



A Sustainable Journey

Safety, Care and Environment in our operations





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2016 in brief

296

energy efficiency
improvement projects
completed since 2005.

28,769

tonne reduction
in the fleet's
carbon dioxide
emissions.

2,062

safety drills conducted
during the year.

99.5%

performance of
scheduled sailings.

2,770

employees have
participated so far in
the SAVE
environmental
training programme.

We decided to phase out
plastic bags and
disposable items made of
plastic on our ships.

Our total distance
sailed is
equivalent to

123

laps around the
world.

This is Stena Line



36 ships



6 owned ports



5,000+ employees



Turnover about
SEK 12,500 million



7 million passengers



20 routes



2 million trucks



1.5 million cars



Vision

Connecting Europe for a
Sustainable Future



Mission

To increase shareholder value
through affordable and seamless
ferry transportation with an
absolute commitment to safety
and reliability, and a reduced
environmental footprint



Values

We deliver efficiency and
sustainability through care –
care for our customers, care for
resources and care for each other

Part of something bigger

Stena Line is part of the Stena AB Group, one of Sweden's biggest family-owned companies with just over 15,000 employees and operations in the areas of ferries, shipping, offshore drilling, property, wind power and finance.

Within the Stena AB Group there are shared guidelines in the form of policies and values. The foundation is a corporate culture based on delegated responsibility and innovation, with a focus on care for both the environment and people. The shared

code of conduct guarantees that Stena's various operations are run in an ethically and environmentally correct way and covers not only issues of working environment and safety and labour law, but also anti-corruption.

The Stena AB Group also has a shared whistle-blower function to which all employees can submit anonymous reports of anything that is in breach of current legislation, the code of conduct or company policies.

A world dependent on ships

Ever since the first ship set sail from Gothenburg, Sweden to Skagen, Denmark in 1962, Stena Line has been transporting freight and passengers around Europe in a safe and efficient way.

Today the Stena Line network is an important part of European logistics and offers connections that enable trade and travel in an efficient manner while reducing congestion and accidents on the roads. Every day of the year, Stena Line's vessels and crews perform more than 70 crossings connecting several European countries. Inter-modal transportation, combining rail, road and sea, is something of a European speciality and the heartbeat of European transportation. This system is unique in the world, and so is the fact that European companies control around 70 per cent of the total global ferry segment. Free

trade is as important to the shipping industry as it is to Stena Line.

Environmental consciousness and the threat of climate change is becoming increasingly important in all industries – and shipping is no exception. Generally regarded as a very energy-efficient means of transportation, international shipping moves around 90 per cent of world trade and is responsible for around 2.2 per cent of global CO₂ emissions*. But with a growing merchant fleet, currently consisting of more than 50,000 vessels, the shipping sector needs to take action towards a sustainable future. Recent examples of this include global regulations on energy efficiency (EEDI and SEMP), upcoming low sulphur

»» Environment is high on the agenda in all industries – shipping included.«

Erik Lewenhaupt, Head of Sustainability

fuel regulations and CO₂ reporting for all ships.

The number of alternative fuels being developed and tested is steadily growing, although conventional bunker fuels seem to be the dominant power source for the foreseeable future. Ship technology is developing fast, and digitisation is also increasing in shipping, with technical improvements in operations, efficiency and cargo calibration.

Stena Line navigates in this constantly changing environment of new technology, regulations and economic factors to ensure that we always deliver the best service possible for our customers and guests in a responsible way. ■

* Third IMO Greenhouse Gas Study 2014

Stena Line's network connects 30 terminals in 10 countries with 27,000 sailings each year.





Niclas Mårtensson, CEO with Cecilia Andersson, Environmental Manager, and Erik Lewenhaupt, Head of Sustainability.



Stena Line has recently initiated a partnership with the charity organisation Mercy Ships.

Becoming a leader in sustainable shipping

Operating one of the world's largest fleets of ferries comes with a big responsibility. That is why sustainability is a prioritised area for Stena Line. The core of our strategy is the vision – *Connecting Europe for a Sustainable Future*. It is actually so important that we are painting it on the sides of all our ships.

As I write these lines in the first quarter of 2017, Stena Line is focusing more than ever on the future. Looking back, we have a very eventful year behind us with much more to come this year and next. We have reorganised our company to be able to deliver better service to our customers and have created new solutions for our guests onboard. As if that were not enough, Stena Line has also ordered four new state-of-the-art ships that will be delivered in 2019 and 2020 – and these will further strengthen our customer offering.

The new ships will also contribute to Stena Line's overall energy efficiency. Since 2005 we have been committed to an Energy Saving Programme (ESP) that aims to reduce our

energy consumption every year. At this stage we have initiated around 300 projects within the ESP programme, and more are in the pipeline. Perhaps one of the most well-known projects is our methanol conversion of Stena Germanica, where we are evaluating methanol as a possible green marine fuel for the future. During the last year we took an important step in that project when she made her first full trip on methanol from Göteborg to Kiel.

With 27,000 sailings per year, Stena Line is an important part of the European infrastructure that facilitates trade and growth. We are convinced that we can only be successful in the long term if we have a full commitment to sustainability with regard

to safety, quality and reducing our environmental footprint.

Our commitment to sustainability has been translated into four focus areas, based on the UN Sustainable Development Goals. That gives us a great foundation for incremental improvements in the years to come. We know that we cannot solve all our industry's challenges at once, but with a structured approach and by taking continuous initiatives, our aim is to be a leader in sustainable shipping. On the following pages we will describe some of the highlights from our operations.

