



Location: [Hubert Jans Loods](#), nieuwe Willemshaven, Harlingen (The Netherlands)

10.15 **Hans Konst, member of the executive board of the [province of Fryslân](#)** opens the conference. The location and setting in Harlingen fits perfectly in the vision and aim of the SAIL project. To develop hybrid WIND propulsion systems for cargo ships. We already had a lot of contact with investors and freight owners and we feel a backwind is rising. Rising fuel prices, geopolitical developments and legislation are causing this backwind. End consumers are being more critical in their decision of buying sustainable transported products. The Frisians have a long history in building traditional large sailing ships and we happy to use this expertise for developing the next step: a new innovative hybrid wind sailing ship such as 'the Ecoliner'. In the next phase of the project we expect to attract freight owners and investors to build a hybrid freight sailing ship. And we are convinced that during the next Tall Ship Race and/or the events during Cultural Capital 2018 the Ecoliner will have her maiden trip!

10.20 **Anne de Vries, project manager [Interreg IVB SAIL project](#)**

Anne shows a 3D animation of a interliner sailing towards Portugal, Brasil and New York made by students of the University of Applied Science NHL. At this moment, on the ship *Stad Amsterdam* different companies and banks are invited to discuss the obstacles of the Ecoliner with Jan Rotmans (Erasmus University). There is much interest in the Ecoliner, but there is not enough trust to finance the actual building of the ship. Together with partners and supporting partners this project will continue to convince the world to be the first mover in this interesting and profitable project.

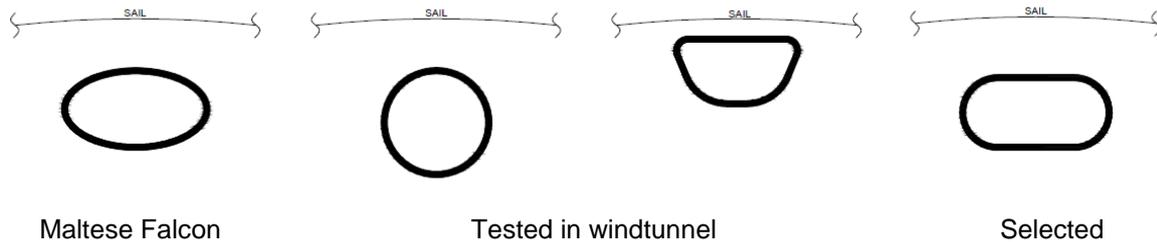
10.25 **Daan Sparreboom of [Dykstra Naval Architects](#)** shows the first results windtunneltest of Ecoliner. The test is in different phases. Phase I: Only single mast (February 2014) and phase II: Full rig (August 2014). First conclusions are that the drag is higher for O-Mast due large section and the lift is worse for D-Mast due to small mast-sail spacing

Requirements:

- Small section (windtunnel)
- Large mast-sail spacing (windtunnel)
- Little plate bending and welding (production)
- Little material (cost, weight)



**Day report SAIL Midterm Conference  
Interreg IVB project SAIL  
Friday, 4 July 2014**



The next phase will be a test with a shipmodel with a full rig. The tests will involve: 3 or 4 masts, 900 or 1200 m2 sail area per mast, Deck cargo and Reefing.

10.40 **Edo Donker of [North Sea Foundation](#)** about Clean shipping is a business to business tool for cargo owners to select clean ships. People and Profit are in focus and constantly improved within the Cocoa and other industries. The Planet is a growing focus in terms of production of goods but Transport emissions are the missing link so far. Here is a lot to win, because around 25% of all the air emissions in the European Union came from transport in the year of 2011, the renewable energy target for transport should be 10% by 2020 (European Environmental Bureau) and 90% of all the consumers' goods have traveled to the retailer by sea ship. Therefore shipping will be the largest emitting source of both Nitrogen oxides (NOx) and sulfur (SOx) within the EU by 2020.

As an environmental NGO the North Sea Foundation is involved in the development of the Clean Shipping Index. We are aware that real time IT based measurement of ship data (combining amount of cargo, engine specifications and draught is now possible. It might make administrative burden unnecessary and decrease the danger of fraud. Measurement in the stack is also a viable option, but could be compared to this IT based option. It seems that the EU/EC is currently not looking into this.... According to us building the first generation of a modern wind assisted propulsion ships is a question of time.



