficult to raise, and share of long-term debt financing has decreased. Companies have mainly relied on increasing their short-term debt, but several smaller companies have also increased their equity ratios. Use of trade payables as a means of financing among the large and medium companies elevated in the aftermath of the financial crisis, but returned to normal levels in 2012. Short-term debt nonetheless continued to increase in 2012, and could pose a challenge to the industry.

Return on capital employed has shown a consistent year-on-year decline since 2008. This is primarily due to declining profitability in the industry, the balance sheet focus in 2011, and the subsequent increase in EBIT in 2012. The increase in ROCE in 2012 was mainly due to the increase in operating margins, as revenues compared with the capital employed were stable from 2011 to 2012 after increasing from 2010 to 2011.

Year 2012 could be a turning point for the industry, with EBIT margins increasing for the first time since 2007. However, we expect the cost environment to remain challenging going forward.
The Norwegian OFS sector is well positioned with companies able to serve the entire life span of an oilfield, from seismic mapping and exploration drilling to decommissioning and plugging and abandonment. Moreover, an ever-increasing export ratio (in 2012, estimated at 39% of turnover) implies the importance and dependency the industry has on activities and investments outside the NCS.

Activity is focused on engineering, fabrication and installation (EFI), which is the largest segment measured in terms of revenue, employment and number of companies. The segment with the highest revenue growth is E&P drilling due to high exploration activity on the NCS, and an increasing focus on infill drilling for production optimization. The distribution reflects the development of the shelf, where significant opportunities exist both with regard to exploration and the development of new fields. As the sector further matures, activities on the NCS will move further toward operations and decommissioning.

Over time, several segment-focused OFS clusters have developed in Norway. It has become a key competitive advantage for the companies involved. Important clusters are the “NODE” rig equipment cluster in Agder, the subsea equipment cluster in Buskerud, Telemark and Vestfold (BTV), referred to as the “Subsea Valley,” and the “NCE Maritime” offshore yard cluster in Møre. The cluster effect is also observed and growing for rig and subsea aftermarket services located in Hordaland. All these clusters account for a substantial share of revenues within their respective segments. Please refer to page 25 for an overview of the geographic distribution of the OFS industry in Norway.

The oil field service value chain—key figures 2012

<table>
<thead>
<tr>
<th></th>
<th>Reservoir/Seismic</th>
<th>Exploration and production, drilling</th>
<th>Engineering, fabrication and installation</th>
<th>Operations</th>
<th>Decommissioning</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companies (No.)</td>
<td>44</td>
<td>152</td>
<td>380</td>
<td>233</td>
<td>5</td>
<td>814</td>
</tr>
<tr>
<td>Employees (No.)</td>
<td>2,512</td>
<td>24,668</td>
<td>48,860</td>
<td>30,684</td>
<td>277</td>
<td>107,001</td>
</tr>
<tr>
<td>Revenue (NOKb)</td>
<td>28,814</td>
<td>111,807</td>
<td>171,831</td>
<td>71,462</td>
<td>0.768</td>
<td>384,683</td>
</tr>
<tr>
<td>Avg. EBITDA %</td>
<td>22%</td>
<td>14%</td>
<td>9%</td>
<td>12%</td>
<td>17%</td>
<td>12%</td>
</tr>
<tr>
<td>Avg. EBIT %</td>
<td>13%</td>
<td>10%</td>
<td>7%</td>
<td>8%</td>
<td>10%</td>
<td>8%</td>
</tr>
<tr>
<td>Avg. ROCE %</td>
<td>14%</td>
<td>17%</td>
<td>15%</td>
<td>14%</td>
<td>14%</td>
<td>15%</td>
</tr>
<tr>
<td>Revenue growth 2008–12</td>
<td>23%</td>
<td>34%</td>
<td>9%</td>
<td>27%</td>
<td>159%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Distribution of the oil field service value chain
Highest growth in revenues and profits in five years within reservoir/seismic

The reservoir/seismic segment of the value chain comprises Norwegian legal entities whose services include operation of seismic vessels, as well as companies that deliver equipment to such vessels and analyze and interpret seismic surveys and data.

We have divided the segment into two subsegments:
1. Seismic interpretation and consultants
2. Seismic equipment

Top five companies (2012 revenues)
- PGS Geophysical AS
- TGS Nopec Geophysical Company ASA
- Fugro-Geoteam AS
- Westerngeco AS
- Exploration Vessel Resources AS

- Revenues increased by approximately 20% during 2011-12. Revenues in the previous years were relatively stable, despite an increase in seismic activities. This mainly related to technology improvement in seismic acquisition equipment and methodologies, as well as efficiency improvements in seismic data handling and visualization software.
- After a considerable growth over the past years, the demand for seismic interpretation and consulting services appears to have stabilized in 2012. Revenues in this segment increased by 40% during 2008-11 due to high exploration activity on the NCS, pushing demand for geologists and payroll costs per employee upward. The number of direct employees declined by 15% in the same period, likely due to the increasing number of smaller E&P players focusing on the NCS and competing for these specific skill sets.
- The EBITDA margins for reservoir/seismic remain the highest in the Norwegian OFS industry. Seismic equipment and seismic interpretation and consultants are the subsegments that generate the highest and the second-highest EBITDA margins, respectively.

