A Sustainable Journey

Together we have a responsibility for the sustainable development of our world.
Stena Line is one of the world’s largest ferry operators, with over 5,500 employees, operating 38 ships on 21 ferry routes. Last year we transported about 7.4 million passengers, 2.1 million freight units and 1.7 million cars.

We offer affordable and seamless ferry transportation with an absolute commitment to safety and reliability, as well as a reduced environmental footprint.

This is our annual review of some of the work we do, on our journey to become a leader in sustainable shipping.

Follow our journey
stenaline.com/sustainability
A Sustainable Journey

Together we have a responsibility for the sustainable development of our world.

At Stena Line we contribute by connecting Europe and by connecting people. Together we can protect life below water, ensure a responsible consumption, increase the use of clean energy and ensure safety, good health and wellbeing for our guests and employees.
Connecting Europe for a Sustainable Future

Close to 90% of world trade is conducted over the oceans and shipping is the most energy efficient mode of transport in relation to cargo volume. However, there are major advantages – both environmental and economical – to be gained from further improving the efficiency of operations and reducing energy consumption.

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 transport services, Stena Line contributes to the success of both customers and society. With a structured approach and by taking continuous initiatives, always with an absolute commitment to safety, the aim is to become a leader in sustainable shipping.

As part of Stena AB, employees at Stena Line share some basic group guidelines, policies and values. The foundation is a corporate culture with a focus on care for customers, for each other and for our shared resources. The group Code of Conduct helps to ensure that Stena’s various operations are run in a responsible and correct way.

To complement this, Stena Line has introduced additional policies and procedures, to further secure sustainable operations at all times. For example, Stena Line is certified according to ISO 14001:2015. The certification ensures a structured process for setting and reaching targets and for fulfilling environmental legislation. It is also a great support in reaching Stena Line’s vision: Connecting Europe for a Sustainable Future.

Highlights from 2017

- New installation of shore side electricity
- Continued positive trend on safety (LTIF)
- New initiatives to decrease plastic disposables and harmful substances
- Development of a new Stena Line Supplier standard
- New policies for Anti-harassment and Equal opportunities
- Completion of the Stena Germanica methanol conversion
- New scope for ISO 14001:2015 certification
- Stena Voice employee survey with an increased overall score
- Increased recycling of waste

2.1% lower CO₂ emissions per nautical mile

15% lower SOx emissions per nautical mile
As one of the world’s leading ferry shipping companies, with 28,000 sailings per year on 21 ferry routes, we have a responsibility to do our best to perform all of our business in a sustainable manner. Or as it says on our ships – Connecting Europe for a Sustainable Future.

Niclas Mårtensson, Chief Executive Officer Stena Line

Our sustainability focus areas

Stena Line’s commitment to sustainability is centred around four focus areas linked to the UN Sustainable Development Goals and related directly to Stena Line’s business.

Ambitious targets are defined for each area, and the development is closely monitored, with the ambition that Stena Line shall be a leader in sustainable shipping.
Good health and wellbeing

Through care for each other and an absolute commitment to safety Stena Line shall actively promote the wellbeing of both guests and employees.

**TARGETS:**

1. Continuously reduce the number of accidents at the workplace with a goal of less than 1.2 in LTIF for 2017.
2. Ensure that the number of accidents on board per 100,000 passengers is below the comparable industry benchmarks.

During 2017 the accident frequency (LTIF) on board continued on a positive trend and dropped to 0.6, compared to 1.6 the year before. The passenger accident rate ended up at 2.1 per 100,000 guests carried, a good basis for further analysis of safer travels going forward.

