MAN Energy Solutions
Future in the making

MAN-Energy Solution &
17 FN verdensmål.

Brian Nygaard Pedersen

Senior Manager QHSE

Agenda

1 Kort om MAN Energy Solution

2 Vores Mission / Vision / Strategi

3 Frederikshavns arbejde med UN 17 verdensmål.

1 Kort om MAN Energy Solution

Member of the Volkswagen Group

MAN Energy Solutions is part of a brand family

Automotive Division

Passenger Cars Business Area

- VW
- Audi
- Skoda
- Seat
- Bentley
- Porsche
- Others

Commercial Vehicles Business Area

- VWN
- Scania
- MAN Truck & Bus

Power Engineering Business Area

- MAN Energy Solutions
- Renk

Financial Services Division

- Dealer and customer financing
- Leasing
- Direct bank
- Insurance
- Fleet management
- Mobility offerings

Key figures 2018

14,727 employees worldwide

3.1 bn € revenue

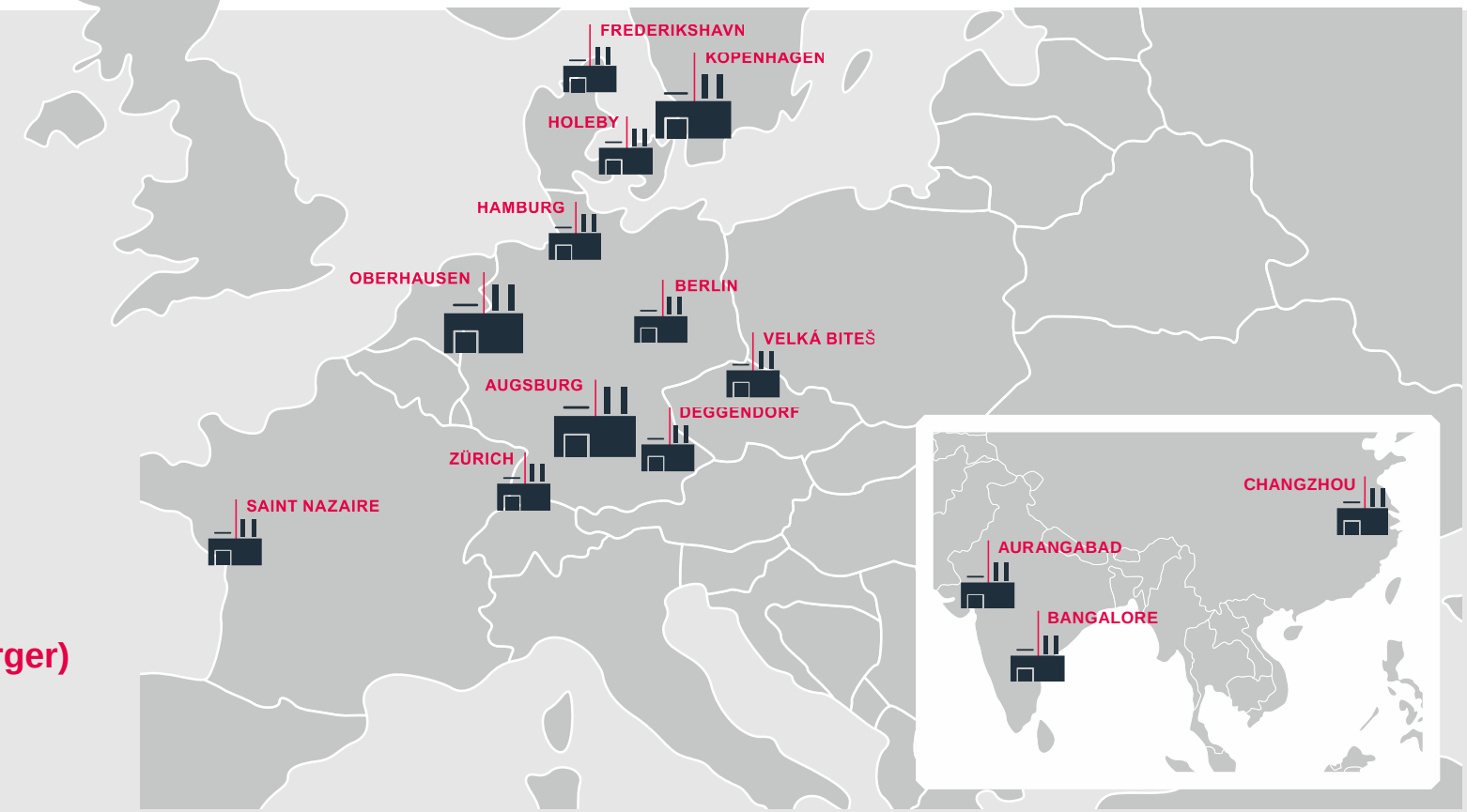
