



BLUEMATTERS
moving to zero



Message from the CEO

Every activity, every business, and everything we do as individuals has an impact on our planet. Even though shipping is one of the better ways of moving cargo across the world, Berge Bulk has always recognised its responsibility towards the environment, and especially the oceans.

At Berge Bulk we believe that preserving our planet's resources is fundamental to our current and future sustainability and success as a business. Environmental conservation thus plays an integral role in our journey to becoming one of the world's leading companies. We have set high standards as a pro-active leader of environmental protection. We comply with, and strictly enforce, environmental law and regulations but, where possible, we are going further.

Berge Bulk's blue policy, brought to life in this Blue Matters brochure, has become deeply embedded into the company's culture, influencing and affecting our environmental and working strategies. Blue Matters is a declaration of our present and future commitment to the environment. It provides a unifying vision to guide the actions of the company's employees, management, customers, suppliers and other stakeholders. This year's update to Blue Matters is marked by continued evolution and even more pioneering ambition.

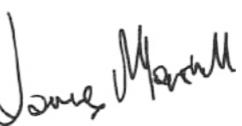
We have re-organised our strategy to centre around five main areas of focus: emissions, waste, biodiversity, supply chain, and ship recycling. Within each focus area, this report highlights the activities and progress that we have made to-date as well as our goals and ambitions for the future. We have spent time reviewing how our environmental sustainability plans align with the 17 United Nations Sustainable Development Goals, and you will see these goals woven into each section of this report. We have also been particularly intentional about our grant-making from our corporate foundation to align our philanthropic giving with these five areas.

This year, we are especially proud of our move toward carbon neutrality through carbon offsetting; our new energy efficient vessels; support and financial investments into companies developing alternative fuels; our campaign to reduce plastic waste; our partnership with WildAid to conserve sea turtles, and much more. Our journey to this point has been an enriching one, and we are proud of the progress that we have made to date. However, there is always more that can be done, and we are excited about the opportunities that lie ahead.

Thank you to all of you who are helping Berge Bulk to keep our oceans, skies and planet clean and healthy.

We invite you to join us on this journey to change the world.

Best reading,



JAMES MARSHALL, CEO



James Marshall
CEO
Berge Bulk
moving mountains

Our Environmental Sustainability Highlights



EMISSIONS



100% CARBON NEUTRAL

By 2025, **100% of the CO₂ emissions** from Berge Bulk's fleet will be offset through our investments in high-grade carbon offset projects.



A+ RIGHTSHIP RATING

The **Berge Logan** and **Berge Mafadi** are the world's most energy efficient bulk carriers, both with RightShip A+ ratings.



CLEAN EMISSION REDUCTION

Our advanced emissions purification systems **remove 98%** of the sulphur dioxide, **40-60%** of all particulate matter and up to **12%** of nitrogen oxides generated by our fleets' engines.



WASTE



2,000 REUSABLE BOTTLES

We have distributed over 2,000 reusable stainless steel drinking bottles throughout the company. This has significantly reduced the purchase of water in plastic bottles.



100% ENHANCED WATER PURIFICATION

By the end of 2020, 100% of our fleet will be fitted with enhanced drinking water purification systems to reduce reliance on bottled water.



25% REDUCTION IN PLASTIC WASTE

A 25% **reduction in plastic waste** (on ships piloting water purification units).



BIODIVERSITY



2,000 YOUNG PEOPLE

2,000 youth in Puerto Galera, Philippines, participate in Stairway Foundation's Sea Adventure School each year, onboard our sponsored boat the Berge Apo.



9,000,000 REACH

Nine million people reached by WildAid's Sea Turtle Conservation Campaign sponsored by our foundation.



37,000 SPECIES PROTECTED

37,000 species of animals and plants protected by CITES, an organisation supported by our foundation.



SUPPLY CHAIN



69% SUSTAINABLY CERTIFIED

Over 69% of our key suppliers are **sustainably certified** — ISO 14001 or similar.



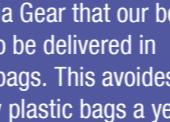
90%+ MATERIALS REUSED

Over 90% of our ships' materials are **reused** or **re-constituted** at the end of their economic life.



8,000 PLASTIC BAGS AVOIDED

By working with our suppliers, we've agreed with Scandia Gear that our boiler suits do not need to be delivered in disposable plastic bags. This avoids over 8,000 unnecessary plastic bags a year.



LOG OF HAZARDOUS MATERIALS

100% of our ships maintain an **Inventory of Hazardous Materials** to help recycling facilities dismantle ships in a safe and environmentally sound way.



SHIP RECYCLING



SUPPORT WELLBEING OF WORKERS

In 2020, we will identify and fund at least one local charitable organisation in South Asia that **supports the wellbeing of the ship recycling workers and their families**.



LOG OF CHARITABLE PROJECTS

100% of our ships maintain an **Inventory of Charitable Projects** to help recycling facilities dismantle ships in a safe and environmentally sound way.



PHILANTHROPY



\$10,000,000 DONATED OVER 10 YEARS



24 COUNTRIES



67 CHARITABLE PROJECTS



2,000,000 LIVES IMPACTED

Learn more about what we're doing towards sustainability...



EMISSIONS

Bulk shipping is the most fuel-efficient and carbon-efficient form of transport per metric tonne carried. That said, we know that our operations do generate significant emissions, and reducing these greenhouse gases and other air pollutants is a critical part of our environmental stewardship strategy.



EMISSIONS

Berge Bulk leads the bulk carrier industry in reducing fuel emissions and carbon-offsetting. As an early member of the *Getting to Zero Coalition*, we are committed to developing commercially viable deep-sea zero-emission vessels, powered by zero-emission fuels, in operation by 2030.

We have made the ambitious commitment to become carbon neutral by 2025, and we are one of the first bulk carriers to do so.

We also lead the way in hull design, engine efficiency and fuel efficiency, having just launched the world's most fuel-efficient bulk carriers: Berge Logan and Berge Mafadi. We understand that air emissions from the shipping industry has negative effects on the environment and on human health and we fully support industry regulation that aims to reduce these effects.



Our Ambition (KPIs)

- ✓ Achieve carbon neutrality by 2025.
- ✓ Build and operate a zero emissions vessel by 2030.
- ✓ Achieve zero emissions fleet-wide by 2050.
- ✓ Convert 100% of lightbulbs onboard to LED by end of 2020..

Building The World's Most Efficient Ships

At Berge Bulk, our focus on innovation has always ensured that we have one of the most modern and efficient fleets at sea. For many years we have been designing our ships to operate more efficiently to reduce our environmental impact.

We make every effort to optimise parts such as the newbuilding's hull shape, its rudder design, the shape of its fore and aft body, or its ballast and cargo requirements on specific trading patterns. These efforts can truly make a difference to the ship's environmental efficiency and ongoing operational costs.

Optimising hull design

We focus especially on hull design to reduce resistance and optimise propulsion efficiency. This further reduces fuel consumption and pollution. In fact, advanced simulations from shipyards and design houses suggest that improved water flow to the propeller can save up to 8% in propulsion fuel.

