

Longer, Deeper, Colder  
– Technology as an enabler for growth

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# Longer, Deeper, Colder

– Technology an enabler for growth

2009 Tyrihans



2007 Ormen Lange/Snøhvit



2007 Tordis



2005 Kristin



1999 Åsgard



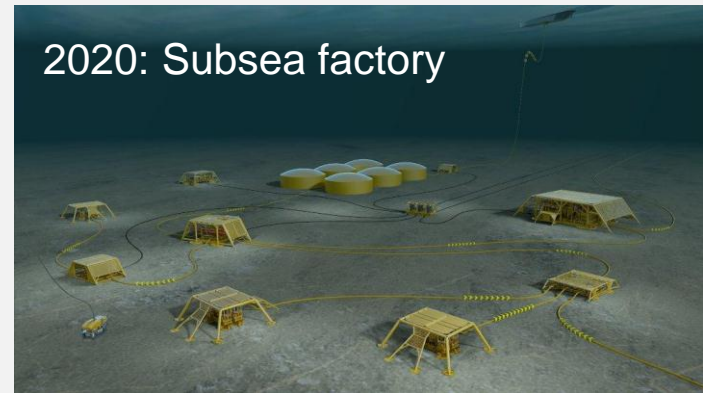
1986 Gullfaks



2015: Gullfaks and Åsgard subsea compression



2020: Subsea factory

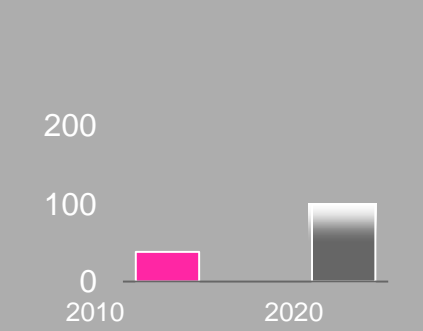
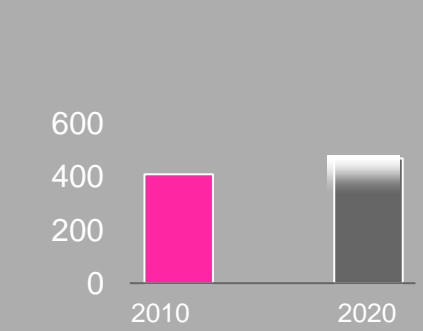
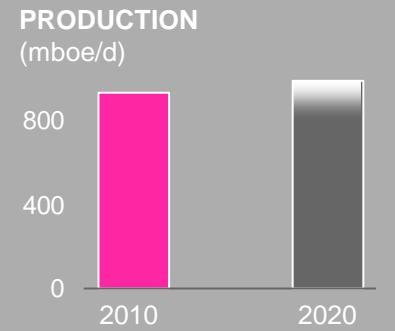


