



Request for interest

Joint Contract of Affreightment
Green Shipping

25th of May 2022 9:30-11:00

- Session will start 9:32

Questions during this session:

- Raise a hand or pose questions in the chat
- If you prefer to be anonymous send mail to:
 - atskog-norstone@dnv.com
 - or send SMS to Pernille 909 35 000
- We will try to answer in the Q&A

Purpose and agenda

The **purpose** of this meeting is to initiate an open dialogue with the shipping community before tendering for a green COA on NorStone and AT-Skog's cargo.

Agenda

- Introduction
- AT Skog cargoes
- NorStone and other HeidelbergCement cargoes
- Combination of cargoes
- Request for Interest
- Green solutions
- Enova support
- Questions & Answers



The project team



Lars Erik Marcussen
HeidelbergCement
Project Owner



John Elter
AT Skog
Project Owner



Pernille Mølbak
GSP
Project Manager



Hans Kristian Haram
GSP
Project Expert

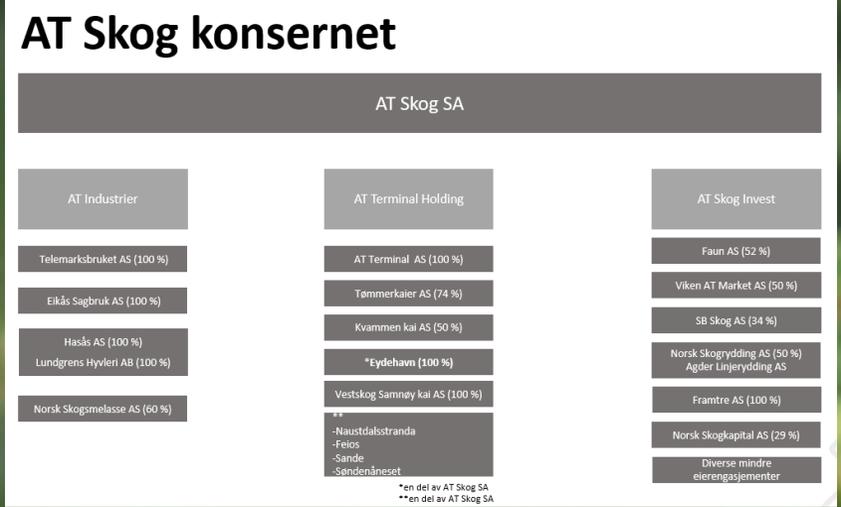
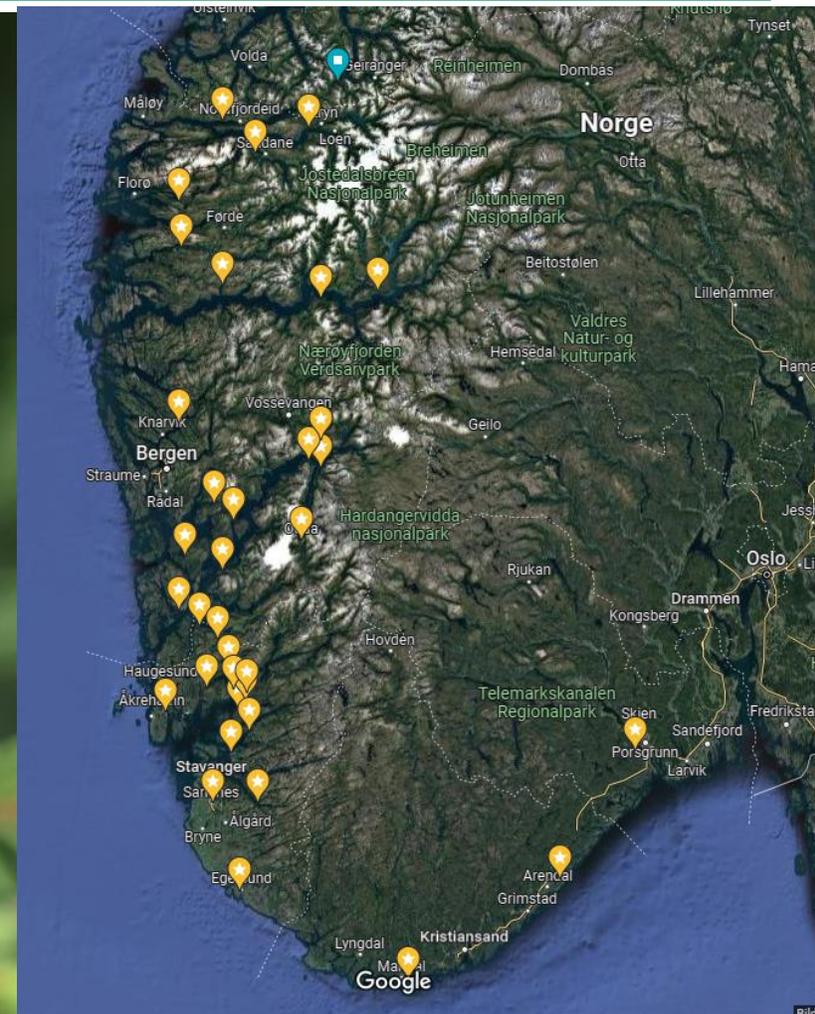


