



Key results

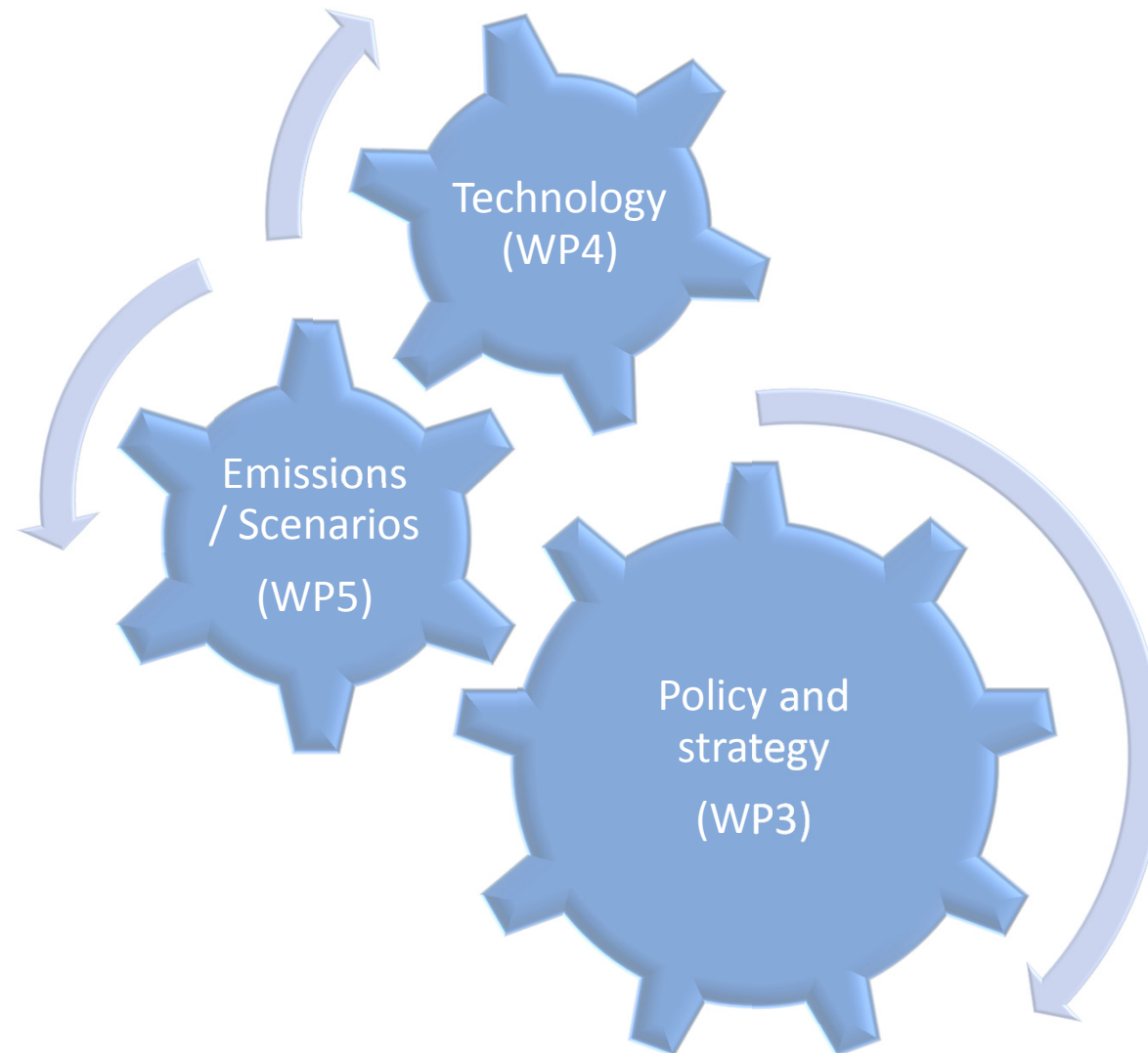
Even Husby, project manager,
CNSS & Hordaland County Council