Research from one of Berge Bulk's designs also indicates that improved hull design results in an increase of 5% in the hull's fuel efficiency performance.

Efficient engines

Berge Bulk has also chosen very efficient main engines to propel its new ships. Not only are they highly efficient because they harvest nearly all of the energy out of the fuel, they are also

tuned for 'low load' – thus performing their best at average speeds as opposed to top speeds. In total, this generates significant fuel savings.

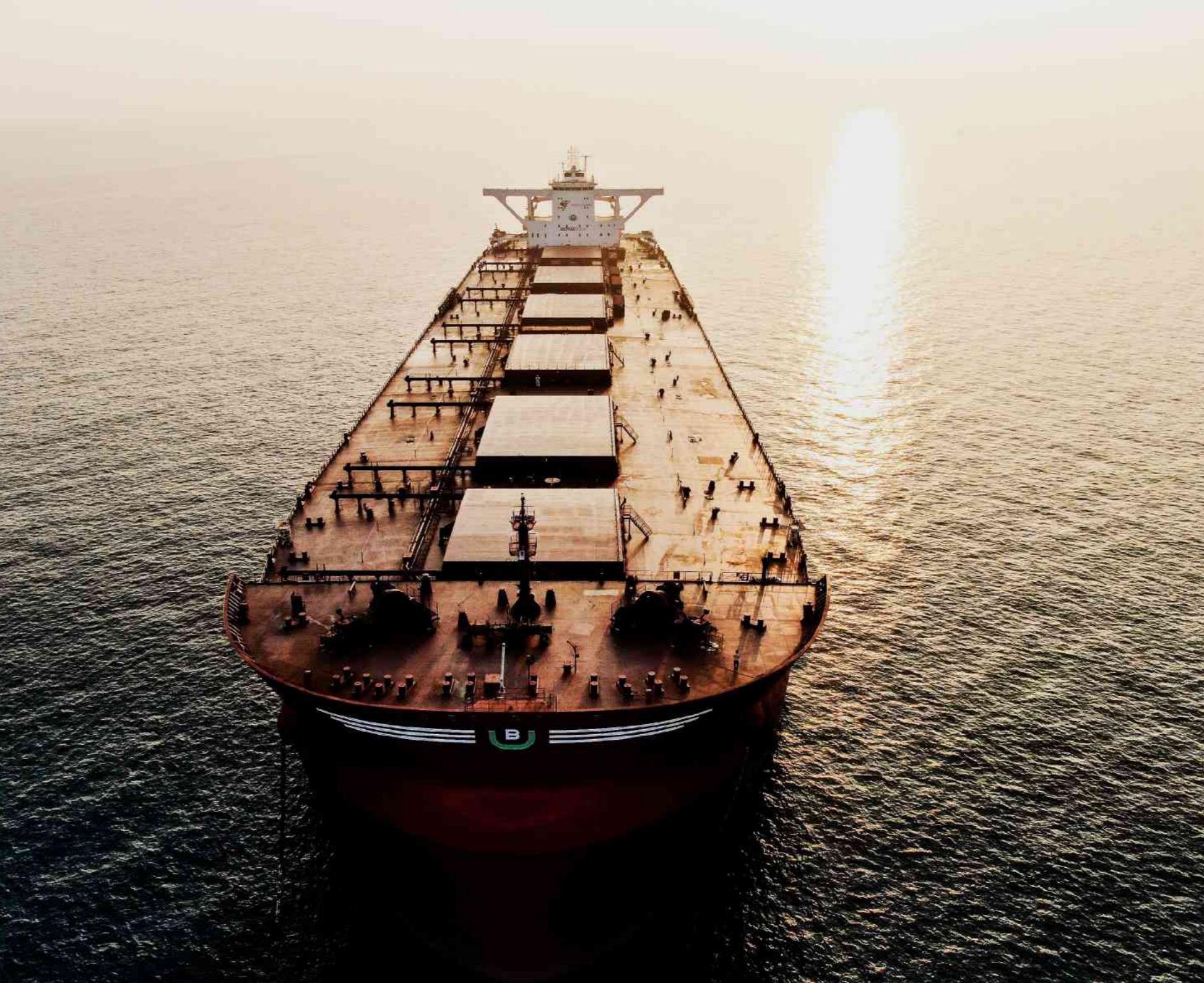
The world's most fuel-efficient bulk carriers

Two notable highlights of 2019 were when we added the world's most energy-efficient bulk carriers to our fleet. Berge Logan and Berge Mafadi are both equipped with energy-efficient features such as super efficient tuned main engines, economisers for the auxiliary engines, and fuel oil shifters. The vessels were also built with modified layout of the hull. These features collectively resulted in RightShip A+ ratings, and an Energy Efficiency Design Index (EEDI) 20% below the baseline for both vessels.

Improving aerodynamics

Another innovative design element which features on our new vessel, Berge Dachstein (and her sister ship Berge Sarstein), is the 'Aero Citadel'. This new sleek deckhouse is designed for optimal aerodynamics. Its slim, streamlined shape helps in reducing resistance from headwinds by up to 30%, thus resulting in a 2% reduction in total fuel consumption.

RIGHT: The Berge Logan at sea – one of the world's most efficient bulk carriers.



Installing Emissions Reduction Technology

Some of the older vessels in the Berge Bulk fleet were not built according to today's modern standards of efficiency. Berge Bulk has therefore invested heavily to retrofit several older vessels with the latest emissions reduction technology to save energy and maximum efficiency.

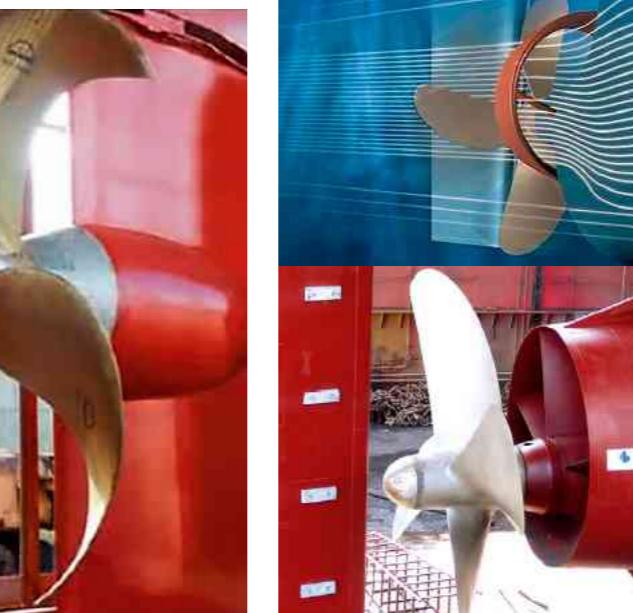
Propeller boss cap fin

One of the latest technologies that Berge Bulk has retrofitted onto existing ships is the Propeller Boss Cap Fin (PBCF) and the EnergoProFin. The special design of the propeller fin boosts sailing speed by 2%, or reduces fuel consumption by 5%, resulting in significant emissions reduction.

