

Wallenius Wilhelmsen Logistics

Delivering a Sustainable Future

Environmental Sustainability Report

# Delivering Value



### **Highlights**

- 1. In 2011, WWL achieved a 4% reduction in relative CO<sub>2</sub> emissions (grams per tonne km), on target to reach a 30% reduction by 2015 compared to 2005.
- 2. 167,000 tonne of sulphur emissions savings over 11 years as a result of WWL's global low sulphur fuel policy.
- Global employee engagement programs turning our ambition into action.

#### Staying on course

At Wallenius Wilhelmsen Logistics, we believe that the best way to reduce environmental risk and cost is to be an environmental forerunner. To remain true to this course, our daily activities are guided by a 5-part strategic environmental framework:

- We focus on high impact changes.
- > We hold ourselves accountable and transparent in our environmental commitments.
- > We exceed our responsibilities for environmental performance.
- We invest in future technologies.
- We cultivate partnership with stakeholders to develop sustainable solutions.

#### Committed to the U.N. Global Compact

We are committed to the notion that a sustainable supply chain means minimal environmental impacts and risks, and that progress and accountability require that we declare our objectives and measure our performance. This report details our results over the past year, and declares our commitment to the ten principles of the U.N. Global Compact.

#### A new reality

The lack of progress at the COP17 in Durban and the ongoing discussions around a carbon tax for shipping could give the impression that regulations are far off and unclear. The reality is quite the opposite. 2010 saw the introduction of new fuel mandates requiring the use of extra low sulphur fuel while in any EU port, and while sailing in the North Sea and Baltic ECA zones. Effective August 2012, the IMO has also officially designated waters off North American coasts as an area in which stringent international emissions standards will apply for ships. These will reduce air pollution, but also increase fuel costs significantly for all vessels.

Staying one step ahead of environmental regulations, WWL has been actively working to cut emissions and fuel consumption through investments in vessel design and technology. This will contribute to mitigating some of the increases in fuel costs, but to go further we need to work closer together with customers and partners to adjust to this new reality.

Only together can we develop the game changers that will have real impact on supply chain efficiency.

Arild B. Iversen, CEO

Wallenius Wilhelmsen Logistics



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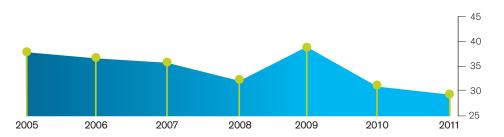
## Delivering Results

As a forerunner, we believe in setting goals, tracking performance and delivering results. Reducing emissions from our ocean fleet is the single greatest way to improve our environmental performance. To achieve this, we operate our vessels with low-sulphur fuel at sea and use fuel with lesser sulphur content for auxiliary engines at berth. Our new buildings and retrofits focus on more fuel-efficient design and equipment that reduces environmental impacts. As of 2011, 14% of vessels in our fleet have been equipped with Ballast Water treatment systems ahead of pending regulations.

#### CO<sub>2</sub> Emissions in grams/tonne km

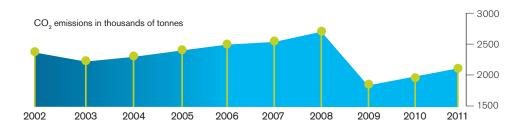
WWL is on target to reach it's objective of reducing relative  $CO_2$  emissions 30% by 2015 compared to 2005.

Relative CO<sub>2</sub> emissions were reduced by 4% compared to 2010 as a result of improved utilization, energy efficiency and new buildings entering the fleet.



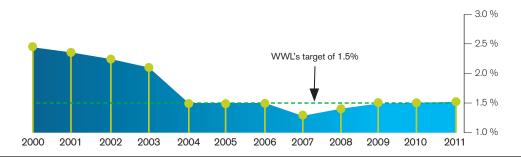
#### CO<sub>2</sub> Emissions in total tonne

Total tonne of CO<sub>2</sub> emissions increased by 10% based on increased transport work in 2011 versus 2010.



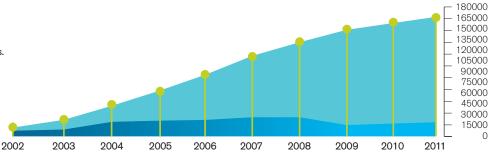
#### **Average Global Sulphur Content**

For the 8th year in a row, we have kept the average global sulphur content of bunker fuel below 1.5%.



