



{ for clean air  
{ and healthy  
{ oceans

# Clean Shipping Index

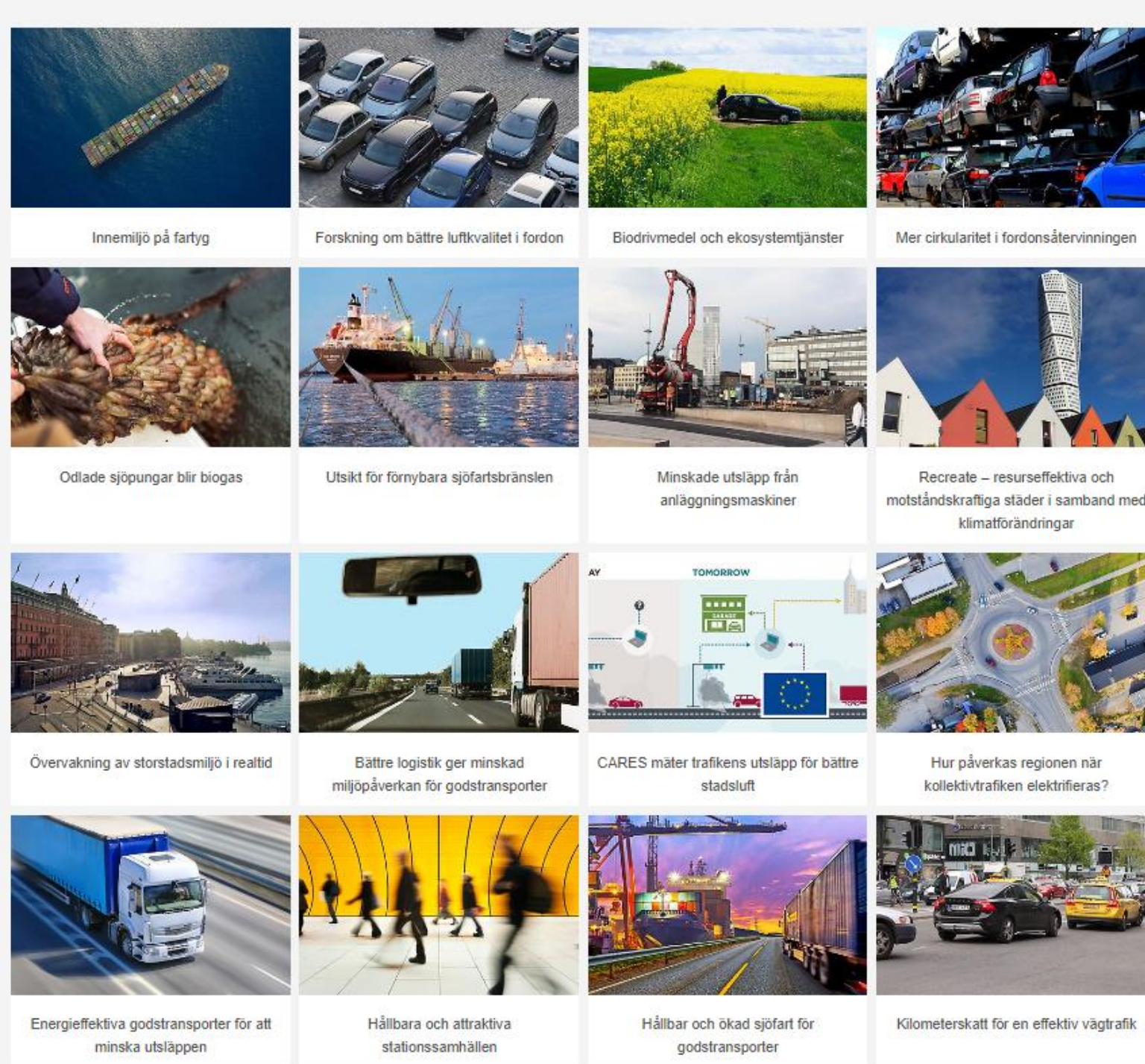
Sara Sköld, projektledare IVL Svenska Miljöinstitutet



The background image shows two people standing on a rocky, moss-covered shore. On the left, a woman in a light grey jacket and dark pants stands with her hands clasped. On the right, a person in a dark jacket with a logo on the back and dark pants stands looking towards the water. The scene is a calm body of water reflecting the sky. A semi-transparent teal horizontal band is overlaid across the middle of the image, containing the main text.