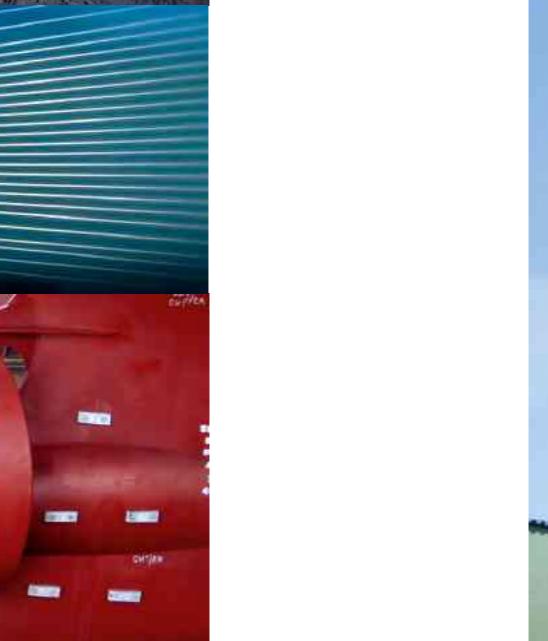
Many of Berge Bulk's vessels are also equipped with a rudder bulb and rudder fins. The bulb and fins optimise interaction between the propeller, the ship's hull and the rudder – extracting waste energy from the propeller, thus increasing propulsion efficiency by 3%-4%.

Mewis ducts

Berge Bulk has also made a large investment to fit many of its ships with a Mewis Duct – a duct positioned ahead of the propeller, together with an internal integrated fin system. This helps to reduce fuel consumption and resulting emissions by 5-8%.



ABOVE: Installation of a PBCF on one of our vessels.
BELOW: Typical installation of a rudder bulb fin.



ABOVE: Retrofitting a vessel with the Mewis Duct energy-saving device helps to save fuel – installation costs around USD \$0.7million per ship.



High-performance anti-fouling paint is applied to all vessels, to reduce friction.

Driving Down Emissions Through Operational Excellence

For all of Berge Bulk's ships, operational excellence is a top priority in our drive to reduce emissions. We do this by improving scheduling and routing, ensuring that the vessels carry the optimal ballast, avoiding dead-weight, optimising trim, ensuring good preventative maintenance practices to avoid hull fouling, and building a culture of accountability through our less-is-more campaign.

Hull fouling

Hull fouling is another major focus area for Berge Bulk. The layer of slime and marine growth that collects on a ship's hull and propellers causes extra friction and slows down the vessel as it moves through the water. Consequently, sailing efficiency is compromised, and the ship needs more fuel to attain the same power. Keeping underwater hull surfaces smooth and clean is thus crucial to Berge Bulk's efforts in keeping fuel consumption and emissions low. Berge Bulk is using the latest technology in hull paints to coat the underwater hull of its vessels.

Less-is-More: Building a culture of efficiency

True change requires a whole team effort, and this means attention and commitment from all aspects of our business. That's why at Berge Bulk, we created the "Less-Is-More" bunker saving campaign – promoting fuel efficiency, by focussing on how to reduce emissions through the ships' structural design and equipment, and improved scheduling and routing.

On board the ships, regular meetings and performance reviews are held to promote the campaign, ensuring that every single Berge Bulk crew member understands their role in the company-wide effort to attain energy efficiency, receiving positive reinforcement to do so – whether at sea, during anchorage, or whilst working in port.

RIINKERS 
LESS IS MORE
CAMPAIGN

Investing Behind Innovation To Reduce Emissions

Getting to Zero Coalition

Berge Bulk is a member of the Getting to Zero Coalition, a powerful alliance of more than 90 companies within the maritime, energy, infrastructure and finance sectors, supported by key governments and intergovernmental organisations.

The Coalition is committed to accelerate maritime shipping's decarbonisation with the development and deployment of commercially viable deep-sea zero-emission vessels by 2030.

Exploring future fuels

To support the maritime industry in its ambition to rapidly decarbonise, we're also investing in various exploratory work with companies that are aggressively developing renewable energy solutions for the future. Two of these innovative companies are SkySails, and Core-Power.

Pioneers in the field of energy transition, SkySails make kite technology that's tried and tested in the shipping industry, and is usable for energy generation onshore and offshore. They are the first company in the world that has succeeded in developing industrial applications for harnessing this enormous energy potential. Berge Bulk look forward to continued trials onboard our ships in 2020.

Core-Power aims to commercialise the use of thorium molten salt reactors ("MSRs") as a new generation of clean energy generators for the marine industry. The potential of MSRs in shipping could play a significant role in meeting the industry's 2050 carbon targets.



Capturing carbon with hydroponics on board

Berge Bulk have engaged Aerospire, the creators of a high-quality vertical hydroponic system to create vegetable gardens at sea.

The benefits of hydroponics on board are two-fold. On the one hand, the harvest from the system has the potential to contribute a large and healthy portion of our crew's diet and, on the other, it presents a potential opportunity for us to capture carbon dioxide (CO₂) and sulphur. CO₂ is important for photosynthesis, and sulphur is an important mineral that helps plants to form important enzymes and assists in the formation of plant proteins.

The ultimate goal of bringing these systems on board is to capture CO₂, whilst at the same time being able to provide fresh sustainable produce that our crew can harvest.



