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TUI Cruises is committed to equal treatment for women and men. In the interests of improved legibility only, no explicit distinction has been made between genders when referring to employees and customers.
Ladies and Gentlemen,

When I took over as Chairwoman of the Management Board of TUI Cruises in October 2014, the topic of environmental protection was at the very top of my agenda. I quickly noticed how soundly the efforts towards sustainability and a careful approach in dealing with the environment are established within the company. This provides the best possible conditions for jointly pursuing the adopted course and officially declaring our ambitious objective at the beginning of this year to operate the world’s lowest-emission fleet of cruise liners.

Crucial milestones on our way to this objective are our two newbuild vessels Mein Schiff 3 and Mein Schiff 4, which was christened in Kiel at the beginning of June. In both vessels, maximum energy efficiency as the guiding principle for design, engineering and construction have brought about impressive results. An innovative system of exhaust gas treatment already produces emission standards that are only due to become internationally mandatory in five years’ time.

Cruise liners are much more than merely means of transport: as floating hotels at sea, they offer their guests culinary experiences, leisure pursuits, entertainment, accommodation and much more. This is why our efforts towards sustainable entrepreneurial activity do not stop with fitting out the ship. Our duty as a growing company within the expanding tourism industry involves careful management of resources and assuming responsibility in all aspects for the regions around the world to which we travel. We also have to combine this approach with our long-term corporate success. Against this backdrop, we are constantly expanding appropriate cooperation arrangements in our destinations so that we can systematically reduce our local ecological footprint. At the same time, we are committed at company level and in a union with the industry to the continuing development of environmentally friendly technologies. Included in this, for example, is the refinement of suitable exhaust gas filtering methods.

We are using this detailed report to inform you about these and other activities as well as our current objectives, the highlights, challenges and the advances we have made in the reporting year 2014. This report is available as a digital and print version, and this year has again been produced in line with the most stringent environmental criteria and using climate-neutral techniques.

I hope you will enjoy reading our report

Wybcke Meier
Chief Executive Officer
Chairwoman of the Management Board
TUI Cruises – at a glance.

In 2014, TUI Cruises significantly expanded its range of premium cruises and in doing so kept a firm eye on a responsible approach to the environment through a large number of measures performed at its locations and on board the ships.

Seven years ago, TUI AG joined forces with Royal Caribbean Cruises Ltd. (RCCL) to found TUI Cruises GmbH in order to offer modern feel-good holidays at sea to the German-speaking premium market. The target group of the holiday concept primarily consists of couples and families who expect high levels of freedom, generosity, quality and individual service. These requirements defined the range of the fleet, which, alongside the converted vessels Mein Schiff 1 and Mein Schiff 2, also includes the newly built Mein Schiff 3 and since June 2015 the new Mein Schiff 4 as well. The ships have between 956 and 1,253 passenger cabins and offer a wide range of gastronomic, entertainment, sport, spa and shopping facilities which allow guests to combine modern travel with excellent service. The Premium All-Inclusive Concept includes in the price of the holiday a great culinary variety of restaurants and bistros, a broad assortment of drinks in the bars and lounges and a wide range of offerings from the areas of entertainment, sport and spa facilities.

Capacities doubled within two years

October 2014 saw an experienced manager from the tourist sector in the person of Wybcke Meier take over the management of TUI Cruises and shapes daily routine not only at the two shore locations of Hamburg and Berlin but also on board the ships as well as activities at the destinations. Environmental protection is firmly established in the corporate strategy of TUI Cruises and shapes daily routine not only at the two shore locations of Hamburg and Berlin but also on board the ships as well as activities at the destinations. Environmental management is responsible for the control and further development of these activities.

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In 2014 and 2015, TUI Cruises is also planning the market launch of a new vessel in each of the two coming years. The company is constantly expanding the range of destinations it offers. Central America is set to complement the current total of 68 routes as from 2016.

Environmental protection is firmly established in the corporate strategy of TUI Cruises and shapes daily routine not only at the two shore locations of Hamburg and Berlin but also on board the ships as well as activities at the destinations. Environmental management is responsible for the control and further development of these activities.

**TUI CRUISES GMBH**

*Foundation:* In 2008 as a joint venture between RCCL and TUI AG

*Employees in the reporting year:* 239 in Hamburg and Berlin, approx. 2,500 crew members on board

*Concept:* Feel-good ships with Premium All-Inclusive Concept and 68 routes in the following regions: Mediterranean, Canaries, Caribbean, Asia, Baltic Sea, Nordic Region, United Kingdom, Iceland and Persian Gulf

*Ships:* Since June 2015, four ships have been in service; two ships are under construction
Environmental protection has been an integral part of the TUI Cruises corporate strategy since its foundation. In this strategy, environmental management ensures that the company remains on its course of continuing improvement with regards to structures, topics and objectives.
Environmental management grows with the company.

In 2014, TUI Cruises conducted numerous measures to pursue the principle of environmental protection which is firmly anchored within the company and, by continuously developing environmental management, set the course for a sustainable entrepreneurial approach in the present and future.

Since starting up its business activity, TUI Cruises has been consistently pursuing the strategy of sustainable entrepreneurial management with active support from its two experienced parent companies, RCCL and TUI AG. With the expertise placed at its disposal, the joint venture has succeeded in developing a clear stance in matters of environmental protection and in converting this stance into specific actions through a variety of measures. Apart from establishing environmental reporting structures and an environmental management system certified to ISO 14001 on shore, these measures include numerous activities for improving environmental performance based on the environmental strategy developed in 2012.

Focused on a period of five years, the environmental strategy identifies the specific need for action from which the main areas for operational activity are derived in the field of air pollution control, waste management, conservation of resources and climate protection. TUI Cruises monitors the progress with the aid of clearly defined targets, which include the legal obligations, national and international standards as well as self-imposed undertakings.

Targeted implementation during the reporting year

In 2014, too, the environmental strategy proved to be both a guide and a yardstick for the activities of TUI Cruises. In terms...

7 KEY AREAS constitute the environmental strategy of TUI Cruises. They serve as a guideline for the company in the development of activities and the prioritization of different environmental aspects and the measures derived from them (see page 8).

