

Energy and time-efficient shipping solutions

Auckland - December 2016

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Agenda

- 1 Energy & technology efficiency developments
- 2 Commercial and operational impact



Speed v Emission

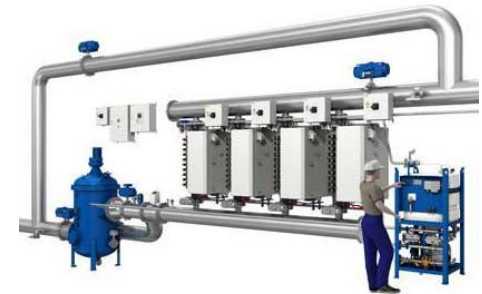
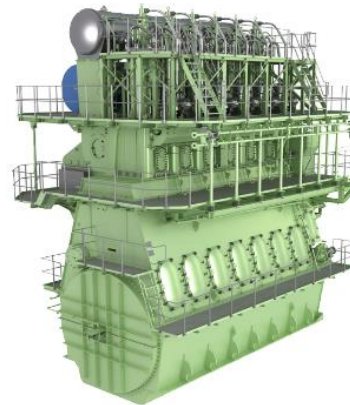
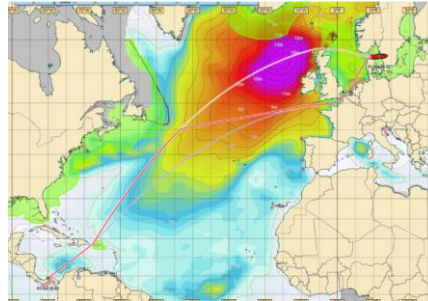
Are not mutually exclusive

- Natural 'balance' between optimal systems speed and emissions / energy maintenance.
- Curve currently favours reduction in speeds and the addition of vessels due to the challenging financial climate
- Over supply of ships and extension of systems by absorbing ships, likewise adds to overall emissions and the absolute need for energy efficient tonnage.
- Technology based solutions covering a wide range of vessel operation criteria. These save costs on both day to day running and at scheduled maintenance periods



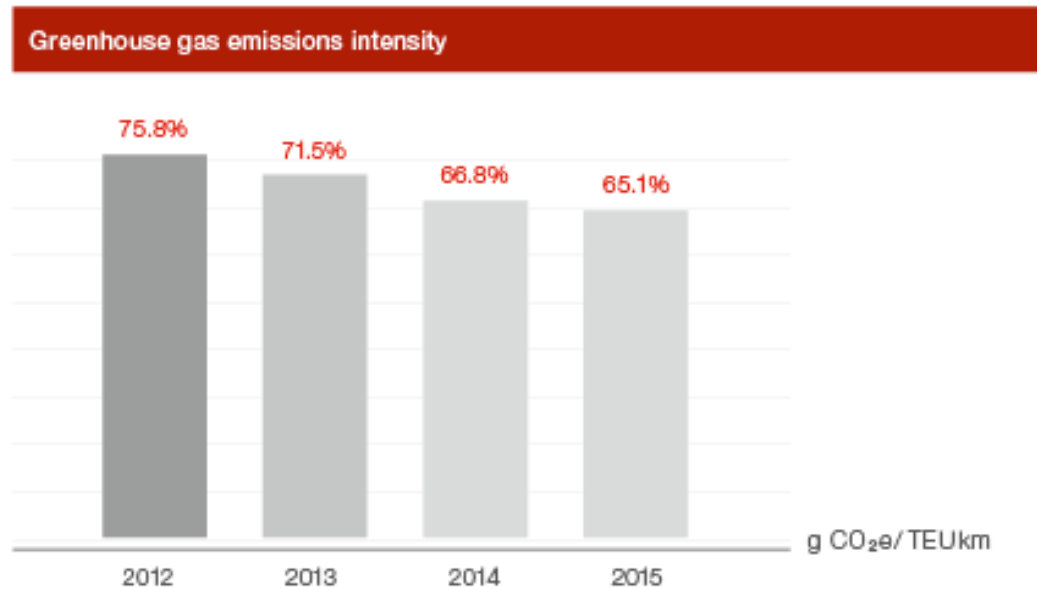
Efficiency of our fleet

- Big “fat” vessels with optimized hull.
- “Little” main engines electronically controlled optimized for the necessary load on slow speed.
- Trim/Draft software optimum resistance.
- Weather routing.
- Improved propulsion with BTF or PSS devices, reducing the fuel consumption by 3-5 %.
- Frequency controlled sea water cooling pumps.
- New-buildings with ballast water treatment plants.