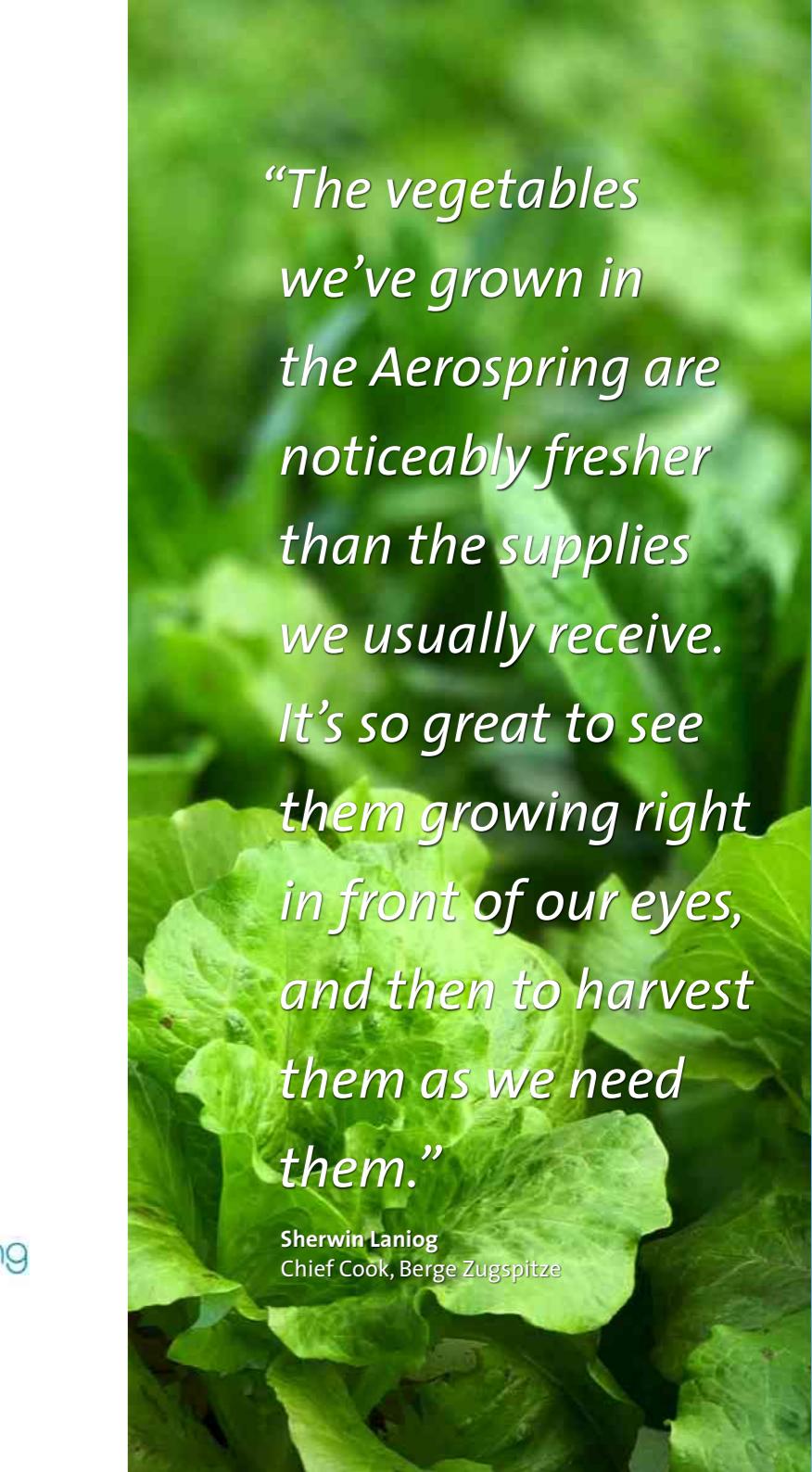
LEFT: Our Berge Bulk cooks, growing fresh vegetables on board using the Aerospire vertical hydroponic system.



aerospire

"The vegetables we've grown in the Aerospire are noticeably fresher than the supplies we usually receive. It's so great to see them growing right in front of our eyes, and then to harvest them as we need them."

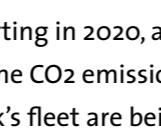
Sherwin Laniog
Chief Cook, Berge Zugspitze



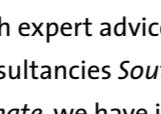


Becoming Carbon Neutral

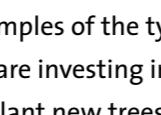
Even with our industry-leading new ships, our investment behind emissions reduction technology, our commitment to operational excellence, and our support for innovation and future energy solutions, we still aspire to do more.



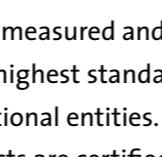
Starting in 2020, a significant portion of the CO₂ emissions from Berge Bulk's fleet are being offset through our investments in high-grade carbon offset projects.



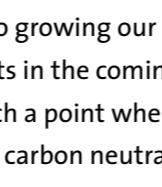
With expert advice from leading consultancies *South Pole* and *First Climate*, we have invested in a global portfolio of carbon offset projects – funding projects in places that are closest to the hearts of our colleagues and clients: India, China, Philippines, Brazil, Australia, and Indonesia.



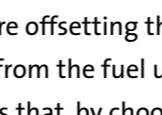
Examples of the types of projects we are investing in include projects to plant new trees and protect against deforestation, production of renewable energies, and working with low-income communities to reduce emissions in their way of life.



These projects are measured and monitored by the highest standards of leading international entities. All of our offset projects are certified to meet either the *Gold Standard (GS)* or *Verified Carbon Standard (VCS)* accreditation.



We look forward to growing our portfolio of projects in the coming years until we reach a point where we are completely carbon neutral in 2025 – offsetting 100% of our total emissions. This will enable us to impact more lives, mitigating carbon emissions to the atmosphere.



The fact that we are offsetting the carbon emissions from the fuel used by our ships means that, by choosing to ship with us, our clients will now be taking a more sustainable step in their own supply chain.



THE MARSHALL FOUNDATION



Zola Electric

ZOLA Electric was established to solve the problem of why solar panels were not being widely adopted in places where there was no access to grid electricity. The founders developed a business plan that would allow customers in Tanzania to buy their own solar and storage power systems over time with the money they earn. Today, ZOLA provides services to over 1 million customers in four African countries and The Marshall Foundation provided funds which enabled them to deliver solar solutions to over 1,000 customers in rural Tanzania.



GiveWatts

GiveWatts is a social enterprise which provides access to clean household energy solutions for off-grid communities in East Africa. They distribute clean energy products through rural schools, and then follow the positive effects that efficient and sustainable energy solutions have on education. With support from The Marshall Foundation, over 1,000 solar lamps were distributed through 10 schools in Kenya.



Tough Stuff

Tough Stuff, a social enterprise which provided affordable solar powered products, for low-income people, replaced expensive and environmentally-damaging alternatives like wood and kerosene lamps. Tough Stuff developed long-lasting solar panels and batteries, able to charge torches, mobile phones and radios. The Marshall Foundation has funded the distribution of over 11,700 solar kits to rural customers in Kenya and Madagascar.

“I’d put my money on the sun and solar energy. What a source of power! I hope we don’t have to wait until oil and coal run out before we tackle that.”

Thomas A. Edison
Inventor, 1847-1931

垃圾桶 WASTE

At Berge Bulk, we are committed to reducing our waste footprint, building a waste-conscious culture among our colleagues, and investing in organisations that are creating innovative, sustainable waste management solutions.



垃圾桶 WASTE

"You cannot get through a single day without having an impact on the world around you. What you do makes a difference, and you have to decide what kind of difference you want to make."

Jane Goodall
English primatologist and anthropologist

Our Ambition (KPIs)

- ✓ Upgrade water purification units on all owned vessels in 2020 to reduce reliance on plastic water bottles.
- ✓ Achieve 25% reduction in average plastic waste per ship by 2021 (vs. 2017 baseline).
- ✓ Achieve 10% reduction in average food waste per ship by 2021 (vs. 2017 baseline).



Removing Plastic Bottles

Based on historical data, we estimate that our typical ship generates approximately 24m³ of compacted plastic waste per year. While this number has been steadily reducing over time, we are eager and committed to do more.

All Berge Bulk colleagues, at sea or on shore, receive an insulated stainless steel reusable drinking bottle, printed with the Blue Matters logo, and a reminder message to "love your ocean, keep it plastic free." This has been well received, and the usage rate is high.

In 2019, we launched a pilot project onboard five vessels to install enhanced water purification units and subsequently remove plastic bottles. Six purification units were installed on each pilot vessel: engine room, bridge, mess room, and on three decks in accommodation.

