



Port of
Bergen

The maritime centre of Western Norway



A future-oriented
international green port



Foto: FN



2016

Municipality of Bergen Green strategy

2020 – 30 % reduction compared with 1991

2030 – Fossil free city

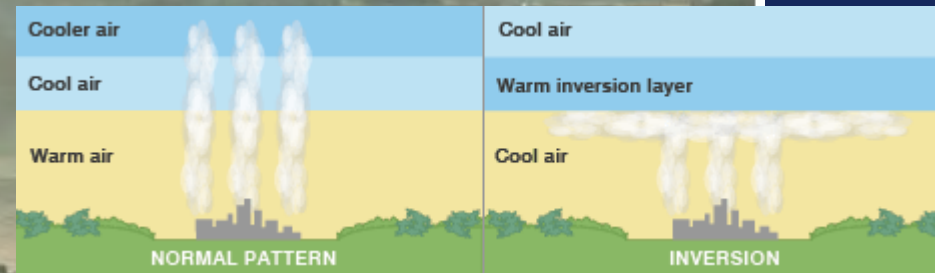
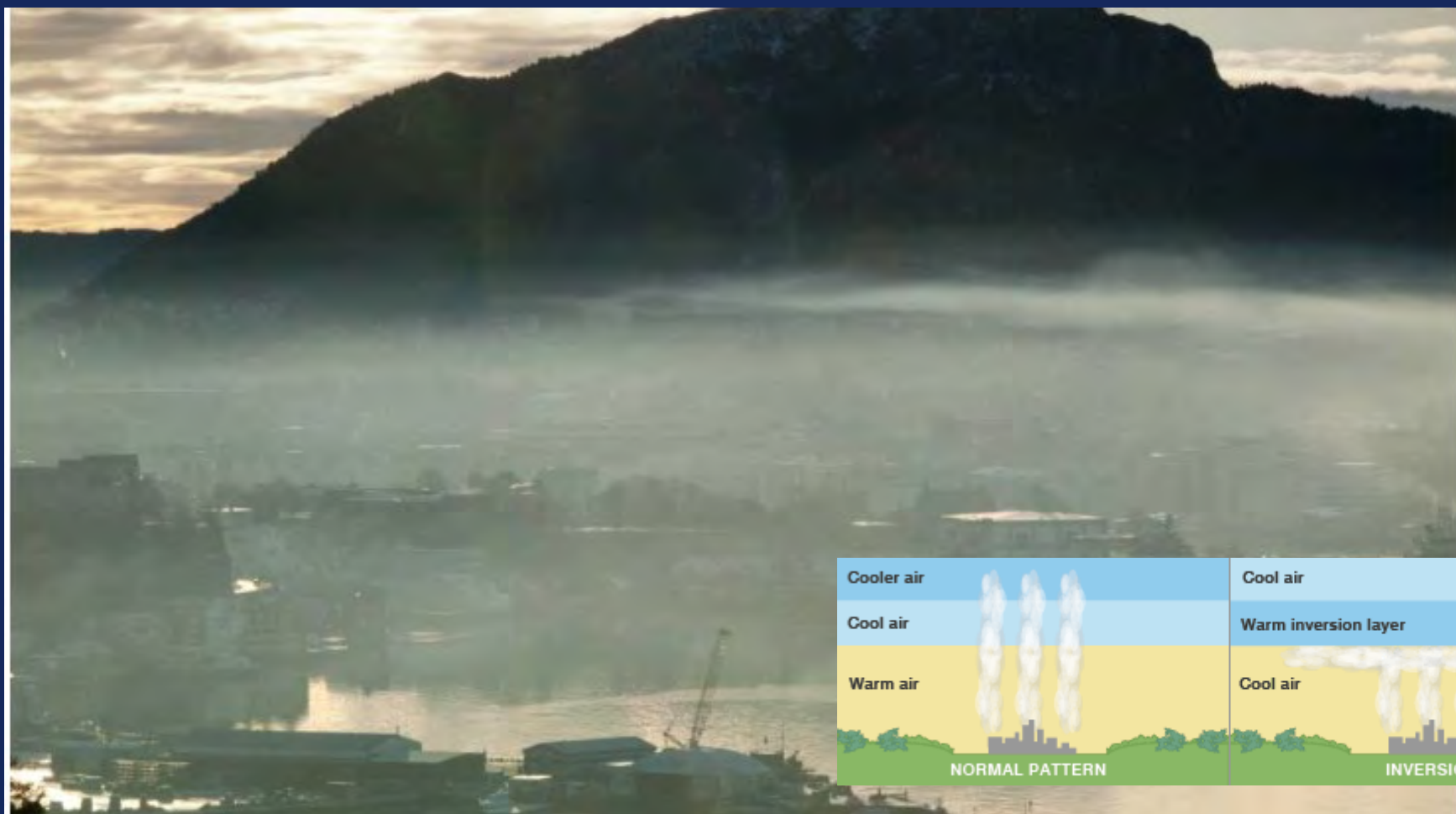
- means no oil, coal or gas
- fossilfree transport
- fossilfree port
- fossilfree warming
- fossilfree waste handling