Vincent Rabben
GSP
Project Consultant

AT Skog cargoes

Presentation – AT Skog

- AT Skog produces 1.500.000 m3 yearly
 - 800.000 m3 transported by ship
- Invests in industry locally
- Establishing a molasses plant at Fiskå
 - needs 3500 m3 timber per week



NorStone and HeidelbergCement cargoes



HEIDELBERGCEMENT

Felleskjøpet



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WITH ORCA
ROBBIEM

POWERED BY NATURE

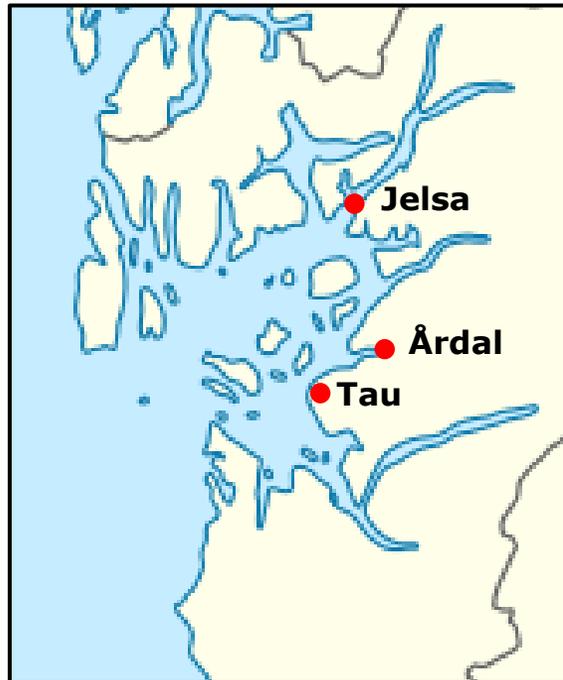
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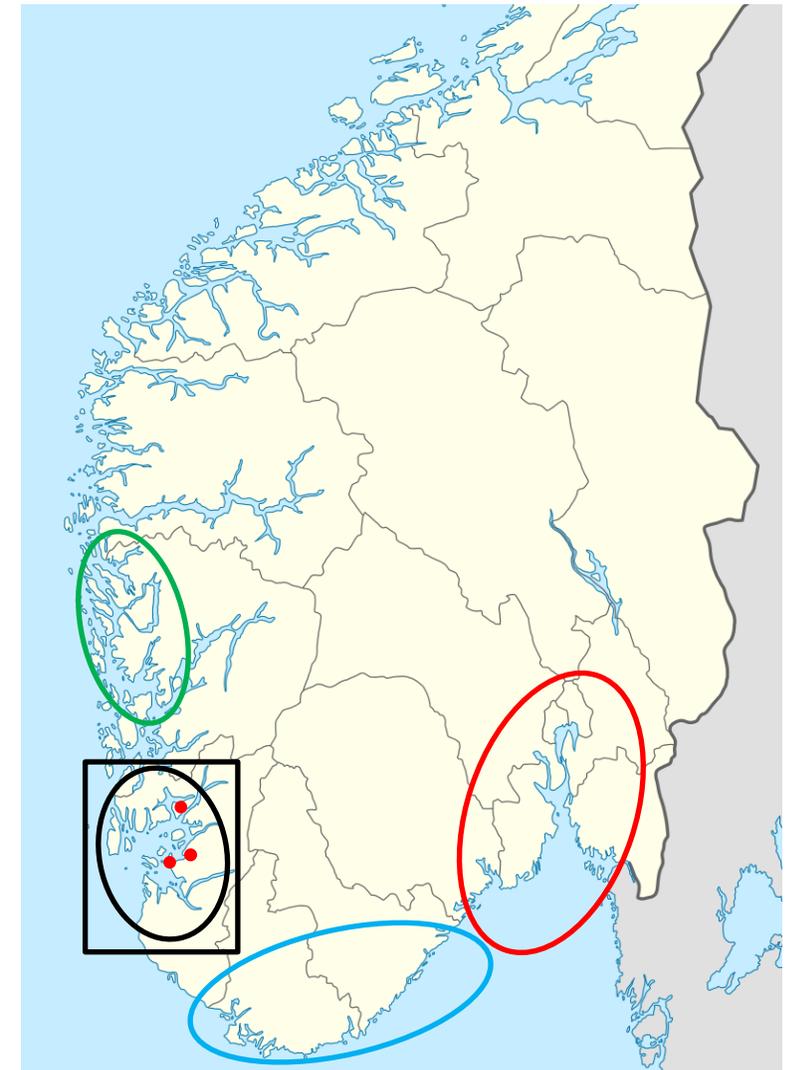
Jehander, Stockholm



