

B I O
F E R
W E R

BIOKRAFT
-
DRIVING
CHANGE WITH
LIQUID
BIOGAS



Biogas PowerON 2023

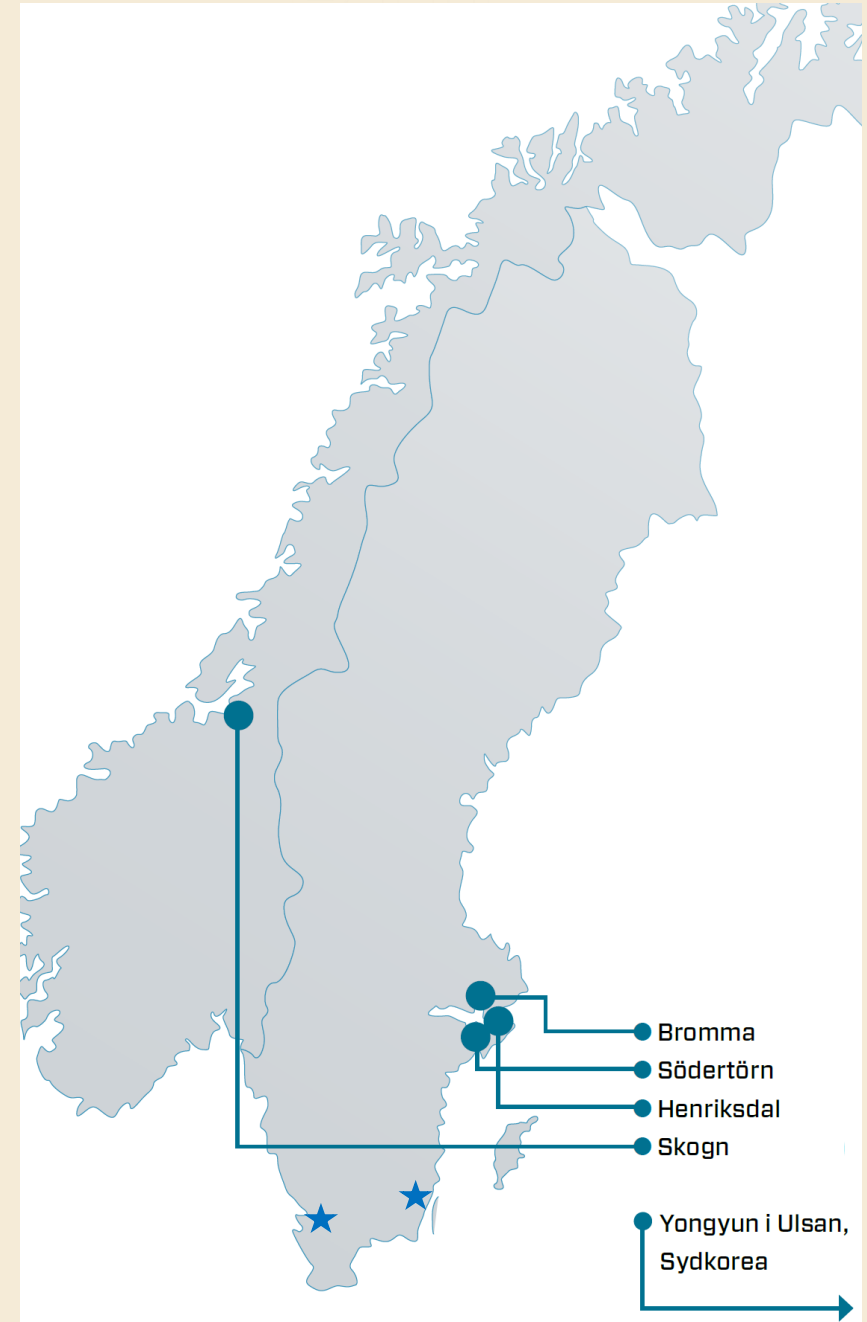
BioLNG enabling green shipping

Sohrab Moshiri

Group Head of Sales

On a green journey

- Biokraft (Scandinavian Biogas) is founded 2005
 - Starting large-scale biogas production 2010
 - Part of worlds largest BioLNG plant 2016
 - Reached 500 GWh capacity 2018
 - Listed on Nasdaq 2020
 - Operating worlds largest BioLNG plants 2023
-
- We believe that the future spells “BioLNG”
 - Available, scalable and competitive
 - Strategy to increase deliveries of BioLNG



