A.P. Møller-Mærsk - Alfa Laval Aalborg - Hempel - MAN Diesel & Turbo - OSK-ShipTech - TORM -Control - Lyngsø Marine - Tetraplan - Transmar - Bureau Veritas - MacGregor - Claus Kruse -J. Lauritzen - Principia North - Automation Lab - SIMAC - Esvagt - A2SEA - Eltronic - LR Marine -

Dansk Analyse - Lloyd's Register - Clean Combustion - Kosan Crisplant - Moving Energy - Haldor Topsøe - Danish Maritime - Controllable Pre-Swirl Fins - Dynamic propeller shaft speed control -Trailer Cat - Vessel Performance Decision Support - Monitoring & Performance - Gas Valve Train -

Blue INNOship

Multi

tas - MacGregor - Claus Kruse - Vessel Performance Solutions - J. Lauritzen - Principia North - Automation Lab - SIMAC - Esvagt - A2SEA - Eltronic - LR Marine - Dansk Analyse - Lloyd's Register - Clean Combustion - Kosan Crisplant -

Methane - Shore based small scale LNG-LBG

Biocides - Servitization - A.P. Møller-Mærsk -

OSK-ShipTech - TORM - DBI - FORCE

Moving Energy - Haldor Topsøe - Danish Maritime - Controllable Pre-Swirl Fins - Dynamic propeller shaft speed control - Trailer Cat - Vessel Perfori Performance - Gas Valve Train - Multi fuel burn Shore based small scale LNG-LBG liquefaction steaming antifouling paint - Selective Catalytic F Servitization - A.P. Møller-Mærsk - Alfa Laval

ShipTech - TORM - DBI - FORCE Technology -

Vessel Performance Decision Support

Project participants:

Project name:

Lauritzen, Torm, AAU, FORCE, Vessel Performance Solutions

DTU - SDU - Propeller Control - Lyngsø Marine

MacGregor - Claus Kruse - Vessel Performance Automation Lab - SIMAC - Esvagt - A2SEA - Elf

Register - Clean Combustion - Kosan Crisplant - Woving Energy - Haidor Topsøe - Danish Waritime

Short project description

Objective to develop a vessel performance management platform with the following characteristics:

- 1. Modular structure to minimize dependencies and enable flexible use by end user.
- 2. Enable shipping companies to optimize technical and operational performance of their fleets.
- 3. Designed to support the change management process within a shipping company.
- 4. Develop an open standard for exchange of performance data from noon reports.

Technology Readiness Level								
1	2	3	4	5	6	7	8	9
							Χ	

Key features or key findings

What key features or findings would you like to highlight from your project work until now?

- 1. The VPDS platform is running on 250 vessels.
- 2. Daily updates of system from INNO+ partners.
- 3. Proven fuel improvements for Torm and Lauritzen Bulk fleets.
- 4. AAU data quality, KPI frameworks, statistical process control. Data Quality Principles implemented in VPDS
- 5. FORCE open standard pilot version.

Project challenges and solutions

What challenges have the project team experienced and how has the team solved them?

- 1. No major challenges, project is in general running well.
- 2. On a few occasions, "local" decisions should have been brought up in plenum-> solution: more meetings in plenum

Why should you buy our solution?

What makes your solution the preferable one compared to other available solutions?

- 1. The VPDS is cost effective and supports efficiency optimization from technical level to management level.
- 2. The VPDS supports a change management process.
- 3. The solution is modular:
 - a) Takes data from different data collection providers.
 - b) Output is available through a results data base i.e. companies can use their own BI solutions for presentation if needed.
- 4. The VPDS solution will support the open standard.
- 5. Already after one year, significant results have been achieved by at least two+ large fleets.