2050 – 1,5 degree city. Reduced footprint.

Port of Bergen under pressure

Weather situation in Bergen during a winter period in 2016

Bergens Tidende 26.Dec 2015



Negative articles in local and national media



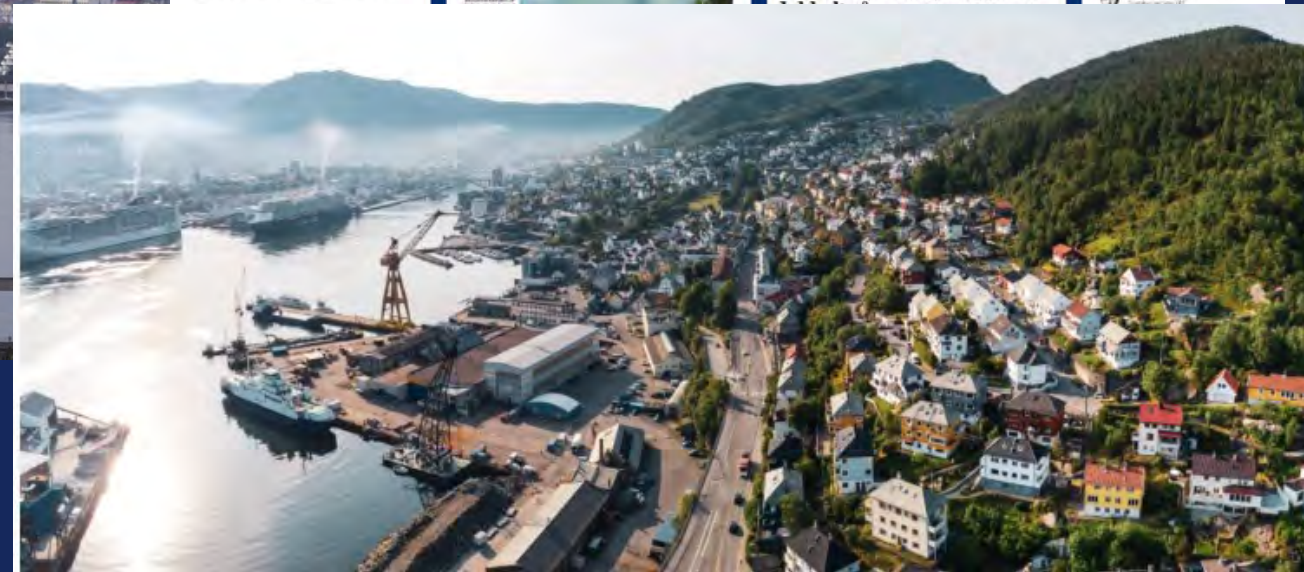
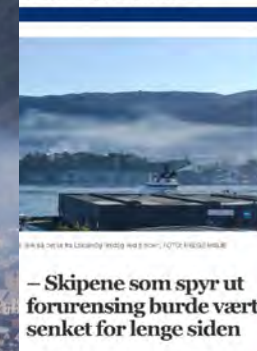
Offshore activity in Port of Bergen



