

# Bothnia Bulk – New Era of Raw Material Transport in the Baltic Sea



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# Bothnia Bulk

## Project members



## Member states involved

- Finland
- Sweden

## Implementation schedule

- 1.1.2016 – 31.12.2018
- EU co-funding application for the CEF Motorways of the Sea call in 2015

# Objective

- Environmental upgrade of an existing maritime link
- More energy efficient, sustainable and low emission supply chain of dry bulk in the Baltic Sea
- Increase the good co-operation within dry bulk transport and handling

50 %  
less  
CO<sub>2</sub>

# Activity

- Procurement of additional environmental efforts for newbuilt vessels, including LNG technology for main and auxiliary engines + boiler
- Development of port efficiency



ESL Shipping

# Forerunner in energy efficiency

- World's first bulk carriers with complete LNG Dual Fuel solution, including propulsion, electricity and heat production
- Two vessels, ready for service during the first half of 2018
- DWT 25 600
- LOA 160 m, Beam 26m, Max draft 10 m
- Ice class 1A, engine power = ice model tank test result + 73 % reserve
- The EEDI (Energy Efficiency Design Index) value will satisfy clearly the IMO reference line requirements even for the Phase 3, which is coming into force in 2025

# Forerunner in energy efficiency

- Extensive model testing performed for both open water and Ice Class 1A operations, in reputable testing basins such as SSPA in Sweden and Aker Arctic Technology in Finland
- Emissions will be below all current environmental requirements and CO<sub>2</sub> emissions per cargo tonne transported will be reduced by over 50% in comparison to the present generation of vessels
- Total investment 60 Million euro, of which more than 60 % is EU-origin

# Objective

- Increase the demand of LNG and deployment of LNG bunkering infrastructure in the Gulf of Bothnia



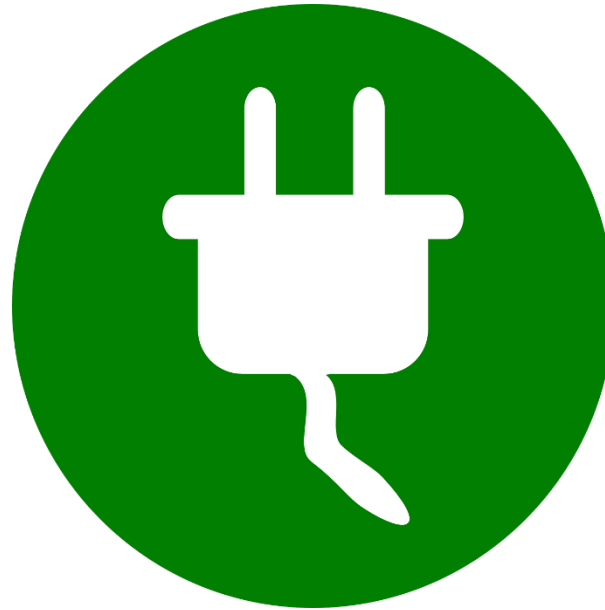
**LNG**

# Activity

- Build new LNG fueled vessels
- A study on safe LNG bunkering procedures in ports

# Objective

- Reduce harmful air emissions and noise in ports



LNG

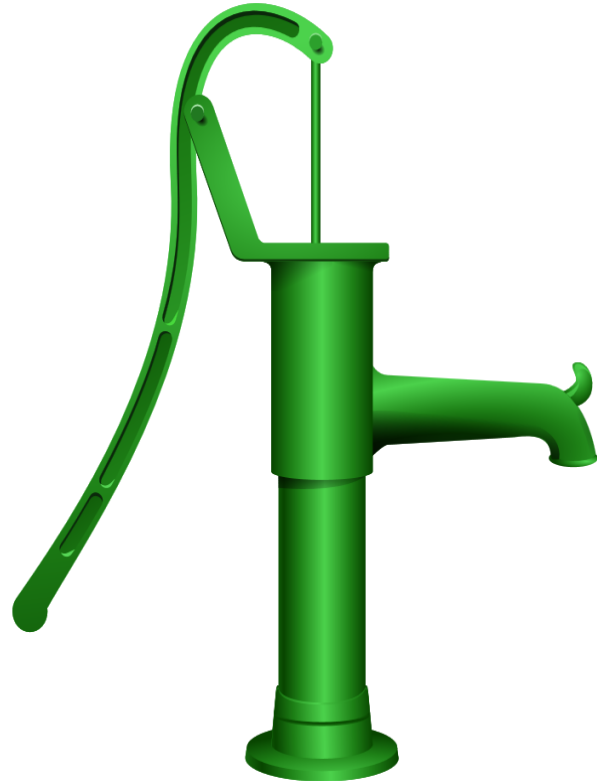
# Activity

- A technical study and implementation of sustainable shore side power supply for ships in the selected ports
- LNG fueled auxiliary engines + boiler



# Objective

- Environmental upgrade of an existing maritime link between selected core and comprehensive ports
- Develop port efficiency and reception facilities



# Activity

- A technical study and implementation of the most sustainable and adequate way to handle and storage dry bulk cargo residues on board of a vessel and in port reception facilities (MARPOL Annex V)
- Keep onboard – pump ashore

**Together we make shipping  
more sustainable  
than ever before.**

**Thank You !**



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**SSAB**



Oxelösunds Hamn AB



RAAHEN VOIMA 