

*Vestas*<sup>®</sup>



# VESTAS 11TH HOUR RACING SUSTAINABILITY REPORT

#LEADINGSUSTAINABILITY

VOLVO OCEAN RACE 2017-2018

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As sailors, we have a direct connection to the ocean. It's our office, our playground, and our livelihood; ultimately we are responsible for taking care of it. Circumnavigating the globe opened our eyes to the tremendous amount of pollution that exists and has motivated us to do something about it.

– Charlie Enright, Skipper & Mark Towill, Team Director

## FOREWARD

We are incredibly proud of the legacy our team has created with our sustainability initiatives. When we started the Volvo Ocean Race campaign in 2017, our goal was to achieve exemplary results in sport and sustainability.

We proved that racing for two very different trophies on and off the water united the team with a common ethos, without hindering performance, and fostered powerful partnerships across our stakeholders - ultimately helping us face adversity with perseverance and great determination.

The process of creating Vestas 11th Hour Racing started during the last edition of Volvo Ocean Race (2014-15). While reflecting on how much marine debris we saw as we sailed around the world with Team Alvamedica, we knew we wanted to compete again, using the platform of sport to raise awareness on pressing environmental issues, and helping to source solutions to mitigate the problem.

Having already worked with 11th Hour Racing since the beginning of 2011 with All-American Offshore Team when we raced in the Transatlantic Race, it was a natural progression for us to partner officially with the organization to carry the message of sustainability through the 2017-18 edition of the Volvo Ocean Race.

Vestas, the global leader in sustainable energy solutions, aligned organically with our goals and with 11th Hour Racing's leadership and mission. We felt that this partnership would send a powerful signal - with two leading players within sustainability combining forces to promote sustainable solutions within wind and water.

With these ambitious goals we put together a team of trusted, talented and passionate individuals, and we drafted a robust sustainability strategy. Hiring Damian Foxall as the team's Sustainability Manager was a key milestone of our campaign that enabled us to get started in our journey with great knowledge, skill, enthusiasm, and leadership.

This sustainability report offers a comprehensive description, supported by real data, of how our team was the most sustainable to compete in the Volvo Ocean Race. Most importantly, it demonstrates how performance, sustainability, and business can merge into a successful and replicable model for the industry and beyond.

Along with this report, which we hope will serve as a guide for other teams looking to become more sustainable.

**Mark Towill**, Team Director - Vestas 11th Hour Racing

**Charlie Enright**, Skipper - Vestas 11th Hour Racing

# #LeadingSustainability

The unique journey by Vestas 11th Hour Racing of #leadingsustainability has been a hugely rich experience for all of the team members. We managed to significantly reduce our footprint, we reached out to millions of fans and most importantly we were able to leave a lasting legacy. The privilege to coordinate this project has given me a strong belief that our sport has a key role to play in the future of our ocean.

This was the first time a comprehensive approach was taken to integrate sustainability as a core element of a Volvo Ocean Race team. The opportunities, challenges and the final achievements contained in this report showcase what is possible for sailing teams and the sailing industry as a whole.

Engaging the team from the outset, with training received at the Cambridge Institute for Sustainability Leadership, helped define the sustainability strategy, objectives and boundaries of the sustainability plan which focused on the following:

## POSITIVE OUTREACH

*The team used the platform of the Volvo Ocean Race to raise awareness of ocean health and environmental issues, and focus on sustainable solutions. This included:*

- Connecting directly with the public through outreach and education via media relations, social media and in person at each stopover.
- Public speaking engagements and conferences including presenting at the Volvo Ocean Race Ocean Summits to discuss ocean health issues with local and international leaders.
- Participating in a legacy project, supported by 11th Hour Racing, which allowed the team to award a grant to a local organization at each stopover, and further their mission.
- The outreach program was leveraged by a concerted communications effort generating over 313 million media impressions that mentioned sustainability.

## SUSTAINABLE OPERATIONS

*The team ran its operations using best practices to promote sustainability values and footprint reduction from the outset of the campaign. This was demonstrated by partner relationships, sourcing suppliers, and across the network of team operations - examples include:*

- The team's technical clothing supplier Musto reduced their packaging footprint by 70% or a projected 11,000 kilograms of plastic each year.
- Team supplier Bluewater provided on-site drinking water solutions preventing the use of 9,600 liters of water, 2,000 liters of fuel and 6.64 tonnes CO<sub>2</sub>e.

## ENVIRONMENTAL FOOTPRINT

*The team used stringent global reporting guidelines to track, calculate and report on their emitted carbon, water, and waste footprints. The final environmental footprints have been acknowledged and compensated for, some highlights included:*

- The team's carbon footprint of 1,218 tonnes CO<sub>2</sub>e was compensated for with a blue carbon offset program.
- Participating in the Meatless Mondays initiative saved a staggering 677,000 liters of water, and compensated for the 14,919 liters of water the team used during the campaign.
- The team compensated for their waste footprint through a ghost fishnet recovery initiative that will recover more than 2 tonnes of old fishing gear from the ocean.

The results and methodology contained in this report establish an industry-recognized baseline for a Volvo Ocean Race team environmental footprint report. Additionally, a suite of generic tracking, calculating and reporting tools are being developed to streamline the future process of reporting environmental footprints, and acknowledging sustainability responsibilities for the wider sailing community.

**Damian Foxall**  
Sustainability Manager & Sailor  
Vestas 11th Hour Racing



Across the country and around the world, the sailing community knows that our livelihoods and our passions are tied to healthy oceans. We also know that the manufacturing, transportation and widespread enjoyment of sailing can have a negative impact on ocean health. That's why we focus on the discovery and promotion of the most sustainable practices across our sport and industry. Our partnership with Vestas 11th Hour Racing has been about inspiring

positive change in the way we think about energy and the natural resources of the planet. As co-title sponsors of this team, we engaged fans in increasing understanding about our vital connection to the oceans and showcase how embedding sustainability in a top-level professional sports team can drive performance, efficiency, and innovation.