Environmental

- Hamburg Süd wants to reduce CO₂e emissions per TEUxkm by 45% until 2020 based on 2009



Compared to the 2009 base year, greenhouse gas emissions intensity was reduced to 65.1% in 2015. Scope 1 was included.

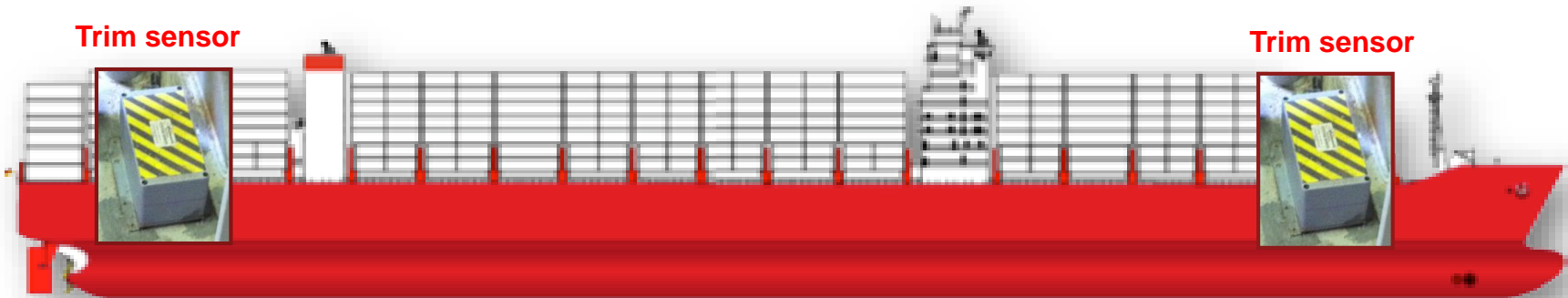


- Implementation of the Bluetracker performance management system from INTERSCHALT
- Continuous AMP support
- Continuous update of LNG fuelled vessel study
- Retrofit of frequency controlled seawater pumps
- Technical maintenance of ENIRAM system