<table>
<thead>
<tr>
<th>NOKm</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees (No.)</td>
<td>2,809</td>
<td>2,930</td>
<td>3,010</td>
<td>2,527</td>
<td>2,512</td>
</tr>
<tr>
<td>P&amp;L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue</td>
<td>23,373</td>
<td>20,596</td>
<td>23,391</td>
<td>24,047</td>
<td>28,814</td>
</tr>
<tr>
<td>Cost of goods</td>
<td>6,261</td>
<td>5,913</td>
<td>6,817</td>
<td>6,966</td>
<td>6,951</td>
</tr>
<tr>
<td>Labor cost</td>
<td>3,474</td>
<td>3,405</td>
<td>3,530</td>
<td>3,211</td>
<td>3,663</td>
</tr>
<tr>
<td>Other OP cost</td>
<td>8,102</td>
<td>7,327</td>
<td>6,624</td>
<td>9,307</td>
<td>7,840</td>
</tr>
<tr>
<td>EBITDA</td>
<td>5,571</td>
<td>3,969</td>
<td>6,410</td>
<td>4,567</td>
<td>10,361</td>
</tr>
<tr>
<td>Avg. EBITDA %</td>
<td>20%</td>
<td>19%</td>
<td>16%</td>
<td>17%</td>
<td>22%</td>
</tr>
<tr>
<td>Avg. EBIT %</td>
<td>14%</td>
<td>10%</td>
<td>8%</td>
<td>7%</td>
<td>13%</td>
</tr>
<tr>
<td>Balance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current assets</td>
<td>12,664</td>
<td>12,955</td>
<td>14,120</td>
<td>13,571</td>
<td>15,984</td>
</tr>
<tr>
<td>Non-current assets</td>
<td>43,005</td>
<td>36,949</td>
<td>34,347</td>
<td>38,640</td>
<td>37,904</td>
</tr>
<tr>
<td>Sum assets</td>
<td>55,668</td>
<td>49,904</td>
<td>48,468</td>
<td>52,211</td>
<td>53,888</td>
</tr>
<tr>
<td>Current debt</td>
<td>14,192</td>
<td>14,136</td>
<td>12,199</td>
<td>14,553</td>
<td>17,224</td>
</tr>
<tr>
<td>Non-current debt</td>
<td>28,024</td>
<td>15,846</td>
<td>14,643</td>
<td>13,575</td>
<td>12,685</td>
</tr>
<tr>
<td>Equity</td>
<td>13,453</td>
<td>19,922</td>
<td>21,626</td>
<td>24,083</td>
<td>23,979</td>
</tr>
<tr>
<td>Sum equity and debt</td>
<td>55,668</td>
<td>49,904</td>
<td>48,468</td>
<td>52,211</td>
<td>53,888</td>
</tr>
</tbody>
</table>
Seismic equipment

- The number of seismic operations on the NCS has increased from 24 in 2005 to 68 in 2012. In the same period, the total annual length has increased from 1.198' to 2.009' cpd km.
- Seismic operations are still dominated by client projects, but multi-client campaigns have increased significantly since 2007. The size of acreage covered by multi-client projects has historically been volatile, but has increased tenfold after experiencing a significant downturn in 2007. The client campaigns (E&P companies’ exclusive campaigns) account for approximately 70% of all seismic operations on the NCS, and 50% of the covered areas.
- According to the NPD, the Barents Sea and the central and northern areas of the Norwegian Sea constitute the main areas of planned and ongoing seismic acquisitions.
- There were 2,024 people employed in seismic equipment companies in 2012, down 9% from 2008.
- Revenues increased by 22% to NOK26,281m during 2008-12.

Seismic interpretation and consultants

- In 2012, there were 488 employees, down 15% from 2008.
- Total revenues were NOK2,534m in 2012, up 43% from 2008.

Regions

- Companies within reservoir/seismic are primarily located in the eastern part of Norway.

Accumulated revenues in reservoir/seismic increased by 20% in 2012 after years of relatively stable revenue levels.
High activity in exploration and production drilling

The E&P drilling segment comprises companies that own and/or operate drilling rigs, as well as companies that deliver products and services to these rigs.

We have divided the segment into three subsegments:
1. Rig companies
2. Rig equipment
3. Well services

Top five companies (2012 revenues)
- National Oilwell Varco Norway AS
- Schlumberger Norge AS
- Aker MH AS
- Halliburton AS
- North Atlantic Norway Ltd.

- Overall drilling activity on the NCS has declined from 194 wells in 2008 to 172 wells in 2012. In 2012, the number of production wells increased by 7 wells while the number of exploration wells declined by 10 (down to 42 wells) compared with 2011. This decline was due to a tight rig market and more comprehensive wells. Revenue in E&P drilling has increased by 34% since 2008.
- The number of exploration wells spudded on the NCS has increased significantly since 2005, and the number of wells drilled is expected to be between 45 and 60 each year toward 2020.
- The total number of employees increased by 1,100, or 11% from 2011 to 2012, in line with an increasing rig count. The number of rigs is expected to increase from 38 in 2013 to 48 in 2015, which could potentially require an additional 1,500–2,000 employees on top of the 8,500 employed by rig companies in 2012. This could add pressure on wages for key employees and skilled workforce within this OFS niche. However, this effect is not found in the data for 2012, as labor cost per employee decreased by 6%.
- A shortage of rigs on the NCS has put pressure on day rates and led to investments in new builds and use of older rigs in order to maintain drilling activity. Currently, a total of 17 rigs operating on the NCS are older than 20 years. There has been significant growth within rig equipment in 2012, driven by strong operational performance in National Oilwell Varco and Aker Solutions’ rig equipment divisions.
- The EBITDA margins for the large well service companies declined from 13% in 2011 to 10% in 2012. This is likely a consequence of an increase in the number of employees, which has not been matched by an increase in revenue. This can partly be explained by the decline in the number of wells drilled in 2012.
Rig companies
- Revenues increased by 32% from 2008 to 2012. The drop in 2012 is mainly due to changes in the legal set-up of Seadrill and its financial reporting of international revenues to its Norwegian subsidiaries. The remainder of the subsegment has seen an increase in revenues by 7% compared to 2011. The average EBITDA margin in the subsegment increased by approximately 5 percentage points when we exclude the aforementioned Seadrill effect.
- The rig business may be moving from a high-growth phase with high margins, to a maturity phase. ROCE is declining, and there are asset optimization programs ongoing by the rig operators. The NCS market is particularly important for rig companies with focus on capturing the harsh environment and Arctic segments growth within international offshore drilling.
- Revenues increased by 59% over the years from 2008, to NOK44,539m.
- The number of employees reached 8,547, up 32% from 2008.

