

Introduction to FORCE-webinar:

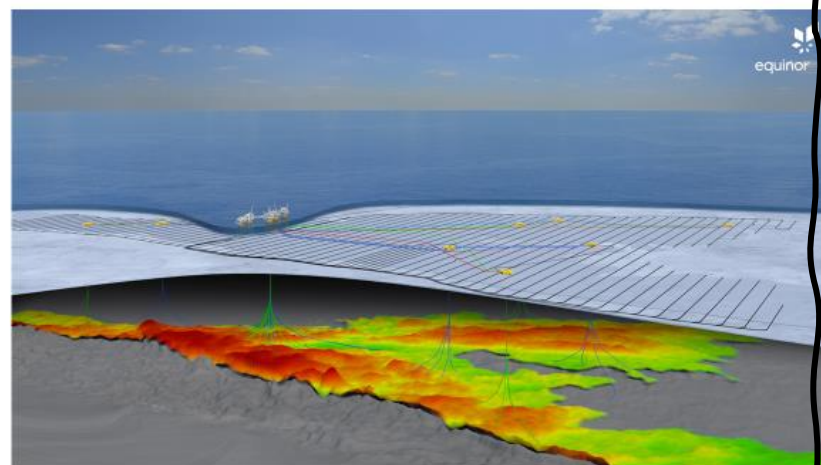
Low permeable reservoir resource potential

FORCE Presentation – 09. november 2023

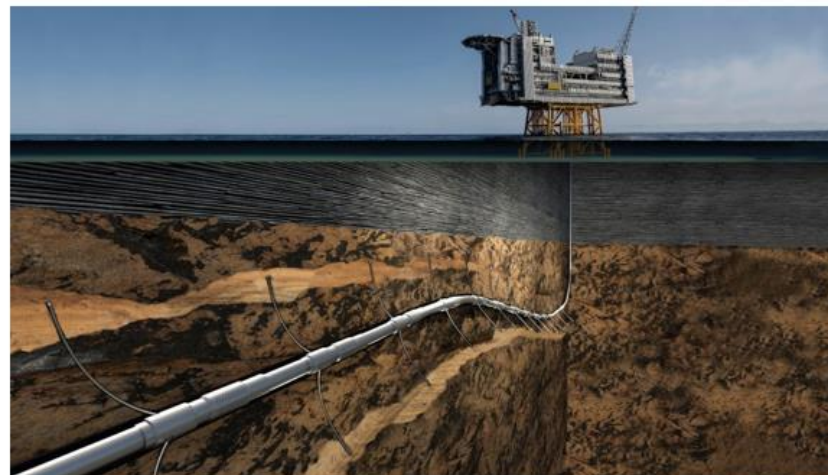
Presenter: Kristoffer Engenes, Geologist, NPD