Happy reading, and I hope to see you onboard soon!

Niclas Mårtensson, CEO



Good health and well-being

Through care for each other and an absolute commitment to safety Stena Line shall actively promote the well being of our guests and staff.

Target: Continuously reduce the number of accidents at the workplace with a goal of 1.2 LTIF* for 2017.

Target: Make sure that the number of accidents onboard per 100,000 passengers is below the comparable industry index.

* LTIF (Lost Time Injury Frequency).



Our sustainable history

Stena Line is one of the world's largest shipping companies, with operations that include the transportation of passengers and freight, onboard sales, management of ports and hotel and restaurant operations. Sustainability has always been a natural element of our business, not least through our heritage from the owner, the Olsson family, which from the very beginning had a major focus on creating a sustainable business under the watchword of Care: for customers, for our shared resources and for one another.

Stena Line's objective is to look after future generations by running a sustainable business characterised by quality at all levels of the organisation. By providing efficient, climate-friendly transport services, Stena Line contributes to the success of both our customers and society.

When the UN launched its sustainability goals in 2015, Stena Line linked its work on sustainability to these global goals. Not least to clarify, internally and externally, the goals that have been set and the initiatives under way. The aim of

the UN goals is to eradicate extreme poverty, reduce inequalities and injustices in the world and solve the climate crisis.

Four of the 17 goals defined by the UN have been selected as Stena Line's focus areas. These relate directly to Stena Line's business: Clean energy, Responsible consumption, Good health and well-being, and Life below water. Stena Line has defined ambitious goals for each area and monitors developments closely, with the ambition of being a leader in the area of sustainable shipping. ■



Clean energy

We shall relentlessly strive to improve energy efficiency on shore and at sea and actively stimulate the usage of clean energy sources.

Target: Reduce emissions to air while in port by enabling shore power connections for more ships and terminals.

Target: Reduce the fleet's carbon dioxide emissions per nautical mile by 2.5 per cent every year.



Responsible consumption

We care for resources by responsible purchasing and by every year reducing waste and increasing recycling.

Target: Reduce the use of plastic disposables and bags onboard, and gradually move over to other alternatives.

Target: Increase the proportion of recycled waste.



Life below water

We rely on the ocean for our company's existence and as such shall have minimal impact on marine life.

Target: Protect the ocean from pollution by continuously reducing the use of chemicals that impact the environment.

Target: Zero vision for oil and fuel spills.



Safety first - always

Stena Line adopts a proactive, preventive approach to its work on safety, and all employees, both ashore and onboard, are required to undergo safety training programmes, regardless of the nature of their work.

Work on safety takes place around the clock at Stena Line. The key to success is training and to practise often enough to be able to make a difference if an accident happens. Safety Manager, Captain Jörgen Lorén explains more about this work.

“As I see it, everyone has two jobs onboard, just like on an aircraft. One role is about operation or service, and the other is about safety. If safety isn’t working, neither does the other, and vice versa. All employees onboard are given a ‘ship number’ when they sign on, and this gives them a predefined duty in the safe-



Stena Line’s employees loading a trailer, from rail to ship.

ty organisation,” explains Jörgen Lorén.

Everyone who is an employee at Stena Line has to have attended a number of statutory, certified training courses. This involves everything from annual safety training courses for the ISPS code in ports and terminals, to spontaneous exercises that are held every week on the ships. One example is an evacuation exercise, which involves crowd management and provides an understand-

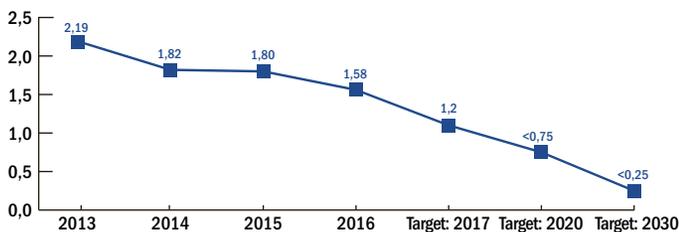


Safety Manager, Captain Jörgen Lorén.

ing of how people behave in groups.

Stena Line also has a number of partnerships with external training facilities. A number of so-called Bridge Resource Management courses will be held during 2017 and 2018 in collaboration with Chalmers University of Technology. These will be attended by 240 officers and include training with the aid of simulators.

“In Northern Europe we have a very high level of safety in general, and if you compare with the rest of the world we’re way ahead, although that doesn’t stop us from working on preventive safety measures. We have extremely low accident statistics, but you must always be prepared for an incident, and that’s why we practise.” ■



Lost Time Injury Frequency (LTIF) is measured in many industries. It indicates the number of occupational injuries that result in an employee being unable to work the following working day. LTIF = number of accidents per million hours worked.

Dual roles onboard

Frank den Dulk works on Stena Hollandica as restaurant co-coordinator, and in the event of an emergency he is the one who makes sure that the passengers are accounted for at one of the safety stations onboard.

How do you keep your knowledge of safety up to date?

– Regular training keeps me up to date. Firefighting, life raft and raft proficiency, First Aid courses, fast rescue boat training, etc.

A point of major importance is knowing your way around the ship – taking responsibility to keep up to date with procedures and changes.

An incident can happen in the blink of an eye. Keeping your eyes and ears open for any possible problem goes a long way towards promoting the correct attitude and awareness among your colleagues. ■



 We work with diversity from several perspectives to ensure a good mix of people.«

Karin Gelkén, HR Project and Transformation Manager



Employees in Belfast complete obstacle course to support cancer research.

