



Grethe K Moen – photo: Emile Ashley

THE YEAR OF DRAMATIC CHANGES

2014 was the year of a sharp downturn in the industry. Driven by a high level of costs and a switch by the oil companies from volume to value, the willingness to invest on the Norwegian continental shelf (NCS) has been reduced.

This is illustrated in the fact that more than half the project decisions anticipated for 2014 in Petoro's portfolio were either deferred or taken with a reduced scope of work.

The industry also experienced a dramatic fall in oil prices, from USD 115 per barrel in June to USD 55 at 31 December, presenting us all with a strong challenge over sustainability from both profitability and environmental perspectives. The result is an urgent need for innovative thinking and change.

Fortunately, this picture has some bright silver linings. The fact is that the world needs energy, and that oil and gas will account for a significant share of supplies in the years to come. The

International Energy Agency (IEA) has made it clear that, regardless of the direction taken by environmental policies and measures, large investment is still needed in our industry to safeguard energy supplies.

Oil and gas price trends are unquestionably crucial for the willingness of the oil companies to undertake new capital spending. Although our decisions will always be based on long-term price assumptions, we are strongly influenced by current market perspectives and prices. That is the paradox of and challenge for our industry – long-term by nature, but increasingly driven by short-term conditions.

The obvious task in a global industry is therefore

to reduce marginal costs, so that Norwegian projects are competitive.

During 2014, the industry became increasingly aware of the challenges posed by the high level of costs. Various measures have accordingly been initiated, ranging from programmes which aim to simplify fundamental work processes and technical requirements to straightforward reductions in activity such as the cancellation of modification work and exploration operations.

We are wholly dependent on long-term efficiency improvements. These are not achieved by short-term cost cuts. I am therefore very concerned that all improvement measures must have clear cost-efficiency goals.

One challenge in realising the maximum improvement potential is the industry's complexity and interdependencies, in the sense of a broad range of players, an international orientation and long supply chains.

Virtually all the players have their own improvement agenda, which each pursues independently. The ability and willingness to collaborate with an international approach – to standardisation, for example – will be crucial for success.

New technology will unquestionably be part of the solution, but development must be shifted towards enhancing efficiency.

The appetite for exploration is an expression of the competitiveness of the NCS. Grounds for concern exist when the number of exploration wells in 2015 where Petoro is a partner looks like halving from the year before. The big test of the NCS' competitiveness will be the interest shown by the big international oil companies in the 23rd licensing round.

Development of Johan Sverdrup is now beginning, and will provide an important foundation for continued industrial activity on the NCS. A large and important field such as this boosts opportunities for continued technological progress and new solutions. Fully developed, Johan Sverdrup will account for about 25 per cent of Norwegian offshore output and have a production horizon of more than 50 years. Phase one of the development will encompass about 50 000 work-years, with a substantial Norwegian share.

We have, in Petoro, reviewed our portfolio of producing fields in Petoro to test its robustness to various oil price scenarios. The results show that very few of the large mature fields will need to cease production over the next five to

10 years, even with persistently low oil prices. But we see that Petoro's portfolio also contains fields whose remaining commercial life is uncomfortably short. Two facts illustrate that mature fields represent the backbone for future revenues from the NCS – more than 60 per cent of remaining proven resources off Norway lie in producing fields, and more than 90 per cent of new field developments will need to be tied back to existing installations. So we believe it will be important to exploit the coming period of limited activity in developing new discoveries to pursue effective further development of the mature fields.

Seeking lessons from the UK continental shelf (UKCS), which is matured 10 years ahead of the NCS on average, is relevant for Norway. An interesting observation is that combining good efficiency and positive HSE results without increasing costs is fully possible in an aging portfolio.

This year's climate summit in Paris and the subsequent changes to global and national climate goals will have consequences for both production and demand in our industry.

A significant point is that gas represents by far the "cleanest" component in the fossil energy mix, and that many of the challenges can be overcome by changing this mix through phasing out coal to the benefit of gas.

Another important consideration is that greenhouse gas emissions from Norwegian oil and gas production are among the lowest in the world per unit produced.

To sum up, we can see that our industry must once again adapt to new realities. History has shown that this sector is highly adaptable and has always emerged strengthened from such periods. I genuinely believe that this will happen yet again.

To quote Norwegian folk singer Øystein Sunde: "Of all the winds I've sailed with, a headwind is the most difficult to sail into."

Successful sailors make good progress whether the wind is with them or against them, but these two conditions call for radically different approaches. As is the case for all of us.



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