NorStone



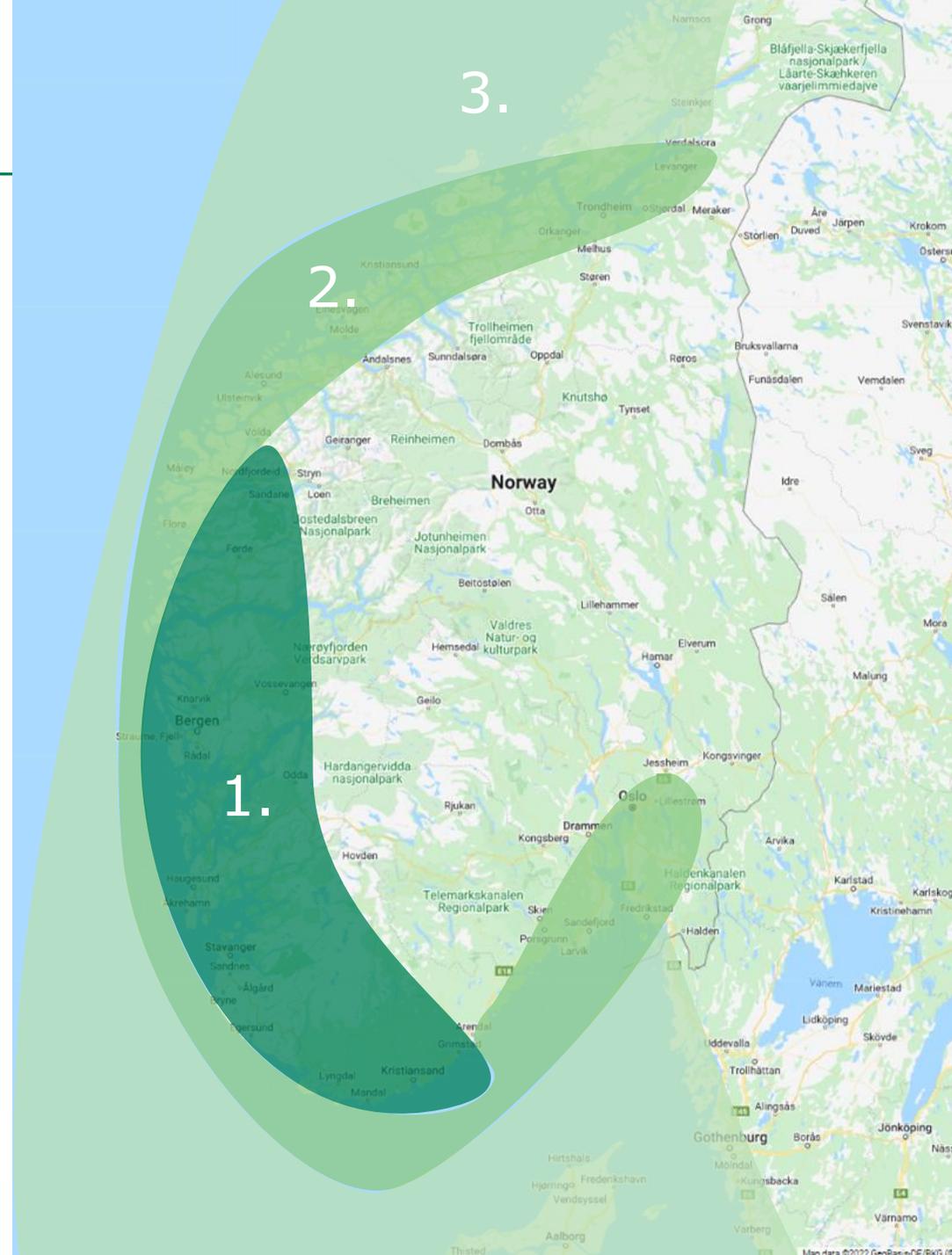
Local	450 000
South	350 000
Oslo	300 000
Bergen	250 000
Other HC	200 000
	1 550 000



