

Emissions Reduction Technology Roadmap

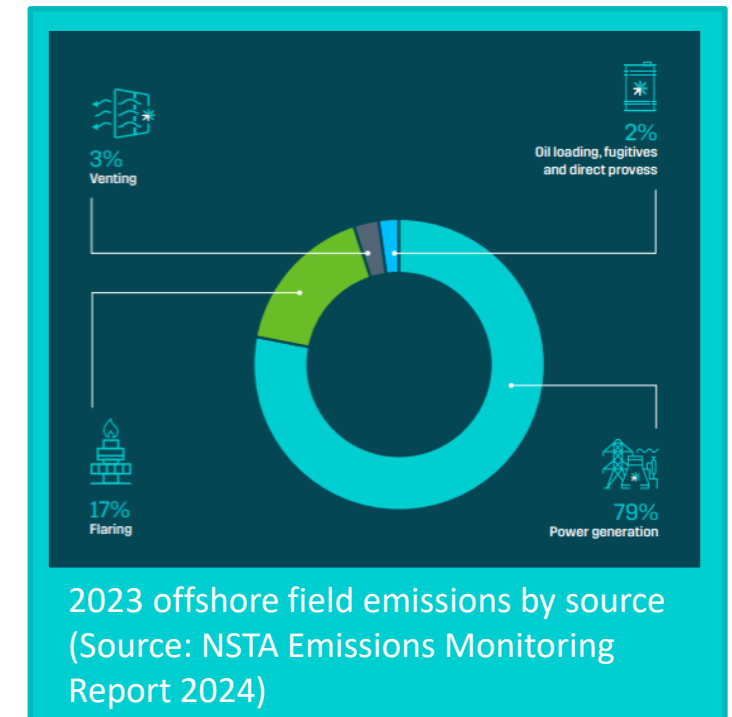
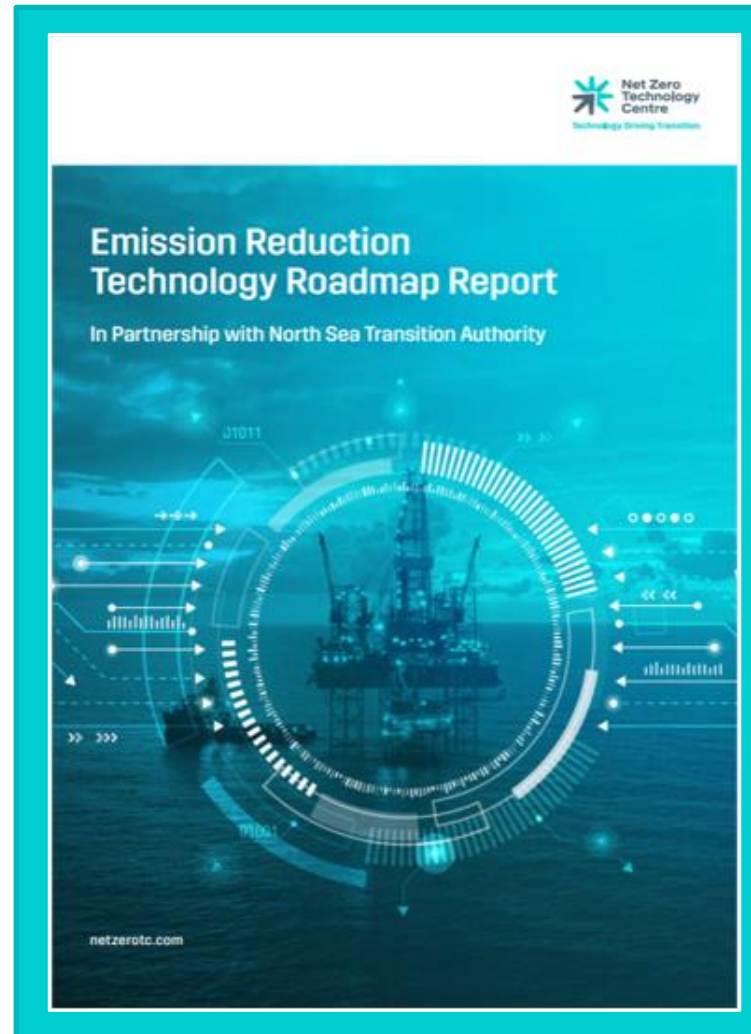
In partnership with North Sea Transition Authority

18th February 2025

Overview



- Developed by the NZTC in partnership with the NSTA for the Technology Leadership Board
- Valuable input from industry through workshops
- Aim: to serve as an industry resource to raise awareness of deployable technology which can reduce emissions from the most common sources in the upstream oil and gas sector.
- Also covered are technologies which are under development, detailing their current Technology Readiness Level (TRL)
- Collaboration is essential



Areas Addressed and Example Technologies



Power Generation Emissions

Largest contributor to GHG emissions from UKCS oil and gas production – 79% of emissions in 2023.