6 FEEL-GOOD SHIPS will make up the fleet of TUI Cruises in 2019. By that time the Mein Schiff® fleet will comprise six newbuild vessels, with Mein Schiff 1 and Mein Schiff 2 having been transferred within the TUI Group in 2018 and 2019 respectively.
of the focus area of air pollution control, the implementation of combined exhaust treatment systems in the newbuild vessels has made a considerable contribution to the projected reduction in emissions. The fact that the newbuilds are consistently designed with a view to energy efficiency is producing a significant improvement in emissions. In its efforts to achieve transparency in environmental performance, conserve resources and cooperate with various interest groups, TUI Cruises has successfully continued along its chosen path by carrying out numerous activities. They start with the revision of performance indicators for the interim environmental report for the year 2013 and extend to the establishment of environmental reporting structures and methodology, which TUI Cruises is currently optimizing in terms of fleet growth. Another of the numerous examples of active measures with a positive environmental effect is the retrofitting of the fleet with ballast water systems, aimed at the conservation of resources.

**Committed team**

If a strategy is to be consistently implemented, it must be securely anchored within the organization and monitored by responsible persons. TUI Cruises met this requirement almost four years ago when it founded the Environmental Department as a staff unit. The department works together closely with the Management Board and the operational managements. On board the three ships, the Environmental Officers have also borne responsibility for adhering to the statutory and in-company directives, while at the same time specifically identifying

> Environmental protection is an integral constituent of our business strategy. The Environmental Department is therefore firmly incorporated into the structures and planning of the work processes on board and on shore.

Wybcke Meier · CEO TUI Cruises
weak points in matters of environmental protection and highlighting needs for optimization. The shore-based Environmental Department is in a regular technical exchange with the Environmental Officers.

**Certified environmental management**
Together with the fleet, the shore locations in Hamburg and Berlin are also on a growth course. During the reporting year, the first successful monitoring audit took place for the certification of the shore-based environmental management system to ISO 14001 and the quality management system to ISO 9001. In summer 2014, TUI Cruises initiated the process for the ship-based ISO 14001 and ISO 9001 certification. Working together closely with the service providers on board, the company is currently optimizing reliable standards, targets and measures for the fields of quality and environmental protection.

**Advances in the reporting year**
In 2014, TUI Cruises succeeded in...
- instigating an environmental and quality certification process for the *Mein Schiff®* fleet, which should be completed by the end of 2015.
- developing guidelines for sustainable merchandising products. Merchandising goods will be subjected to tests such as the Oeko-Tex® standard.
- developing a shore excursion policy for the local excursion agencies with basic rules, principles and codes of conduct to ensure responsible handling of animals and the environment.
- switching the Berlin and Hamburg locations over to green electricity.
- reducing paper demand through various digitization measures.
- further increasing the awareness of employees for environmental and climate protection through five targeted training courses.

**LUCIENNE DAMM**
has been in charge of the Environmental Department since 2011. The politics graduate, who previously worked for the Nature and Biodiversity Conservation Union (NABU e.V.), now reports directly to the Vice President Operations and the CEO.
In the last few years, the cruise industry has made substantial progress in the global challenge to reduce emissions. Nevertheless, a further reduction of air pollutants and CO₂ emissions remains a challenge that the industry will have to continue facing in the future.
The environmental effects of cruise operations remain in the public focus, with the main emphasis being on the subject of air pollutants. In addition to sulfur and nitrogen oxides, these also include fine particulate matter and soot. Soot particles are a particular problem when emitted in the Arctic region and deposited on the ice surfaces there because they have a climate-warming effect. International bodies such as the International Maritime Organization (IMO) have been giving attention to pollutant emissions in recent years. Since 2015, for example, the IMO has limited the permitted sulfur content in fuel to 0.1 %. From 2020, the permitted value worldwide will be 0.5 %. Since 2010, the EU Sulfur Directive has only permitted fuel with a maximum sulfur content of 0.1 % in all EU ports. Corresponding regulations and threshold limit values for soot particles are currently being negotiated at international level but have not yet been adopted.

Actively avoiding emissions
In its efforts to lower pollutant emissions, TUI Cruises is using new technologies on board all its newbuild vessels. As the frequently discussed soot filters do not currently represent a feasible solution, the

Maintaining course: further reductions in fuel and emissions.

The environmental strategy of TUI Cruises includes the target of systematically reducing emissions in the air. Various measures to reduce fuel consumption as well as modern exhaust technologies brought the company considerable progress in this matter during the reporting year.

99 PERCENT
is the amount by which the scrubbers on Mein Schiff 3 and Mein Schiff 4 reduce sulfur emissions. TUI Cruises not only deploys the desulfurization plant in areas subject to special emissions control with regulations regarding reduced sulfur content, but also worldwide and around the clock.

1.63 PERCENT
is the average sulfur content of the fuel purchased for the Mein Schiff™ fleet during the reporting year. For comparison: the legally permitted maximum is a sulfur content of 3.5 %.
company joined forces with RCCL and the ship propulsion specialist Wärtsilä to develop a comprehensive exhaust gas treatment plant especially for TUI Cruises for use on Mein Schiff 3, which went into service during the reporting year. It will see operation on all the planned newbuilds.

With its desulfurization plant (known as the scrubber), two catalytic converters and a scrubber effluent treatment installation the system significantly reduces the adverse environmental effects due to exhaust gases. The desulfurization plant covers all engine units of the ship and thus achieves an absolute reduction in sulfur emissions of approx. 99%. The water used to clean the exhaust gases is purified within the system (see page 13). TUI Cruises collects the residues removed by filtering for disposal on shore and thus rules out any transfer of hazardous particles from the air to the water.

Positive experience with new technology

Since June 2014, Mein Schiff 3 has been sailing the seas with exhaust gas treatment, and TUI Cruises can present a good outcome in this respect. The envisaged emissions values are being achieved, and the system functions fundamentally reliably. As with every new system, however, there has been need for optimization, which has since been carried out by the manufacturer. The knowledge gained from this experience immediately provided input for the systems on Mein Schiff 4.