# IVL Swedish Environmental Research Institute

Sweden's leading organisation for applied  
environmental and sustainability research



## Transport and mobility

- Analysis of sustainable supply chains
- Emission measurements on board and in ports
- Emission modelling, calculation
- Air quality measurements
- Evaluation of policy instruments
- Efficient city planning
- Sustainable procurement of transports
- Evaluation and potential of different alternative fuels for shipping
- ...

# Independent & holistic labelling system



What makes Clean Shipping Index unique?

- Scoring based on beyond regulatory compliance
- Holistic approach to emissions & pollution (5 categories)
- Offers third party verification
- Technical Committee covering all environmental categories
- Used by the Swedish Government for differentiating fairway dues
- Used by Swedish and Canadian ports to differentiate port fees

*Currently more than 2400 vessels are registered in Clean Shipping Index.*



# Thorough methodology & scoring system

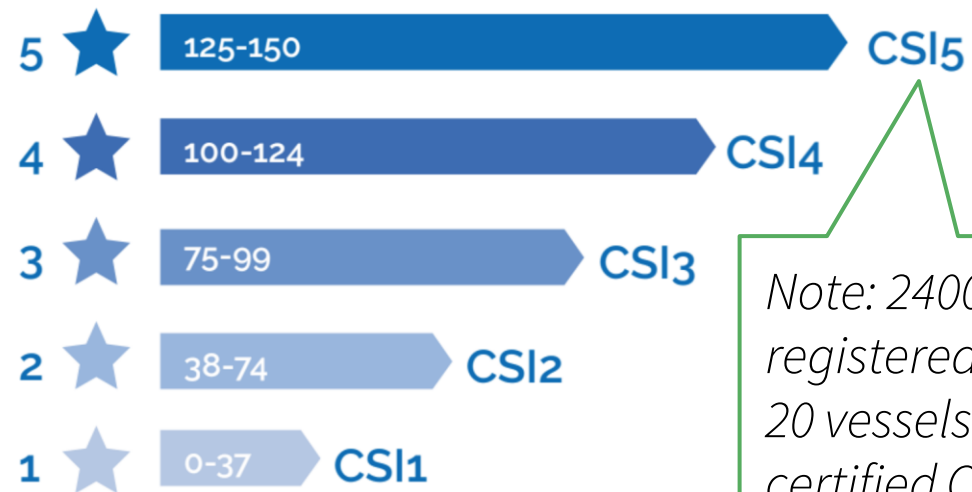
- Online questionnaire (25 questions) covering environmental performance of vessels
- Applicable on all types of vessels (tanker, container, cruise etc)

- Vessels are scored on five categories:

1.  $\text{SO}_x$
2.  $\text{NO}_x$
3.  $\text{CO}_2$
4. Chemicals
5. Water & waste