First shorepower installation 2015



Port of Bergen under pressure again summer 2018



Municipality of Bergen

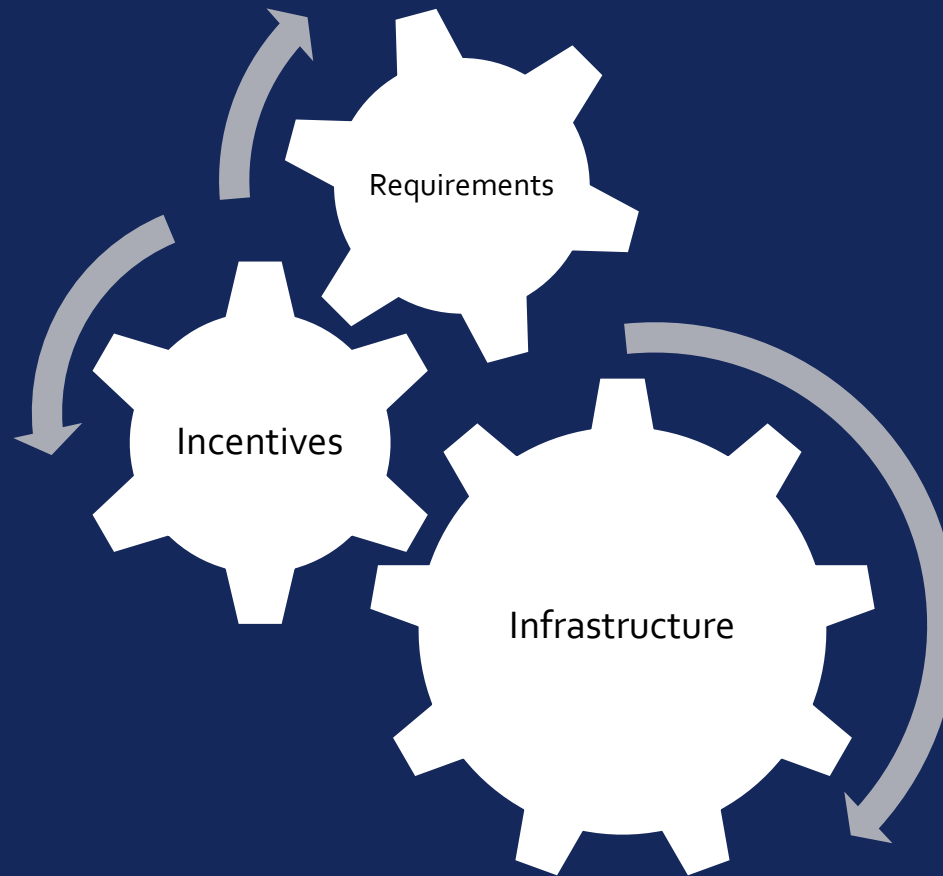
Green city = green port

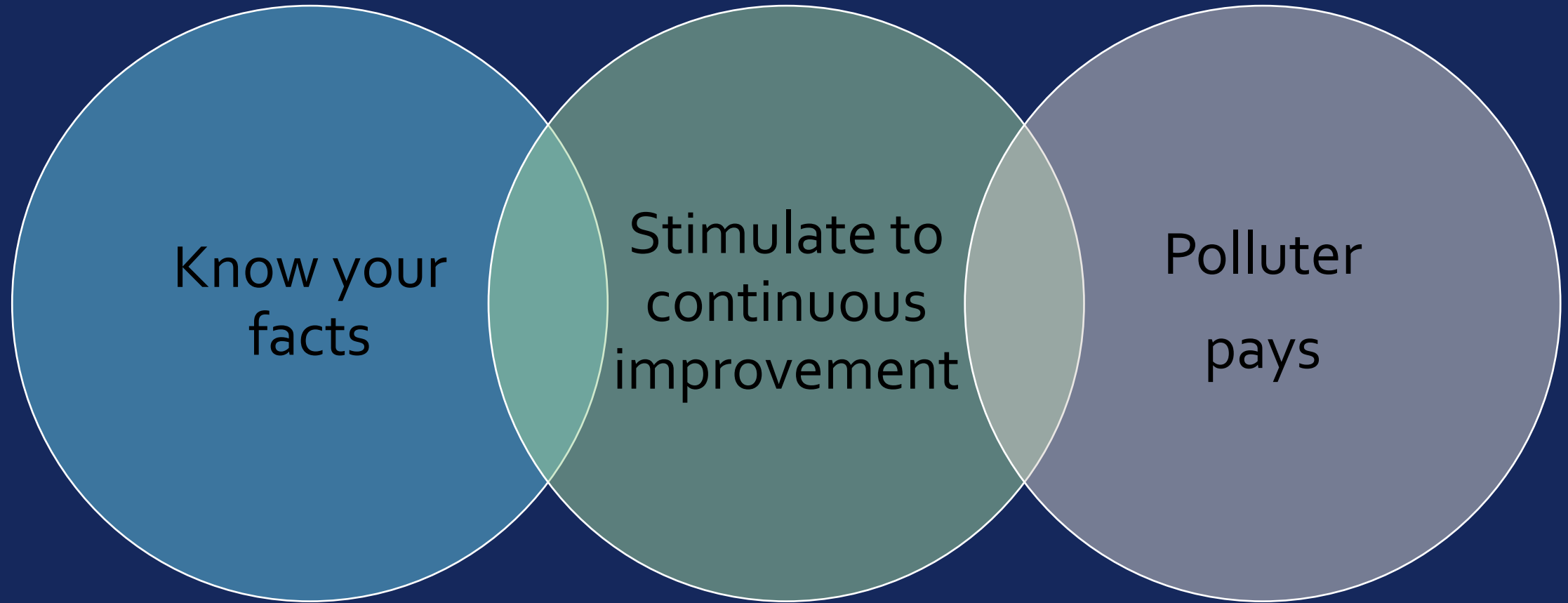


City council meeting 24.Oct 2018

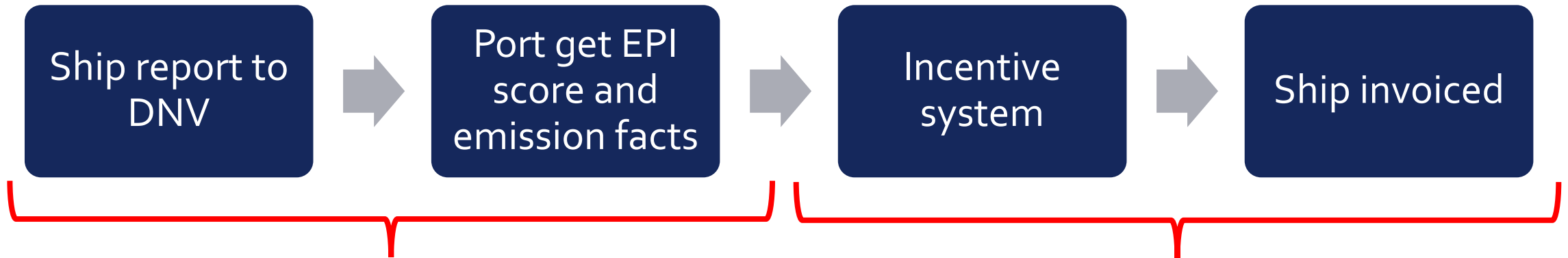
- Limitation of 3 ships and 8000 pax
- Search solutions with the cruise industry
- Port of Bergen to evaluate as follows:
 - Reduction of port facilities for cruise
 - Bus logistics around cruise calls (reduction)
 - Environmental Port Index (result)
- 2020 – Shore power for all ships
- 2030 – Fossil free city and port
- 2050 – According to Paris agreement

How to get there...