# A technology focused upstream strategy



# Revitalising the NCS with high value barrels

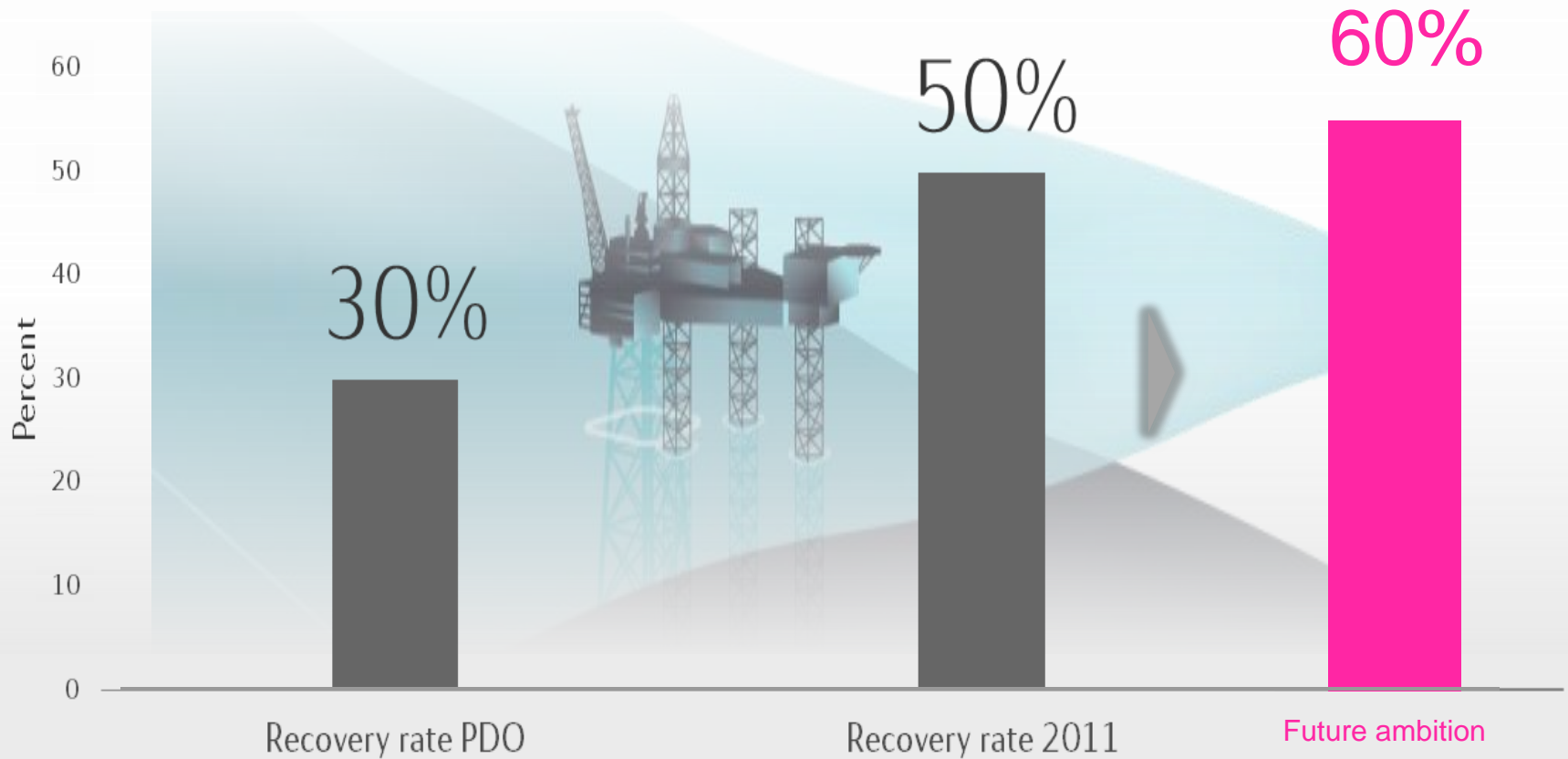
- 1** Maximise value of the North Sea
- 2** Value and growth in the Norwegian Sea
- 3** A new industrial horizon in the Barents Sea



★ Skrugard and Havis – world class discoveries in the Barents Sea  
 Important arena for future subsea production & processing developments



# World class oil recovery rate



Average for Statoil's operated fields on NCS  
PDO: Plan for development and operations

# Cat B – The recovery machine

- Optimised for heavy intervention and light drilling in existing wells
- Developed to improve oil recovery
- Increased cost and time efficiency
- Integrated third party services



# Åsgard subsea compression

Value creation:

Increased recovery from Midgard and Mikkel  
estimated to 280 Mboe

Technology step:

Substantial recovery and lifetime increase for other  
technology users (gas fields)

Courageous decision:

Pioneering work aiming at subsea factory

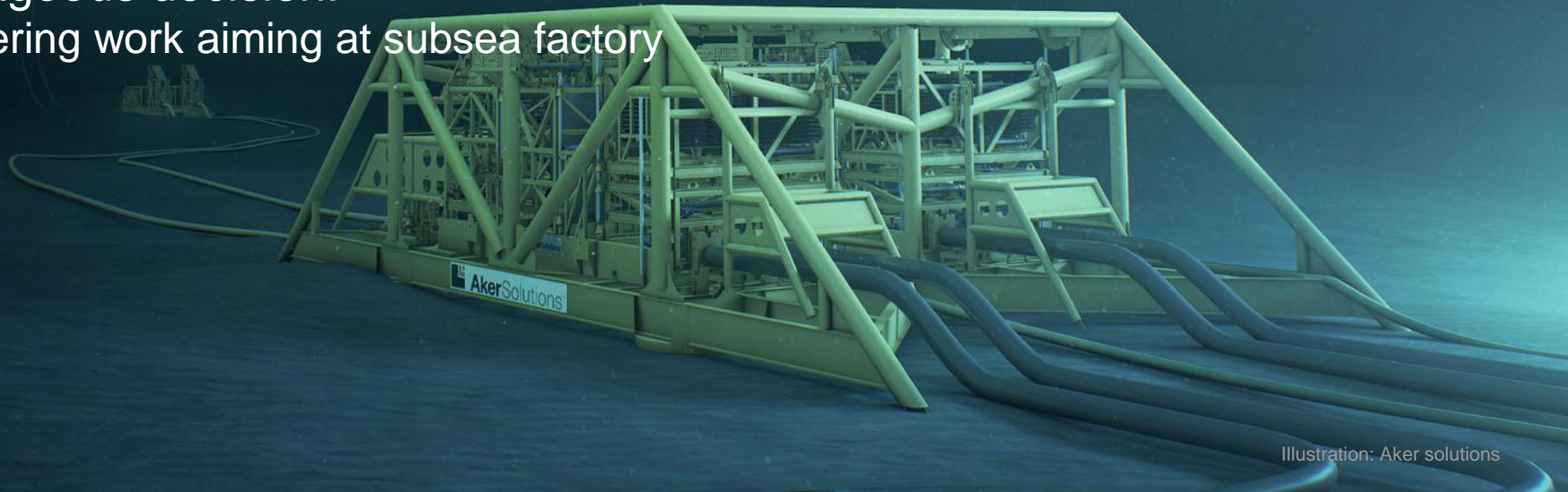
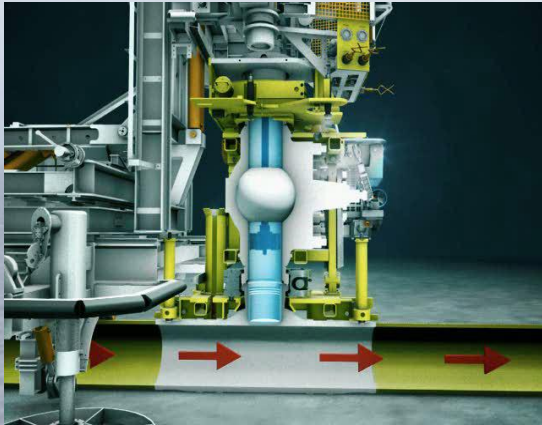