Rig equipment
- National Oilwell Varco and Aker MH are the largest companies in this segment, accounting for 81% of revenues.
- A significant share of rig equipment revenues comes from export to rig construction yards, based in South Korea, China and Singapore.
- Revenues, EBITDA margins and ROCE increased year on year. Revenues increased by 20% from 2011. The total increase in revenues from 2008 to 2012 is 12%.
- The number of employees reached 5,969, up 51% from 2008.

Well services
- The four large, global well service players (Schlumberger, Halliburton, Baker Hughes and Weatherford) together with Archer constitute 73% of revenues within this segment.
- The number of employees reached 10,152, up 44% from 2008.

Geography
- Rig companies and well service companies are mainly located in Rogaland.
- Agder accounts for 85% of the revenues from rig equipment, driven by NOV, Aker Solutions and the associated sub-suppliers in the NODE cluster.
Upturn in engineering, fabrication and installation, after years of standstill

The engineering, fabrication and installation segment comprises Norwegian legal entities involved in manufacturing and installation of production and supporting units, both surface and subsea.

We have divided the segment into two subsegments:
- Subsea
- Surface

Top five companies (2012 revenues)
- FMC Kongsberg Subsea AS
- Aibel AS
- Rolls-Royce Marin AS
- Vard Group AS
- Aker Subsea AS

• Investments in new fixed and floating facilities on the NCS remained relatively stable in 2008 and 2009, before dropping in 2010. Activity resurged in 2011, with high activity in 2012. The increase in revenues in 2012 was partly due to a number of large projects with activity in Norway, e.g., Gudrun, Yme and Ekofisk.

• A number of large projects are ongoing or in the pipeline for the industry. Some of these projects are large topside developments, such as Edvard Grieg, Gina Krog and Johan Sverdrup, as well as development of several smaller discoveries as subsea tiebacks. The segment also includes equipment and system suppliers, which are less impacted by the move of topside construction contracts to Asia. However, it is expected that the reduced order logs for domestic construction companies will have an impact going forward.

• Despite high activity, margins within the EFI-surface segment have been under pressure in the years up to 2012. This is partly due to contracts being negotiated and postponed during the financial crisis. In combination with increasing labor cost and competition from abroad, this put margins under pressure. The data for small and medium-sized companies in this segment indicate that the larger OFS companies moved the price pressure down the supply chain. Revenues in the surface segment increased by 2% from 2008 to 2012.

• Revenues within subsea have grown by 26% from 2008, with high growth in both SURF/IMR (+28%) and subsea equipment (+24%).

---

<table>
<thead>
<tr>
<th>NOKm</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees (No.)</td>
<td>44,244</td>
<td>44,523</td>
<td>44,023</td>
<td>45,441</td>
<td>48,860</td>
</tr>
<tr>
<td>P&amp;L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue</td>
<td>158,187</td>
<td>156,965</td>
<td>141,045</td>
<td>151,648</td>
<td>171,831</td>
</tr>
<tr>
<td>Cost of goods</td>
<td>92,424</td>
<td>85,780</td>
<td>72,021</td>
<td>77,217</td>
<td>90,575</td>
</tr>
<tr>
<td>Labor cost</td>
<td>31,508</td>
<td>34,708</td>
<td>34,191</td>
<td>36,653</td>
<td>41,943</td>
</tr>
<tr>
<td>Other OP cost</td>
<td>24,294</td>
<td>22,971</td>
<td>21,154</td>
<td>24,403</td>
<td>24,355</td>
</tr>
<tr>
<td>EBITDA</td>
<td>10,671</td>
<td>12,808</td>
<td>12,996</td>
<td>12,953</td>
<td>14,202</td>
</tr>
<tr>
<td>Avg. EBITDA small (%)</td>
<td>12%</td>
<td>10%</td>
<td>7%</td>
<td>6%</td>
<td>9%</td>
</tr>
<tr>
<td>Avg. EBITDA medium (%)</td>
<td>10%</td>
<td>10%</td>
<td>8%</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>Avg. EBITDA large (%)</td>
<td>8%</td>
<td>10%</td>
<td>12%</td>
<td>10%</td>
<td>9%</td>
</tr>
<tr>
<td>Avg. EBIT %</td>
<td>9%</td>
<td>7%</td>
<td>5%</td>
<td>4%</td>
<td>7%</td>
</tr>
<tr>
<td>Balance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current assets</td>
<td>127,269</td>
<td>102,351</td>
<td>101,925</td>
<td>95,572</td>
<td>106,338</td>
</tr>
<tr>
<td>Non-current assets</td>
<td>77,689</td>
<td>102,820</td>
<td>102,344</td>
<td>101,008</td>
<td>99,042</td>
</tr>
<tr>
<td>Sum assets</td>
<td>204,958</td>
<td>205,170</td>
<td>204,269</td>
<td>196,581</td>
<td>205,381</td>
</tr>
<tr>
<td>Current debt</td>
<td>110,719</td>
<td>96,548</td>
<td>91,911</td>
<td>93,235</td>
<td>100,308</td>
</tr>
<tr>
<td>Non-current debt</td>
<td>37,821</td>
<td>45,624</td>
<td>46,659</td>
<td>37,361</td>
<td>38,191</td>
</tr>
</tbody>
</table>
Surface
- Several recent topside contracts have been awarded to yards outside of Norway, creating challenges for domestic construction yards.
- A number of players are currently positioning for the increasing rig maintenance market, but will over time be challenged by competitors with lower cost bases outside of Norway.
- Revenues have returned to 2008 levels, to NOK118,922m.
- In terms of employment and revenues, EFI is the largest segment in the OFS sector. Surface companies account for the major part of this. The employee count in 2012 was 35,927, which implied an increase of 4% from 2008 to 2012 – twice the revenue growth.
- Surface companies are located in most regions, but large companies are dominant in the Møre region (offshore vessel yards and equipment suppliers) and Rogaland (EPCI).

