

Project Greensand

*Project Greensand Phase 2, The First Full Value Chain Climate CCS Pilot Project in Europe.
Johan Byskov Svendsen – INEOS Oil & Gas*

15 October 2021

Project Greensand

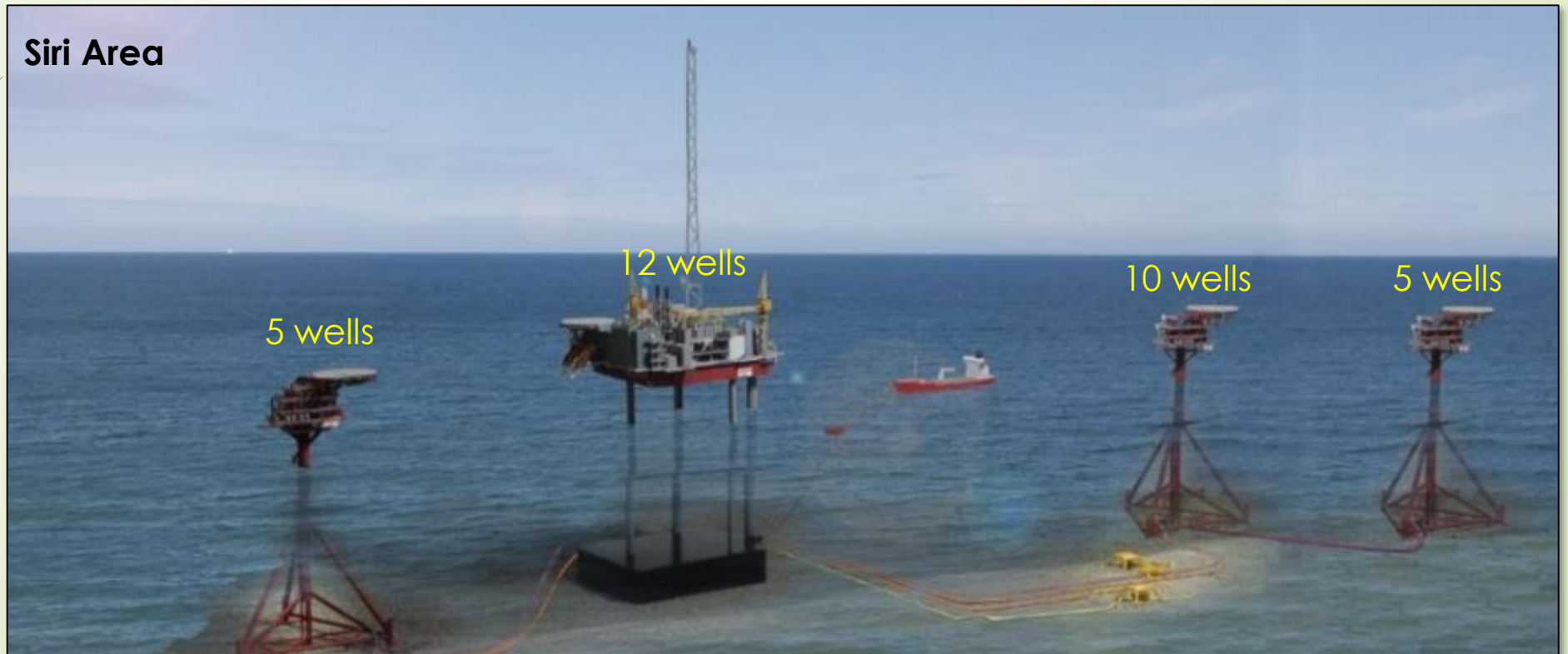
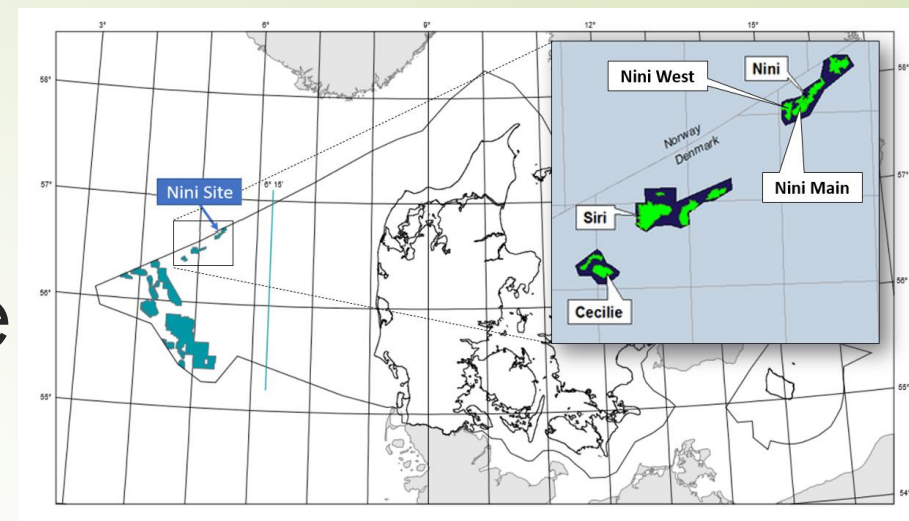
- **Project Greensand will be the first Full offshore CCS Pilot**
- **Nini A Platform can deliver storage of 1/2-1 1/2 mtpa by 2025**
- **Siri Area can deliver 8mtpa by 2030**