Illustration: Aker solutions

# Hot-tap operation



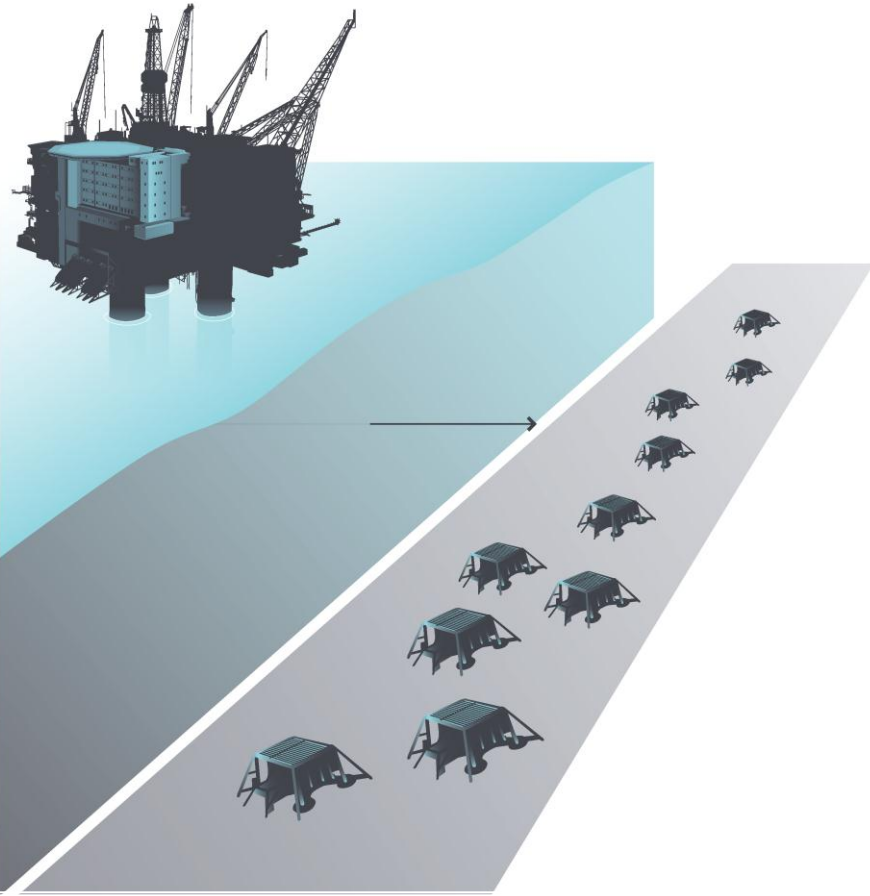
- World record for Åsgard subsea compression
- Installation of retrofit hot tap tee on Midgard pipeline with full gas flow
- Technological breakthrough with great savings potential for Statoil





