

Til: Miljøverndepartementet

v/ statsråd Erik Solheim

Fra: Næringsforeningen i Stavanger-regionen

v/ administrerende direktør Jostein Soland

Forvaltningsplanen for nordområdene inkl. Lofoten og Vesterålen - Høringsuttalelse

Innledning

Næringsforeningen i Stavanger-regionen (heretter Næringsforeningen) takker for invitasjonen til å delta i høringsprosessen rundt regjeringens arbeid med forvaltningsplanen for nordområdene og havområdene utenfor Lofoten og Vesterålen. I forbindelse med oppdateringen av planen vil regjeringen i 2011 vurdere om det skal settes i verk en konsekvensutredning for petroleumsvirksomhet i disse områdene.

Dette er en svært viktig sak, med betydelige nasjonale og regionale implikasjoner. Vi er landets største næringsforening med 1500 medlemsbedrifter, og vi dekker Rogaland sør for Boknafjorden. En betydelig andel av medlemsmassen vår er relatert til olje- og gasssektoren. Vi har derfor et sterkt engasjement i denne saken.

Næringsforeningen vil i denne høringsuttalelsen argumentere for at det bør startes en konsekvensutredning av petroleumsaktivitet i områdene Nordland VI og VII, samt Troms II. De potensielle økonomiske gevinstene er store, og vi mener at innstillingen fra Faglig forum gir trygghet for at leteaktivitet og eventuell produksjon kan foregå innenfor miljømessig forsvarlige rammer.



Arbeidsplasser og økonomi

Etter 40 års lete- og produksjonsaktivitet er fortsatt 24 prosent av de anslåtte olje- og gassressursene klassifisert som uoppdagede. I en fase der stadig flere felt når et modent nivå, og oljeproduksjonen befinner seg i en nedadgående kurve, er det avgjørende at det åpnes nye leteområder samt satses ytterligere på ulike IOR-tiltak (økt utvinningsgrad) for felt i produksjon. Tilgang på nye letearealer vil bety svært mye med hensyn til å opprettholde investeringsviljen, kompetansen og verdiskapningen innen oljeindustrien i Norge.

Vi vil i denne sammenheng benytte anledningen til å understreke sammenhengen mellom økt utvinningsgrad og et høyt nivå på bevilgningene til petroleumsforskning. Dette er et område hvor økt offentlig innsats vil kunne innebære svært store inntekter til fellesskapet gjennom høyere olje- og gassproduksjon. De senere års reduksjoner i petroleumsrelaterte forskningsprosjekter er derfor svært uheldige, og bør reverseres.

Når det gjelder spørsmålet om åpning i Nord, så koker dette for Næringsforeningen ned til om hvordan vi om nasjon kan utnytte naturressursene våre til å sikre den unike økonomiske handlefriheten vår på en miljømessig bærekraftig måte også i årene som kommer.

Inntektene fra olje- og gassproduksjonen har vært massive over flere ti-år, og betydningen for norsk økonomi er udiskutable. Dette har vi til fulle fått anskueliggjort gjennom den siste globale finanskrisen, der de sterke statsfinansene våre har gitt oss en enestående økonomisk handlefrihet til å drive motkonjunkturpolitikk. Når Faglig forum og Oljedirektoratet anslår at det finnes i størrelsesorden 1,3 milliarder fat o.e. utenfor Lofoten og Vesterålen, så er dette et betydelig ressursanslag som vil kunne gi grunnlag for arbeidsplasser, næringsutvikling og ytterligere styrking av vår økonomiske handlefrihet de neste ti-årene.

Petroleumsnæringen står for en fjerdedel av BNP, en tredjedel av statens inntekter og halvdelen av eksportinntektene. Bransjen sysselsetter nærmere 250 000 mennesker, direkte og indirekte. Dette er arbeidsplasser som er spredt landet og kysten rundt, og som utgjør viktige deler av det økonomiske fundamentet for mange lokalsamfunn.

Debatten om de økonomiske gevinstene knyttet til petroleumsaktivitet i nord er ofte fokusert mot næringspolitiske ringvirkninger på land i Nord-Norge. Dette er et viktig og riktig perspektiv. For Næringsforeningen er det imidlertid naturlig å fremheve betydningen denne næringen har for et fylke som Rogaland. Ernst & Young har relativt nylig gjennomført en



kartlegging av oljeservicesektoren (The Norwegian Oilfield Service Analysis 2009). Se vedlagt.

Kartleggingen viser at oljeserviceindustrien i 2009 nasjonalt utgjør 80 000 ansatte, 600 selskaper og en omsetning på 280 milliarder kroner (selskaper som er inkludert har en omsetning større enn 20 millioner og hoveddelen av aktivitetene innen olje og gass, inkludert offshore).

Av dette er 38% av selskapene, 32% av omsetningen og 40% av de ansatte lokalisert i Rogaland (den komplette rapporten er vedlagt). Disse tallene viser med all mulig tydelighet hvilken betydning petroleumsnæringen har for arbeidsplasser og velferd nasjonalt og i Rogaland. Tilsvarende illustrerer disse oversiktene omfanget av de negative økonomiske konsekvensene som vil inntreffe hvis denne næringen skulle oppleve et betydelig og brått fall i aktivitetsnivået.

Næringsforeningen vil i tillegg understreke at disse 600 selskapene, sammen med operatørselskapene og andre aktører, utgjør sterke næringsklynger mange steder i landet, ikke minst i Rogaland. Et markant fall i petroleumsaktiviteten vil raskt føre til svekkelse av energiklyngene og tap av møysommelig oppbygd kompetanse. Dette er forhold som ofte blir undervurdert i den offentlige debatten, og som underbygger behovet for at oljeselskapene får tilgang på nye letearealer.

Miljø, sikkerhet og beredskap

Områdene utenfor Lofoten og Vesterålen er særlig verdifulle og sårbare. En eventuell fremtidig petroleumsaktivitet her må derfor underlegges et særlig strengt miljøregime. Næringsforeningen mener derfor at det er positivt at det utarbeides en egen forvaltningsplan for området. Et slikt arbeid vil fremskaffe mye ny kunnskap, og bidra til økt fokus på miljøberedskapen i området også uavhengig av om det åpnes for petroleumsaktivitet utenfor Lofoten og Vesterålen. Vi merker oss med interesse at innstillingen fra Faglig forum bekrefter det forhold at skipstrafikken utgjør en langt større miljørisiko enn petroleumsaktiviteten i disse områdene

Næringsforeningen har også merket seg de øvrige hovedkonklusjonene i den omfattende utredningen fra Faglig forum:



- De potensielle miljø- og samfunnsmessige konsekvensene av en ulykke i planområdet kan være betydelige, enten en slik ulykke skyldes petroleumsvirksomhet, skipstrafikk eller en atomulykke.
- Risikoen for uhellsutslipp vurderes som lav, og ventes ikke å endre seg vesentlig fram mot 2025.
- For sjøfugl (lunde og toppskarv), sjøpattedyr (havert) og strandområdene viser studiene at det er en langvarig utblåsning/stort skipshavari ved Nordland V og Nordland VI som vil ha de største miljøkonsekvensene. Sannsynligheten for slike hendelser er imidlertid svært lav.
- Når det gjelder torsk og sild er frekvens for miljøskade beregnet til i størrelsesorden 10-5 og 10-6. Dette innebærer at et modellert tap inntil 5-10 % av en årsklasse har en sannsynlighet på én gang hvert 100 000 år. Tap av større andeler av en årsklasse har enda lavere sannsynlighet.

