Hydrogen-powered Shipping From Ambition to Reality

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Agenda for today

- ✓ Introduction to Samskip
- ✓ Sustainability Strategy
- ✓ Hydrogen SeaShuttle
- ✓ Overcoming challenges
- ✓ Comparing H_2 to fossil

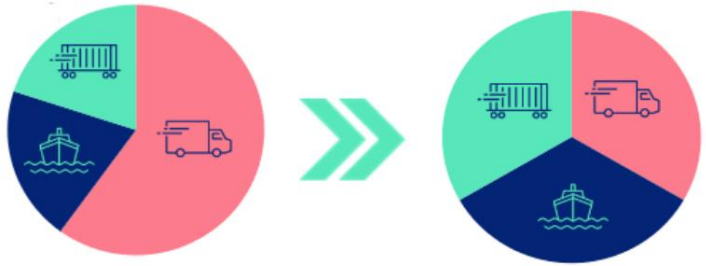
Samskip has global operations, and Europe's largest multimodal transportation network

Who are we?

- Dutch company with its origin in Iceland
- 32 offices in 20 countries
- Over 1700 permanent employees

What do we do?

- Transport using a combination of sea, river, rail and road, called *multimodal transport*
- Efficient transport at competitive pricing
- A more sustainable operating model by nature

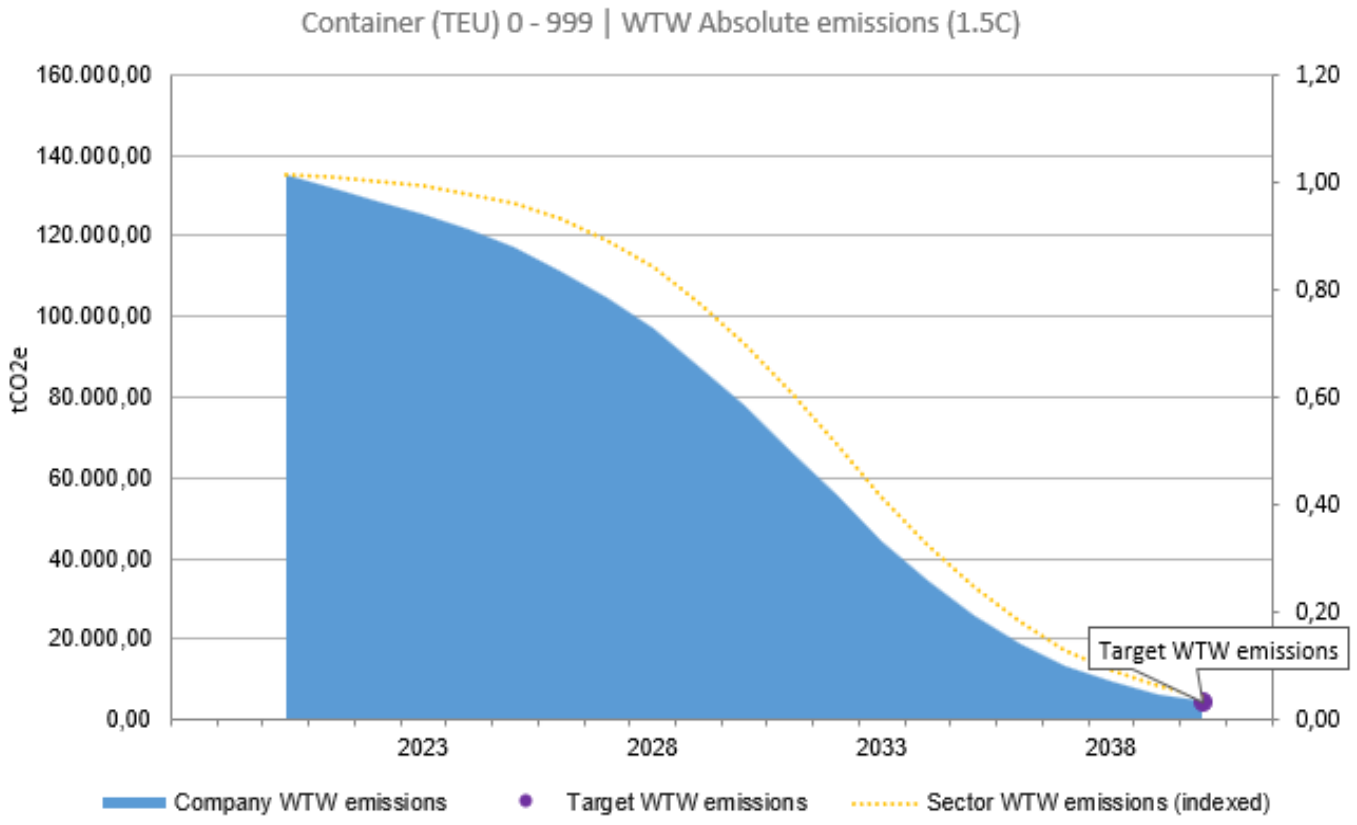


Climate targets verified by the Science Based Targets Initiative (SBTi)