A healthy workplace

Stena Line tries in various ways to contribute to good health and well-being among its employees, with the aim of being an attractive workplace.

Stena Voice

The employee survey Stena Voice is conducted in Stena Line's organisation every 18 months. The survey was last conducted in 2015, and showed that Stena Line has an average rating of

4.12

out of 5 for employee satisfaction.

Stena Line launched a health strategy at Group level at the beginning of 2016, describing the company's approach to health. Health is important, not only for the individual's well-being and performance, but also for the company's long-term profitability. A number of health presentations and keep-fit activities took place during the year. Stena Line's health centre offers health checks and lifestyle advice. To encourage activity in leisure time, employees receive a keep-fit subsidy. There are also exercise facilities for employees onboard many of the ships.

“We encourage a balance in life and want our employees to have a sustainable working life,” says Margareta Jensen Dickson, Head of Group HR.

One important goal is to reduce sick leave, and a number of targeted initiatives have been carried out, such as in-depth interviews with onboard employees who have repeated short-term absences. The aim has been to obtain an overview of the whole life situation in order to be able to create the conditions for a better balance in life.

The shipping industry is traditionally dominated by men, and for this reason Stena Line is attempting to attract more women to the company, and also to increase the proportion of women in managerial positions. In a first step, the ambition is to increase the proportion of female managers from the current level of 14.4 per cent to 20 per cent. ■

Cleaning to keep clean

For Stena Line, it is important that the company should strive to minimise the impact of its operations on life in the oceans. The safe use of detergents and chemicals is one way.

No emissions that harm the marine environment shall come from Stena Line's operations. There is a zero vision towards spills, and major resources have been allocated to avoid emissions of, for example, fuel and other oils. There is also continuous work to reduce the use of chemicals and as far as possible to use environmentally friendly products.

The safe handling of detergents also contributes to minimising the environmental impact. In 2016, suppliers of chemicals and detergents continued to hold courses onboard on dosing and han-

dling. For many years there have been dosing systems in enclosed systems for cleaning onboard, which has resulted in a significant fall in consumption. As well as minimising the risk of overdosing, these mean that cleaning staff avoid coming into direct contact with the agents.

"When it comes to onboard service, which includes cleaning of cabins and restaurants, for example, we collaborate with our subcontractors. It's our goal in 2017 to double the proportion of eco-labelled detergents," says Cecilia Andersson, Environmental Manager at Stena Line.

For work on deck and in the engine room, the challenge is greater. The range of eco-labelled products is far smaller and larger volumes are used.

"The agents used must be able to remove rust, grease and oils, so what we can do here is to keep on top of their handling and avoid the strongest of the products. We've reduced the number of suppliers and now have a closer dialogue with those we're using, which in itself makes it easier to define requirements and check the products," says Cecilia Andersson. ■



Cleaner ocean with scrubbers

By installing scrubbers, not only are Stena Line's emissions to air reduced – there is no discharge into the water.

In 2015 **Stena Transit** was the first vessel in Stena Line's fleet to install scrubbers, and during 2016 **Stena Transporter**, **Stena Britannica** and **Stena Hollandica** installed scrubbers as well.

Scrubbers are used to remove sulphur oxides from a vessel's exhaust gas by scrubbing it with sea water. By installing scrubbers, Stena Line reduces its vessels' emissions of sulphur to air to below the SECA limit of 0.1 per cent. The system also captures unhealthy particle emissions.

There are two types of scrubber systems, open loop and closed loop. Using a "closed loop" system, the residue is kept onboard so that it can be returned to shore - instead of being pumped overboard as in an "open loop" system. The closed loop scrubber system operates with the wash water being circulated within the scrubber. Exhaust gas enters

the scrubber and is sprayed with sea water that has been mixed with caustic soda (NaOH). The sulphur oxides in the exhaust react with this mixture and are thereby neutralised.

Dick van der Ent, Project Manager in the Netherlands, has been experimenting with how best to dispose of the sludge, which is a mix of sulphur, soot, particles and heavy metals.

"We're testing our own invention – a separator – to get rid of much of the water in the scrubber sludge onboard the ships. That way we reduce amount – and the cost of handling sludge. For example, during every trip made by **Stena Transit** and **Transporter**, around 200 kg of semi-dry sludge is produced, which we pump back to shore where it is used for the production of cement and concrete," says Dick van der Ent. ■



Zero vision for spills

In 2016 there were three small spills of oil into the sea. Two of the spills were caused by a valve being broken or open in connection with the vessel's sludge being transported ashore for treatment and recycling. These valves have now been refurbished to prevent a recurrence of this. In the third case there was a leak in a hydraulic pipe. Stena Line has now tightened up its inspections in order to be sure that the hydraulic pipes are replaced in time.

"The volumes that leaked into the sea were very small. We adopt a preventive approach and our goal is of course that there will be no spills at all from our vessels and ports," says Erica Edvardsson, Safety Controller. ■

 Combining high availability for our customers with care for the oceans is on top of the agenda.«

Bjarne Koitrand, Technical Operations Director

The world's first methanol ferry set sail

Stena Line is the first ferry operator in the world to have converted a vessel to be able to run on methanol, coming one step closer to the goal of being able to offer climate-neutral transportation in future.



Prize-winning methanol ferry

Stena Germanica, a RoPax vessel built in 2001. Four main engines. A passenger capacity of 1,300 and a cargo capacity of 4,100 lanometers. Operation using methanol, which is unique in the ferry industry, has gained Stena Germanica a number of awards.