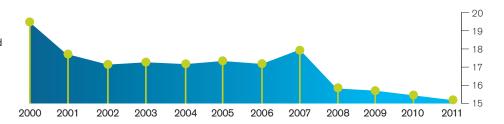
#### Sulphur Emissions Savings Compared to industry average sulphur in fuel

Our 1.5% global low sulphur fuel policy has saved 167,000 tonne of sulphur being emitted over 11 years.



### NO<sub>x</sub> Emissions in grams/kilowatt hour

Average NOx emissions in g/kWh were reduced by 3% as a result of new buildings entering the fleet.



# Delivering at Sea

## **Energy Efficient Newbuildings**

In 2011, WWL introduced two Mark V vessels into the fleet, with two more to come in 2012.

The Mark V is a Panamax vessel with 50,335 square metres in deck area, and a 500 tonne capacity stern ramp, making it the largest of its kind.

The Mark V uses 15 to 20 percent less fuel per unit transported than the Mark IV, thanks to a streamlined hull and an advanced turbo generator, which produces electricity from exhaust heat. The turbo generator also reduces emissions of sulphur dioxides and carbon dioxides by five percent, and a state-of-the-art ballast water treatment system is installed to reduce the potential transfer of invasive species.



# **Energy Efficiency Competition**

In 2011, the Energy Efficiency Working Group initiated a competition for seafarers which generated 106 improvement opportunities. Highlights of the winning proposals include:

**Operational:** Implementation of a Ship Energy Efficiency Management Plan (SEEMP) by M/V Trinidad

**Technical:** Optimization of shaft generator and main engine settings by M/V Turandot

**Quick Win:** Optimization of engine performance by M/V Tristan

The winning ideas will be implemented and incorporated into the Energy Efficiency Working Group's activities in 2012 as best practise improvements across the fleet.

# Orcelle Award: Extending the Reach of the Orcelle Award

Wallenius Wilhelmsen Logistics Orcelle Award supports clean tech entrepreneurs aimed at making shipping and logistics more sustainable. This focus reflects WWL's own research and development into the E/S Orcelle, a zero-emissions concept vessel.

To extend the reach of the Orcelle Award, WWL signed a partnership agreement with the Savannah Ocean Exchange in December 2011. The Savannah Ocean Exchange "Leap for Zero+" theme is a perfect fit with the global zero emission ambition Wallenius Wilhelmsen Logistics has for its operations. Together with the SOE, the company can progress further

and faster in promoting and developing environmentally and economically sustainable solutions for shipping.

The SOE is a non-profit organisation that brings together thought leaders around the world that represent industry, education, research, technology, government and conservation to facilitate the leap of ideas and innovations across industries.



## Employee Engagement

Employee engagement and creativity are fundamental to reducing our environmental impact. During 2011 we carried out an internal learning and engagement campaign, to ensure employees understand and can contribute even better to our environmental goals.

55% of office based employees completed a comprehensive e-learning program covering all aspects of WWL's Environmental Forerunner strategy. At our Terminals and technical services sites, production staff participated in live training sessions using the same material.

In response to a voluntary challenge at the end of the training program, over 61 teams with a total of 220 employees made creative submissions showing their interpretation of and engagement in our environmental work.

# **Delivering Worldwide**

Significant environmental regulations will come into effect in this decade to reduce the environmental impacts from shipping including air pollution, greenhouse gases, and the transfer of marine species. The regulatory framework encompasses international, regional, country and state level regulations. WWL is actively monitoring and participating in regulatory developments and preparing to tackle the effects on operations and on our customers' supply chains.