---

**LTIF* development**

<table>
<thead>
<tr>
<th>Year</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>4</td>
</tr>
<tr>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>16</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>0</td>
</tr>
</tbody>
</table>

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

---

**PASSENGER SAFETY IN FOCUS**

During 2017 a passenger safety campaign was conducted on the Irish Sea. Through case studies and seminars, the campaign gave examples of actions on board the ships that can improve passenger safety. The single most common cause of accidents is trapping fingers or hands in doors. Therefore, installation of soft door closers is encouraged. Another area with possible improvement is to reduce tripping and falling on vehicle decks, by making sure there are as few obstructions as possible.
Collaboration, culture and communication are the main ingredients in the Bridge Resource Management (BRM) course that more than 250 Stena Line bridge officers are attending 2017/18. The goal is to increase focus on safe sailings and strengthen the common safety culture. The three-day course is attended by participants with different seniority, nationalities and geographical residence. The outcome will form the basis of improved bridge routines for all ships.

A common safety culture

At the end of 2017, 300 leaders had attended Stena Line’s leadership programme, Our way forward. For a full day leaders and managers gathered to go through Stena Line’s vision and strategy as well as the company’s strategic levers, sustainability and digitalization.

Leadership programme

In March 2017 Stena Saga rescued two Danish fishermen from a life raft off the coast of Denmark. Despite difficult weather conditions, and very high waves and the fact that it was dark outside, the crew managed to save the fishermen using the Fast Rescue Boat (FRB) showing excellent seamanship. Training on similar situations continues.

STENA SAGA IN DRAMATIC RESCUE OPERATION

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. To promote this, Stena Line’s policy for anti-harassment and equal opportunities was updated during 2017.

EQUAL OPPORTUNITIES

In the employee survey Stena Voice, where 5 is the highest possible score.

Risk analysis helps avoid accidents

By training employees in understanding the potential risks in their workplace, the number of accidents can decrease. Stena Line works with a concept called “Last Minute Risk Assessment” for all seagoing personnel. The aim is to raise awareness and to get employees to always conduct a risk assessment before starting a particular work duty, in order to avoid accidents and dangerous situations. During 2017 Stena Line also implemented a Stop the job policy, which encourages employees to stop potentially dangerous working situations before accidents occur.
Stena Line shall relentlessly strive to improve energy efficiency on shore and at sea and actively stimulate the usage of clean energy sources.

**Clean Energy**

TARGETS:

- Reduce emissions to air while in port by enabling shore power connections for ships and terminals.
- Reduce the fleet’s carbon dioxide emissions per nautical mile by 2.5 per cent every year.

In total 17% of all terminals on Stena Line’s network are now offering shoreside electricity to the ships through connection to the local grid. The fleet’s CO₂ emissions decreased by 2.1% per nautical mile which is an improvement from 2016. Fleet and schedule changes, improved punctuality, continued investments in the Energy Savings Programme (ESP) and good seamanship all contributed to the result. Total gross CO₂ emissions however increased, due to a substantial growth in distance sailed. Sulphur emissions (SOx) dropped by a massive – 15% per nautical mile in 2017 as Stena Line have chosen to use a low sulphur fuel on the Irish Sea RoRo ships. This initiative saves the environment about 400 tonnes of emissions.

**Pilot project runs ferry on electricity**

Another initiative which aims to reduce emissions is Stena Line’s trial of battery hybrids. This is a three-step project commencing in spring 2018 when a 1,000 kWh battery pack will be installed on board the RoPax Stena Jutlandica. Electricity will be used to manoeuvre the ferry in port. In the next steps, battery power will be installed on the main engine propellers with the final target to run on electricity for approximately 50 nautical miles, corresponding to the distance between Gothenburg and Frederikshavn. Batteries significantly help in reducing emissions to air as well as noise in city areas.
A major part of Stena Line’s environmental work is done by finding different ways of decreasing emissions to air and the impact on climate. One way to do this is through evaluating alternative fuels. During 2017 the conversion of Stena Germanica was completed and she became the first ship in the world converted to be able to run on both methanol and diesel. She also did her first full crossing from Gothenburg to Kiel using methanol. Methanol is almost completely free from sulphur and particles – and has 60% lower NOx emissions than traditional fuel. It can also be produced from renewable sources. Methanol is not a common fuel for shipping but following Stena Line’s pilot project other shipping companies have started to show interest in this alternative to traditional fuels.