The results were encouraging. The reduced dependency on plastic bottles resulted in a 25% drop in plastic waste (~6m³ less plastic waste per ship per year). By the end of 2019, 50% of our ships had been fitted with these water purification units.

We aim to complete all remaining installations in 2020, and to issue a fleet-wide ban on all single-use plastic beverage bottles, cups, straws, cutlery, plates, and take-away bags.



Building A Waste-Conscious Culture

At our annual officers' conference, we conducted a screening of the award-winning documentary *A Plastic Ocean*, which explores the fragile state of our oceans and uncovers alarming truths about the consequences of our disposable lifestyle. Following this, copies of the documentary were purchased and sent to each of our ships along with boxes of popcorn, so that our crew could organise movie nights of their own. This has proven to be an effective way to inspire and educate our colleagues and their families to cultivate a plastic-conscious culture.

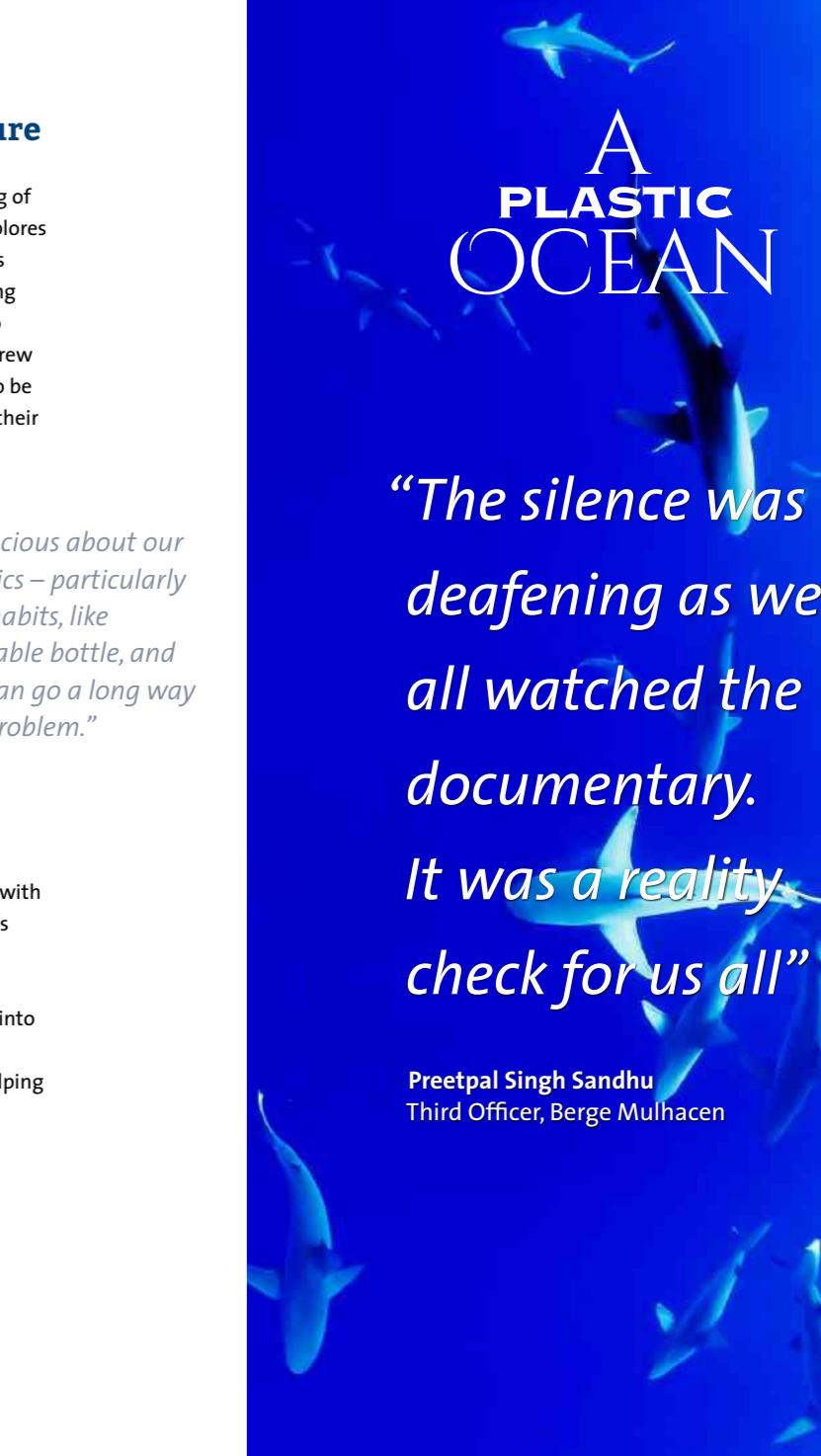
"The documentary has made us even more conscious about our behaviour, and our reliance on single-use plastics – particularly bottled water. Simple tweaks to our everyday habits, like replacing our plastic bottled water with a reusable bottle, and ensuring proper segregation of plastic waste, can go a long way to help achieve a sustainable solution to this problem."

Cadet Rohit Raju, Berge Denali



In 2019, for our annual year-end holiday gift, we teamed up with the social enterprise *Waste to Wear* to create a "Blue Matters Backpack". This was delivered to every colleague at sea and on shore. Each bag is made, using 8 recycled plastic bottles (RPET), through a unique process which turns plastic waste into sustainable polyester yarn. RPET fabrics have a significantly smaller environmental footprint than traditional fabrics, helping to keep plastics out of landfills and oceans.

Waste2Wear®



"The silence was deafening as we all watched the documentary. It was a reality check for us all"

Preetpal Singh Sandhu
Third Officer, Berge Mulhacen



Supporting Waste Reduction

In addition to the work we are doing to reduce our own waste, we are also making strategic grants, through The Marshall Foundation, to support social-purpose-organisations who are developing innovative solutions to address waste issues around the world. Here are two such organisations...



Waste Ventures India

Waste Ventures India is a waste management social enterprise that is transforming India's solid waste sector to models that are simultaneously environmentally and financially sustainable. They offer professional waste collection and processing services to households and corporate clients, employing local waste pickers and significantly increasing their income. Since inception, they have diverted 4,000 tonnes of waste from India's landfills, avoiding 11,000 tonnes of CO₂ emissions, serving 25,000 households, and creating livelihoods for 1,200 waste pickers.

econesia.

Econesia

Founded in 2019, Econesia is a social enterprise with a mission to reduce the amount of single-use-plastic waste generated by the hospitality industry in Indonesia. To achieve this, they have launched a full-service drinking water solution for hotels across Indonesia using filtered water and glass bottles. Through this project, Econesia has an ambition to save 10 million plastic bottles per month.



“Industrial pollution and the discarding of plastic waste must be tackled for the sake of all life in the ocean.”

David Attenborough
Broadcaster & Natural Historian

Working Together

In 2019, we joined forces with Wilhelmsen Ship Management and a dozen other industry leaders for a series of roundtable discussions about how the maritime industry can collaborate to tackle the common issues of plastic waste. We look forward to continued engagement with this group going forward.