Less fuel for climate protection

The constant work on reducing CO₂ emissions was also a determining factor in the environmental protection efforts of TUI Cruises during 2014. As there is no filtering technology for CO₂ emissions, the core task for the company is to be found in reducing the consumption of fuel per person per overnight stay. In the reporting year, TUI Cruises has achieved clearly visible successes by optimizing routes and lowering speeds as well as increasing lay times and overnight stays in ports. Thanks to the deployment of LEDs, modern air-conditioning systems and a reduction in the amount of laundry due to towel cards, it has been possible to save energy and further increase efficiency – across the entire fleet. Nevertheless, the CO₂ value increased.

‘With the scrubber, we not only meet the requirements for a sulfur content of 0.1% in special emission areas that have applied since January, but already meet all the regulations for sulfur content in fuel as well, some of which are not due to come into force until 2020.’

Lucienne Damm · Environmental Manager
**EMISSIONS**

*Hybrid scrubber*

- **Emissions monitoring**
  Permanent monitoring of the emissions and control of quantity and concentration of the substances added to the purification operation.

- **Ventilator**
  High-performance ventilator with a weight of 3 t creates a vacuum in the scrubber cylinder.

- **Washing plant**
  Seawater (open loop) or caustic soda (closed loop) is sprayed onto the exhaust gases at a pressure of 2 bar.

- **Residue tank**
  The residues are collected separately and then disposed of on shore later.

- **NaOH**
  Sodium hydroxide is added to the freshwater in metered quantities within a closed loop.

- **Freshwater**
  is needed for the closed loop.

- **Wastewater purification**
  Seawater is purified and then fed back into the sea; caustic soda is processed so that it can be reused.

- **Open loop**
  Seawater is pumped out of the sea and returned after use.

- **Closed loop**
  Residues from exhaust gas treatment dissolved in water or alkaline solution.
slightly by 1.07% to 0.083 t per person per overnight stay despite the successful reduction in fuel consumption. This is due to the fact that the company has increasingly been using low-sulfur fuel, which has a slightly higher CO₂ factor on combustion when compared with heavy fuel oil. The commissioning of Mein Schiff 3 had a special effect on reducing the mean fuel consumption per person per overnight stay. Like the coming newbuilds, this has been designed as an energy-efficiency ship. This means that Mein Schiff 3 uses almost 30% less energy and hence a correspondingly lower amount of fuel than comparable vessels of its size.

All eyes on development
When observing its own advances, TUI Cruises relies on hard facts and established a comprehensive emissions monitoring system back in 2012. The software-assisted tool supports the recording of an exact emissions balance sheet and makes it possible to compare different periods. With the aim of continuously improving the accuracy of the observations and keeping pace with the growth of the fleet, the company will be further optimizing its emissions monitoring this year. TUI Cruises also proceeded with its collaboration in various projects connected with an alternative energy supply for cruise ships in ports in 2014. During the course of this involvement, which extends significantly beyond its own fleet, the company joined the Maritime LNG Platform as a founding member (http://www.lng-info.de), where it is representing the view of the cruise industry. Within the context of developing future fuel alternatives in the shipping industry, the broad initiative consisting of more than 50 national and international energy providers, shipping lines, service providers, ports, associations and initiatives campaigns.

### Emissions
**Key figures**

<table>
<thead>
<tr>
<th>Emissions:</th>
<th>2013</th>
<th>2014</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy (fuel) consumption on board</td>
<td>50,706 t</td>
<td>61,234 t</td>
<td>+20.80%</td>
</tr>
<tr>
<td>Thereof, heavy fuel oil</td>
<td>38,961 t</td>
<td>39,797 t</td>
<td>+2.10%</td>
</tr>
<tr>
<td>Thereof, sulfur-reduced heavy fuel oil*</td>
<td>7,192 t</td>
<td>17,871 t</td>
<td>+148.50%</td>
</tr>
<tr>
<td>Thereof, marine diesel oil**</td>
<td>4,553 t</td>
<td>3,566 t</td>
<td>-21.70%</td>
</tr>
<tr>
<td>Fuel consumption per passenger per overnight stay</td>
<td>0.026 t</td>
<td>0.023 t</td>
<td>-11.60%</td>
</tr>
</tbody>
</table>

### CO₂ emissions (from use of fuel and refrigerants on board)*** | 164,720 t | 227,353 t | +38.02% |
| NOₓ emissions | 3,651 t | 4,355.78 t | +19.30% |
| SOₓ emissions | 2,751 t | 2,121.62 t | -22.88% |
| Particulate matter emissions | 310 t | 280.55 t | -9.50% |
| CO₂ emissions per person per overnight stay | 83.01 kg | 83.90 kg | +1.07% |

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* heavy fuel oil with a maximum sulfur content of 1%. | ** heavy fuel oil with a maximum sulfur content of 0.1%. | *** 1t heavy fuel oil is equivalent to approx. 3.17t CO₂.
The heart of the ship:
The engine unit of Mein Schiff 3 has an output of approx. 28,000 kW and reaches a maximum speed of 21.7 knots.

11,739 EUROS come together as the total amount of donations from fully compensating for CO₂ emissions from the business flights of TUI Cruises employees in 2014. The figures were calculated by myclimate. The proceeds benefit a climate protection project.

11.6 PERCENT less fuel per person and per overnight stay was consumed by the Mein Schiff® fleet year on year in 2014. This is equivalent to a mean consumption of 0.0231 t of fuel per passenger per overnight stay. In order to create a basis for comparison with the previous year, despite the absolute increase in fuel consumption due to growth of the fleet, the company has introduced the new, relative performance figure, of fuel consumption per person per overnight stay.

for the introduction of liquefied natural gas (LNG) as a marine fuel and is providing stimuli for the expansion of an LNG infrastructure in Europe. For this reason, TUI Cruises is making its internal company expertise and information available and is thus contributing to further establishing the alternative more environmentally friendly fuel within the shipping industry. Using LNG enables environmentally hazardous emissions to be significantly reduced. If it is used for propelling ships, CO₂ emissions will fall by up to 25%, while sulfur oxides, nitrogen oxides and fine particulates will fall by 100%. As no residual waste materials are generated during its combustion, LNG is regarded as the most environmentally friendly fuel for the future.

