



ENVIRONMENTAL REPORT 2018

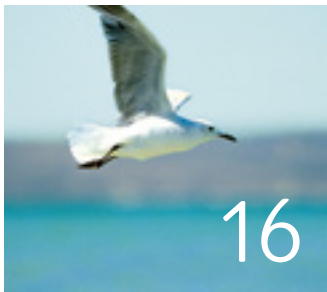
CONTENTS



ENVIRONMENTAL MANAGEMENT



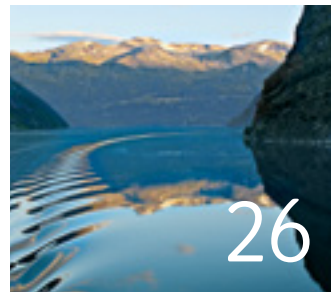
NEWBUILDS



ENERGY & EMISSIONS



WASTE



WATER



BIODIVERSITY



COMMITMENT



ENVIRONMENTAL TARGETS

EDITORIAL	4
COMPANY PROFILE	5
OVERVIEW OF ENVIRONMENTAL PROTECTION	6
FURTHER INFORMATION	38
IMPRINT	38

EDITORIAL

Dear Ladies and Gentlemen,

Our company celebrated its tenth anniversary in the year under review. Ten years of TUI Cruises also stand for ten years of commitment to environmentally friendly and sustainable cruise operations. During this period we not only constantly expanded our fleet and developed it into the most modern and environmentally friendly fleet of cruise ships in the world. We also strengthened our environmental management department, made more and more voluntary commitments in order to protect nature, and actively participated in a number of initiatives with regard to issues such as the prevention of waste, the conservation of resources, and emissions reduction.

In view of the successes already achieved, it is clear to us that there cannot be stagnation in the sphere of environmental protection and we will continue on our path of constant improvement when it comes to both familiar and new issues in the future.

We took the next step with *Mein Schiff 1*, which went into service in the year under review, and *Mein Schiff 2*, which was launched in Lisbon in February 2019. With this new generation of ships we have also consistently taken environmental protection into consideration and implemented further innovations from the very first design phase.

The result is significantly less energy consumption – approximately 40% lower than comparable ships and thus further reducing emissions.

Such successes make us just as proud of our anniversary year as the renewed very high level of satisfaction of our guests, as well as the fact that we achieved our self-imposed environmental objectives virtually without exception in the year 2018.

I wish you a stimulating read.

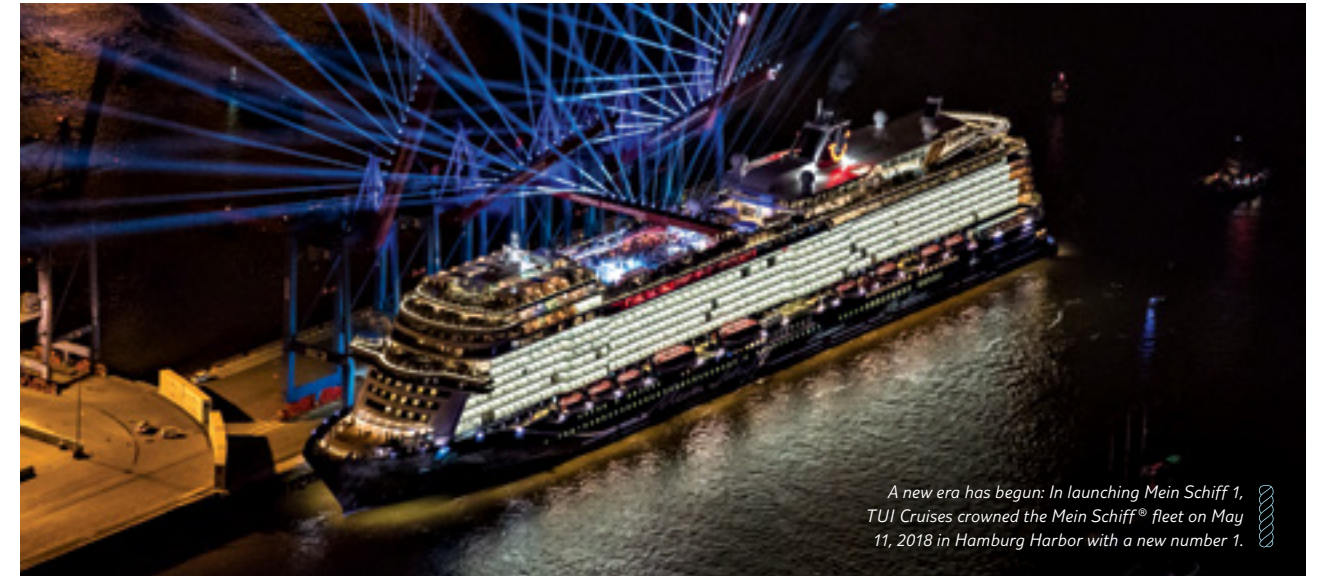
Wybcke Meier
Chief Executive Officer
Chairwoman of the Board of Management

OVERVIEW OF ENVIRONMENTAL PROTECTION AT TUI Cruises ON PAGES 6/7



A PROFILE OF TUI Cruises.

With the launching of *Mein Schiff 1* and numerous awards, the tenth anniversary of TUI Cruises was once again marked by sustained fleet growth.



A new era has begun: In launching *Mein Schiff 1*, TUI Cruises crowned the *Mein Schiff*® fleet on May 11, 2018 in Hamburg Harbor with a new number 1.

With a fleet of currently seven ships and a capacity of approximately 17,800 beds, TUI Cruises offers the German-speaking market vacations at sea on 63 routes worldwide.

ENVIRONMENTALLY FRIENDLY FLEET

Environmentally conscious corporate action is firmly anchored in the values of TUI Cruises and also determines the company's approach to steadily increasing its fleet. Like all of the previous TUI Cruises newbuilds, *Mein Schiff 1* – launched in May 2018 – sets new standards in terms of environmental friendliness. The same also applies to *Mein Schiff 2*, which was launched in February 2019, and the newbuilds currently being planned for service in the years 2023, 2024, and 2026. The previous *Mein Schiff 2*

will remain in the fleet under the name of *Mein Schiff Herz* until 2022.

EXCELLENT PERFORMANCE

In 2018, TUI Cruises again received numerous awards, including four from a total of five positions among the world's best cruise ships in the annual ranking published by the Berlitz Cruising & Cruise Ships Guide, the German Cruise Award 2018, and the Globus Award 2018 from the trade journal *touristik aktuell*. When it comes to the environment, the myclimate Award 2018 highlighted the company's diverse measures to reduce its carbon dioxide emissions. With the Readers Award, the *National Geographic Traveler* honored the company as a "Green Light" in the Eco Travel segment.

OVERVIEW 2018

Founding of TUI Cruises: 2008 as a joint venture between TUI AG and Royal Caribbean Cruises Ltd. (RCCL)
Employees ashore: 452
Crew on board: approx. 6,000
Fleet: 6 vessels in service, 1 vessel under construction, 3 vessels in planning
Concept: Premium all-inclusive on 63 worldwide routes to destinations in the Caribbean, the Mediterranean, the Canary Islands, the Orient, the North Sea and Baltic Sea, Asia, and Central and North America



As the "pioneer in sustainability and climate protection in the cruise industry," TUI Cruises received the myclimate Award 2018 in March.

