


ASSET & LICENSE MANAGEMENT SEMINAR 2025

Anne-Lise Abrahamsen Søyland, Manager Regulations and operational management

Magnus Svensson, Manager Subsurface, drilling and wells

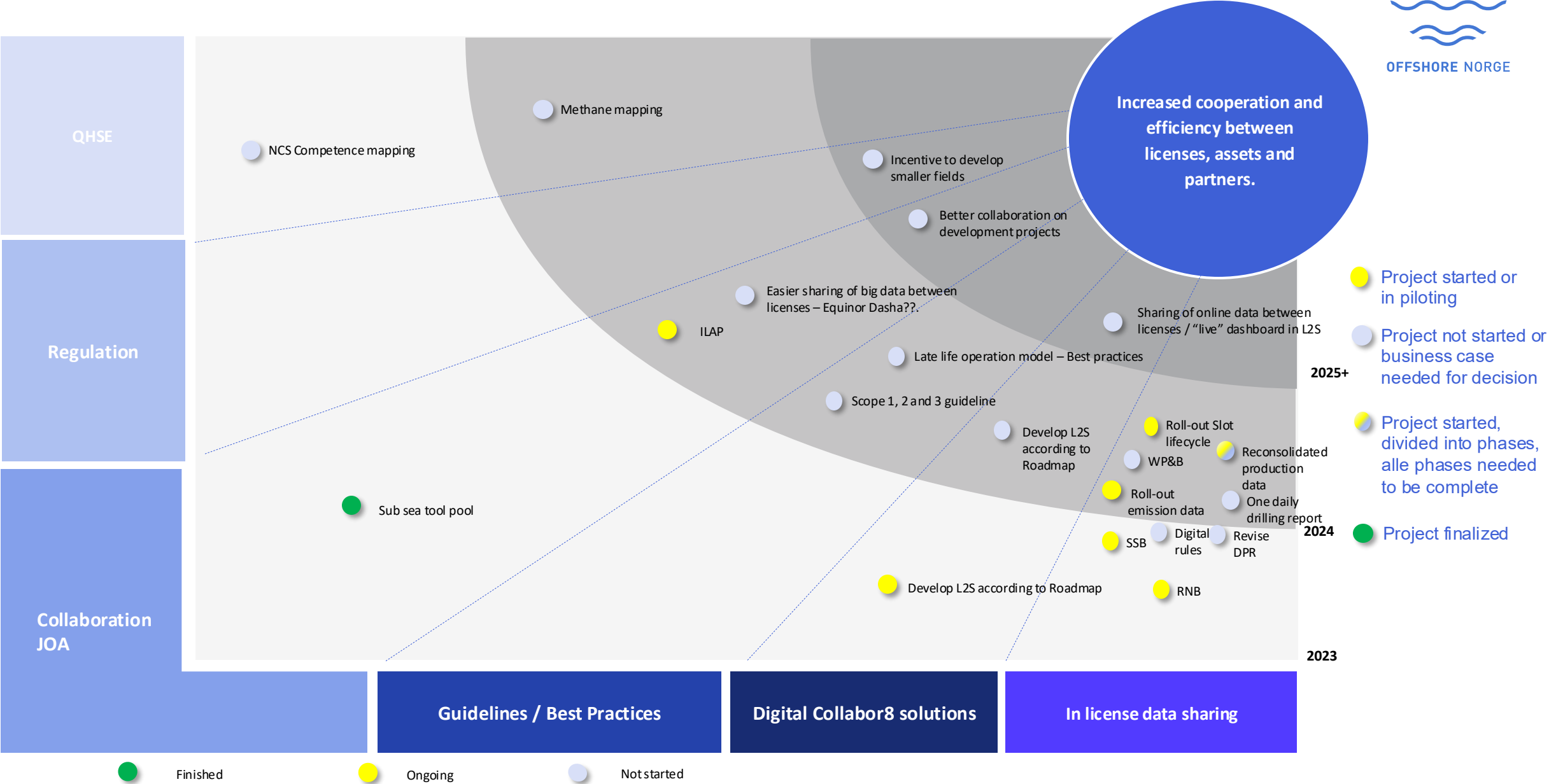
AMBITION FOR ASSET AND LICENSE FORUM



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





OFFSHORE NORGE

SAFETY AND HSE 2024

2024 RESULTS



OFFSHORE NORGE

SAFETY REFLECTIONS

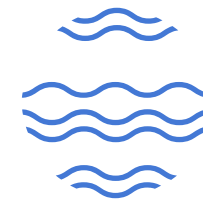


SAFETY REFLECTIONS



- **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