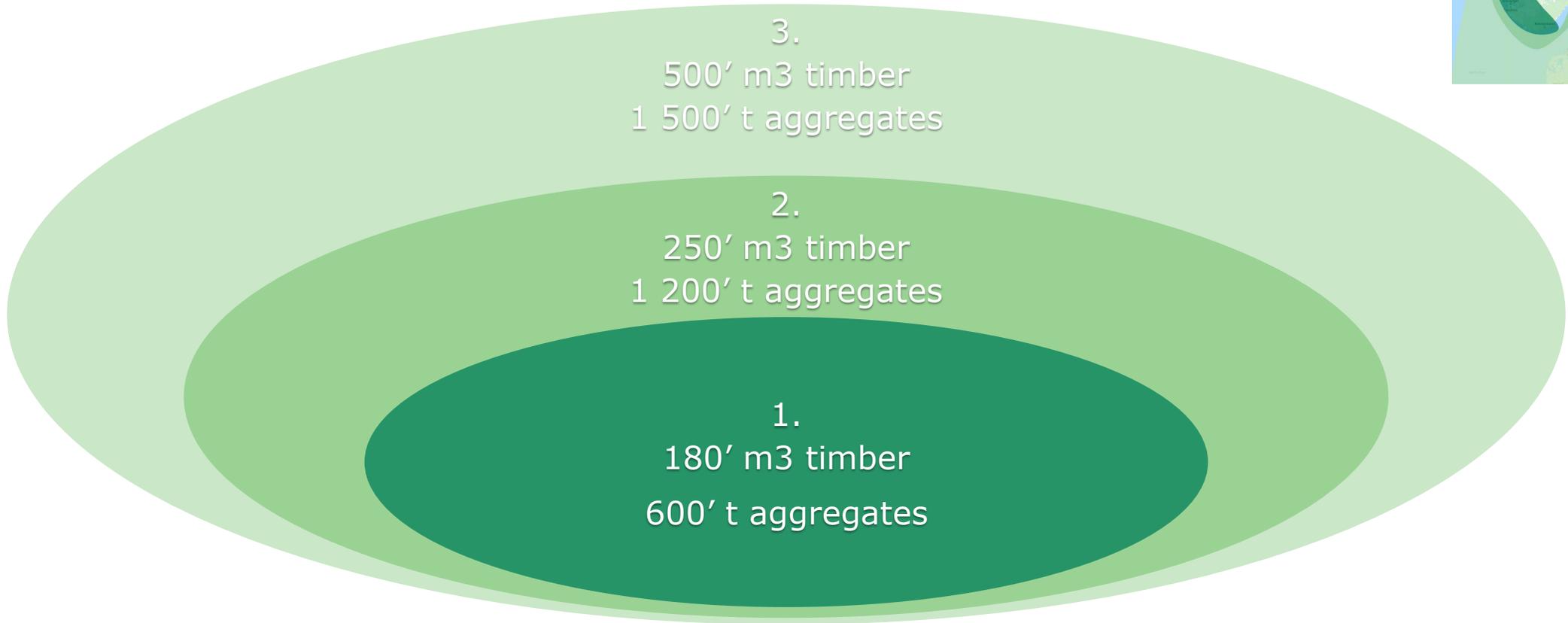
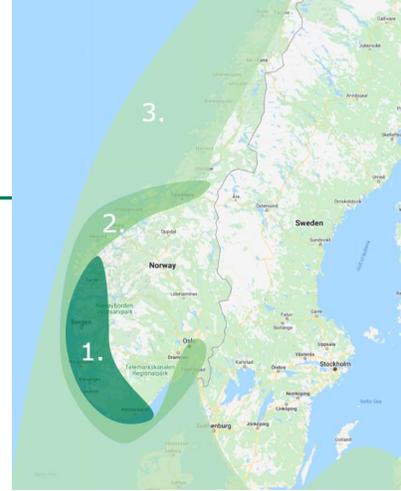
Combination of cargoes