- The innovation prize on Swedish Maritime Day 2015
- Green Ship Technology: "GST Ship-owner of the year" 2015
- The Swedish Confederation of Transport Enterprises' "Pegasus Prize" 2015
- 2015 Global Business Excellence Awards UK "Outstanding Green Initiative Award"
- Shippax Awards 2015 - The Eco Award
- European Marine Engineering Conference Awards - Ship of the Year 2016

Stena Germanica, which operates on the Gothenburg-Kiel route, is not just one of the world's biggest ferries, it is now also one of the most environmentally friendly. Before the introduction of stricter rules on sulphur emissions that came into force in 2015, Stena Line performed a major analysis of the new and old alternatives available. It emerged that methanol, which had not previously been used as marine fuel, has tremendous potential and sulphur requirements exceeds the requirements that exist. A decision was therefore made to initiate a conversion of Stena Germanica into the world's first "dual fuel" ferry with both methanol and diesel operation available.

"With the use of methanol, emissions of sulphur and particles disappear almost completely. There are also far fewer nitrogen oxide emissions. Emissions consist primarily of water, steam and carbon dioxide, which makes methanol one of the most environment-friendly fuels around," says Peter Holm, Chief Engineer on Stena Germanica.

Methanol conversion takes place in collaboration with the engine manufacturer Wärtsilä, the ports in Gothenburg and Kiel and Methanex, the world's biggest producer of methanol. The project also had EU support.

"Carrying out a pilot pro-

» It feels cleaner in the engine room, and it smells of juniper rather than diesel.«

Birger Kristensson, Second Engineer on Stena Germanica

ject like this places great demands on the crew and the suppliers involved. New technology has to be tested for it to work in commercial use, which is time-consuming," says Peter Holm.

Second Engineer Birger Kristensson has been working on Stena Germanica since 2010 and was there at the shipyard in Poland when Stena Germanica was converted for methanol operation. He describes how, among other things, kilometres of new cables and double-barrelled methanol pipes were installed together with new fuel tanks, and how much care they take with new procedures, safety and checklists.

"It feels cleaner in the engine room, and it smells of

juniper rather than diesel. It's major initiatives like this that are important for the environment," he says.

The methanol that Stena Germanica uses comes from natural gas, but the long-term goal is to switch to fossil-free fuel. Bio-methanol can be made of many different raw materials, but at the moment it is still produced on a small scale. One step in the right direction is the bio-methanol project in which Stena Line has been involved since 2016 through Stena Teknik, in which a method is to be developed for extracting methanol from surplus gases generated in steel production at SSAB in northern Sweden. ■





Chief Engineer Jan Sanborn and Senior Master Jan Sjöström prepare for the next crossing.

Innovation and collaboration save fuel

The crew of Stena Scandinavica, working together with route management and ports, has managed to reduce fuel consumption per trip by no less than 28 per cent in five years.

On all of Stena Line's vessels, continuous work is under way to reduce fuel consumption. Stena Scandinavica is no exception. One important part of this work has been

the close collaboration between shore and sea, which means that passengers and freight can be loaded quickly and the vessel can often leave port before the sched-

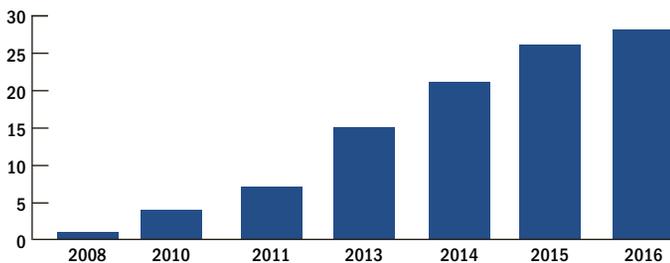
uled departure time and reduce its speed.

“It’s more sustainable and climate-friendly to travel slowly, as that means we use less fuel. We’ve changed the timetable so that the crossing takes half an hour longer, which cuts fuel consumption by about ten per cent,” says Senior Master Jan Sjöström. Fine-tuning the vessel trim properly can also save up to seven per cent.

As the weather, wind and strong currents can extend the journey by up to 30 nautical miles, careful planning of each route is an important task in order that the vessel can arrive

Total FMSs installed

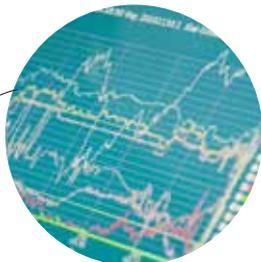
28 out of 36 vessels currently have the FMS (Fuel Management System).



safely, on time and using as little fuel as possible.

The FMS, Fuel Management System, installed on most vessels owned by Stena Line serves as an advanced travel computer with functions that include indicating fuel consumption onboard in real time, both in the engine room and on the bridge. After each journey, data from the FMS and other systems is analysed in order to learn from any mistakes and identify the optimal travel plan for the route.

“People are just as important as the technology. I often talk with my colleagues about how we can optimise the crossing in order to save fuel,” says Chief Engineer Jan Sanborn. ■



4 steps towards lower fuel consumption

Analysis with the aid of FMS. Over 50 meters onboard provide information about everything from the vessel's draught and speed to fuel consumption and the ventilation system's electricity consumption. The system is currently installed on 28 vessels.

Timetables. A change in the timetable meant a crossing that took 30 minutes longer and a 10 per cent drop in fuel consumption and carbon dioxide emissions for Stena Scandinavica.