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COLLABORATION

SHARING / LEARNING FROM EACH OTHERS

FOCUS ON ALWAYS DOING BETTER

Hovedrapport

UTVIKLINGSTREKK NORSK SOKKEL 2023
Risikonivå i norsk petroleumsvirksomhet

miljø og sikkerhet
svirksomheten

sammensatt arbeidsgruppe

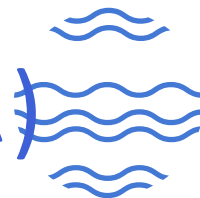


OFFSHORE NORGE

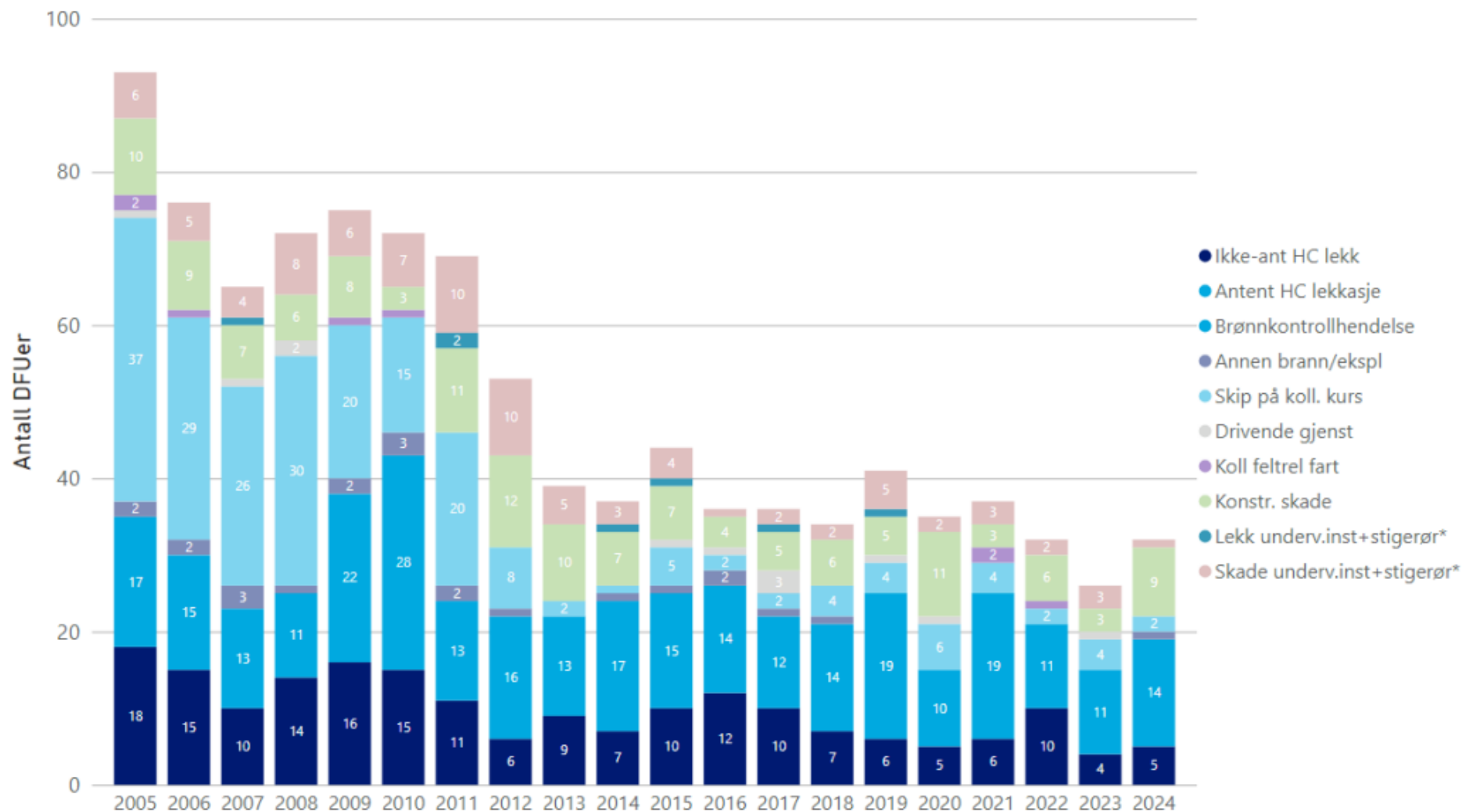
ndbok
osessikkerhet for
rebygging av HC-lekkasjer

Helico

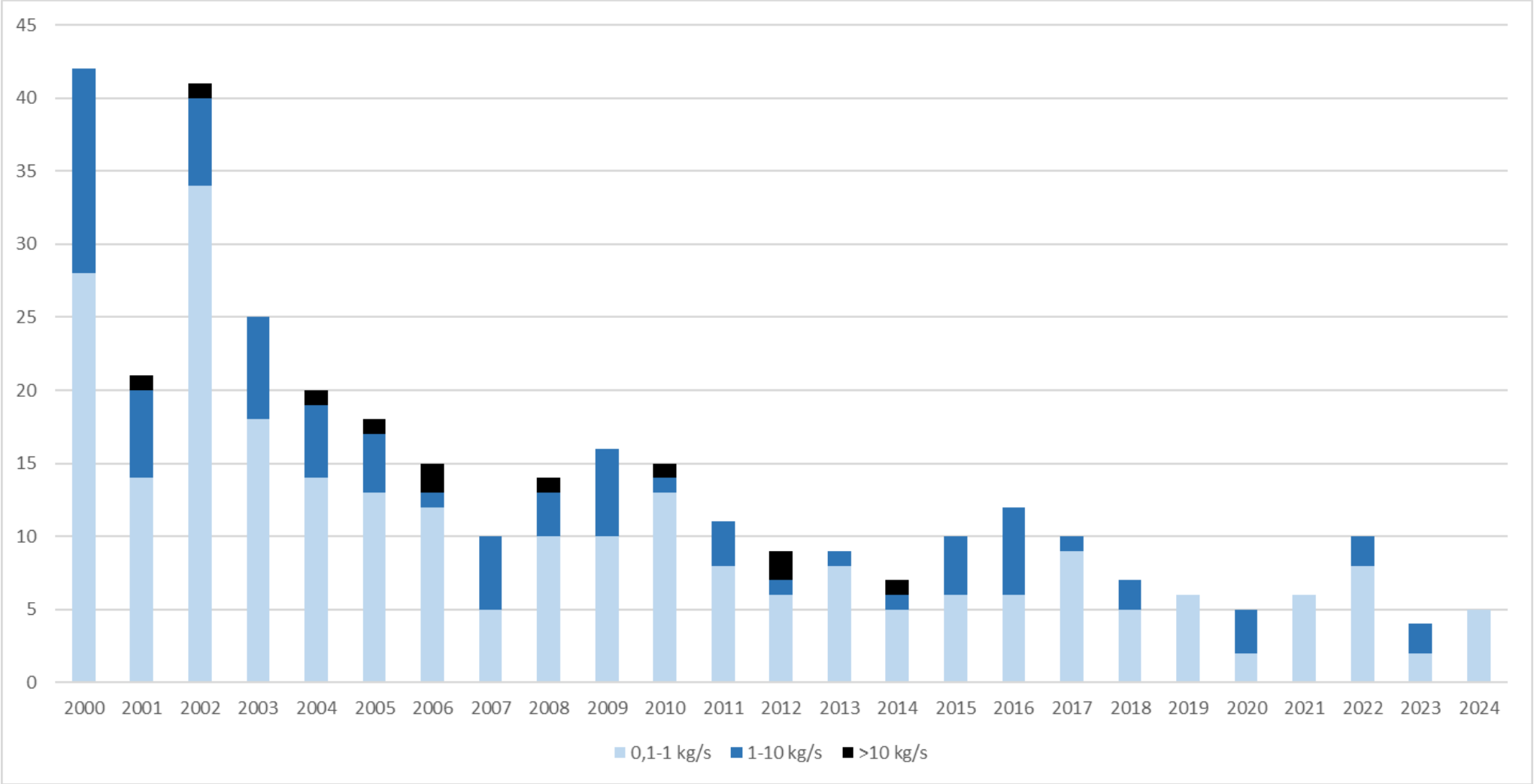
MAJOR ACCIDENT TOTAL INDICATOR (DFU-ER)