Summary of 2022

Consolidated
net sales

367
MSEK

Group biogas
sales¹

328
GWh

Emissions reduction
for the Group

99,799
tonnes CO₂eq

Group management of
organic waste, residues,
and process water

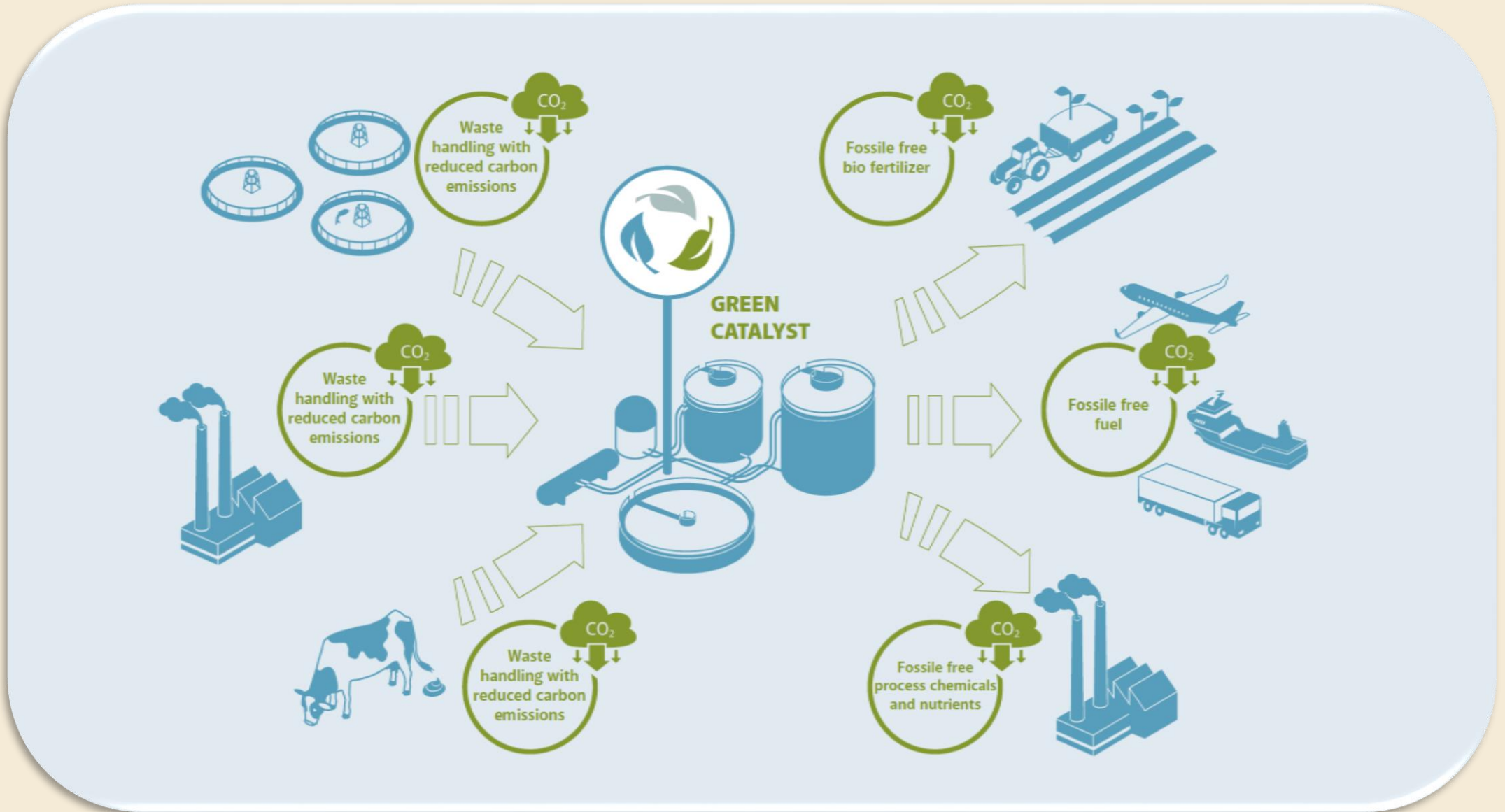