**Day report SAIL Midterm Conference  
Interreg IVB project SAIL  
Friday, 4 July 2014**

**10.50 Captain Andreas Lackner of [Fairtransport Trading & Shipping BV](#)**



Fairtransport is thinking in 4 steps: From Tres Hombres, Nordlys and the new to built clipper ship to the innovative 8000 ton dynaric cargo ship Ecoliner.

**11.05 Caroline van Tilborg of [REBEL groep](#)**

A new market sustainable shipping & carbon credits. Rebel supports governments and businesses with expertise in the fields of finance, economics and strategy, improving the quality of cooperation between public and private sector parties. They believe that responsible progress drives sustainability. Financial and economic profits help sustain environmental benefits. At the core of our team values stands our belief that entrepreneurship and fairness are most important in developing energy project that can be sustained in the long run. What cannot be measured, cannot be monitored, cannot be managed. Studies show that there is a potential to reduce fuel consumption in the shipping sector by 55%. The uptake of fuel efficient technologies is low because of lack of reliable information, split incentives and difficulty gaining access to finance.

**11.45 Ruurd van der Meer of [NHL](#) about test and pilot of [Ameland Shipping](#)**

Activities in harbors all around the world gain a lot of finances of coastal area's. However a result of these logistics, because of more and more diesel engines, when there are taken no rules, have an negative effect on the total exhaust on earth. This enquiry will look at a possibilities for the essential reduction of this emission. In the SAIL project will be looked at the possibility to restrict the emission by gaining extra reduction by natural propulsion; Wind Assisted Propulsion Systems. This investigation is to set a baseline measurement for the structure of the present exhaust, to form a base for future investigations for Wind Assisted Propulsion Systems.

The Maritiem Institute 'Willem Barentsz' worked together with Ameland Shipping B.V. to measure the emissions gasses of the main engine of the multi purpose containership. The project of SAIL would like to test if Wind Assisted Propulsion Systems will be possible in the future. The fuel of the engine of this particular ship is Heavy Fuel Oil (HFO). This 3 days investigation took place during a trip from Rotterdam (The Netherlands) to Tornio (Finland) in May 2014.

The goals:

1. Calculation of the emissions in the measured exhaust from the main engine at different loads.
2. Determine the influence of the new regulations with regard to emissions from the exhaust gases.
3. Determining the various harmful emissions and the quantities of these occur in the exhaust gases of the ship according to the measured zero measurements.
4. Determine whether the load on the motor affects the amount of harmful emissions in the exhaust.

**Day report SAIL Midterm Conference  
Interreg IVB project SAIL  
Friday, 4 July 2014**

The different issues that have been established by measuring the main engine of the ms Skylge are given in Table 1 (ISO conditions).



Table 1 Emission factors for different loads of the main engine

Koppel (%)	O <sub>2</sub> (g/kWh)	CO (g/kWh)	CO <sub>2</sub> (g/kWh)	NO <sub>x</sub> (g/kWh)	So <sub>x</sub> (g/kWh)
100	555,18	0,15	311,22	7,55	7,84
85	516,19	0,16	297,06	6,92	6,92
75	594,20	0,38	326,30	6,77	6,19
46	577,38	0,80	327,06	4,88	4,88

**12.00 Gavin Allwright, International Windships Association, South Pacific Sustainable Shipping Network and [Greenheart](#)**

The International Windships Association facilitates and promotes wind propulsion for commercial shipping worldwide and brings together all parties in the development of a wind-ship sector to shape industry and government attitudes and policies. Characterize the South pacific: Vast Distances, High Fuel Costs, Lack of Infrastructure, low Volume, Vulnerable to Climate Change

Current Developments Greenheart (Low cost, Low impact, Low tech):

Ship Design: Multiple applications, Scalability, Retrofit

Regional Programs: South Pacific, Caribbean, Developing & Developed World Partnerships

Commercial Builds & Kit-form: Standardize/Cost, Build Facilitators, Joint Ventures

Support Programs: Finance Facility, Education/Training, Regional Roadmap Development

You don't want to miss the boat.