Energy efficiency

Certified:
Our onboard energy management is certified in accordance with ISO 50001.

Total energy consumption in relation to comparable cruise ships*
-30% to -40%

Per person/night on board 2018:
Fuel consumption Lowering of emissions (CO₂)
17.58 kg -5.07%

Environmental management

Working for the environment:

- Environmental department shore-side.
- Environmental officers on board 24/7.

Biodiversity

TUI Cruises' aim:
Preservation and protection of the diversity of species and ecosystems.

The "Grün & Fair" shore excursions charity program supports regional environmental organizations.

Water

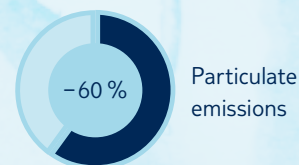
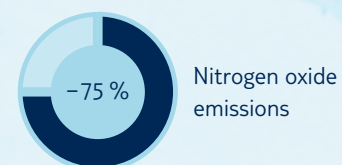
For clean seas:
Only treated sewage goes overboard.

Modern sewage treatment plants purify all wastewater on board*.

Emissions*

Above & Beyond:
Our exhaust gas cleaning system on our newbuilds operates around the world and around the clock.

Hybrid scrubbers and catalytic converters produce reductions of up to



Waste

Setting accents with new projects:

- WASTELESS plastic reduction program.
- Project to reduce food waste.

Waste separation in 6 categories

Recycling quota
35%

Waste per person/night on board in 2018
7.291

* Related to newbuilds.

SUSTAINABLE COURSE VIA ENVIRONMENTAL MANAGEMENT.

Environmental protection efforts in the year under review also included the publication of an environmental strategy that is valid up to the year 2020.

As a shipping company, TUI Cruises lives from and with an intact environment. Environmental protection is therefore an integral part of our strategy and corporate policy. An integrated management system certified in accordance with ISO 14001 and ISO 9001 combines the areas of quality and the environment. Both have been consistently anchored in the company's objectives since the founding of TUI Cruises.

SUSTAINABLE COURSE FOR FURTHER DEVELOPMENT

Environmental management at TUI Cruises ensures that a sustainable course is pursued both when it comes to the ongoing further

“
Environmental protection is an integral part of our thinking, i.e., we cover the entire life cycle of our cruises with our environmental activities.

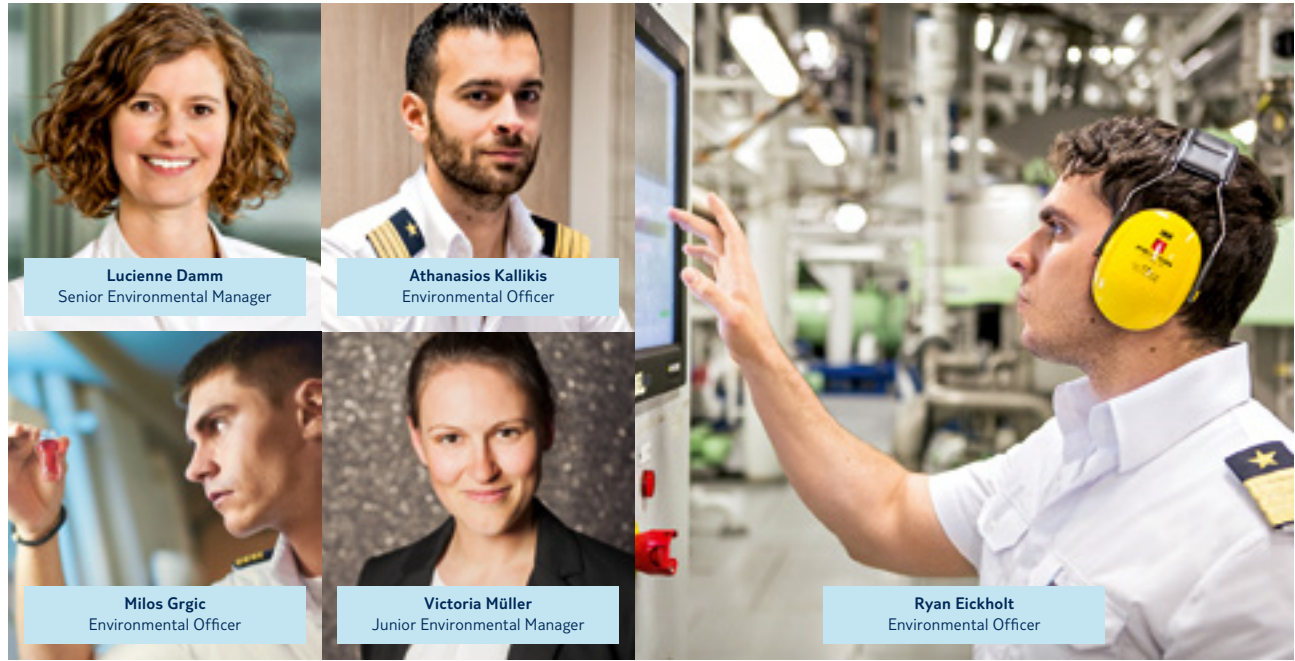
”
Lucienne Damm
 Senior Environmental Manager

development of structures, topics, and objectives for the *Mein Schiff*® fleet and for shore-based business locations. As an administrative entity, the Environmental Management department, located at the company's Hamburg headquarters, exerts an influence on all corporate divisions. In addition, TUI Cruises permanently expanded the department in the year under review.

Environmental officers are on duty on board all ships – around the clock, seven days a week. They are responsible for environmental management on board the ships and ensure, among other things, compliance with environmental laws and standards.

ENVIRONMENTAL MANAGEMENT

Environmental protection is an integral part of TUI Cruises' corporate strategy. Environmental management ensures that structures are improved and that environmental objectives remain on course.



2 FILMS

were prepared in the year under review: one on the WASTELESS plastic reduction program and one on waste and wastewater management on board. In an easily understandable manner the films inform guests on board and visitors to the website www.tuicruises.com about the company's commitment in these areas.

**WASTE
LESS**

New environmental concept: In the year under review, TUI Cruises launched the WASTELESS plastic reduction program and systematically recorded and analyzed all disposable plastic and other products.

ENVIRONMENTAL STRATEGY UP TO 2020

In the year under review, TUI Cruises presented a new environmental strategy with a focus up to the year 2020. Its aim is to identify concrete needs for action and to define the priorities for operational activity from 2018 to 2020. The company's strategy is based on the 17 Sustainable Development Goals (SDGs) formulated by the United Nations (UN) as guidelines for a better and more sustainable future. TUI Cruises makes an active contribution toward environmental protection and marine conservation through an environmental strategy based on these cornerstones that addresses six of the 17 objectives.

In order to implement its environmental strategy the company has set itself concrete goals in all areas with which its progress can be measured. These include, for example, the reduction of plastic waste and water consumption on board. In all of its activities, compliance with legal obligations and national and international standards is just as much a matter of course for TUI Cruises as constant commitment to self-imposed and voluntary targets. The latter also includes continuous and transparent communication of the various measures that have been initiated and the progress that has been made.