Med disse tunge, faglige vurderingene i bønn mener Næringsforeningen at vår hjemlig olje- og gassindustri vil ha svært gode forutsetninger for å drive både leteboring og produksjon innenfor miljømessig forsvarlige rammer. Det teknologiske nivået på industrien som har utviklet norsk sokkel i 40 år er i verdenstoppen. Samtidig har vi i Norge et regime for ressursforvaltning og sikkerhet som også befinner seg i verdenstoppen. Dette har vært avgjørende for at vi har kunnet drive omfattende leteaktivitet og produksjon på norsk sokkel i 40 år.

De faglige og saklige argumentene for å åpne for petroleumsaktivitet utenfor Lofoten og Vesterålen er dermed sterke. Næringsforeningen vil imidlertid understreke at en slik aktivitet må omfattes av strenge miljø- og sikkerhetskrav.

Hensynet til lokaldemokratiet

Næringsforeningen vil videre påpeke at spørsmålet om konsekvensutredning også handler om lokaldemokrati. Dette er den eneste måten å få tilgang på kunnskap om hvilke ringvirkninger økt petroleumsvirksomhet vil ha for lokalmiljøet. Videre vil en konsekvensutredning gi alle parter et gjennomarbeidet grunnlag for å ta stilling til spørsmålet om videre utvikling i sårbare områder. De østlige delene av Barentshavet fremstår i denne



forbindelsen som særlig interessante i kjølvannet av at striden mellom Norge og Russland om delelinjen nå er løst.

Konklusjon

Næringsforeningen i Stavanger-regionen mener at det bør utarbeides en konsekvensutredning for fremtidig petroleumsaktivitet i nordområdene, inkludert Lofoten og Vesterålen. Dette er en sak av svært stor betydning for arbeidsplasser, verdiskaping og velferd i Rogaland. De potensielle verdiene knyttet til utvinning av disse ressursene er betydelige også i et nasjonalt perspektiv. Det teknologiske nivået på norsk sokkel er i verdenstoppen, og i kontinuerlig utvikling. Vi er derfor overbevist om at fremtidig leteboring og produksjon i disse områdene kan gjennomføres på en miljømessig forsvarlig måte.

Stavanger, 09.09.2010



Jøstein Soland

Administrerende direktør

Næringsforeningen i Stavanger-regionen



The Norwegian Oilfield Service Analysis 2009

In collaboration with:



GREATER
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subsea 7



HITECVISION

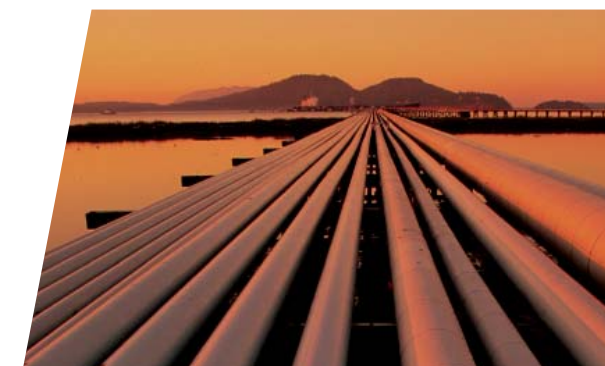
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Content

About this report	4
Summary	5
The global oil & gas and OFS sector	6
The Norwegian oil & gas market	7
Development of the OFS sector in Norway	9
Profit & Loss and key financials	10
Balance sheet, financing and funding	11
Revenues and employment across the OFS portfolio	12
The development of the OFS portfolio in 2009	13
The Norwegian OFS clusters	14
Rogaland	16
The Møre Region	17
Eastern Norway	18
Agder	19
Hordaland	20
The Kongsberg region	21
Trøndelag	22
Northern Norway	23
The Norwegian OFS segments	24
Appendix	28
Approach / methodology	28



About this report

Ernst & Young has since 2006 issued an annual analysis of the Oilfield Service (OFS) sector in Rogaland, Norway, in collaboration with SpareBank 1 SR-Bank and Greater Stavanger. In 2009 this analysis has been expanded to capture the entire OFS sector in Norway.

The 2009 Norwegian Oilfield Service Analysis has this year been done in co-operation with Greater Stavanger, SpareBank 1 SR-Bank, Halliburton, Subsea 7, HitecVision and Innovasjon Norge.

Industry associations and various member organisations from the different geographic regions have been contacted during the process and provided highly useful and valuable insight into their local, regional clusters. This interaction and information sharing has been very important in terms of quality assurance across the OFS portfolio. The following organisations have provided valuable support in the process: NODE, Petro Arctic, HOG-Energy, LOG/NCE Maritime and Kongsberg Innovation.

In the analysis, a company is defined as an OFS company if:

- ▶ At least 50% of the turnover is generated in the oil & gas sector
- ▶ Revenues exceed 20 MNOK (in 2008)
- ▶ The legal entity has its business address in Norway

The companies' stand-alone financial statements have been used for capturing financial information on all companies in the cluster. Large corporations, e.g. Aker and IKM, are not treated as a group but as the sum of stand-alone legal entities. This has been done in order to show a more detailed demographic view with regards to location and presence in the value chain. Intercompany transactions are hence not eliminated when aggregating financial figures.

Each company has been placed in one geographical region based on business address and also placed in the OFS value chain based on the company's anticipated main activity. The companies might have activity in several geographical regions and also activities across the value chain, but this is not accounted for in this year's analysis.

Summary

Ernst & Young continues to be heavily engaged in seeking to provide insight and knowledge across the oil & gas and oilfield services sectors in Norway and we are therefore proud to present the first overview of the oilfield services sector in Norway. The purpose of our analysis of the Norwegian OFS sector has been to define, qualify and quantify a sector of significant importance for the NCS and the Norwegian economy and to provide insight both to the industry itself as well as to other relevant parties.

The OFS sector is significant both in terms of revenues and employment and accounts for approximately (2008 numbers):

- ▶ Revenues of 280 BNOK
- ▶ Employment for 80.000 people
- ▶ Captures 600 companies

The OFS sector has developed into an industry capable of serving the NCS as the shelf matures whilst at the same time position for the changes taking place around the world. This will further put pressure on the OFS cluster to 'go global and local'. As this year's analysis demonstrates, we believe today's OFS companies have what it takes to take on this challenge going forward.

We plan to work further on the report going forward and anticipate to expand the analysis next year to capture i) corporate overviews and figures, ii) a more detailed split of revenues and activities across the value chain, iii) a further split of product vs. service suppliers as well as iv) building a 'dummy OFS portfolio' representing the entire OFS cluster intended for capturing and analyzing quarterly financial results from companies and estimates from analysts.

John Avaldsnes
Partner, Advisory - Head of Oil & Gas Nordic

The global oil & gas and OFS sector

The OFS segment lives and dies on upstream spending, and spending has increased considerably the last few years, bringing global offshore oil & gas spending to approx. 200 \$billion in 2008 (Douglas Westwood, 2008). The oilfield service industry has experienced a boom the last years as two decades of low oil prices have resulted in under-investments in existing fields in association with the oil & gas industry's continuous struggle to replace reserves over time. A number of new rigs and offshore vessels have been ordered the last few years bringing a lot of new-builds into the market going forward.