861,628
tonnes



Part of the value chain

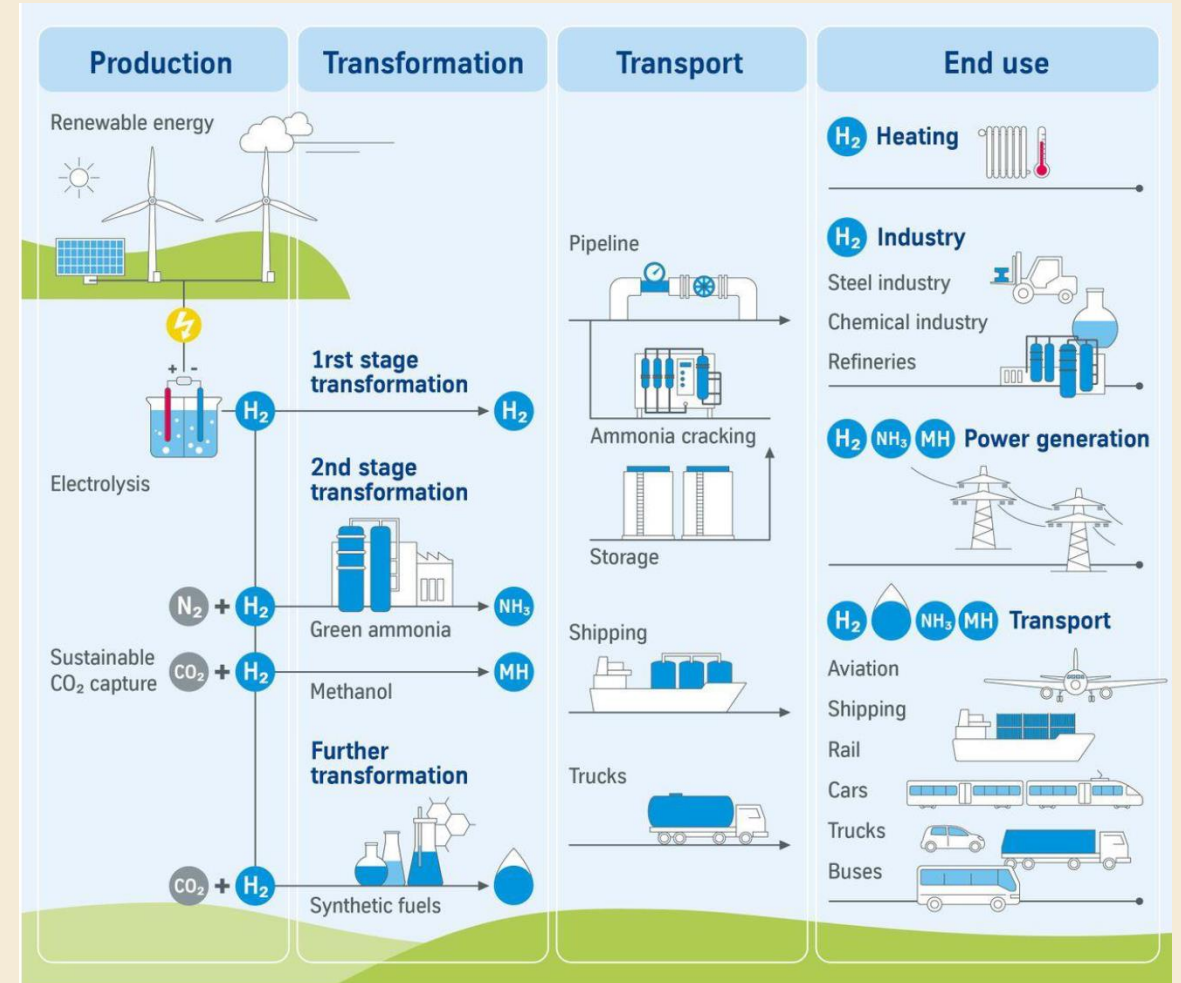
United Nations International Maritime Organisation (IMO): *greenhouse gas emissions from shipping should be reduced by at least 50 percent by 2050.*

