https://www.og21.no/strategi-og-analyser/og21-strategien-2021/technology-and-knowledge-needs/drilling-completions-intervention-and-pa/?downloadChapter=true

INNHOLD

OG21 Strategy - A New Chapter

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PUBLISERT 19. OKT. 2021 | OPPDATERT 6. NOV. 2021

Drilling, completions, intervention, and P&A

Although drilling performance has improved substantially over the last 6 years, Drilling & Wells is still the main cost element on the NCS, representing 28% of estimated expenditures on the NCS for the 2021-2040 time period (Rystad Energy, 2021).

The prioritized technology and knowledge areas for TG3 are:

- Data gathering and optimization of drilling operations.
- Improved drilling equipment.
- Advanced well construction and methodologies.
- Subsea well intervention technologies.
- Recompletion and multilateral technologies.
- Challenging reservoirs.
- More efficient P&A.

All TG3-priorities have the potential to cut costs on the NCS significantly (see Figure 42). In addition, most would contribute to adding significant volumes. Most of the pr would also have a potential positive impact on CO_2-emissions.

"Challenging reservoirs" are with current technologies associated with higher CO_2-emissions than conventional reservoirs. Considering the large volumes on the NCS ir reservoirs, the R&D efforts should be aimed at reducing CO_2-emission to at least the same level as for conventional reservoirs. We believe such reservoirs could potenti drained with technologies that are not necessarily very energy consuming, e.g. more mechanical technologies can be developed, and fluid pumping methods could be advanced.

Common for most of the evaluated TG3 priorities is that they can be adopted fast – often they would yield saved costs or added volumes within a year from investment (This make such technologies especially attractive in a business environment where fast returns are favored and may explain why such technologies had a relatively high adoption rate during the petroleum recession period 2014-2018.

We have seen some technology development for rig equipment over the last years, but there is still scope for further improvements. Making use of sensor data and Artif Intelligence (AI) to improve automation and make the rig operate more towards optimum performance every time, will improve the efficiency and as such minimize the ca footprint of the operation. This combined with improved and modernized drilling equipment has a considerable potential.

When it comes to well construction, new drilling methods and optimized well design combined with intelligent utilization of existing wells have been demonstrated by sor the operators on the NCS. There are however several new technologies where the full potential is still not harvested. Further development and adoption of such technol could reduce the number of days per well, and facilitate cost and volume optimized wells, i.e. maximizing the value of each well.

4.5 Drilling
compl
interv

P&A of wells on the NCS is a considerable challenge ahead. We need step change technologies to make these operations as effective as possible to minimize future expenditures. The market volume is increasing, and several service companies are very creative in this arena and should be stimulated to advance these technologies to minimize rig days, emissions, and costs.

CASE - TG3

Do we have to use rig for P&A operations? Do we have to pull the tubing, or can the tubing remain in the well?



Drilling, completions, intervention and P&A - prioritized technology and knowledge areas

Meldinger ved utskriftstidspunkt 23. november 2026, kl. 12.58 CET

> Det ble ikke vist noen globale meldinger eller andre viktige meldinger da dette dokumentet ble skrevet ut.