E&P spending has continued to grow and the increase is predominantly taking place offshore and into deeper waters. Various spending patterns have occurred in the different regions - but increasing in all - driven by escalating prices and rig shortages. Costs for field operations have also increased with a massive ageing offshore fleet/infrastructure in need for maintenance, modifications & retrofit as well as an upward shift in technical complexity for extending field's life-cycle. Finally - a significant number of large offshore fields have been discovered recently pushing demand for drilling, engineering and project development - providing growth for the OFS industry.

All in all - the last few years have provided the OFS sector tremendous opportunities to grow the business and the industry has answered by increasing the production and service capacity, technology content and global reach far beyond what was anticipated in the last downturn.

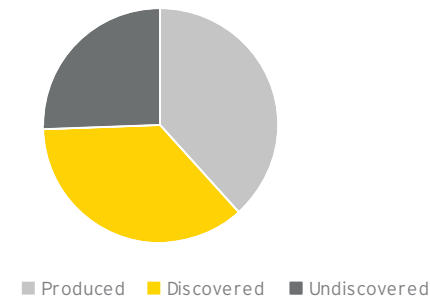
The Norwegian oil & gas market

Production on the Norwegian Continental Shelf (NCS) has taken place since 1971, but there are still considerable reserves left to be discovered and developed. It is estimated that approximately 1/3 is produced, 1/3 is discovered and 1/3 is still to be discovered

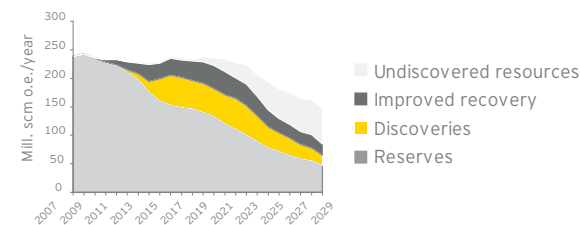
- ▶ Produced: Already produced
- ▶ Discovered: Approved by the authorities for development or dependent on clarification and sanction (commercial/technical)
- ▶ Undiscovered: Volumes expected to be discovered in the future

The production forecast from the Norwegian Petroleum Directorate (NPD) shows a stable overall production level in the coming 10-15 years and declining production from 2023 and onwards. As the largest and easiest available reservoirs are assumed to be found already, the remaining resources will demand even larger investments in order to be discovered, developed and produced. It is therefore anticipated a continuous high activity on the NCS the coming years, both in terms of high OPEX (operations) and CAPEX (new-build and modifications)

Resources on the NCS



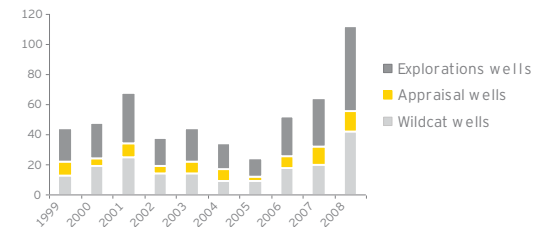
Production forecast NCS



The Norwegian oil & gas market cont.

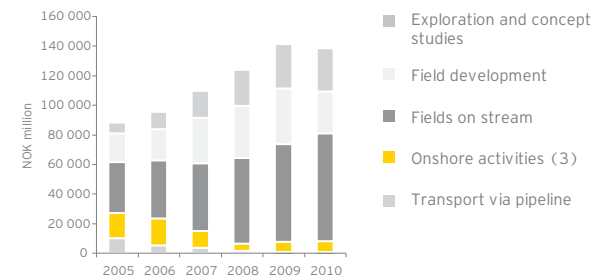
The exploration activity is an important indicator for future production. As it typically takes 10-15 years from exploration begins until production can commence, the exploration policy and phasing is an important indicator with regards to long-term Norwegian resource management. The exploration activities have increased substantially since 2005 in order to exploit awarded acreage, replace resources but have also been driven by higher oil prices. This activity is not likely to drop significantly in the coming years - pending Statoil as the dominant player does not change it's present exploration activity significantly

Exploration & production wells on the NCS



Investments on the Norwegian Continental Shelf (NCS) are predicted to stabilise and decrease the coming years. Investments for extraction of crude petroleum and natural gas and transport via pipelines are predicted to be 141 BNOK in 2009 and 139 BNOK in 2010 respectively. Ageing platforms combined with activities to extend life of producing fields caused investments in modification & maintenance projects to increase significantly. Investments in fields on stream have risen considerably the last years and is expected to be even higher in the coming years. The largest investments in fields on stream are related to Modification & Maintenance (M&M) projects

Accrued and estimated investment costs on the NCS



Source: Statistics Norway 2009, NPD 2009 [1]

References

- NPD 2009 [1] - Norwegian Petroleum Directorate, Facts 2009 (2009)
- Statistics Norway 2009 - Statistics Norway at www.ssb.no, Accrued and estimated investment costs (2009.06.11)

Development of the OFS sector in Norway

The OFS sector has over the last 40 years developed into a significant industry, in general terms as well as for the Norwegian economy.

As this analysis demonstrates the industry has from its early beginning developed into an industry with 280 BNOK in turnover and employment for 80.000 people serving the entire Norwegian Continental Shelf but also an industry increasingly operating in all corners of the world. More and more we see projects where Norwegian companies and technology offer world-class products and services on a global basis in fierce competition with the global OFS industry.

Also - the industry has demonstrated ways to change and adapt to the continuous need for new solutions and technology on the NCS; from large topside developments to subsea solutions, from shallow water in the North Sea to deeper water and a harsher environment in the Norwegian Sea, etc. Simultaneously - the number of Norwegian OFS companies - both in size and products/solutions offered - have increased over the last few years building a world-class industry, owned and operated from Norway.

The OFS cluster has developed into an industry capable of serving the NCS as the shelf matures whilst at the same time position for the changes taking place around the world. This will further put pressure on the OFS cluster to 'go global and local'. As this year's analysis demonstrates, today's OFS portfolio has what it takes to take on this challenge going forward.



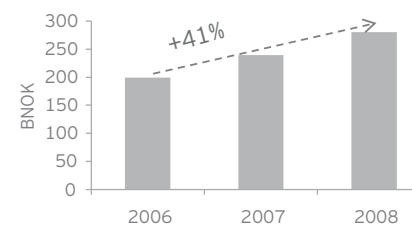
Profit & Loss and key financials

Analysis of key financial data in the OFS portfolio demonstrates a period of significant growth the last three years from 2006 - 2008. The OFS portfolio has experienced a 41% top-line growth this period from 200 BNOK in 2006 to 280 BNOK in 2008. The growth in revenues has been high across the entire value chain, but with considerable growth in segments related to drilling, offshore support and subsea installations. The latter also reflects the high increase in revenues the last two years in the Møre, Agder and Kongsberg regions which are strong clusters for these activities.