Power Generation	Energy Efficiency Improvements	Reducing Demand – right-sizing, modifications and system upgrades
		Waste Heat Recovery
		Power Generation Equipment
		Power Management
	Low Carbon Power Solutions	Alternative Fuels
		Full or Partial Electrification
		Small Scale Renewables
		Electrification of Equipment & Systems

ECOMAX





NZTC & Siemens Energy



Flaring and Venting Emissions

Currently, 20% of UKCS GHG emissions from oil & gas activities are attributable to flaring and venting

Flaring & Venting	Process Optimisation
	Flare Gas Recovery
	Vapour Recovery Units
	Alternative Routing or Utilisation of Gas
	Flare Optimisation
	Vent Optimisation

Accord Combustor





Flare.IQ

TRANSVAC

Flare Gas Recovery Ejectors





Flare Gas Recovery Units

M2X

Gas to Methanol System

Fugitive Emissions & Other Integrated Asset Solutions

Fugitive emissions accounted for 2% of the total offshore field emissions in 2023.

Fugitive Emissions	Equipment and Fittings
	Integrity Management
Integrated Asset Solutions	Digital Solutions
	Robotics & Autonomous Systems
	Decommissioning

OXFORD FLOW

ES Stemless Axial Flow Valve



Dragonfly Valve

COPSYS[®]

Intelligent Digital Skin





Alert



Emissions Elimination Program







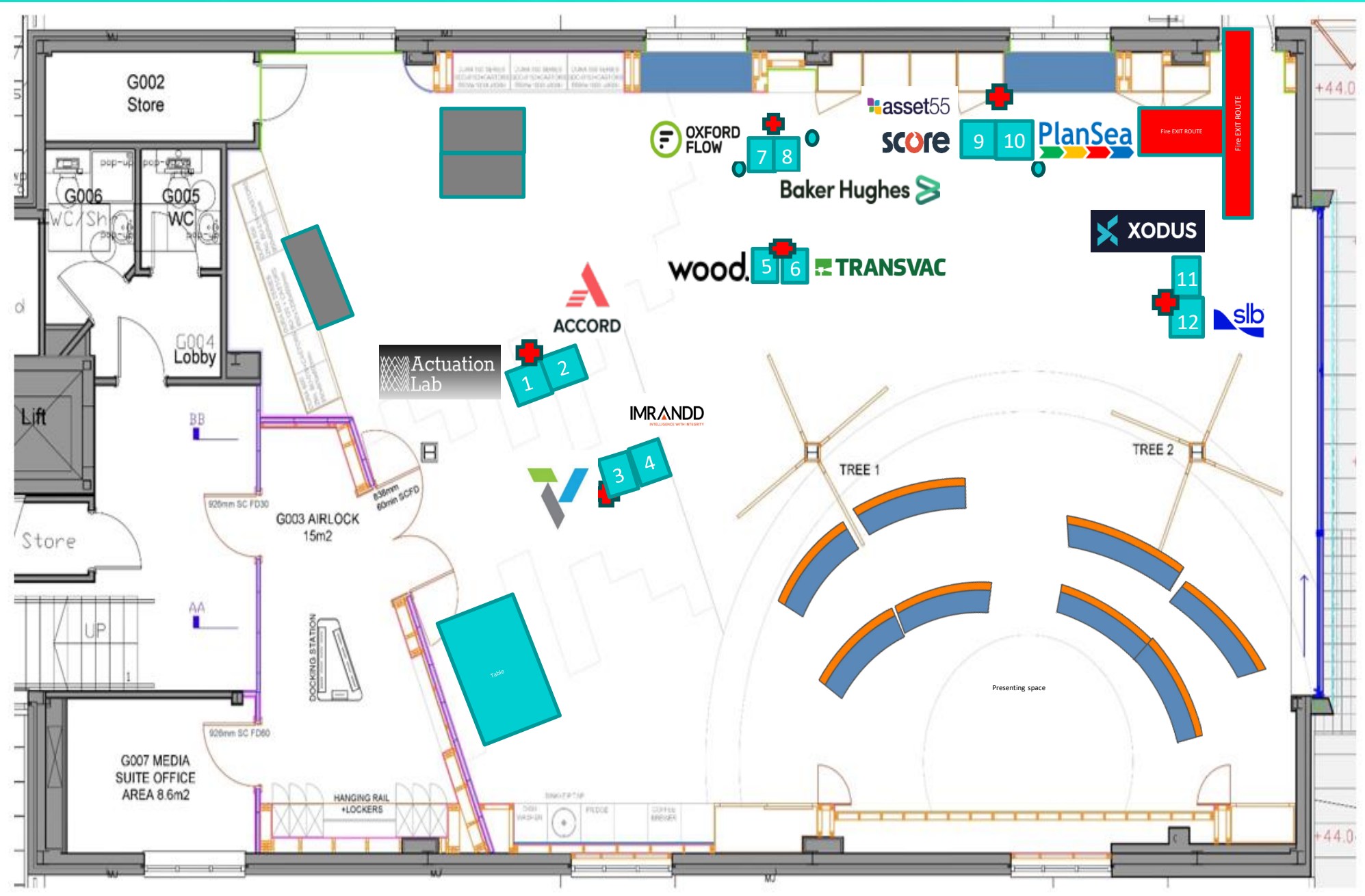
The Well Decommissioning Collaboration

Next Steps...



Scan or enter the
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- Ask questions through Menti
- Participate in feedback session
- Visit the exhibitors
- Reach out to NZTC or NSTA
- Finally....if you have a project please let us know and we can host another event



Pod	Company
1	Actuation Lab
2	Accord
3	Verlume
4	IMRANDD
5	Wood.
6	Transvac
7	Oxford Flow
8	Baker Hughes
9	Asset55 & Score
10	PlanSea
11	Xodus
12	SLB