Subsea
- Two major venture agreements were signed over the past years. Both formed leading players within their respective market segments, and positioned the companies for larger contracts with more integrated deliveries. The first was the merger of Subsea 7 and Acergy in 2010 (SURF/IMR) and the latest was the joint venture between Cameron and Schlumberger in 2013 to OneSubsea (subsea processing and field development). FMC and Aker Solutions are the largest players within subsea equipment.
- The financial crisis brought a decrease in the number of ongoing subsea development projects in 2008 and 2009. This had a particular impact on companies within subsea equipment, where margins fell from 13% in 2008 to 7% in 2010.
- Statoil has initiated its fast-track program to improve time and lower the cost of subsea developments, which includes standardization of equipment and processes to capture volume effects and reduce the scope of bespoke engineering.
- Subsea is becoming increasingly important within EFI, with revenue growth of 26% from 2008 to 2012 compared with EFI-surface at 2%. With regard to direct employees, EFI-subsea increased by 33% compared with 4% in EFI-surface.
- The subsea clusters are located in BTV* (subsea equipment), Hordaland (subsea aftermarket) and Rogaland (SURF/IMR).

*BTV: Buskerud, Telemark and Vestfold

Increasing field development activity on the NCS pushed activity in EFI up after years at standstill. Both margins and ROCE improved.
Steady growth in operations

The Operations segment comprises entities that support oil companies in the production phase; on the production units, including support vessels, modification and maintenance of the production units as well as logistical services, such as helicopter transport, vessel services and onshore bases.

We have divided the segment into three subsegments:
- Offshore logistics
- Maintenance and Modifications (M&M)
- Production

Top five companies (2012 revenues)
- Aker Solutions MMO AS
- Det norske Veritas AS
- Island Offshore Management AS
- Bilfinger Industrier Norge AS
- CHC Helikopter Service AS

- Revenues in the Operations segment increased by 46% during 2008–12. The growth has been driven by execution of lifetime extension programs on several installations, as well as a general increase in offshore activity on the NCS.
- Activity within offshore logistics has steadily increased since 2008. During 2008–13, the number of offshore vessels in the North Sea increased by 25%, driven by increasing rig activity. However, EBITDA-margins declined during 2010–12 due to a reduction in day rates for both Platform Supply Vessels (PSV) and for Anchor Handling Tug Supply (AHTS) vessels. The decline in day rates in 2012 was also reflected in a decline in vessel fleet utilization in the North Sea. This decline may be due to a combination of fewer wells drilled, thus reducing the number of rig moves for AHTS-vessels, as well as an influx of newbuild PSVs to the NCS.
- Revenues within maintenance and modification (M&M) have increased by 20% during 2008–12, and the number of employees has increased by 38%. Currently, more than 20 installations on the Norwegian shelf are in operation beyond their planned lifetime, and the Government has approved lifetime extensions under the condition that the given fields maintain the required technical and safety levels.

<table>
<thead>
<tr>
<th>NOKm</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees (No.)</td>
<td>23,891</td>
<td>26,308</td>
<td>26,323</td>
<td>29,083</td>
<td>30,684</td>
</tr>
<tr>
<td>P&amp;L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue</td>
<td>56,059</td>
<td>60,017</td>
<td>59,866</td>
<td>67,125</td>
<td>71,462</td>
</tr>
<tr>
<td>Cost of goods</td>
<td>14,200</td>
<td>13,728</td>
<td>12,450</td>
<td>14,886</td>
<td>15,983</td>
</tr>
<tr>
<td>Labor cost</td>
<td>18,011</td>
<td>21,370</td>
<td>20,670</td>
<td>24,851</td>
<td>26,700</td>
</tr>
<tr>
<td>Other OP cost</td>
<td>13,562</td>
<td>14,395</td>
<td>16,516</td>
<td>17,828</td>
<td>18,494</td>
</tr>
<tr>
<td>EBITDA</td>
<td>9,960</td>
<td>10,168</td>
<td>9,950</td>
<td>9,272</td>
<td>9,997</td>
</tr>
<tr>
<td>Avg. EBITDA small (%)</td>
<td>14%</td>
<td>11%</td>
<td>12%</td>
<td>10%</td>
<td>12%</td>
</tr>
<tr>
<td>Avg. EBITDA medium (%)</td>
<td>15%</td>
<td>16%</td>
<td>15%</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>Avg. EBITDA large (%)</td>
<td>12%</td>
<td>7%</td>
<td>10%</td>
<td>6%</td>
<td>9%</td>
</tr>
<tr>
<td>Avg. EBIT (%)</td>
<td>10%</td>
<td>7%</td>
<td>7%</td>
<td>6%</td>
<td>8%</td>
</tr>
<tr>
<td>Balance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current assets</td>
<td>35,790</td>
<td>30,520</td>
<td>32,423</td>
<td>34,856</td>
<td>35,753</td>
</tr>
<tr>
<td>Non-current assets</td>
<td>100,577</td>
<td>100,501</td>
<td>108,228</td>
<td>107,561</td>
<td>107,437</td>
</tr>
<tr>
<td>Sum assets</td>
<td>136,367</td>
<td>131,020</td>
<td>140,651</td>
<td>142,417</td>
<td>143,190</td>
</tr>
<tr>
<td>Current debt</td>
<td>34,515</td>
<td>26,114</td>
<td>27,139</td>
<td>28,557</td>
<td>30,124</td>
</tr>
<tr>
<td>Non-current debt</td>
<td>56,653</td>
<td>54,358</td>
<td>58,410</td>
<td>58,991</td>
<td>57,784</td>
</tr>
<tr>
<td>Equity</td>
<td>45,199</td>
<td>50,549</td>
<td>55,102</td>
<td>54,868</td>
<td>55,282</td>
</tr>
<tr>
<td>Sum equity and debt</td>
<td>136,367</td>
<td>131,020</td>
<td>140,651</td>
<td>142,417</td>
<td>143,190</td>
</tr>
</tbody>
</table>
Offshore logistics

- Offshore activity in the North Sea has remained high during the last period, with an increasing number of fields on the NCS, mainly in terms of subsea tiebacks. This has triggered an increase in the Norwegian offshore supply vessel fleet from 457 ships in 2008 to 590 ships in 2013.
- The development of the Norwegian merchant fleet since 2008 portrays increased specialization toward the offshore oil service market, with the total number of ships decreasing by 5%, while offshore supply vessels increased by 29%.
- Several of the major offshore logistics companies are contracting new vessels and investing heavily in the Offshore Subsea Construction Vessel (OSCV) segment to capture the increased demand and high margins offered by this segment. Almost half of the OSCV vessels currently under construction globally have been ordered by Norwegian companies.
- Revenues in the Offshore logistics segment increased by 33% from 2008, to NOK29,746m.
- Offshore logistics companies employed 8,491 people, an increase of 13% from 2008.
- The majority of revenues seen in this subsegment are generated by companies in Møre or Rogaland.