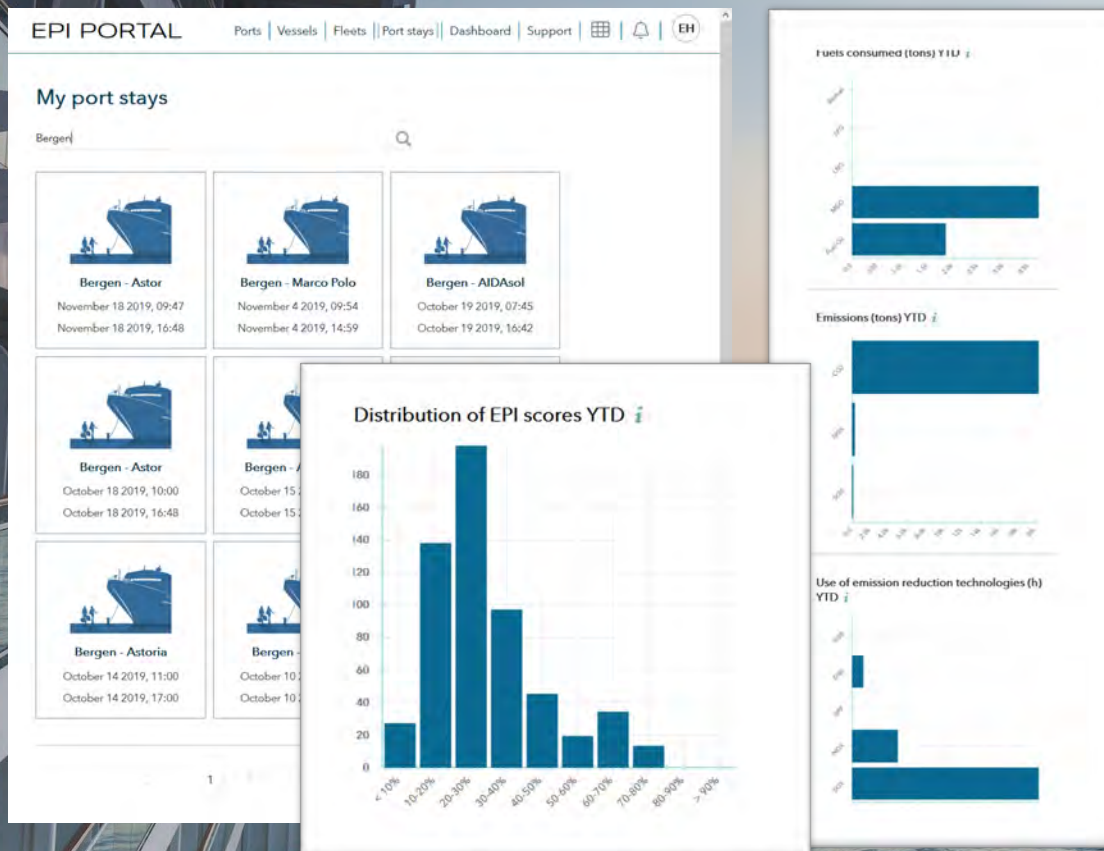
Environmental Port Index, incentives and requirements



Other

- Booking criterias
- Zero emission at Port from 2026

EPI portal – a good solution for ship and port



"Since its launch TUI Cruises are active users of the system. The EPI rewards our onboard investments in green technologies by evaluating and quantifying our good environmental performance in ports"

- Victoria Müller, TUI Cruises

"For us EPI is very easy and fast to use. I don't see any inhibition to use this application continuously"

- Chief Engineer, AIDAsol

«Every ship shall be offered Shore Power»

Municipality of Bergen

pluc

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- The map illustrates the distribution of shore power facilities in Bergen, Norway. It shows the city's coastline with various districts labeled: Bontelabo, Nordnes, Nøstet, Hurtigrutekaien, Dokken, and Puddefjorden. A blue line traces a path along the coast, likely representing a power distribution network. Icons of different colors and shapes, each containing a lightning bolt, indicate the type and capacity of shore power available at various locations. The legend explains these icons: orange circles for offshore/low voltage (2.4 MVA), red circles for the Hurtigruten/Havila coastal route (1.6 MVA), purple circles for cruise/high voltage (48.0 MVA), grey circles for offshore/high voltage (3.2 MVA), and yellow circles for smaller specialized ships (not standard).
- Offshore/low voltage (IEC 80005-3), 2,4 MVA
 - Hurtigruten/Havila coastalroute (not standard), 1,6 MVA
 - Cruise/high voltage (IEC 80005-1) 48,0 MVA
 - Offshore/high voltage (IEC 80005-3) 3,2 MVA
 - Smaller specialized ships (not standard)

The biggest shorepower park for cruise in Europe



- IEC 80005-1
- Total capacity of 48 MW
- 5 connections
 - Skolten x 2
 - Bontelabo
 - Jekteviken x 2
- Max 3 ships simultaneously

Future

Other zero emission solutions and challenges are popping up..

