



ASSET & LICENSE MANAGEMENT SEMINAR 2025

Anne-Lise Abrahamsen Søyland, Manager Regulations and operational management

Magnus Svensson, Manager Subsurface, drilling and wells

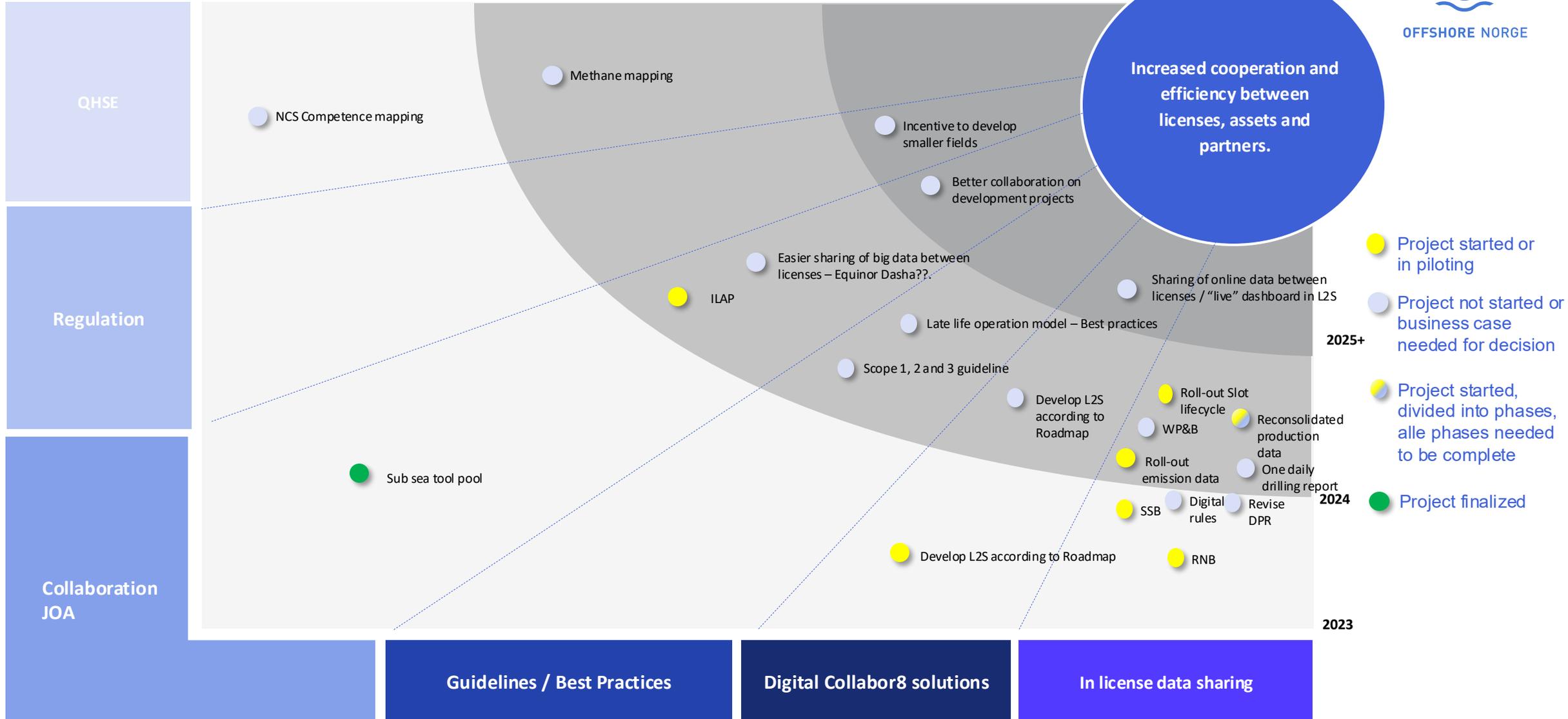
AMBITION FOR ASSET AND LICENSE FORUM



Increased cooperation and efficiency between licenses, assets and partners.

- Seamless dataflow
- Standardization of what and how data should be shared
- Better and faster decisions
- Minimized effort in sharing
- Improved availability of best practices and guidelines
- Stimulate discipline networks between partners

ROADMAP FOR ASSET AND LICENSE FORUM

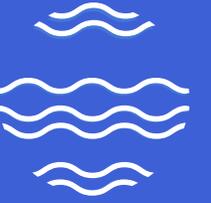


Increased cooperation and efficiency between licenses, assets and partners.

- Project started or in piloting
- Project not started or business case needed for decision
- Project started, divided into phases, all phases needed to be complete
- Project finalized

● Finished ● Ongoing ● Not started

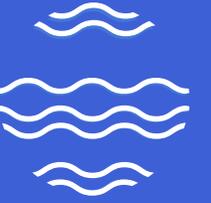
Guidelines / Best Practices Digital Collabor8 solutions In license data sharing



OFFSHORE NORGE

SAFETY AND HSE 2024

2024 RESULTS



OFFSHORE NORGE

SAFETY REFLECTIONS

SAFETY REFLECTIONS



- **Risk management** , know your limits and operating envelope
- **Well functioning**, status of equipment is key and know the limits of the equipment
- **Improve by training**, and when you have trained, train again..
- **Focus on the small improvements**, the summary of these will take you to the podium
- **Age is a factor**, older means slower recovery and increased risk for breakage
- **Catch the unknown – knowns**, there is always unknowns that need to be catered for
- **Focus**, when loosing focus this is often when accidents occur
- **Learn from others to improve**, there is always someone to learn from