BIODIVERSITY

The oceans are at the very heart of our business, and we fully understand our responsibility to help to keep them healthy. Our Blue Matters values highlight biodiversity as a vital part of environmental sustainability, and this is woven into all of our business practices, including how we channel The Marshall Foundation funding.



BIODIVERSITY



“The sea is everything. It covers seven tenths of the terrestrial globe. Its breath is pure and healthy. It is an immense desert, where man is never lonely, for he feels life stirring on all sides.”

Jules Verne
Novelist, poet and playwright, 1828-1905



Our Ambitions (KPIs)

ZERO
incidents of
non-compliance with
ballast-water regulation
and
ZERO
spills

Ballast Water Treatment

Reducing the spread of invasive species

Shipping has been identified as a major pathway for introducing aquatic species to new environments through its ballast water and sediments.

Ballast water may be taken onboard by ships for stability and can contain bacteria, microbes, small invertebrates, eggs, cysts and larvae. These organisms are released into new eco-systems where they may survive, reproduce, and start out-competing native species.

The infestation of such invasive species presents a major threat to marine biodiversity, posing dramatic ecological and economic consequences as well as health problems. With the expansion of sea-borne trade and traffic volumes, the number and severity of such bio-invasions is growing at an alarming rate.

To minimise this risk, The International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM Convention) was adopted in 2004 to introduce global regulations to control the transfer of potentially invasive species. The BWM Convention entered into force in September 2017.

Berge Bulk fully supports the universal implementation of the BWM Convention. All new ships in our fleet are fitted with Ballast Water Treatment Systems (BWTS) and all existing vessels are retrofit with the newest technology. The BWTS is based on the principles of pre-filtration and disinfection, with an optional nitrogen supersaturation of the ballast water.



Supporting Biodiversity

Since it was founded in 2009, The Marshall Foundation has given more than 10 charitable grants to support organisations who are dedicated to biodiversity work around the world.



The Stairway Foundation

The Stairway Foundation is a charitable organisation based in Puerto Galera, Philippines. They deliver a wide range of community service activities including environmental awareness and protection programmes. The Marshall Foundation supports their Sea Adventure School and funded the construction of a boat, named "Berge Apo".

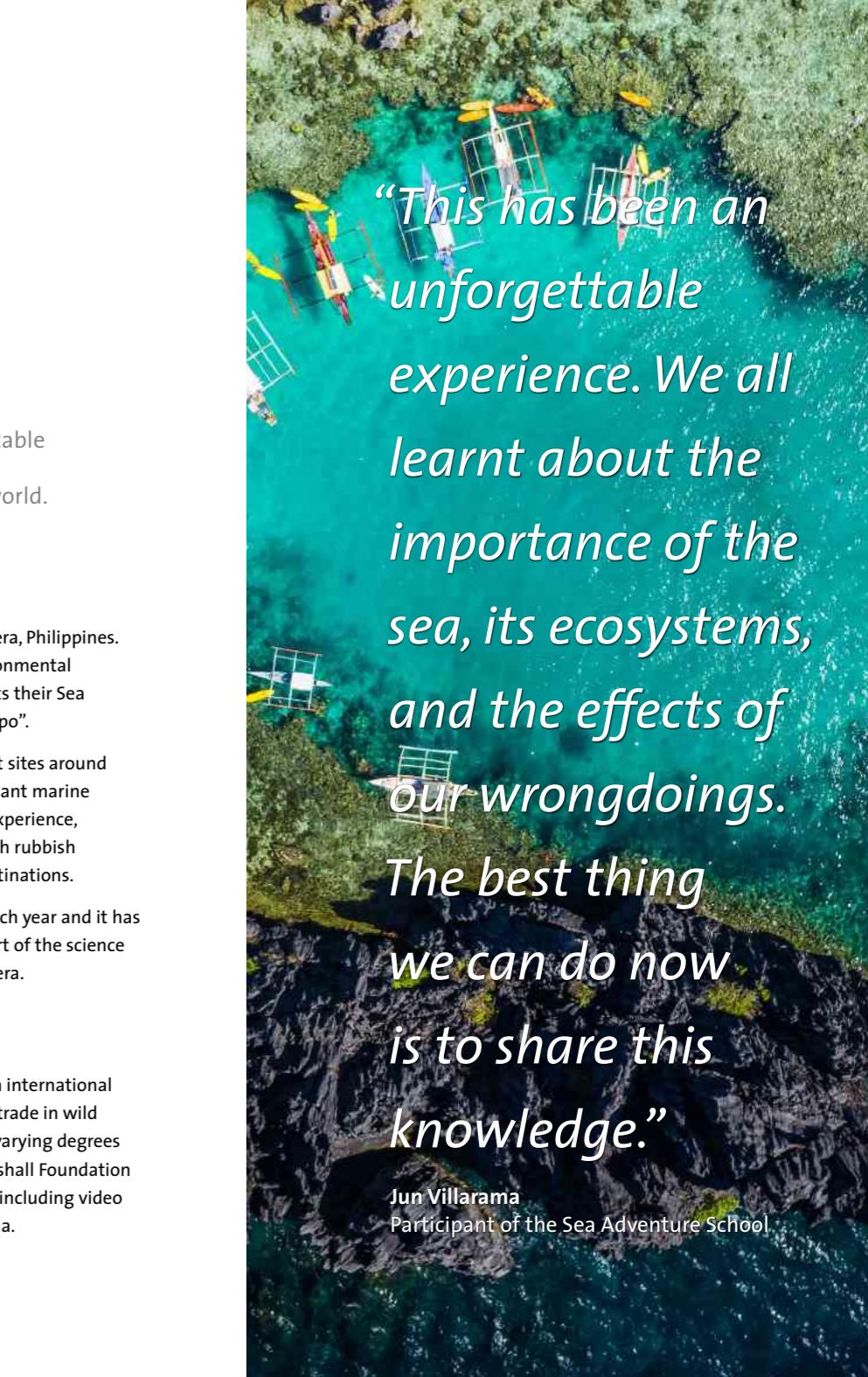
This boat serves as a floating classroom – taking local children to different sites around the beautiful Puerto Galera bay, where they learn first-hand about important marine ecosystems such as coral reefs, sea grass, and mangroves. As part of the experience, participants also clean up a local mangrove forest, which is congested with rubbish washing in from the sea and coming from nearby villages and tourist destinations.

Today more than 2,000 people participate in the Sea Adventure School each year and it has been endorsed by the National Department of Education as an official part of the science class curriculum among high school students in the district of Puerto Galera.



CITES

The Convention on International Trade in Endangered Species (CITES) is an international agreement between governments. Its aim is to ensure that international trade in wild animals and plants does not threaten their survival. Today, CITES accords varying degrees of protection to more than 37,000 species of animals and plants. The Marshall Foundation has sponsored various awareness-raising activities for species-protection including video documentaries and exhibitions targeting Africa, South East Asia, and China.