Technical upgrades such as the replacement of the bulbous bow. Creates a wave system that reduces the vessel's resistance in the water.

Trim optimisation. Finding the ideal ratio between the draught at the bow and the stern with different loads, i.e. lesser or greater draught. This usually means having the bow deeper than the stern, which can save up to seven per cent in fuel consumption.

More energy-efficient vessels

Stena Line's ESP energy-saving programme has been in existence for more than ten years and has generated around 300 improvement projects. In 2016 Stena Line was named Sustainable Ship Operator of the Year at the annual Ship Efficiency Awards for its targeted energy-saving work.

“Among other things, we've made modifications to the hulls, reconstructed propeller blades and bows, and tested new treatments of the underwater hull in collaboration with specialists from Stena Teknik. We've also made changes to the inside of the vessels, such as introducing frequency control of engines and recycling surplus heat,” explains Bjarne Koitrand who is Technical Operations



Director and responsible for the ESP programme.

In recent years Stena Line has invested around SEK 45 million a year on various measures to reduce energy consumption. Many innovative ideas come from employees on the bridge and in the engine room.

“We work continuously on energy-saving measures and keep a close eye on technical developments,” concludes Bjarne Koitrand. ■



Environmentally aware employees

In 2015 Stena Line introduced the SAVE e-training course, which inspires employees to make a difference by adopting an environmental perspective in their day-to-day work. SAVE gives practical tips on small and large initiatives onboard to protect the environment. So far 2,700 out of around 5,200 employees have completed the course. After finishing the course, employees had discussions in their workgroups about what practical changes they can make to reduce their environmental impact. ■

Stena Line’s biggest port in geographical terms, Holyhead Port in Wales, has been making great strides in sustainability. This work has set an example not only for other ports, but also for local businesses.

Holyhead Port – leading the way in sustainability

Stena Line services 30 terminals in ten countries. Holyhead Port is the largest of the company’s six owned ports and is also its first owned port outside of Scandinavia to receive ISO14001 environmental certification. This has been achieved thanks to hard work and a fully committed workforce.

“We started working more proactively with environmental issues back in 2004, when the British government of the time launched a number of sustainability initiatives. These included The Carbon Trust, which aims to cut CO₂

emissions. This resulted in a survey, which identified what we could address in the port to improve energy efficiency and reduce our environmental footprint,” explains Operations Manager Wyn Parry.

That was the beginning of a series of other sustainability initiatives, one of them being waste disposal.

“Holyhead Port handles about 55 tonnes of waste per month. Ten years ago virtually 100 per cent went to landfill, now we’re down to zero. We worked closely and intensively with our waste disposal com-

pany to identify opportunities to sort and recycle all kinds of waste, and eventually we actually managed to find ways to recycle all the waste that is handled in the port.”

Wyn Parry believes that a lot of companies are under the illusion that sustainability is expensive.

“When we switched to green energy, many thought the costs were going to be enormous. In fact, it worked out at an extra £1,000 per year, which is peanuts in the greater scheme of things.

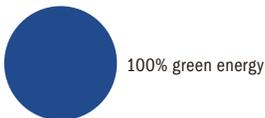
Holyhead received its ISO14001 certificate in 2011.

“It’s an assurance to others that we apply a set of standards in order to minimise the port’s impact on the environment. We are continuously looking at ways to improve our working methods. Like everything here at the port, sustainability initiatives are a collaborative team effort, between the management, technical and port operations staff”.

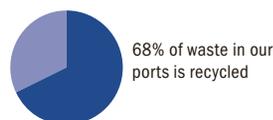
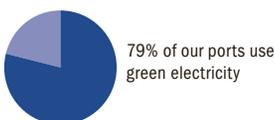


Holyhead Port
 Around 2,900 ships berth each year
 Port area approx. 14 square kilometres
 120 employees

Holyhead Port



All of Stena Line's terminals





» We're constantly receiving questions about our sustainability efforts from other ports and businesses.«

Wyn Perry, Operations Manager, Holyhead Port

The sustainability commitments also extend to the purchasing of new equipment. A lot of equipment has been replaced, including the tug master units, the vehicles used to load and unload trailers on and off ships.

“The old ones used up an awful lot of fuel, so we replaced them. Everything we purchase now is done according to environmentally sound

principles rather than just monetary reasons.”

Last summer saw the completion of yet another initiative at the port.

“We installed 768 solar panels on the roofs of the terminal buildings, garage and shore shop. Some of the panels are placed right in front of our customers and passengers, which means we are firmly displaying our

green credentials.”

According to Wyn, a brand can benefit significantly by assuming its responsibility for the environment.

“Sustainability initiatives do of course require investment in the initial stages, but eventually they help cut costs, reduce risk and achieve growth. And that’s exactly what we’ve done here at Holyhead. ■



Sustainable catering

SEK 25 million in reduced purchasing costs, but the same number of portions served. The initial result of a food waste project onboard Stena Line's vessels that was launched in 2015.

By preparing food from scratch, offering fewer dishes and not putting more food on the buffets than is needed, and by rationalising purchases, Stena Line has not only

improved the quality of food onboard but also reduced the number of food deliveries and the amount of packaging. A benefit for both passengers and the environment. On



Kelly Kirkpatrick
Sales & Service
Assistant on
Stena Superfast
VII, which sails
between Belfast
and Cairnryan.

Stena Superfast VII they now prepare fewer portions at a time, not only to reduce food waste but also to guarantee the quality of the food.