Advances in the reporting year
In 2014, TUI Cruises succeeded in...
- surpassing its target of a 5% reduction in fuel consumption per person per overnight stay compared with the previous year, by achieving a reduction of 11.6%.
- continuing activities to reduce specific CO₂ emissions. However, CO₂ emissions per person per overnight stay have increased by 1.07% as an increasing amount of low-sulfur fuel has been used.
- achieving its target of a year-on-year reduction in air pollutants with an average for the fleet of 12.63% fewer nitrogen oxides, 43.52% fewer sulfur oxides and 6.72% fewer particulate emissions per person per overnight stay.
- surpassing its aim of maintaining fuel quality at a sulfur content of 2.5% by recording a mean value of 1.63%.
- fully compensating for CO₂ emissions from employee business flights as planned.
WASTE

Through the use of state-of-the-art technologies and systematic waste management combined with numerous measures, both large and small, TUI Cruises is continuously working on reducing the waste generated on board and increasing the quantity that is recycled.
Responsibility for waste – from procurement to disposal.

For TUI Cruises a responsible approach to dealing with the large variety of waste materials generated on board not only means meeting all the legal provisions but also imposing its own set of extensive obligations.

According to a study by the United Nations Environment Programme (UNEP), up to 18,000 pieces of plastic are floating in every square kilometre of the world’s oceans. This represents only 15% of plastic waste — another 15% is washed up on the coasts while the majority sinks to the bottom of the sea. The fact that plastic does not perish in the sea and gradually releases microparticles into the environment during its decomposition process over centuries illustrates once again the importance of the cruise industry adopting a responsible approach to waste.

Modern waste management system for newbuilds
TUI Cruises has already introduced systematic waste management on Mein Schiff 1 and Mein Schiff 2 and, thanks to these and other measures has considerably reduced the quantity of waste on board. The company took the next step in matters of waste reduction with its first newbuild: in addition to reducing emissions into the air, it was an important concern for TUI Cruises to incorporate waste management and appropriate technical plants as part of an advanced waste system into the overall design for all newbuilds.

Crew members on board sort all the waste from the public areas and cabins and separate it into six categories. The sorted waste is crushed, pressed, incinerated or deposited on shore for recycling or for proper disposal. Consequently, TUI Cruises achieves a refuse separation rate of almost 100%. The dewatering plant on Mein Schiff 3 extracts the water from food waste, thus reducing the volume of waste. The dried food waste is used in other sections of the vessel. A summary of the different types of waste generated is presented in the table below.

<table>
<thead>
<tr>
<th>WASTE</th>
<th>Key figures</th>
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<tbody>
<tr>
<td></td>
<td>2013</td>
</tr>
<tr>
<td>Total waste</td>
<td>17,620 m³</td>
</tr>
<tr>
<td>Thereof, disposed of as residual waste disposal</td>
<td>8,343 m³</td>
</tr>
<tr>
<td>Thereof, incinerated</td>
<td>4,205 m³</td>
</tr>
<tr>
<td>Thereof, reduced to small pieces</td>
<td>1,066 m³</td>
</tr>
<tr>
<td>Thereof, subject to special waste disposal</td>
<td>67 m³</td>
</tr>
<tr>
<td>Percentage of total waste recycled</td>
<td>22 %</td>
</tr>
<tr>
<td>Waste per person per overnight</td>
<td>8.88 l</td>
</tr>
</tbody>
</table>
The waste that is generated on board is crushed, compressed and then properly disposed of in the port under the supervision of the Environmental Officer.

is then either reduced to a maximum size of 2.5 cm and discharged into the sea at a minimum distance of 12 sea miles from the coast or burnt in the waste incineration plant on board. Water extracted from the food is added to and cleaned with the other effluent generated on board.

Avoidance as the supreme principle
During the reporting year, TUI Cruises worked continuously on identifying and exploiting potential for waste avoidance. The company also intends to pursue this path in the future. Measures such as replacing plastic bottles by water dispensers on board are already displaying a significant effect and meet with great approval from the guests. One example of the search for such potential is the expert accompaniment by the Environmental Department during the obligatory periods spent in dock. In 2013 and 2014 the Environment Team followed Mein Schiff 2 and Mein Schiff 1 into dry dock and worked with the Environmental Officers and crew members to ensure that waste separation was observed during the conversion and improvement operations. In view of the considerable quantities of different types of waste in such processes, it is absolutely essential to collaborate with the various craftsmen and contractors in this task. For this reason, TUI Cruises provided detailed information in advance on the various waste categories and insisted that clean separation be maintained.

Selected suppliers
TUI Cruises also maintains its approach to the conservation of resources beyond the limits of the company. As a consequence, the relevant departments within the company also take account of environmental performance when selecting and assessing suppliers. Examples of the criteria applied in supplier assessment include efforts carried out in the field of resource protection and waste avoidance. During the reporting year, TUI Cruises introduced the guideline for

7.89 LITRES of waste were generated on average per person per overnight stay during 2014. This means that TUI Cruises has succeeded in lowering the proportion of waste year on year by 11.15 %.

6 WASTE CATEGORIES apply to the waste material generated on board at TUI Cruises: glass, paper and cardboard, plastic, metals, food waste and hazardous waste. Sorting of the waste means that the company managed to separate almost 100 % of the waste generated on board.
sustainable purchasing, which is based on the environmental strategy and the company’s responsibility for adopting a careful approach to the management of natural resources and takes account of environment-related aspects during procurement. The guideline applies in equal measure to ship-related and all other forms of purchasing. A special guideline for the production and design of merchandising products supplements the higher-level purchasing guidelines. This provides the Marketing Department of the company with guiding principles when considering environmental criteria in the design and development of new merchandise.

“We, the Environmental Officers, are responsible for waste management on board. We monitor waste separation and organize collection of the waste and its proper disposal in the ports.”