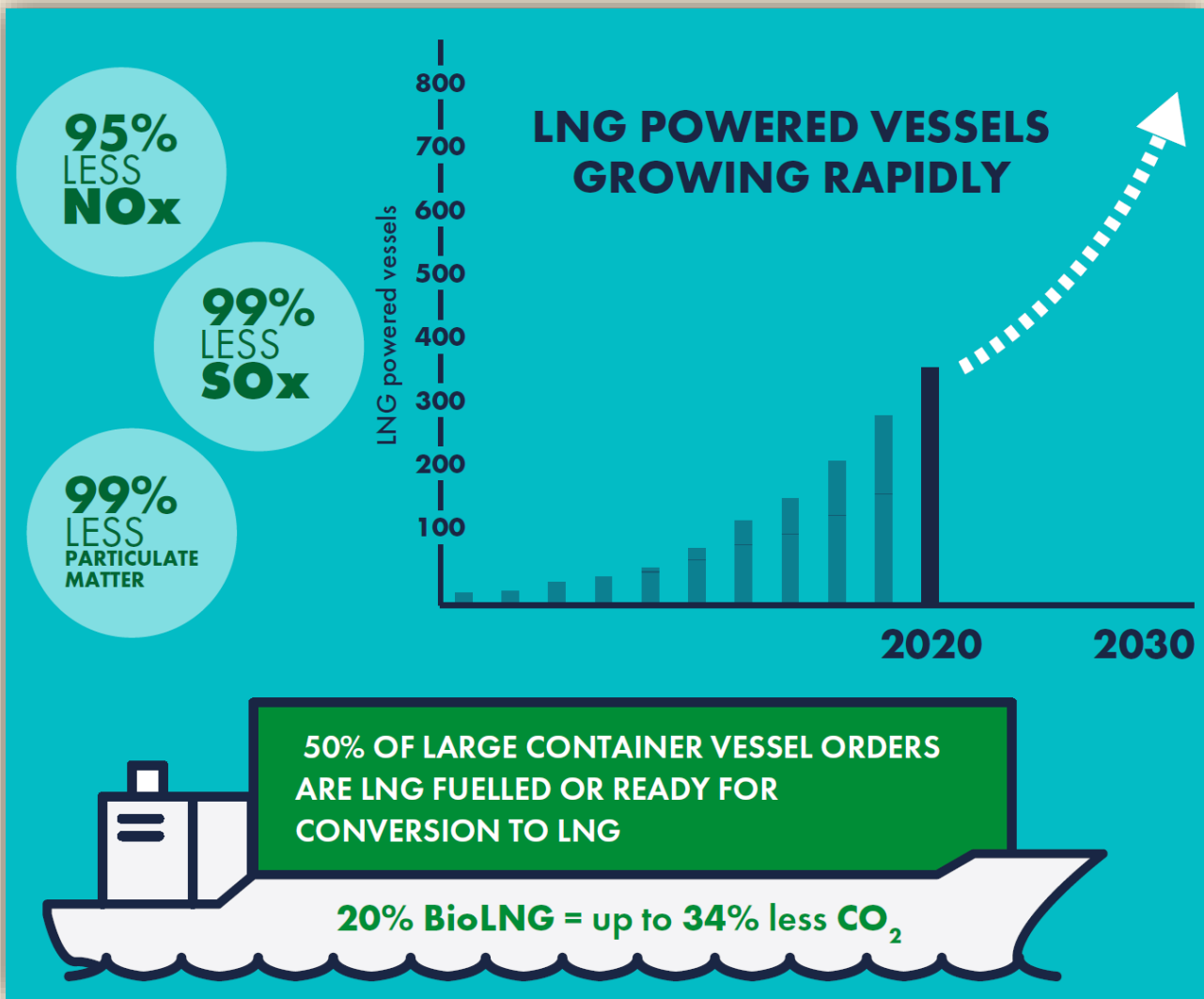
Part of the value chain for green transport



Decarbonizing shipping - outlook

- Three pillars for decarbonizing:
 - Ship and Engine Technology
 - Operational Efficiency
 - Renewable fuels
- Dual-fuel engines are popular
 - Can run on both gas and liquid fuel (ex LNG/MGO)
- New regulations will drive accelerated uptake of renewable fuels across the industry
 - FuelEU Maritime will drive uptake of renewables, with penalties applied if companies that are unable to meet the GHG intensity limits established.
 - EU ETS also incentivizes the use of biofuels by allowing the CO₂ emission factor of the biomass fraction of the fuel to be zero.
- Availability of bio and non-bio based fuels?