Geography for cargoes

1. Low ballast roundtrips based around Tau, Jelsa, Årdal and Fiskå.
2. Volumes within the Trondheim – Oslo range
3. Cargoes to and from Northern Norway as well as export to Northern Europe



Estimated annual volumes



Request for Interest (RFI)

Goal and ambitions

The **ultimate goal** is a coastal fleet of zero emission bulk carriers

Ambition of one new zero emission bulk coaster as soon as possible

Trading scope

- **Trading area**

- South Norway, Denmark, Sweden and Germany

- **Cargo type**

- Aggregates and timber

- **Volume**

- 1 500' t
- 500' m3 timber for Viken AT and Norske Skog

- **Lot sizes**

- 4000 t aggregates
- 2500-3500+ m3 timber

Low emission transport by self-dischargers

- **Contract period**

- 01.01.2025 – 2029
- Option to extend

Preferences

Preferences for the zero emission ship

- Zero emission in operation no later than 2030
- Newbuilding or rebuilding
- MGO accepted as range extension
- Biofuels as the only emission reduction not accepted
- Compressed hydrogen in 20' swap containers

Areas in focus for the existing fleet

- Retrofitting or upgrade
- Zero emission cargo handling in port
- Energy saving solutions
- CO2 emissions as low- and reduced as early as possible
- Close day to day collaboration