FIRST SHIP-LAND ENVIRONMENTAL WORKSHOP

TUI Cruises organized its first two-day environmental workshop in the year under review, with the aim of further strengthening the exchange between the twelve environmental officers of the *Mein Schiff*® fleet and the exchange between its corporate

headquarters and ship operations. Lectures and discussions on waste management, crew training, or on board environmental communication with regard to the subject of emission reductions were on the agenda on June 7–8 in Hamburg. In addition, the event provided environmental officers with the opportunity to exchange information directly with shore-based departments such as Port Operations, Newbuild, and Itinerary Management. During an excursion the environmental officers also had the opportunity to familiarize themselves with the new *Mein Schiff 1* in operation. TUI Cruises is planning the next workshop for summer 2019.

PROGRESS IN THE YEAR UNDER REVIEW

In the year 2018 TUI Cruises:

- carried out an initial ship-land environmental workshop;
- audited a service provider in the field of marine interior design. The audit covered both quality and environmental aspects and aimed, in particular, to increase efficiency and conserve resources;
- conducted a workshop with all project parties as part of the project to avoid food waste. The event served to prepare training courses for crew members in 2019;
- successfully and, for the most part, completely implemented its internal environmental program. Of the 18 environmental targets for 2018, the company achieved 17 and in some cases significantly exceeded them. TUI Cruises did not fully achieve the planned two audits focusing on the environment and quality. The company conducted only one audit in the year under review.

TUI Cruises ENVIRONMENTAL STRATEGY
2018–2020



Active climate protection and reduction of harmful air pollutants

- Energy efficiency through certified energy management
- Using LNG drive technologies for future newbuilds
- Worldwide emission reduction, e.g., through innovative exhaust gas purification systems



Comprehensive waste management and ocean protection

- Systematic reduction of food waste throughout the entire fleet
- Optimization of recycling
- Responsible disposal in ports
- Plastic reduction program



Stakeholder involvement and sustainable destination development

- Environmental education for employees and guests
- Strengthening a more sustainable supply chain
- Transparent environmental reporting and certified environmental management
- Promotion of sustainable destination development

SUSTAINABLE DEVELOPMENT GOALS

Of the 17 Sustainable Development Goals formulated by the United Nations as guidelines for a more sustainable future, TUI Cruises works on six selected targets:















NEWBUILDS

With *Mein Schiff 1*, TUI Cruises has maintained its high level of environmental protection. Constant optimization of environmental technologies will also continue to determine new construction activities in the future.

NEWBUILDS SET STANDARDS IN ENVIRONMENTAL PROTECTION.

Since the year 2014, TUI Cruises has put a new ship into service every year and today it operates the most modern and environmentally friendly cruise fleet in the world.



The environmental friendliness of the *Mein Schiff*® fleet is due in part to the high energy efficiency of the six newbuilds to date. Thus the four ships put into service between the years 2014 and 2017 consume approximately 30 % less fuel than ships of comparable size and, through the use of modern exhaust technologies, account for significantly reduced carbon dioxide and air-polluting emissions. All newbuilds are equipped with a combined exhaust aftertreatment system. This consists of a scrubber and catalytic converters and reduces sulfur emissions by up to 99 %. The system reduces nitrogen oxide emissions

by up to 75 % and particle emissions by up to 60 %.

NEW STANDARDS IN ENVIRONMENTAL PROTECTION

With *Mein Schiff 1*, launched in 2018, and *Mein Schiff 2*, which was launched in February 2019, TUI Cruises has once again achieved an unprecedented level of environmental protection through innovation: the sister ships have catalytic converters for both the main and auxiliary engines. Thus TUI Cruises again significantly reduces nitrogen oxide emissions and makes an active contribution toward air-pollution control.

≈ 40 %

Mein Schiff 1 and Mein Schiff 2 require less energy than comparable ships thanks to their excellent energy efficiency.

With an energy consumption that is up to 40% lower than that of comparable ships, the two latest newbuilds also fully exploit what is currently technically feasible in terms of energy efficiency. This is due, among other things, to a comprehensive energy management system, an innovative lighting control system, highly efficient air conditioning systems, the hydrodynamic hull shape of the ships, an extensive LED concept, and the environmentally friendly underwater silicone coating.

THREE MORE NEWBUILDS BY 2026

As a result of constantly increasing demand, TUI Cruises will build three more ships in the next few years. One ship ordered from Meyer Werft in Turku, Finland, with 111,500 GT and a bed capacity for around 2,900 guests, corresponds to the sister ships *Mein Schiff 1* and *Mein Schiff 2* and will be delivered in the year 2023.

“
As a consistent continuation of our environmental strategy, we will operate the two newbuilds scheduled for completion in 2024 and 2026 with liquefied natural gas.



Wybcke Meier
CEO

Two further identical newbuilds planned for 2024 and 2026 with a size of 161,000 GT belong to a new class of ships and will be built at the Italian shipyard Fincantieri. TUI Cruises resolutely pursues its environmental strategy with these newbuilds as well. These two ships will not only be equipped with proven environmental technologies – for the first time TUI Cruises will use liquefied natural gas (LNG) for operation of these newbuilds.

STRENGTHENING LNG TECHNOLOGIES

Looking at the next ten years, LNG, liquefied gas, is considered to be the lowest-emission alternative for ship propulsion. As a founding member of the Maritime LNG Platform, TUI Cruises has made the further development of LNG technologies a part of its own environmental commitment, along with support for the infrastructural development for maritime supplies of liquefied petroleum gas required for international shipping and cruise shipping in particular.



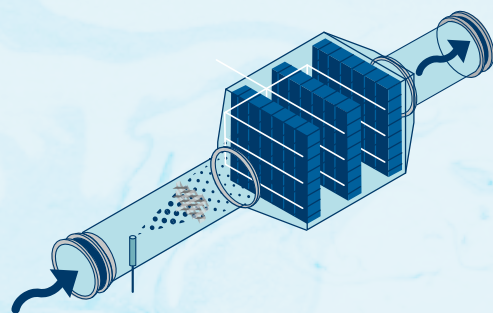
Since the company assumes that the current still-limited availability of LNG, as well as the logistical challenges – such as refueling in ports and reliable and uniform regulations for refueling up to the year 2024 – will no longer pose a problem, TUI Cruises is, for the first time, equipping the two newbuilds ordered in Italy with this innovative and environmentally friendly form of propulsion.



TUI Cruises relies on intensive use of waste heat from engines – for example to heat pools and generate steam in the laundry.

SCR CATALYTIC CONVERTERS

Schematic representation



Two SCR catalytic converters each are attached to the auxiliary engines of the vessels *Mein Schiff 1* to *Mein Schiff 6* in order to ensure comprehensive nitrogen oxide reduction. On *Mein Schiff 1* and *Mein Schiff 2* the main engines are additionally equipped with catalytic converters.

SHORE POWER IN SIGHT

The use of shore power enables generators to be switched off at the port, thus preventing pollution from nitrogen oxides, particulate matter, and sulfur. If green electricity is used, then carbon dioxide emissions can also be greatly reduced. Against this backdrop TUI Cruises has been supporting the development of shore power applications for a number of years.