Science-Based Targets

- Samskip validated its climate targets with the SBTi
- -50% CO2e in 2030 compared to 2022
- Net-Zero emissions in 2040
- Covers Scope 1, 2 & 3

SCIENCE BASED TARGETS



WTW emissions include the lifecycle emissions from the fuel production and transport

We’re taking three concrete steps toward Net-Zero in 2040

Our **Multimodal** Approach

Moving cargo off the road, onto trains and barges can avoid up to 80% of CO_2

Decarbonizing our **Current Fleet**

Biofuels create up to 89% of CO_2 reduction per vessel!

Newbuild projects and zero-emission vehicles

Investing in alternative fuels like Hydrogen

Samskip SeaShuttle - 2027

Sea Shuttle 1 in 2025: Under construction

Picture: 31/12/2025

The SeaShuttle

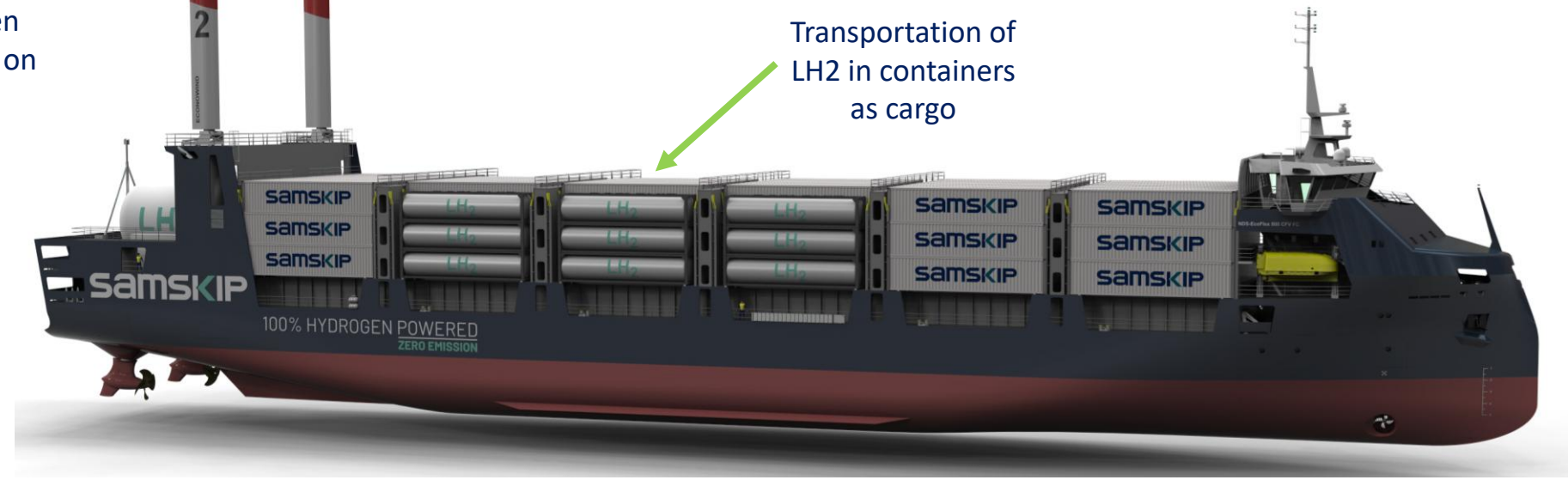
Suction Sails

6x 45” container bays

Modular hydrogen propulsion system on poop deck

Transportation of LH2 in containers as cargo

Optimized hull design



Redundancy with battery pack and MGO genset

- Two innovative, highly fuel-efficient, hydrogen powered vessels designed to operate in North Europe
- Enabling Green Corridor between Rotterdam and Oslofjord in weekly roundtrip
- Upgradable to autonomous operations
- Supported by ENOVA