NPD Technology Strategy

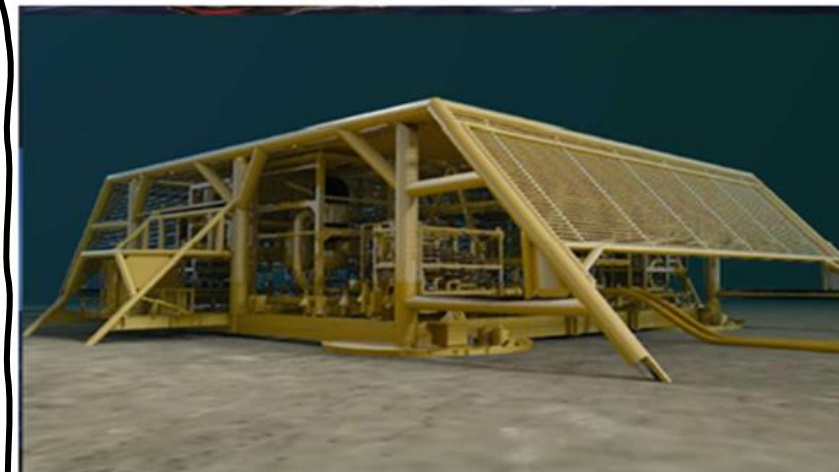
Subsurface data acquisition



Challenging barrels



Next generation production systems



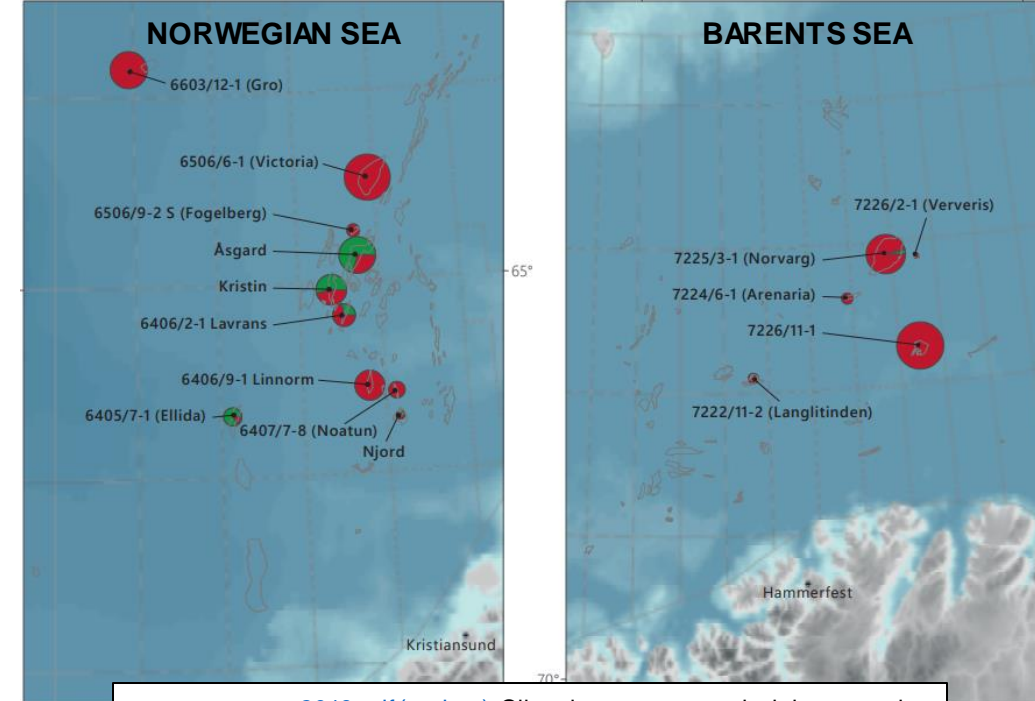
Improve
Discovery

Increase
Recovery

Reduce
Emmision

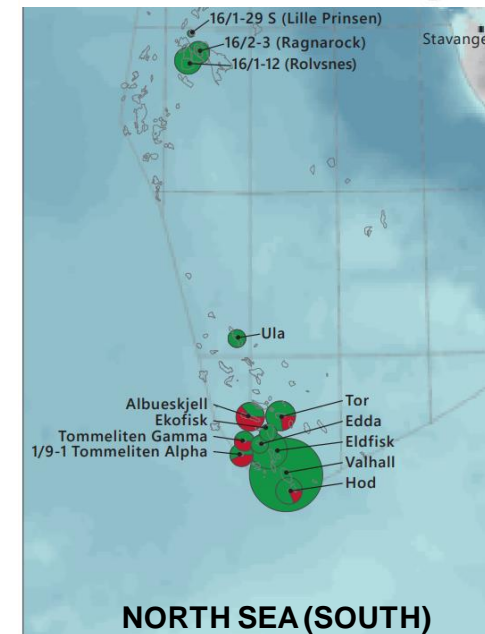
Stranded HC – Typical challenges

- **Low perm reservoirs:** Generally, the most common challenge
- **HPHT:** Drilling challenges, typically also in combination with low permeable reservoirs
- **Low pressure:** Shallow burial, limited pressure support
- **Compartmentalisation:** Flow barriers, flow rates, typically in combination with low permeable reservoirs
- **Gas quality:** Elevated levels of CO₂, H₂S and Mercury
- **Access to available infrastructure:** Long distance to existing infrastructure is preventing commercial development of proven gas resources
- **Technology:** New drilling-, completion- and production technologies are required to unlock development of stranded HC

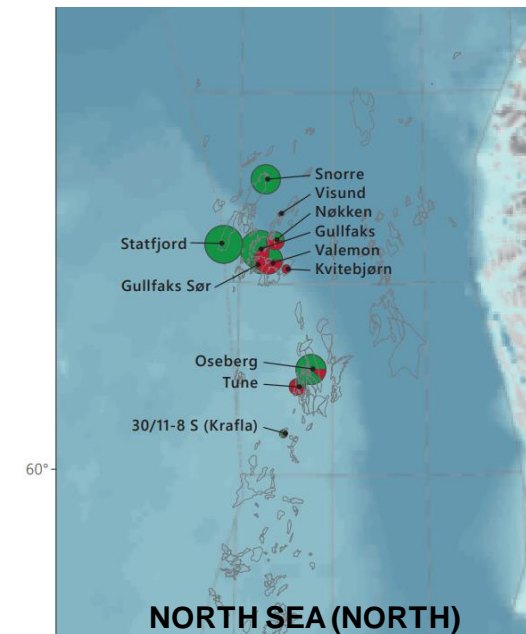


[ressursrapport-2019.pdf\(npd.no\)](https://ressursrapport-2019.pdf(npd.no)): Oil and gas resources in tight reservoirs

Ressurser i tette reservoarer
 • 1 MSm³ o.e. • 10 MSm³ o.e. • 50 MSm³ o.e. • 100 MSm³ o.e. • Olje (MSm³) • Gass (GSm³)