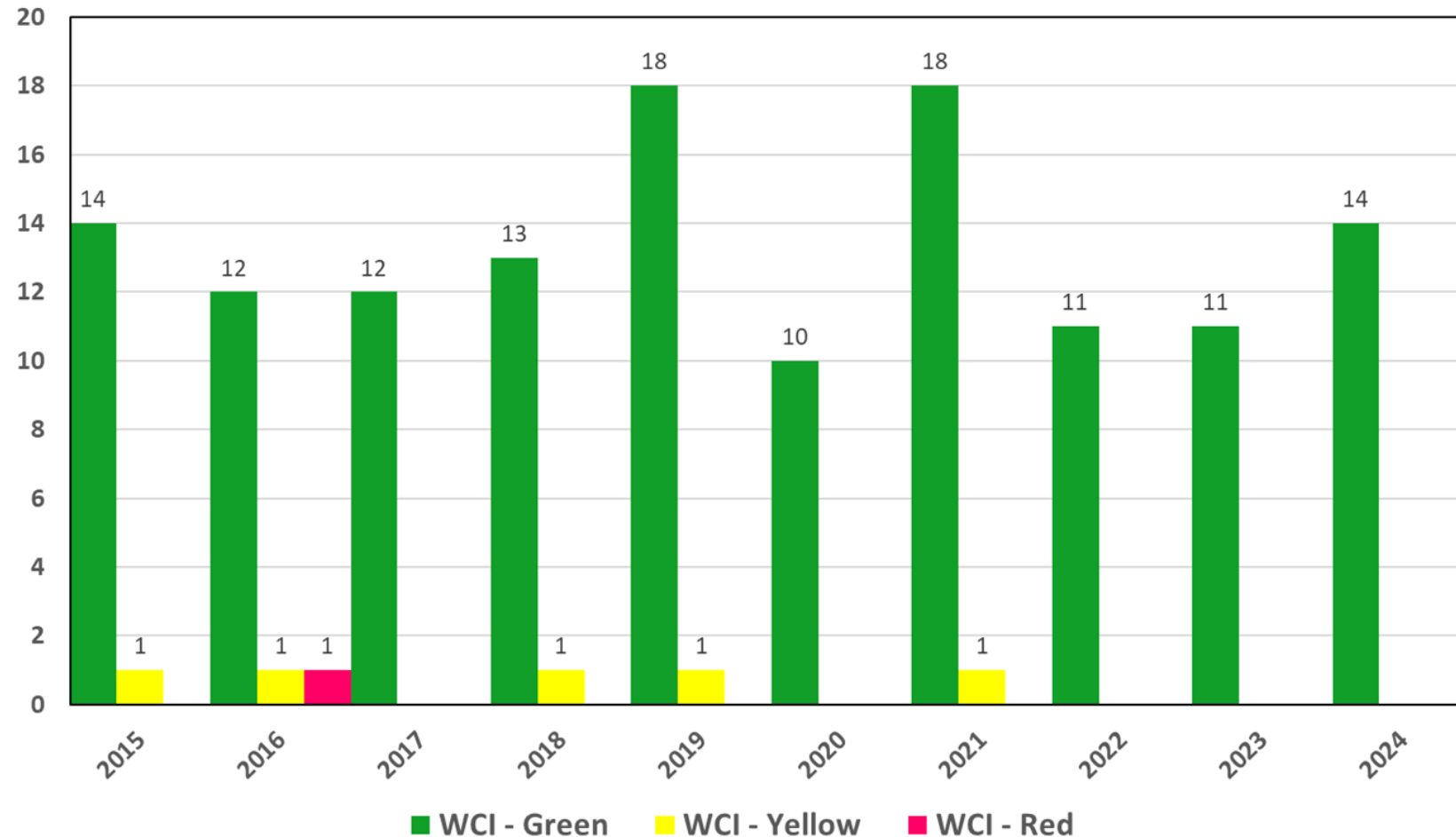
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HYDROCARBON LEAKS 2024