Our design and production network

Sites across Europe and Asia

11 Production sites in Europe

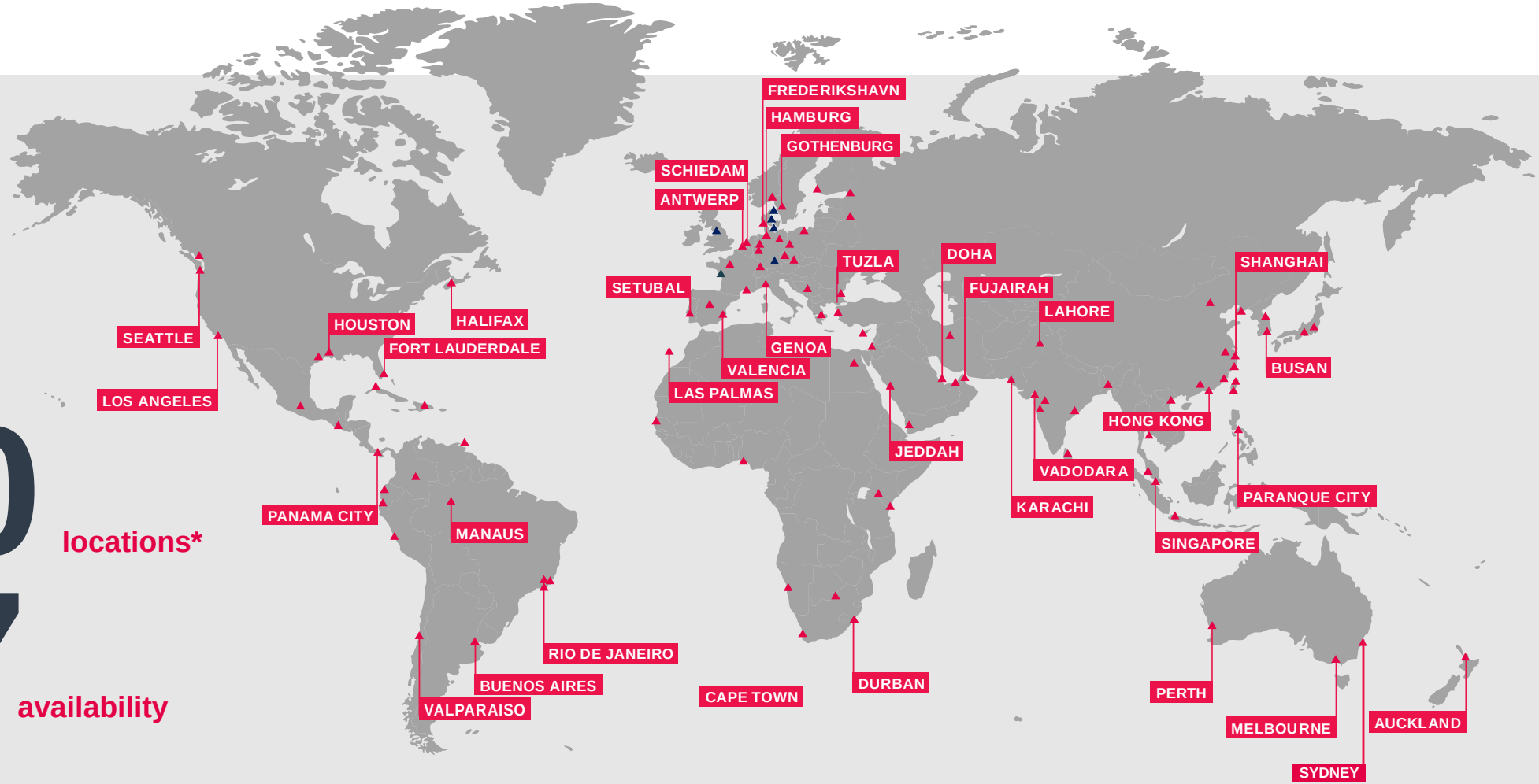
3 Production sites in Asia

30 Licensees in 7 countries (two- and 4-stroke, turbocharger)



Our global aftersales network

MAN PrimeServ



>160 locations*

24/7 availability

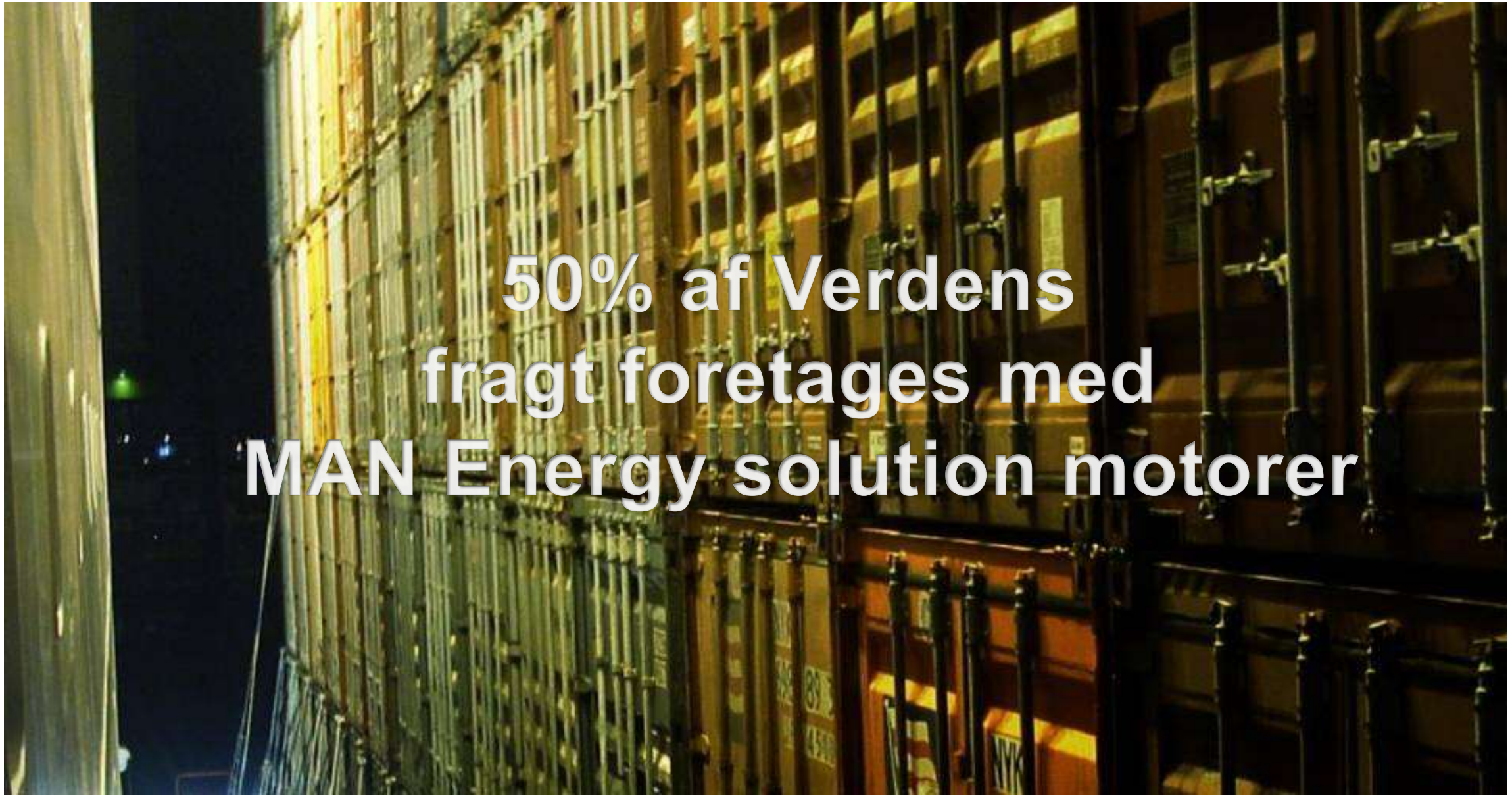
*Number of countries served by headquarters, service locations or responsible sales partners.