HOW OFFSHORE NORGE WORK WITH HSE



COLLABORATION

miljø og sikkerhet
svirksomheten
sammensatt arbeidsgruppe

Hovedrapport

UTVIKLINGSTREKK NORSK SOKKEL 2023
Risikonivå i norsk petroleumsvirksomhet

**SHARING / LEARNING
FROM EACH OTHERS**

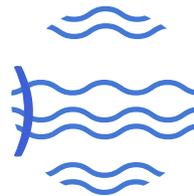


ndbok
posessikkerhet for
rebygging av HC-lekkasjer

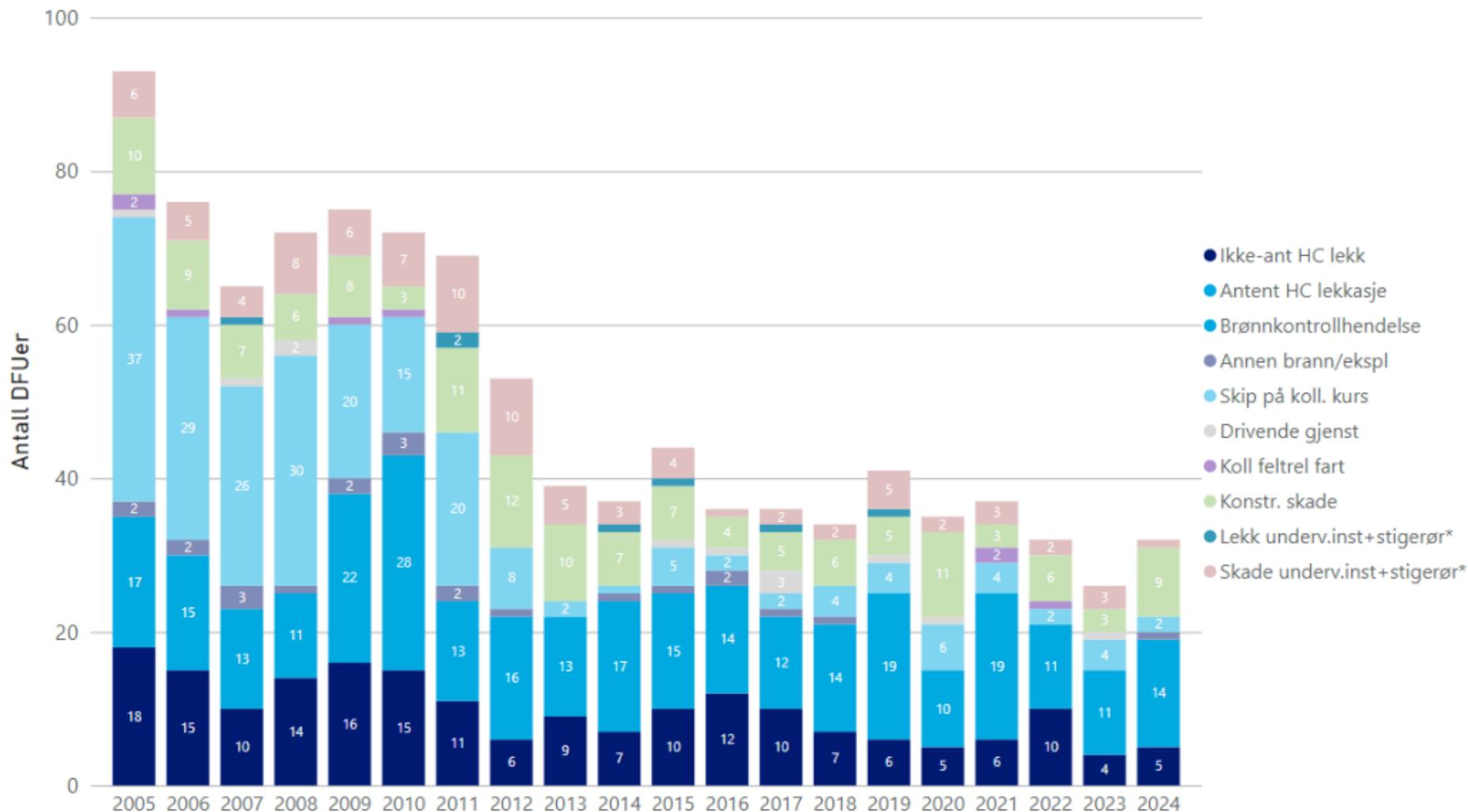
**FOCUS ON ALWAYS
DOING BETTER**

Helico

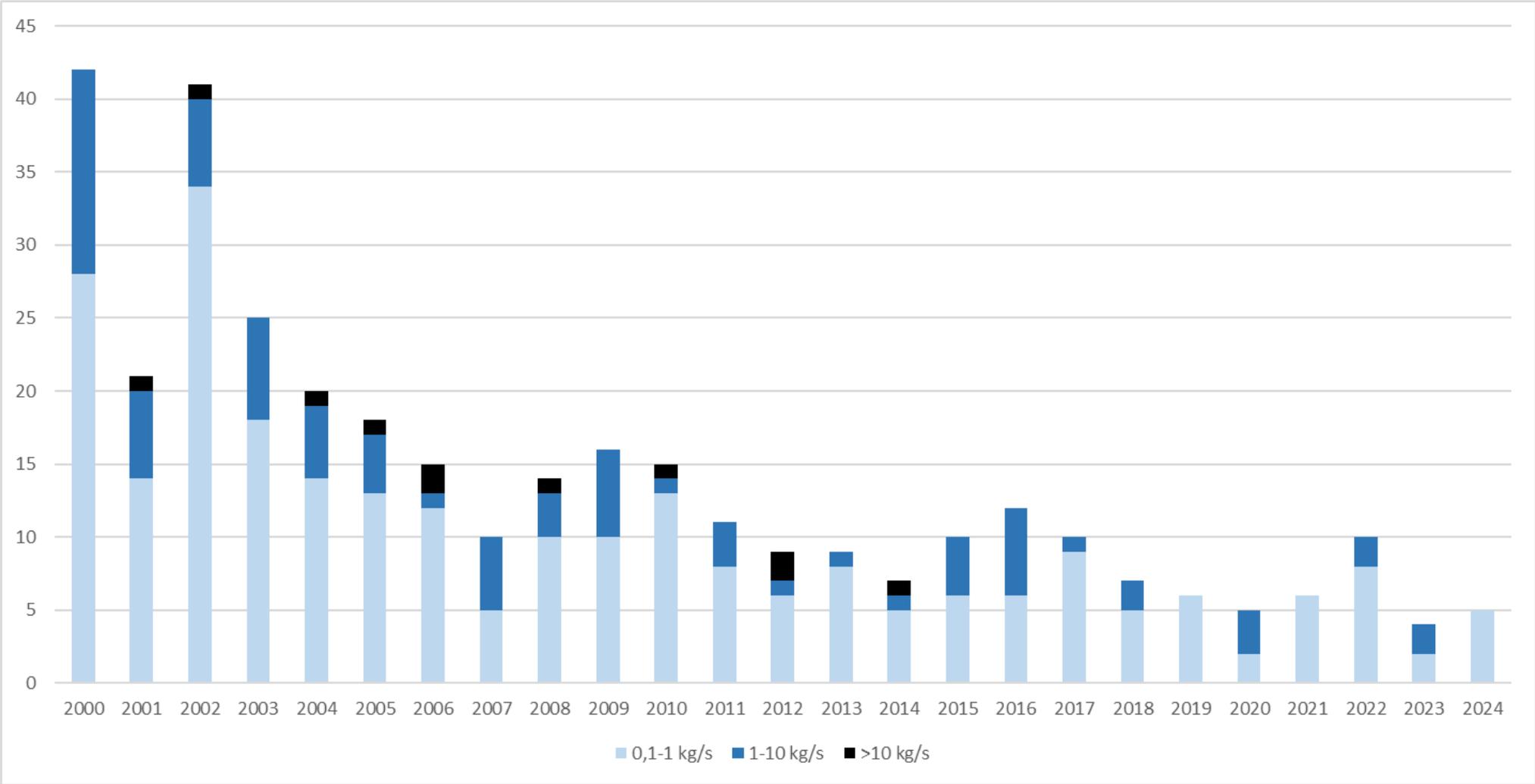
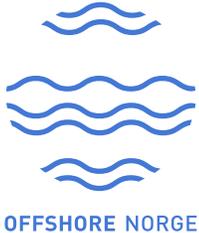
MAJOR ACCIDENT TOTAL INDICATOR (DFU-ER)