CATEGORIZATION OF INCIDENTS 2015-2024

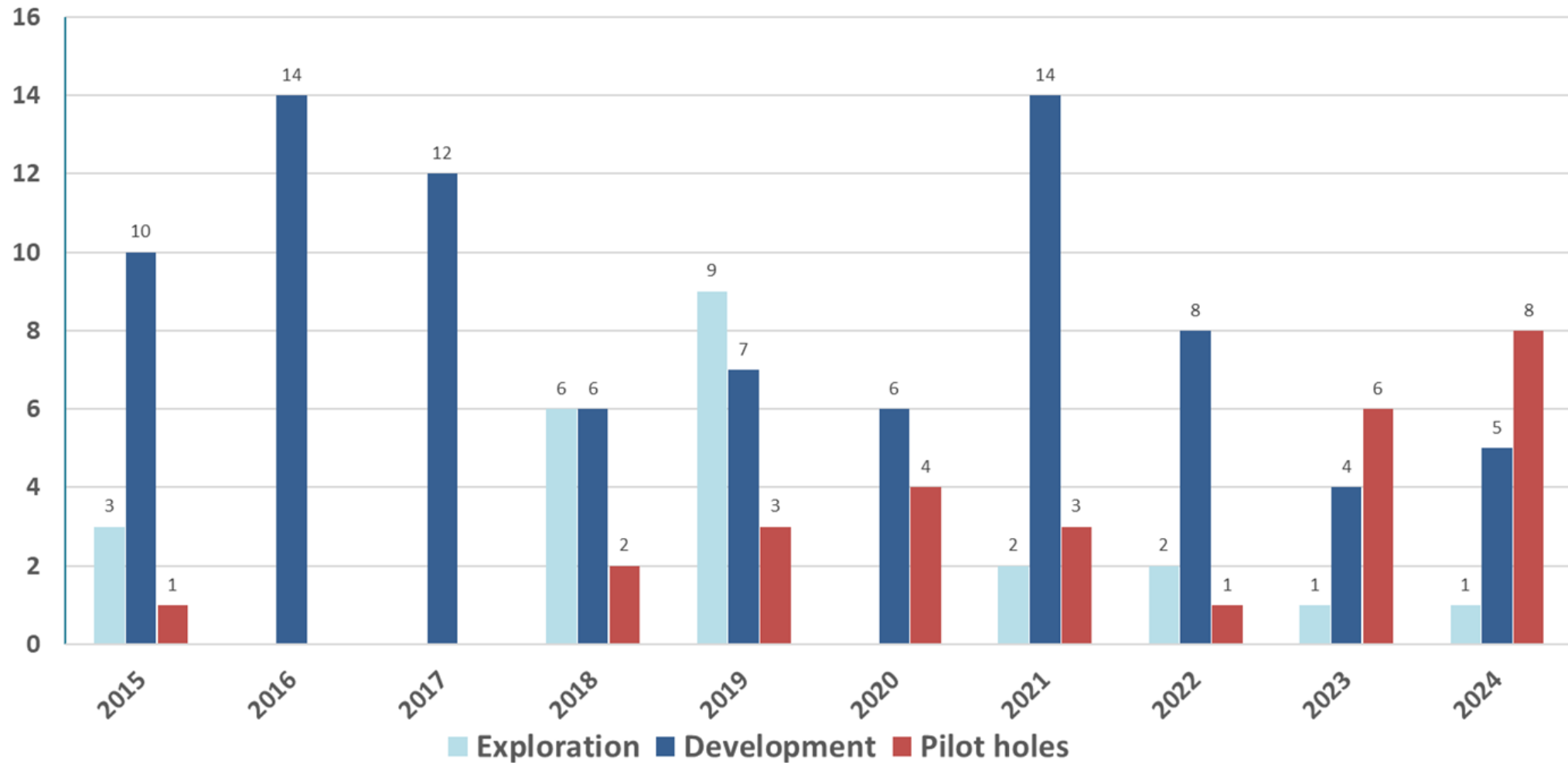


- No serious well control incident (yellow)
- No critical well control incidents (red)

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

liseringspartienes

ble enige om følgende:

lavutslipp til

fra 2029, eller tilsvarende

kutte utslipp av metangass

fra til dette. Det er usikkert

mede konsekvensen det får for
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

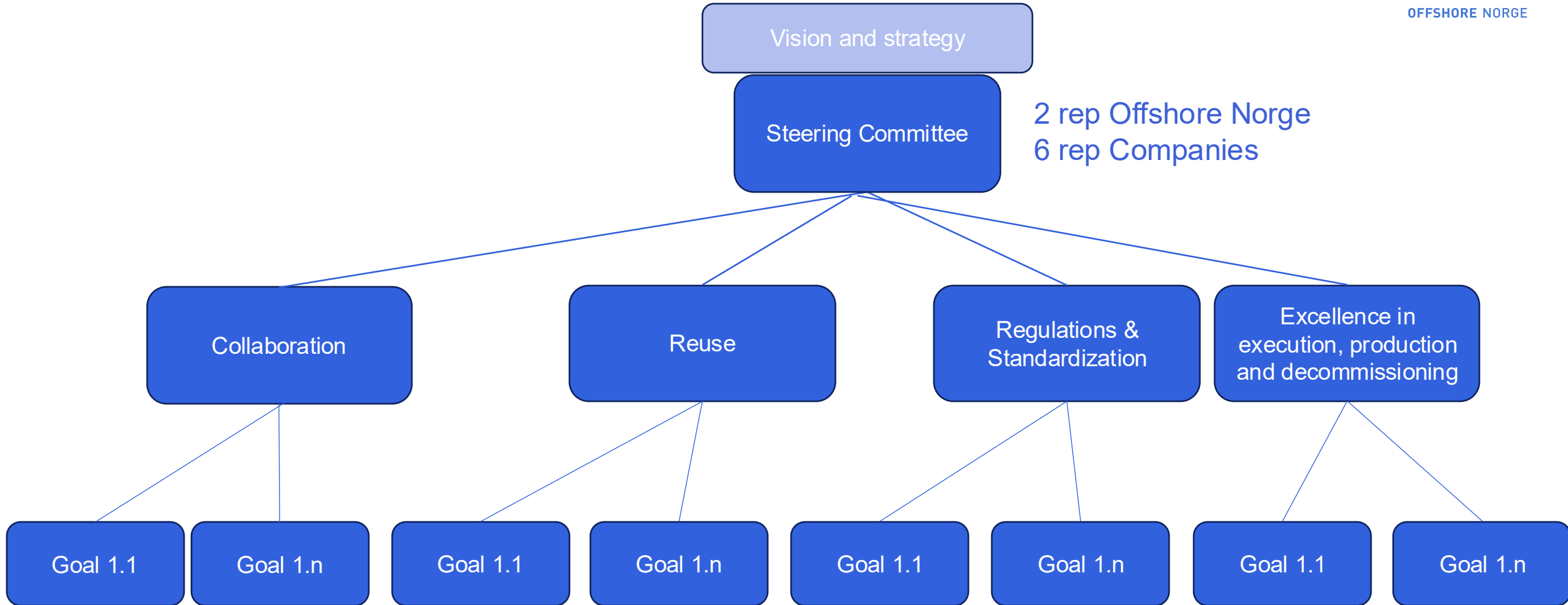
Norway's production will decline in the coming years, and estimated production will be heavily reduced by 2032 (incl. all new projects covered by temporary tax package).