**THE WORLD’S FIRST METHANOL CONVERSION**

A new green shore-side electricity connection was established in Trelleborg during 2017. Connecting to electricity means that when a ship is in port, the machinery on board is shut down, bringing emissions down to practically zero and reducing noise. In total, 13 of Stena Line’s ships can now connect to a local electrical grid. During 2017 this contributed to a reduction of CO₂ emissions by 12,330 tonnes, which equates to the annual emissions of 6,700 average passenger cars. In 2018, an additional connection is underway in the Port of Oslo.

**300 Energy saving projects completed**

Stena Line’s Energy Savings Program (ESP) was launched in 2006, with the purpose of reducing fuel consumption in line with the target of 2.5% per year. In July 2017 project number 300 was completed, when the regulators on the main engines of Stena Scotia were replaced, resulting in an expected annual fuel saving of 3% on her sailings between the Netherlands and United Kingdom.

**Electric connections for lower emissions**

A new green shore-side electricity connection was established in Trelleborg during 2017. Connecting to electricity means that when a ship is in port, the machinery on board is shut down, bringing emissions down to practically zero and reducing noise. In total, 13 of Stena Line’s ships can now connect to a local electrical grid. During 2017 this contributed to a reduction of CO₂ emissions by 12,330 tonnes, which equates to the annual emissions of 6,700 average passenger cars. In 2018, an additional connection is underway in the Port of Oslo.

**Our goal is that 100% of the energy we use onshore shall come from renewable sources.**

We are continuously making progress in this area, and to date the amount of renewable electricity is 92%.

Erik Lewenhaupt, Head of Sustainability
Experience and innovation behind some of the world’s most fuel-efficient RoPax ships

In 2017, the construction of Stena Lines series of new RoPax ships commenced. The vessels will not only be 50% larger than our current standard RoPax vessels but will also be optimised for efficiency and flexibility. They are designed so that they can be used throughout the Stena Line network, consisting of 21 routes.

The construction incorporates Stena’s combined know-how on hull lines, emission reduction and efficiency initiatives that have been developed throughout the years, ever since Stena Line’s foundation in 1962. The ships are expected to be more energy efficient per carried unit than any comparable size RoPax ship today. They will have the class notation “gas ready”, which means the vessels are prepared to be converted to LNG – and in addition prepared for catalytic converter installations or operation on methanol. This provides great flexibility for the future.

The construction takes place at AVIC Weihai Shipyard in China, with planned delivery during 2019 and 2020. The vessels are initially planned to be deployed within Stena Line’s route network on the Irish Sea.

Facts
- Length: 214.5 m
- Beam: 27.8 m
- Draft: 6.4 m
- Car deck capacity: 3,100 lane metres +120 cars
- Passenger capacity: 1,000

Bio-degradable lubrication oils in systems with boundaries to the sea.

Anti-fouling Selektope (organic copper free bio-repellent) with extremely low leaching into the ocean.

Main engines convertible to dual fuel operation on LNG/MGO.
Our overall target is that these vessels will be the absolute state-of-the-art when it comes to energy efficiency, flexibility and customer service. In particular we are developing a range of exciting new digital features which will provide our customers with unique additional services on their journey.

Peter Arvidsson, Chief Operating Officer

- Shaft Generators from We Drive that can be operated with variable rpm for optimized energy efficiency.
- Cooling agents with low Ozone Depletion and Global Warming Potential in all systems.
- Ship recycling Green passport (inventory of hazardous materials in the ship).
- Segregated waste chutes for several fractions. Compactor for plastics, glass and cardboard waste.
- LED lighting in all areas.
- Solar film on windows to save energy.
- Shaft Generators from We Drive that can be operated with variable rpm for optimized energy efficiency.
- Cooling agents with low Ozone Depletion and Global Warming Potential in all systems.
- Ship recycling Green passport (inventory of hazardous materials in the ship).
- Segregated waste chutes for several fractions. Compactor for plastics, glass and cardboard waste.
- LED lighting in all areas.
- Solar film on windows to save energy.
Responsible consumption

Care for resources is achieved by responsible purchasing and by continuously reducing waste and increasing recycling.