The company has already designed the *Mein Schiff 1* to *Mein Schiff 6* vessels in such a way that the retrofitting required for the use of shore power is possible at short notice at any time. Currently, only a few ports – such as Oslo, Kristiansand, and Hamburg – offer shore power connections at individual berths.

For this reason, comprehensive conversion to shore-side electricity is currently not an option. However, as TUI Cruises wishes to play an active role in the further development of this sector, the company decided in the year under review to convert at least one ship to an external power supply in the future and to use shore power at ports where it is possible to do so.

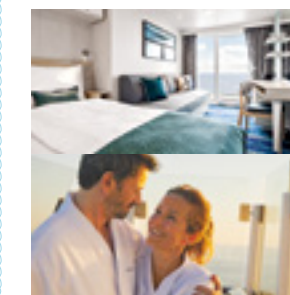
PROGRESS IN THE YEAR UNDER REVIEW

In the year 2018 TUI Cruises:

- introduced bed linen, bathrobes, and towels made of organic cotton on *Mein Schiff 1*;
- equipped the newbuilds with an exhaust aftertreatment system.

SUSTAINABLE CABINS

and suites are standard on *Mein Schiff 1* and *Mein Schiff 2*. In addition to wood from sustainable forestry, LEDs, and carpets with a wool content of 80%, towels, bathrobes, and bed linen made of organic cotton certified in accordance with the Global Organic Textile Standard (GOTS) and Fairtrade are also used.



POSITIVE BALANCE FOR ENERGY AND EMISSIONS.

The reduction of air pollutants is closely linked to economical and efficient use of energy and is a key objective of the environmental efforts at TUI Cruises.

TUI Cruises is constantly working to minimize the environmental impact of its cruises and can draw a very positive balance for the year under review with overachievement of all six reduction targets in the energy and emissions sector. Energy management plays a central role for the company, as only energy-efficient ship operation allows for further effective reduction of emissions and air pollutants. TUI Cruises has achieved its successes to date primarily through its detailed, co-ordinated triad of environmental policy, environmental technology, and environmental management. Thus the company will continue to meet the challenges on the way to further emission reductions and energy savings.

ENERGY EFFICIENCY FOR ELECTRICITY AND FUEL

The continuous growth of the *Mein Schiff*[®] fleet has also increased the importance of energy efficiency for TUI Cruises. The topic of energy is basically about the two components electricity and fuel. Since fuel consumption is reduced with less energy requirement, TUI Cruises relies above all on measures to reduce power consumption. In addition to modern air conditioning systems and the elimination of minibars in the cabins, these include reducing the volume of laundry, training employees on shore and the crew on board, and sensitizing guests to the subject. The two newbuilds *Mein Schiff 1* and *Mein Schiff 2* have an energy consumption that is up to 40% lower than that of comparable ships.



www.tuicruises.com/nachhaltigkeit/emissionen

The short environmental film explains the topic of emission reduction at TUI Cruises.

ENERGY & EMISSIONS

TUI Cruises is actively taking up the challenge of reducing emissions. The further reduction of air pollutants and carbon dioxide emissions remains the goal of the company's environmental strategy.





TUI Cruises has a systematic energy management system certified in accordance with ISO 50001 and which is centrally administered and coordinated by the Energy Efficiency Manager on land. Thus in the year under review, the company continued to pursue its goal of reducing energy consumption by setting up and expanding corresponding processes and systems.

LOW-EMISSION SHIP OPERATION

The progress made in reducing fuel consumption at TUI Cruises was also reflected in a successful decline in the emission of air pollutants in the year under review. In addition, the company uses state-of-the-art environmental technology to reduce pollutants in all of its newbuilds and makes consistent use of this technology for particularly low-emission ship operation: Catalytic



Georgios Vagiannis
Project Manager Newbuild /
Energy Efficiency Manager

“
The best ton of fuel is the one we don't use.
”

converters reduce nitrogen oxide emissions (NOx), while constant use of hybrid scrubbers reduces emissions of sulfur oxides (SOx) and particles.

With regard to carbon dioxide, TUI Cruises aims to reduce carbon dioxide emissions by 40% by the year 2025 compared with 2015. By doing so, the company staunchly supports the commitment of the cruise industry to reduce carbon dioxide emissions by 40% by the year 2030 compared to 2008.

TUI Cruises' long-standing commitment to carbon dioxide emissions meant that it was well prepared for the EU Directive on Monitoring, Reporting and Verification (MRV). Since January 1, 2018, the regulation obliges

all ships with more than 5,000 GT wishing to call at a European port to provide proof of comprehensive carbon dioxide monitoring.

EXHAUST GAS PURIFICATION: ABOVE & BEYOND

Since the commencement of its business activities, TUI Cruises has been committed to environmental issues far beyond the statutory requirements through numerous voluntary undertakings. The result is the most modern and environmentally friendly cruise fleet in the world. The company also pursues this approach when it comes to exhaust gas purification. In its "Global Sulphur Cap 2020," the International Maritime Organization (IMO) provides for a global sulfur limit value of 0.5% as of January 1, 2020 and since 2010 a limit value of 0.1% for European ports. In the so-called Emission

Control Areas (ECAs) of the Baltic and North Seas as well as in designated coastal areas in North America and the Caribbean around Puerto Rico and the Virgin Islands, the limit value has been at a sulfur content of 0.1% since 2015. Thanks to the continuous worldwide use of scrubber technology around the clock, TUI Cruises has been reducing the sulfur content in the exhaust gas on all newbuilds to 0.1 % since 2014.

In addition, as part of its "Closed Loop Zero Discharge Policy," the company operates the hybrid scrubber in particularly sensitive ecosystems such as the Baltic Seas, the Norwegian fjords, or the North Sea Canal exclusively in the so-called closed loop. In this closed mode, the purified wash water from the exhaust gas cleaning system is discharged to land without exception.

CEMS

stands for Continuous Emission Monitoring System. This solution is used by TUI Cruises to demonstrate compliance with emission limits in exhaust gases through constant measurement of carbon dioxide, sulfur oxide, and nitrogen oxide.

OVERVIEW OF EMISSION CONTROL AREAS (ECAs)

Presentation of legal obligations



Areas marked in blue:
0.1 % emission control area limit (MARPOL)

Rest of the world:
0.5 % global limit (MARPOL, 2020)

Area	Sulfur Limit	Scrubber
Global	0.5 % (2020)	Yes
Sulfur ECA	0.1%	Yes
EU	0.1% in all ports	Open loop restricted in several countries

Source: DNVGL



Scrubber application **around the clock worldwide** reduces the sulfur content in the exhaust gas to **0.1 %**.



Environmental Officer Athanasios Kallikis (right) and 2nd Engineer Nikola Dukic (left) work together as a team on board Mein Schiff 2.

TUI Cruises also uses SCR catalytic converters worldwide as part of a voluntary commitment. In addition to the catalytic converters on the auxiliary engines, the ships put into service since the year under review also have catalytic converters on the main engines, which ensures a further reduction in nitrogen oxide emissions.