World largest Two Stroke Engine

11G95ME-C9.5

Alternate views of the 11G95ME-C9.5 engine during its shop test in Korea (courtesy Doosan)

- **16 Meter høj**
- **10 Meter bred**
- **18 Meter lang**
- **2000 Ton vægt**
- **80 / 100 RPM**


50% af Verdens
fragt foretages med
MAN Energy solution motorer

2 Vores Mission / Vision / Strategi

Link mellem disse og FN's 17 verdensmål

Our mission

We convert energy into sustainable progress and prosperity

Vi driver forandringen mod en CO2-neutral verden

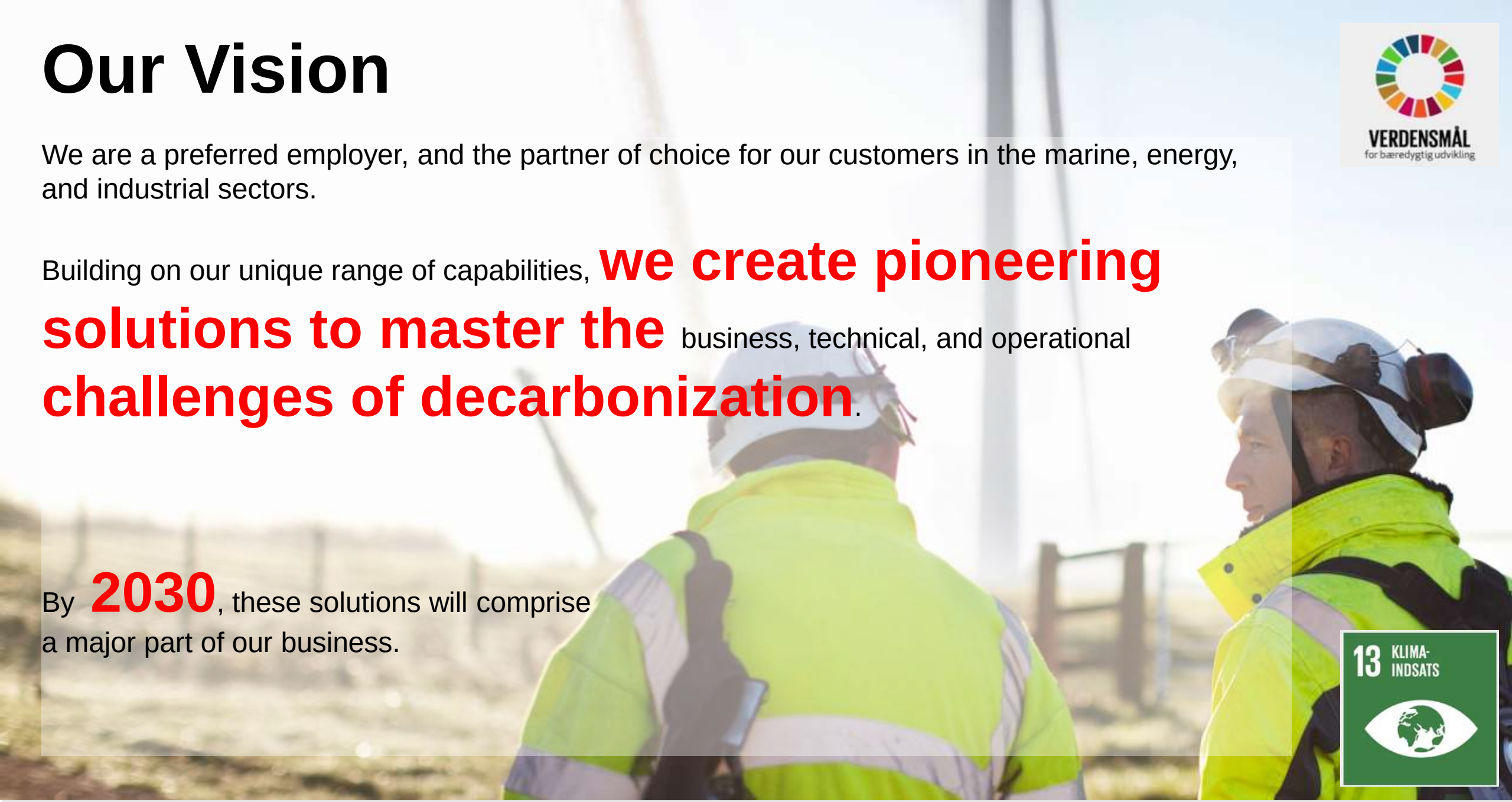
Sammen med vores partnere

Our Vision

We are a preferred employer, and the partner of choice for our customers in the marine, energy, and industrial sectors.

