## INEOS Energy

Presentation to network group 3/11-2022 Mads Gade

#### - INEOS background

- Producing assets and future activities
  - Syd Arne and the HESS take over
  - Siri area activities and future
- Developments
  - Solsort
  - Hejre
- Project Greensand status



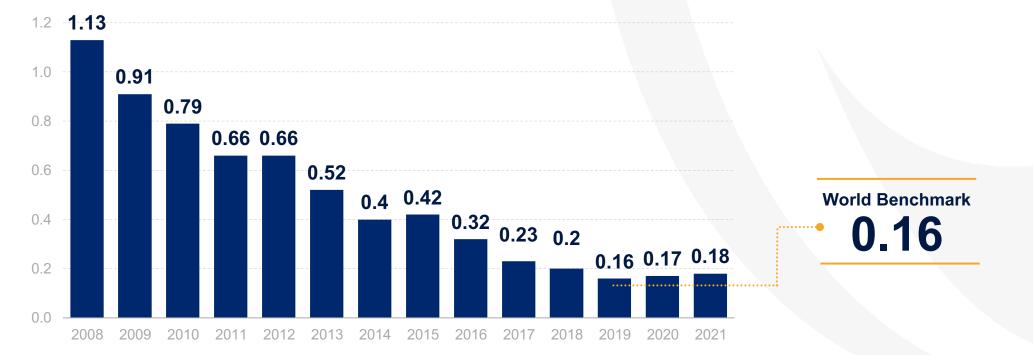






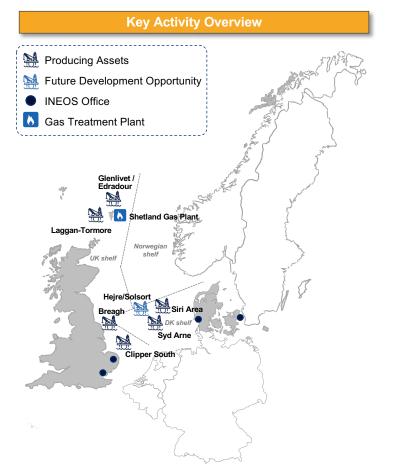
## **INEOS** safety performance

#### OSHA Recordable Rate Per 200 000 hrs: Employees + Contractors

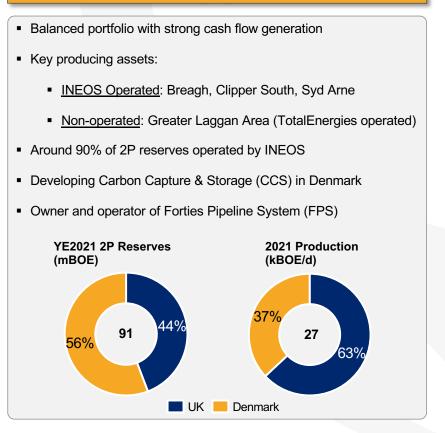




## **Oil & Gas Assets**



#### Highlights

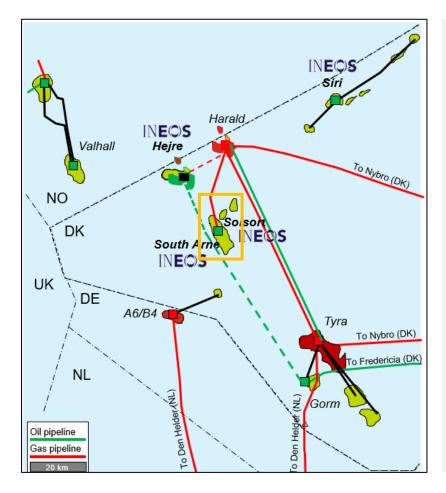




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## **Syd Arne licence** History, key facts and key data



#### History

- Syd Arne first oil 1999
- Satellite platforms online 2013
- INEOS E&P A/S Operator 30 Aug 2021
  - 98.3% ownership
  - Danoil Exploration A/S only Partner

## Key facts

- Integrated production platform + satellites
- Chalk reservoir
- 60 meter water depth
- Total well stock of 32 wells (prod/inj)
- High Production Efficiency