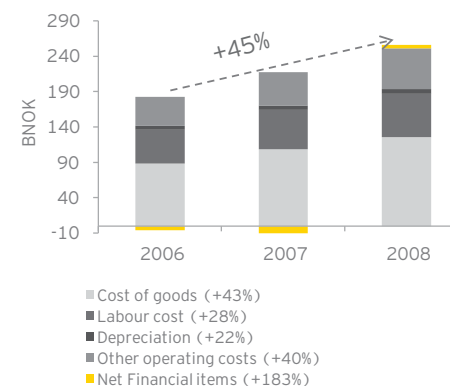
However - in the same period we have also experienced an escalating increase in cost with an increase of 45% in total cost. Even though cost of goods has come up significantly (+43% in the period) in line with what the entire oil & gas industry has been experiencing, we also see large increases in labour cost and other operating cost. It's also important to notice that the OFS portfolio during this period has gone from a net receiving to a net paying position with regards to financial interest.

Even though one should expect increased margins in the OFS portfolio given the significant growth over the last years, the EBITDA margins have come down slightly in the period to 13.7% in 2008. This implies that the industry has neither been able to improve the profitability during the upturn, nor been able to strengthen its financial position for the downturn hitting the industry in 2008.

Development in revenues



Development in cost

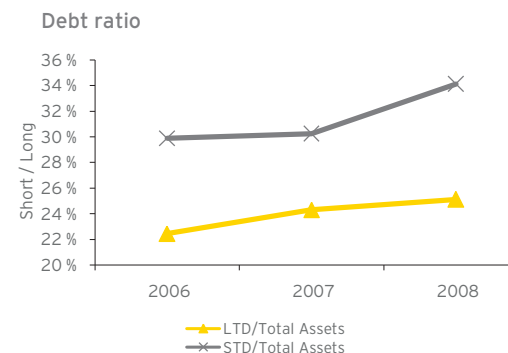
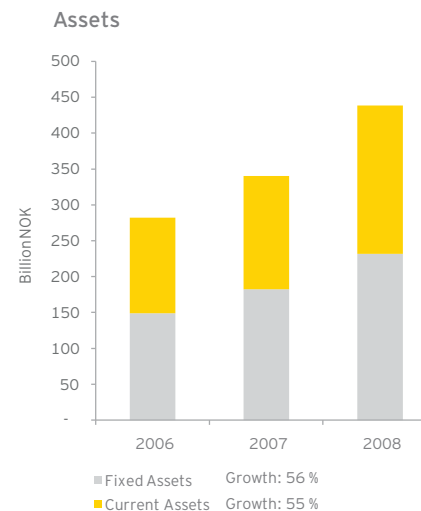


Balance sheet, financing and funding

The OFS portfolio has also grown the balance sheet significantly with a balance sheet growth of approx. 55% during the last three years - from 280 BNOK in 2006 to 430 BNOK in 2008. The growth is evenly split between growth in fixed and current assets.

In the same period the equity-to-assets ratio has come down from 34% in 2006 to 30% in 2008, illustrating that the asset growth has to a large degree been financed by debt (in combination with lower overall margins). Short term debt (in percent of total assets) has in the period increased from 30% to 34%, whilst long term debt has come up from 22% to 24%.

This means that the OFS cluster has taken on significant debt in the last three years and financing cost is now impacting both the financial results and the companies' financial flexibility. Financing cost has also increased significantly from 2006 to 2008 influenced by an increase in NIBOR/LIBOR rates, an increase in risk premiums as well as negative influences from currency changes over time. All in all - this indicates a significant shift in the financing structure for the portfolio and an increase in working capital and opex (short term debt) relative to capex (long term debt).



Revenues and employment across the OFS portfolio

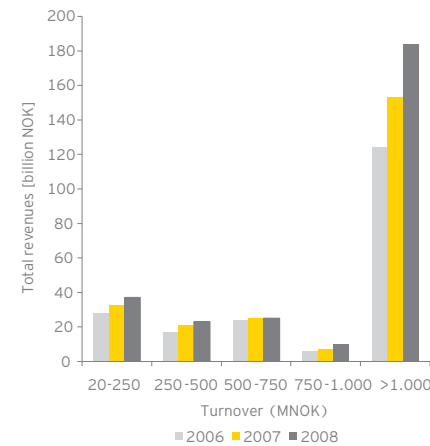
The analysis of the OFS portfolio has demonstrated that the large companies in the cluster are the engine of the cluster in terms of revenues and employment. However - the smaller companies (measured in terms of turnover) also have a significant importance, especially when it comes to number of jobs and job creation both in absolute and relative terms.

Analysing the revenues in the portfolio of companies grouped by turnover (2008) demonstrates that the largest companies (revenues > 1 BNOK) account for 65% (180 BNOK) of the total turnover in the portfolio. On the other end of the scale, smaller companies (turnover between 20 - 250 MNOK) accounts for only 15% (40 BNOK) of the total turnover. This development has become a trend over the last three years, where the largest companies have increased their relative size and importance for the OFS cluster.

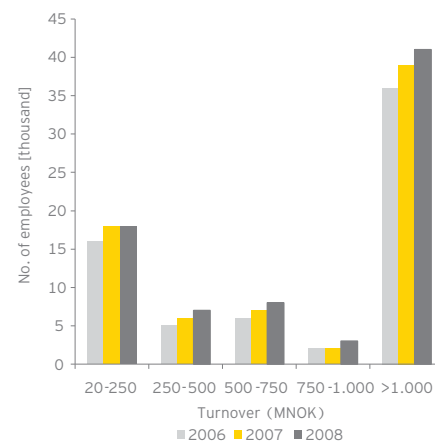
Looking at number of employees in the portfolio of companies group by turnover (2008) we see quite a different picture. The largest companies (as defined above) employ 55% (40.000) employees whilst the smaller companies employ 22% (17.000) employees working in the industry. This also confirms the overall statistics of the cluster where approx. 60 and 420 companies respectively have been categorized as large (turnover > 1 BNOK) versus smaller (turnover between 20 - 250 MNOK) companies.

It is also important to notice that the smaller companies have stopped recruiting whilst the largest have continued taking on people from 2007 to 2008.

Revenues grouped by turnover



Number of employees grouped by turnover



The development of the OFS portfolio in 2009

The analysis of the OFS cluster is based on historic and publicly available financial data and the data source is therefore limited to financials up to 2008. To analyse how the portfolio has developed in 2009 we have compared the development of listed companies included in the OFS cluster with the development of the total portfolio over time. The listed companies (the 'dummy portfolio') account for approximately 25% of revenues in the OFS portfolio and when analyzing the performance over time we see that the OFS portfolio has performed better than the dummy portfolio over the last three years.

However - for 2009 we have assumed that the development has been identical for the two portfolios. Analyzing the development of the listed companies' revenue growth has dropped dramatically for the first three quarters of 2009. By annualizing the results as per third quarter, the growth rate in 2009 is zero and hence we expect the same development to be applicable also for the OFS portfolio of companies.

Our estimate for the OFS portfolio is therefore a growth in revenues close to 5% bringing the turnover for the OFS companies to approx. 300 BNOK (estimate) in 2009.

Analyzing the development in EBITDA margins during 2009, the margins for the listed companies have stabilized due to significant cost cutting activities in combination with relatively good margins in existing contracts. However - it is a fact that the pressure on reduced prices has continued from the oil & gas companies throughout 2009, putting a pressure on the EBITDA margins for the OFS cluster. The combination of lower revenue growth, pressure on margins and a large fixed cost base could bring the EBITDA margins down further in 2009 - bringing the EBITDA margin for the OFS portfolio down to 12% (estimate).