**- Jeremy Pochman, 11th Hour Racing Co-Founder, and Strategic Director.**

# THE VOLVO OCEAN RACE 2017-2018

The 2017-18 Volvo Ocean Race was the longest and one of the most grueling editions of this iconic marathon around the planet that started in 1973. The 45,000 nautical mile race started in Alicante, Spain, on 22nd October 22, 2017, and finished - 11 legs and 12 stopovers later - in The Hague, The Netherlands, on 24th June 24, 2018. With three teams in close contention for the overall win until the very last miles, it was the closest and the most nail-biting finish the race has ever seen.

## LIST OF COMPETITORS

Team AkzoNobel

Team Brunel

Dongfeng Race Team

MAPFRE

Team Sun Hung Kai/Scallywag

Turn the Tide on Plastic

Vestas 11th Hour Racing



The global platform of the Volvo Ocean Race meant that in each of the 12 landmark host cities, Vestas 11th Hour Racing had a unique opportunity to engage with the local community, understand local issues and spread their sustainability message to a global audience.

While racing, Vestas 11th Hour Racing also leveraged the powerful communications platform of the race - featuring high-quality storytelling using real, respected characters - to engage with their audience, foster positive behavior change, drive the conversation, and discuss issues with local relevance.

# VOLVO OCEAN RACE SUSTAINABILITY PROGRAM

As ocean racers, all those involved in the Volvo Ocean Race recognize the critical environmental challenges facing us. That's why the Volvo Ocean Race 2017-18 Sustainability Program focused on ocean health, specifically on plastic pollution.

## THE RACE ORGANIZERS IDENTIFIED THREE CLEAR DIRECTIVES:

**Maximize Impact** - To maximize the race's impact using its global communications platform to spread awareness, an [educational programme](#) to change views, and a [science programme](#), using the Volvo Ocean 65 racing yachts to capture data while at sea and contribute to our understanding of the oceans in the most remote areas of the planet.

**Minimize Footprint** - To minimize the race's own footprint with a particular focus on reducing, and where possible, eliminating the use of single-use plastic in the Race Villages – a challenging task but one that will help to change behavior.

**Leave a Positive Legacy** - To leave a positive legacy wherever the Race goes, through our actions and through the creation of [Ocean Summits](#) to bring together science, government, sport, and business, with an objective of getting attending parties to commit to new positive actions in this area.

Volvo Ocean Race was able to achieve these goals by partnering with 11th Hour Racing, the Founding Principle Partner of the Sustainability Program and Principal Race Partner, along with a set of credible partners with a global reach and a strategic alignment.

## FEEDING FRENZY



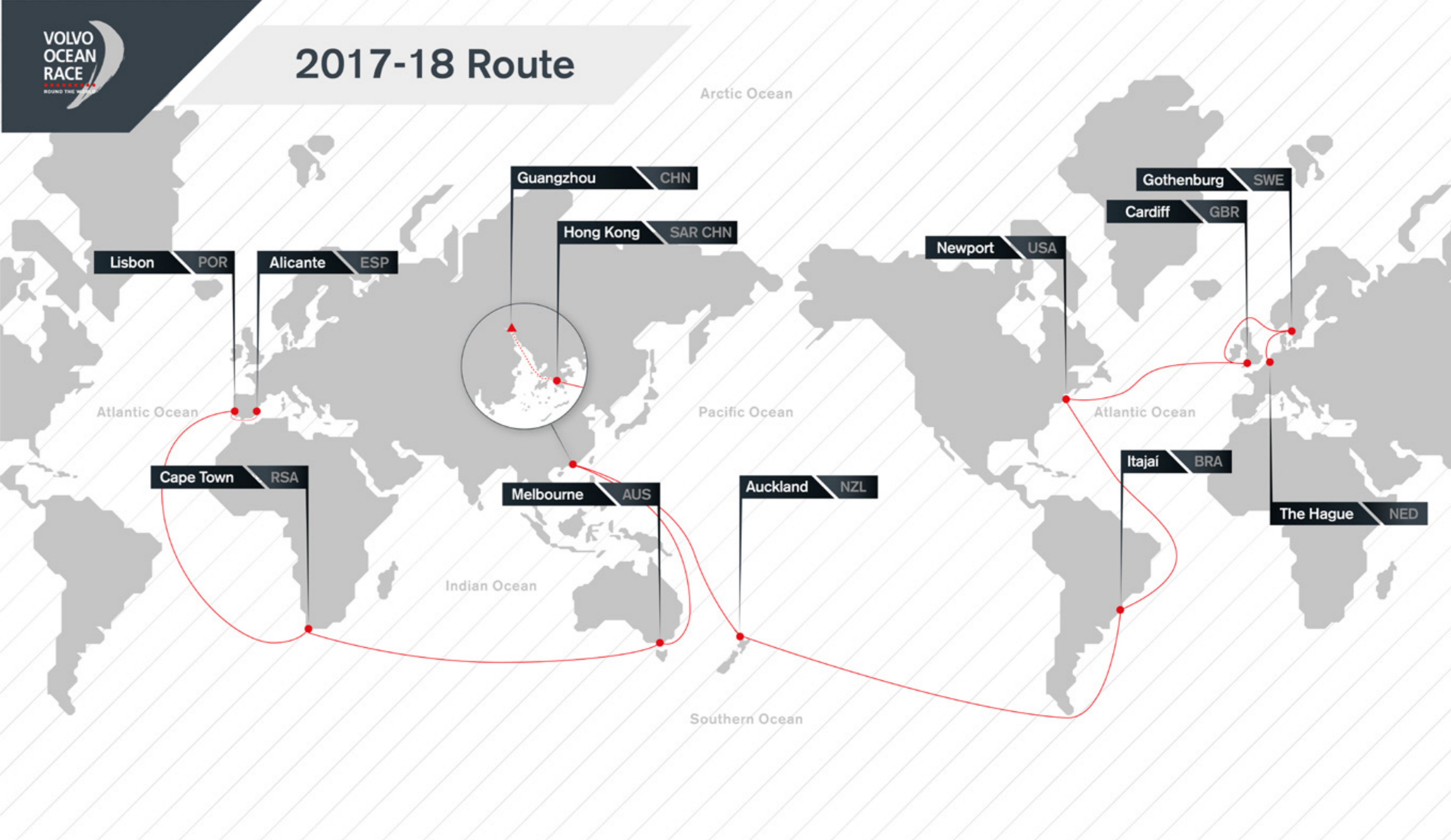
While racing on Leg 4 from Melbourne to Hong Kong, Vestas 11th Hour Racing witnessed an incredible sight, a feeding frenzy of whales and sharks. The team's onboard reporter, Amory Ross, quickly grabbed his drone and captured a bird's eye view. Afterward, the team reflected on the beautiful sight and the video went viral. [Click on the video to watch.](#)