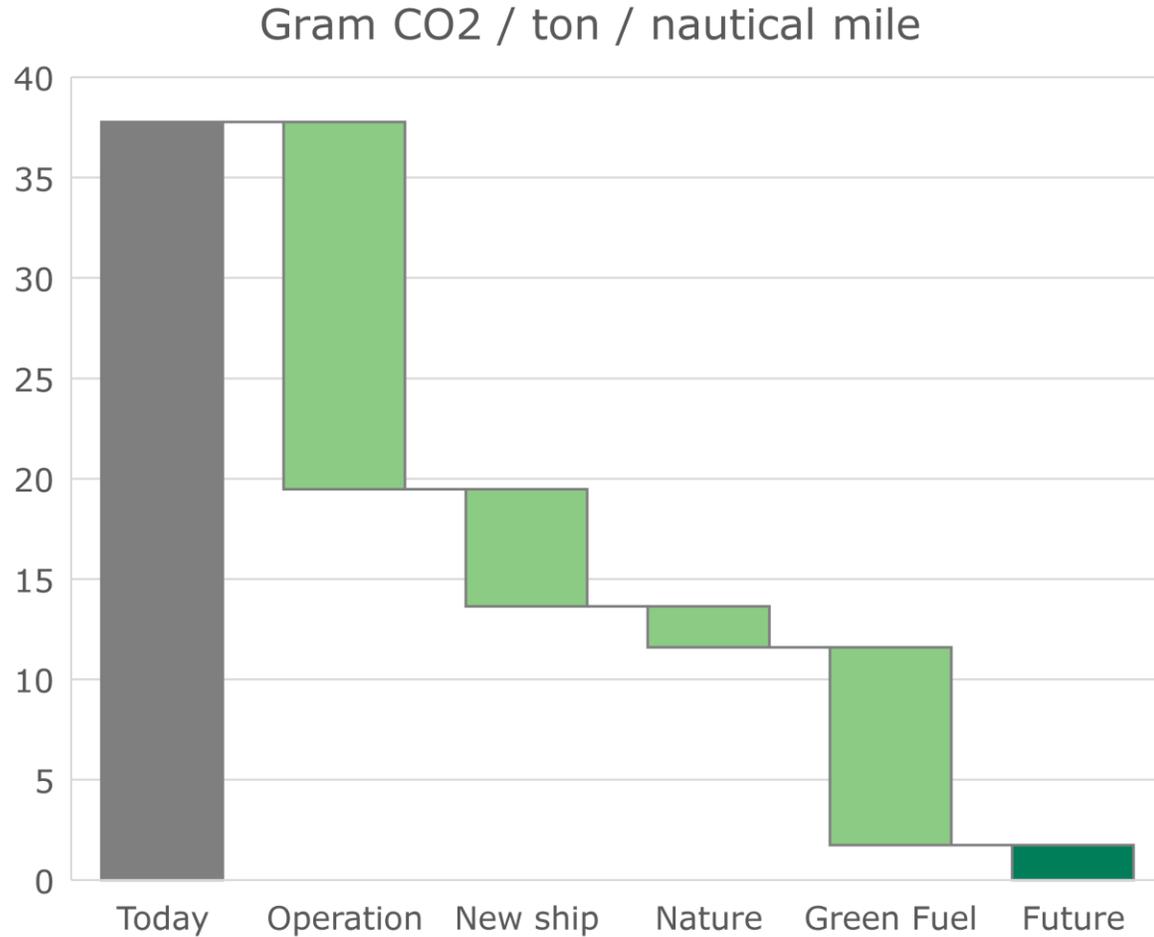
Questions in Request for Interest (RFI)

- 1. How do you propose to solve the Cargo Owners needs?**
 - 2. What concept and technical solutions will you offer?**
 - For a new zero emission ship
 - For the existing fleet
 - 3. What timeline do you propose?**
 - 4. How, and how much will you reduce the CO2 emissions per nm in the contract period?**
 - For the green ship
 - For the existing fleet
 - 5. What other cargoes do you suggest to combine with the volumes of the Cargo Owners?**
 - 6. What benefits can you offer the Cargo Owners?**
 - 7. What are the main challenges? How do you suggest to address them?**
- Are there other questions we should be asking?**

Green solutions

Information from the Green Shipping Programme

What is your road map to lower emissions and lower costs?



1. Improve operations
2. Get new ships
3. Benefit from wind and waves
4. Use green fuels

Different green energy sources

Availability, feasibility, and price must be considered for the road map:

- **Electrical Power**
- **Hydrogen**
- **Ammonia**
- **Methanol**
- ...