Maintenance and modifications (M&M)

- Revenues in M&M increased by 25% from 2008, to NOK20,135m.
- The number of employees was 13,142 in 2012, an increase of 38% from 2008.
- Most M&M revenues are generated from companies headquartered in Rogaland.

Production-related services

- Production-related services employed 9,051 people in 2012 – an increase of 32% from 2008.
- Companies headquartered in Rogaland and the eastern part of Norway are generating most of the revenues for production-related services.
- There has been little change in EBITDA margins since 2008. The margin has fluctuated between 9% and 11% throughout the period.

Operations-related services have grown steadily since 2008 due to the increased activity in the North Sea, as well as an increasing need for maintenance and modification work on the ageing installations on the shelf.

Source: Rystad Energy and Norwegian Shipowners' Association, RS Platou
Decommissioning still in its infancy

The decommissioning segment comprises companies that offer services related to the removal of offshore installations.

- Norwegian decommissioning activity has until now been relatively limited. Several installations that have reached the end of their expected lifetime have been rebuilt and modified to exploit remaining resources and hence postponed decommissioning. We expect this sector to grow in the long term, as more fields reach the end of their economic lives and are shut down.
- Several large decommissioning contracts are expected to be awarded during the coming years, including work on Yme, Ekofisk and Statfjord.
- Currently, there are 100 fixed topside installations in operation on the NCS. 48 of these are older than 20 years and 26 are currently in operation beyond their planned lifetime.
- The Norwegian Government expects that it will cost approximately NOK160b to decommission the approximately 500 fixed, floating and subsea installations on the NCS.

Top companies (2012 revenues)
- AF Decom Offshore AS
- Oceaneering NCA AS
- Scanmet AS

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees (No.)</td>
<td>138</td>
<td>140</td>
<td>300</td>
<td>161</td>
<td>277</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>P&amp;L</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>296</td>
<td>777</td>
<td>742</td>
<td>573</td>
<td>768</td>
</tr>
<tr>
<td>Cost of goods</td>
<td>83</td>
<td>240</td>
<td>167</td>
<td>148</td>
<td>247</td>
</tr>
<tr>
<td>Labor cost</td>
<td>124</td>
<td>271</td>
<td>290</td>
<td>235</td>
<td>244</td>
</tr>
<tr>
<td>Other OP cost</td>
<td>55</td>
<td>148</td>
<td>180</td>
<td>139</td>
<td>167</td>
</tr>
<tr>
<td>EBITDA</td>
<td>37</td>
<td>125</td>
<td>111</td>
<td>38</td>
<td>101</td>
</tr>
<tr>
<td>Avg. EBITDA (%)</td>
<td>10%</td>
<td>17%</td>
<td>17%</td>
<td>20%</td>
<td>8%</td>
</tr>
<tr>
<td>Avg. EBIT %</td>
<td>10%</td>
<td>9%</td>
<td>13%</td>
<td>2%</td>
<td>10%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Balance</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Current assets</td>
<td>832</td>
<td>1,509</td>
<td>1,093</td>
<td>943</td>
<td>1,191</td>
</tr>
<tr>
<td>Non-current assets</td>
<td>645</td>
<td>933</td>
<td>467</td>
<td>323</td>
<td>295</td>
</tr>
<tr>
<td>Sum assets</td>
<td>832</td>
<td>1,509</td>
<td>1,093</td>
<td>943</td>
<td>1,191</td>
</tr>
<tr>
<td>Current debt</td>
<td>175</td>
<td>435</td>
<td>257</td>
<td>176</td>
<td>421</td>
</tr>
<tr>
<td>Non-current debt</td>
<td>367</td>
<td>680</td>
<td>229</td>
<td>183</td>
<td>211</td>
</tr>
<tr>
<td>Equity</td>
<td>289</td>
<td>394</td>
<td>608</td>
<td>584</td>
<td>559</td>
</tr>
<tr>
<td>Sum equity and debt</td>
<td>832</td>
<td>1,509</td>
<td>1,093</td>
<td>943</td>
<td>1,191</td>
</tr>
</tbody>
</table>
Southern Norway remains the hub of Norwegian OFS activity

Region/Clusters
The Norwegian OFS sector is present in every region in Norway, with the southern part of Norway accounting for the largest share of companies and employees.

Since the opening of the Barents Sea, there has been a substantial growth in activity in the northern part of Norway. Compared to 2008, OFS industry revenues were up 75% in 2012. Several E&P companies have established offices in this part of the country in recent years, and we expect to see more activity in this region in the years to come. The region remains small, not only because the Barents Sea is a new petroleum region, but also due to limitations in our analyses, where companies are tagged to the region in which they are headquartered. This means that activity in the northern part of Norway may be tagged to other regions. Nonetheless, E&P and OFS activities in this region have increased substantially over the last five years.

Activity is highest in the southern part of Norway, and indicators suggest that this region will continue to be the most important region for the OFS industry in the years to come. Most discoveries, fields under development and operating fields are still in the North Sea. According to the Norwegian Oil & Gas Association, more than 70% of investments in new fields are being directed to the North Sea.

The challenge for the OFS industry being part of the large OFS hubs along the western coast of Norway will be access to qualified personnel.