Building on our unique range of capabilities, **we create pioneering solutions to master the** business, technical, and operational **challenges of decarbonization**.

By **2030**, these solutions will comprise a major part of our business.



Drivers of our company strategy

VERDENSMÅL
for bæredygtig udvikling

Digitalization

makes entirely new business models possible

- Intelligent software embedded in every device
- Data analytics enable unprecedented insights

Company strategic cornerstone

VERDENSMÅL
for bæredygtig udvikling

Decarbonization

3 Vores arbejde med de 17 FN verdensmål

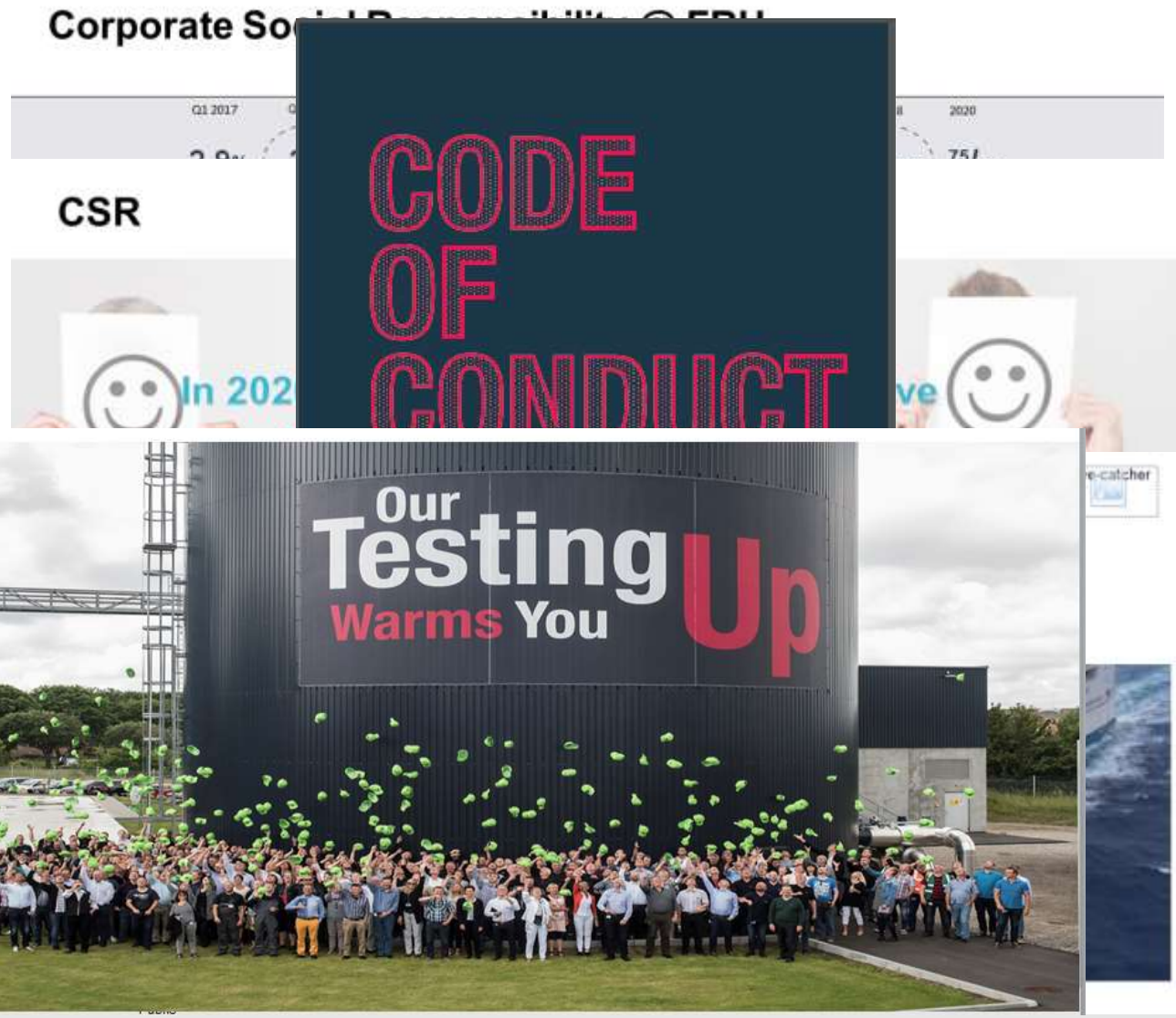
Vores arbejde kan deles op i to:

1. Det vi "ubevist" har foretaget os førhen, men som understøtter de 17 FN

2. De nye aktiviteter vi har valgt på baggrund af vores ønske om at støtte op omkring de 17 FN

MAN-ES FRH's arbejde med de 17 FN Verdensmål (før) !

1. **Corporate Social Responsibility (CSR)**
2. **Nordjyllands mest attraktive arbejdsplads**
3. **Vores "Sponsor budget" brugt til andre formål**
4. **Indkøbs aftaler og Leverandør audits i LCC med fokus på CSR** (Børne arbejde, Arbejdsmiljø, Miljø), har flere gange stoppet samarbejdet med dårlige lev.
5. **Anti korruption / Code of Conduct.**
6. **Udnyttelse af vore energi overskud**



Vores arbejde med de 17 FN Verdensmål (igangværende)

Samarbejde med NBE, Aalborg kommune, Plan miljø og MAN-ES (UN17).

1. Kortlægning af de 17 Verdensmål og de 169 delmål lokalt på site Frederikshavn.
2. Afholdt Workshop 1, hvor kortlægningen blev gennemgået, og hvor deltagerne (ledelse og tillids valgte) lavede en kortlægning på de elementer der bør arbejdes på fremadrettet.
3. Afholdt Workshop 2, hvor ovennævnte kortlægning blev gennem analyseret, og hvor vores indsats områder blev præsenteret.
4. Afholdt Workshop 3, hvor vi valgte 3 Verdensmål vi vil diskuter / godkende i Site ledelsen.

Andre tiltag.

a) Plast projekt med AAU

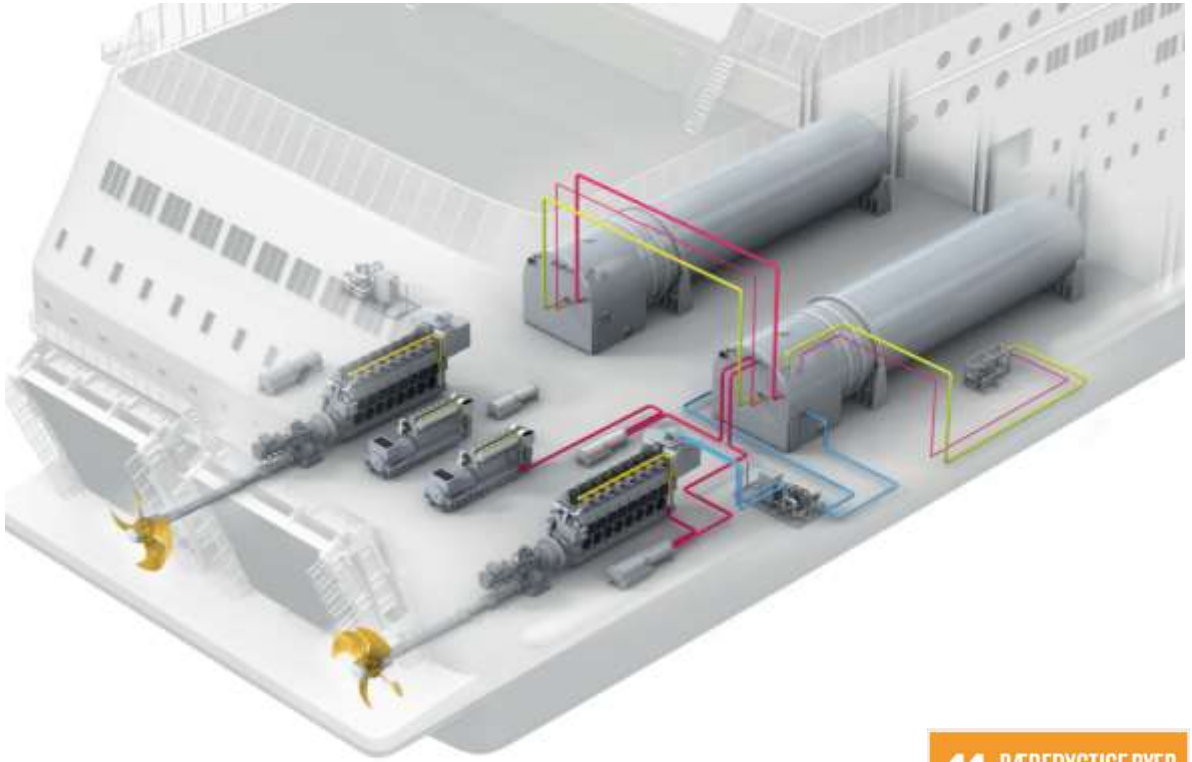
b) Biodiversitet ’s projekt med Frederikshavns kommune