# BOATS AND LOGISTICS

The introduction of the one design VO65 for the 2014-15 edition was a revolutionary move by the race organizers which would dramatically reduce team entry costs and increase the competitiveness of the boats on the water. By racing one-design boats the build costs and efficiencies were significantly decreased, and the technical services during the race could be centralized into the Volvo Ocean Race managed 'Boatyard.' These actions provided a significant footprint reduction for each team, thanks to the ability to share equipment, logistical support, and staff.

The use of the same boats for the 2017-18 edition - negating the need to build new ones and the associated footprint - was one of the most significant reductions of the whole race. The continued centralized Boatyard encouraged scale and economy within the material and spared inventory, further reducing the overall footprint of the race.

The 2017-2018 Volvo Ocean Race route map, which included 12 stopovers and 45,000 nautical miles of racecourse.





# BECOMING THE MOST SUSTAINABLE TEAM IN THE RACE

## BACKGROUND

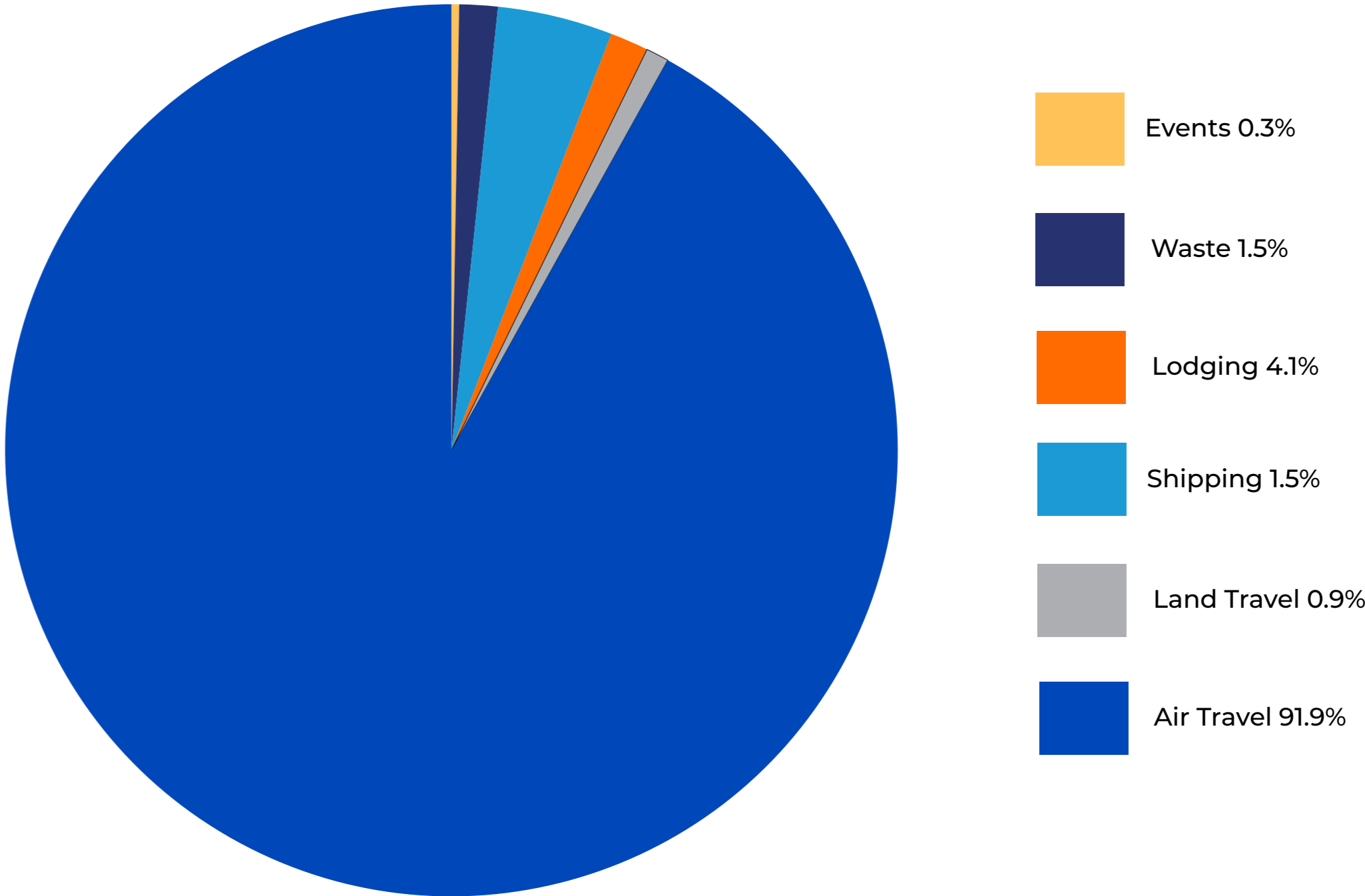
The 2014-15 edition of the Volvo Ocean Race with Team Alvimedica was the first lap of the planet for Charlie Enright and Mark Towill. The satisfaction of competing in the most grueling race on earth was curbed by seeing the impact that human activity is having on our ocean first hand. For their second lap of the planet, Charlie and Mark knew they wanted to race for with a higher message, and looked to see how they could implement sustainability into their program.