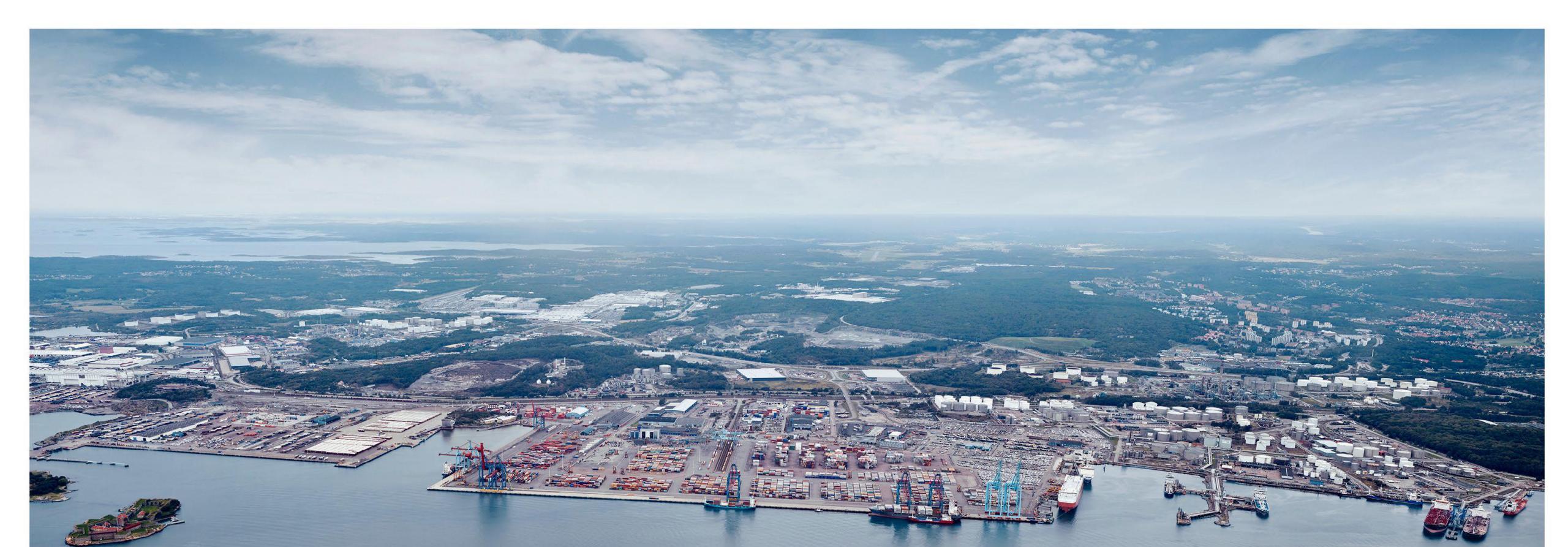


BioLNG decarbonise shipping

- The use of LNG in the maritime sector can reduce GHG emissions by up to 23% compared with oil-based marine fuels on a full life-cycle ie Well-to-Wake basis, including methane emissions.
- BioLNG can reduce GHG emissions significantly, 80-188% reduction compared to marine diesel
- BioLNG has the potential to meet up to 3% of the total energy demand for shipping fuels in 2030 and up to 13% in 2050.
- If it is blended with fossil LNG, BioLNG could cover up to 16% and 63% of the total energy demand in 2030 and 2050, respectively, assuming a 20% blending ratio.
- Consequently, BioLNG blended with LNG will comply with IMO decarbonisation targets for 2030 and 2050.
- The clear advantage with BioLNG is that it can be transported and bunkered using existing LNG infrastructure.
- Subsequently renewable synthetic e-LNG (liquefied e-methane) is also a option as it becomes available in larger volumes