c) Udvikle miljø venlige produkter.

Comprehensive LNG technology from one source

From dual fuel propulsion systems to complete LNG handling systems

Versatile supplier of LNG Fuel Systems



MAN Cryo LNG Fuel System

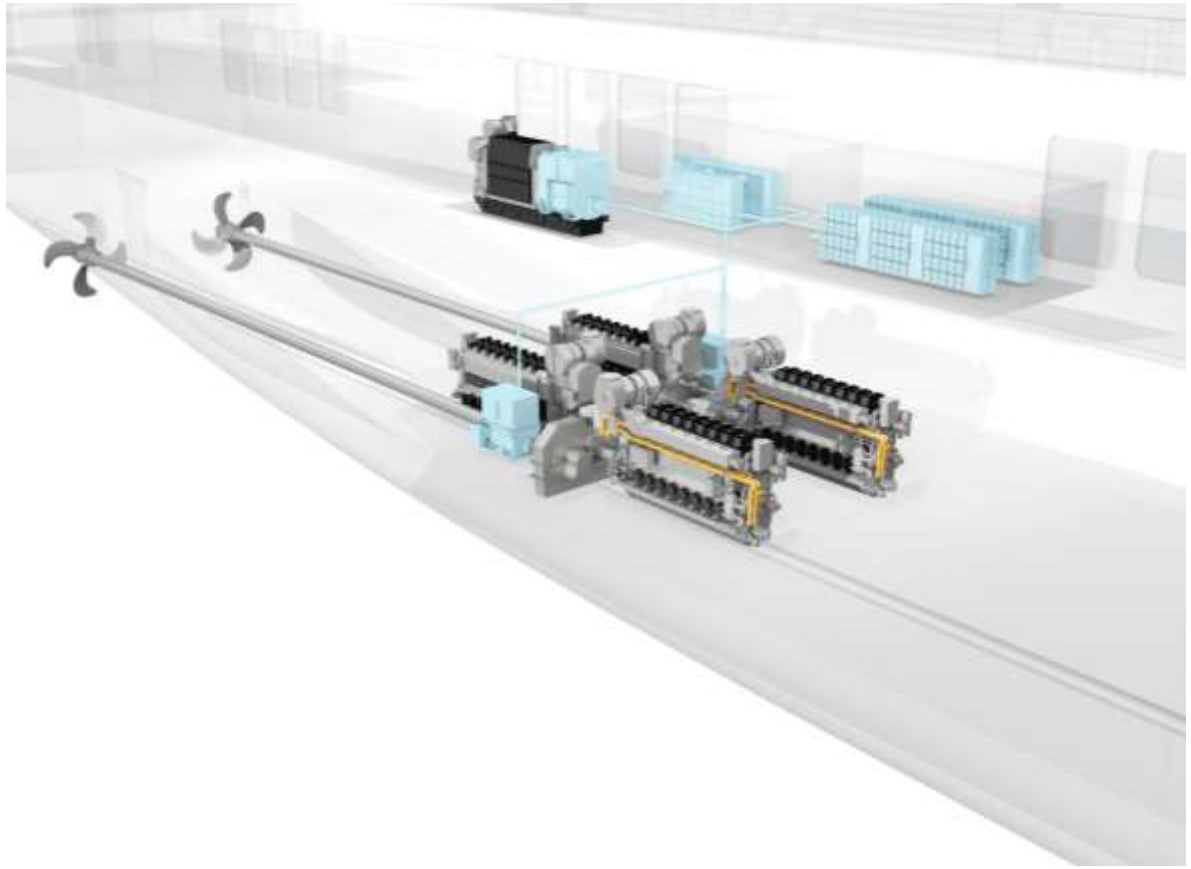
World’s largest solar thermal power plant