Sustainability is challenging to implement retrospectively - a lesson carefully avoided for the next edition - but operations for

the 2014-15 Volvo Ocean Race were used to create a sustainability plan and overall carbon footprint estimate, setting an important baseline. [Team Alvimedica's Sustainability Report](#) would also offer 55 South and Vestas 11th Hour Racing an important starting point as they planned to the 2017-18 edition.

In preparation for the 2017-18 Volvo Ocean Race, Mark and Charlie committed their management company 55 South to an ambitious mission - leading sustainability on and off the water, while aiming at a podium finish.

### CARBON FOOTPRINT OF TEAM ALVIMEDICA IN THE 2014-15 VOLVO OCEAN RACE



# SUSTAINABILITY TRAINING



A key element to the successful implementation of the team’s goals was to ensure the crew was well educated on ocean health issues and their sustainability efforts. With one month to go before the start of the Volvo Ocean Race, Vestas 11th Hour Racing sailors, shore team, partners, and suppliers filled the halls of the University of Cambridge in England, one of the world’s oldest universities and leading academic centers, for a seminar hosted by 11th Hour Racing at [Cambridge Institute for Sustainability Leadership \(CISL\)](#), with [British Antarctic Survey \(BAS\)](#).

The objective of the session focused on global environmental challenges related to climate change and ocean health was to increase the team’s understanding and confidence as ambassadors for sustainability, with specific attention to how an individual can take action.

*To sail around the world is a privilege, I’ve done it once and I look forward to doing it again with a team dedicated to protecting the planet. When out at sea, the contrast of encountering beautiful wildlife one day and plastic pollution the next is truly an eye-opening experience. With that*

*knowledge comes a deep sense of responsibility and the education today at the Cambridge Institute for Sustainability Leadership has given the team a stronger understanding of how a sports team can ignite change around the world.*

**Charlie Enright, Skipper, Vestas 11th Hour Racing.**

Mark Towill, Co-founder & Team Director of Vestas 11th Hour Racing holding a piece of 1,000-year-old ice.

# PLANNING FOR SUSTAINABILITY

The work done by Alvimedica in the 2014-15 campaign gave the newly formed Vestas 11th Hour Racing team an excellent starting point from which they could build a comprehensive and robust sustainability plan.

## **WHAT IS SUSTAINABILITY?**

Sustainability is based on a simple principle: Everything that we need for our survival and well-being depends, either directly or indirectly, on our natural environment. To pursue sustainability is to create and maintain the conditions under which humans and nature can exist in productive harmony to support present and future generations.<sup>1</sup>

The first step was for the team to define what sustainability meant to them and how they could have the most impact during their year-long campaign. Four areas of influence were identified:

1. **Positive Outreach** - the team would use their platform and leadership to raise awareness of ocean health and environmental issues.
2. **Operations** - the team would run its activities on and off the water in a sustainable manner, incorporating best practices, and sourcing suppliers with sustainability values.

3. **Environmental Footprint** - the team would track and report on their operations, build industry understanding of impacts, and offset their carbon footprint at the end of the race.

4. **Compliance** - the team would follow the most stringent local and global marine and environmental regulations and conduct environmental reporting aligned with international standards.

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The next step was to develop a detailed **Sustainability Plan** that included the following elements:

- **Travel Policy**
- **Environmentally Preferable Purchasing (EPP) plan**
- **Food Charter**
- **Sustainable Operations Plan**
- **Monitoring/Reporting**
- **Carbon Footprint Tracking**
- **Sustainability Communications Plan**

<sup>1</sup> <https://www.epa.gov/sustainability/learn-about-sustainability#what> (US Environmental Protection Agency).

# IMPLEMENTATION AND MONITORING

## BY THE NUMBERS

92%

*of the team's housing was within walking, biking, or public transit distance of each stopovers race village.*

To ensure that everyone on the team fully understood the specifics and roles to implement the sustainability plan successfully, Mark Towill and Charlie Enright appointed six-time Volvo Ocean Race veteran and ocean advocate Damian Foxall as the team's Sustainability Manager. Damian would direct and oversee the daily operations and would also be responsible for monitoring, tracking and reporting on the objectives and achievements. The team's Logistics Manager, Aimee Famularo, also provided significant support by tracking the team's accommodations and flights as well as the freight logistics - the three largest contributors to the team's overall carbon footprint.

Before the start of the race, the team worked with industry professionals to develop a tracking and reporting structure aligned with the [GRI Standards](#) (Global Reporting Initiative sustainability reporting standards) and [GHG \(Greenhouse Gas\) Protocol](#).



Photo credit: Atila Madrona/ Vestas 11th Hour Racing

Each container held a set of bikes for all team members and staff, ensuring they had the ability to choose to bike instead of drive a car.

The GRI Standards help organizations build sustainability reports that reflect their social, environmental and economic impacts. For Vestas 11th Hour Racing, this meant monitoring and tracking a range of quantitative and qualitative performance indicators, e.g., waste footprint and educational outreach respectively. The GHG Protocol helped the team to specifically track and measure their GHG emissions to enable a standardized calculation of their Carbon Footprint which they would then offset.