Ryan Eickholt · Environmental Officer on the Mein Schiff® fleet

Advances in the reporting year
In 2014, TUI Cruises succeeded in...
- achieving a positive trend in the key figures, which demonstrate the effectiveness of the efforts applied. TUI Cruises has thus reduced the waste generated per person per overnight stay to 7.89 l, a reduction of 11.15% compared with 2013.
- achieving the target of raising the proportion of waste recycled with a figure 28.86%. This represents an increase of 28% compared with the previous year.
- introducing the planned implementation of an environmentally friendly purchasing guideline for all departments.

Hazardous/special waste
Paper and plastic
Food waste
Tin cans
Glass

Incineration
Shredder
Compactor
Glass crusher

Ashes

<2.5 cm – discharged into the sea (if >12 sm* from shore)

Discharged on shore for processing, recycling or proper disposal

* 1 sm = 1 sea mile, approx. 1.85 km.
Between 10 million and 100 million different species exist on earth. Future generations also have a right to ecological systems with great biodiversity. This is why TUI Cruises regards retaining biodiversity as both an emotional matter and the basis for sustainable business success.
During the reporting period, TUI Cruises has adopted and pursued various measures aimed at preserving biodiversity and thus maintaining an intact environment. In order to prevent foreign species from being introduced via ballast water tanks, the company upgraded its entire fleet with ballast water treatment plants last year. These plants purify the water, which is taken on board to stabilize the ships before being discharged in another region, and thus prevent organisms from infiltrating foreign ecosystems.

Continued commitment
During the reporting year, TUI Cruises also continued its measures to promote awareness among its guests with regard to the protection of species and animals. As one example, the company has been working with the International Fund for Animal Welfare (IFAW) to prepare information on the risks faced by whales and the questionable consumption of whale meat and made this available to guests on the Nordic routes.

Green & Fair shore excursions
In 2014, TUI Cruises also extended its range of particularly socially and environmentally engaged Green & Fair shore excursions to include additional destinations. A survey of guests conducted on board in collaboration with the Harz University of Applied Sciences demonstrated the high acceptance amongst guests for the category of excursions introduced one year ago. During the reporting year, a sum of €102,855 came together in donations through the Green & Fair excursions, which benefited the SECORE Foundation, M.E.E.R. e. V., Pottwale e.V., a research project carried out by the Helmholtz-Zentrum in Geesthacht as well as the Förderverein Meeresforschung und Umweltjournalismus e.V. (Aldebaran Marine Research and Broadcast).

Advances in the reporting year
In 2014, TUI Cruises succeeded in...
- implementing the scheduled integration of ballast water treatment plants for the entire fleet and all newbuilds.
- extending the Green & Fair range of excursions to the destinations of Mediterranean, Western Europe, Nordic Region, Orient and United Kingdom.
- donating a total amount of €102,855 to regional environmental protection organizations via the Green & Fair project.

Green & Fair shore excursion on Madeira:
TUI Cruises guests experience nature at close quarters during a hike along the levadas.
Water is a basic prerequisite for life. Our company is dependent upon this resource, be it as drinking water, for agriculture or the food security of humans and animals. Consequently, protection of the seas is also a global task.
Important constituents of this responsibility for water as a natural habitat are the conscious and economical use of sea water and freshwater as well as a sensitive approach to dealing with the types of liquid waste generated on board. As long ago as 1973, the United Nations presented the shipping industry with the International Convention for the Prevention of Pollution from Ships (MARPOL) as a central, supranational legal framework for protecting the seas. The agreement drawn up by the International Maritime Organization (IMO), a sub-organization of the United Nations is continuously updated and is binding for all ocean shipping.

More than performing our duty
In its dealings with environmental regulations, TUI Cruises applies the guiding principle “above and beyond compliance”. Consequently, the company not only complies with all the statutory standards as a matter of course but even surpasses the regulations with self-imposed directives relating to water protection measures. International legislation, for instance, permits the direct discharge of certain effluents into the sea. When first taking up its business activity in 2008, TUI Cruises undertook from the very start not to discharge any untreated effluent into the sea. The company separates solids and oil residues in wastewater using effluent treatment plants and oil separators on board. The remaining liquid waste undergoes chemical and physical treatment. TUI Cruises collects all the separated solids and treatment residues for disposal on shore. To ensure optimum mixing with the seawater, the treated effluent from Mein Schiff 1 and Mein Schiff 2 does not enter the sea until the vessels are outside of the 12-sea-mile territorial waters and travelling at a minimum speed of 6 knots. The legal requirement

At home on the water.
The cruise industry lives from the attraction that water exerts on many people. TUI Cruises is conscious of the responsibility that results from this and protects water as a natural habitat and a valuable resource.

<table>
<thead>
<tr>
<th>WATER</th>
<th>Key figures</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2013</td>
</tr>
<tr>
<td>Total water consumption</td>
<td>465,059 m³</td>
</tr>
<tr>
<td>Thereof, fresh water consumed</td>
<td>146,601 m³</td>
</tr>
<tr>
<td>Thereof, treated seawater consumed</td>
<td>318,458 m³</td>
</tr>
<tr>
<td>Untreated blackwater</td>
<td>0 m³</td>
</tr>
<tr>
<td>Untreated greywater</td>
<td>0 m³</td>
</tr>
<tr>
<td>Treated greywater and blackwater</td>
<td>411,354 m³</td>
</tr>
<tr>
<td>Bilge water, treated</td>
<td>1,307 m³</td>
</tr>
<tr>
<td>Consumption per passenger per overnight stay</td>
<td>234.37 l</td>
</tr>
</tbody>
</table>
Wastewater treatment on the newbuild vessels Mein Schiff 3 and Mein Schiff 4 is a minimum distance of 3 sea miles from the coast.

**New technologies**

Since the development of Mein Schiff 3, TUI Cruises has been installing the Advanced Wastewater Purification (AWP) system on all newbuilds. This is used to treat all liquid waste arising on board – hence not only the legally prescribed blackwater but also the greywater and liquids from the dewatered food waste. Here the company processes the effluent in a similar way to that used in shore-based wastewater treatment systems by means of biological treatment of the effluent with the aid of bacteria, together with a physical process before it is additionally filtered and disinfected with UV light.