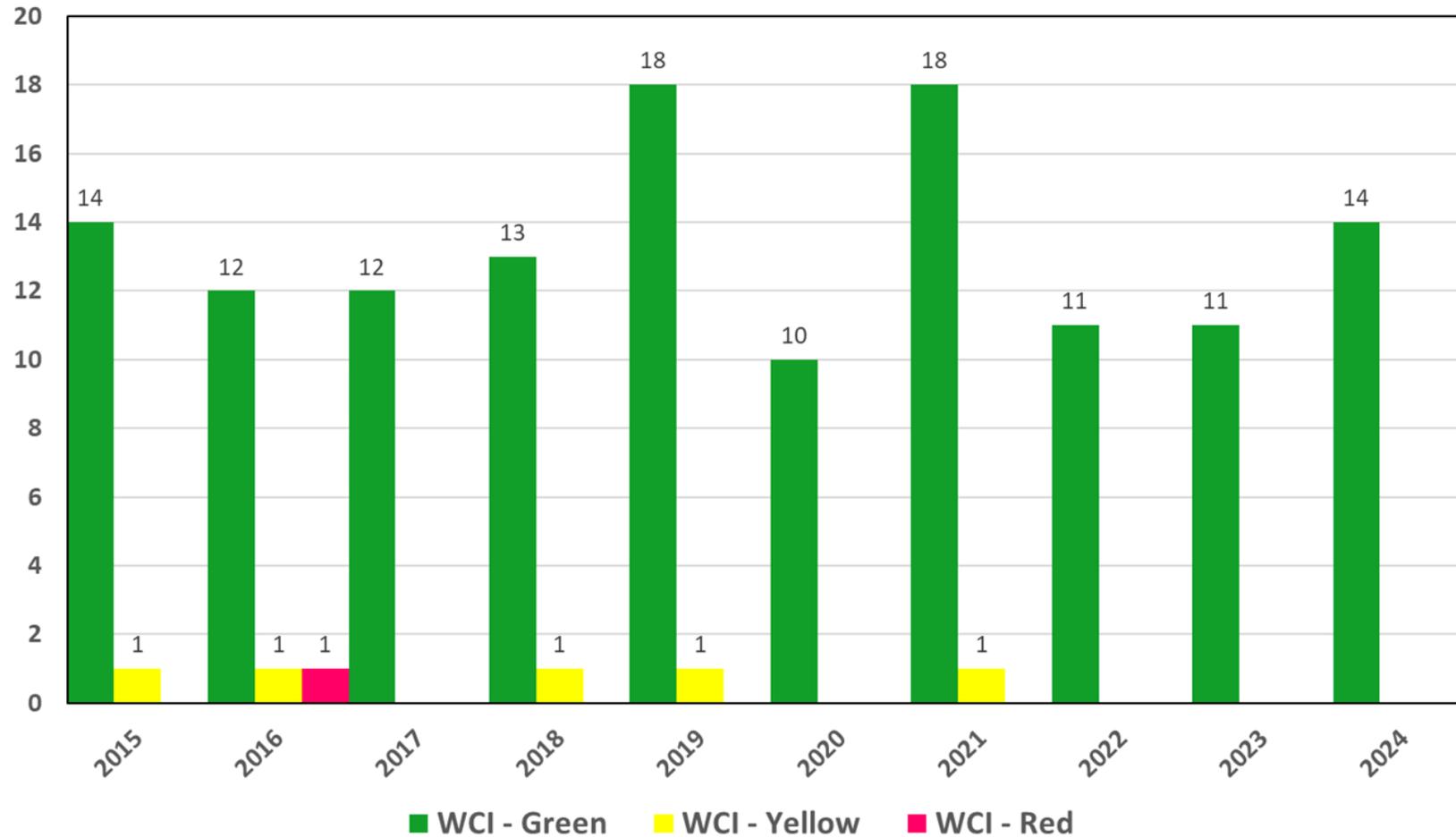
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HYDROCARBON LEAKS 2024



CATEGORIZATION OF INCIDENTS 2015-2024

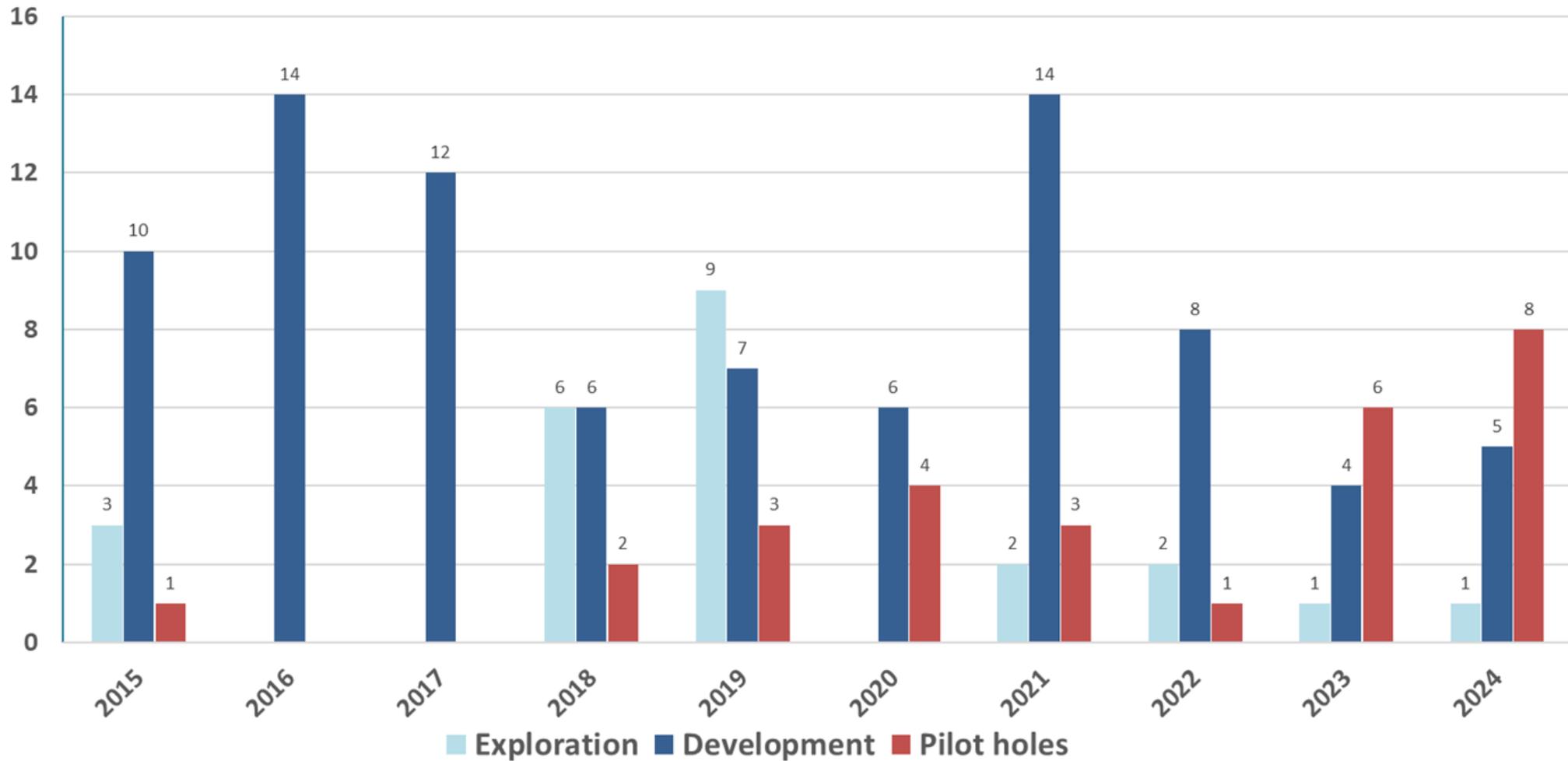


- No serious well control incident (yellow)
- No critical well control incidents (red)

2024

- 16 Gray Incidents shared through one pagers with learnings
- 1 Green Well integrity incidents
- 2 Green Well Intervention incidents

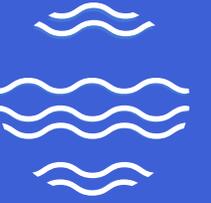
INCIDENTS PER WELL TYPE 2015-2024



CONTINUE FOCUS ON



- Sharing and learning from each other
- Pore pressure prediction and communication of risk
- In relation to mature field challenges such as narrow margins due to high depletion, increase understanding and practice on less conventional well control methods through simulator training and “enhanced” well control courses
- Continue to investigate digital opportunities to enhance operational monitoring for early detection
- Increase focus on potential risk associated with P&A operation in old wells.