Two other documents that the team specifically produced for guidance were the [Food Charter](#), committing the team to source local sustainable food around the world, and the [EPP](#) (Environmental Purchasing Policy), to drive responsible purchasing decisions and encourage partners and suppliers to do the same.

# POWER OF PARTNERSHIPS

Vestas 11th Hour Racing was supported by a series of partners and stakeholders fully aligned with the team's ethos and committed to their sustainability goals.

## CO-TITLE PARTNERS

### Vestas

Vestas is the energy industry's global partner on sustainable energy solutions. We design, manufacture, install, and service wind turbines across the globe, and with 94 GW of wind turbines in 79 countries, we have installed more wind power than anyone else. Through our industry-leading smart data capabilities and unparalleled 79 GW of wind turbines under service, we use data to interpret, forecast, and exploit wind resources and deliver best-in-class wind power solutions. Together with our customers, Vestas' more than 24,300 employees are bringing the world sustainable energy solutions to power a bright future.

> More information at [www.vestas.com](http://www.vestas.com)

### 11th Hour Racing

11th Hour Racing establishes strategic partnerships within the sailing and maritime communities to promote collaborative, systemic change benefitting the health of the ocean – one degree at a time.

Since 2010, 11th Hour Racing has been harnessing the power of sport with an innovative and comprehensive approach through three primary areas of engagement: Partners, Grantees, and Ambassadors.

> More information at [www.11thhourracing.org](http://www.11thhourracing.org)

## SUB-SPONSOR

### Argo Group

Argo Group International Holdings, Ltd. (NASDAQ: AGII) is an international underwriter of specialty insurance and reinsurance products in the property and casualty market. Argo Group offers a full line of products and services designed to meet the unique coverage and claims handling needs of businesses in four primary segments: Excess & Surplus Lines, Commercial Specialty, International Specialty and Syndicate 1200.

> More information at [www.argolimited.com](http://www.argolimited.com)

## TEAM SUPPLIERS

### SOS - Electrolyte Hydration

SOS is a fast-acting electrolyte replacement drink made from non-GMO and organic ingredients, created to prevent and combat dehydration due to physical performance.

<https://store.sosrehydrate.com/>

### Bluewater - Water Filtration

Bluewater water purifiers deliver the world's most effective tap water cleaning technology, removing over 99% of most known pollutants.

[www.bluewatergroup.com](http://www.bluewatergroup.com)

### Karün - Sunglasses

Karün created a dedicated series of Volvo Ocean Race sunglasses, made from recycled fishing nets and recycled carbon fiber.

<https://karunworld.com/collections/sailing-collection>

### Aethic - Sunblock

Aethic Sôvée is the world's first sunscreen to be certified Marine Positive, having invested in a unique patent-pending eco-compatible formula of its own, proven completely safe for both corals and clams.

[www.aethic.com](http://www.aethic.com)

### Musto - Clothing

As the world's leading sailing brand, Musto continually pushes the boundaries of design and innovation. They create technical performance clothing that provides athletes across multiple disciplines with ocean engineered protection for all weather conditions.

[www.musto.com](http://www.musto.com)

# MUSTO SUPPLIER CHALLENGE - MUSTO REDUCES PLASTIC USAGE BY 70%



When it comes to reducing plastic usage in the marine industry, there are many avenues for improvement, and the clothing sector is no exception. As the Official Supplier of Sailing Apparel and Footwear for the Volvo Ocean Race, Musto knew this was an opportunity to improve their company's environmental impact.

In December 2016, Musto was challenged by Vestas 11th Hour Racing and the Volvo Ocean Race to reduce their environmental impact by finding a more sustainable alternative to plastic packaging. The project resulted in a savings of more than 4,000 kg of plastic packaging across two product collections and has paved the way for Musto to save over 11,000 kg of plastic each year.

As part of this effort and in partnership with 11th Hour Racing and the sustainability team at the Volvo Ocean Race, Musto identified using pre-consumer waste materials as the best product available for creating their garment bags instead of virgin plastic. The company also determined that adding an extra fold in the clothing and reducing the thickness of the plastic bag along with other initiatives, would enable them to reduce 70% of the plastic used in the manufacture, packaging, and delivery of Musto's 2017-18 Volvo Ocean Race Collection.

At the first Ocean Summit in Alicante, Spain, in October 2017, Nigel Musto announced that Musto had become the first private business to support the United Nations Environment Clean Seas campaign officially.

> [Musto Case Study](#)

*We are excited to partner with the Volvo Ocean Race and Vestas 11th Hour Racing in producing our most innovative and sustainable packaging to date and hope this will help raise awareness of ocean health. We are proud of the sustainability innovations we have made in 2017 and remain committed to further exploring this area in the future.*

**- Petra Carran, Head of Marketing, Musto**

# MAKING AN IMPACT

The international format of the Volvo Ocean Race, as well as the tens of millions of race fans and followers, gave Vestas 11th Hour Racing a unique opportunity to magnify their message and engage with a global audience.

The team's legacy focused on three main areas of engagement:

1. [Team Base Exploration Zone](#)
2. [Legacy Project](#)
3. [Volvo Ocean Race Ocean Summit Series](#)

## EXPLORATION ZONE

All teams had different options and configurations to choose from for their Race Village bases. While a portion of each base was needed for team operations and hospitality, the teams were also required to grant access to the general public. Vestas 11th Hour Racing devoted their public space to a free, interactive educational space focused on wind and water - the 'Exploration Zone.' More than 99,300 visitors came through this space over the course of the race, learning about renewable energy solutions, ocean research,

innovations to prevent micro-fiber pollution, and the principles of a circular economy. The concept and contents of the Exploration Zone were developed with Vestas and 11th Hour Racing featured various different organizations such as [Schmidt Ocean Institute](#), [Saildrone](#), the [Rozalia Project](#), [The New Plastics Economy](#) and the [UN Environment Clean Seas campaign](#).