#### 1 Designated Emission Control Area (ECA)

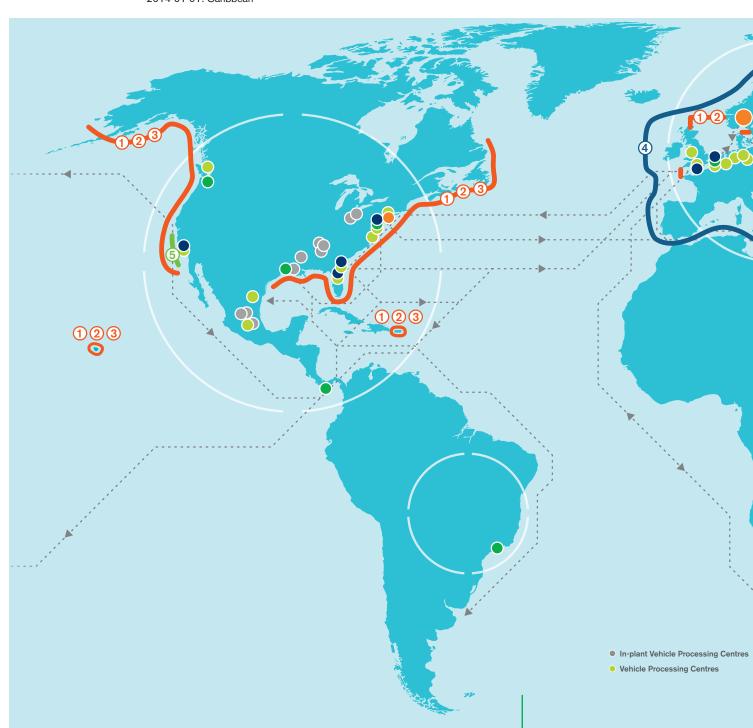
2006-05-19: Baltic Sea 2007-11-22: North Sea 2012-08-01: US & Canada 2014-01-01: Caribbean

#### (2) ECA Sulphur Limits

2010-07-01: Max 1.00% 2015-01-01: Max 0.10%

#### (3) ECA NOx Limits

2011-01-01: Tier II 2016-01-01: Tier III



### (5) California Air Resources Board Sulphur in fuel limits (24nm from coast)

2009-07-01: Max 1.5% MGO, or 0.5% MDO 2012-08-01: Max 1.0% MGO or 0.5% MDO 2014-01-01: Max 0.1% MGO/MDO

#### **Global Sulphur Limits**

2012-01-01: Max 3.50% 2020-01-01\* (OR 2025): Max 0.50% \* subject to feasibility review in 2018 (4) EU Sulphur Directive 2055/33/EC

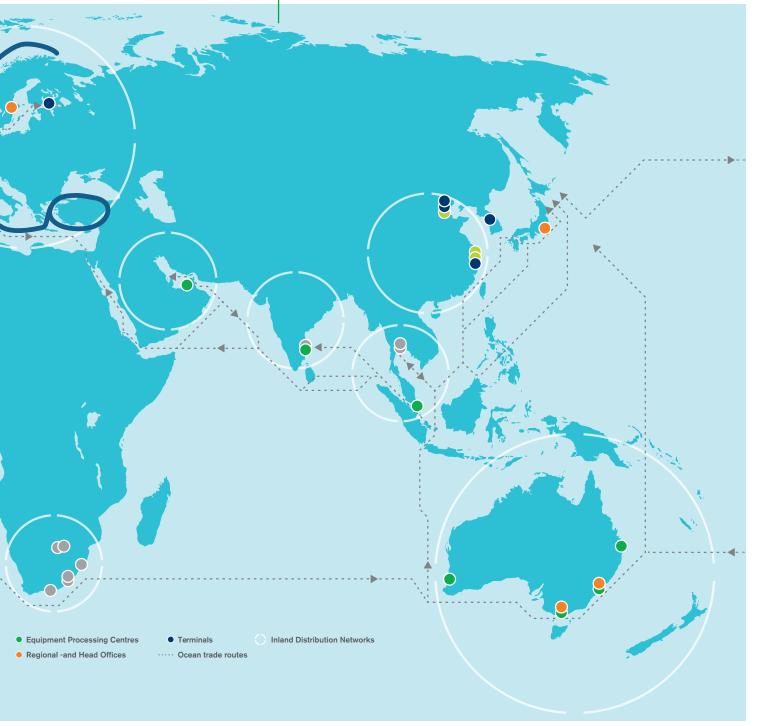
2010-01-01: Max 0.1% at berth

**Turkey Sulphur Regulation** 2012-01-01: Max 0.1% at berth **Global Greenhouse Gas Regulations** 

2013-01-01: Energy Efficiency Design Index

(EEDI) for new buildings

2013-01-01: Ship Energy Efficiency Management Plan (SEEMP) for all vessels



## Developing Regulations

**Regulatory Price of CO<sub>2</sub>**The International Maritime Organisation (IMO) is currently discussing a market based mechanism for CO<sub>2</sub> emission in shipping. Parallel to this, the European Union is developing a proposal to include maritime transport emissions in the EU's GHG reduction commitments.