ENIRAM – Dynamic Trim Assistant

Trim sensor

Trim sensor



Ballastwater sensors

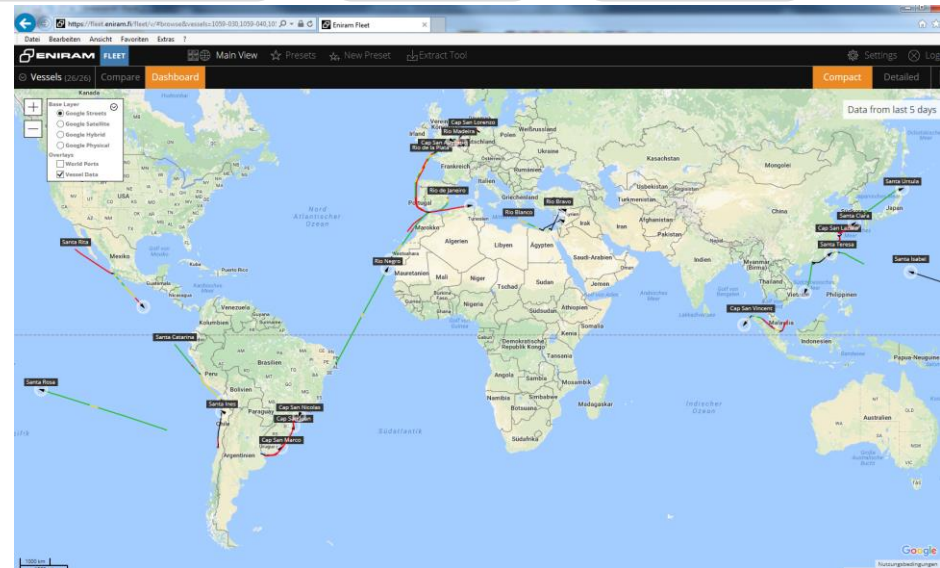
Draft sensors

Engine automation system

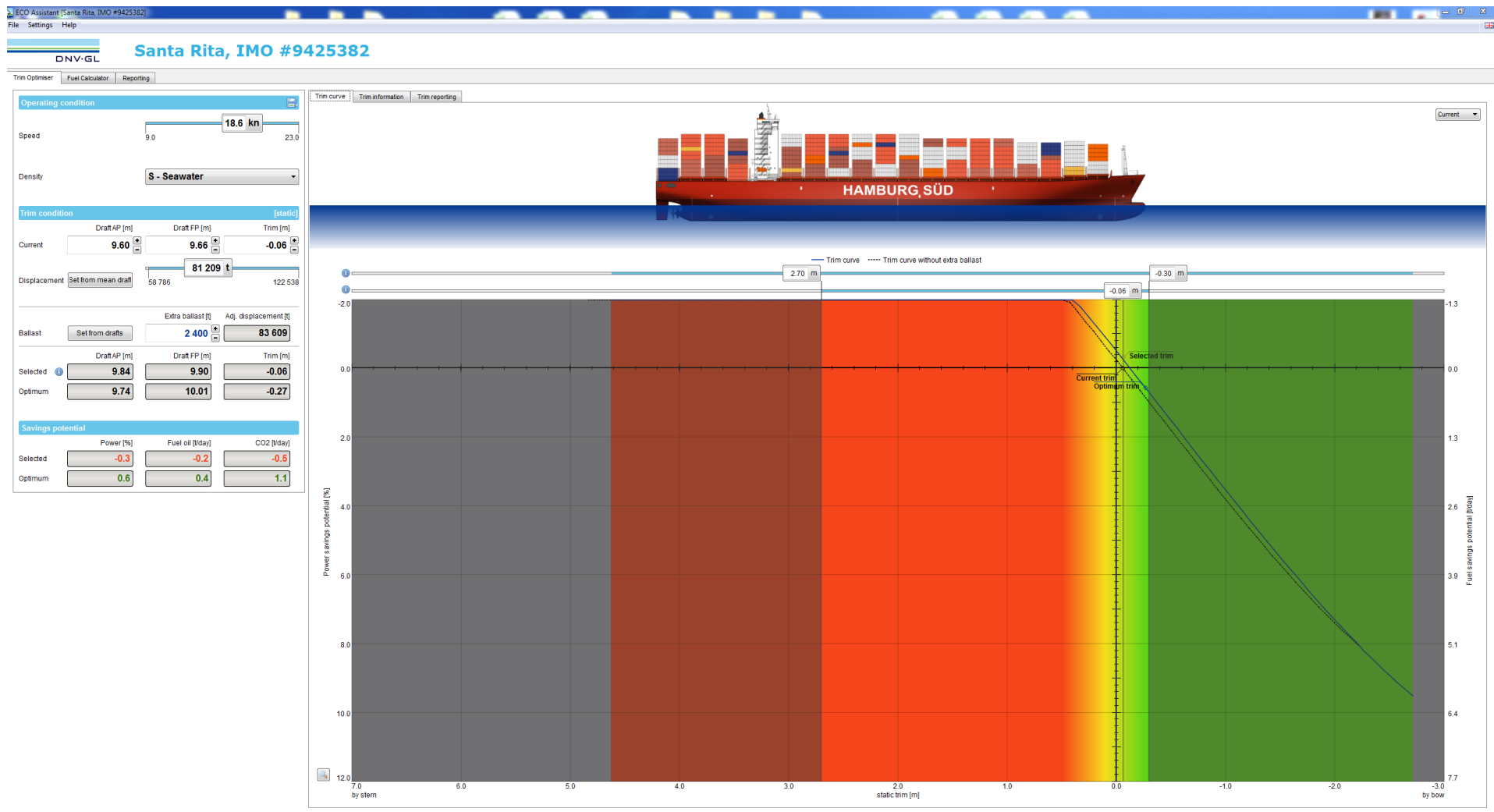
Wind sensor

Speed-log

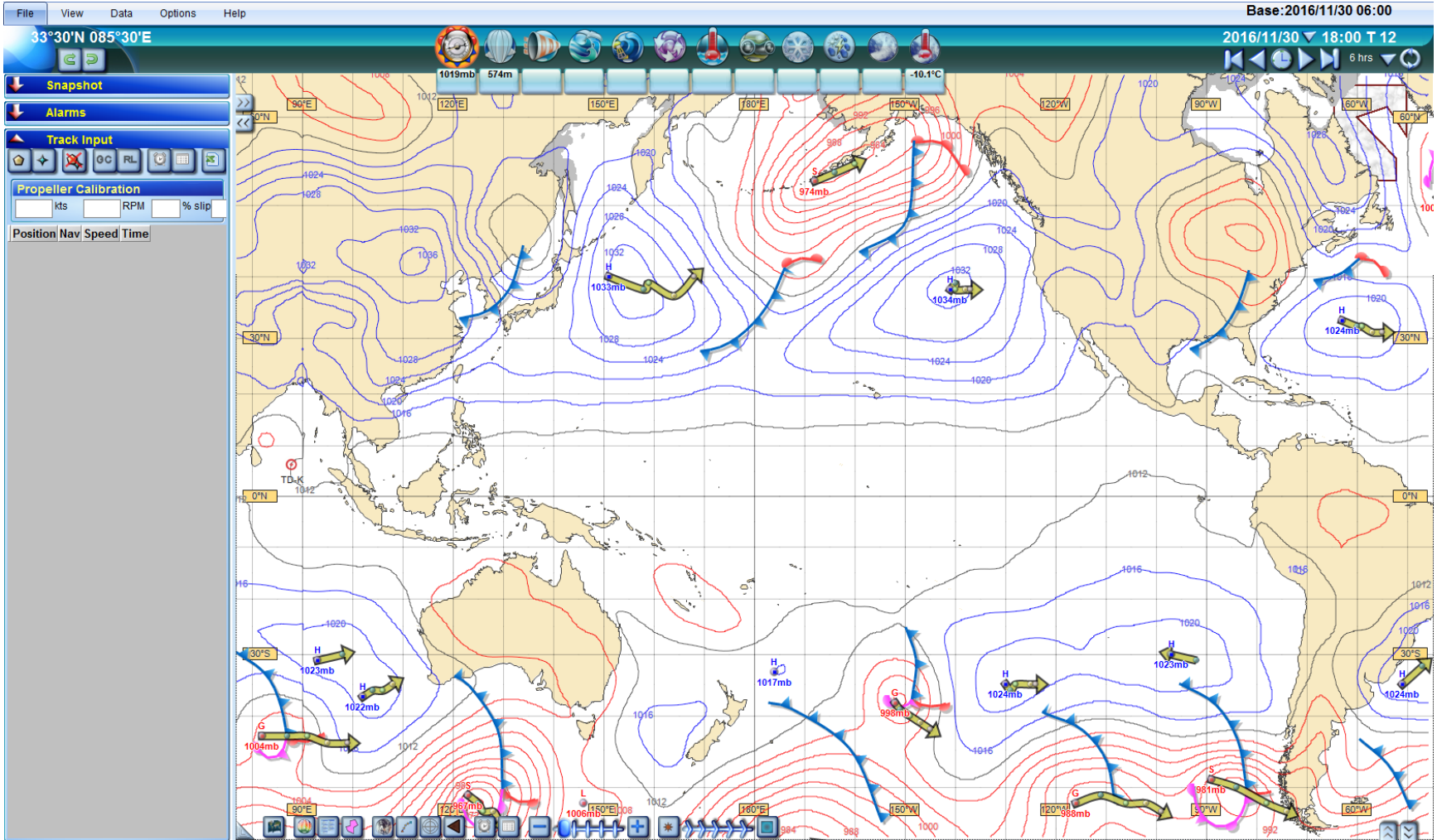
- Installed on board of 38 vessel between 5,500 and 10,600 TEU managed by CSG since 2010
- 2016 – Upgrade of the servers to allow live access of trim and related performance data by interested parties ashore



DNVGL – ECO Assistant



Bon Voyage All Weather Technology





1

Energy & technology
efficiency developments

2

Commercial and operational
impact



More customer focus and partnerships needed

- At every opportunity we need to remain focused and where appropriate partner into our customers 'end to end' supply chain needs.



- We must create a value statement we can share, to continue improving efficiencies.



- We must not forget to seek out higher rates for improved service and supply chain efficiency.

Pick your target ! Not all shippers will always think value.



So what do we consider when building our networks?

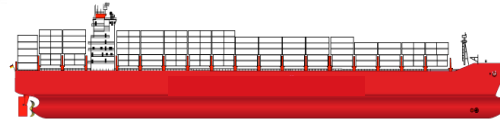
- Volume Corridors.



- Perishable Commodity Demands.



- Optimal Vessel Size, Plug Deployment.



- Transshipment Ports / Connectivity.



- Minimising Re-Stows/Port Operations.

- Port Productivity.



- Landside Infrastructure.

- Port productivity.
- Hinterland Services.
- Container Depot Capacity.





- NZ and the Pacific Islands are well supported with services to Asia.
 - Direct Nth Asia with fastest transits through Japan, Korea and Nth China.
 - Direct to Central Asia with fastest transits to HKG, Taiwan and Southern China.
 - To SE Asia Hub Ports to all SE Asia and the Indian sub-continent.
- Difference in transit/lead times between systems.
- Market growth, corridor demands, specific cargo demands (perishables) and operate at optimal levels.
- Unwarranted cascading.



Case Study #2 Bigger will be better - Not just now Panama Canal

- Panama Canal Extension opened 26th June 2016.
- Significant upscaling in ships sizes in the main E-W trades.
- How did Hamburg Sud react?



In Summary

- Focus on efficiency and cost cutting.
- Technology at sea delivers some very important operating efficiencies and emission reductions.
- Best in class networks.
- Networks and landside logistics.
- Value partnerships
- Carriers responsibility.
- Shippers responsibility.
- Resulting in stronger partnerships and real strategic alliances.



Thank you



HAMBURG  SÜD