PROGRESS IN THE YEAR UNDER REVIEW

In the year 2018 TUI Cruises:

- reduced fuel consumption per person and overnight stay by 6.27 % compared with the previous year, thus significantly exceeding the target of a 4 % reduction;
- reduced the carbon dioxide output per

person and overnight stay by 5.07 % compared to 2017, thus more than achieving the target of 4 %;

- reduced emissions of sulfur oxide per person and overnight stay by 36.70 % compared with the previous year, which exceeds the targeted reduction of 5 % many times over;
- achieved the target of reducing nitrogen oxide emissions per person and overnight stay by 11.97 % compared with the previous year;
- achieved the targeted reduction in particle emissions per person and overnight stay with a value 16.60 % less than in 2017;
- offset all of the carbon dioxide emissions caused by business flights.

ENERGY & EMISSIONS

Key figures

ENERGY	2017	2018	+/- Prev. year
Fuel consumption per person and overnight stay	18.76* kg	17.58 kg	-6.27%
Energy consumption (fuel consumption) on board	125,037.69* t	129,616.16 t	3.66%
thereof heavy fuel oil	114,722.74 t	123,680.31 t	7.81%
thereof marine gas oil	10,314.95 t	5,935.85 t	-42.45%
			Fleet capacity increased by 21%.
EMISSIONS	2017	2018	+/- Prev. year
CO₂ emissions per person and overnight stay	61.33* kg	58.22 kg	-5.07%
CO ₂ emissions (from the use of fuel and coolants on board)	408,862.77* t	429,258.64 t	4.99%
			Fleet capacity increased by 21%.
NO _x emissions per person and overnight stay	1.20* kg	1.06 kg	-11.97%
SO _x emissions per person and overnight stay	0.48 kg	0.30 kg	-36.70%
Particulate matter emissions per person and overnight stay	0.08 kg	0.07 kg	-16.60%

* Correction due to improved data availability. | Differences may occur due to rounding.



The hybrid scrubber is the central component of the combined exhaust aftertreatment system, consisting of scrubber and catalytic converter.

CARE IN DEALING WITH THE ENVIRONMENT AND RESOURCES.

Waste avoidance and waste management are important components of TUI Cruises' ecological commitment.

Waste management at TUI Cruises is governed by the principle of "avoid, reduce, recycle." In addition to the goal of the lowest possible quantities of waste, this includes comprehensive waste management on board, as well as waste disposal exclusively on land and numerous concrete measures to protect the environment from pollution caused by waste.

COMPANY-WIDE PLASTIC REDUCTION PROGRAM

As a cruise company, TUI Cruises sees it as its duty to go far beyond all statutory requirements to ensure an intact environment and clean oceans, and to protect them for future generations. TUI Cruises pays particular attention to the dramatic effects of plastic pollution of the oceans and therefore launched the company-wide WASTELESS plastic reduction program in the year under review. The program aims at avoiding disposable plastic and other disposable products. By the end of 2020 the company intends to prevent the use of these items throughout the entire fleet as far as possible or replace them with environmentally friendly alternatives.

If it is not possible to avoid plastic items and disposable products for hygiene or safety reasons, for example, then TUI Cruises reduces these articles to a minimum or replaces them with environmentally friendly alternatives such as reusable systems, dosing and refilling systems,

large packaging, and solutions made of organic plastics. TUI Cruises will continue to recycle the remaining plastic waste wherever possible in order to ensure the best possible recovery. Every year TUI Cruises saves on plastic costs through measures already implemented such as

- over 1 million coffee-to-go cups
- over 350,000 plastic tubes for hygiene products
- over 250,000 plastic packages for *Mein Schiff*® slippers
- almost 5 million cocktail sticks made of plastic
- over 5.5 million individual portions of mayonnaise, ketchup, and mustard
- 1 approx. 140 rolls of plastic wrap per year in the SPA applications

LESS FOOD WASTE THROUGHOUT THE FLEET

In 2017, as part of a pilot project on *Mein Schiff 4*, TUI Cruises developed measures to avoid food waste, which the company consistently implemented across the entire fleet in the year under review. Thus the arrangement and quantity of food at the buffet was optimized. Among other things, the use of smaller presentation containers contributes to this, which avoids unnecessary waste while maintaining the same variety of products.



WASTE

TUI Cruises is continuously implementing numerous measures to ensure that waste is avoided and that the recycling rate is improved in the long term.



www.tuicruises.com/nachhaltigkeit/wasteless

This short film on environmental protection explains the WASTELESS plastic reduction program.



No disposable plastic products and replacement by sustainable alternatives by the end of the year 2020.



TUI Cruises only has glass or paper straws on board for certain drinks and for guests who do not want to do without straws.



In the first stage of the project, TUI Cruises systematically recorded all disposable plastic products and searched for alternative products and operational solutions. Phase 2 serves to implement the alternatives and focuses on the logistics chain in order to save additional plastic waste. Phase 3 ensures the long-term success of the program.

The offer in buffet restaurant Anckelmannsplatz, which has been extended to the period from 6:30 a.m. to 9:30 p.m., also avoids food waste with smooth transitions between meals on all ships. In addition, TUI Cruises is, for example, making increased use of recyclable elements instead of food for the purposes of decoration. The success of the measures in which TUI Cruises actively integrated the *Mein Schiff*® crew and the management staff of all ships was confirmed by comparative measurements carried out by project partner United Against Waste e.V. in the year under review.

UPCYCLING UNIQUE ITEMS

In June 2018, TUI Cruises added a product to its range in its online shop that deals with waste in a particularly sustainable manner: the new *Mein Schiff*® unique shoulder bags are made from discarded *Mein Schiff*® advertising posters. A different poster cutout is processed for each

bag. This makes the durable PVC bags real collectors' items. Upcycling also takes place on board *Mein Schiff 2*: Thus an art object was created at the pool, consisting of old flip-flops.

PROGRESS IN THE YEAR UNDER REVIEW

In the year 2018 TUI Cruises:

- reduced the amount of waste per person and overnight stay by 16.03% compared to the previous year, thus clearly exceeding the target of a 2% reduction;
- increased the waste recycling rate by 3.4% compared with the previous year;
- extended the project to reduce food waste to the entire *Mein Schiff*® fleet;
- audited a waste vendor with regard to the waste delivered at the port;
- launched a comprehensive plastic reduction program on board the *Mein Schiff*® fleet.



TOGETHER AGAINST FOOD WASTE

is the motto of the project to reduce food waste.



Art from old flip-flops on board *Mein Schiff 2*

WASTE Key figures			
	2017	2018	+/- Prev. year
Waste per person and overnight stay	8.69l	7.29l	-16.03%
Total waste	57,904.62 m ³	53,776.07 m ³	-7.13%
thereof landfill	15,421.75 m ³	10,151.01 m ³	-34.18%
thereof incinerated on board	16,444.42 m ³	17,754.88 m ³	7.97%
thereof shredded food waste	7,284.40 m ³	6,734.82 m ³	-7.54%
thereof subject to special waste disposal	708.31 m ³	547.00 m ³	-22.77%
thereof treated by thermal waste processing	4,247.73 m ³	3,311.04 m ³	-22.05%
thereof recycled	13,798.01 m ³	15,277.32 m ³	10.72%
Share of recycled and thermally recovered in terms of total waste	31.16%	34.57%	3.40%

Fleet capacity increased by 21%.