The result is a quality of effluent that almost achieves drinking water standard. The effluent purified in this way can thus be discharged overboard with a clear conscience.

TUI Cruises also adopts a conscientious approach to dealing with bilge water. This water from the engine room contaminated with oil and fuel residues is only discharged outside the 12-sea-mile zone after the oil has been removed with the aid of oil-separating plants. This is followed by a multi-stage monitoring process to check compliance with the company’s self-imposed limit of 5 parts per million (ppm). This is significantly below the international threshold limit value of 15 ppm. TUI Cruises disposes of the oil-containing residues.

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**Our exhaust gas treatment system manages far more than the requirements relating to water quality demanded by the IMO, and prepares for future regulations.**

Milos Grgic · Environmental Officer on the Mein Schiff® fleet

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The diagram illustrates the water flow from the different waste sources:

- **Bilge water**
  - Separators for water containing oil
  - Physical and biological purification by wastewater treatment plant
  - Disposal on shore
  - Treated bilge water discharged over board (if >12 sm* from shore and threshold value for oil content ≤ 5 ppm, at a speed of at least 6 knots)

- **Greywater**
  - Collected in tanks for disposal on shore

- **Blackwater**
  - Clean and treated water discharged over board (if >3 sm* from shore, at a speed of at least 6 knots)

- **Liquids from food waste**
  - Physical and biological purification by wastewater treatment plant
  - Disposal on shore

- **Sludge**

*1 sm = 1 sea mile, approx. 1.85 km.*
removed in the separation process through qualified service providers on shore. In the development of the Advanced Emission Purification (AEP) system introduced for all newbuilds, environmentally compatible management of the water used for cleaning the exhaust gas was also the objective of both TUI Cruises and the external engineers involved. The freshwater or seawater used for cleaning the exhaust gas – known as scrubber water – is processed to optimum quality and can then be discharged into the sea outside of the 3-sea-mile zone, without any of the pollutants washed out of the exhaust gases entering the sea. TUI Cruises disposes of the critical residues on shore.

Economical use

The economical use of water was also a major priority on all vessels in 2014. TUI Cruises is constantly working on measures to reduce water consumption during everyday routine on board, among other reasons to reduce the high energy demand necessary for treating the seawater. These measures include the vacuum system for the toilets on board all ships of the fleet and sensor-controlled taps in the public toilets on Mein Schiff 3 and Mein Schiff 4. This also applies to the more efficient devices in the laundry and to the vacuum system for disposing of food waste in the kitchens on board.

Advances in the reporting year

In 2014, TUI Cruises succeeded in...
• reducing water consumption on board per person per overnight stay to 227.80 l, equivalent to a saving of 2.8%.
• introducing towel cards on the Mein Schiff® fleet, leading to a limitation of the issue of pool towels. As a result, water consumption for washing towels has fallen by 30%.

SOx, NOx and particulates are absorbed by the base content (alkalinity) of seawater and filtered out of the exhaust gases in the exhaust gas treatment plant. The contaminated seawater is cleaned of harmful residues by the scrubber effluent treatment plant and only then discharged over board.

TOWEL CARD is issued to every guest during check-in to limit the number of towels in circulation.
With *Mein Schiff 3*, TUI Cruises has shown the path that the company will be taking in the growth of its fleet: even in the planning and construction phases all newbuilds are clearly geared towards sustainable fleet growth.
Newbuilds: Focus on clean cruising.

Having entered service in 2014, Mein Schiff 3 is the result of three years work on what is the world’s cleanest cruise liner to date. With this as the basis, TUI Cruises is also focusing on reducing emissions, protecting resources and employing a sustainable construction method in all its additional newbuilds.

The TUI Cruises fleet is growing rapidly and, since the construction of Mein Schiff 3, will be extended every year until 2019 through the addition of newbuilds. Mein Schiff 3 and its sister ship, Mein Schiff 4, are currently the cruise liners with the world’s lowest emissions. An innovative exhaust gas treatment system with scrubber and catalytic converters as well as a scrubber liquid treatment plant are a guarantee of minimized emissions and minimal impact on the marine environment. The modern Advanced Wastewater Purification (AWP) system, which functions on physical and biological principles, is being installed on all newbuilds.

**Responsibility for materials**

First successes of a project for the use of sustainable materials are the FSC-certified wooden fittings in the cabins as well as rugs with a high proportion of recyclable natural wool. In 2014, with a provisional project report from an external consultancy office, TUI Cruises reached its conclusions for the subsequent newbuilds. The company is currently collaborating intensively with the suppliers on this subject through workshops and training courses. Many of those involved in the project, including designers, architects and suppliers, have had little experience to date with the topic of sustainable materials in shipbuilding. Within the context of the future newbuilds, it is therefore important for TUI Cruises to continue building up and developing the required expertise in collaboration with the project participants.

**Continuous improvement**

TUI Cruises also maintains a process of constant optimization in connection with its newbuilds. All results and knowledge gained from the first of our own newbuilds will also be taken into consideration in the future. Wherever necessary, minor optimization measures take place in the technical field during this process. TUI Cruises is also planning to fit the exhaust gas treatment system developed for Mein Schiff 3, which has already proven its effectiveness in everyday operations, when equipping Mein Schiff 4, Mein Schiff 5 and Mein Schiff 6. This will similarly place them ahead of the regulations on emission reduction that apply when they come into service.

**Advances in the reporting year**

In 2014, TUI Cruises succeeded in ...

- adding to its fleet the most environmentally friendly cruise liner of its class at the time of its commissioning, in the form of Mein Schiff 3.
- concluding the internal project on sustainable materials as part of the construction of Mein Schiff 3 and extending this project to the subsequent newbuilds.

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**250,000**

Individual parts have been installed in the hull of Mein Schiff 3. Forming the hull are 77 steel ingots, while 3,300,000 litres of paint were needed to coat it. On average it takes 3.5 years for a ship to result from an initial idea. A single person would have needed 5,500 years to build Mein Schiff 3.