A virtual reality headset offered fans the opportunity to stand on top of a wind turbine and a grinder, just like one on the boat, captured fans' attention and showcased how much energy it takes to charge a cell phone or turn on a light bulb. The entire space was dedicated to raising awareness of critical issues and inspiring the desire for positive change.

## LEGACY PROJECT

Supported by 11th Hour Racing, the Legacy Project gave the team the opportunity to experience and highlight some of the work happening around the world to mitigate human impacts on our ocean. At each race stopover, with guidance from [The Ocean Foundation](#),



The team's Exploration Zone focused on educating visitors on the power of wind and the importance of the ocean to our everyday lives.

the team chose a local not-for-profit organization recognized for its work on specific environmental issues connected to ocean health, with local relevance to the host city and surrounding region.

During the grant activations, Vestas 11th Hour Racing team members spent a morning with each organization to learn about their mission and engage with their work. 11th Hour Racing awarded a \$10,000 grant to each organization and promoted their work and their collaboration with the team through a dedicated communications plan that included creating a short educational outreach film. Below is a map outlining each grantee as the team raced around the world.

# LEGACY PROJECT

“It's been fascinating and an honor to meet with so many different NGOs from around the world and learn about what affects their local communities. It's been inspiring to see how many individuals are truly passionate about improving the health of the oceans that we crossed as we've sailed around the globe. We are incredibly proud of the work we have accomplished as a team in raising awareness about specific environmental issues to millions of fans and followers, leveraging the high visibility of this fantastic race.”

- Mark Towill, Team Director, Vestas 11th Hour Racing.



**GRANTS PROVIDED BY**



# OCEAN SUMMITS

As part of Volvo Ocean Race sustainability commitment, and supported by the race partnership with 11th Hour Racing, seven Ocean Summits were held around the world - Alicante (Spain), Cape Town (South Africa), Hong Kong, Newport (USA), Cardiff (UK), Gothenburg (Sweden), The Hague (The Netherlands). These innovative events, designed to use the power of sport to engage key stakeholders on the issue of ocean health, saw the release of ground-breaking data on micro-plastics and a series of local and global announcements in support of the UN Environment Clean Seas Campaign.

Vestas 11th Hour Racing, represented by either Mark Towill or Charlie Enright, spoke at six of these events about their powerful 'View from the Sea', highlighting the role that athletes can play in harnessing the power of sport to promote positive change, and calling

on industry, government and sport representatives to sign the Clean Seas Pledge and take further action. You, too, can take action and sign the pledge at <http://www.cleanseas.org/take-action>.



Photo credit: Pedro Martínez/ Volvo Ocean Race

Mark Towill speaking at the first Ocean Summit in Alicante, Spain. The two team leaders, Mark and Charlie Enright took turns speaking at each Ocean Summit.

## #CleanSeas - Turn the tide on plastic

Each year, at least

# 8 million

tonnes of plastic leak into the ocean



# 60-90%

of marine litter is made of different plastic polymers

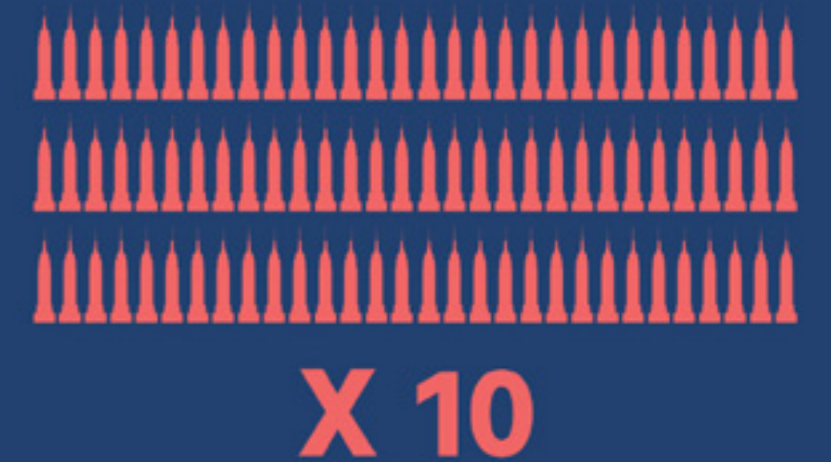
In 2015, we produced

# 322 million

tonnes of plastic, equal to more than

# 900

Empire State Buildings



#CleanSeas UN environment

The UN Environment Clean Seas campaign was supported by the race. 20,000 people and 3 countries signed the pledge, committing to reduce their plastic footprint. Image credit: UN Environment

# MEDIA & FAN ENGAGEMENT

As part of the team’s mission to lead sustainability and use the race as a platform to grow awareness of plastic pollution and other ocean health issues, 11th Hour Racing developed a comprehensive and dedicated communications plan with the team, covering both traditional and social media.