Differences may occur due to rounding.

THE MOST IMPORTANT ELEMENT OF TUI Cruises.

TUI Cruises ensures the careful use of the element water with extensive voluntary commitments as well as the most economical use of seawater and fresh water.

For TUI Cruises as a cruise company, water is at the center of all operational activities. The company therefore sees it as its responsibility to consistently promote the careful, resource-saving use of seawater and fresh water through numerous targeted measures. In addition, the sensitive handling of all wastewater produced on board plays a central role. To ensure this at all times, TUI Cruises has implemented efficient water management on all ships.

RESPONSIBLE WASTEWATER TREATMENT AND DISPOSAL

Although Annex IV to the MARPOL regulations of the IMO only regulates the discharge of black water, TUI Cruises cleans all wastewater on board in accordance with its own company principles. These include black water, grey water, and liquids from food waste. To this end, TUI Cruises took the issue into account in the design of all six new ships and opted for a modern advanced water purification system (AWP) for wastewater

88%

of the drinking water is produced on board the Mein Schiff® fleet via reverse osmosis systems. The fleet is thus largely self-sufficient and conserves the scarce water resources on land.



WATER

Active marine conservation, comprehensive wastewater treatment, wastewater levy: The economical and resource-saving use of water is of central importance for TUI Cruises.

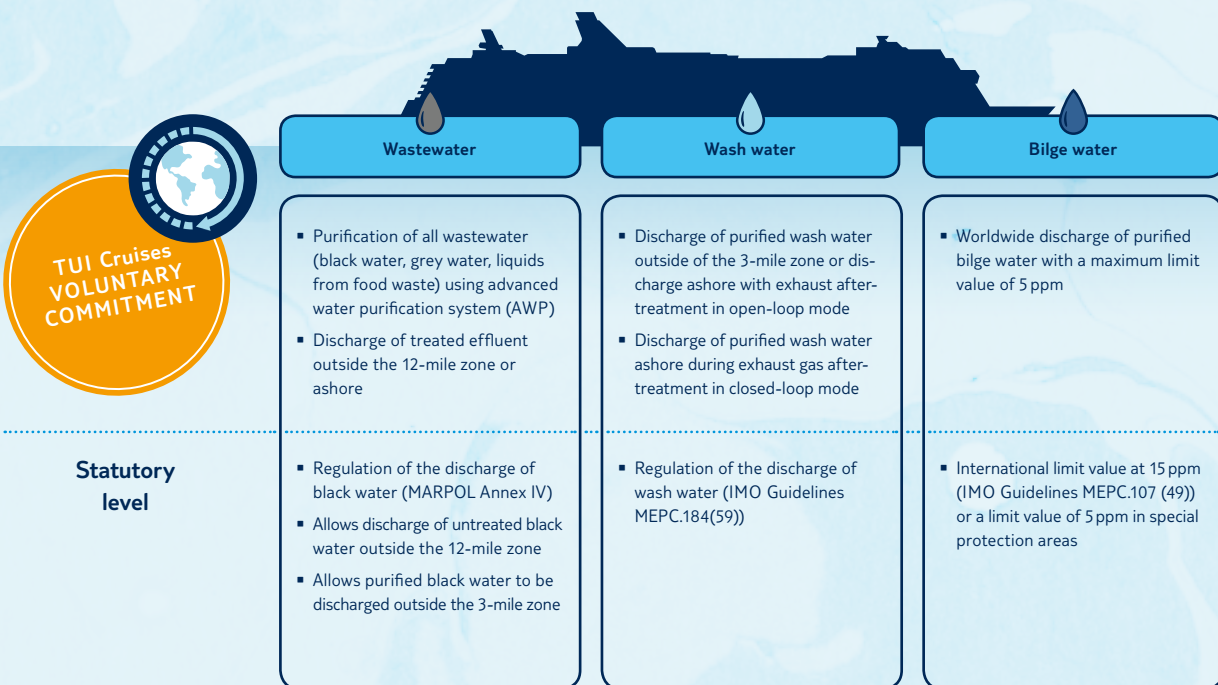


WATER
Key figures

FRESH WATER	2017	2018	+/- Prev. year
Water consumption per person and night	212.31¹l	181.84l	-14.35 %
Total water consumption	1,415,348.00 m ³	1,340,719.10 m ³	-5.27 %
thereof consumption of seawater treated on board	1,111,125.00 m ³	1,175,317.30 m ³	5.78 %
thereof consumption of fresh water from land	304,223.00 m ³	165,401.80 m ³	-45.63 %
		Fleet capacity increased by 21 %.	
WASTEWATER	2017	2018	+/- Prev. year
Treated grey and black water	1,335,334.67 m ³	1,338,597.54 m ³	0.24 %
Untreated grey water	4,886.10 **m ³	4,445.70 **m ³	-9.01 %
Untreated black water	116.10 **m ³	303.00 **m ³	160.98 %
		Fleet capacity increased by 21 %.	

¹ Correction due to improved data availability. | Differences may occur due to rounding.
** Differing discharge due to, e.g., maintenance works.

TUI Cruises PRINCIPLES AND VOLUNTARY COMMITMENTS
Overview of wastewater treatment on newbuilds



treatment, the performance of which is comparable to that of modern onshore wastewater treatment plants. TUI Cruises on the *Mein Schiff*[®] fleet discharges only treated wastewater into the sea. This takes place outside the 12-nautical-mile zone. In coastal and port areas as well as in sensitive ecosystems such as the Baltic Sea, disposal takes place within the scope of a voluntary obligation on land.

CAREFUL HANDLING OF WASH WATER DURING EXHAUST GAS AFTERTREATMENT

The IMO prescribes various monitoring and disposal criteria for wash water discharged into the sea. With a voluntary commitment in place since 2014, TUI Cruises goes far beyond these regulations. The company only operates worldwide in all ports and in coastal areas up to 3 nautical miles from the shore and in the Baltic region in so-called "Closed Loop Zero Discharge" mode, in which the cleaned wash water is exclusively disposed of ashore. In addition, the hybrid scrubbers are in use around the world and around the clock on a voluntary basis.

COMPREHENSIVE TREATMENT AND DISPOSAL OF BILGE WATER

Also as part of its "Above & Beyond" policy, TUI Cruises opted for a limit value below the internationally binding 15 ppm limit for the treatment of bilge water: A de-oiling system separates oil from the bilge water in the engine room until the maximum oil content is 5 ppm. A so-called white box constantly monitors this limit value before the treated water is discharged into the sea. TUI Cruises delivers the oils separated by the de-oiling process exclusively to qualified disposal companies on land.

PROGRESS IN THE YEAR UNDER REVIEW

In the year 2018 TUI Cruises:

- reduced water consumption per person and overnight stay by 14.35 % compared to the previous year, thus clearly exceeding the self-imposed target of a 2 % reduction;
- introduced a bed linen change concept throughout the fleet to reduce the volume of laundry.



www.tuicruises.com/nachhaltigkeit/abfall
Waste and wastewater management on board the *Mein Schiff*[®] fleet comprehensively explained in a short film.