Fincantieri, Viking confirm deal for hydrogen-powered cruise ships

BUSINESS DEVELOPMENTS & PROJECTS

September 9, 2022, by Naida Hakirevic Prevljak

Italian shipbuilder Fincantieri and Swiss cruise line Viking have confirmed contract for four more next-generation environmentally friendly vessels.



Courtesy of Fincantieri

SeaShuttle hydrogen-fuelled containership project wins Enova funding

BUSINESS & FINANCE

June 23, 2022, by Naida Hakirevic Prevljak

SeaShuttle, the ambitious project to build two hydrogen-powered, remotely controlled and autonomous-ready containerships, has secured NOK 150 million (€15 million) in funding from Norwegian state enterprise Enova.



Courtesy of Samskip

Highspeed passenger vessels
Need to transform to zero emission
How combine mid city terminal with shorepower or other solutions?



And another challenge for Port of Bergen

City of Bergen want to move the port's cargo terminal out of city centre





2027

New cargo port



Existing cargo port

26 km driving
20-25 min from 2027

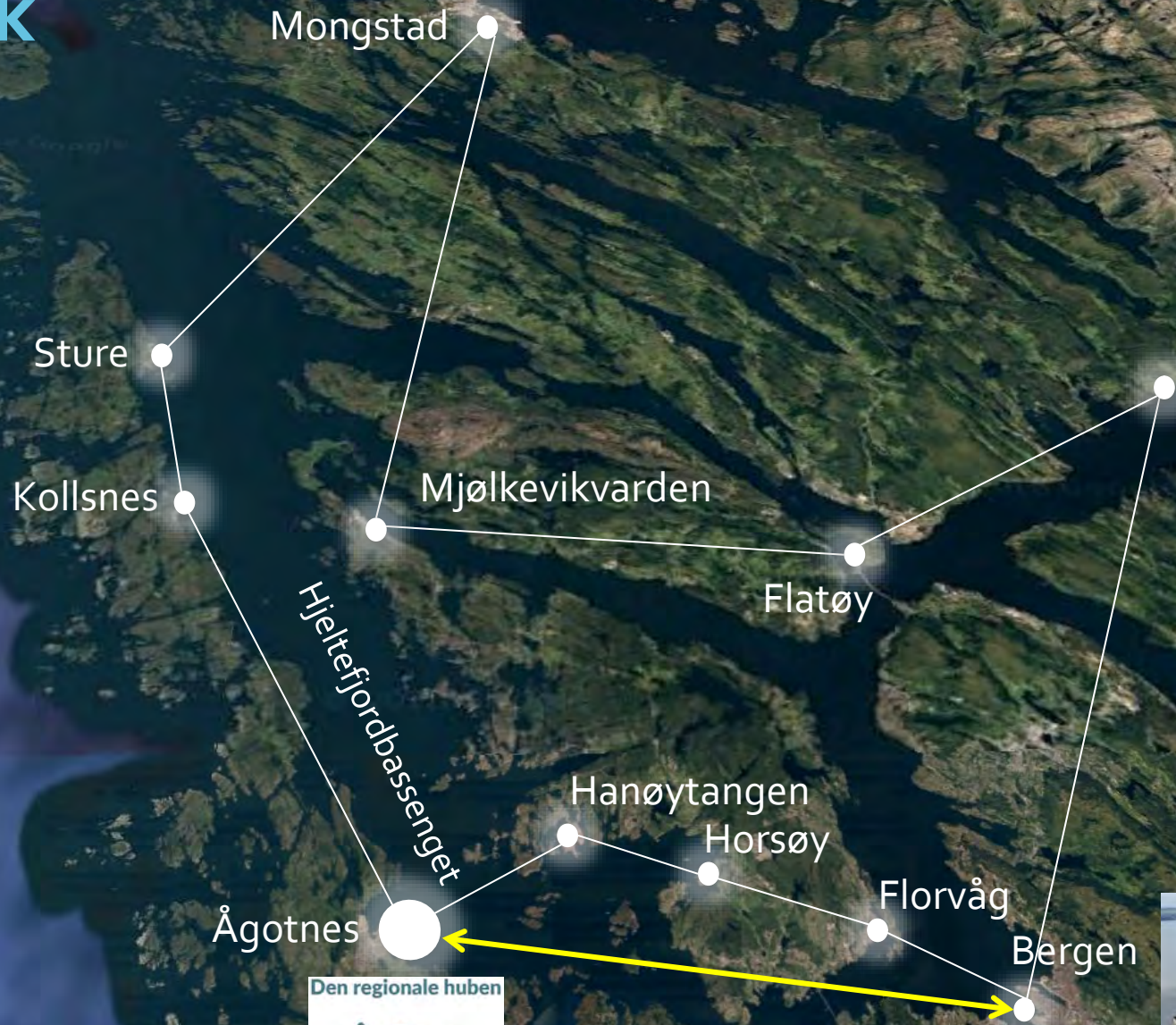
Kolltveit

Sotrasambandet ferdigstilles

«Last mile» distribution og autonomous solutions



Feeder network



Lokal feeder - syd

Ågotnes



Holmefjord

Fusa



Storebø

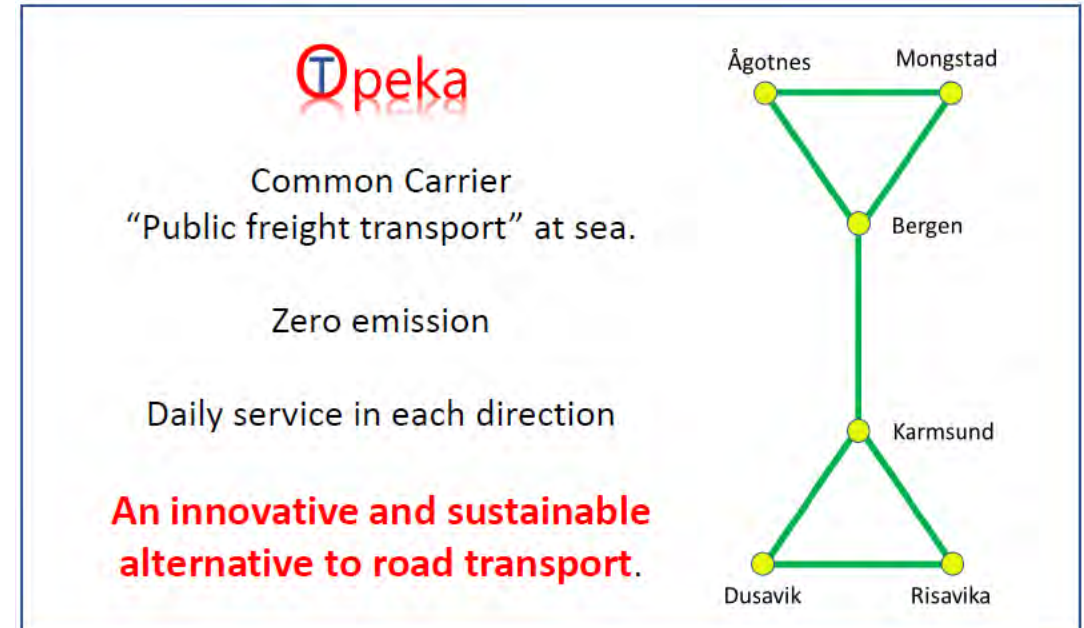
Google

Topeka



Wilhelmsen skal bygge verdens første frakteskip på hydrogen

Wilh. Wilhelmsen skal sette verdens første hydrogenskip i kommersiell fraktefart på sjøen. Nå er prosjektet tildelt 80 millioner i EU-støtte.



Hydrogenet skipet både skal seile på og frakte skal leveres fra Mongstad, hvor Equinor, BKK og og Air Liquide planlegger å starte hydrogenproduksjon.



Thank you for your
attention!



Port of
Bergen