Key Performance Indicators

- Ton rate NOK/ton
- Demurrage NOK/day
- Energy efficiency Wh/ton naut.mile
- CO2 emission gr/ton/naut.mile
- Fuel cost NOK/MWh
- Power related Capex NOK/MWh



Grants and support

Grants and support for newbuilding and renovation

- **Green newbuilding and fuel grants** - Enova
- **Fleet renewal support** - NOx fond
- **Scrapping grants** - Innovation Norway

ENOVA

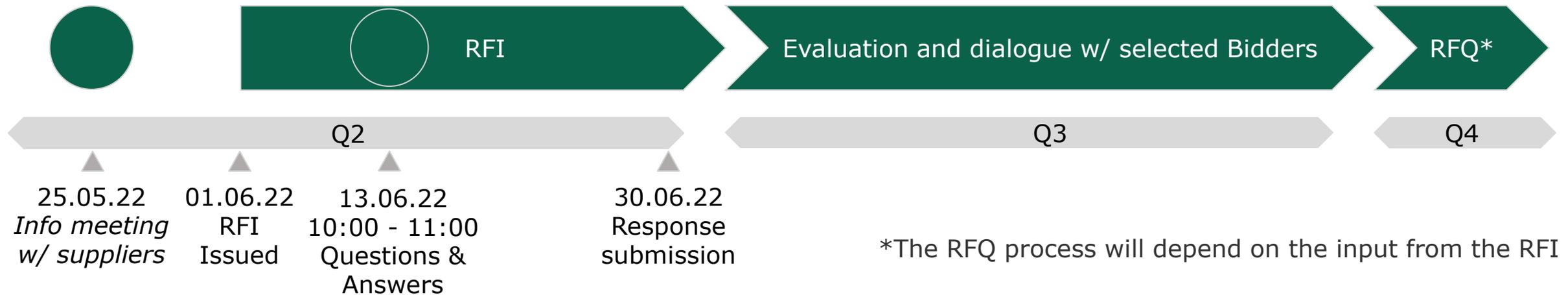
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Questions and Answers



Tender process

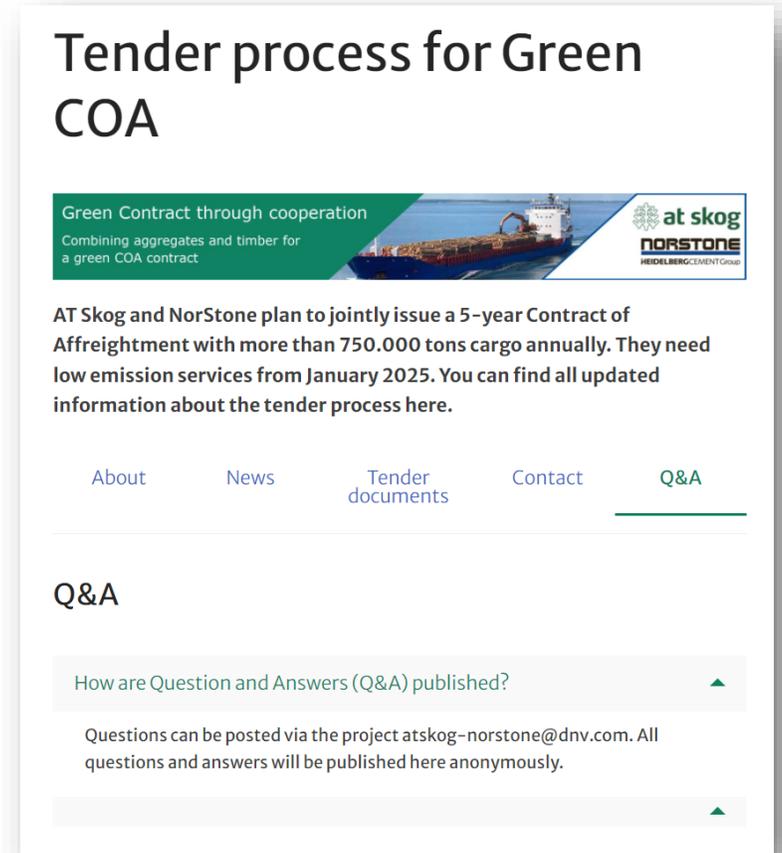


Questions and Answers session - June 13th at 10:00-11:00

Questions after the session:

- You are welcome to send questions :
 - atskog-norstone@dnv.com
- Join the Q&A session June 13th at 10:00 – 11:00
- Questions will be handled anonymously

- All information available at [GSP-website](#)
- Link will also be sent by mail



Thank you for your interest