## Syd Arne licence Status and ongoing activities

#### Status

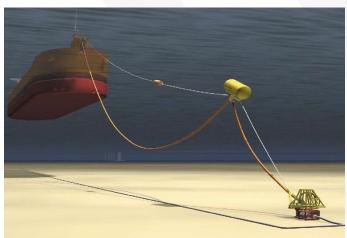
- Current production approx. 7000 bbls/d oil and associated gas\*
- Focus on safe and reliable operations
  - INEOS new Operator since Sept 2022
    - Zero lost time incidents
  - Maintain high production efficiency
- Transition of operatorship completed
- Extensive well intervention campaign during 2022
  Valve repairs, Health Checks and Production improvement

#### **Ongoing activities**

- Well intervention planning & execution
- Ekofisk West Flank well planning incl. seismic reprocessing
- Solsort field tie-in
- Maturation of further tieback opportunities





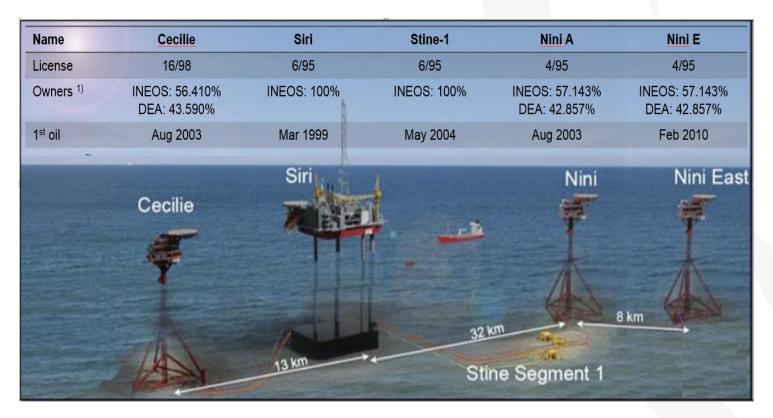




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## Siri Area



- Production since 1999
- Mature area ideal for CO2 storage
- Life extension through well workovers to extend life to bridget to CO2 potential



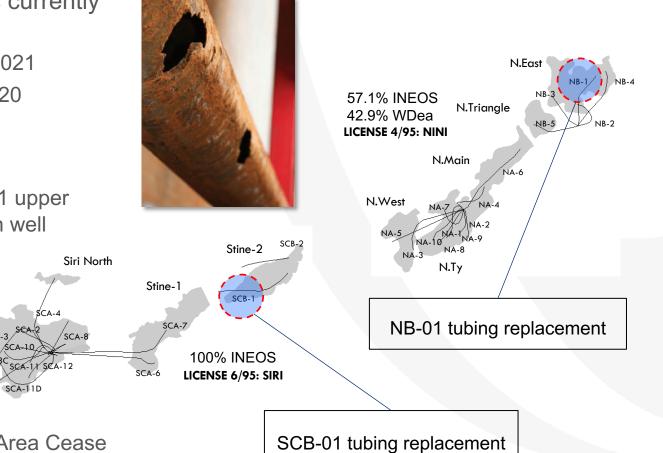
## Siri Area – 2023 well workover campaign

Two previously good producers currently shut in due to tubing corrosion

- SCB-01 production shut in mid-2021
- NB-01 production shut in mid-2020

Opportunity

 Replacement of NB-01 & SCB-01 upper completion strings to re-establish well integrity, and re-open the wells



 Achieve alignment between Siri Area Cease Of Production and Greensand Full Scale

Siri Main

SCA-1



## Siri Area – 2023 operational principles & highlights

#### **Siri Area operations**

- Maintaining high reliability (95%)
- Continue operating philosophy to re-inject all produced water
- No Lost Time Incidents
  - Celebrating 5 years with no LTI in July 2022)
- Expanding lifetime of equipment by effective Risk Based Inspections where applicable

 Maintaining economical production – two well workovers in 2023

#### **CO2 host potential**

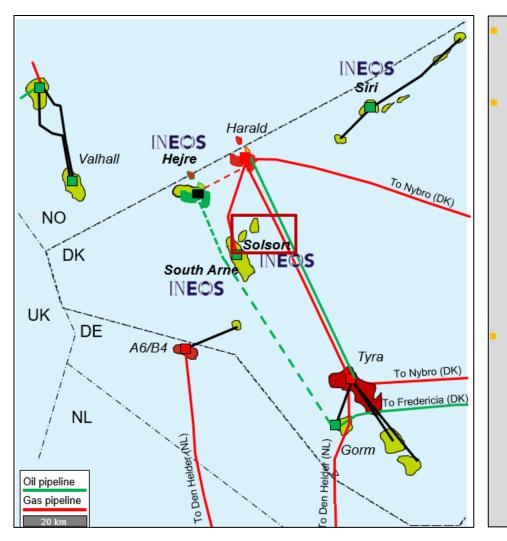
- Pilot CO<sub>2</sub> injection in Nini satellite during Q1
- Pilot is segway to building a new business for permanent CO<sub>2</sub> storage - infrastructure synergies upon cessation of production
- Authority response to application for CO<sub>2</sub> exploration license expected during Q1