"In our truckers restaurant and our own crew mess, the menu has been limited to keep costs and wastage down to a minimum. Stocks are checked vigilantly to ensure the highest quality been delivered from suppliers," says Kelly Kirkpatrick.

They also apply energy-saving measures onboard, for example ovens and steam cookers are switched off when not in use, and only one freezer is used instead of two when passenger numbers are low.

"As for recycling onboard, we have various routines which include cardboard, paper, glass bottles and oil recycling. The oil sent off gets recycled and turned into biofuel that can run the wagons that bring the stores onboard." ■

More organic products in the kitchen



Coffee

100% Rainforest Alliance Certified

At Stena Line, all the ingredients in the kitchens onboard are carefully selected and the proportion of certified products is increasing. The one million or so cups of coffee served every year are Rainforest Alliance Certified, which means that production takes place in a fair, environment-friendly

way. Eggs used come from free-range hens. An increasing proportion of the milk is organic, with a goal of achieving 100 per cent in 2017. Stena Line also has an ambition to serve MSC-certified fish, which means that the fish has been caught responsibly. At present the proportion is around

66 per cent, a figure that is no higher because of insufficient availability.

"We're working every day to find better, environment-friendlier alternatives. The initial target is that 30 per cent of the ingredients used in the kitchen shall be organic," says Per-Ola Jönnerheim, Head of Group Onboard Sales and Services in Malmö. ■



Fish

66% MSC-certified



Milk

mainly organic, and growing



Eggs

100% from free-range hens

Cleaner air with shore power

Vessels need energy even when they are at the quayside. Lighting, fans and refrigeration systems for food products are some of the things that cannot be switched off.

Historically, auxiliary engines have been used on ships to generate power when they are in port. Since 1990 Stena Line has been able to connect some of its ships to power on shore, which is very rare in a global perspective.

The power used is 100 per cent green, which means a radical reduction in carbon dioxide emissions. It also means that the immediate vicinity in the port has cleaner air and is quieter, as the noise is reduced when the engines are shut down.

In 2016 another shore power unit was installed on

Stena Gothica with the support of the Swedish Environmental Protection Agency's "Climate Step" programme in Sweden.

Why aren't all of Stena Lines ships connected to shore power?

"Our ambition is to connect more terminals and ships, but it takes major investments for the port to install equipment on shore, and for the shipping company onboard, so developments have to take place in stages," says Cecilia Andersson, Environmental Manager at Stena Line. ■



12,340

tonnes is the reduction in carbon dioxide emissions in 2016 thanks to shore power.

Less plastic on ships

Plastic that ends up in the sea is a growing environmental problem. Most comes from use on shore and finds its way down into rivers and the sea, but shipping also has an impact. Stena Line has therefore decided to replace bags and disposable items made of plastic with sustainable alternatives. Customers were already able to have reusable bags in stronger materials and plastic bags made of 80 per cent recycled plastic. In 2017 the next step is being taken with tests on biodegradable bags made of natural starch. In the first stage they are being used onboard Stena Danica, but if the trial works well they may be used on all ships. ■

SHORE POWER

17%

of terminals offer shore power with renewable electricity in 2016. Of Stena Line's 36 ships, 11 are currently able to connect to shore power at 5 out of 30 terminals.

TARGET FOR SHORE POWER

25%

of terminals shall offer shore power with renewable electricity in 2020.

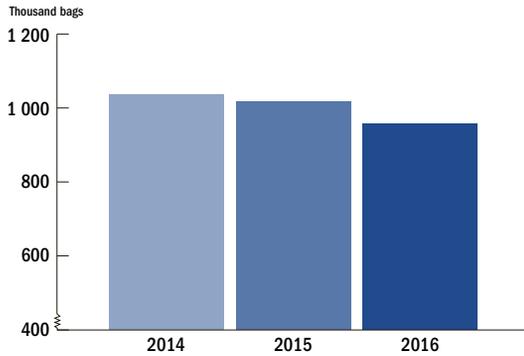
75%

of terminals shall offer shore power with renewable electricity in 2030.



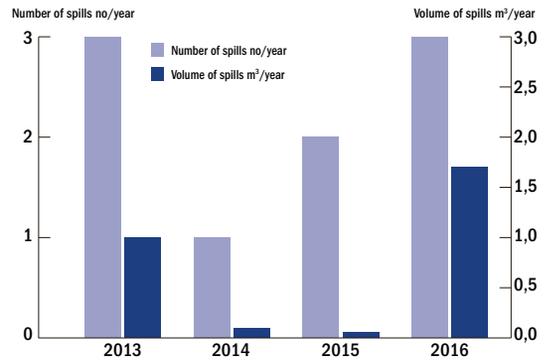
Number of plastic bags distributed onboard

Stena Line has a goal to reduce the use of plastic disposables and plastic bags onboard, and gradually move over to other alternatives.



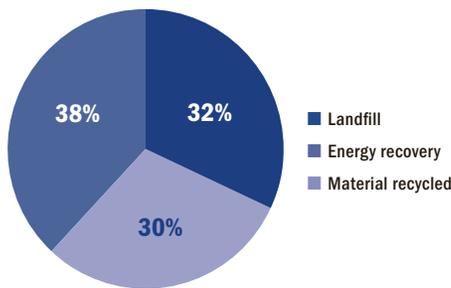
Spills into the ocean

Stena Line has a zero vision of fuel spills into the ocean. During 2016 the fleet performed about 2,000 bunkering operations which resulted in three minor spills.