Project Greensand

- Project Greensand will be the first Full offshore CCS Pilot
- Nini A Platform can deliver storage of 1/2-1 1/2 mtpa by 2025
- Siri Area can deliver 8mtpa by 2030

Siri Area

Available infrastructure



Project Greensand – CO₂ storage in depleted oil fields

Available data and infrastructure allow for cost-effective storage by 2025



Siri Area

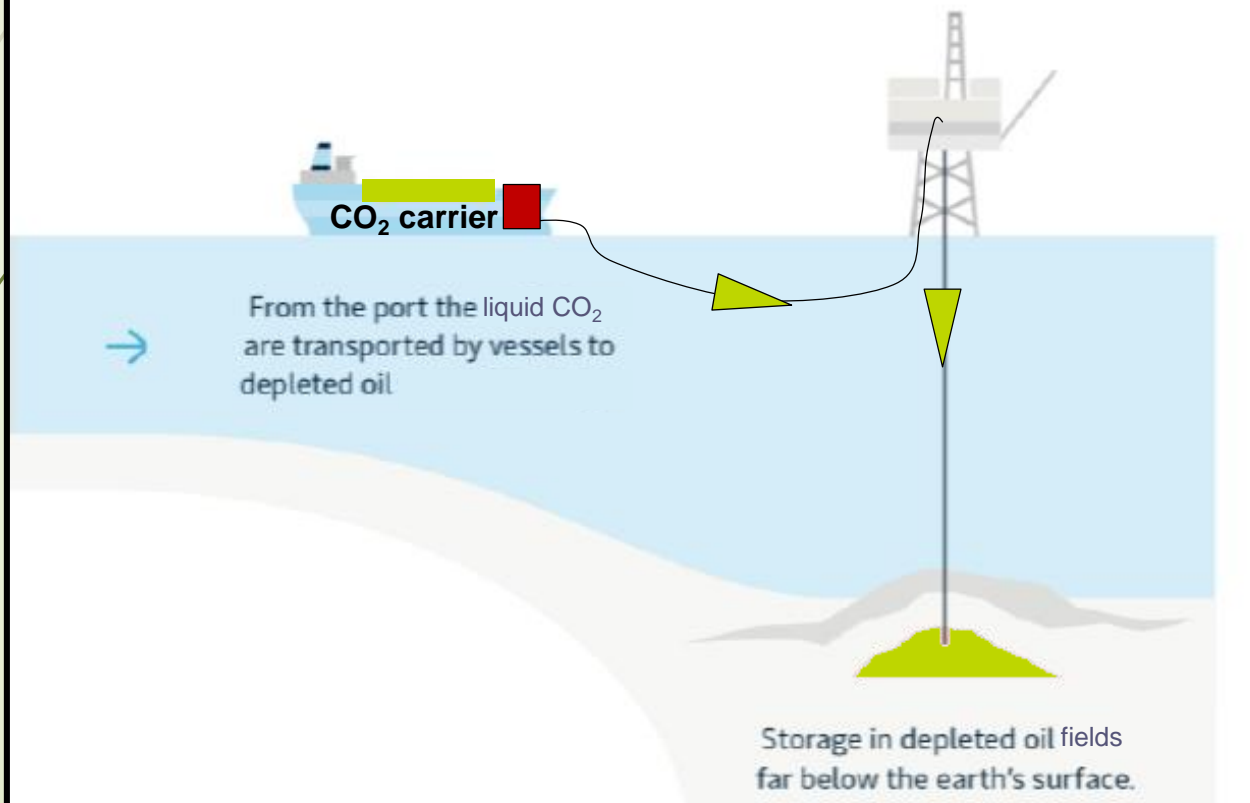
Project Greensand – CO₂ storage in depleted oil fields

