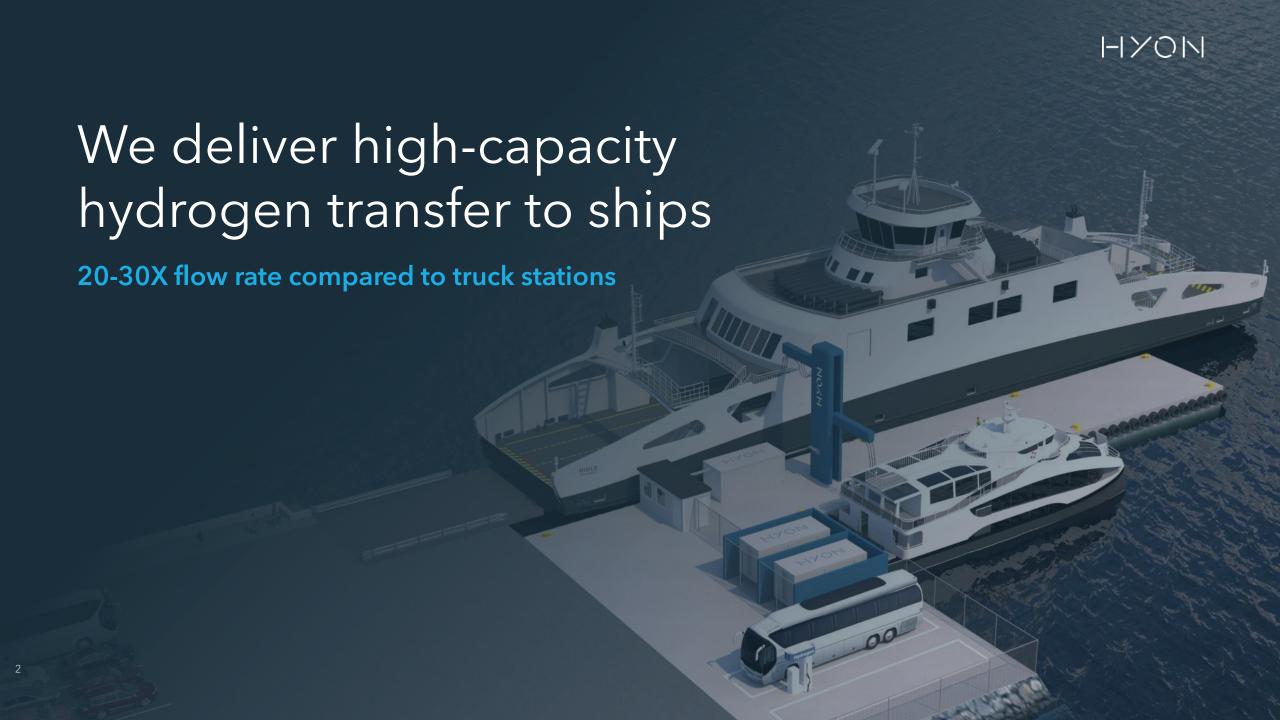


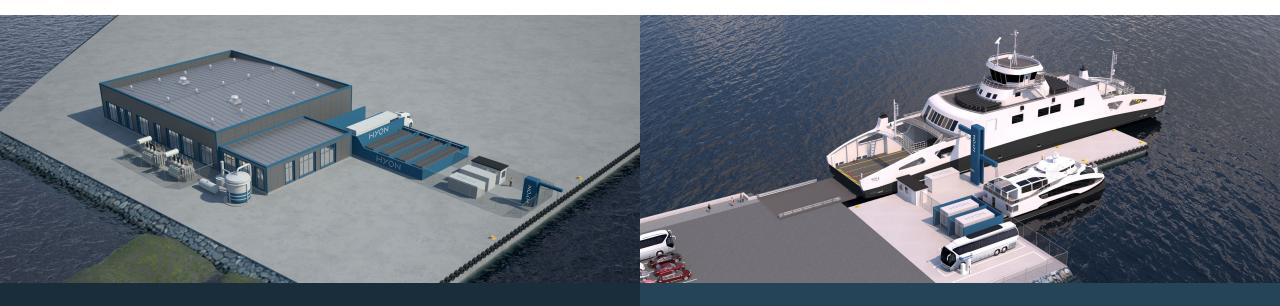
## Hyon company update

03.02.2023





## Our two high-capacity fueling solutions



#### **SOLUTION A**

Integrated hydrogen factory and highcapacity fueling for coastal sailing

#### **SOLUTION B**

Distributed high-capacity fueling configuration for the maritime sector



### **HYON** team

### Management and technical team



Jørn Kristian Lindtvedt



Project Engineering Manager
Øyvind Oppheim



Controls & Automation Manager
Fredrik Østheim



**COO** Harald Bjørn Hansen



**Technical Manager** Kjellbjørn Kopperstad



Process Systems Manager Kine Temte



**CFO**Jan Frode Andersen



**Project Manager** Arne-Kristian Krydsby Johnsen



Product Development Manager Sondre Rosfjord Askim

### **Board of Directors**



**Chairman** Otto Søberg



**Board Member** Silje Smådal



Board Member Jens Berge



**Board Member** Bjørn Simonsen

#### Main owner







**Partners** 









# Zero emission fuel technologies have different applications and maturity levels

 $\sim$ 8.000+ vessels Compressed hydrogen is an attractive target market<sup>1</sup> **Energy required** ~80.000+ vessels ~100.000+ vessels ~25.000+ vessels Liquid hydrogen -253°C and/or Ammonia -33°C High energy density Compressed hydrogen 250+ bar Medium energy density **Battery** Low energy density Offshore services Ship class Coastal Deep sea