LH2 deck arrangement

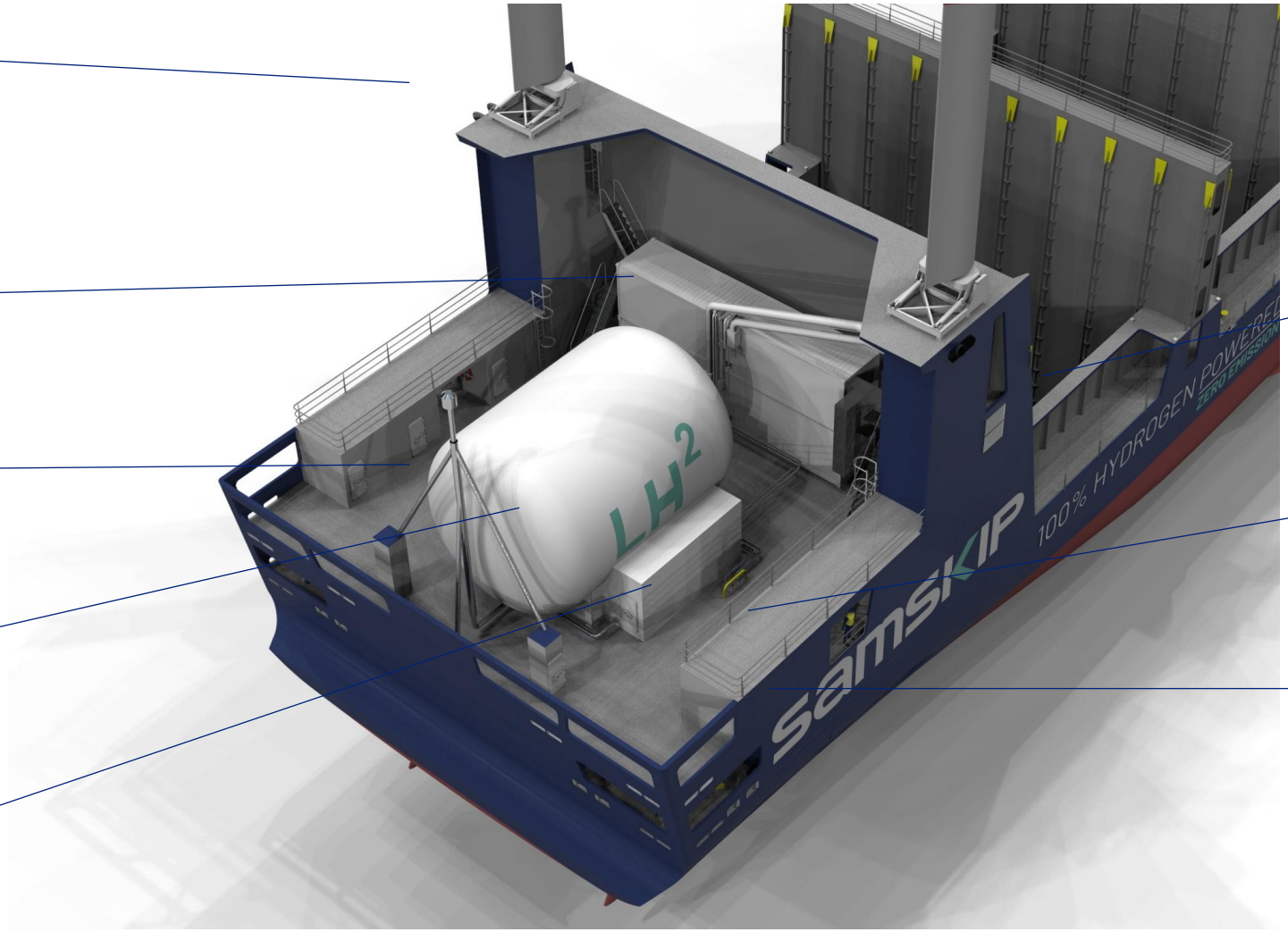
Machinery room air intake & exhaust

2x 40ft fuel cell containers for 3.2MW

Vent mast

~17 ton LH2 tank

Tank Connection Space



Fuel cell air intake & exhaust

PS & SB bunker stations

Nitrogen storage

LH2 SHIPPING
HYDRA
STAVANGER
Air Liquide

We’re facing challenges from different angles

Technological & Operational

- Alternative Design Approach
- Limited equipment suppliers with proven maritime solutions
- Full redundancy on propulsion system