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UPDATES REGULATIONS

GREATEST REGULATION HITS 2024/2025



Olje- og gasselskapene i EU blir pålagt å etablere CO₂-lagre

til

28. juni trådte den såkalte Net Zero Industry Act (NZIA) i kraft i EU.

produse
§ 60

å stille krav om lav- og nullutslipp til offshoreskip i tillatelser til petroleumsvirksomhet etter forurensningsloven og Miljødirektoratets svar på dette 21. mars 2024.

sektoren –

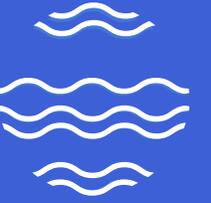
Ny grensekryssforordning

Parlament- og rådsforordning (EU) 2024/1157 av 11. april 2024 om grensekryssende forsendelser av avfall og endringer i forordning (EU) 1257/2013 og (EU) 2020/1056

listeringspartienes
i ble enige om følgende:
i lavutslipp til
o fra 2029, eller tilsvarende

kutte utslipp av metangass
fra til dette. Det er usikkert

listeringspartienes
skap, mener Styrke.



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UPDATES FORUMS AND NETWORKS

MARGINAL SUBSEA TIE-BACK FIELD DEVELOPMENT

MAXIMIZING VALUE IN UNTAPPED RESERVES

BACKGROUND AND MAIN PURPOSE



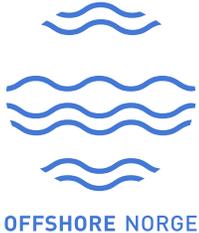
Norway's production will decline in the coming years, and estimated production will be heavily reduced by 2032 (incl. all new projects covered by temporary tax package).

Main purpose of the project:

Enhance the business case for marginal tie-backs on NSC through faster execution, enhanced recovery, reduced cost and reuse.

VISION, STRATEGY, FOCUS AREAS, GOALS

METHODOLOGY



Vision and strategy

Steering Committee

2 rep Offshore Norge
6 rep Companies

Collaboration

Reuse

Regulations & Standardization

Excellence in execution, production and decommissioning

Goal 1.1

Goal 1.n

Goal 1.1

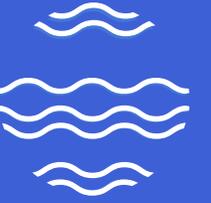
Goal 1.n

Goal 1.1

Goal 1.n

Goal 1.1

Goal 1.n



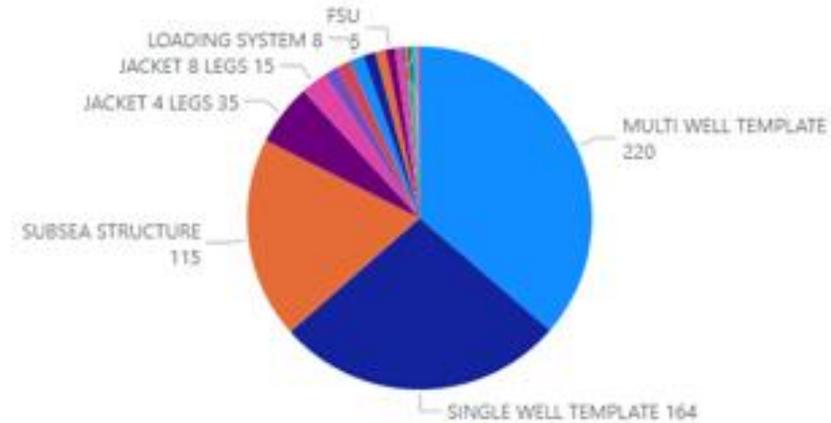
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DECOMMISSIONING / P&A

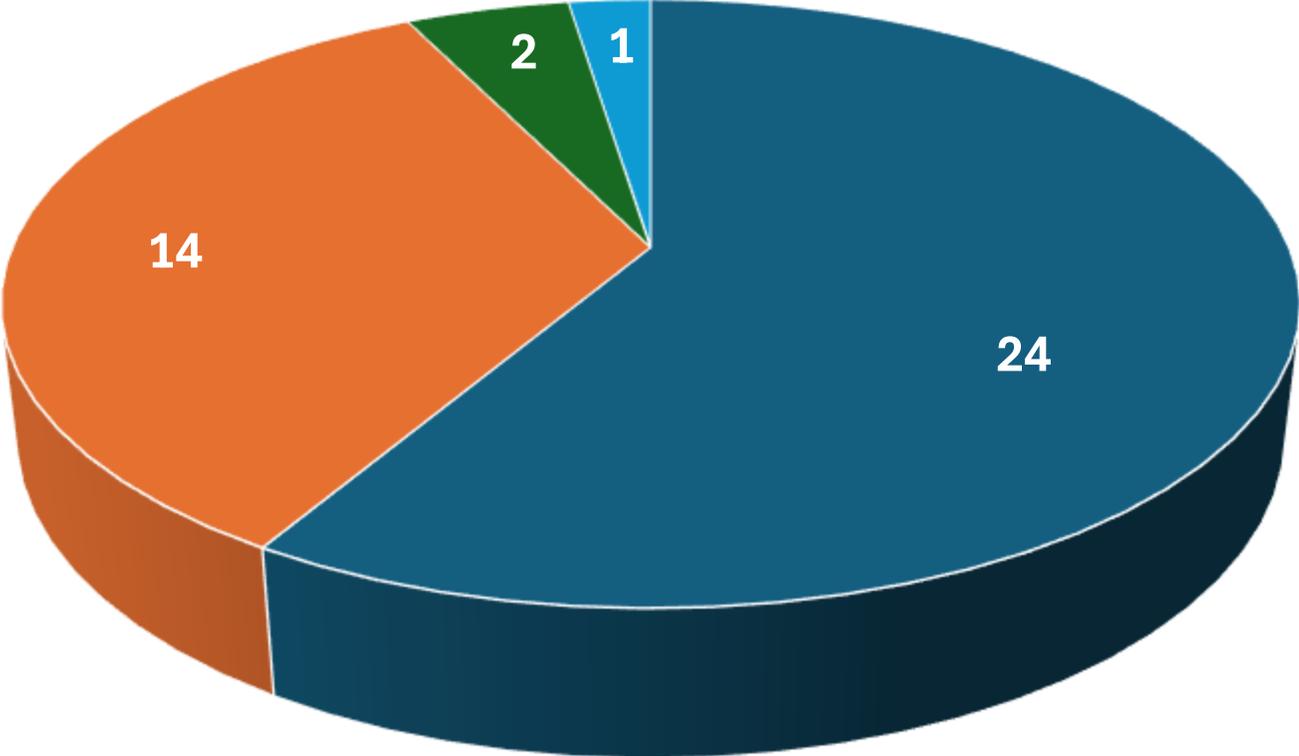
OVERVIEW INSTALLATIONS NCS

- 125 fields in total since 1971
- 2025:
 - 94 in operations
 - 31 closed down
 - 19 under development
- More than 700 installations shall be removed
 - Aprox. 70 removed

Type of offshore facilities currently in service



ASSET TYPE & LOCATION (2024-2033)