Share of waste treatment, %

| Landfill 27.2% | Energy recovery 42.4% | Material recycled 30.4% |

TARGETS:

# Reduce the use of plastic disposables on board, and gradually move over to other alternatives.
# Increase the proportion of recycled waste.

During 2017 phasing out regular plastic disposables continued in the fleet. Coffee cups, bags and sandwich boxes were among the products replaced with more environmentally friendly alternatives. The percentage of material recycled waste grew slightly to 30.4% (30%), the percentage going to landfill was decreased substantially to 27.2% (32%) and incineration/energy recovery increased to 42.4% (38%).

Stronger commitment from suppliers

In order to help ensure a responsible consumption the first Stena Line Supplier standard has been developed. The standard is used to agree on sustainability requirements with suppliers regarding both sustainable production and products. The standard will be launched during 2018 starting with the top tier suppliers.
Good food

Coffee
100% Rainforest Alliance certified

Eggs
100% from free-range hens

Milk
close to 100% organic

Fish
60% MSC-certified *

Fish’n chips is the best selling fish dish on the North and Irish Sea.
* All fish used in the dish is 100% MSC certified.

Less plastic on board

Plastics ending up in nature is a known environmental problem. Stena Line aims to gradually phase out carrier bags and disposables made of traditional plastic on board all ships. One step towards this is the initiative to use bags made from bio-materials, paper or reusable alternatives. During the year all regular plastic bags in the shops were replaced to renewable bio-plastic – at the same time the number of bags was reduced by 15% from 958,000 to 818,000. In addition, 1.3 million disposable coffee cups on board were replaced by a bio-degradable alternative.

TRAINING TO SAVE ENERGY

In 2015 Stena Line launched an online training programme giving hands-on ideas on how to save energy and resources in the daily work on board and ashore.

3,190 employees had done the SAVE training by the end of 2017

Turning food waste into biogas

In order to reduce food waste on the ferries Stena Line works with efficient planning of purchasing and menus, but also with separation of food waste from other waste where possible. On some vessels the food waste is sent for combustion or biogas production. The advantages for the vessel include reduced waste costs and a better work environment for kitchen employees as the work involves less heavy lifting.

In the port of Holyhead we have arranged with contractors for suitable waste to be turned into pellets for use as heating energy.

Wyn Parry, Operations Manager, Holyhead, Wales

In the port of Holyhead we have arranged with contractors for suitable waste to be turned into pellets for use as heating energy.
Stena Line rely on the oceans for its existence and as such all operations shall have minimal impact on marine life.

**TARGETS:**

- Protect the ocean from pollution by continuously reducing the use of chemicals that can impact the environment.
- Zero vision for oil and fuel spills.

Stena Line mainly uses closed loop scrubber technology, and we also strive to increase the portion of eco-labelled detergents and remove potentially harmful substances used on board in order to protect life below water.

In 2017 the number of oil spills increased while the total volume was maintained on low levels. The percentage of products with EU Ecolabel was doubled.

**Closed loop technology reduces impact on the ocean**

Several of Stena Lines vessels have installed scrubbers, which are used to remove sulphur oxides from the exhaust gas by scrubbing it with seawater. In this way, emissions of sulphur to air are reduced, as well as some emissions of unhealthy particles. On the three new installations of scrubbers last year Stena Line uses a closed loop system, which means that the waste residue is kept on board and returned to shore instead of being pumped overboard, thus reducing impact on the ocean.
Wastewater from our ships is treated before discharge or pumped ashore when possible, to protect the environment.

Cecilia Andersson, Environmental Manager

Ultra sound that reduce friction

During 2017 a test installation for hull fouling prevention by ultra sound that was initiated on board Stena Hollandica. The technology has previously been used on smaller boats, but this is likely the first time it is tested on a merchant vessel of this size. Stena Hollandica has been equipped with transducers placed inside the hull that emit an ultrasound. The sound resonates in the steel hull and can prevent the formation of biofilm and decreases the biological growth on the hull. This reduces the friction between the hull and water and thereby the fuel consumption. It also reduces the use of anti-fouling paint. This is an example of big little things Stena Line does to explore new ways of improving operations.