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## **Solsort Development**



INEOS operated 67% share

#### Solsort oil discovery

- Oil discovery in 2009
- Phased development of Solsort
  - West Lobe Development in 2023-2024
  - East Lobe accumulation contingent on West Lobe development performance
- Regulatory commitments
  - (PDO) of Solsort West Lobe approved by DEA September 2022
  - Final Investment Decision (FID) taken by Solsort Unit partners in September 2022
  - Rig committed and contracts are being placed

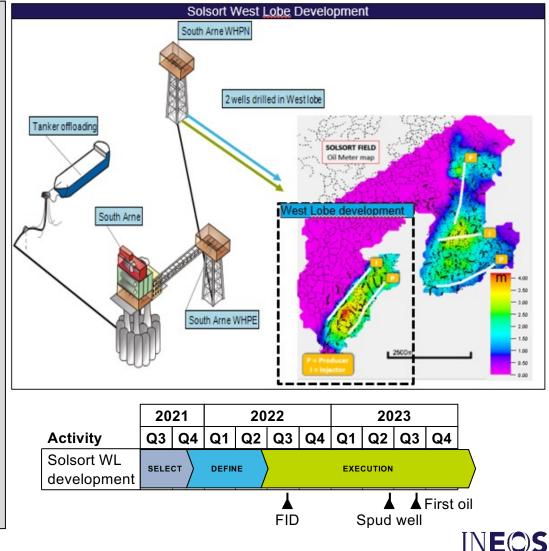
## Solsort development concept

#### **Development Concept**

- Drilling of one oil producer and one water injector from Syd Arne WHPN
- Tie back to Syd Arne production facilities
- Export utilizing Syd Arne export facilities

#### Status & Outlook

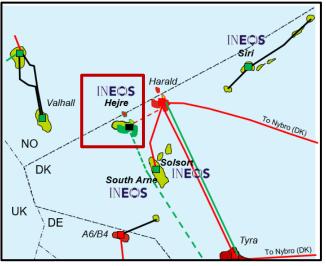
- Currently in EXECUTE phase
- Drilling to commence Q2/Q3 2023
- Syd Arne brownfield modification to commence Q2 2023
- First Oil Q3/Q4 2023
- Hand over to Operations expected Q1 2024



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## Hejre asset summary





• Two licenses both expiring 2040

INEOS operated with 100% ownership

License 5/98 oil discovery

- HPHT field
- Initial field development terminated 2016
- Infrastructure in place from initial field development for potential use
  - Jacket + well bay module
  - Wells (3 wells ready for production)
  - Pipelines
- Regulatory commitments
  - Submit updated Plan for Development and Operation (PDO) by end 2022



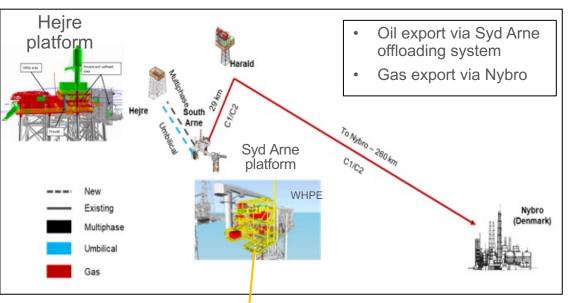
## Hejre Development Hejre tie-back to Syd Arne platform

#### **Development Concept**

- New Hejre Unmanned Topsides
- New process facilities to be installed at Syd Arne
- New pipeline between Hejre and Syd Arne WHPE
- Power from Syd Arne

#### Status & Outlook

- Currently in concept selection phase
- Capacity available after Solsort peak production