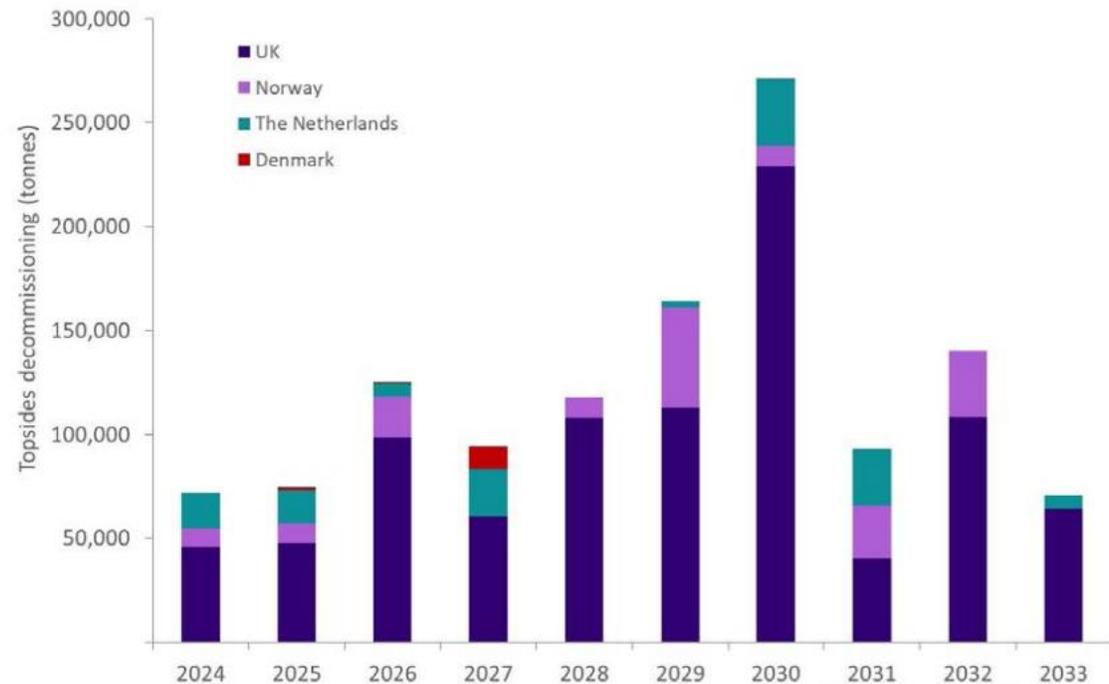
- 30 Fields in the North Sea
- 1 Field in the Norwegian Sea

■ Fixed steel platforms ■ Subsea tie-back ■ FPSO/FSO ■ GBS

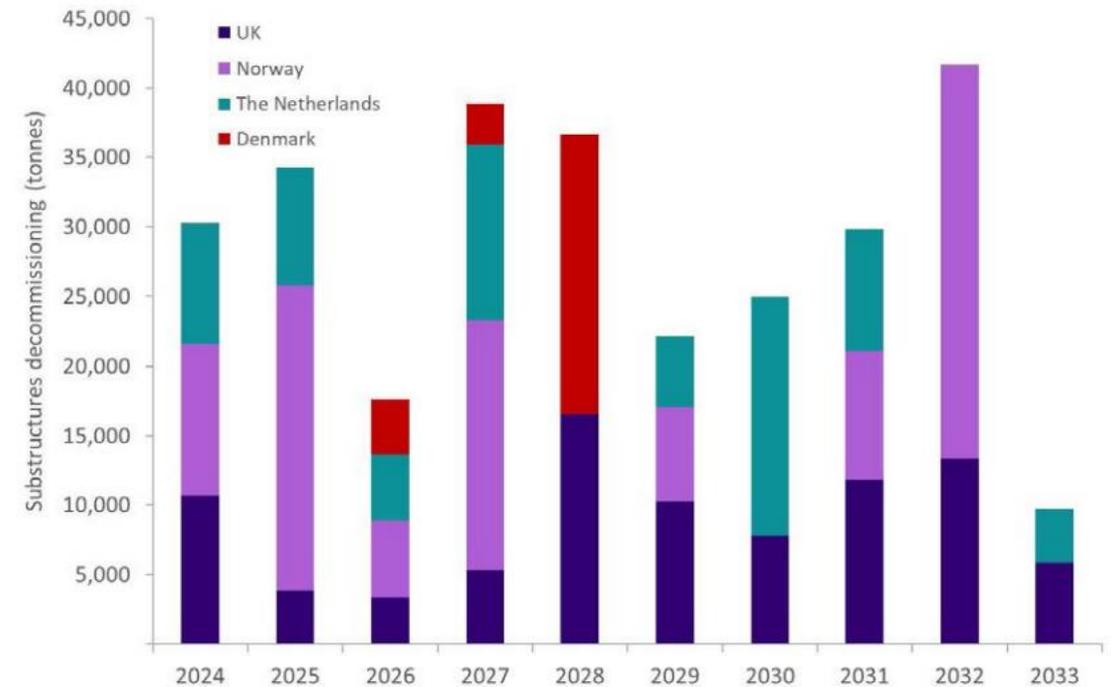
NEXT 10 YEARS OVERVIEW NORTH SEA



Topsides



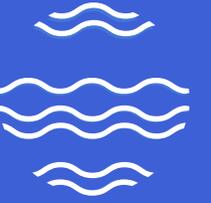
Substructures



DECOMMISSIONING



- Collaboration with University in Bergen
- Established workgroups:
 - Decom best practices - workgroup
 - Decommissioning plan – issues related to NEA requirement to impact assessments
- Decom seminar 2026
- Digitalisation of data collection



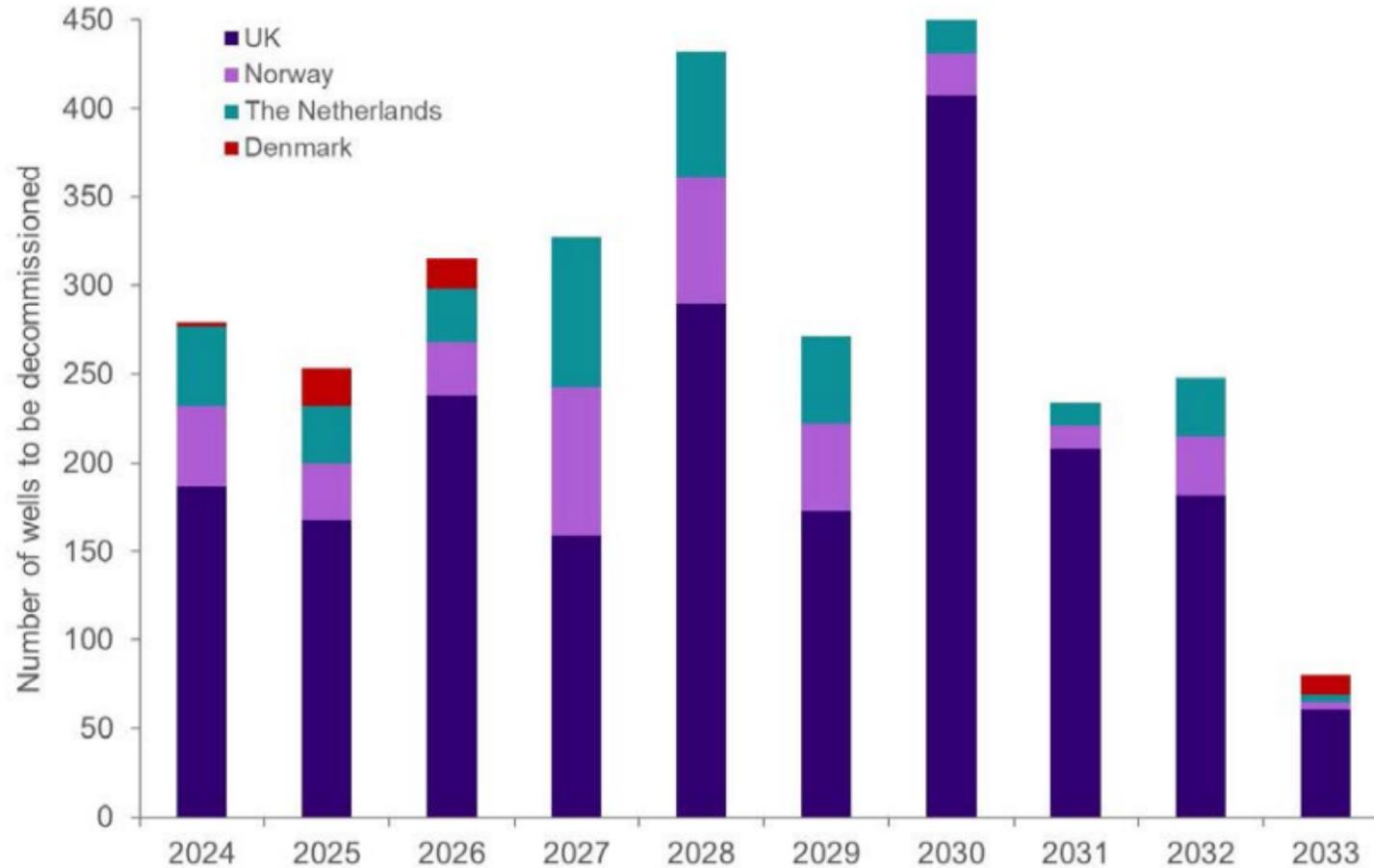
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P&A