<table>
<thead>
<tr>
<th>Regions</th>
<th>Companies (No.)</th>
<th>Employees (No.)</th>
<th>Revenue NOKm</th>
<th>Rev growth 2008-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agder</td>
<td>48</td>
<td>7,897</td>
<td>40,144</td>
<td>6%</td>
</tr>
<tr>
<td>BTV*</td>
<td>55</td>
<td>9,376</td>
<td>25,221</td>
<td>12%</td>
</tr>
<tr>
<td>Hordaland</td>
<td>128</td>
<td>14,236</td>
<td>42,548</td>
<td>16%</td>
</tr>
<tr>
<td>Møre</td>
<td>79</td>
<td>9,920</td>
<td>45,086</td>
<td>5%</td>
</tr>
<tr>
<td>Northern Norway</td>
<td>17</td>
<td>894</td>
<td>1,627</td>
<td>75%</td>
</tr>
<tr>
<td>Rogaland</td>
<td>321</td>
<td>47,259</td>
<td>155,383</td>
<td>40%</td>
</tr>
<tr>
<td>Trøndelag</td>
<td>61</td>
<td>6,664</td>
<td>16,526</td>
<td>10%</td>
</tr>
<tr>
<td>Eastern Norway</td>
<td>104</td>
<td>10,755</td>
<td>57,154</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>813</strong></td>
<td><strong>107,001</strong></td>
<td><strong>383,688</strong></td>
<td><strong>20%</strong></td>
</tr>
</tbody>
</table>

*Buskerud, Telemark and Vestfold

Source: Offshore.no
Continued strong growth in 2013

Sum of OFS segments
- Our 2013 modelling suggests continued high activity in 2013, and we expect an aggregated OFS revenue growth of approximately 8% compared to 2012. This is in line with the growth in 2012, and is supported by the NCS growth in investments, as well as a high and growing export share.
- We expect EBIT as a percentage of revenue to remain stable compared to 2012, or increase slightly to an EBIT margin of 8%-9%. This is based on the current momentum and order backlogs of the larger OFS companies. This is also supported by indications of a lower wage inflation in the Norwegian industry in 2013 compared to previous years.

Reservoir/Seismic
- Revenues for the listed seismic companies increased by 10% LTM Q3 2013. A significant share of this growth was due to increased activity outside of Norway, such as in the Americas. Seismic shooting on the NCS grew by 26% in terms of total length surveyed (cdp km), but with a drop in the number of operations.
- As such, we expect revenues in reservoir/seismic to increase in 2013, and average EBITDA margins to remain stable.

E&P drilling
- Revenues for listed companies LTM Q3 increased by 12% in 2013, with relatively stable EBITDA-margins.
- The number of exploration and production wells increased from 172 in 2012 to 225 in 2013 (+31%), with strong growth in number of exploration wells with growth from 42 wells in 2012 to 59 in 2013. This was supported by growth in number of rigs on the NCS from approximately 34 in 2012 to 38 in 2013.
- As such, we expect continued strong revenue growth within E&P drilling in 2013, with an uptick on the EBIT margin as a percent of revenue, compared to 2012.

Engineering, fabrication and installation
- Revenues LTM Q3 2013 for listed companies increased by 12%. Average margins declined by 2 percentage points for these companies.
- The industry lost several large new-build (topside) contracts to competitors in Asia at the end of 2012/start of 2013. One factor was higher cost levels for Norwegian yards. A public debate followed, and a report from the industry association KonKraft was issued in November 2013 with recommendations for increasing the yard industry's competiveness. At the end of 2013, some companies announced low order books and lower activity going forward.
- As such, we expect minor growth in revenues within EFI-surface, with margins relatively stable to slightly declining as compared to 2012.

Operations
- Revenues LTM Q3 2013 for listed companies increased by 9%, but with reduction in average EBITDA.
- The growth was supported by improved day rates for both AHTS and PSVs in the North Sea during 2013, and an increase in operations in Brazil and the Gulf of Mexico due to vessel owners increasing non-NCS focus.
- We expect continued high activity in offshore logistics, and the same for M&M and production-related services, with an increase in revenue for the segment, and EBITDA margin to remain stable compared with 2012.

Methodology
- Revenue for 2013 is modeled on the basis of available public data on listed companies, up to and including Q3 2013. The listed companies account for approximately 37% of industry revenues. In order for our predictions to yield a more comprehensive estimate of the total trend, we have modelled the remaining 63% of revenue on the basis of historic correlation (listed vs non-listed companies).
Stable activity on the NCS projected forward

Investments on the NCS are expected to stabilize at the current level toward 2018. Subsea field development, pipelines and onshore facilities are segments where activity is expected to increase by 2018.

Cost challenges will persist
Oil and gas companies’ cash flows are currently under pressure. The graph to the right displays the situation on the NCS. Investments are expected to be stable while projected production revenues decline due to oil prices pointing downward. This means that the activity in the OFS industry will remain high, but margins in the sector might come under pressure. In addition, competition from abroad, on areas such as engineering and fabrication services, will most probably persist. Competition could also hit other segments, but most of these are partly sheltered due to entry barriers in the form of proximity requirements, technology focus, NCS regulations and delivery model preferences.

Increased collaboration in the industry
The OFS industry will need to work more closely together, as well as with operators, to solve the cost challenges on the NCS. Standardization of projects and contracts, new delivery models, measures to increase productivity, as well as technology to decrease costs, will face increased attention going forward. Relations with both the industry and operators will be more important with this development, and the role of the Norwegian OFS clusters as well as O&G research institutions could therefore become increasingly important.

Exports will increase
Exports from the industry have increased in the last 10 years, and currently account for about 39% of the 2012 revenue. Norway has been at the forefront of developing offshore oil and gas technology, and with a growth in offshore markets, exports to regions such as Brazil, UK, US, West of Africa and South Korea are set to continue. We believe companies with high and relevant technology content as well as the ability to overcome local content, requirements, will in particular benefit from this. This includes segments with a high share of offshore technology content, e.g., rig companies, rig equipment, offshore logistics, marine and safety systems and subsea.

Access to talent will remain a challenge
The number of employees in the OFS industry has increased by 18,000 in the last five years. Competition for skilled labor has pushed labor costs upward. Measures to increase education capacity for engineers have long been high on the agenda in Norway, but progress has not been overwhelming. Recruitment challenges are therefore expected to continue. One area of interest is the projected increase in rigs from 38 in 2013 to 48 in 2015, which could potentially require an additional 1,500-2,000 employees in addition to the 8,500 employed by the rig companies in 2012.