125 MW CSP power plant Shams 1 with MAN steam turbine reduces approximately 175,000 tons of CO_2 per year

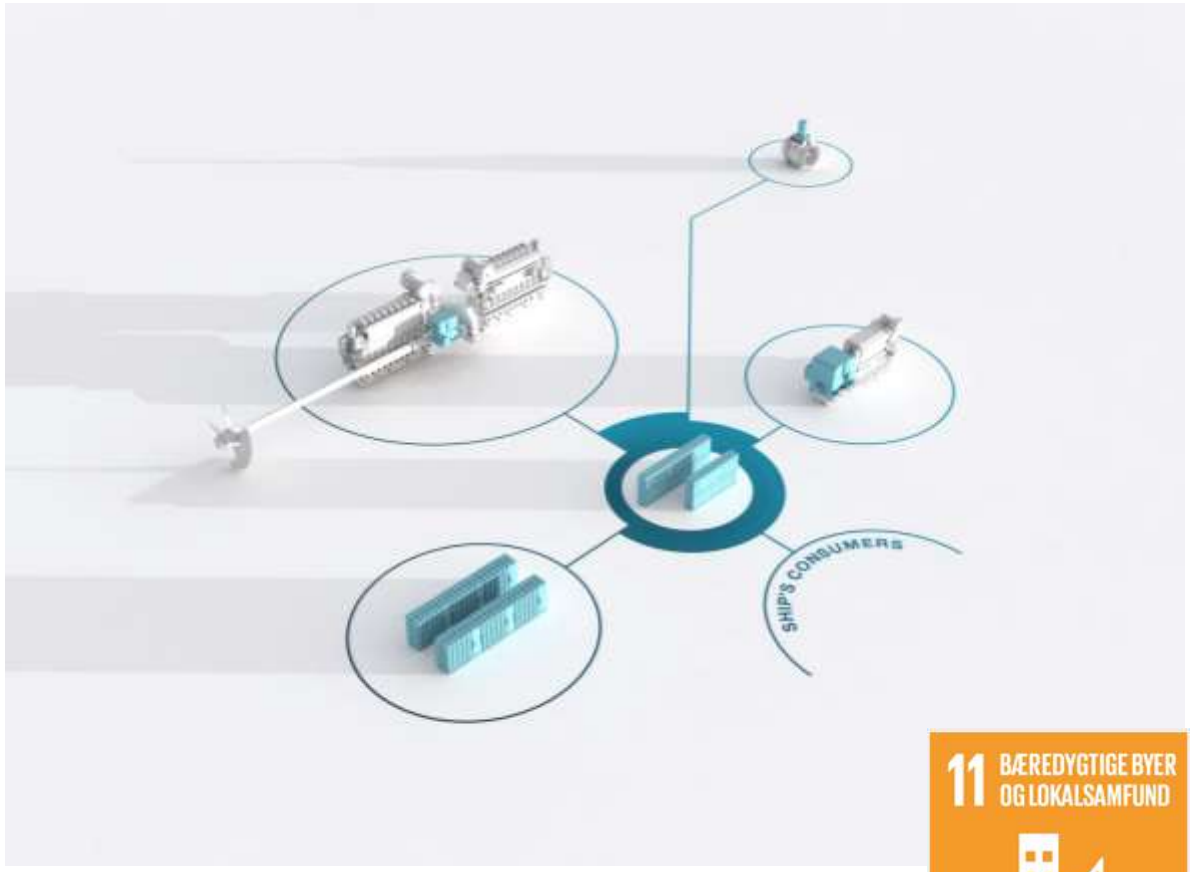
Shams 1 covers an area of 2.5 km², or 285 football fields

Highly-efficient battery-hybrid propulsion systems

Combine combustion engines with additional batteries to optimize engine operation and reduce emissions



Fully customized hybrid propulsion systems



Fewer NO_x, SO_x and CO_2 emissions

Our
Testing
Warms You
Up
Spørgsmål
7
BÆREDYGTIG
ENERGI