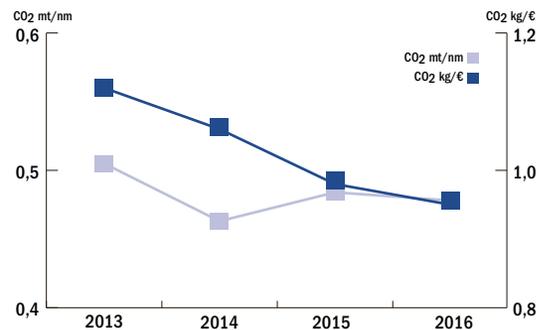
Waste treatment

Stena Line produced approximately 7,890 tonnes of waste in 2016 in ports and onboard ships. The objective is to increase the amount being recycled.



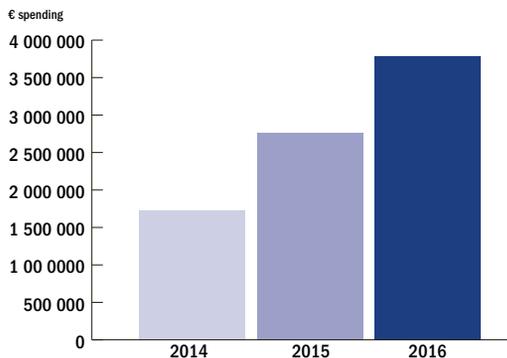
CO₂ emissions

Stena Line's target is an annual reduction of 2.5%/nm regardless of ship size or freight carried. This chart also compares emissions with economic activity (turnover).



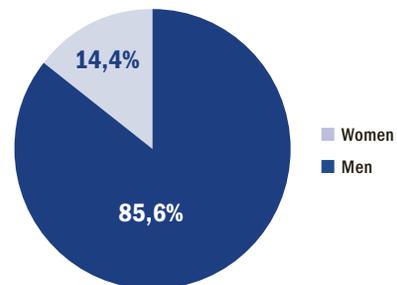
Total spending on training and education

Significantly increased investments in the last few years, partly to support crew accreditation according to the new Maritime Labour Convention.



Gender diversity in managerial positions

The shipping industry has traditionally been male dominated. Stena Line strives to create an inclusive culture where diversity is valued and encourages more female managers



*An employee in a managerial position is an employee who has personnel and budget responsibility (shore and sea).

These numbers have not been verified by a third party.

Corporate information			
	2014	2015	2016
Employees*	5,500	5,083	5,224
Group turnover (MSEK)**	11,553	12,441	12,599
Number of reporting ships***	41	38	36

* Does not include seasonal or temporary contract staff, but includes crew from Northern Marine Ferries

** Excluding 50% stake in HH Ferries, sold early 2015.

*** Including short-term chartered ships.

Operational overview			
	2014	2015	2016
Number of sailings	27,240	26,796	26,743
Total distance (1,000 nautical miles)	2,956	2,682	2,657
Laps around the world equivalent	137	124	123
Reliability (%)*	98.0	98.7	99.5
Average deficiencies per inspection**	2.6	2.4	2.1
ECO-sailings (%)***	56	65	66

* Total performed sailings vs. schedule

** Ships are inspected regularly by ports, flag states and classification societies. The inspections involved equipment onboard, certificates and processes being checked and any deviations being noted for subsequent rectification.

*** The proportion of Eco-sailings measures the sailings in which a departure takes place on or before the scheduled time and arrival is according to the timetable (+/- 10 mins). This is to give the ship an opportunity to sail in an efficient, environment-friendly way.

Energy and emissions			
	2014	2015	2016
Total fuel consumed (1,000 tonnes)	438	409	404
CO ₂ total (1,000 tonnes)	1,369	1,299	1,270
NOx total (1,000 tonnes)	28.0	27.0	26.5
SOx total (1,000 tonnes)	9.4	5.1	5.0

Health and well-being			
	2014	2015	2016
LTIF*	1.8	1.8	1.6
Sick leave (%)	3.0	2.9	3.8
Staff turnover (%)**	10.2	8.6	10.3

* Lost Time Injury Frequency - measures time away from work due to work-related injury per million hours worked, for seagoing staff.

** Staff turnover is measured as a tool to help assess job satisfaction for both crew and shore staff.

Stena Line's sustainable journey

2001

Phasing out of Freon R22 from onboard refrigeration systems.

2005

All routes in Stena Line Scandinavia are certified according to **ISO 14001**.

ISO 14001

1939

Sten Allan Olsson, the son of a skipper and boat owner from Donsö, in Gothenburg's southern archipelago, forms a trading partnership under the name of Sten A. Olssons Metallprodukter. This is the start of the present-day Stena AB Group and the recycling firm Stena Metall AB.

1948

Sten A. Olsson buys his first vessel, calling it DAN.

1962

Stena AB is incorporated, with services launched between Gothenburg and Skagen onboard the ØSTERSØEN.

1987

Stena Germanica (II) is delivered from a Polish shipyard. It is the biggest ferry in the world.

1988

Electronic tools for fuel optimisation onboard, ETA pilot introduced.

1990

Shore power connection introduced in Gothenburg for Stena Germanica (II) and Stena Scandinavica (III).

1994

Only **TBT-free hull antifouling paint** is used across the entire Stena Line on all Stena Line vessels.

1994

Stena Jutlandica (II) is the first in Europe to have catalytic exhaust emission control of sulphur (SCR) installed in its main engines.