Move toward the North
Activity in the Barents Sea is expected to increase, and as a consequence, several oil companies have opened up offices in northern Norway. This development will lead to a significant growth in the OFS industry in the north of Norway. However, we do not believe that the industry will lose foothold in the south of Norway as a consequence. Most exploration activity and also discoveries are still made in the North Sea, and the oilfield services clusters in the south of Norway are strong and competitive. The growth in activity in the north of Norway will lead to increased attention around problems related to Arctic activities, such as harsh environment drilling, winterization and HSEQ.

Increased focus on recovery rates
The Government has increasingly focused on improving recovery rates on the NCS. The Force Agreement for Pilot Consortium Projects was introduced by the NPD in 2012 to help improve oil recovery and exploration on the NCS. This agreement provides a regulatory framework for industry cooperation on improved oil recovery techniques, as it is an objective for the operators to improve the recovery rate from a current average of 46% to 60% for key Norwegian fields.
Methodology

Accounting information is publicly available from the Brønnøysund Register Centre. The companies’ business addresses as per the same register have been used to reflect the entities’ geographic location.

We have used the stand-alone financial statements for each legal entity to obtain the information used in our analysis. As a result, large corporations, such as Aker Solutions ASA, have been analyzed as a series of individual companies and not as a consolidated group, in order to get a more detailed demographic view with regard to location and activities across the supply chain. The implication is that intercompany transactions are not eliminated when financial figures are aggregated.

A company is defined as a Norwegian OFS company if:
• At least 50% of its turnover is generated in the oil and gas sector
• It is a Norwegian registered company
• Annual revenues exceeded NOK 20m at least once over the years from 2008 to 2012

Categorization
Each company in the OFS portfolio has been reviewed individually, and an assessment has been made with regard to its position in the value and supply chain. The value chain has the following categories:
• Reservoir/Seismic
• E&P drilling
• Engineering, fabrication and installation
• Operations
• Decommissioning

Each of these categories is further broken down into subsegments to capture the huge diversity within the industry.

Companies have been categorized according to the value chain segment in which they generate the majority of their revenues.

Location
The regions used in the analysis have been chosen to reflect and illustrate the main clusters of OFS companies in Norway. The regions are:
• Rogaland
• Hordaland
• Agder
• Møre (Møre & Romsdal and Sogn & Fjordane)
• BTV (Buskerud, Telemark and Vestfold)
• Trøndelag (Sør- and Nord Trøndelag)
• Northern Norway (Nordland, Troms and Finnmark)
• Eastern Norway (Oslo, Akershus, Oppland, Østfold and Hedmark)

Calculations
• EBIT = Pre-tax operating profit (driftsresultat)
• Capital employed = Total assets - Financial long-term investments - (Trade creditors + Tax payable + Public duties payable)
• ROCE (return on capital employed) = EBIT/Capital employed
• Cash-conversion-cycle: CCC = DIO + DSO - DPO
• DIO and DPO calculated by use of COGS, DSO by use of sales

The presented average EBIT and EBITDA margins are average ratios calculated by applying equal weighting to each company, i.e., averages are not weighted by firm size. To prevent “noisy” outliers from excessively skewing the results, we winsorize the financial ratios at the 10th and 90th percentiles, i.e., we reset the bottom and top 10% of the ratios equal to the values of the respective percentiles.
## Appendix: EBITDA per subsegment and company size

<table>
<thead>
<tr>
<th>Subsegment</th>
<th>Size</th>
<th>2008 EBITDA (%)</th>
<th>2009 EBITDA (%)</th>
<th>2010 EBITDA (%)</th>
<th>2011 EBITDA (%)</th>
<th>2012 EBITDA (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reservoir/Seismic</td>
<td>Consultants Average</td>
<td>20%</td>
<td>19%</td>
<td>18%</td>
<td>22%</td>
<td>21%</td>
</tr>
<tr>
<td></td>
<td>Equipment  Average</td>
<td>20%</td>
<td>19%</td>
<td>15%</td>
<td>14%</td>
<td>22%</td>
</tr>
<tr>
<td></td>
<td>Rig companies Small</td>
<td>23%</td>
<td>21%</td>
<td>23%</td>
<td>12%</td>
<td>27%</td>
</tr>
<tr>
<td></td>
<td>Rig companies Medium</td>
<td>9%</td>
<td>14%</td>
<td>16%</td>
<td>11%</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td>Rig companies Large</td>
<td>12%</td>
<td>13%</td>
<td>14%</td>
<td>11%</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td>Rig equipment Small</td>
<td>14%</td>
<td>12%</td>
<td>14%</td>
<td>9%</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>Rig equipment Medium</td>
<td>12%</td>
<td>10%</td>
<td>10%</td>
<td>11%</td>
<td>14%</td>
</tr>
<tr>
<td></td>
<td>Rig equipment Large</td>
<td>13%</td>
<td>16%</td>
<td>18%</td>
<td>13%</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Well services Small</td>
<td>17%</td>
<td>13%</td>
<td>16%</td>
<td>12%</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>Well services Medium</td>
<td>18%</td>
<td>15%</td>
<td>18%</td>
<td>15%</td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td>Well services Large</td>
<td>21%</td>
<td>22%</td>
<td>20%</td>
<td>16%</td>
<td>12%</td>
</tr>
<tr>
<td>E&amp;P drilling</td>
<td>Subsea Small</td>
<td>15%</td>
<td>11%</td>
<td>7%</td>
<td>6%</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Subsea Medium</td>
<td>12%</td>
<td>12%</td>
<td>9%</td>
<td>9%</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>Subsea Large</td>
<td>12%</td>
<td>14%</td>
<td>14%</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Surface Small</td>
<td>12%</td>
<td>9%</td>
<td>7%</td>
<td>6%</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>Surface Medium</td>
<td>10%</td>
<td>9%</td>
<td>8%</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Surface Large</td>
<td>6%</td>
<td>8%</td>
<td>10%</td>
<td>10%</td>
<td>9%</td>
</tr>
<tr>
<td>Engineering, fabrication and installation</td>
<td>Subsea Small</td>
<td>15%</td>
<td>11%</td>
<td>7%</td>
<td>6%</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Subsea Medium</td>
<td>12%</td>
<td>12%</td>
<td>9%</td>
<td>9%</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>Subsea Large</td>
<td>12%</td>
<td>14%</td>
<td>14%</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Surface Small</td>
<td>12%</td>
<td>9%</td>
<td>7%</td>
<td>6%</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>Surface Medium</td>
<td>10%</td>
<td>9%</td>
<td>8%</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Surface Large</td>
<td>6%</td>
<td>8%</td>
<td>10%</td>
<td>10%</td>
<td>9%</td>
</tr>
<tr>
<td>Operation</td>
<td>M&amp;M Small</td>
<td>13%</td>
<td>7%</td>
<td>6%</td>
<td>10%</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>M&amp;M Medium</td>
<td>7%</td>
<td>7%</td>
<td>5%</td>
<td>5%</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td>M&amp;M Large</td>
<td>3%</td>
<td>6%</td>
<td>8%</td>
<td>7%</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>Offshore logistics Small</td>
<td>17%</td>
<td>16%</td>
<td>18%</td>
<td>11%</td>
<td>14%</td>
</tr>
<tr>
<td></td>
<td>Offshore logistics Medium</td>
<td>22%</td>
<td>22%</td>
<td>21%</td>
<td>19%</td>
<td>19%</td>
</tr>
<tr>
<td></td>
<td>Offshore logistics Large</td>
<td>25%</td>
<td>7%</td>
<td>13%</td>
<td>7%</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>Production Small</td>
<td>10%</td>
<td>8%</td>
<td>10%</td>
<td>9%</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>Production Medium</td>
<td>11%</td>
<td>13%</td>
<td>12%</td>
<td>10%</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>Production Large</td>
<td>6%</td>
<td>10%</td>
<td>6%</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>Decommissioning</td>
<td>General Average</td>
<td>17%</td>
<td>17%</td>
<td>20%</td>
<td>8%</td>
<td>17%</td>
</tr>
</tbody>
</table>
About EY