**10.20 Heinz Otto of [Windschiffe](#) a hybrid sailing concept.**



In 1958 the first idea started to have a new dynarig sailing ship Wilhelm Prölss beside his modell of a 6-mast ship with Dynarig in 1967. He is the inspiration of my one-man-fighting-group.

It seems: there are two maritime worlds:

1. one world which at the Green Ship Technology Conference 2014 again has no courage to terminate the program: that the wind can propel ships. Although: The (maritime)- world knows: fossil energies are limited, also LNG. And they know the climate situation, they hear it even from IMO or from [www.sustainablesipping.com](http://www.sustainablesipping.com) .Why else would they talk about SECA and ECA and scrubbers and forget the wind, also on GMEC 2014 in Hamburg? They don't believe that wind is the new chance, as it was 1000 of years the power for the merchant fleets.

**Day report SAIL Midterm Conference  
Interreg IVB project SAIL  
Friday, 4 July 2014**

2. And a second world in which Congress today just this is the main theme. And shortly also here: A [conference](#) held on 18 June 2014 (Manchester University – “Winds of change for the shipping sector”) Or the NABU conferences, being part of the campaign "sootfree for the climate" (together with BUND, DUH, VCD-funded by [www.climateworks.org](http://www.climateworks.org)) The maritime world is strictly on it's own way with Green washing or green shipping.

Nearly every newsletter from Lloyds or Informa.com or GST-2014 or GMEC in Hamburg ignores still the power of the wind. Also the 5th Annual Asia Green Shipping, 19th August - 22nd August 2014 Hilton, Singapore - [www.Greenshippingasia.com](http://www.Greenshippingasia.com). Fairtrade Germany – FAIR CARBON CREDITS – Windships should be a part of their certification system, but this word is not known on their website: <http://www.fairtrade.net/search0.html>. It is crazy...

We all have the experience that these are the brakes till now: Politicians, Ship-owners, Oil industry, Maritime Industry, Media Industry. Only a few more, than you are one of the actors of a sustainable shipping future. [www.carbonwarroom.com](http://www.carbonwarroom.com) too? Sir Branson intends to start new with "Virgin Cruise", but not with sails, so I don't want to spend my time with Carbon War Room.

Inside my Bundesverband WindEnergie, I am still a one-man-fighting-group. The reason is the administration of the BWE: we have to pay attention to the political Berlin and this needs all the power we have, to reach the goal of the Energiewende. Our special goal, to use the Wind again for the world wide merchant fleet, is supported by e.g. [www.pik-potsdam.de](http://www.pik-potsdam.de) and [www.climate-service-center.de](http://www.climate-service-center.de) and others within the climate science. Thanks to them all and thanks to one ship owner in Northern Germany: "A shipping company in the "River ELBE-region" is researching in these times for additional wind propulsion for a tanker".

**Jeroen Veenema of [NHL Knowledge Centre for yachts](#)**

In 2006 the first Frisian Solar Challenge started in the Summer. Four out of the 24 starting boats finished in 24 hours. After this first edition participants as well as the organization made big innovative steps. At the second edition in 2008 28 boats started and 24 teams finished within 24 hours sailing. With 43 teams there was a record amount of contesters in 2010. The race innovated and the journey in stages was made longer. It was the first time in history that solar boats used hydrofoils, which made them considerably faster. In 2006 the fastest boat needed 17 hours to complete the journey of 200 km. In 2010 the same distance took only 11,5 hours. And in 2012 it was even faster, 10 hours and 40 minutes.

Friday the 4th of July was a special day. Not only for the Americans but also for everybody of the DONG Energy Solar Challenge. It was a day full of first times with the endurance, solar boats who had to go through the sea locks and a sprinting race on salt water in the harbour of Harlingen.

What a fantastic, beautiful and challenging week the DONG Energy Solar Challenge 2014. There were many highlights: like the new campus in Blauwestad, the new sprint competition, the mass-start and the endurance. And de Tall Ships in Harlingen were impressive as well. See a compilation of the 2014 race on the website [Dong solar Challenge](#). See you in 2016 !

The conference ended with discussions, drinks and bites