WILDAID

356 BILLBOARDS

100,000 DIGITAL DISPLAY SCREENS

9,000,000 VIEWERS

70% REDUCTION IN ILLEGAL
PRODUCTS

WildAid

This international environmental organisation works to reduce global consumption of wildlife products, and to increase local support for conservation efforts. WildAid also works with governments and partners to protect fragile marine reserves from illegal fishing and shark finning, to enhance public and political will for anti-poaching efforts, and to reduce climate change impacts. With an unrivalled portfolio of celebrity ambassadors and global network of media partners, WildAid leverages nearly US \$200 million in annual pro bono media, with a simple but powerful message: *"when the buying stops, the killing can too."*

The Marshall Foundation has been supporting WildAid since 2015 by funding their multimedia campaigns designed to reduce demand for various marine species including manta rays and sharks. Most recently, we have been supporting their sea turtle conservation campaign in Asia.

Around the world, sea turtles are revered for their beauty and are celebrated as one of Earth's oldest creatures. The seven species in existence today have been around for over 100 million years, yet now, due to a multitude of human-based threats, they're at risk of extinction. Illegally killed for their eggs, meat and shells, they face direct pressure and exploitation from poachers in Asia, Africa and the Caribbean.

WildAid's sea turtle conservation campaign focuses primarily on China. The objectives of the campaign are simple: to raise awareness among the public that sea turtle trade is illegal; to improve enforcement among local government; and to elevate sea turtles to a "class 1" protected species in China.

A partnership between WildAid and Hainan Normal University has enabled them to quantify the availability of sea turtle products being sold at hotbed tourist markets. Since the launch of the campaign, key tourist markets in Haikou, Wenchang, and Tanmen, have seen a dramatic reduction in the number of stores selling sea turtle products – 76%, 69%, and 100% respectively.

announcement" videos reached 9 million viewers and generated 44 pieces of news coverage. A three-episode documentary series has been filmed and is due for release in 2020. Early campaign metrics are already indicating meaningful progress.

The campaign features Asian celebrities Eddie Peng and Jay Chou, leveraging their enormous social media following to spread the word. The nation-wide advertising campaign targeted 11 cities, with prominent placements on 356 billboards, and 100,000 digital display screens in office-buildings. The celebrities' "public service



GIVE SEA TURTLES A HELPING HAND

SAYING NO TO SEA TURTLE PRODUCTS IS ONE OF THE BEST THINGS YOU CAN DO TO GIVE THEM A CHANCE AT SURVIVAL. WHEN THE BUYING STOPS, THE KILLING CAN TOO.

www.wildaid.org WILDAID



"We've supported WildAid for years and have always been impressed with the impact they are able to achieve through their campaigns. As a shipping company, the ocean is our front yard, so we're deeply invested in protecting marine biodiversity. Given that our Blue Matters logo features a sea turtle, it seemed like a natural fit that we get behind this important conservation initiative."

James Marshall
CEO, Berge Bulk

SUPPLY CHAIN

We take an active role in managing the environmental impact of our supply chain.

By working in partnership with our suppliers, we set a high bar for sustainable goods and services – identifying opportunities to reduce packaging waste, and streamlining distribution logistics to shorten the distance that supplies travel.



How Are We Doing?

We develop long-term relationships with all our suppliers, and for those who are key, we conduct an annual evaluation to review their sustainability performance and ambitions. Whenever possible, we use suppliers and vendors who share a common environmental focus, and are ISO 14001 certified, or have similar environmental compliance.

Through this annual review process, we track the percentage of key suppliers with environmental certification, and we're working hard to grow this number year on year.





Our Ambition (KPIs)

80%

of our key suppliers to
be sustainably certified,
ISO 14001 or similar,
by 2021

Working Together To Reduce Packaging Waste

As part of Berge Bulk's standard procurement terms and conditions, we encourage all our suppliers to use environmentally-friendly packaging. This extends to delivering products only with minimal necessary wrapping and collecting and recycling the packaging material after it has been delivered on board. We have also worked with our suppliers to reduce waste from packaging and switch to environmentally friendly alternatives.

Scandia Gear, Berge Bulk's key supplier of personal protective equipment, has agreed to eliminate plastic packaging that comes with the delivery of boiler suits on board ships. This simple change in our supply chain is expected to result in more than 8,000 avoided plastic bags per year. Berge Bulk is currently working on similar projects with our other suppliers.



TOP: We've agreed that Berge Bulk's boiler suits will be delivered without plastic bags.

BOTTOM: The 3-D printing of basic parts on demand is something we are working towards.

Reducing The Carbon Footprint Of Our Supply Chain

Not only are we focused on the sustainable practices of our suppliers, and reducing the packaging waste that they generate, but we're also looking at the carbon footprint associated with transporting supplies to our ships.

Much of this comes down to our own ordering behaviour: when and how we order our supplies. We are actively engaging with our ship-based colleagues to educate them on the most efficient ways to consolidate their requisition of goods. This enables the procurement team to combine deliveries to vessels, ensuring more simplified logistics and transportation. This in-turn results in a lower carbon footprint in the supply chain.

For some basic parts which ships commonly order, we are working with ivaldi Group and Wilhelmsen Ship Services to pilot the 3D printing of these parts on-site, on-demand. The ability to 3D print parts locally, rather than transporting them from elsewhere also plays an important role in de-carbonising our supply chain.



Wilhelmsen



ivaldi



TOP RIGHT: A ship's replacement scupper plug that has been 3D printed.

BELOW RIGHT: Replacing a traditional brass scupper plug with the 3D printed version.





LEFT: Posters have been designed to actively engage with our ship-based colleagues – with an end goal of reducing the carbon footprint in the supply chain.



RIGHT: The Berge Tateyama, delivered in April 2020.

"Long lead times, limited parts availability and extensive logistics are some of the challenges faced by the maritime industry. We require marine parts to be customised and delivered to our vessels efficiently, and in the shortest amount of time possible. The advancement of 3D printing technology, and its capabilities of using a diverse range of materials to produce the parts we require, is impressive."

Sim Teck Siang
Procurement Manager, Berge Bulk



SHIP RECYCLING

Berge Bulk has rigorous maintenance and repair processes to ensure that our vessels are used as efficiently as possible for as long as possible. As we add newer, more efficient vessels to our fleet, we consciously retire those that are older, less efficient, and have reached the end of their economic life. Ship recycling is the most environmentally efficient solution for disposing of old vessels.



SHIP RECYCLING

Ship recycling is the process of dismantling the ship at the end of its life. Through this process there is very little waste, as over 90% of the ship's material is reused or re-constituted.

Last year, across the global shipping industry, 70% of all end-of-life vessels (90% of gross tonnage) were dismantled in South Asia: India, Bangladesh, and Pakistan. The ship recycling industry in South Asia is a major source of employment and actively supports local economies.



Our Ambition (KPIs)

- ✓ Fund at least one local charitable organisation in South Asia that supports ship recycling workers and their families.
- ✓ Maintain up-to-date Inventory of Hazardous Materials on 100% of vessels.
- ✓ Recycle all end-of-life ships at yards that adhere to the Hong Kong Convention by the end of 2021.