An integrated international network of oil and gas professionals

Scale
- 200 professionals in Norway working in the oil and gas sector
- North Sea Team established for seamless support to clients operating across the North Sea
- An established global network of more than 9,600 experienced professionals supported by 15 oil and gas centers of excellence situated in key locations for the industry

Oil and gas expertise
- EY has been advising the oil and gas sector for more than 100 years.
- EY ranks first among all organizations in providing external audit services to public companies (including oil and gas companies) in the Fortune 1000.
- Our capabilities are focused around energy centers of excellence and include:
  - Transaction Advisory
  - Assurance
  - Advisory
  - Taxation

EY’s Global Oil & Gas Centers
Global LNG: will new demand and new supply mean new pricing?
LNG demand growth is front-loaded, but in the wake of a capacity surge over the last few years, capacity growth is now back-loaded. We are witnessing a post-Fukushima squeeze, as well as a slowdown in near-term capacity additions, pointing to relatively tight markets over the next few years.

Global oil and gas tax guide 2013
The Global oil and gas tax guide summarizes the oil and gas corporate tax regimes in 74 countries and also provides a directory of EY Oil & Gas tax contacts. Our guide can help our clients implement local legislation, which varies greatly from general corporate tax regimes.

Arctic oil and gas
The region above the Arctic Circle accounts for only about 6% of the earth’s surface area, but it could account for as much as 20% of the world’s undiscovered but recoverable oil and natural gas resources.

IFRS oil and gas insights
These regular issues give updates to changes and impacts of IFRS on oil and gas companies.

Global oil and gas capital confidence barometer
EY’s Capital Confidence Barometer is a regular survey of senior executives from oil and gas companies around the world conducted by the Economist Intelligence Unit (EIU). This snapshot of our findings gauges corporate confidence in the economic outlook and identifies boardroom trends and practices in the way companies manage their capital agenda.

Global Transaction trends 2013
Despite the “recession” in the UK, the OFS segment continues to go from strength to strength and is outperforming most other parts of the UK industrial sector. The future is also bright, with many companies having record order books and increasing profitability.

Oil & Gas Eye
A quarterly update of our Oil & Gas Eye Index and analysis of the performance of the AIM-listed oil and gas companies.
Contacts

Transaction Advisory Services

**Kjell Stenersen**
*Head of Nordic Oil & Gas TAS*
Mobile: +47 982 06 678
Email: kjell.stenersen@no.ey.com

Assurance

**Tor Inge Skjellevik**
*Head of Nordic Oil & Gas Assurance*
Mobile: +47 982 06 676
Email: tor.inge.skjellevik@no.ey.com

Taxation

**Elvind Gaita**
*Head of Nordic Oil & Gas Tax*
Mobile: +47 902 71 142
Email: eivind.gaita@no.ey.com

Advisory

**John Avaldsnes**
*Head of Nordic Oil, Gas and Energy*
Mobile: +47 992 16 744
Email: john.avaldsnes@no.ey.com
EY | Assurance | Tax | Transactions | Advisory

About EY
EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. For more information about our organization, please visit ey.com.

How EY’s Global Oil & Gas Center can help your business
The oil and gas sector is constantly changing. Increasingly uncertain energy policies, geopolitical complexities, cost management and climate change all present significant challenges. EY’s Global Oil & Gas Center supports a global network of more than 9,600 oil and gas professionals with extensive experience in providing assurance, tax, transaction and advisory services across the upstream, midstream, downstream and oilfield service subsectors. The Center works to anticipate market trends, execute the mobility of our global resources and articulate points of view on relevant key sector issues. With our deep sector focus, we can help your organization drive down costs and compete more effectively.

© 2014 EYGM Limited
All rights reserved

EYG no. DW0338
ED None

This material has been prepared for general informational purposes only and is not intended to be relied upon as accounting, tax, or other professional advice. Please refer to your advisors for specific advice.

ey.com