**974**

News articles featuring the team focused on sustainability



**314**

Million potential viewers of team-related sustainability news



**558,000**

Views of Sustainability Videos



**2.9 Million**

Monetary value of media coverage (USD)

## SOCIAL MEDIA FOLLOWING

Vestas 11th Hour Racing

Volvo Ocean Race



40,139

1,266,725



16,600

102,000



24,600

198,000

## 2 MOST POPULAR VIDEOS

[Feeding Frenzy & Ice Exclusion Zone](#)

## 6 MOST POPULAR POSTS

Facebook:

[Take 3 For the Sea, Hawaii bans sunscreen unsafe for coral reefs, Vestas 11th Hour Racing Activation in Cape Town](#)

Instagram:

[Visit our Exploration Zone, Meet the Enrights](#)

Twitter:

[Happy Earth Day](#)

## ARTICLES

[Open Waters?](#), New York Times (Reach 259 million)

[Volvo Ocean Race Is A Powerful Platform For Team Vestas 11th Hour Racing And Ocean Health Too](#), Forbes (Reach 40.1 million)

[Why The Completed Volvo Ocean Race Includes More Than A Nautical Victory](#), Forbes (Reach 40 million)

[Round-the-world sailing race works to protect its racetrack](#), Daily Mail Online, (Reach 39.6 million)

[‘Planet is doomed’ unless ocean health improves, says yachtwoman](#), CNN, (Reach 15 million)

[Volvo Ocean Race: Son of gun travels as onboard reporter](#), New Zealand Herald (Reach 3 million)

[Foxall a key speaker at World Sailing conference in Mexico](#), The Irish Times (Reach 2 Million)

[No ‘silver bullet’ for Cape Town’s #WaterCrisis](#), IOL (Reach 1.15 million)

[Vestas 11th Hour Racing: Cross-Sector Partnership a Perfect Storm for Sustainable Sailing](#), Sustainable Brands (Reach 73.3k)

[Big-hearted sailors’ gift to orca](#), NewsRoom (Reach 47.3k)

[Businesses, NGOs Partner to Create New Supply Chains for Ocean Plastic](#), Triple Pundit (Reach 130k)

[High Seas Entrepreneur](#), Hawaii Business Magazine (Reach 9 thousand)

# OPERATIONS & REDUCTION ACHIEVEMENTS

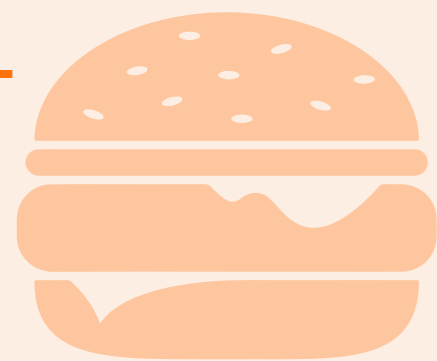
## Sustainability Kits

All team members were provided with a personal sustainability kit to support their efforts to operate with a lower environmental footprint. The kits included:

- Reusable Water bottle
- Reusable Coffee mug
- Sustainable soap, shampoo, toothpaste and laundry detergent
- Bamboo toothbrushes
- Personal water filter to ensure safe drinking water
- Reusable shopping bag

## Reduce

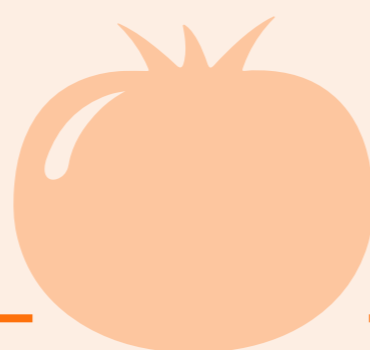
- The team was committed to not using single-use plastics, which had a significant impact on the team achieving a 74% landfill diversion rate during the race.
- On the boat, the crew used a watermaker to produce drinkable water from seawater. As a standard practice in the Volvo Ocean Race this has not been included in the plastic avoidance calculation - but can be a reduction opportunity for many races and classes.
- 15,987 single-use 500ml water bottles were not used thanks to Bluewater water filtration units that supplied the team, sponsors and guests' water needs.



### BY THE NUMBERS

If you eat just one less burger per week, over the course of a year, it's the same CO<sub>2</sub> emissions reduction as driving 320 miles less in your car

Did you know that growing a tomato requires 13 liters of water while making one hamburger requires 2400 liters of water?



## Reuse

- The majority of the team's office area was equipped with furniture that was being reused from the last edition of the race – folding tables, printers, chairs, bicycles, mini-fridges, coffee pots, and more.
- In the team base, public space and hospitality area, the majority of the furniture was rented and therefore returned at the end of the race. The purchased items remained in good condition and were sold back to the supplier for reuse.

After the race, all team bases were sent to Lisbon, and the team was able to work once more with their Lisbon grantee, Circular Economy Portugal, who organized the donation of furniture and equipment to a co-working space in nearby Beato.

## Recycle and Compost

- The team's goal was to have a 75% landfill diversion rate, meaning that only 25% of the waste generated by the team throughout the race would end up in a landfill or incinerator. In actuality, the team achieved 74% which, given the complexities of different venues and recycling schemes at each stopover, this was an impressive achievement.
- Food scraps from the team's operations on land were composted when the service was available (8 stopovers out of 12).

All food packaging came back to land from the boat to be included in the waste footprint tracker, as much as possible was recycled.

## Food

- The [food charter](#) outlines the team's commitment to sourcing local, sustainable foods from the countries they visited, including sustainable seafood.
- By adopting Meatless Mondays, the team reduced their carbon footprint by 2.72 tonnes, prevented the use of 671,000 liters of water, and helped to raise awareness of this [global movement](#).

# ENVIRONMENTAL FOOTPRINT

With its long format, complex course and heavy logistics, the Volvo Ocean Race is often described as a massive business trip, and every competing team has an inherent environmental footprint associated with the event. While the teams cannot control some elements, others were addressed, monitored and compensated for.

For Vestas 11th Hour Racing, tracking and calculating their environmental impact throughout the race was a key tenet of their sustainability strategy, focusing first and foremost on reducing any negative impacts, and then compensating for unavoidable negative impacts at the end of the race.

The team's environmental footprint is broken down into three main areas:

- **GHG Emissions**
- **Water Footprint**
- **Waste Footprint**



Photo credit: Ainhoa Sanchez/Volvo Ocean Race

Looking at Vestas 11th Hour Racing, from the other side of Bull Rock.