NEXT 10 YEARS OVERVIEW NORTH SEA



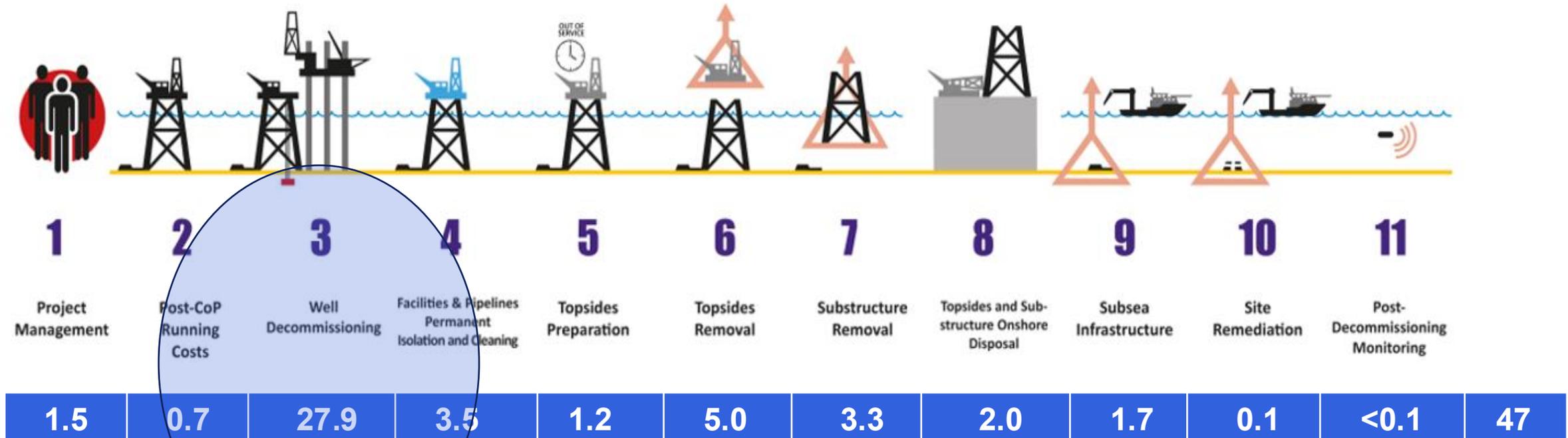
Wells



OVERVIEW 10-YEAR COST FORECAST (2024-2033)

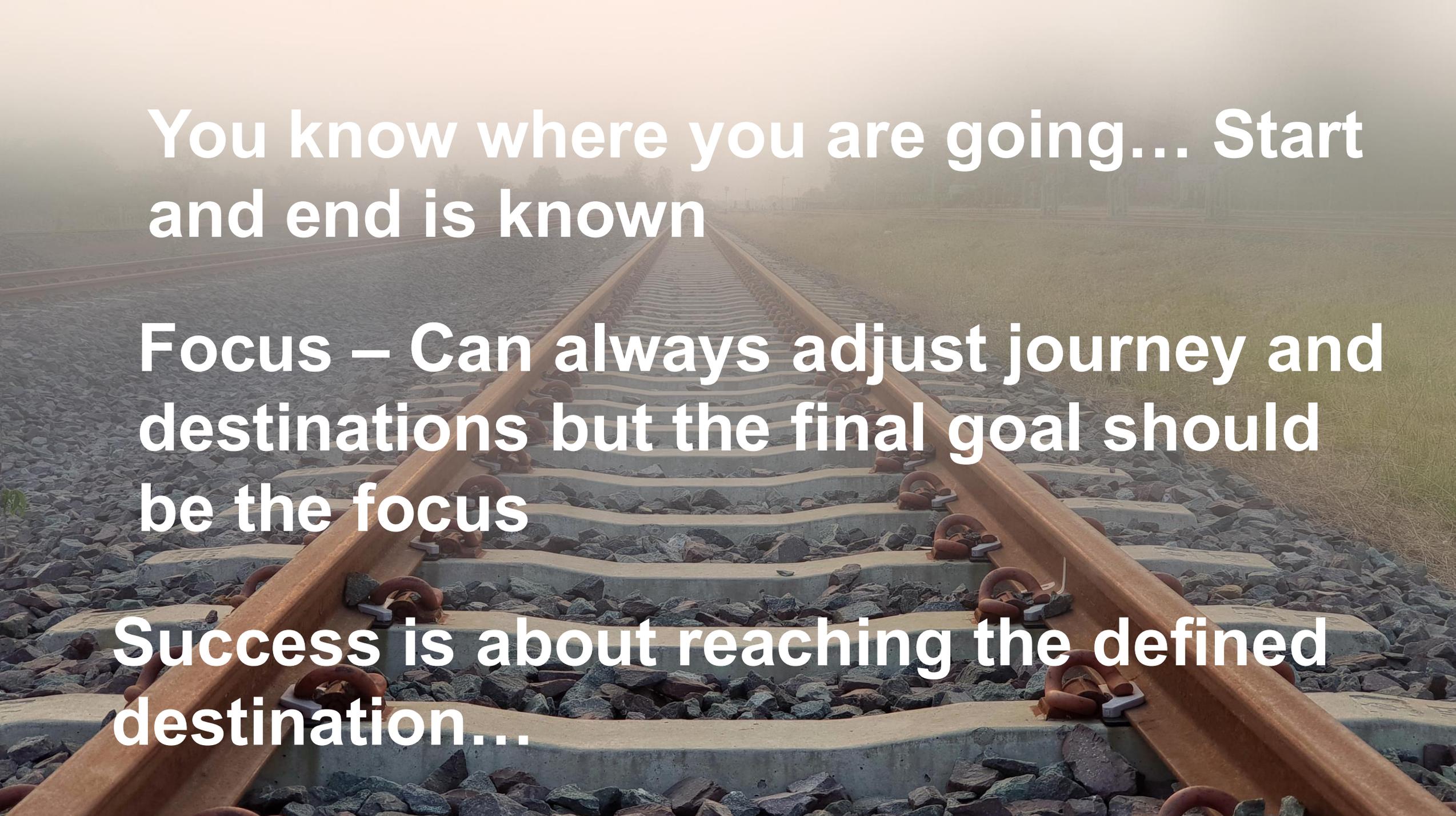


Market potential



All values are 2024 BNOK

60%



You know where you are going... Start and end is known

Focus – Can always adjust journey and destinations but the final goal should be the focus

Success is about reaching the defined destination...