**FSC**

stands for Forest Stewardship Council and is an international certification system for sustainable forestry. The FSC standard guarantees that forests are managed fairly and responsibly in producing wood and paper products.
Cruise companies are at home all over the world and thrive from and with the environment and the diversity of their destinations. This is why TUI Cruises is committed to environmental and social issues far beyond the limits of its own business concerns.
Commitment without borders.

Through donations and cooperation arrangement with institutions, associations and other companies involved in environmental protection, TUI Cruises became engaged in environmental and social issues throughout the world in a wide variety of ways during the reporting year.

In its many and varied projects and activities for promoting sustainable developments in tourism, environmental protection and social welfare, TUI Cruises is pursuing the aim of setting things in motion and maintaining the pace of important change processes. Apart from its commitment as an individual stakeholder that shares responsibility for the situation in the destinations it travels to every day, the company also joins other stakeholders in a wide range of initiatives that are dedicated to social and environmental issues.

Permanent involvement
Among the initiatives in which TUI Cruises was permanently involved during the reporting year was again the Sustainability Committee of the German Travel Association (DRV). This provides a forum for various representatives of the German tourist industry to discuss environmental and social issues. They jointly develop and coordinate initiatives. Since 2011, TUI Cruises has also been a member of the German Environmental Management Association (BAUM e.V.), a framework in which some 550 other member companies work towards environmentally aware and sustainable corporate governance.

Since 2010, TUI Cruises has been an active member of Futouris, the sustainability initiative of the German tourism industry, whose members are involved around the globe in efforts to improve living conditions and maintain biodiversity as well as to protect the environment and the climate. Apart from the coral protection project SECORE, which TUI Cruises supports exclusively as part of its sponsorship, the company jointly supported the annual industry project during the reporting year along with all other Futouris member companies. During the reporting year, this project was the Sustainable Lodges by KAZA, the Kavango Zambezi Transfrontier Conservation Area in southern Africa. Since 2011, it has been the largest contiguous conservation complex in the world. Over an area of 444,000 km², it extends beyond borders to include more than 36 national parks, game reserves and private conservation zones with a tremendous ecological diversity. The Sustainable Lodges project aims to develop binding standards for sustainably managed lodges in the KAZA district which are also intended to serve as an implementation aid for future-viable, ecosystemic development.

~140,000 euros is the sum that TUI Cruises donated to a total of seven different projects and organizations during the reporting year in order to promote the economic, ecological and social development at its business locations and cruise destinations.

APPROX. 50 LECTURES on research and environmental topics were on offer to the guests on the Mein Schiff® fleet during 2014.

Divers recording a biological inventory of young coral in the ocean nursery on Curaçao (Photo: Christoph Haacke).
resource-conserving and socially compatible business concepts with a strong impact on alleviating poverty.

Promoting awareness amongst people
TUI Cruises also understands commitment as increasing the awareness among guests and employees both on board and on shore with regard to subjects such as protection of species and the environment. In addition to its collaboration with the International Fund for Animal Welfare (IFAW) and SECORE, the company has consequently established regular events on shore and on board which are aimed at fulfilling this aim. In 2014, for the second time, TUI Cruises held an Environment Day on shore for apprentices and students on dual-mode courses. The subject is a permanent constituent of the training syllabuses.

On Environment Day, the trainees had the opportunity to take an intensive look at the topic of environmental protection and sustainability in the cruise industry through their own presentations, strategy games and lectures. A regular Environment Day is among the current topics in the Kids & Teens program on board.

Among other events in 2014, the Kids & Teens department jointly organized a new program with the IFAW on the subject of Whales and Dolphins, which presented the young guests with fascinating facts about these marine mammals. With Meerleben [Sea Life], TUI Cruises has created the first sea-going maritime museum. It enables guests to find out more about the sea and navigation and to become aware of the responsibility that humans bear for the sea as a natural habitat. In order to assume responsibility at a social level and to promote awareness of relevant topics among the employees, TUI Cruises also decided in this reporting year that each year it will support a sponsorship project selected by its employees, with money being raised through various activities on shore and on board. The concentrated support is intended above all to benefit small regional organizations at the TUI Cruises locations of Hamburg and Berlin. In spring 2014, the employees decided in favour of the association Sommeraufbruch e.V., which enables children of all ages with muscular dystrophy to take a holiday without their parents.

32,759 €
is the amount collected by guests and employees of TUI Cruises during 2014 and donated to the association Sommeraufbruch e.V., which organizes leisure programs during the holidays for children of all ages with neuromuscular diseases.
Research at sea on Mein Schiff 3
TUI Cruises has been pursuing the aim of supporting science in the service of the environment since 2012, through a cooperation arrangement with the Helmholtz-Zentrum Geesthacht. After the successful trial run of a mercury-measuring device on Mein Schiff 1 in 2013, the company extended the scope of cooperation in the reporting year and equipped Mein Schiff 3 as a research vessel with a permanently installed measuring device for mercury content in the air and an instrument for water analysis. This FerryBox is installed on Deck 0 and draws in seawater to continuously collect data on various parameters such as the salt content or the pH value of the water. FerryBox functions automatically and transmits this information directly to the scientists in the Helmholtz-Zentrum, who can then use it to draw important conclusions for their research.

3 questions for Dr Wilhelm Petersen:

What is a FerryBox?
A fully automated marine measuring system which we have installed for the first time on a cruise ship with Mein Schiff 3. In total, some 30 FerryBoxes are gathering scientific information via seawater in Europe alone. The data enable us to gain a better understanding of the processes in coastal waters, detect changes and examine issues such as how much greenhouse gas is absorbed by the oceans.

How does the device work?
The FerryBox is located in the engine room and has direct access to the seawater. Seawater is continuously pumped through its interior and passes various sensors that measure all the relevant oceanographic parameters. All the information is sent to Geesthacht in real time, where it enters the database of a coastal observation system, which is available to researchers all over the world.