Available data and infrastructure allow for cost-effective storage by 2025

Project Greensand
Baltic CCS

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Project Greensand CO₂ Transport & Storage



Siri Area



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		Consequence "C" (% of Managed Value)					Severity Post Mitigation	
		V. LOW 2	LOW 4	MEDIUM 6	HIGH 8	V. HIGH 10		
Probability "P"	VERY HIGH 5 Will probably occur in most circumstances				Showstoppers		VERY HIGH	
	HIGH 4 Might occur under most circumstances	705	209, 308, 704	203 Geology			HIGH	
	MEDIUM 3 Might occur at some time	309, 502, 602	201, 501, 504, 702, 706, 707	202, 205, 206, 207, 208, 210, 304, 311, 703	310, 312, 313, 314 Wells		MEDIUM	203, 310
	LOW 2 Could occur at some time		503, 505	604, 701	101, 102, 305, 601, 603, 605, 606	204 Geology	LOW	202, 204-210, 301, 312, 703
	VERY LOW 1 May occur in exceptional circumstances		104, 708	211, 306	103, 302, 303, 307, 401	301	VERY LOW	101-104, 201, 211, 302- 309, 311, 313-314, 401, 501-505, 601-606, 701- 702, 704-708

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- More laboratory experiments
- Pilot injection of 1/10 volume can address the large-scale risks
- Development of cost-effective monitoring technologies