#### **Ballast Water Management Convention**

The convention requires all vessels to install ballast water treatment systems from January 1, 2016. As of 2011, the 30 required Member States and 26% of the required 35% of world tonnage have ratified the convention.

# Delivering on Land

### **The Castor Green Terminal**

The Castor Green Terminal, our concept of a zero emissions terminal and technical services site extends WWL's ambition from the ocean to our land-based activities. The Castor Green Terminal integrates terminal, processing and distribution activities into one site, enabling truly optimised supply chains while eliminating  ${\rm CO}_2$  and other harmful emissions from terminal and processing activities.



In 2011, employees were tasked to find specific processes, products or locations where WWL can reach one or more of the Castor Green standards in today's world. The Castor Green Competition resulted in 116 submissions from 250 employees in 27 locations around the world. The winning proposals will be implemented and shared as best practices with WWL's Ways of Working industrial management program.

# The Castor Green Competition Winning Proposals

Highlights of the winning proposals Canada: Proposal to use renewable energy in the form of Vertical Axis Wind Turbines (VAWT) to replace the current method (electricity) for the entire site. Implementation would include installation of VAWT units on top of current shops and offices, with a goal of being completely off the grid within five years.

**Australia:** Proposal to set up a mobile battery charging station utilizing solar power. Products can be charged using renewable energy in the yard, and reduce unnecessary internal movements.

**USA:** Proposal to install solar charge equipment at battery charging area to reduce or eliminate the need for electricity that is currently being purchased.

**Finland:** Quick win proposal to utilise ice scrapers in winter instead of heating systems to reduce fuel consumption and air pollution from idling cars.

Panama: Proposal to implement rainwater capture and reutilization system to reduce the use of potable water to just 5% of total consumption for drinking water only. All other activities including pressure washing of units will be performed with rainwater. The payback time is expected to be within 2 years.

# Delivering Innovative Solutions



#### **About WWL**

4.5 million units transported 2011; 1.9 million by sea and 2.6 million inland

11 terminals worldwide handled 3.5 million units

Over 50 processing centres processed 4.5 million automotive and rolling equipment units

60 modern car carriers and RoRo vessels in operation, servicing 13 trade routes to six continents

4400 employees worldwide

Owned by Wallenius Lines of Sweden and Wilh. Wilhelmsen of Norway

#### **Main Offices**

Global Headquarters, Lysaker, Norway Region Europe, Stockholm, Sweden Region Americas, Woodcliff Lake, NJ, USA Region Asia, Tokyo, Japan Region Oceania, Sydney, Australia

#### Recognition

GE Energy Quality and EHS Award

Panama Maritime Green Shipping Award; Panama Maritime Authority

Highly Commended Environmental Transport; Lloyd's List Australian Shipping and Maritime Industry

Highly Commended Safe Transport; Lloyd's List Australian Shipping and Maritime Industry

Continuous Improvement Award and Highest Industry Score; American Association of Railroads

#### More information

For additional information about WWL's environmental policies and framework, contact Melanie Moore, Vice President Environment, by email: melanie.moore@2wglobal.com.



This is our Communication on Progress in implementing the principles of the United Nations Global Compact.

We welcome feedback on its contents.



#### Information integrity

Wallenius Wilhelmsen Logistics believes that this report accurately represents our company's environmental activities beginning January 1, 2011, and ending December 31, 2011.

#### Information verification



Det Norske Veritas AS (DNV) has conducted a limited assurance third-party verification of the direct greenhouse gas (GHG) emissions from WWL Ocean Transportation in 2011.

During the verification, nothing has come to our attention that causes us to believe that the GHG emissions set out in the WWL Ocean Transportation GHG Inventory for 2011 and published in the 2011 Environmental Sustainability Report are not fairly stated.