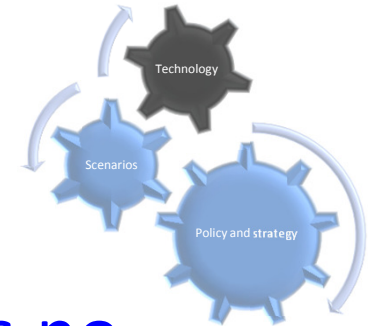
Partnership



CNSS – Main focus areas



Technology (WP4)



- Technology survey – <http://cleantech.cnss.no> (brochure available)
- Showcase Liquid Natural Gas (LNG)
- Showcase Onshore Power Supply (OPS)
- Video
 - LNG Bunkering animation
 - EU Maritime day workshop and video

The cleantech.cnss.no web site



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Clean Shipping Technology



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Welcome

The current challenge for the marine and port related industry is to develop environmentally sound, cost-effective concepts and practical solutions to meet the environmental standards set for the period after 2015. The ultimate challenge is to implement zero emission technologies.

This website serves as a guide for existing nearby and long-term technologies and air pollutant emissions in order to promote the development of a sustainable maritime transport

[Introduction](#)

[NOx »](#)

[SOx »](#)

[Low sulphur fuel](#)

[Scrubber](#)

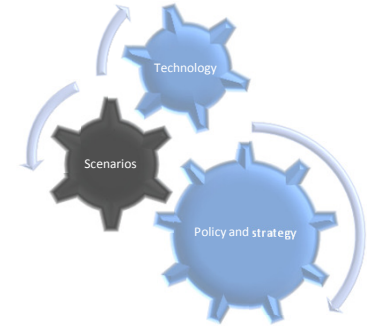
[LNG](#)

[OPS](#)

This webpage was launched by the Clean North Sea Shipping project during the GreenPort Congress on 14/15 September 2011 in Hamburg.

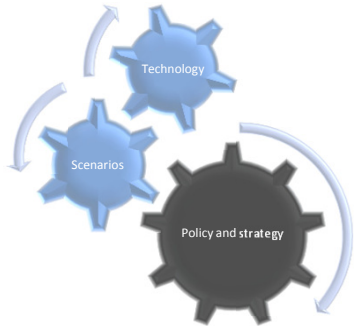
[Click here to download a summary brochure.](#)
Please note, the file is 14 MB.

Reduction / Handling Emission (WP5)



- Methodology study
 - Report: Monitoring & simulation of pollutant generation and spread
- Inventory of movement and engine data for ships in the North Sea area
 - A comprehensive database is established at HZG
- Emission factors for ship engines under different loads
 - An analysis of data based on the GL (DNV GL) archives.
- New emission factors for ships at berth
 - Port survey of ships contribution to air emission
- Local showcases and tools related to data collection, analysis and presentation
 - DCMR (Rotterdam); Port of Antwerp
 - Free software for determination of harbour emissions
- Voyage emission estimation tool
- Ship emission in the North Sea area – Scenarios

Policy and strategy (WP3)



- Baseline of knowledge
 - Report: “Policies and instruments – A baseline of knowledge”.
 - Report: “The challenge of emission control in maritime law. A summary of the current international and European regulations and their implementation”
 - Report: “Evaluation of the interviews concerning new developments in emission control for the shipping sector”
- Incentive schemes investigation
 - 1 scientific article;
 - Discussion in Final report
- Final report: Key findings and recommendations
- Planning of follow-up projects and new business cases



Data availability - A challenge

- Better air emission data for some cities has been a limiting factor



- General web site: <http://cnss.no>;
- Technical web site: <http://cleantech.cnss.no>;
- Social media web site:
<http://www.linkedin.com/groups/Clean-North-Sea-Shipping-3668912>;
- Video conferencing tool: <http://cnss.webex.com>



The Interreg IVB
North Sea Region
Programme