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





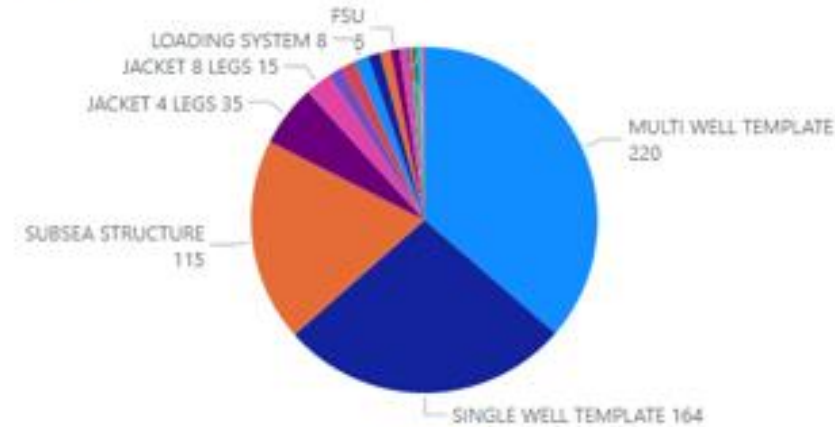
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DECOMMISSIONING / P&A

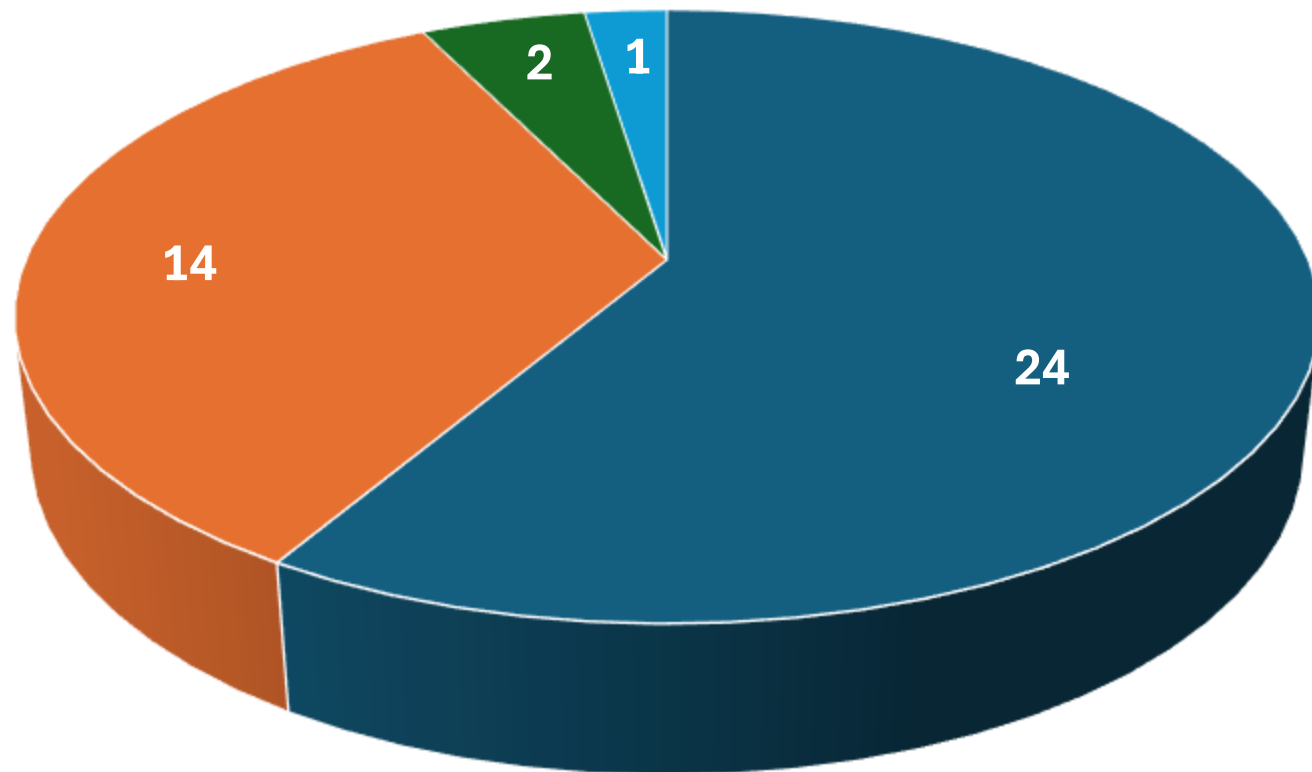
OVERVIEW INSTALLATIONS NCS

- 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)