2015

All vessels on the North Sea and the Baltic start using low-sulphur fuel as part of SECA regulations and Baltic reduce sulphur emissions by 90 per cent as part of new SECA fuel regulations.

Methanol pilot as marine fuel, Stena Germanica (III) the first ship in the world to convert to methanol/diesel propulsion.

Launch of SAVE online energy efficiency training.

2007

Green fuel (synthetic diesel) introduced for tug master units in the Port of Gothenburg.

2011

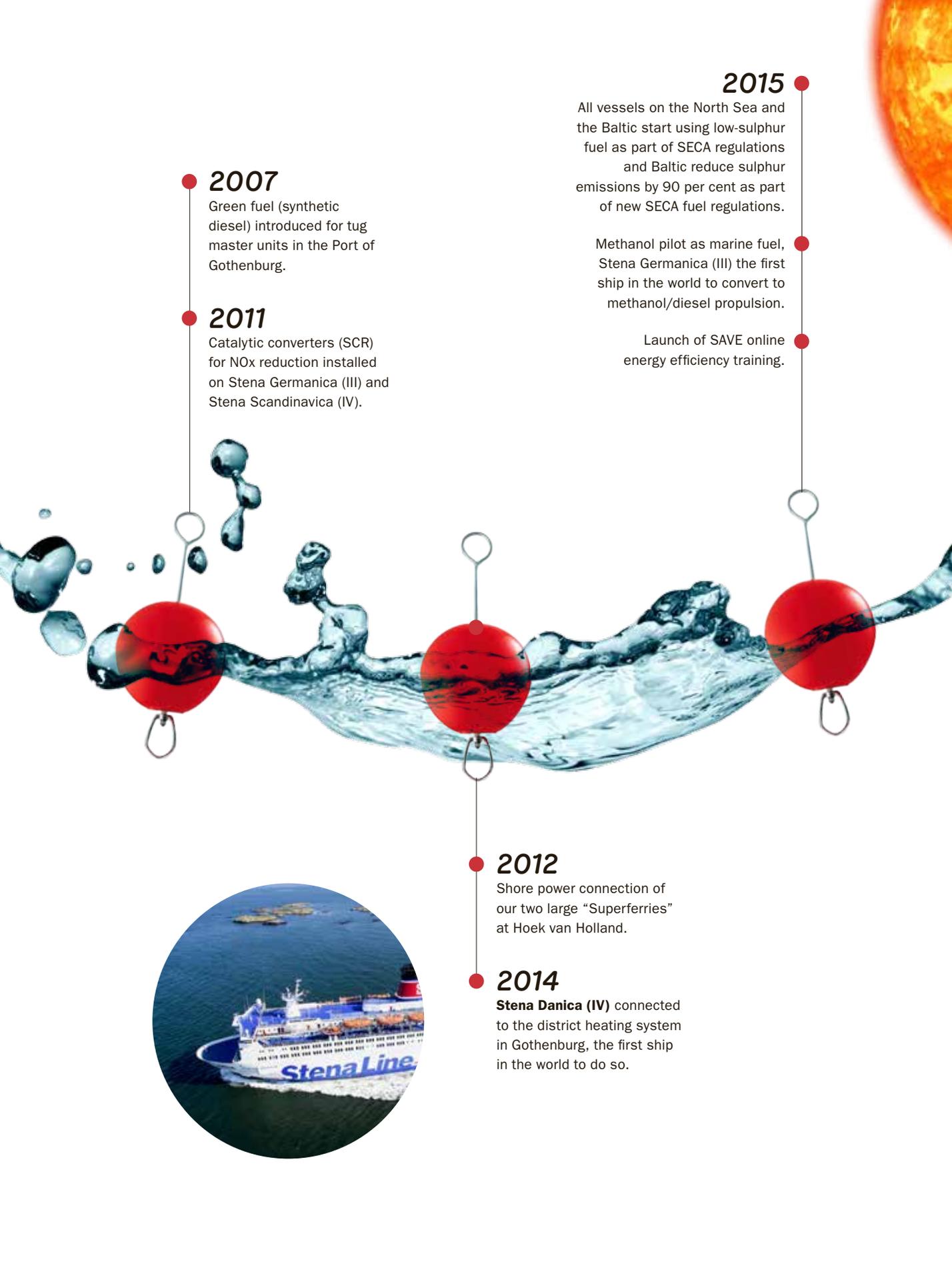
Catalytic converters (SCR) for NOx reduction installed on Stena Germanica (III) and Stena Scandinavica (IV).

2012

Shore power connection of our two large "Superferries" at Hoek van Holland.

2014

Stena Danica (IV) connected to the district heating system in Gothenburg, the first ship in the world to do so.





2020

Target to cut carbon dioxide emissions by 17.5 per cent per nautical mile compared with 2010.

2016

Holyhead Port installs **768 solar panels**, producing approx. 164,000 kWh of green energy, and also achieves 100 per cent material recycling with no waste being sent to landfill.

2017

Study of concept vessel Stena Elektra is completed, an electric RoPax vessel in lightweight material.

The Stena Line ESP programme initiates its 300th energy-saving project.

The proportion of eco-labelled detergents used in cleaning and the kitchens onboard is to be doubled.

2030

Target for at least 75 per cent of all terminals to have shore power connection.

All waste generated by our operations is to be recycled.

2050

Stena Line supports Sweden's and the EU's vision on the long-term objective of zero-waste, zero-emission (GHG) maritime transport.







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