<sup>&</sup>lt;sup>1</sup> Number of vessels globally for each category based on HYON estimates

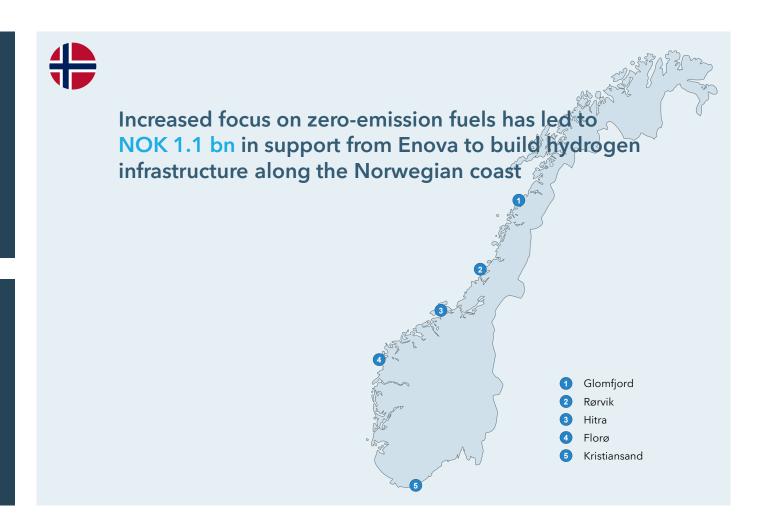


## Zero emission focus emerging in maritime industry

\*\*\*\*

Shipping included in EU
Emissions Trading System,
significantly increasing costs of
operating fossil fueled ships

IMO to implement new measures from 2023:
40% of today's tankers, bulk carriers and container fleets will need modification by 2026<sup>1</sup>



<sup>&</sup>lt;sup>1</sup> According to Clarksons Platou



## Selected maritime end-users of Compressed hydrogen in Norway





Torghatten Nord
decided on
compressed hydrogen
for Vestfjorden ferry



Salmonor with service vessel on compressed hydrogen from 2023



Egil Ulvan Rederi is building several cargo ships on compressed hydrogen



Samskip with two hydrogen-powered, containerships from 2025



Tor Dahl's zero emission bulk carrier from 2024

# HYON joins consortium set to develop complete hydrogen value chain for maritime sector

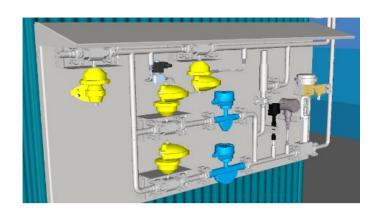
- Cruise vessels starting to position for zero emission requirements
- Typically, hybrid fuel solutions
- LOI signed with Northern Xplorer for delivery of fueling solutions to their ship
- MOU with Multi Maritime, Hexagon
   Purus Maritime, Norwegian Hydrogen,
   Maritime, Hyon and Northern Xplorer