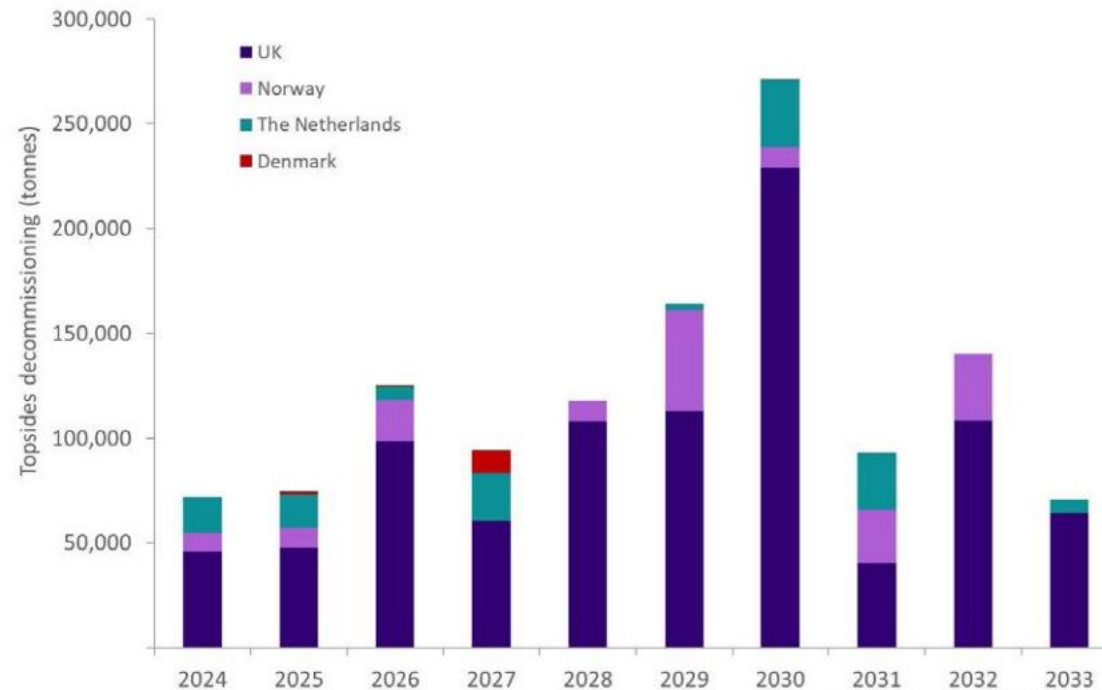
➤ 30 Fields in the North Sea

➤ 1 Field in the Norwegian Sea

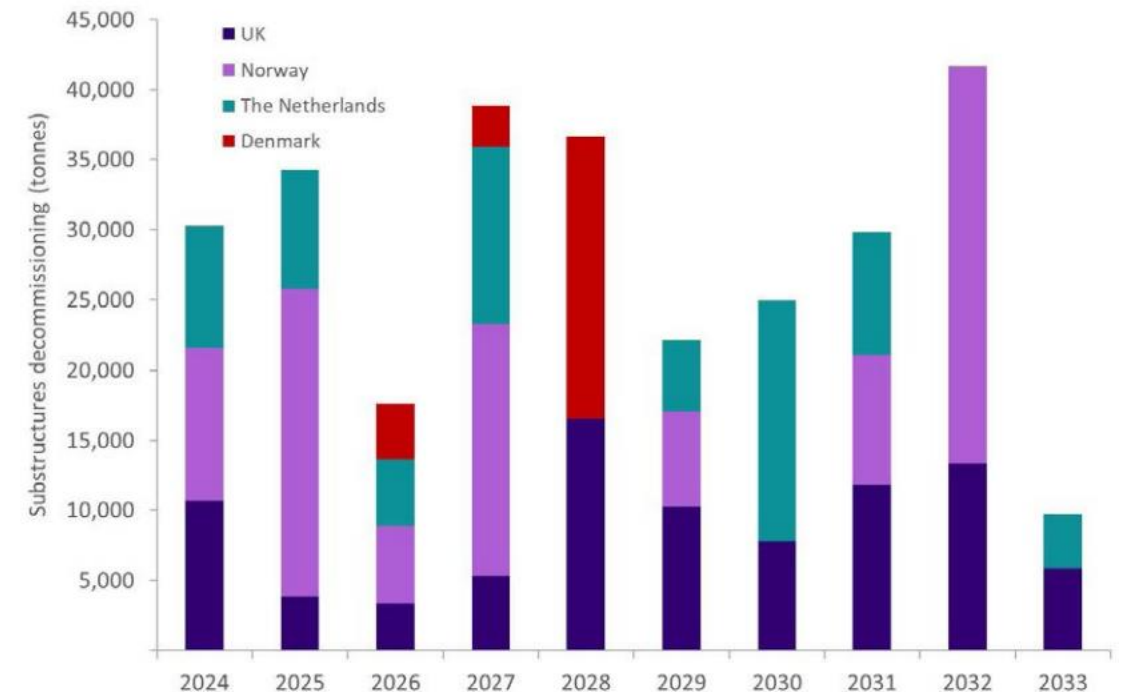
■ Fixed steel platforms ■ Subsea tie-back ■ FPSO/FSO ■ GBS