		Consequence "C" (% of Managed Value)					Severity Post Mitigation	
		V. LOW	LOW	MEDIUM	HIGH	V. HIGH		
		2	4	6	8	10		
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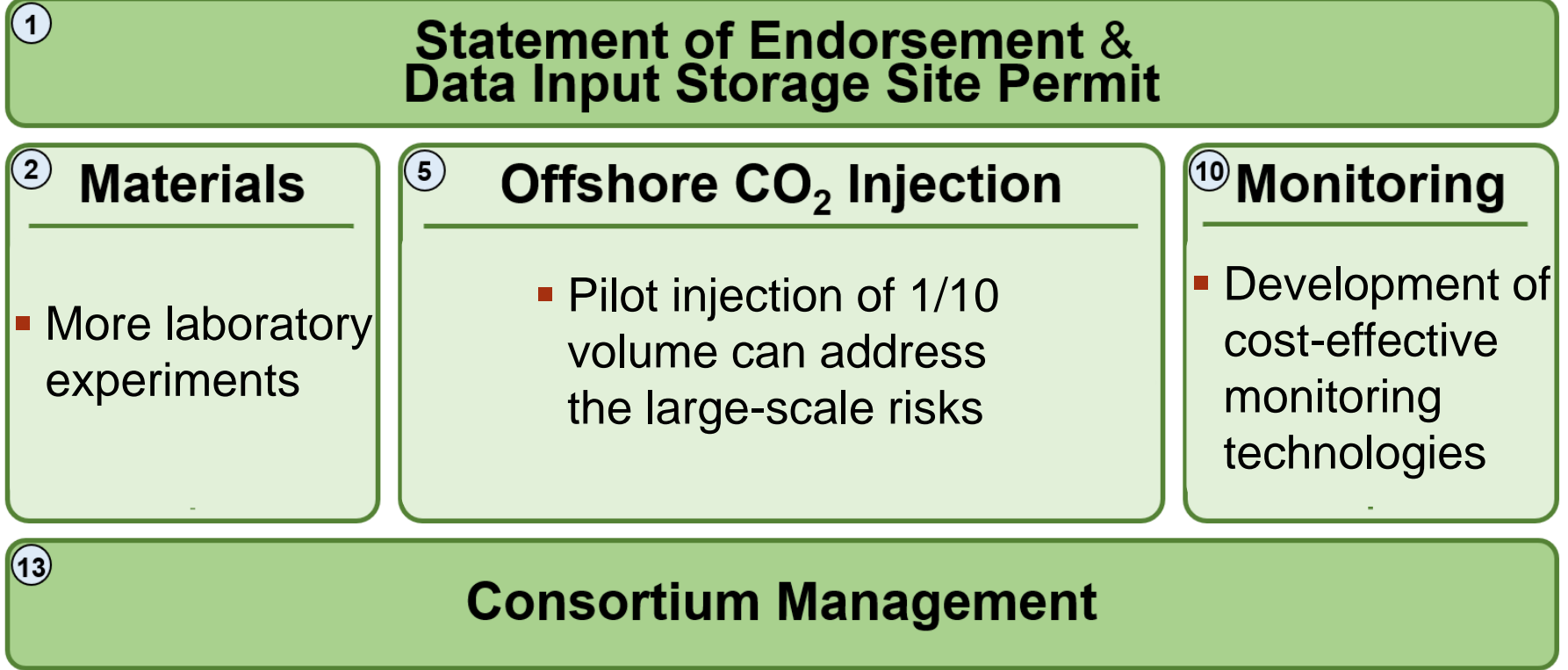
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- Pilot injection of 1/10 volume can address the large-scale risks
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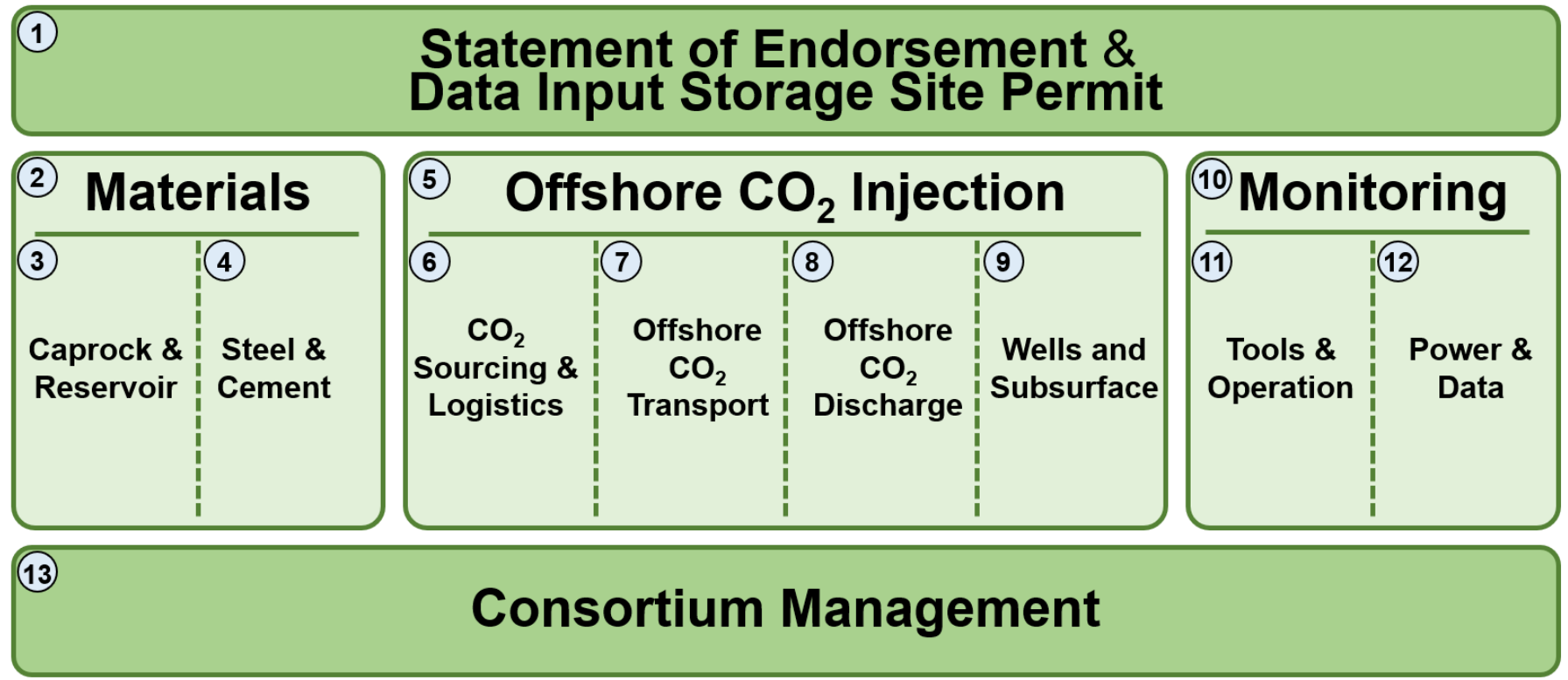
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graph TD; 1[1 Statement of Endorsement & Data Input Storage Site Permit] --> 2[2 Materials]; 2 --> 3[3 Caprock & Reservoir]; 2 --> 4[4 Steel & Cement]; 3 --> 5[5 Offshore CO2 Injection]; 4 --> 5; 5 --> 6[6 CO2 Sourcing & Logistics]; 5 --> 7[7 Offshore CO2 Transport]; 5 --> 8[8 Offshore CO2 Discharge]; 5 --> 9[9 Wells and Subsurface]; 6 --> 10[10 Monitoring]; 7 --> 10; 8 --> 10; 9 --> 10; 10 --> 11[11 Tools & Operation]; 10 --> 12[12 Power & Data]; 11 --> 13[13 Consortium Management]; 12 --> 13;
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The diagram illustrates the process flow for the Statement of Endorsement & Data Input Storage Site Permit. It is organized into three main sections: Materials, Offshore CO₂ Injection, and Monitoring, all leading to Consortium Management.