## Core components in Hyon fueling solution





Control & Safety



**Process Plant** 

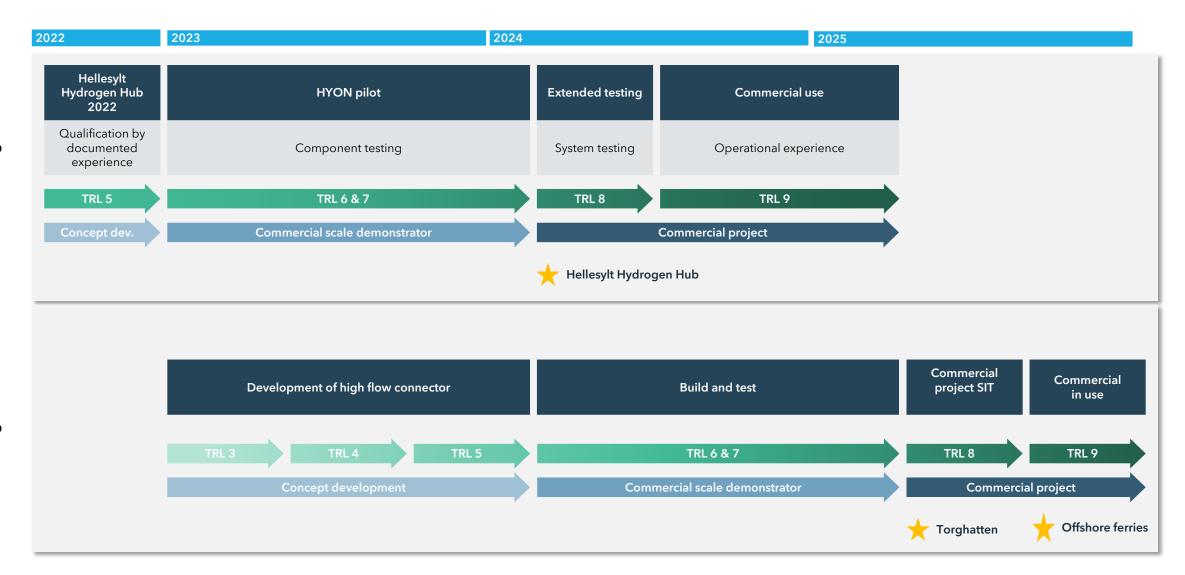


**Handling Tower** 



Connector

## **Qualification roadmap**





### Status end 2022



### Ready to build at Hellesylt Hydrogen Hub

Engineering phase complete

FID pending additional grant support



### Well-positioned for maritime hydrogen infrastructure projects

MNOK 670 Enova grant towards five hydrogen infrastructure hubs to be considered a market starter



## Strong interest from global majors in the maritime trade

HYON recognized as important and missing piece to realize future zero carbon value chains



### HYON organization covers core disciplines

Team with extensive experience and capacity to lead



### Entered agreements with key suppliers to provide comprehensive offering

Suppliers bring unique competency in the fields and capacity to execute



## HYON's top 20 shareholders

Shareholder	Country	Number of shares	Ownership
NORWEGIAN HYDROGEN AS *	Norway	9 804 000	17,6%
Credit Suisse (Switzerland) Ltd.	Switzerland	7 450 000	13,4%
Longstreet Securities AS	Norway	3 637 779	6,5 %
CLEARSTREAM BANKING S.A.	Luxembourg	2 561 458	4,6%
VULGATA INVEST AS ***	Norway	2 394 000	4,3%
MYHREGÅRDEN INVEST AS **	Norway	2 394 000	4,3%
MUEN INVEST AS	Norway	2 381 549	4,3%
NORDNET LIVSFORSIKRING AS	Norway	2 123 465	3,8%
VINJE, SIGURD HEGGSTAD	Norway	1 450 751	2,6%
MONSEN, FRODE	Norway	900 000	1,6%
Nordnet Bank AB	Sweden	804 041	1,4%
GRØNLAND, STEINAR	Norway	751 456	1,4%
SILVERCOIN INDUSTRIES AS	Norway	605 803	1,1%
KARA, ZAFER	Norway	590 000	1,1%
OMLAND, DANIEL CABRERA	Norway	580 000	1,0%
SELACO AS	Norway	518 669	0,9%
Ghayoornia, Mohammad	Norway	500 000	0,9%
NAUTNES, JAN-ARNE	Norway	500 000	0,9%
DAKUR AS	Norway	427 350	0,8%
EIDE, JOSÉ EGIL ANDRÉ	Norway	427 181	0,8%
Top 20 shareholders		40 801 502	73,43%
Total other shareholders		14 766 001	26,57%
International shareholders		11 652 240	20,97%
Total outstanding shares		55 567 521	100,00%

As per 1 February 2023

<sup>\*</sup> Board member Jens Berge represents Norwegian Hydrogen AS, \*\* Controlled by CEO Jørn Kristian Lindtvedt, \*\*\* Controlled by COO Harald Bjørn Hansen

A&D