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



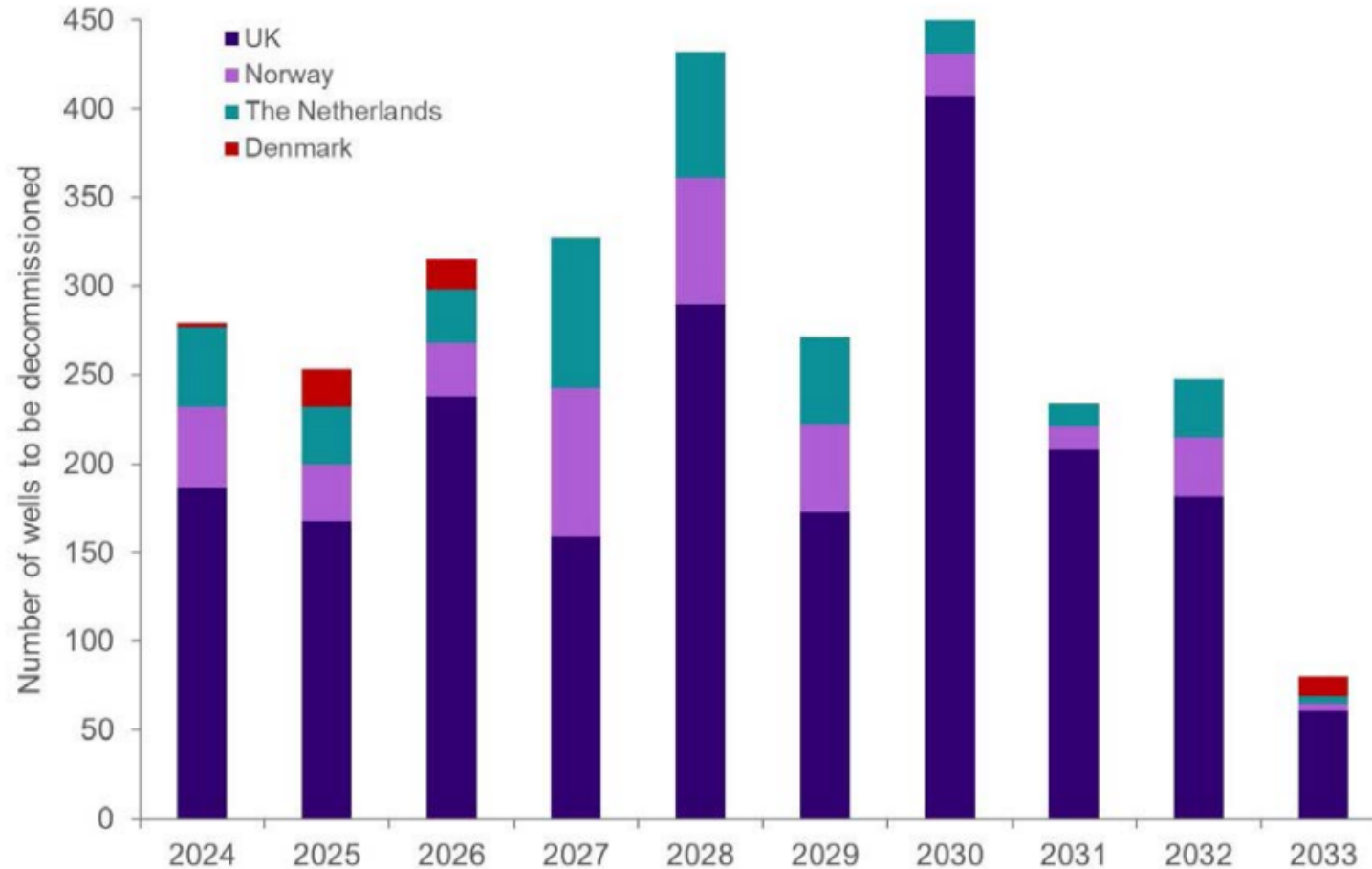
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P&A

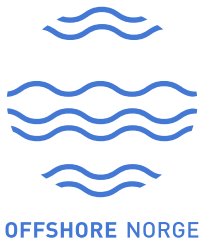
NEXT 10 YEARS OVERVIEW NORTH SEA



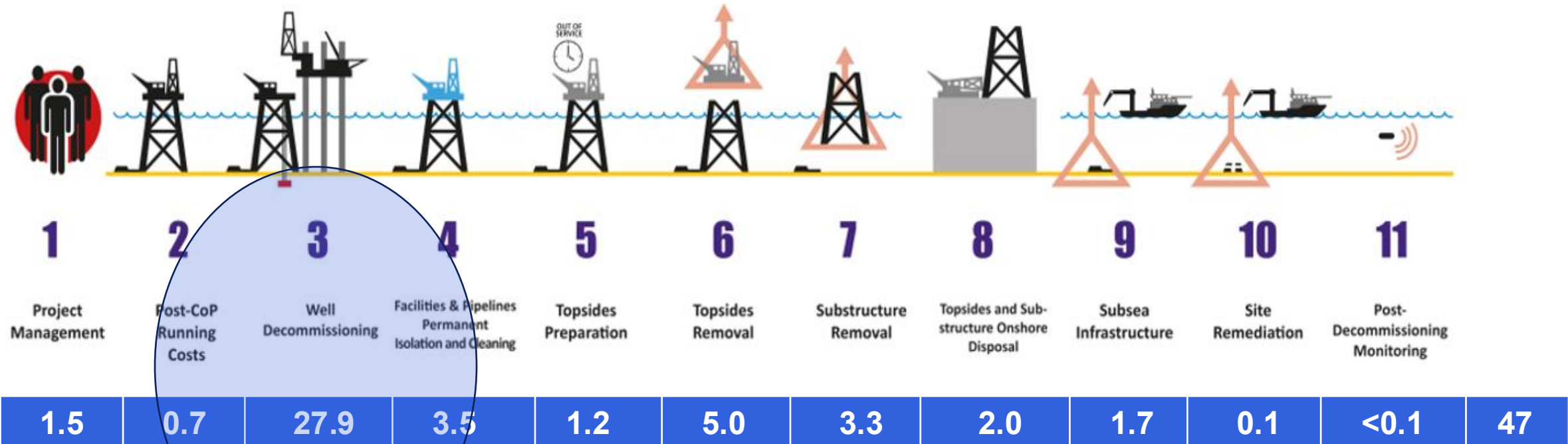
Wells



OVERVIEW 10-YEAR COST FORECAST (2024-2033)