Cleaning with care

During 2017 all types of detergents used in cleaning and catering on board Stena Lines 38 ships have been mapped. Better alternatives for both environment and workplace have been sourced for all markets together with suppliers. During the first quarter of 2018 the project had increased the amount of Ecolabel detergents and agents for use in passenger and kitchen areas from 32% to more than 60%.

NEW ANTI-FOULING TECHNIQUE WITHOUT COPPER

To prevent algae and molluscs to grow on the hull and thereby slow down the vessel and increase fuel consumption, anti-fouling paints are used to coat the bottoms of ships. On the new ships that are under construction Stena Line has decided to test Selektope anti-fouling, which is an organic non-metal compound that works to prevent barnacle fouling by temporarily activating the swimming behavior of barnacle cyprid larvae, making it impossible for them to settle on the hull. By using this instead of traditional anti-fouling compounds the amount of chemicals leaking into the ocean can be minimized as it is used in minimal concentrations.

Ecolabel detergents and agents.
Partnership for care

Since 2016 Stena Line is a happy and proud partner to Mercy Ships, a global charity organisation that provides free medical care onboard a hospital ship operating in west Africa.

Mercy Ships has operated its hospital ships across the world for almost four decades. Placing a hospital on board a ship means that high-quality facilities can easily be moved from port to port. As a result, Mercy Ships can reach less fortunate people who would not otherwise have access to medical care.

Today, the organisation operates the ship Africa Mercy, employing more than 1,000 volunteers every year, including for example medical, administrative and technical staff.

Since a few years back, Stena Line is a proud partner to Mercy Ships. Stena Line contributes by increasing knowledge about the organisation towards our 7 million yearly guests and more than 5,500 employees, to encourage donations and voluntary work. In addition, our technical expertise and economies of scale can help Mercy Ships to get more resources for their patients.

Mercy Ships will soon more than double its capacity through the construction of a second hospital ship. The construction is taking place in China with Stena RoRo engaged as project manager and is funded completely by donations.

Mercy Ships is a unique organisation and we are very pleased to see the great support from Stena Line. They have taken our mission to their heart and it is great to see their willingness to partner with us to support the work we do.

Tomas Fransson, National Director for Mercy Ships Sweden

Volunteer programme

During 2017 Stena Line introduced the opportunity for its employees to apply to become a Mercy Ship volunteer, usually for a period between three to six months. Stena Line covers travel expenses, visas and vaccinations and guarantees a smooth return to work after completion of the volunteer period. The first volunteers will stay on board the ship in 2018.
Coffee campaign onboard

In 2017 Stena Line ran our first campaign for two months, where guests on board all vessels could choose to make a contribution when buying coffee or tea to donate this to Mercy Ships. In total 61,807 donations were made, resulting in enough funds to run one of the operation rooms for two weeks on board the hospital ship Africa Mercy.

“A life-changing experience”, said Niclas Mårtensson, CEO Stena Line after his visit on the Africa Mercy.

If you want to contribute to Mercy Ships’ operations or become a volunteer, read more on stenaline.com/mercyships#
One of the largest ferry operators in the world

Stena Line is part of the Stena AB Group, one of Sweden’s largest family-owned companies with about 16,000 employees and operations in the areas of ferries, shipping, offshore drilling, property, wind power and finance.

Stena Line has more than 5,500 employees from 40 nationalities onshore and at sea based in 10 countries and covering more than 150 different positions. With 38 vessels and 21 routes in Northern Europe Stena Line is one of Europe’s leading ferry companies. From west to east the company connects northern Europe with 70 sailings every day all year round, working in close collaboration with road- and rail industries as well as port authorities to provide efficient intermodal transport solutions.