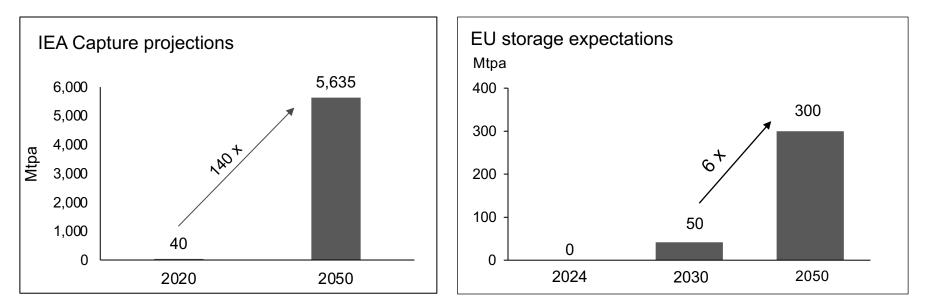
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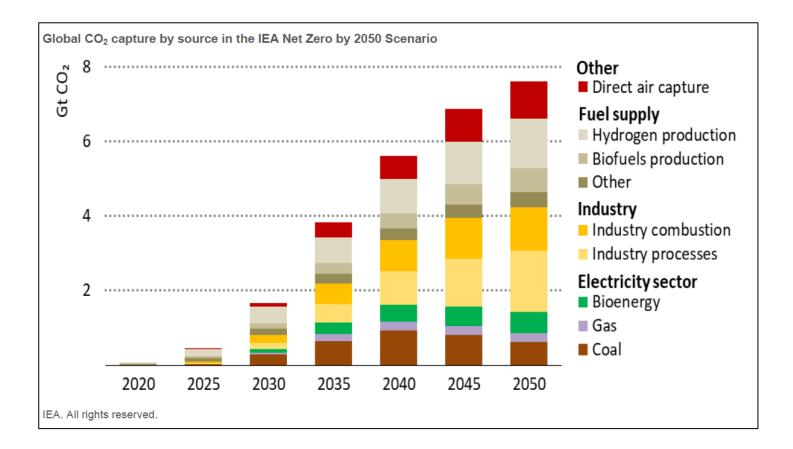


## **Global CCS Summary**

- 30 Operational CCS projects in the world half in the US with no pure climate projects yet
- Majority of projects worldwide in Natural Gas Processing and Coal Fired Power Plants
- Currently storage of 40 Mtpa
- Expected to increase by 140 times until 2050
- CCS seen as critical 'climate tool' by governments



## **Reaching Climate Targets Only Possible With CCS**

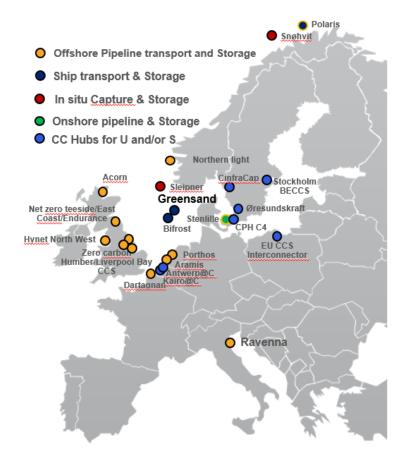


#### The Carbon Management Industry will be major one on its own!

## CCS in Denmark - The Danish 70% Reduction Target

- Climate target in DK to reduce 70% by 2030 ("Paris") most ambitious in the world
- Amounts to 20 Mtpa of CO<sub>2</sub>
- According to the government climate report CCS should be 8 Mtpa of this or 40 %
  - INEOS project Greensand can potentially deliver up to the full 8 Mtpa
- Government keen on supporting CCS
  - INEOS achieved the full EUDP pool for demonstration projects in December 2021 of 197 mDKK

## **Greensand in the European CCUS expanding landscape!**



Nini Nin**i** West Nini Main Siri Cecilie Siri Nini Nini East Cecilie r Ta 8 km 32 km 13 km Stine Segment 1

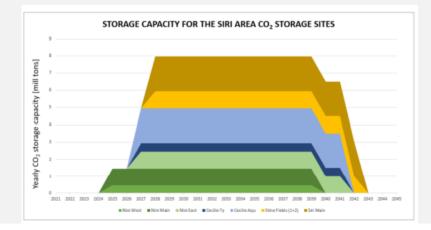
Disclaimer: Map produced by Greensand Project based on available public data, not complete and only illustrative