The Norwegian OFS clusters



Rogaland

Møre

Eastern Norway

Agder

Hordaland

The Kongsberg region

Trøndelag

Northern Norway

The OFS regions

The OFS sector in Norway is significant both in terms of number of companies with its main activity in oil & gas, in revenues and number of employees. The following pages illustrate where the OFS cluster of companies are geographically located in Norway, how these companies work across the oilfield service value chain measured in terms of i) number of companies, ii) turnover and iii) employees as well as a listing of the 10 largest companies per region.

Regions	Number of companies	% of total	Revenues (BNOK)	% of total	Employees (thousand)	% of total
Rogaland	231	38 %	90	32 %	31	40 %
Møre	76	12 %	45	16 %	10	13 %
Eastern Norway	55	9 %	44	15 %	6	8 %
Agder	40	6 %	36	13 %	5	6 %
Hordaland	103	17 %	32	12 %	12	16 %
The Kongsberg Region	31	5 %	18	6 %	6	8 %
Trøndelag	59	10 %	13	5 %	6	8 %
Northern Norway	16	3 %	1	0 %	1	1 %
Norway Total	~600	100 %	~280	100 %	~80	100 %

Rogaland as part of the Norwegian OFS portfolio

231 companies



	Reservoir/seismic	Exploration & production drilling	Project development	Engineering, fabrication & installation	Operations	Decommissioning
Number of companies	6	47	2	98	76	2
Revenues (BNOK)	5	32	1	35	20	0
Employees	1 141	8 171	515	12 438	8 898	110

Companies grouped by revenues (MNOK 2008)

	20 - 250	250 - 500	500 - 750	750 - 1000	> 1000
Number of companies	163	29	18	2	19
Revenues (BNOK)	15	10	11	2	53
Employees	8 116	3 016	3 707	1 111	15 323

Rogaland

- ▶ Rogaland is by many seen as the oil & gas capital of Norway and is by far the largest OFS cluster in Norway
- ▶ The cluster accounts for a substantial part of the Norwegian OFS sector (2008):
 - ▶ 32 % of revenues
 - ▶ 40 % of employees
- ▶ The region has seen a stable growth in terms of revenues and margins the recent years
- ▶ A majority of the oil & gas companies in Norway are also located in Rogaland, making this region an important strategic centre for the OFS sector in Norway

	2006	2007	2008
Revenues (BNOK)	73	82	90
Employees	27 132	29 608	30 853
EBITDA margin	14 %	14 %	14 %

Value chain

- ▶ Rogaland is the only OFS cluster with companies present in all parts of the value chain
- ▶ Engineering, fabrication & installation is the largest part of the value chain both with regards to the number of companies, applicable revenues and employees. Both subsea and surface clusters are large and captures companies such as Subsea 7, Acergy, Aker and Fabricom
- ▶ Rogaland also has extensive activity in the exploration & production drilling segment - including both rig owners and service providers
- ▶ Operations is considerable both in terms of revenues and the numbers of employees involved in this segment. Both Production support and Modification & Maintenance are important segments for the region

10 largest companies (revenues)

- | | |
|-----------------------------|------------------------|
| 1. Aibel AS | 6. Westerngeco AS |
| 2. Aker Offshore Partner AS | 7. Acergy Norway AS |
| 3. Halliburton AS | 8. Transocean Offshore |
| 4. Baker Hughes Norge AS | 9. Subsea 7 Norway |
| 5. Schlumberger Norge AS | 10. Dolphin AS |

Size of companies

- ▶ Rogaland is dominated by large companies and demonstrates these companies importance in terms of revenue generation and the number of employees
- ▶ Several of the worlds largest OFS companies are located in the region, e.g. Halliburton, Baker Hughes, Schlumberger and Transocean as well as one of the largest Norway OFS companies, Aibel

Møre as part of the Norwegian OFS portfolio



76 companies

	Reservoir/seismic	Exploration & production drilling	Project development	Engineering, fabrication & installation	Operations	Decommissioning
Number of companies	1	0	0	40	35	0
Revenues (BNOK)	0	0	0	37	9	0
Employees	5	0	0	7 651	2 465	0

Møre

- ▶ The Møre region covers the counties Møre & Romsdal and Sogn & Fjordane
- ▶ Møre strengthened its position as a maritime hub when the region was granted the status as Norwegian Centre of Excellence (NCE) Maritime
- ▶ Several ship owners are based in this cluster driving high revenues but fewer employees
- ▶ The cluster has experienced a growth of 60% in terms of revenues from 2006 - 2008
- ▶ The 76 companies in the cluster account for (2008):
 - ▶ 16 % of revenues
 - ▶ 13 % of employees

Value chain

- ▶ Møre is highly dominated by ship building and ship owners
- ▶ Engineering, fabrication & installation is the largest sub-cluster with main deliveries related to vessels
- ▶ The cluster is also highly present in the Operations part of the value chain through its dominant position in the maritime cluster offering support across the NCS

	2006	2007	2008
Revenues (BNOK)	28	35	45
Employees	8 279	9 039	9 765
EBITDA margin	19 %	18 %	19 %

Companies grouped by revenues (MNOK 2008)

	20 - 250	250 - 500	500 - 750	750 - 1000	> 1000
Number of companies	48	10	6	4	8
Revenues (BNOK)	4	3	4	3	31
Employees	2 458	1 071	934	739	4 919

10 largest companies (revenues)

- | | |
|---------------------------|-----------------------------------|
| 1. Rolls-Royce Marine AS | 6. Odim AS |
| 2. STX Norway Offshore AS | 7. STX Norway Florø AS |
| 3. Kleven Verft AS | 8. I P Huse AS |
| 4. Ulstein Verft AS | 9. Ulstein Design AS |
| 5. Farstad Supply AS | 10. Island Offshore Management AS |

Size of companies

- ▶ Rolls-Royce Marine and STX Norway Offshore alone account for approximately 20 BNOK in revenues - almost half of the regions total revenues (45 BNOK in total revenues)

Eastern Norway as part of the Norwegian OFS portfolio

55 companies



	Reservoir/seismic	Exploration & production drilling	Project development	Engineering, fabrication & installation	Operations	Decommissioning
Number of companies	9	9	2	24	9	0
Revenues (BNOK)	12	3	10	19	1	0
Employees	574	74	2 693	2 548	124	0

Eastern Norway

- ▶ Eastern Norway covers the counties Oslo, Akershus, Oppland, Hedmark and Østfold
- ▶ Eastern Norway is an important part of the Norwegian OFS sector and accounts for (2008):
 - ▶ 15 % of revenues
 - ▶ 8 % of employees
- ▶ The cluster is the home base for several large parent companies and headquarters and therefore accounts for relatively high revenues per employee
- ▶ Half of the companies in the cluster have 20 or less employees

Value chain

- ▶ Eastern Norway is present in nearly the entire OFS value chain with main focus on engineering, fabrication & installation
- ▶ Important players within this sub cluster are Aker Subsea, Technip Norge and Aker Solution Contracting
- ▶ Two large companies operate within Project development; Det Norske Veritas and Aker Engineering & Technology. These two companies alone employ approx. 45% of the employees in the cluster