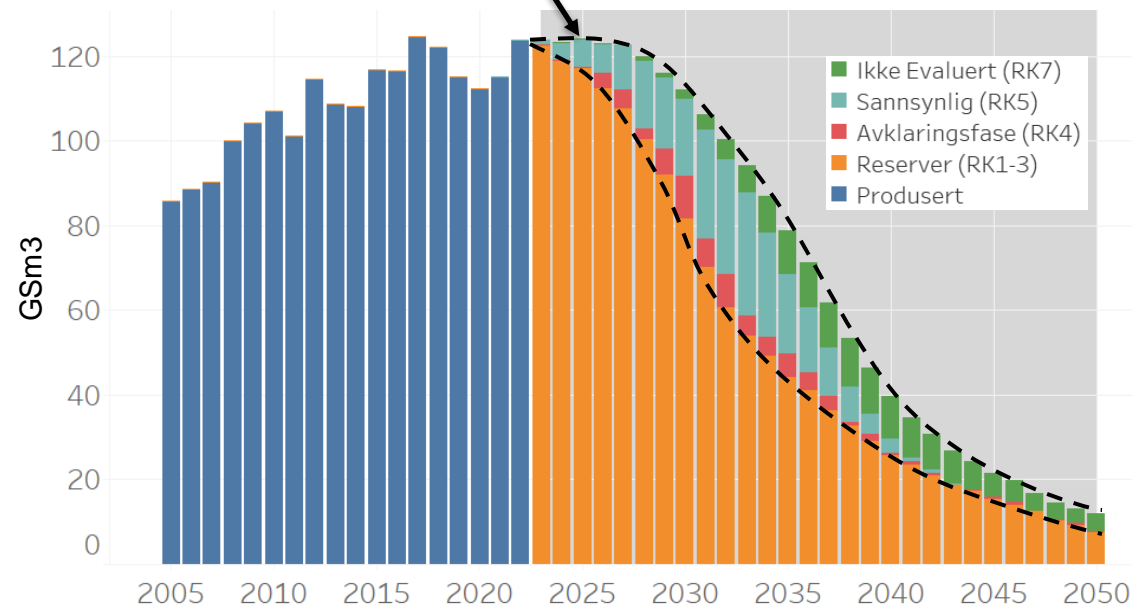
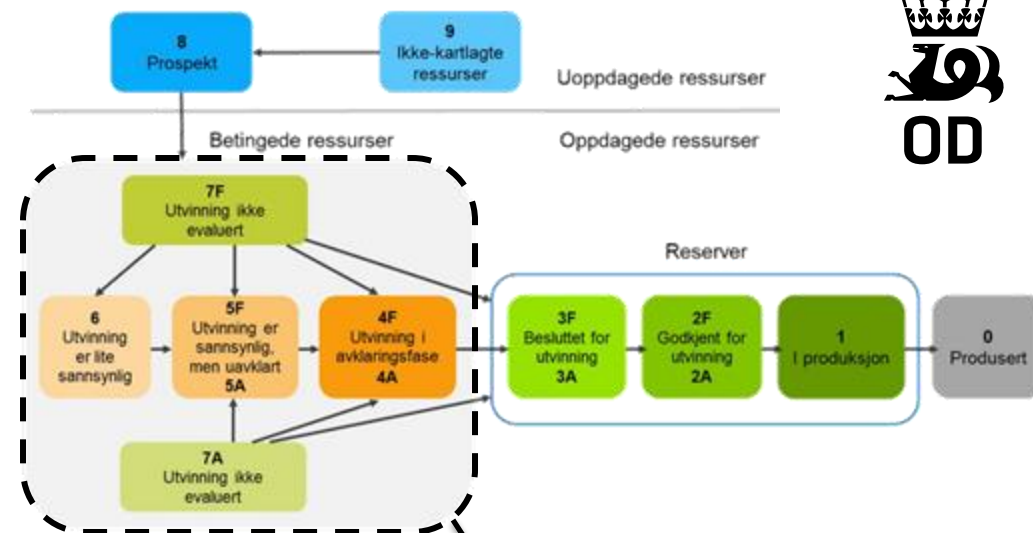
NORTH SEA (SOUTH)



NORTH SEA (NORTH)

Stranded gas study

- NPD has in 2023 evaluated the conditional stranded gas resources on the NCS, currently classified as RK7-RK4 (see resource classification chart).
- Focus has been to identify opportunities that have the potential to be further matured towards commercially attractive reserves, classified as RK3-RK1.
- The evaluations have indicated potential for maturation of commercial attractive development projects, however, generally under the condition of implementation of new drilling-, completion- and production technologies.
- We are looking forward to see presentations of this from Equinor, SLB, Shell and others in today's webinar.



Takk for oppmerksomheten!

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