BED LINEN CHANGE CONCEPT:

With the concept introduced throughout the fleet in 2018, guests can stop the laundry change that takes place every four days. If no change is desired, then the guest places a magnet on the wall above the bed and thus conserves resources in the areas of water, electricity, and chemicals.

PROTECTING DIVERSITY TOGETHER.

TUI Cruises is committed to preserving biological diversity and different ecosystems and actively sensitizes its guests to the topic.

Guests of the *Mein Schiff*® fleet can experience the diversity of species at the various destinations visited firsthand via a wide range of shore excursions. For TUI Cruises, the preservation of unique ecosystems such as coral reefs and biological diversity is part of its corporate identity. Against this background, TUI Cruises already developed the Green & Fair Land Excursion Program in 2013 and has steadily expanded it ever since: The approximately 170 Green & Fair excursion offers are particularly environmentally friendly and promote species conservation and nature conservation at the respective destination through the integrated donation program. In the year under review, TUI Cruises was able to provide almost a quarter of a million euros in donations to various organizations and environmental projects.

FOCUS ON SPECIES PROTECTION

TUI Cruises took a further step toward more species protection in 2018 with the introduction of species protection guidelines for the shore excursion program. The guidelines help the company to review animal-related shore excursions with regard to species protection. The TUI Cruises Animal Welfare Guidelines are based on the "Global Welfare Guidelines for Animals in Tourism" of ABTA, which – as

the largest British travel association – developed these guidelines to promote best practices in the field of animal protection.

SENSITIZATION OF GUESTS

For TUI Cruises, sensitizing guests to environmentally relevant topics has been an integral part of the fleet's infotainment program for years. In addition to lectures highlighting regional topics or presenting the country and its people in the various destinations visited, events on environmentally relevant topics such as climate change or exciting stories from the animal world are also part of the program on board. TUI Cruises equips the 85 lecturers on board the fleet with presentation slides on a wide variety of environmentally relevant topics.

€ 236,295

TUI Cruises donated funds from the Green & Fair donation program to the whale conservation association Pottwale e.V., the SECORE coral conservation project, and the TUI Care Foundation, which focuses on environmental and animal protection.



BIODIVERSITY

The need to conserve and protect biodiversity is one of the fundamental beliefs of TUI Cruises.



In the year under review, 20 lecturers and researchers gave a total of more than 50 lectures directly related to environmental topics with the help of spectacular image material and multi-visional presentations.

ENVIRONMENTAL INFOTAINMENT FOR CHILDREN

With special offers, TUI Cruises also includes young guests in its infotainment program for environmental protection. These include, for example, the theme trip "Chameo – Agent in the Service of Nature," which TUI Cruises implemented for the first time on *Mein Schiff 1* and *Mein Schiff 5* in 2018. In the current year the company is offering a theme trip for the entire fleet. The offer conveys nature's

diversity to three- to eleven-year-olds as well as interesting facts about environmental and species protection, sustainability, and tolerance. Among other things, various theme days such as Climate Day, Ocean Day, and Sustainability Day also contribute to this.

Since May 2018, TUI Cruises has also offered an exclusive scrapbook created in cooperation with Tessloff Verlag. The WAS IST WAS *Mein Schiff*® & Ocean Scrapbook is available on board and contains great stickers and cards as well as lots of exciting knowledge about the oceans, their inhabitants, and the *Mein Schiff*® fleet. The coral protection organization SECORE International and the animal and species protection organization



WAS IST WAS (How and why)
Mein Schiff® & Ocean Scrapbook.



IFAW are also represented in the scrapbook with a cooperation double page and associated stickers.

ROUNDTABLE FOR SUSTAINABLE DESTINATION MANAGEMENT

In 2017, the German Federal Ministry for Economic Cooperation and Development (BMZ) initiated a roundtable on sustainable destination management in the form of a "Dialogue with the Cruise Ship Industry on Sustainable Oceans and Coastal Regions." With a focus on the Mesoamerican reef, different actors such as cruise companies, representatives of the destinations, and NGOs exchanged ideas in order to create synergies. In September 2018, TUI Cruises and its par-

ent company Royal Caribbean Cruises Ltd. (RCCL) participated in the second roundtable. In this context, a workshop on the topic of traveler education took place in Roatán, Belize, and Cozumel. TUI Cruises discussed topics such as sustainable shore excursions and possible guest communication with other participants from Germany, the USA, and the various destinations visited.

PROGRESS IN THE YEAR UNDER REVIEW

In the year 2018 TUI Cruises:

- produced a guide on species protection to assist the shore excursion department in selecting suitable offers.

10 GUIDELINES

are included in the new TUI Cruises Animal Welfare Guidelines for reviewing shore excursions with regard to the protection of species.



RESPONSIBILITY AT THE DESTINATIONS VISITED AND AT HOME.

In addition to its commitment to international initiatives such as Futouris e.V., TUI Cruises also committed itself to social causes at its corporate headquarters in Hamburg in 2018.

Through donations and active participation in various initiatives, TUI Cruises supported social interaction and environmental protection at its business locations and destinations in a variety of ways in the year under review. As part of the TUI Cruises sponsorship, employees have been choosing a charitable association every year since 2014, which they support in particular for twelve months. In the year under review, the team opted for Hamburger Hospiz e.V. (Hamburg Hospice Association) and donated a total of EUR 61,000 to the association, which supports more than 300 dying people and their relatives free of charge every year.

EMPLOYEES CLEAN UP

Twelve employees from Hapag-Lloyd Cruises and TUI Cruises joined forces in the year under review and volunteered to take part in the "Hamburg räumt auf" (Hamburg Cleans Up) initiative. They were thus part of Germany's largest urban cleaning initiative in which around 44,000 citizens of the Hanseatic city took part in March 2018.

PAINTING FOR ANIMAL PROTECTION

In the year under review, TUI Cruises campaigned for animal welfare with a special campaign during the summer holidays. The company held a children's painting competition on board the ships that were sailing in Nordland and raffled off toy whales among the participants. The stuffed animals were sponsored by the International Fund for Animal Welfare (IFAW), a global animal and species conservation organization, in return for a donation from TUI Cruises. IFAW is equally committed to the rescue of individual animals, entire populations, and habitats around the globe.



PROGRESS IN THE YEAR UNDER REVIEW

In the year 2018 TUI Cruises:

- supported local environmental organizations at the various destinations visited with donations in the amount of EUR 236,295, which the company generated through the Green & Fair shore excursions program.

1,726t CO₂

In the year under review, TUI Cruises made a donation of EUR 25,890 to the charitable organization myclimate Deutschland GmbH in order to offset the impact of business flights. In addition, TUI Cruises also offsets its own business stationery and offers guests the opportunity to offset their cruise emissions as well as their arrival and departure by air.

COMMITMENT

TUI Cruises considers it its responsibility to make a voluntary contribution toward the protection of the environment at its business locations and at its various destinations visited, and toward social interaction.



Employees from Hapag-Lloyd Cruises and TUI Cruises after "Hamburg räumt auf" (Hamburg Cleans Up)



TUI Cruises supported the Hamburger Hospiz e.V. (Hamburg Hospice Association) in 2018.



The little guests were able to win push whales at the environmental painting competition on board.

ENVIRONMENTAL TARGETS.