Materials (2)

- 3 Caprock & Reservoir
- 4 Steel & Cement

Offshore CO₂ Injection (5)

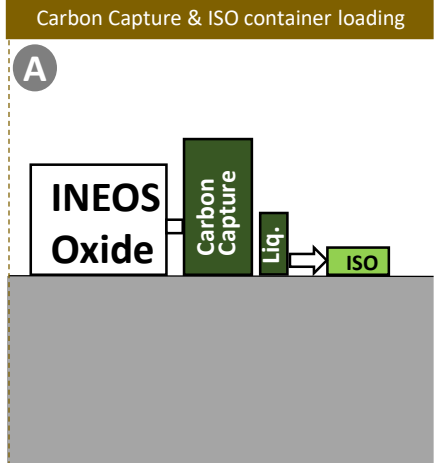
- 6 CO₂ Sourcing & Logistics
- 7 Offshore CO₂ Transport
- 8 Offshore CO₂ Discharge
- 9 Wells and Subsurface

Monitoring (10)

- 11 Tools & Operation
- 12 Power & Data

Consortium Management (13)

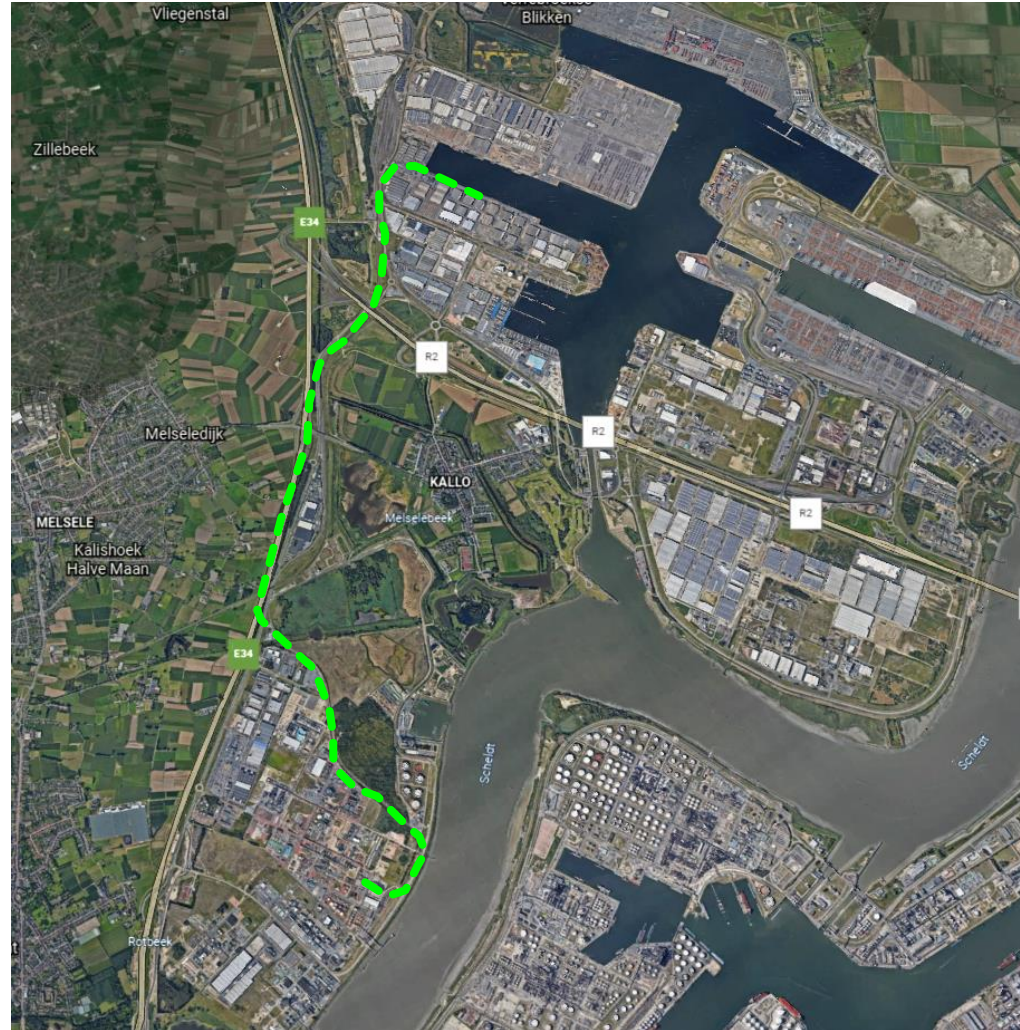
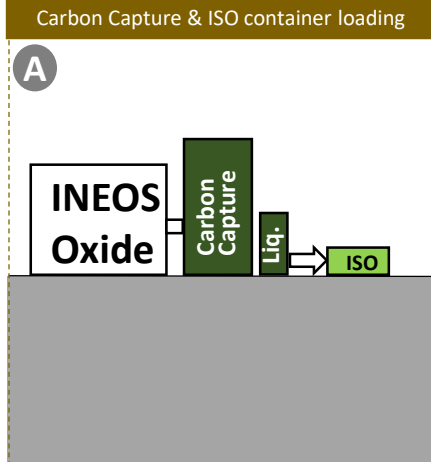
Project Greensand Phase 2: Offshore Pilot