	2006	2007	2008
Revenues (BNOK)	30	38	44
Employees	5 147	5 956	6 024
EBITDA margin	15 %	16 %	13 %

Companies grouped by revenues (MNOK 2008)

	20 - 250	250 - 500	500 - 750	750 - 1000	> 1000
Number of companies	32	6	4	1	12
Revenues (BNOK)	2	2	2	1	36
Employees	566	371	194	35	4 872

10 largest companies (revenues)

1. Aker Subsea AS
2. Det Norske Veritas AS
3. PGS Geophysical AS
4. Aker Engineering & Technology AS
5. Technip Norge AS
6. TGS Nopec Geophysical Company
7. Aker Solutions Contracting AS
8. Songa Offshore SE
9. Multiklient Invest AS
10. Hamworthy Gas Systems AS

Size of companies

- ▶ The Eastern Norway region is characterized by several larger companies
- ▶ The companies operate within both the reservoir/seismic, exploration & production drilling, project development and engineering, fabrication & installation

Agder as part of the Norwegian OFS portfolio

40 companies



Kristiansand

Agder

- ▶ The Agder region has a long shipping and industry tradition and has over the last years built and attracted a range of OFS companies
- ▶ The NODE (Norwegian Offshore & Drilling Engineering) organisation represent the OFS companies in the region and has been granted the status Norwegian Centre of Excellence (NCE) based on the competence and presence within offshore drilling, offshore loading and offloading, mooring and anchoring, and active heave compensated cranes
- ▶ The cluster has experienced extensive growth from 2006 - 2008. Agder is now recognised as an important part of the Norwegian OFS sector and accounts for (2008):
 - ▶ 13 % of revenues
 - ▶ 6 % of employees

	Reservoir/seismic	Exploration & production drilling	Project development	Engineering, fabrication & installation	Operations	Decommissioning
Number of companies	0	1	0	29	9	0
Revenues (BNOK)	0	20	0	15	1	0
Employees	0	1 809	0	3 281	366	0

Value chain

- ▶ The cluster is highly focused on engineering, fabrication & installation and operation
- ▶ The largest company in the cluster, National Oilwell operates within exploration & production drilling. This company alone account for over 50 % of the clusters total revenue and around 30 % of the employees
- ▶ The region delivers equipment, systems and large contracts related to offshore installations, vessels and drilling units
- ▶ The cluster also holds several ship owners with a fleet of offshore oil & gas vessels

	2006	2007	2008
Revenues (BNOK)	17	26	36
Employees	3 806	4 666	5 407
EBITDA margin	17 %	15 %	15 %

Companies grouped by revenues (MNOK 2008)

	20 - 250	250 - 500	500 - 750	750 - 1000	> 1000
Number of companies	26	7	1	2	4
Revenues (BNOK)	2	3	0,5	2	30
Employees	1 130	623	306	346	3 061

10 largest companies (revenues)

- | | |
|------------------------------------|--|
| 1. National Oilwell Norway AS | 6. TTS Sense AS |
| 2. Aker MH AS | 7. AS Nymo |
| 3. Advanced Production and Loading | 8. Trans Viking Icebreaking & Offshore |
| 4. Macgregor Hydramarine AS | 9. Umoe Mandal AS |
| 5. Aker Pusnes AS | 10. Air Products AS |

Size of companies

- ▶ National Oilwell, one of the largest OFS companies in Norway, is located in Agder
- ▶ Aker MH and National Oilwell alone account for 27 of 36 BNOK in revenues (2008)
- ▶ There is also a wide range of smaller companies present in the region with revenues lower than 250 MNOK supporting the region as an important hub in the OFS portfolio

Hordaland as part of the Norwegian OFS portfolio

103 companies



	Reservoir/seismic	Exploration & production drilling	Project development	Engineering, fabrication & installation	Operations	Decommissioning
Number of companies	3	7	1	42	50	0
Revenues (BNOK)	0	5	0	19	8	0
Employees	0	2 449	112	7 329	2 707	0

Companies grouped by revenues (MNOK 2008)

	20 - 250	250 - 500	500 - 750	750 - 1000	> 1000
Number of companies	76	10	6	2	9
Revenues (BNOK)	7	3	4	2	17
Employees	2 970	1 129	886	559	7 053

Hordaland

- ▶ Hordaland is the cluster with the second largest number of OFS companies present in Norway
- ▶ Hordaland has been granted the status Norwegian Centre of Expertise (NCE) Subsea and has become an important hub with regards to subsea technology
- ▶ Hordaland accounts for a considerable part of the Norwegian OFS sector (2008):
 - ▶ 12 % of revenues
 - ▶ 16 % of employees
- ▶ The cluster has experienced a stable growth - both in terms of revenues and employees - the recent years

Value chain

- ▶ Hordaland is present in almost the entire value chain, but has its definite focus within engineering, fabrication & installation
- ▶ Important players within engineering, fabrication and installation are Aker Stord, Wartsila Norway and Aker Elektro. These three companies alone employ nearly 30 % of the total employees in the cluster
- ▶ Hordaland is also the home base for large players within exploration & production drilling such as KCA Deutag Drilling Norge and Odfjell Drilling Management

	2006	2007	2008
Revenues (BNOK)	27	31	32
Employees	11 655	12 910	12 485
EBITDA margin	16 %	17 %	15 %

10 largest companies (revenues)

- | | |
|-----------------------------------|---------------------------------|
| 1. Aker Stord AS | 6. Beerenberg Corp. AS |
| 2. Wartsila Norway AS | 7. DOF Rederi AS |
| 3. Aker Elektro AS | 8. Leirvik Module Technology AS |
| 4. KCA Deutag Drilling Norge AS | 9. Bergen Group Bmv AS |
| 5. Odfjell Drilling Management AS | 10. Frank Mohn Flatøy AS |

Size of companies

- ▶ The cluster of Hordaland captures several large and mid-sized companies as well as smaller companies
- ▶ The largest companies are mainly related to engineering, fabrication & installation surface and drilling, while a range of smaller companies are related to subsea products and services

The Kongsberg region as part of the Norwegian OFS portfolio

31 companies



	Reservoir/seismic	Exploration & production drilling	Project development	Engineering, fabrication & installation	Operations	Decommissioning
Number of companies	0	0	0	25	6	0
Revenues (BNOK)	0	0	0	18	1	0
Employees	0	0	0	5 891	143	0

The Kongsberg region

- ▶ The Kongsberg region covers the counties Vestfold, Buskerud and Telemark including Kongsberg and Grenland
- ▶ The Kongsberg region is a small, but very important OFS cluster. The region accounts for only 6% of the total revenues, but is the home base for important players such as FMC Kongsberg Subsea, Kongsberg Maritime, Grenland Group Technology and Grenland Offshore
- ▶ The two largest players alone employ over 65% of the total employees in the cluster and over 70% of the total revenues in the cluster
- ▶ Kongsberg has also been granted a Norwegian Centre of Expertise status, NCE Systems Engineering, which goal is to target growth in the high-tech industry