Market potential



All values are 2024 BNOK

60%

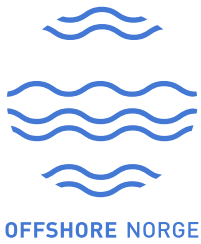


You know where you are going... Start and end is known

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



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



**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

mb

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 NORSKE 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	ScopeNodeApproved	ScopeNodeRejected	DataAvailable	DataOperatorApproved	DataOperatorRejected	DataChangeRequested	DataGasscoApproved	DataGasscoRejected	DataNodeApproved	DataNodeRejected	DataGasscoAndNodeApproved	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

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

+

:

~JOA 7 part

~JOA 4

~JOA 5.1 part

~JOA 5.1 part

~JOA 5.2

~JC

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.

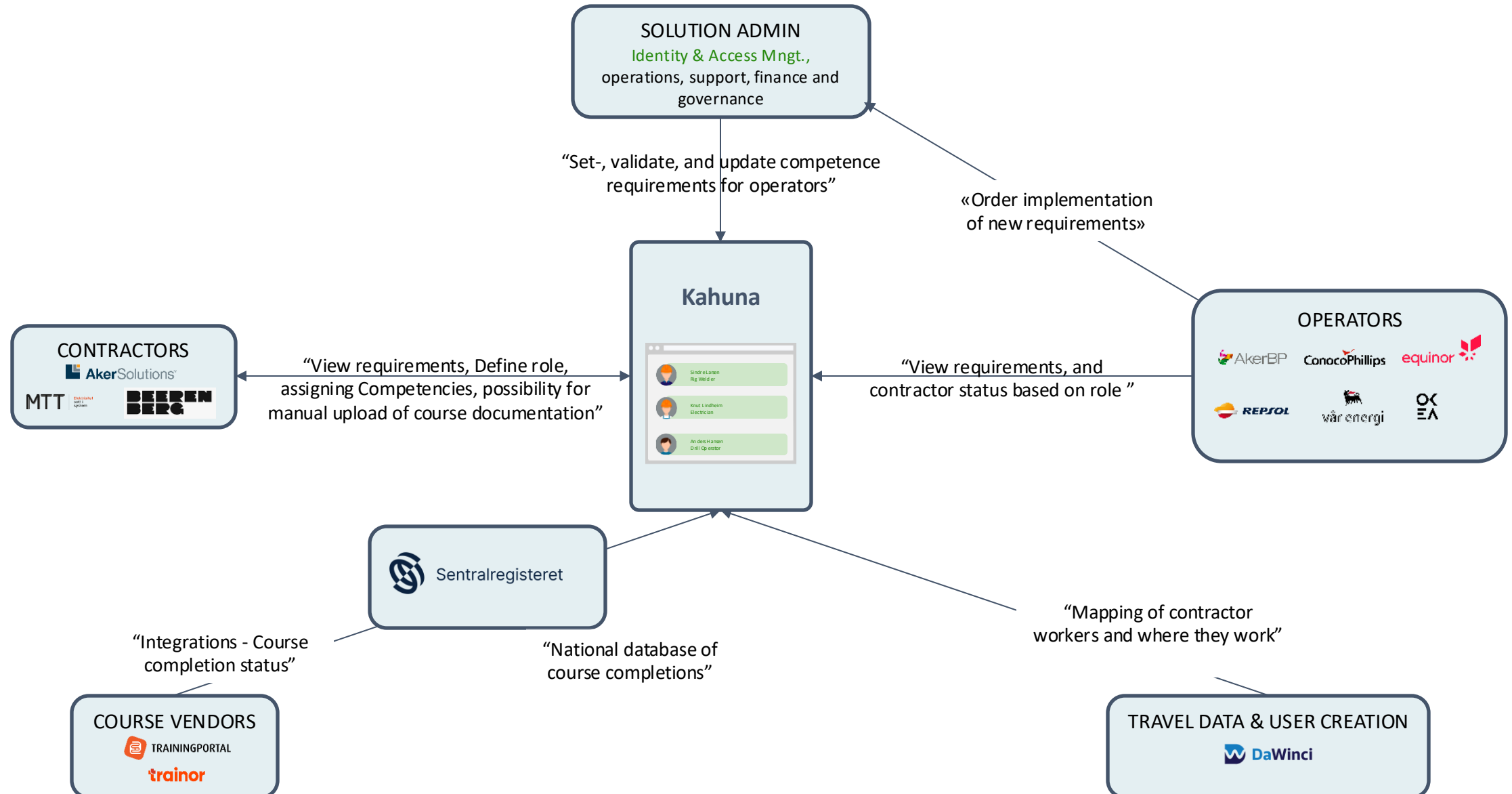
Competencehub is a project run by **Offshore Norge**, supported by all production facility operators on Norwegian continental shelf.

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



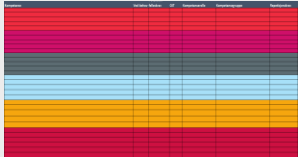
COMPETENCE MAPPING PROCESS



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