# Accelerate production and reduce cost

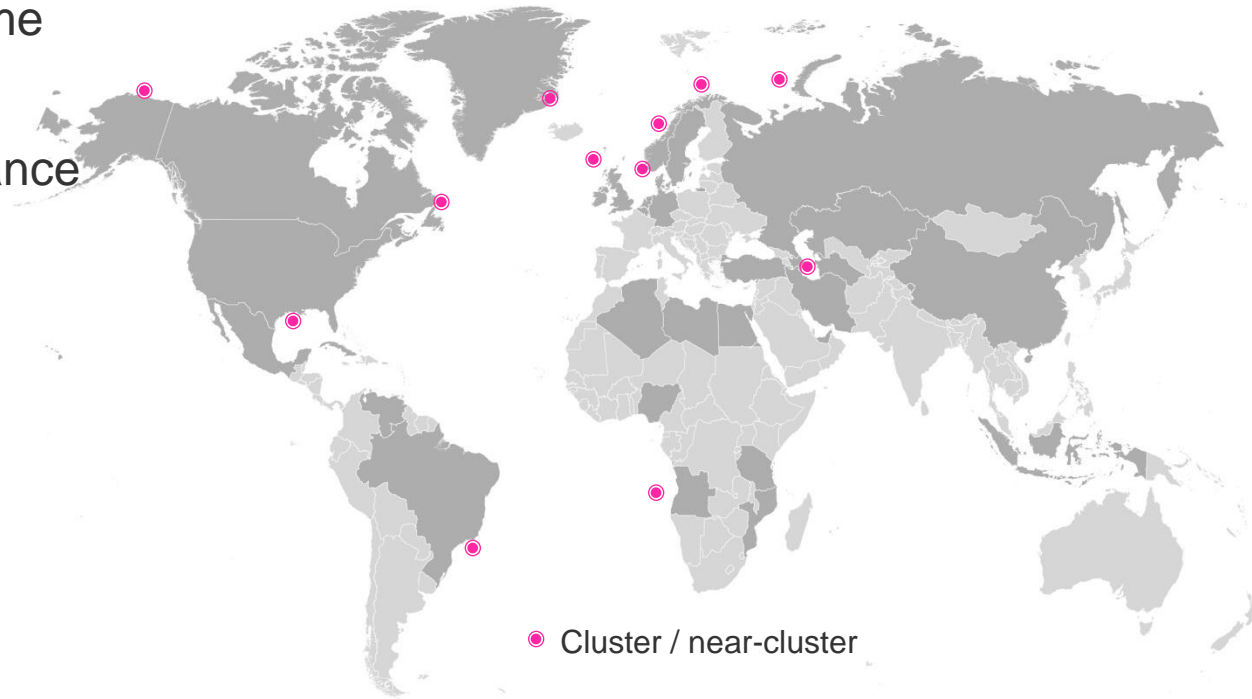
## Subsea standard catalogue



- **Standardised** to meet fast-track project schedule requirements
- **Configurable** from “bare bone” to “high functionality” solutions
- **Cost effective** to enable development of marginal fields
- Based on **proven technology** to reduce project risk
- **Compliant** with technical requirements

# Build material positions in 3-5 new offshore business clusters\*

- Achieve materiality over time
- Below ground excellence and above ground governance



\*Cluster is an integrated business system with a portfolio of assets in a geographically confined area

# ANGOLA

## A key growth platform for Statoil

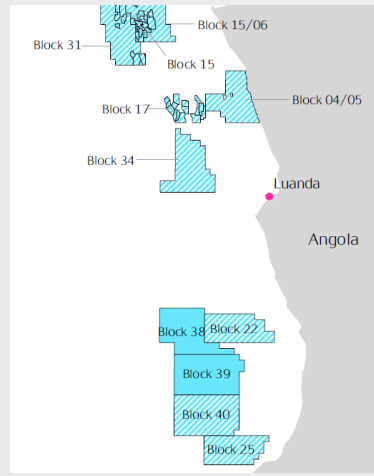
### Track record



- Around 20 years of operation
- Partner in seven producing fields
- 1/3 of our international output
- Approximately 200,000 barrels of equity production per day

### 2011/2012 delivery

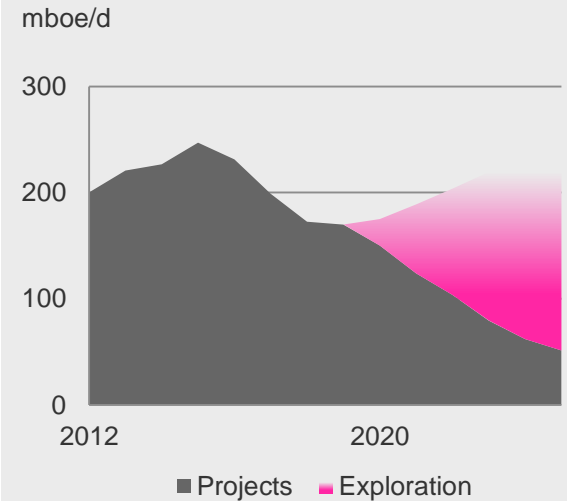
Positioned in attractive plays



- Pre-salt exploration acreage access
- Pazflor start-up and ramp-up
- Kizomba Satellites start-up
- CLOV field development
- PSVM

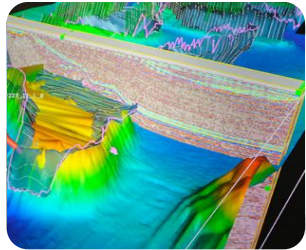
### Long term materiality

Production



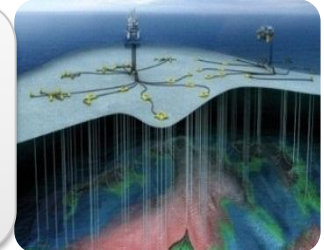
- Attractive exploration acreage
- Execute on the Kwanza pre-salt potential
- Secure rig capacity
- Drill ready prospect
- Build operator organization

# Statoil's focused technology efforts



Leading in seismic imaging and interpretation – to increase discovery and recovery