- 30 points per category → 150 points max

- The process is entirely digital online

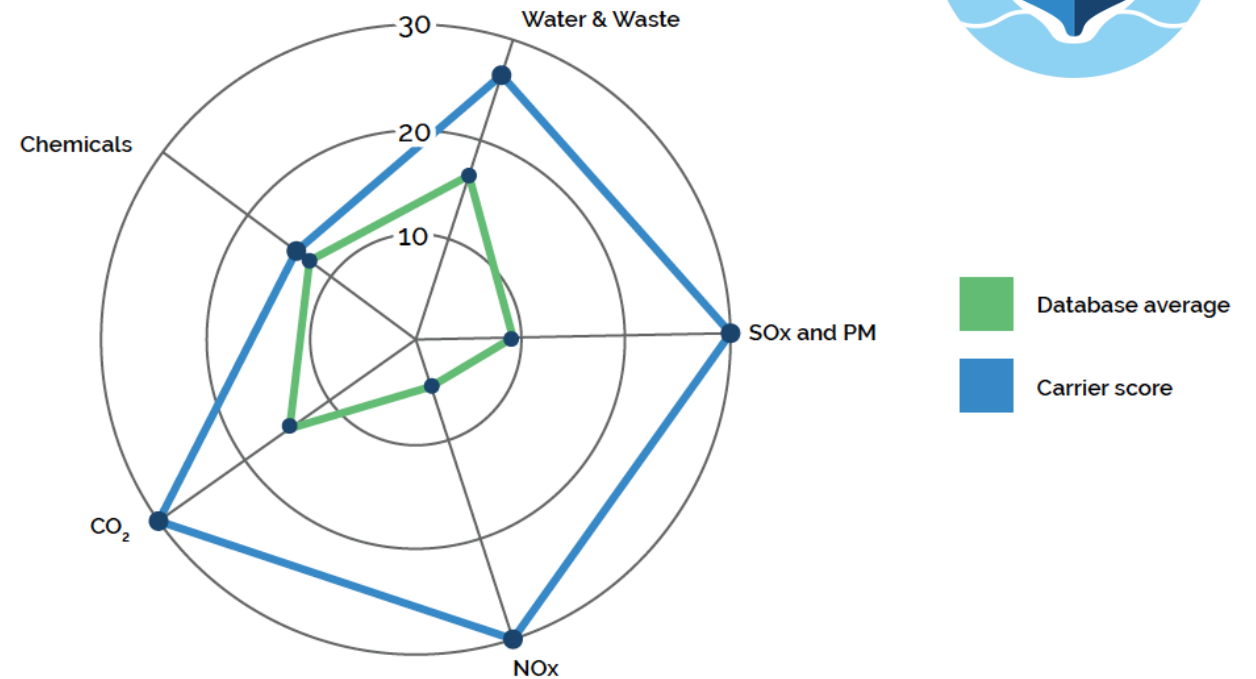


*Note: 2400 vessels are registered in CSI and 20 vessels have a certified CSI Class 5*

# The Clean Shipping Index Label



**The CSI Label** - Performance in relation to regulatory compliance



**Performance Analysis** - Benchmark performance against shipping average

# Optional third-party verification by accredited auditors





Clean Shipping Index  
Certificate of verification

|                 |                   |        |            |                                                                                   |
|-----------------|-------------------|--------|------------|-----------------------------------------------------------------------------------|
| Name of vessel: | <b>Tern Ocean</b> | Score: | <b>137</b> |  |
| Owner:          | <b>Tarntank</b>   |        |            |                                                                                   |
| IMO number:     | <b>IMO9747986</b> |        |            |                                                                                   |

THIS IS TO CERTIFY that the above-mentioned vessel has been verified by the undersigned according to the Clean Shipping Index, and that, upon completion of the survey the undersigned is of the opinion that the vessel performance is in compliance with the self assessment. The scoring for this vessel meet the requirements of the CSI 5 classification according to the Clean Shipping Index.

Date of issue: 2017-12-04  
Valid until: 2020-12-04

|                                       |                                                       |
|---------------------------------------|-------------------------------------------------------|
| Stefan Borggren<br>Surveyor<br>DNV GL | Rickard Lindström<br>Director<br>Clean Shipping Index |
|---------------------------------------|-------------------------------------------------------|

Certification is required for vessels to access:



Reduced Swedish fairway dues



Differentiated port fees



# Clean Shipping Index - Technical Committee



*Waste & chemicals*

Erik Ytreberg  
*Senior Researcher & Associate  
Professor*  
Chalmers University of  
Technology



*Industry & env.  
experience*

Per Wimby  
*Fuel Efficiency Project Leader*  
Stena



*Authority & env.  
experience*

Sabina Hoppe  
*Head of unit Environment and  
Sustainability*  
Swedish Maritime  
Administration