Value chain

- ▶ The Kongsberg region is present mainly in two parts of the OFS value chain and the largest companies in the cluster all operate within engineering, fabrication & installation
- ▶ Operations are briefly present in the value chain accounting for approx. 4% of the total revenues in the cluster. Companies within operations are e.g. Ross Offshore, Nova Subsea and IKM Instrutek

	2006	2007	2008
Revenues (BNOK)	12	14	18
Employees	4 470	5 085	5 842
EBITDA margin	1 %	6 %	9 %

Companies grouped by revenues (MNOK 2008)

	20 - 250	250 - 500	500 - 750	750 - 1000	> 1000
Number of companies	24	3	2	0	2
Revenues (BNOK)	2	1	1	0	13
Employees	1 021	525	544	0	3 944

10 largest companies (revenues)

1. FMC Kongsberg Subsea AS
2. Kongsberg Maritime AS
3. Grenland Group Technology AS
4. Grenland Offshore AS
5. NLI Alfr. Andersen AS
6. FMC Kongsberg Metering AS
7. STX Grenland Industri AS
8. Emerson Process Management AS
9. Ross Offshore AS
10. STX Norway Electro Brevik AS

Size of companies

- ▶ The region is characterized by a few large players
- ▶ The five largest companies in the cluster alone account for approx. 80 % both in terms of employment and revenues

Trøndelag as part of the Norwegian OFS portfolio

59 companies



	Reservoir/seismic	Exploration & production drilling	Project development	Engineering, fabrication & installation	Operations	Decommissioning
Number of companies	3	2	0	22	30	0
Revenues (BNOK)	1	0	0	7	5	0
Employees	239	50	0	3 793	1 572	0

Companies grouped by revenues (MNOK 2008)

	20 - 250	250 - 500	500 - 750	750 - 1000	> 1000
Number of companies	46	5	5	0	3
Revenues (BNOK)	4	2	3	0	5
Employees	1 726	759	1 165	0	2 020

Trøndelag

- ▶ The Trøndelag region covers the counties Nord- and Sør-Trøndelag and represents a small part of the OFS portfolio
- ▶ The cluster is the home base for approx. 10 % of the OFS companies in Norway, but accounts for only under 5 % of the total revenues
- ▶ The cluster is characterized by smaller companies especially within operations - production and engineering, fabrication & installation
- ▶ The geographical location however makes the region well suited to serve the activity in The Norwegian Sea
- ▶ Trøndelag has been granted a Norwegian Centre of Expertise status, NCE Instrumentation, specializing in supplying advanced control and communication solutions to amongst others the oil & gas market

Value chain

- ▶ Trøndelag is present in nearly the entire OFS value chain, with main focus on operations and engineering, fabrication & installation
- ▶ Important players within engineering, fabrication & installation are Reinertsen, Aker Verdal and Autronica Fire and Security
- ▶ These three companies alone employ over 40 % of the total employees in the cluster

	2006	2007	2008
Revenues (BNOK)	11	13	13
Employees	4 836	5 209	5 670
EBITDA margin	8 %	9 %	7 %

10 largest companies (revenues)

1. Reinertsen AS
2. Aker Verdal AS
3. Aker Reinertsen AS
4. Teekay Petrojarl Production AS
5. Autronica Fire And Security AS
6. Electromagnetic Geoservices ASA
7. Bredero Shaw Norway AS
8. Boa Offshore AS
9. Kongsberg Seatex AS
10. KS Petrojarl 1 AS

Size of companies

- ▶ The majority of the companies are small representing revenues ranging from 20 to 250 MNOK
- ▶ Among these companies are e.g. Erling Haug AS, Teekay Petrojarl Offshore Siri and Aker Piping Technologies
- ▶ The three players with revenues over 1.000 MNOK are Reinertsen, Aker Verdal and Aker Reinertsen, all within engineering, fabrication & installation or operations

Northern Norway as part of the Norwegian OFS portfolio



	Reservoir/seismic	Exploration & production drilling	Project development	Engineering, fabrication & installation	Operations	Decommissioning
Number of companies	0	0	0	10	6	0
Revenues (BNOK)	0	0	0	1	0	0
Employees	0	0	0	628	83	0

Companies grouped by revenues (MNOK 2008)

	20 - 250	250 - 500	500 - 750	750 - 1000	> 1000
Number of companies	16	0	0	0	0
Revenues (BNOK)	1	0	0	0	0
Employees	711	0	0	0	0

10 largest companies (revenues)

1. Miras Multimaskin AS
2. Rapp Bomek AS
3. Bergen Group Kimek AS
4. Mudenia Elektro AS
5. Polarbase AS
6. Bergen Group Kimek Offshore AS
7. Miras Grotnes AS
8. Helgelandsbase AS
9. Nor Supply Offshore AS
10. Norlense AS

Size of companies

- ▶ The OFS companies in Northern Norway are small compared to the rest of the OFS portfolio
- ▶ The largest player in the cluster, Miras Multimaskin, had revenues in 2008 of 0,2 BNOK

Northern Norway

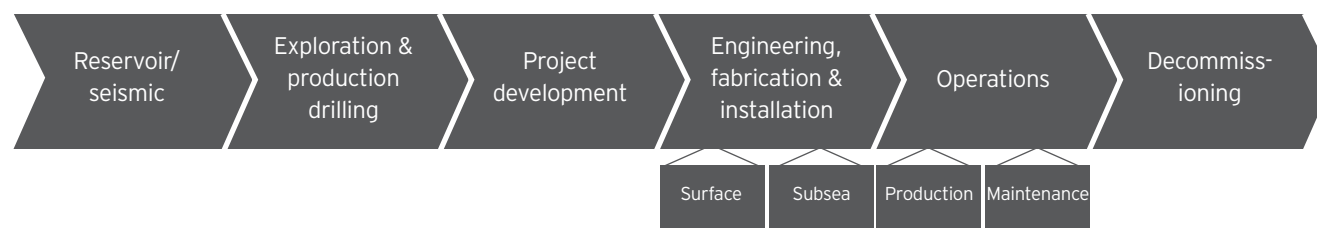
- ▶ Northern Norway covers the counties Nordland, Troms and Finnmark and is historically an insignificant OFS region
- ▶ The region is however high on the agenda due to the large unexplored areas with potential resources located in the Barents region and the potential implications this could have on regional development
- ▶ Petro Arctic is an organisation representing companies who wants to position themselves as suppliers to the oil & gas in Northern Norway and the Barents Sea activities and represents approximately 350 members

Value chain

- ▶ Northern Norway is present in two parts of the OFS value chain; engineering, fabrication & installation and operations
- ▶ Engineering, fabrication & installation is the most important part of the value chain for the region and employs the majority of the employees in the cluster
- ▶ Players within operations are Helgelandsbase and Nor Supply Offshore

	2006	2007	2008
Revenues (BNOK)	1	1	1
Employees	512	553	633
EBITDA margin	12 %	8 %	10 %

The cluster is well positioned across the value chain - with particular weight on engineering, fabrication & installation



The Norwegian Oilfield Service (OFS) sector is well positioned throughout the value chain, providing both competence and capacity to support the entire value chain of an oil company. Companies are tagged once and in line with their main focus in the value chain. Several of the companies are diversified OFS companies and hence have activities across most of the value chain. These companies have mainly been tagged to Exploration & Production Drilling and Operation - Production.