LNG ship with BioLNG mix





The largest port in Scandinavia

– guaranteed access to the world for Swedish industry

Energy Transition in PORTS

ALTERNATIVE FUELS

Electrification

Ferries (passenger and freight)
Trucks 2022-202x
Alternative energy production

Ammonia Methanol LNG/LBG Biofuel

Long-range ocean freight
Short Sea

Hydrogen

Trucks 2022-2024
Short Sea

Methanol

Hydrogen

LNG/LBG

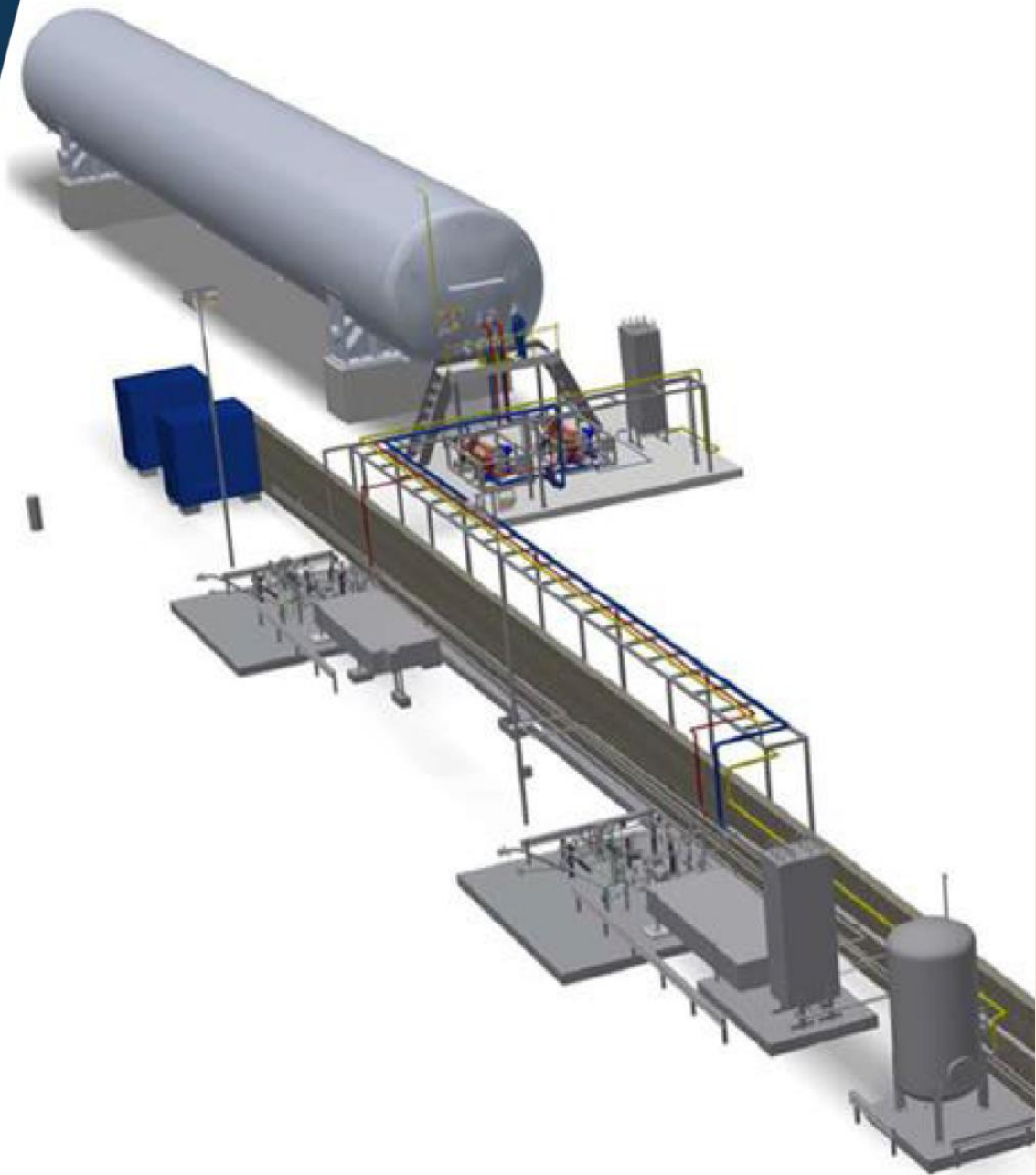
Biofuel

Direct
electricity

Ammonia

Alternative fuels

Project to build infrastructure for LBG storage and also liquification of LNG/LBG from the gas grid to supply tanker vessels via pipe to jetty in 2023/2024



Our green journey ahead

- Aim to build a portfolio of BioLNG production capacity
- 1,2 TWh by 2026
 - Five projects in the pipeline in North Europe
- 3 TWh by 2030
- R&D and feedstock key for growth
 - Manure attractive but we need to identify new biowaste substrates
 - Increase yield in operation
- We see huge potential in Maritime
 - Infrastructure will be key



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