*Industry & env.  
experience*

Capt. Daniel Berndolf  
*Chairman*  
Preem

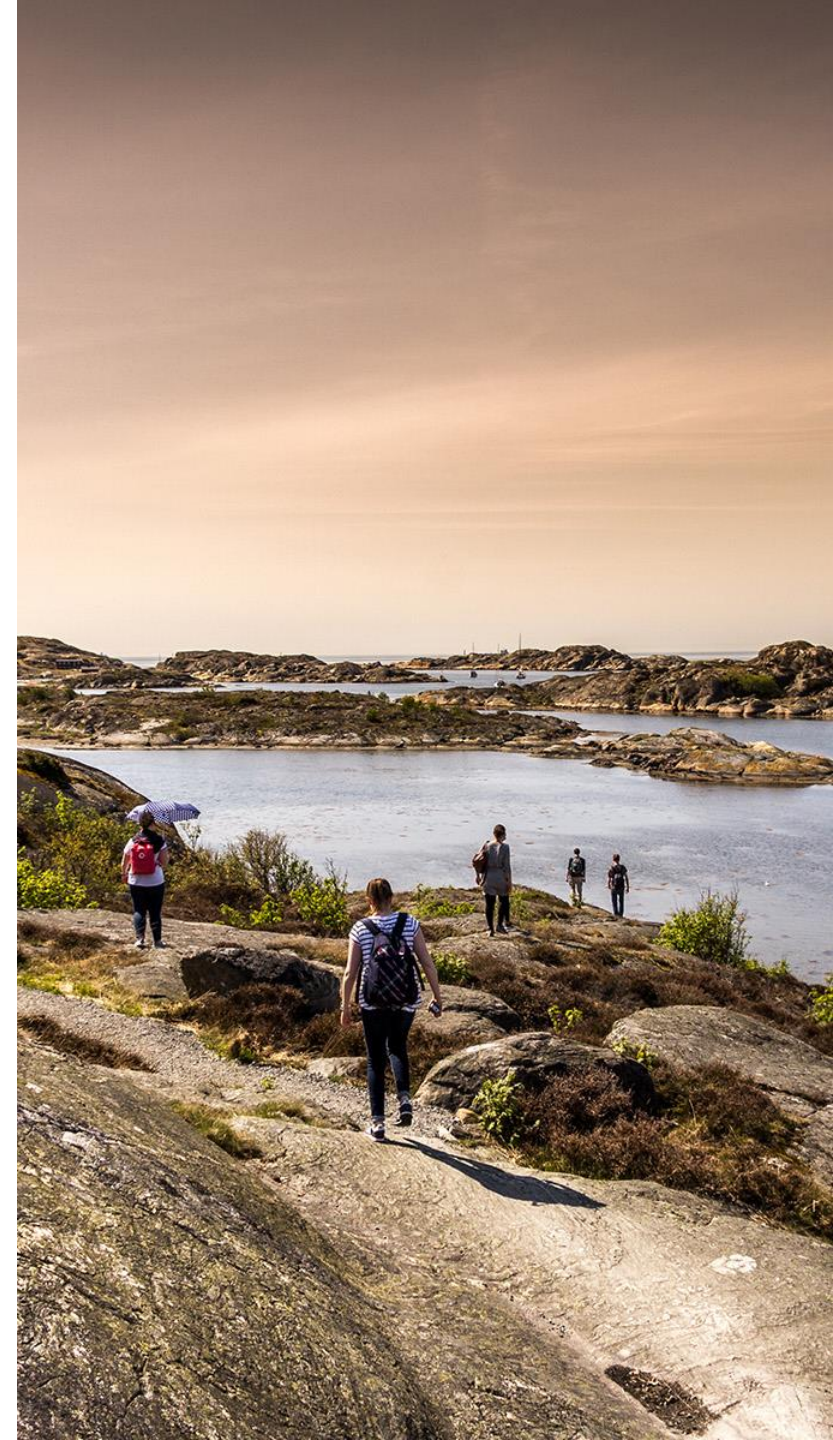


*Air pollution*

Dr. Erik Fridell  
*Senior Researcher & Professor*  
IVL Swedish Environmental  
Research Institute

# Why Clean Shipping Index?

- Holistic approach to environmental impact of shipping
- It is important to have a standard showing what sustainable shipping entails.
- The platform of companies participating is a unique opportunity to network on the environmental impact of shipping
- It is also a unique possibility to set joint requirements on shipping companies when it comes to environmental impact
- Collaborating will create healthier seas, a more efficient shipping operation and lowered environmental impact