P&A ROADMAP & INDUSTRY COLLABORATION



P&A ROADMAP
REGISTER
FEEDBACK

Phases

WELL BORE DIAGNOSTICS ESTABLISH BARRIERS

ACCESS TO ESTABLISH BARRIERS

VERIFY BARRIERS

CASING AND CONDUCTOR REMOVAL

TRLs

UNPROVEN CONCEPT PROVEN CONCEPT

VALIDATED CONCEPT PROTOTYPE TESTED

ENVIRONMENT TESTED SYSTEM TESTED

FIELD PROVEN NOT SET

Strategic goals

REDUCE TIME REDUCE COST

INCREASE SAFETY REDUCE EMISSIONS

RIGLESS NOT SET

Technology methods

ABRASIVE COILED TUBING DRILL PIPE

DRONE MECHANICAL WIRELINE

SLIM TUBING TUBING UMBILICAL

TRACERS WIRELESS EXPLOSIVES

NOT SET

TimeLines

2029 2028 2027 2026

2025 2024 2023 2022

2021 2020 NOT SET

Technology scopes

BARRIERS CASING REMOVAL CEMENT

CONDUCTOR REMOVAL CONTROL LINES

LEAKAGE DETECTION LOGGING MILLING

PERFORATIONS PLUGS TUBING REMOVAL

ACCESS VERIFICATION NOT SET

Platform

PHASE TRL GRID GRID-GROUPED TIMELINE

Well bore diagnostics

LOGGING ON DRILLPIPE

DUAL STRING LOGGING

"SLIM (1-1,5") DIGITAL CALIPERS"

LEAKAGE DETECTION THROUGH USAGE OF WELLBORE DRONE

LOGGING THROUGH THE USE OF WELLBORE DRONE

WELLHEAD SENSOR FOR SCP RATE AND SOURCE

WIRELINE TO VERIFY ACCESS

Establish barriers

BISMUTH

P/W/C

TERMITE

GEOPOLYMER

BARITE

BARRIER PLACEMENT THROUGH USE OF UMBILICALS

DUAL CASING BARRIER PLUGS PLACEMENT

Access to establish barriers

CASING JACK

WASH FREE CASING

CASING MILLING LEAVING SWARF IN HOLE

CONTROL LINE REMOVAL

ELECTROCHEMICAL STEEL REMOVAL

ABRASIVE REMOVAL OF CONTROL LINES

Verify barriers

BARRIER VERIFICATION ON BHA

TRACER GAS

VERIFICATION OF DUAL CASING BARRIERS

WIRELINE TOOLS TO BE USED FOR BARRIER VERIFICATION

NEW METHOD OF VERIFYING BARRIER IN DUAL ANNULAR PWC

NEW W/L TOOLS FOR BARRIER VERIFICATION

WIRELESS SENSOR TECHNOLOGY

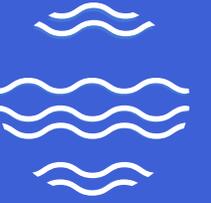
Casing and conductor removal

MULTISTRING CONDUCTOR CUTTER

USE OF HLV FOR CONDUCTOR REMOVAL

OPTIMIZE TOOLBOX AND PROCESSES FOR CASING/CONDUCTOR REMOVAL

FROM RIG TO RIGLESS



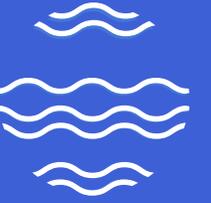
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SUBSEA OPERATIONS

SUBSEA OPERATIONS



- Joint industry project – Barometisk forskning og klinisk dykkemedisin
 - Duration: 3 years
 - TARGET: Secure continuously selffinanced research (both preventive and after operations and accidents)
 - Equinor, Aker BP, Vår Energi, Gassco and Subsea7
 - Agreement with NTNU
 - Plan to enter into agreement with «Haukeland universitetssykehus»



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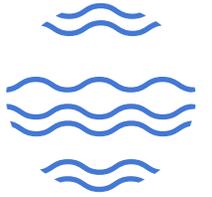
COLLABOR8 SOLUTIONS AND DIGITALIZATION PROJECTS

L2S – NEWS



- Moving towards more structured information
 - Decision module to be released week 18
- Limited read contracts archive to be released week 20
- Ongoing pilot for secure filesharing with Havtil in designated restricted area (sharing of documentation between Operator and Havtil during security reviews) - if successful to be released Q3
- Pilot for digital LRP – Q3/Q4
- Workgroup established to define user stories for: Decisions phase 2 (voting rules) - Work in progress area – Data feed from Collabor8 Subsurface

STANDARD DAILY PRODUCTION REPORTING

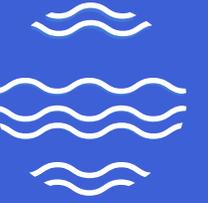


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**Guideline and
minimum viable content
for NCS Daily Production Report**



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RNB / WORK PROGRAM & BUDGETS / SSB REPORTING

CONTEXT



HOW?



● subsurface

● rnb

workprogram and budgets

ssb reporting

decommissioning data collection

SAME FUNDAMENT & DATA PLATFORM



REVISED NATIONAL BUDGET REPORTING



Collabor8
rmb

Dashboard

DASHBOARD

Initiate

View

- REPORTING YEARS
- REPORTING OBJECTS
- DEPOSITS
- PROFILES

Scope

VIEW

UPLOAD

DOWNLOAD

APPROVE

Data

VIEW

UPLOAD

DOWNLOAD

APPROVE

RNB

Reporting Objects Overview

Total	277	131	38	17	2	0	4	1	48	11	0	0	0	3	2	3	2	0
A/S NORISKE SHELL	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AKER BP ASA	59	26	18	2	0	0	2	1	0	0	0	0	0	1	0	1	1	0
CONOCOPHILLIPS SKANDINAVIA AS	16	14	0	0	0	0	1	0	12	0	0	0	0	0	0	0	1	0
EQUINOR ENERGY AS	125	57	7	6	2	0	1	0	28	7	0	0	0	2	2	2	0	0
GASSCO AS	18	6	4	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
HARBOUR ENERGY NORGE AS	18	11	0	8	0	0	0	0	0	3	0	0	0	0	0	0	0	0
OKEA ASA	6	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OMV (NORGE) AS	5	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VÅR ENERGI ASA	27	9	1	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0

Initiate Published ScopeAvailable ScopeOperatorApproved ScopeOperatorRejected ScopeChangeRequested ScopeNodApproved ScopeNodRejected DataAvailable DataOperatorApproved DataOperatorRejected DataChangeRequested DataGasscoApproved DataGasscoRejected DataNodApproved DataGasscoAndNodApproved Finalized

0 20 40 60 80 100

Most recent changes

- 02. apr. 25, 12:35 on GUDRUN (field)
Project Gudrun tail (2040) IGR added
Changed by Equinor-Collabor8-Subsurface-RNB-M2M-TestEnv (EQUINOR ENERGY AS)
- 02. apr. 25, 12:35 on GUDRUN (field)
Project Drilling campaign (2030) IGR added
Changed by Equinor-Collabor8-Subsurface-RNB-M2M-TestEnv (EQUINOR ENERGY AS)
- 02. apr. 25, 12:35 on GUDRUN (field)
Project Tail production added
Changed by Equinor-Collabor8-Subsurface-RNB-M2M-TestEnv (EQUINOR ENERGY AS)
- 02. apr. 25, 12:35 on GUDRUN (field)
Project Recomplete wells to gas lift added
Changed by Equinor-Collabor8-Subsurface-RNB-M2M-TestEnv (EQUINOR ENERGY AS)
- 02. apr. 25, 12:35 on GUDRUN (field)
Project New wells or new perforations added
Changed by Equinor-Collabor8-Subsurface-RNB-M2M-TestEnv (EQUINOR ENERGY AS)