7.4 million passengers
1.7 million cars
2.1 million freight units
### Key figures

#### Corporate information

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees *</td>
<td>5,500</td>
<td>5,083</td>
<td>5,224</td>
<td>5,408</td>
</tr>
<tr>
<td>Group turnover (MSEK) **</td>
<td>11,553</td>
<td>12,441</td>
<td>12,599</td>
<td>12,724</td>
</tr>
<tr>
<td>Number of reporting ships ***</td>
<td>41</td>
<td>38</td>
<td>36</td>
<td>39</td>
</tr>
</tbody>
</table>

* Does not include seasonal or temporary contract employees, but includes crew from Northern Marine Ferries.
** Excluding 50% stake in HH Ferries, sold early 2015.
*** Including short-term chartered ships.

#### Operational overview

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of sailings</td>
<td>27,240</td>
<td>26,796</td>
<td>26,743</td>
<td>27,832</td>
</tr>
<tr>
<td>Total distance (1,000 nautical miles)</td>
<td>2,956</td>
<td>2,682</td>
<td>2,657</td>
<td>2,867</td>
</tr>
<tr>
<td>Laps around the world equivalent</td>
<td>137</td>
<td>124</td>
<td>123</td>
<td>133</td>
</tr>
<tr>
<td>Reliability (%) *</td>
<td>98.0</td>
<td>98.7</td>
<td>99.5</td>
<td>99.4</td>
</tr>
<tr>
<td>Average deficiencies per inspection **</td>
<td>2.6</td>
<td>2.4</td>
<td>2.1</td>
<td>1.7</td>
</tr>
<tr>
<td>Good sailings (%) ***</td>
<td>41</td>
<td>55</td>
<td>56</td>
<td>60</td>
</tr>
</tbody>
</table>

* Total performed sailings vs. schedule
** Ships equipment and certificates are regularly inspected by ports, flag states and classification societies. Any deficiencies are noted for subsequent rectification.
*** Efficient sailings that depart before/on schedule and arrive as per time table (+/- 5 min).

#### Energy and efficiency

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total fuel consumed (1,000 tonnes)</td>
<td>438</td>
<td>409</td>
<td>404</td>
<td>428.5</td>
</tr>
<tr>
<td>CO₂ total (1,000 tonnes)</td>
<td>1,369</td>
<td>1,299</td>
<td>1,270</td>
<td>1,348</td>
</tr>
<tr>
<td>NOx total (1,000 tonnes)</td>
<td>28.0</td>
<td>27</td>
<td>26.5</td>
<td>26.9</td>
</tr>
<tr>
<td>SOx total (1,000 tonnes)</td>
<td>9.4</td>
<td>5.1</td>
<td>5</td>
<td>4.6</td>
</tr>
</tbody>
</table>

#### Health and wellbeing

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTIF *</td>
<td>1.8</td>
<td>1.8</td>
<td>1.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Sick leave (%)</td>
<td>3.0</td>
<td>2.9</td>
<td>3.8</td>
<td>3.5</td>
</tr>
<tr>
<td>Employees turnover (%) **</td>
<td>10.2</td>
<td>8.6</td>
<td>10.3</td>
<td>12</td>
</tr>
<tr>
<td>Stena Voice ***</td>
<td>4.09</td>
<td>4.12</td>
<td>–</td>
<td>4.17</td>
</tr>
<tr>
<td>Gender diversity, women %****</td>
<td>–</td>
<td>–</td>
<td>14.4</td>
<td>16.0</td>
</tr>
<tr>
<td>Gender diversity, men %****</td>
<td>–</td>
<td>–</td>
<td>85.6</td>
<td>84.0</td>
</tr>
</tbody>
</table>

* Lost Time Injury Frequency – measures time away from work due to work-related injury per million hours worked, for seagoing employees.
** Employees turnover is measured as a tool to help assess job satisfaction for both crew and shore employees.
**** Employees in managerial positions – employees who have personnel and budget responsibility (shore and sea).
Doubled our use of Ecolabel detergents.

That’s one of all the big little things we did for a more sustainable future in 2017. Read more on stenaline.com/sustainability