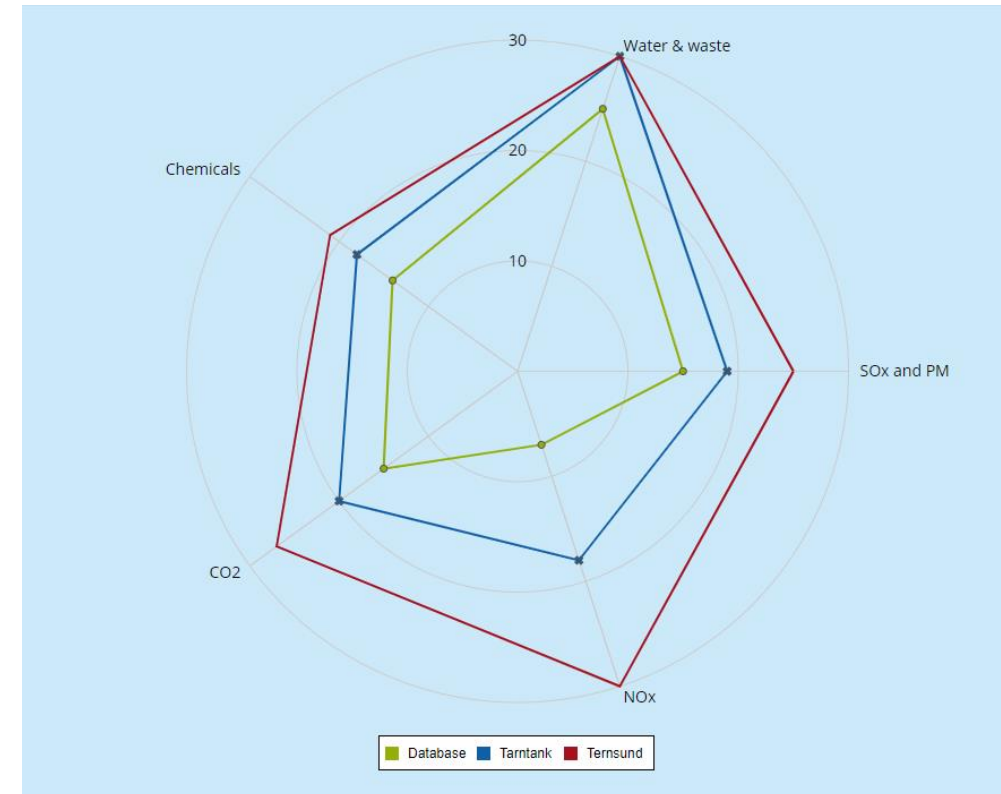
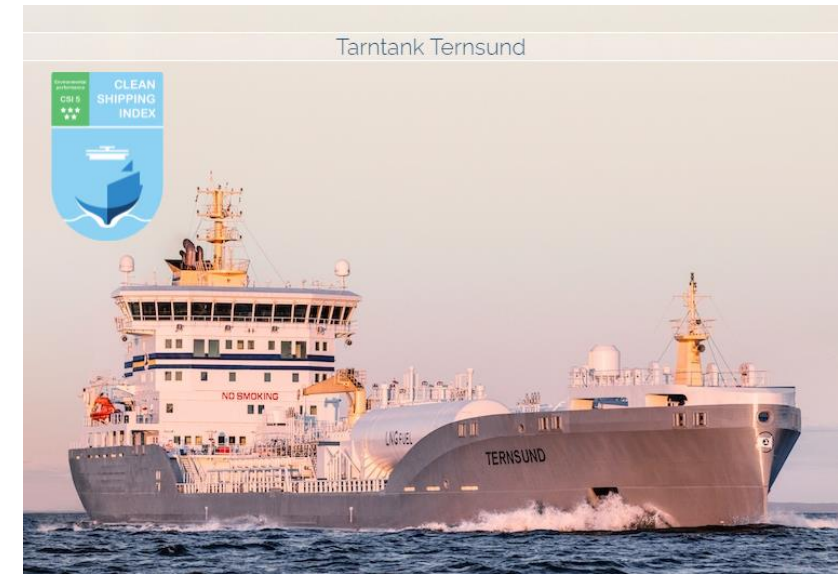
# Tankerfartyg

- Tanker, ca 12000 DWT
- Gjort flera anpassningar bla vatten och avfall
- Opererar på ett sätt så bränsleåtgång begränsas
- Konventionellt bränsle