Most recent comments

- 25. mars 25, 16:33 on TRESTAKK > Trestakk Prolonged Injection (field)
"test"
Changed by Equinor-Collabor8-Subsurface-RNB-M2M-TestEnv (EQUINOR ENERGY AS)
- 25. mars 25, 13:35 on TORDIS (field)
"Test for Tordis RO level"
Changed by Hege Fjellbirkeland (EQUINOR ENERGY AS)
- 25. mars 25, 11:34 on TRESTAKK > Trestakk Prolonged Injection (field)
"Er denne done?"
Changed by Equinor-Collabor8-Subsurface-RNB-M2M-TestEnv (EQUINOR ENERGY AS)
- 24. mars 25, 21:24 on TRESTAKK > Prospects (field)
"Jippi"
Changed by Equinor-Collabor8-Subsurface-RNB-M2M-TestEnv (EQUINOR ENERGY AS)
- 21. mars 25, 13:58 on TRESTAKK (field)

Milestones 2026

No milestones are available

For technical support phone +47 23 26 13 94 or email: support.rnb@collabor8.no

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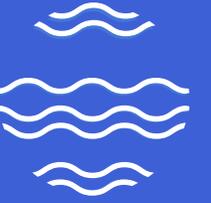
33

Innledning Generell info og kommentarer Tilbakemeldingsskjema Tariffinntekter Cost Control **Profil_1** Profil_2 Profil_4 Profil_6 Profil_10 Profil_11 Profil_14 Profil_Total Månedssdata Lister Innstillinger Ressursov + : < >

WORKPROGRAM AND BUDGETS



- Steering group and needed work groups established
- Agree on standard for sharing
- Agree how
 - Joint Venture Handling
 - Workflow process and approvals
- Stakeholder engagement / involvement
- Ensure focus on complete process (Revised National Budget Reporting, SSB and Cash Call & Billings)



OFFSHORE NORGE

COMPETENCE INITIATIVE

Øystein Håland, Project Manager, Collaboration

COMPETENCEHUB IS BETTER VENDOR COMPETENCE ASSURANCE

[The Competence Hub_English_No_Sub.mp4](#)



COMPETENCEHUB IS BETTER VENDOR COMPETENCE ASSURANCE



Competencehub is a new digital service that makes proactive vendor competence assurance **easy, efficient** and **compliant** for the stakeholders on NCS. This strongly supports the HSE agenda.

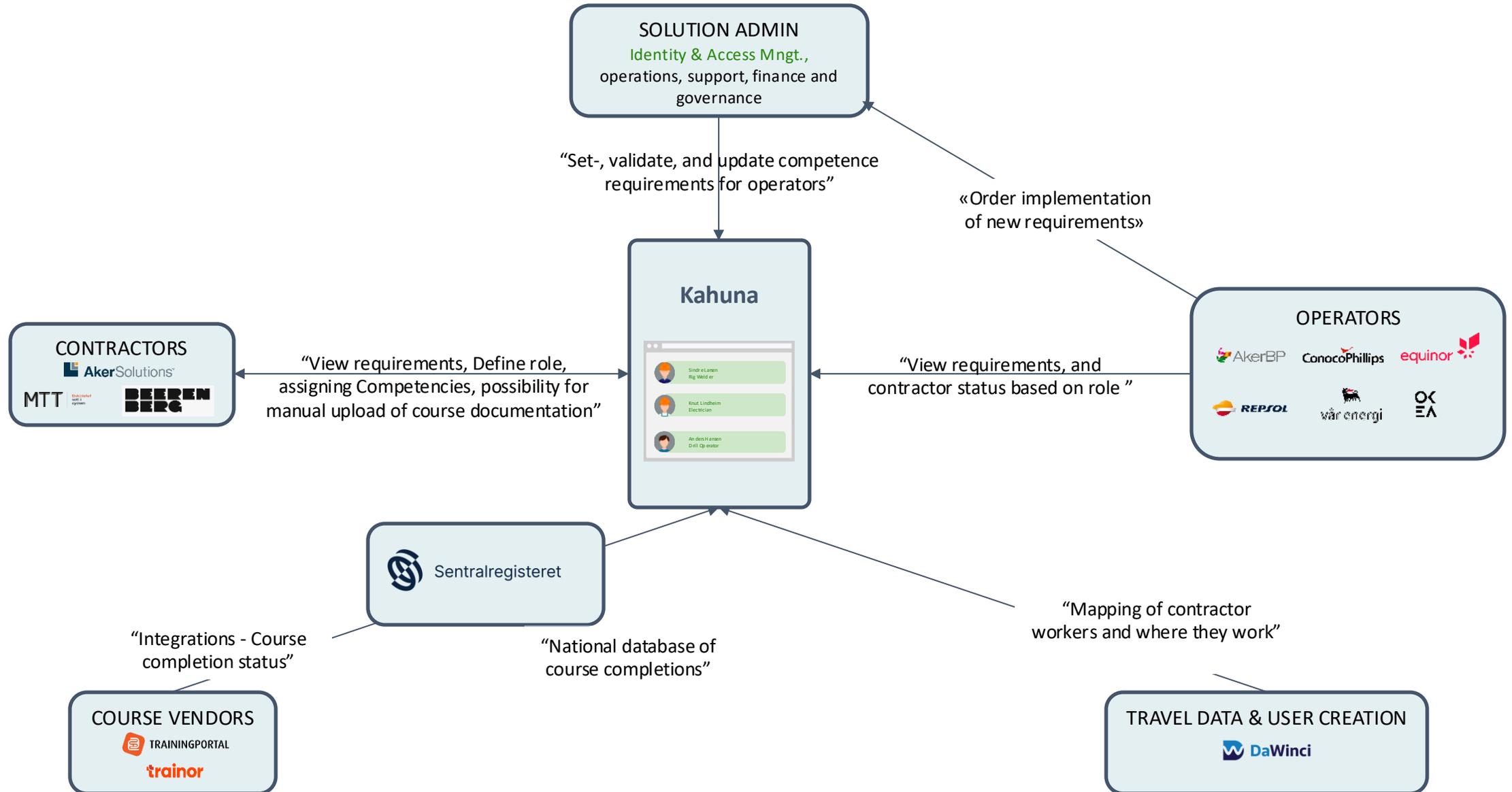
Competencehub is a project run by **Offshore Norge**, supported by all production facility operators on Norwegian continental shelf.

Competencehub use **travel data** from DaWinci, **course completions** from course vendors and operator **competence requirements** to build an **assurance dashboard** in Kahuna.

Competencehub drives **collaboration** across the operators, and all operator competency roles will be mapped and harmonized across NCS, leading to **fewer and more similar** competence **requirements**.



HIGH-LEVEL ILLUSTRATION OF THE TECHNICAL SOLUTION



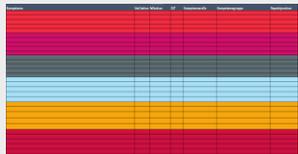
COMPETENCE MAPPING PROCESS



1

Competence team; The team is focusing on one competency role at the time.

Kick off



Review



Lessons learned

2

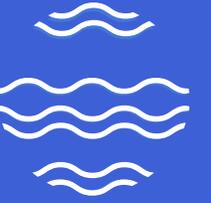
Goal: define common requirements by removing unnecessary variation between the operators

3

Roles – in scope a total of 88 different competency roles, originated from the Aker BP set-up: **Maintenance, Emergency, Drilling & Well, Well services, ++**

Documentation – is specifically on; competence, competency role, competency group, repetition frequency

Data quality – is key.



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Q&A