The Challenges

Although ship recycling is a major source of employment, some South Asian shipyards have recently come under much criticism. Poor working conditions, immature health and safety practices, and irresponsible environmental management still prevail in some recycling yards. A key factor in this is the lack of international regulations on ship recycling.

Our Approach

All of our vessels are certified to international environment and quality standards: ISO 14001 and ISO 9001. Our ship recycling policy ensures that shipyards engaged to recycle Berge Bulk's vessels are also certified to international standards of environmental management (e.g. ISO 14001) and health and safety (e.g. OHSAS 18001, ISO 30000, ILO standards). We require proof of documentation from yards before commencing recycling activities. At the end of the dismantling process, a statement of completion is obtained to confirm that the recycling was carried out in line with our policy and standards.

By the end of 2021, Berge Bulk will further enhance our ship recycling policy as we will recycle our vessels at yards that not only meet the international standards listed above, but also adhere to The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships (HKS) established by the International Maritime Organisation (IMO).

In line with this ambition, Berge Bulk sales contracts will continue to impose on the buyer or yard to undertake safe and environmentally sound recycling as per our policy and standards. The contracts will also require use of approved ship recycling facilities, as demonstrated by certifications under the standards of the International Organisation for Standardisation (ISO) and by recognised Classification Societies.

Quality Monitoring

We will conduct periodic visits to the recycling yards with our internal auditors to monitor labour conditions, health and safety management, and environmental practices. Any breach of our compliance framework observed during our visits will be reported to the recycling yard management for immediate corrective action.

Capacity Building

Through our audits, we will identify opportunities to improve practises of the recycling yards through health and safety training, and contributing personal protective equipment (PPE) where needed. Furthermore, in 2020, Berge Bulk will identify and fund at least one local charitable organisation in South Asia that supports the wellbeing of the ship recycling workers and their families.

Hazardous Materials

Since 2012, Berge Bulk ships maintain an Inventory of Hazardous Materials and insist on Material Declarations from our suppliers. Essentially, it is an inventory of materials present in a ship's structure, systems and equipment that may be hazardous to human health or the environment. This inventory will be maintained and updated throughout the operational life of the ship, with certification issued by a classification society to confirm compliance with applicable requirements.

Regular checks are undertaken to ensure that inventory records are maintained, current, and accurate. Prior to recycling, details of additional hazards in stores and wastes are added, and the document can then be used to help an authorised recycling facility formulate a safer and more environmentally sound plan for decommissioning the ship.



"What happens to ships at the end of their lifetime is an important global issue, with major consequences for safety and the environment."

Kitak Lim
Secretary General, IMO



THE MARSHALL FOUNDATION

Established in 2010, as a sister organisation to Berge Bulk, The Marshall Foundation aims to support innovative projects which tackle social and environmental problems, in parts of the world that are important to the work and success of Berge Bulk. These projects, led by non-profit organisations, social enterprises or other charitable foundations, are chosen based on their relevance in addressing global concerns that we are passionate about.



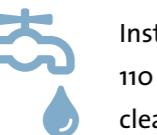
“In just 10 years, we’ve provided over USD \$10 million of funding to 67 charitable projects run by 42 organisations in 24 countries across 5 continents, impacting the lives of over 2 million people. In doing so, we’ve funded work that not only aligns with our areas of passion, but also addresses all of the 17 United Nations Sustainable Development Goals.”

James Marshall
CEO, Berge Bulk

Key examples of how The Marshall Foundation has helped to improve millions of lives...



Provided proof of concept and subsequent access to treatment for 22,000 patients suffering with TB in India and Cambodia.



Installed bicycle water pumps in 110 schools in Cambodia, providing clean filtered water to thousands of children.



Provided support to 113 families living in difficult circumstances in the UK, helping them with accommodation, food, and keeping their kids in school.



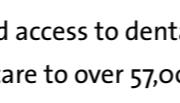
Helped over 5,300 children with HIV to attend after school clubs and 1,500 children with HIV to attend camps in Malawi, Lesotho and Botswana.



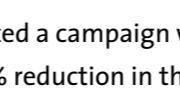
Taught over 7,000 people the importance of protecting the environment and how to look after their local coral reef in the Philippines.



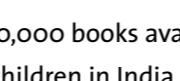
Delivered personal safety training and education to 207,000 children and adults in India.



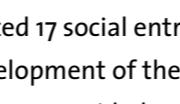
Provided access to dental and health care to over 57,000 people in Cambodia.



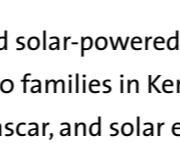
Supported a campaign which has led to a 76% reduction in the availability of sea turtle products in tourist markets in China.



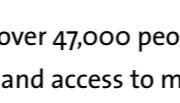
Made 40,000 books available to preschool children in India and trained 3,000 trainers to teach life skills to over 100,000 young people in India.



Supported 17 social entrepreneurs with the development of their businesses, which have provided employment to 3,765 people in India.



Provided solar-powered lights to 13,000 families in Kenya and Madagascar, and solar electricity solutions to 1,000 families in Tanzania.



Helped over 47,000 people with savings and access to microfinance in India and Madagascar.

How we are helping

The Directors of The Marshall Foundation research and evaluate organisations around the world that are doing impactful work, assessing them for the potential scale of their impact as well as their fit with the operations and the values of Berge Bulk.

Typically, we try to assist smaller organisations to develop and pilot new initiatives that will help them increase the scale and reach of their impact – providing risk funding which they

would otherwise find difficult to raise. The Foundation then supports those organisations as they expand proven new initiatives.

We believe in continuing to support projects where our funding can make a difference.

The Marshall Foundation has been a long-term funder of several outstanding NGOs and feels privileged to work with organisations doing some incredible work.



“The best way to find yourself is to lose yourself in the service of others”

Mahatma Gandhi
Lawyer, politician, social activist, 1869-1948



We hope you've enjoyed 'Blue Matters – *moving to zero*'.

If you'd like to send a comment or suggestion on 'Blue Matters' to Berge Bulk's environmental working group, please send an email to bluematters@bergebulk.com. For more information on our engagement towards a blue and healthy ocean, have a look at the environmental section of the Berge Bulk website: www.bergebulk.com



BLUEMATTERS
moving to zero



HEAD OFFICE – BERMUDA	SINGAPORE	22M
Berge Bulk Ltd.	Berge Bulk Singapore Pte. Ltd.	8
Suite 400 Washington Mall - Phase II	Berge Bulk Maritime Pte. Ltd.	6
22 Church Street	Berge Bulk Shipping Pte. Ltd.	4
Hamilton, HM11	12 Marina Boulevard, #24-03	2
Bermuda	The Marina Bay Financial Centre	21M
	Tower 3, Singapore 018982	8
		6
	Tel: +65 6887 9088	4
	Fax: +65 6887 9191	2
	Email: enquiries@bergebulk.co	19M
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