Step change in well-construction efficiency – to drill more cost-efficient wells

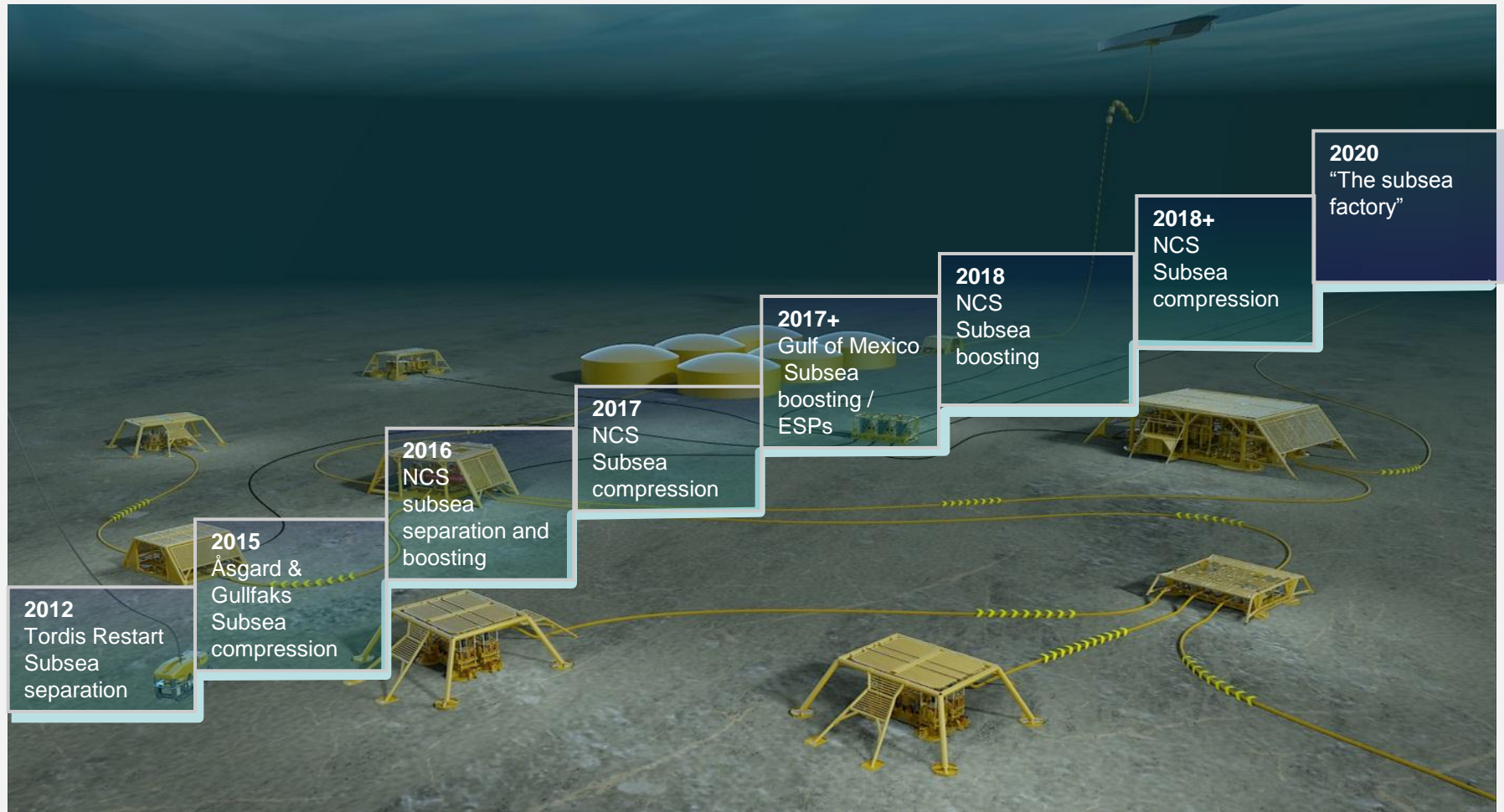


Pushing reservoir characterisation and recovery to the next level – to maximise value

Taking subsea longer, deeper and colder – to accelerate and increase production



# Roadmap for the future



\* NCS = Norwegian Continental Shelf

There's never been a better  
time for good ideas

~~Not~~ possible