TUI Cruises formulates its environmental targets every year in order to be able to monitor progress transparently at all times. In the year under review, the company almost fully achieved these targets.



TUI Cruises achieved 17 of the total of 18 self-defined environmental targets for 2018. The company not only made significant progress in reducing its waste volume and fresh water consumption, but also significantly reduced emissions from its ship operations. In comparison to the previous year TUI Cruises reduced:

- ... fuel consumption by 6.27%;
- ... CO₂ emissions by 5.07%;
- ... SO_x emissions by 36.70%;
- ... NO_x emissions by 11.97%;
- ... the proportion of particles per person and overnight stay by 16.60%.

2019: FOCUS ON PLASTIC AND WATER

For the year 2019, TUI Cruises has again set itself specific targets as part of its continuous environmental improvement process. One focus is on the WASTELESS plastic reduction program. Here the company intends to implement the measures identified in 2018 to avoid disposable plastic and other disposable products. Another focus in this context is the evaluation of suppliers and the optimization of the logistics chain. TUI Cruises will also develop a new concept to reduce water consumption on board the *Mein Schiff*[®] fleet.

17 ENVIRONMENTAL TARGETS

were achieved by TUI Cruises. Of a total of 18 environmental targets the company has thus only fallen short of its self-imposed aim of two audits of service providers – only one audit was carried out – with a focus on the environment and quality.

TUI Cruises ENVIRONMENTAL TARGETS 2019

AREA	TARGET
Environmental management	Performance of at least one supplier audit with a focus on the environment and quality
	Continuation of measures to reduce print products and paper consumption
Emissions	Reduction of fuel consumption per person and overnight stay by 3.5% compared to 2018
	4% reduction in CO ₂ emissions per person and overnight stay compared to 2018
	Reduction of SO _x emissions per person and overnight stay by 25% compared to 2018
	Reduction of NO _x air pollutants and particles per person and overnight stay compared to 2018
Waste	Compensation for CO ₂ emissions caused by business trips
	Increase in waste recycling rate compared with 2018
	Reduction of the amount of waste per person and overnight stay by 4.5% compared to 2018
	Continuation of the "Reduction of Food Waste" project when it comes to crew training courses
	Auditing of at least one waste disposer for a recycling rate of 100% of the waste delivered at the port
Biodiversity	Continuation of the plastics reduction program on board the <i>Mein Schiff</i> [®] fleet
	Integration of guidelines on species protection into the contracts for shore excursions as well as into the tenders for shore excursion organizers
Water	Development of a new concept for constant reduction of water consumption on board the <i>Mein Schiff</i> [®] fleet
	Reduction of water consumption per person and overnight stay by 4% compared to 2018
Newbuilds	Introduction of textiles (bed linen, bathrobes, and towels) made of fair-trade organic cotton on <i>Mein Schiff 2</i>
	Equipping <i>Mein Schiff 2</i> with an exhaust aftertreatment system
Commitment	Support for local environmental organizations through the donations generated during the Green & Fair shore excursions

This is not an exhaustive list. Many smaller and internal environmental targets and measures complement the environmental program at TUI Cruises.

FURTHER INFORMATION

COMMUNICATE WITH US

Any suggestions or criticism? The TUI Cruises Environment 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 THIS REPORT

Our responsibility does not merely cover the contents and design. It also extends to the production of this environmental report (print version). 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 environment-friendly printing inks, which are water-based and free of mineral oils.



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

PUBLISHER'S DETAILS AND CREDITS

Published by: TUI Cruises GmbH

Managing Board: Wybcke Meier (CEO), Frank Kuhlmann (CFO)
Heidenkampsweg 58, 20097 Hamburg, Germany

In collaboration with: Kathrin Müller, Victoria Müller, Friederike Grönemeyer

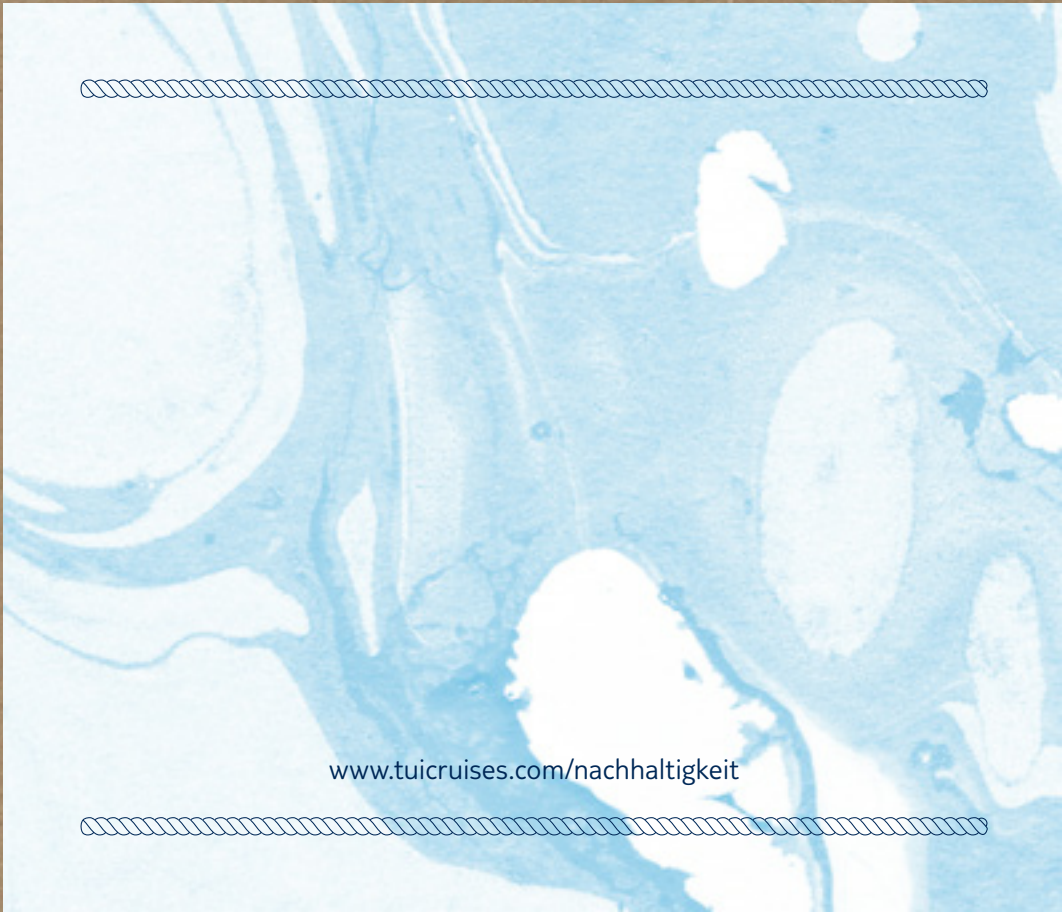
Contact information: umwelt@tuicruises.com

Concept/layout: GROSSE LIEBE Kommunikationsagentur GmbH

Text: Mirjam Müller, Kathrin Müller

Print: BEISNER DRUCK GmbH & Co. KG

Valid as of: December 2019 (subject to change)



www.tuicruises.com/nachhaltigkeit