Hydrogen Procurement & Supply Chain

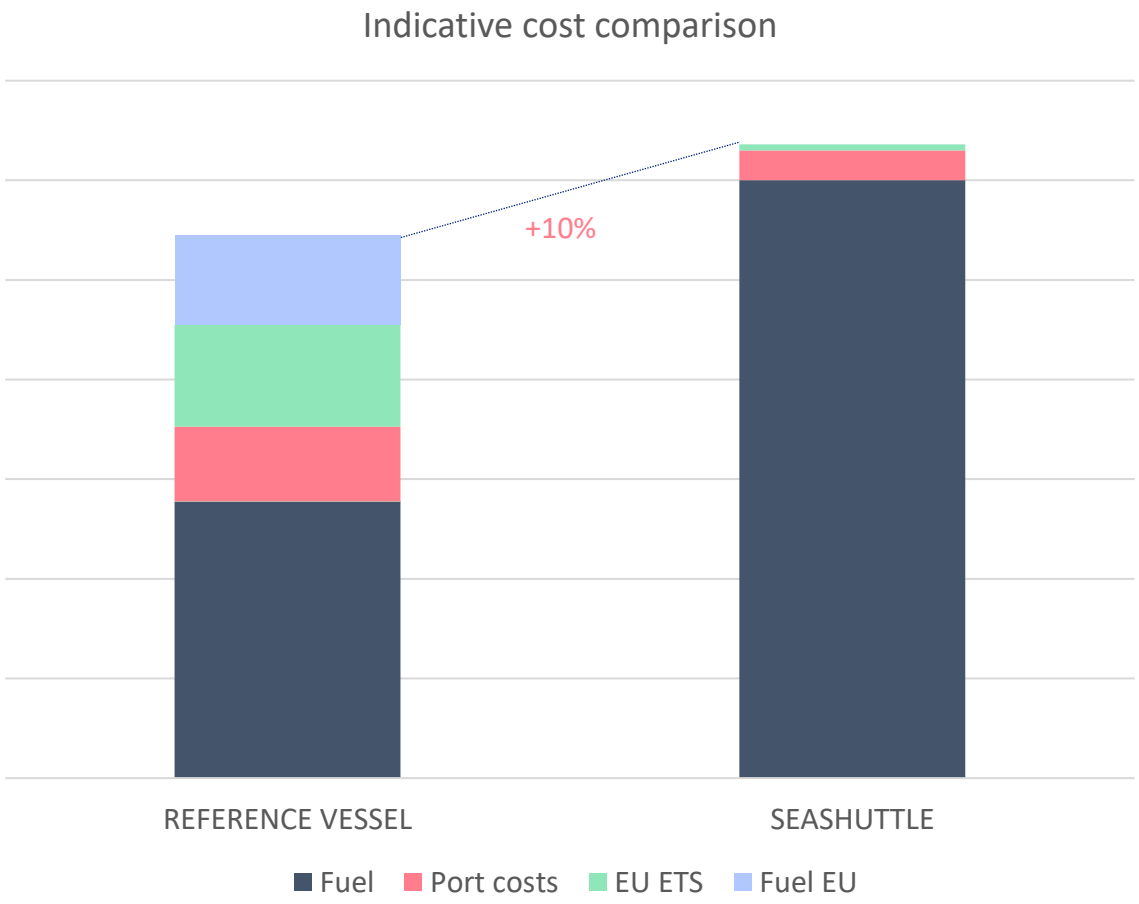
- Limited availability LH2, limited liquefaction capacity in NWE
- Governance and legislation supporting truck-to-ship LH2 bunkering (e.g. interpretation and applicability of Omgevingswet and SEVESO)
- Locations for truck-to-ship LH2 bunkering

Commercial

- Uncertainty maritime emission regulations
- Uncertainty EREs
- Lagging client demand

Slot cost difference at 100% hydrogen usage

- While incentive systems exist, there is still a premium to overcome
- Targeting customers that see the value of sustainable transport



FlexFuel is our insetting-based system to sell environmental benefits

Calculate required green hydrogen volume and price

Use agreed volume of H2 in Samskip SeaShuttle, generating CO_2 savings

Audit process and certify results. Ready to share benefits

FlexFuel is our insetting-based system to sell environmental benefits

Calculate required green hydrogen volume and price	Use agreed volume of H2 in Samskip SeaShuttle, generating CO_2 savings	Audit process and certify results. Ready to share benefits
Calculated guided by recognized frameworks Start small or go for 100% biofuel or H2 Pilots possible – scale over time	Agreed size of CO_2 reductions achieved Exclusive: no other parties benefit from your fuel investment	Specialized auditors review all calculations Certificates are shared by Samskip, reducing your Scope 3 emissions

We are trialing this model with biofuel today, and can extend it to hydrogen later

Together we are building the hydrogen economy

- Green hydrogen shipping is no longer fiction
- Technology is available today
- Business cases only work if all stakeholders play their part: (policy, financers, incentive systems, customers)
- Let’s build the hydrogen economy together!

Thank you for your attention!

To learn more about sustainability at Samskip:

- Visit Samskip.com/Sustainability
- Scan below to read our latest Sustainability Report:

Or contact us directly:

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