									Total
Number of companies	22	66	5	235	55	183	38	2	600
Revenues (BNOK)	17	59	11	114	36	33	12	0,2	280
Number of employees	1 959	12 553	3 320	34 658	8 901	11 798	4 560	110	80 000
EBITDA margin	22 %	19 %	5 %	9 %	11 %	19 %	11 %	7 %	14 %

The small samples in Decommissioning and Project development will make numbers for these segments less valid. Engineering, fabrication & installation - Surface is the largest cluster of the value chain, both with regards to the number of companies, applicable revenues and number of employees. A significant part of the OFS companies in Norway are therefore directly or indirectly linked in to the operational activities from today's production units and vessels.

The single largest company measured by revenues in 2008, National Oilwell, operates in the Exploration & production drilling segment, while the next six largest companies are tagged to Engineering, fabrication & installation. Margins (EBITDA) varies through the value chain and also varies within each value chain segment

The OFS value chain – descriptions and players

A short description each part of the value chain and the largest companies in each segment are described below.

- ▶ Reservoir/Seismic captures companies operating seismic vessels and companies delivering equipment and solutions to these vessels. The largest players are PGS Geophysical AS, WesternGeco AS, TGS Nopec Geophysical Company ASA, Multiklient Invest AS and PGS Exploration (Norway) AS
- ▶ Exploration & production drilling captures companies owning and/or operating drilling rigs and companies delivering products and services to these rigs. The largest companies are National Oilwell Norway AS, Halliburton AS, Baker Hughes Norge AS, Schlumberger Norge AS and Transocean Offshore
- ▶ Project development captures companies supporting oil companies in the project development phase for the oil fields. The largest players are Det Norske Veritas AS, Aker Engineering & Technology AS, AGR Subsea AS, Fabricom PMAE AS and Dovre Group AS
- ▶ Engineering, fabrication & installation - Surface captures companies involved in manufacturing and installations of production and supporting units. The largest players are Rolls-Royce Marine AS, STX Norway Offshore AS, Aker MH AS, Aibel AS and Kongsberg Maritime AS
- ▶ Engineering, fabrication & installation - Subsea captures companies involved in manufacturing and installations of subsea equipment and solutions. The largest players are FMC Kongsberg Subsea AS, Aker Subsea AS, Acergy Norway AS, Technip Norge AS and Subsea 7 Norway
- ▶ Operations - Production captures companies supporting oil companies in the production phase on the production units, including support vessels. The largest players are Farstad Supply AS, CHC Norway AS, Dof Rederi AS, Ulstein Design AS and Havila Ships AS
- ▶ Operations - Maintenance captures activities related to Modification & Maintenance (M&M) on production units. The largest players are Aker Offshore Partner AS, West Contractors AS, Aker Reinertsen AS, Øglænd System AS and SAR AS
- ▶ Decommissioning captures companies offering services related to removal of production installations. The largest players are Norse Cutting & Abandonment Norway AS and Proserv Offshore AS

This year's report has taken a closer look at one important parts of the value chain - Exploration & Production Drilling

Exploration & Production Drilling

Service Segment description

The E&P Drilling segment is a multi-faceted segment of the oil service industry. It comprises the rig companies (e.g. Ocean Rig, Fred Olsen Energy), the drilling companies (e.g. Seadrill, Odfjell Drilling), plus what has been referred traditionally to as the oil service companies, and where the dominant players are the multinationals, Schlumberger, Baker Hughes, and Halliburton. The latter three provide among them cementing, stimulation, intervention, completion, field and reservoir modelling, drilling, evaluation, well-bore placement solutions, artificial lift, coiled tubing services, consulting & data services, formation evaluation, production optimization, seismic services, software, subsea solutions, well testing, wire line, fluids systems and services, well monitoring services, chemical technology solutions, and pipeline integrity services

Developments in the segment 2006 - 2008

In the wake of the financial crisis that hit the world economy in the autumn of 2008, which was also the year in which the price of a barrel of crude went from a peak of US\$ 143 for so to drop by US\$ 110 in the next six months, the oil companies all started to waive their flags about the cost explosion that had hit the industry in recent years. In many ways they were right, cost and crude price had walked hand in hand on an upward path and average daily rig rates in the NCS had gone from an average of US\$ 170K in January 2006 to US\$ 333K in December 2008, i.e. an increase of 96% in just three years. And, the three major traditional oil service companies, as a group, had seen their revenues grow by 39% from 2006 to 2008

The situation in 2009

At the time of writing the rig, rates are up from year end 2008 by an average of US\$ 67K per day and estimates are that they will remain strong at least until 2012. Throughout the year the oil companies have negotiated with most of their key suppliers in attempts to reverse the cost trend. Indications from the market are that in some ways the oil companies have been successful and we will most likely see lower profit margins for the oil service companies in 2009 than we did in 2008

Expectations for 2010/2011

The dominant operator on the NCS, Statoil, has clearly signalled that their exploration drilling activities will be substantially lowered from what it has been in 2009. On the other side, statements recently made by representatives from Statoil as well as Petoro and the NPD make it clear that they all aim for substantial improvement in recovery rates, as well from platform operated fields as from subsea. That should provide plenty of business opportunities and reason for continued optimism for the service companies in the exploration and production drilling segment. However, a shift in product and service mix should be anticipated

This section was contributed by Halliburton

Appendix

Approach/methodology

The companies registered business addresses in Brønnøysundregisteret have been used to reflect geographic location and all accounting information is publically available information from the same register. The number of companies included in the analysis will vary some due to lack of available financial information. Companies lacking 2007 financials will be excluded when calculating annual growth but included when analysing 2008 numbers separately.

The analysis is then further developed based on a variety of data searches and individual reviews.

Location

The regions used in the analysis have been chosen to reflect and to illustrate the main clusters of OFS companies in Norway. The regions are:

- ▶ Rogaland
- ▶ Hordaland
- ▶ Agder
- ▶ Møre (Møre & Romsdal and Sogn & Fjordane)
- ▶ The Kongsberg Region (Vestfold, Telemark and Buskerud)
- ▶ Trøndelag (Sør- and Nord Trøndelag)
- ▶ Northern Norway (Nordland, Troms and Finnmark)
- ▶ Eastern Norway (Oslo, Akershus, Oppland, Østfold and Hedmark)

Categorisation

Each company reflected in the OFS portfolio have been reviewed individually and an assessment has been made with regards to position in the value- and supply chain.

The value chain has the following categories:

- ▶ Reservoir/ seismic
- ▶ Exploration & production drilling
- ▶ Project development
- ▶ Engineering, fabrication & installation - surface
- ▶ Engineering, fabrication & installation - subsea
- ▶ Operations - production
- ▶ Operations - maintenance
- ▶ Decommissioning

The supply chain has the following categories:

- ▶ Contract drillers (rig companies)
- ▶ Diversified Oilfield Service companies
- ▶ Contractors - topside
- ▶ Contractors - subsea
- ▶ Product suppliers
- ▶ Single service provider

Position in the supply chain has not been the main topic of this report, but is reflected in the database and available for further analysis.

EBITDA

EBITDA margin is calculated as EBITDA over total operating income. The average EBITDA margin is not a weighted average. A criteria is set to the EBITDA margin to prevent any possible extreme outcomes to affect the average, EBITDA margin should be <100 % and > -100 %.

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