Why have you installed the FerryBox on a cruise liner?
We depend on a broad base of data from different space and time scales. Acquiring data from fixed measuring stations, satellites and specific research journeys only produces an incomplete picture. The low-cost series of measurements from the FerryBoxes, such as that on Mein Schiff 3, supplement this picture with measurements taken around the clock and in all weather conditions.
Environmental targets.

When directing its efforts towards environmental protection and sustainability, it is also important for a company to focus on what is actually done and produces verifiable success. This is why the environmental targets at TUI Cruises, which involve avoiding pollution of the environment by reducing emissions, conserving resources and minimizing risks, are part of the corporate environmental management program.

The balance sheet from the reporting year referring to environmental targets is impressive. As illustrated in detail in the overview table and the individual sections of this report, TUI Cruises has made great advances here on its specified path and achieved important targets in the field of environmental management, emissions, waste, biodiversity, water, newbuilds and commitment. These achievements also include the significant reduction in fuel consumption per person per overnight stay, the reduction of air pollutants and the sulfur content in the fuel used. The increased use of low-sulfur fuel has, however, resulted in a slight increase in CO₂ emissions per person per overnight stay. Further advances include the significantly reduced quantity of waste generation and the rise in the proportion of waste recycled, the integration of ballast water treatment plants for the entire fleet and all newbuilds, substantial donations for regional environmental organizations and the decrease in water consumption on board. Beyond the implementation of targets, the reporting year also saw the completion of numerous smaller measures and projects such as the environment-friendly guideline for merchandising products, a sustainable policy for shore excursions and the switchover to green electricity at the Berlin and Hamburg locations. TUI Cruises has again set itself various clearly defined targets for the current year. The company is continuing to attach great value to unambiguously formulated resolutions and to exact monitoring of the progress made. This is indicated by measures ranging from certification of the environmental management and quality systems for the whole fleet via a further reduction in pollutant emissions through to in-company prioritization of environmental issues.

13 OUT OF 15 of the environmental and sustainability targets defined in the Environmental Report 2013 were achieved by TUI Cruises in 2014. The company managed to record results that significantly exceeded the projected values in a large number of these targets.

7 PERCENT less fuel consumption per person per overnight stay is the target planned by TUI Cruises in the current calendar year. The company is also aiming to lower the associated CO₂ emissions accordingly.
## ENVIRONMENTAL TARGETS
### TUI Cruises

<table>
<thead>
<tr>
<th>Area</th>
<th>Target</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Environmental management</strong></td>
<td>Certify the Mein Schiff® fleet to ISO 14001 and ISO 9001</td>
<td>End of 2015</td>
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<tr>
<td></td>
<td>Continue the measures for reducing energy consumption on shore</td>
<td>Ongoing</td>
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<tr>
<td></td>
<td>Implement the procurement guidelines in all specialist departments of TUI Cruises</td>
<td>End of 2015</td>
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<tr>
<td></td>
<td>Conduct environmental workshops with the specialist departments of product management</td>
<td>End of 2015</td>
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<td></td>
<td>Develop a guideline for environmentally friendly events</td>
<td>End of 2015</td>
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<td></td>
<td>Introduce the digital Meine Reise portal in order to minimize print-based guest communication on board</td>
<td>End of 2015</td>
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<tr>
<td></td>
<td>Continue the measures for reducing print products and paper demand</td>
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<td>Ongoing</td>
</tr>
<tr>
<td><strong>Emissions</strong></td>
<td>Reduce the fuel consumption of the Mein Schiff® fleet by 7% compared with 2014</td>
<td>End of 2015</td>
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<tr>
<td></td>
<td>Reduce the CO₂ emissions per person per overnight stay by 5% compared with 2014</td>
<td>End of 2015</td>
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<tr>
<td></td>
<td>Reduce air pollutants such as SOx, NOx and particulates compared with 2014</td>
<td>End of 2015</td>
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<tr>
<td></td>
<td>Maintain the fuel quality at a mean sulfur content of less than 2%</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td>Continue recording and compensating for the CO₂ emissions caused by business trips</td>
<td>Ongoing</td>
</tr>
<tr>
<td><strong>Waste</strong></td>
<td>Increase the proportion of waste recycling compared with 2014</td>
<td>End of 2015</td>
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<tr>
<td></td>
<td>Lower the quantity of waste per overnight stay compared with 2014</td>
<td>End of 2015</td>
</tr>
<tr>
<td></td>
<td>Introduce refillable dispenser systems for shower gel and shampoo in the cabins of the Mein Schiff® fleet</td>
<td>End of 2015</td>
</tr>
<tr>
<td></td>
<td>Audit at least two waste disposal companies in ports with respect to a recycling ratio of 100% in relation to the waste we deposited in that location</td>
<td>End of 2015</td>
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<tr>
<td><strong>Biodiversity</strong></td>
<td>Extend the range of sustainable shore excursions offered in Asia</td>
<td>End of 2015</td>
</tr>
<tr>
<td><strong>Water</strong></td>
<td>Lower the quantity of water consumed per overnight stay compared with 2014</td>
<td>End of 2015</td>
</tr>
<tr>
<td><strong>Newbuilds</strong></td>
<td>Equip the future newbuild vessels with an exhaust gas treatment system</td>
<td>Ongoing</td>
</tr>
<tr>
<td><strong>Commitment</strong></td>
<td>Support local environmental organizations through the donations generated in the Green &amp; Fair shore excursions</td>
<td>Ongoing</td>
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</tbody>
</table>
Communicate with us
Any suggestions or criticism? The TUI Cruises Environmental Team will be pleased to deal with any feedback and queries you may have concerning this environmental report and its contents. Contact us via: umwelt@tuicruises.com

About the printed version of this report
Our responsibility does not merely cover the contents and design. It also extends to the production of this environmental report. This is why we have taken the conscious decision to use only 100% recycled paper for the cover and inside pages. In addition, we have completely refrained from using adhesives (e.g. in the binding and cover design) and have only employed environmentally friendly printing inks, which are water-based and free of mineral oils.

This report is available for download on the Internet at www.tuicruises.com/umwelt (also in German).