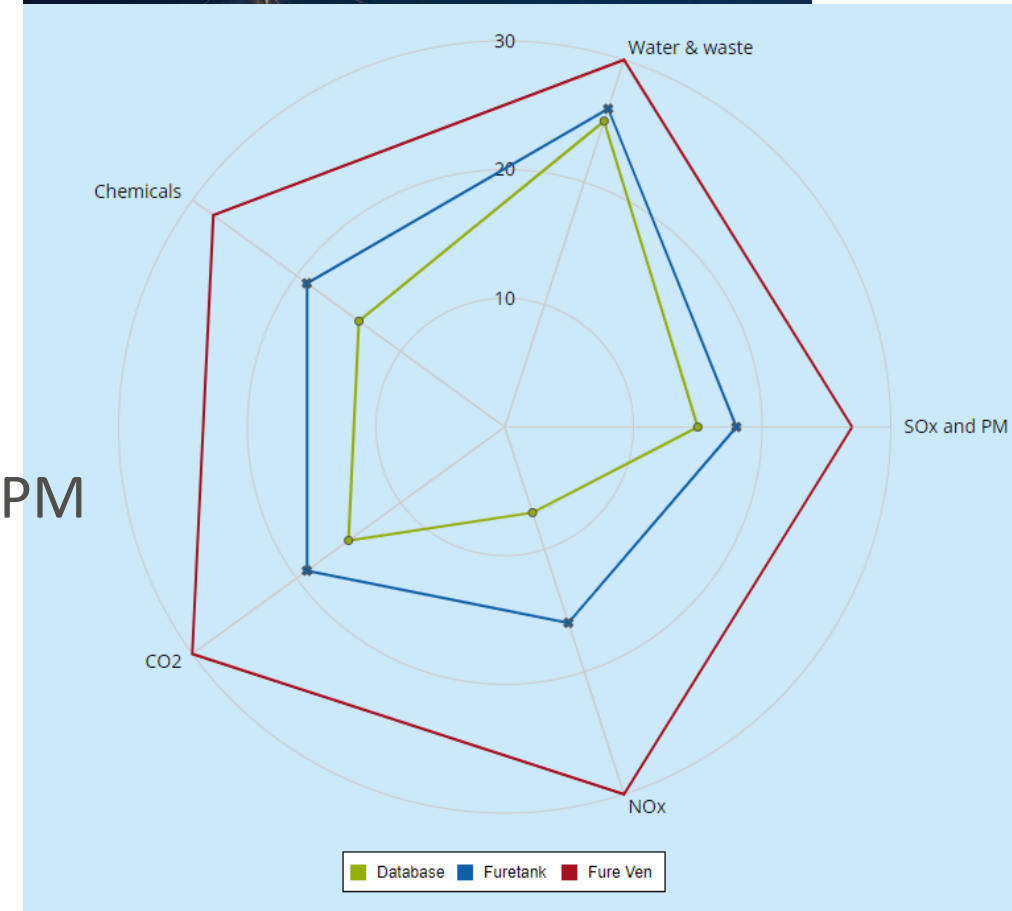
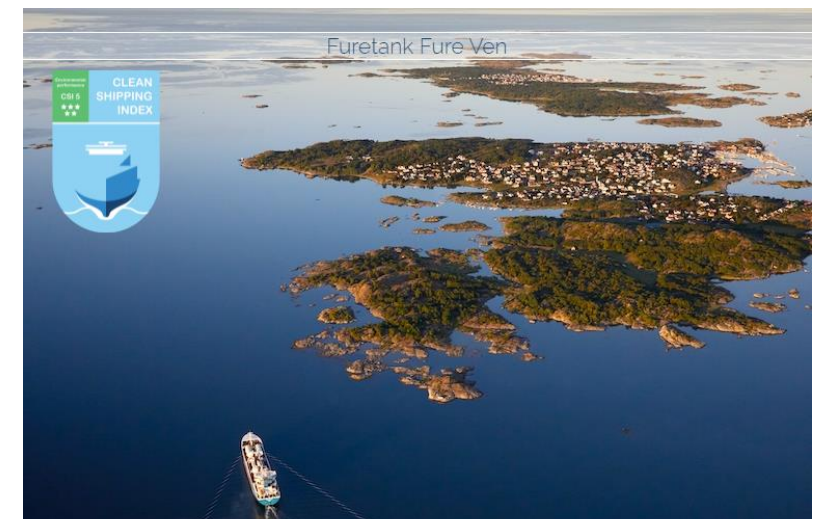
# LNG-fartyg

- Tärntanks Ternsund
- 14 846 DWT
- LNG drift
- Höga poäng för NOx och vatten & avfall
- Finns fortfarande poäng att nå inom SOx PM och kemikalier



# LNG fartyg

- Furetanks FureVen
- 17 993 DWT
- LNG drift
- Höga poäng inom alla kategorier
- Finns några poäng att ta inom kemikalier och SOx PM



# Tack för att ni lyssnade!

Sara Sköld, projektledare IVL Svenska Miljöinstitutet

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