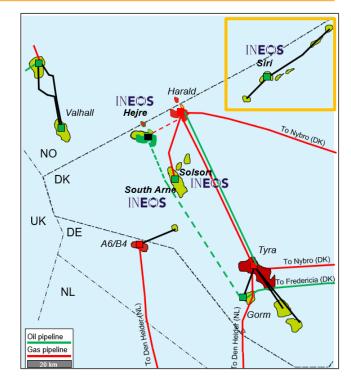


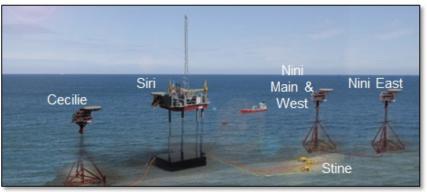
## **Greensand CCS – Safe and reliable CO2 storage in Siri area**

- Opportunity to utilise INEOS depleted reservoirs
- Currently, main focus on the non-producing Nini West reservoir - part of Siri Area
- Phase 1 feasibility phase concluded
  - Certificate of Conformity received for Phase 1
- Phase 2 physical pilot test
- Phase 3 commercial project
- Initial Greensand work on CO<sub>2</sub> storage focused Nini West

(0.9 mtpa) – but potential large!



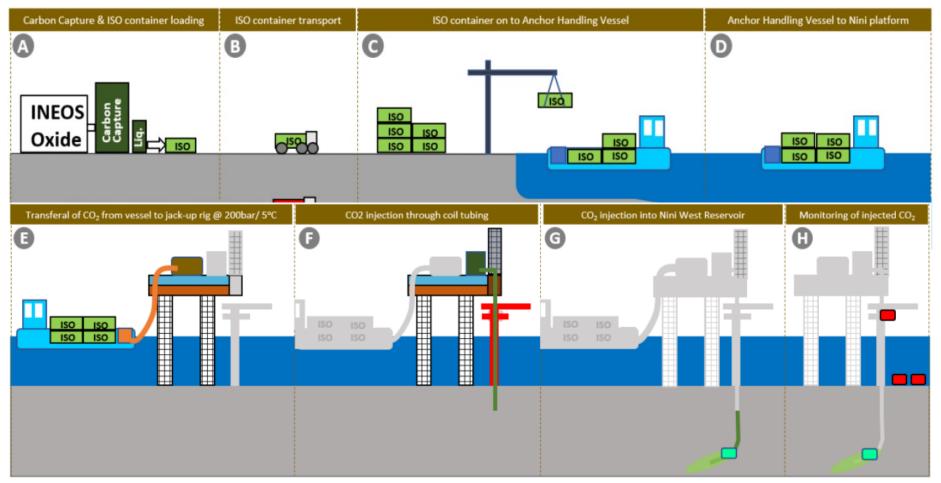




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## **Phase 2 – Injection Pilot**

#### $CO_2$ transported using PSV and injected in NA-05 via Coil Tubing





## **Greensand Project Phase 2** Phase 2 injection pilot – the CO2 journey





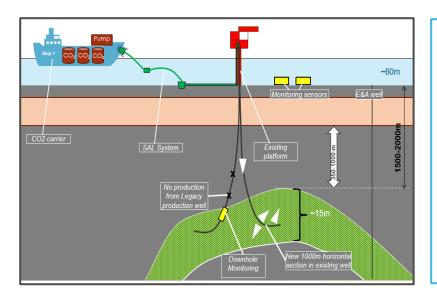






## **Greensand Full Scale Project**

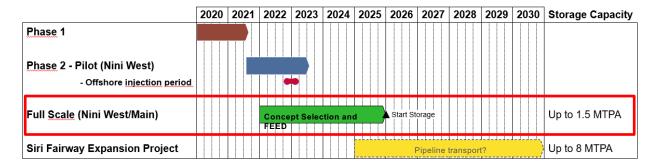
Starting with a 1.5 MTPA capacity – Transport by Ship and Storage in the Nini



## **Key Activities Ongoing**

- Mature Nini Main reservoirs
- Mature Development concept
  - Ship design (LP/MP/HP & Size)
  - Offloading/Transfer system
  - CO2 injection wells
  - Monitoring set-up
- Establish logistical & commercial model
- Authority approvals
- DnV Storage Site & Site Development CoC's
- Commercial contracting

Basis for final investment decision (FID) in 2nd half of 2023



# QnA