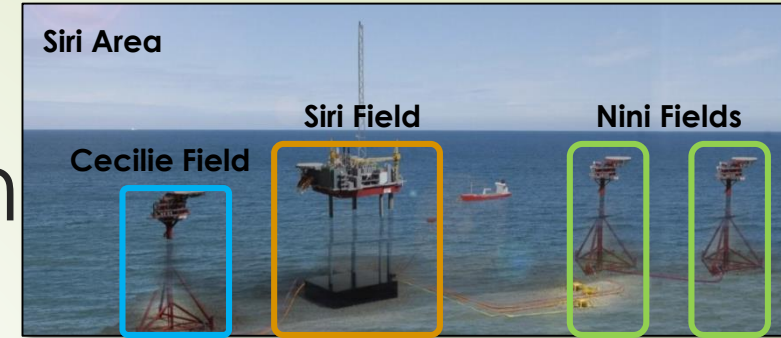
Project Greensand Phase 2: The Capture

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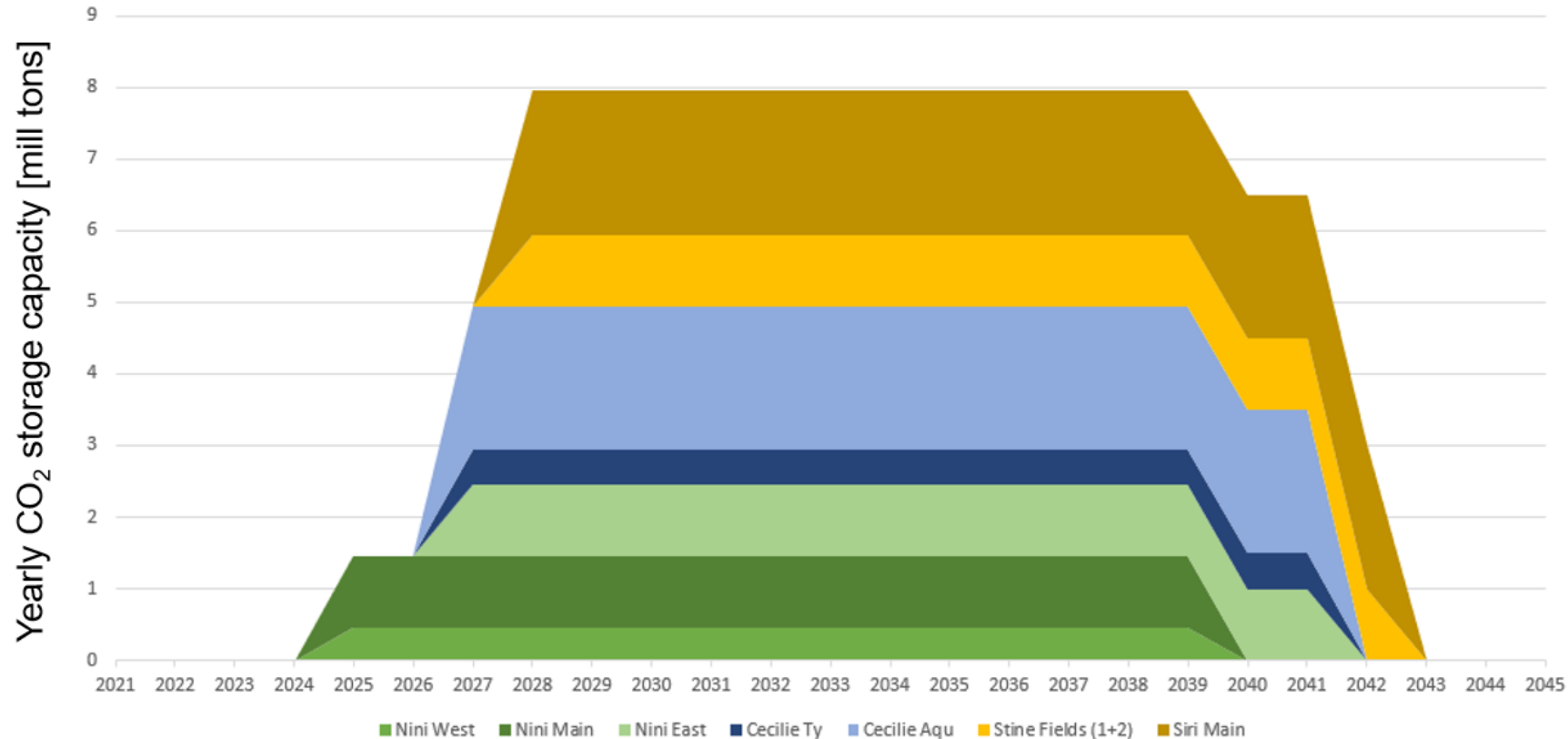
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Siri Area 40% of the Danish CO₂ Reduction Target



STORAGE CAPACITY FOR THE SIRI AREA CO₂ STORAGE SITES



Thank you for your attention

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How to Achieve Carbon Removal (CDR) and Negative Emissions From Waste Handling
Johan Byskov Svendsen – INEOS Oil & Gas