# GREENHOUSE GASES (GHG) EMISSIONS

## WHAT IS A CARBON FOOTPRINT AND OFFSET?

A carbon footprint is defined as the total amount of greenhouse gases (GHG) produced to, directly and indirectly, support human activities, usually expressed in equivalent tonnes of carbon dioxide (CO<sub>2</sub>e).



Photo credit: Martin Keruzoré/ Volvo Ocean Race

Carbon offsets let you empower projects in communities across the world that reduce GHG emissions beyond what one can achieve through individual action or reduction. Carbon offsets are purchased to fund these projects and diminish the impact of one's own GHG emissions<sup>2</sup>. Examples include planting trees, capturing methane gasses, or restoring seagrass beds.

The carbon management approach applied by Vestas 11th Hour Racing followed the requirements of the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard<sup>3</sup>, and the data was compiled and CO<sub>2</sub>e emissions calculated using the UK Government GHG Conversion Factors for Company Reporting<sup>4</sup>. This aligned with the reporting protocols followed by the Volvo Ocean Race Sustainability Program. The inclusion limits were guided by a financial approach, which meant that everything that was directly funded by the team was included in the calculation. The Volvo Ocean Race was responsible financially and logistically for the centralized services, such as the Boatyard, which meant that the team was not responsible for the associated footprint.

Specifically, the team developed a [Carbon Calculator](#) based on factors from the UK Government GHG conversion table, on the recommendation from the Sustainability Manager of the Volvo Ocean Race. It is to be noted that the team customized inclusions and exclusions to best reflect the nature of a Volvo Ocean Race team. A breakdown of these is included in Appendix 2.

After leaving Itajai, Brazil, the Volvo Ocean Race fleet quickly ran into a oil exploration zone, a reminder of the importance to reduce our reliance on fossil fuels.

<sup>2</sup> <https://www.terrapass.com/>

<sup>3</sup> Developed by the World Resources Institute and World Business Council for Sustainable Development. Available at <https://ghgprotocol.org/corporate-standard>

<sup>4</sup> [UK Government GHG Protocol for Company Reporting](#)

# CARBON FOOTPRINT TRACKING

Below are the parameters tracked by Vestas 11th Hour Racing throughout the campaign and the method of tracking. The final tracked values, be they air miles, kilograms of waste or dollars spent, could then be inputted into the Carbon Calculator which, in turn, produced the team's Carbon Footprint.

## ITEMS TRACKED

### Air Travel

- Commercial: Long Haul (>3,700km)  
Short Haul (785-3,700km)  
Domestic (<785km)
- Private: Aircraft type & km traveled

### Sea Travel

- km traveled
- Number of people / Type of Vessel

### Land Travel

- km traveled

### Accommodations

- Type
- Number of people per night

### Shipping & Freight

- Land Tonnes/km traveled
- Sea Tonnes/km traveled
- Air Tonnes/km traveled

### Trash

- Landfill
- Recycle
- Compost

### Services

- Electricity kWh used
- Water liters used

### Purchasing

- Tracked through dollars spent <sup>5</sup>

### Fuel

- Type of Fuel

### Material

- Boat Building LCA

## TRACKING TOOLS

[Team accommodation, travel & flight tracker](#)

[Air and sea freight tracker](#)

[GRI tracker](#)

## ASSESMENT TOOLS

[Carbon Footprint Calculator](#), based on the [UK GHG reporting guidelines](#)

## END RESULT

Vestas 11th Hour Racing Carbon Footprint

The choice of factors sourced from the UK Government GHG conversion tables, or elsewhere when needed, is explained on the relevant worksheet tab within the Carbon Calculator. In some instances, this was changed for certain stopovers to reflect the international differences.

The UK Government GHG Conversion Factors for Company Reporting classifies greenhouse gas (GHG) emissions by broad operational scope, which is described in the Description of Scope table. We've shown examples of how it was applied to Vestas 11th Hour Racing's operations.

These careful calculations enabled Vestas 11th Hour Racing to develop a series of tools and guides with a view of building shareable resources. The ultimate goal of this work is to create a framework for the first environmentally 'neutral' sailing team.



Photo credit: James Blake/ Volvo Ocean Race

Damian Foxall, the team's sustainability manager sailing during leg one.

<sup>5</sup> For purchased goods the Carnegie Mellon University Economic Input-Output Life Cycle Assessment model (EIO-LCA) was used to estimate the team's emissions from economic activity

## OPERATIONAL SCOPE

SCOPE	DESCRIPTION	VESTAS 11TH HOUR RACING EXAMPLES	PERCENTAGE OF EMISSIONS
SCOPE 1 EMISSIONS	Direct emissions of greenhouse gases from all sources owned or controlled by Vestas 11th Hour Racing	e.g. Fuel emissions from team RIB, cars & private jet (for emergency travel to the Falkland Islands)	1.2%
SCOPE 2 EMISSIONS	Indirect emissions of greenhouse gases resulting from the generation of purchased electricity by Vestas 11th Hour Racing	e.g. Electricity for Team Base & Workshop	0.9%
SCOPE 3 EMISSIONS	Other indirect emissions. Most of Vestas 11th Hour Racing's emissions fall into this category. Where possible these also take into account upstream 'Well-to-Tank' impacts.	e.g. Travel logistics, accommodation, freight	97.8%

Most of the team's emissions are classified as scope 3. Where possible, these also took into account upstream "Well-to-Tank" (WTT) impacts<sup>6</sup> which can be seen in the Scope 3 adjusted column of the Description of Scope table. The downstream impacts such as consequent use-cycles of the boat and equipment have not been included. It should be noted that using the same boats from the previous edition of the Volvo Ocean Race was a very significant footprint reduction as it avoided the footprints associated with building a new boat.



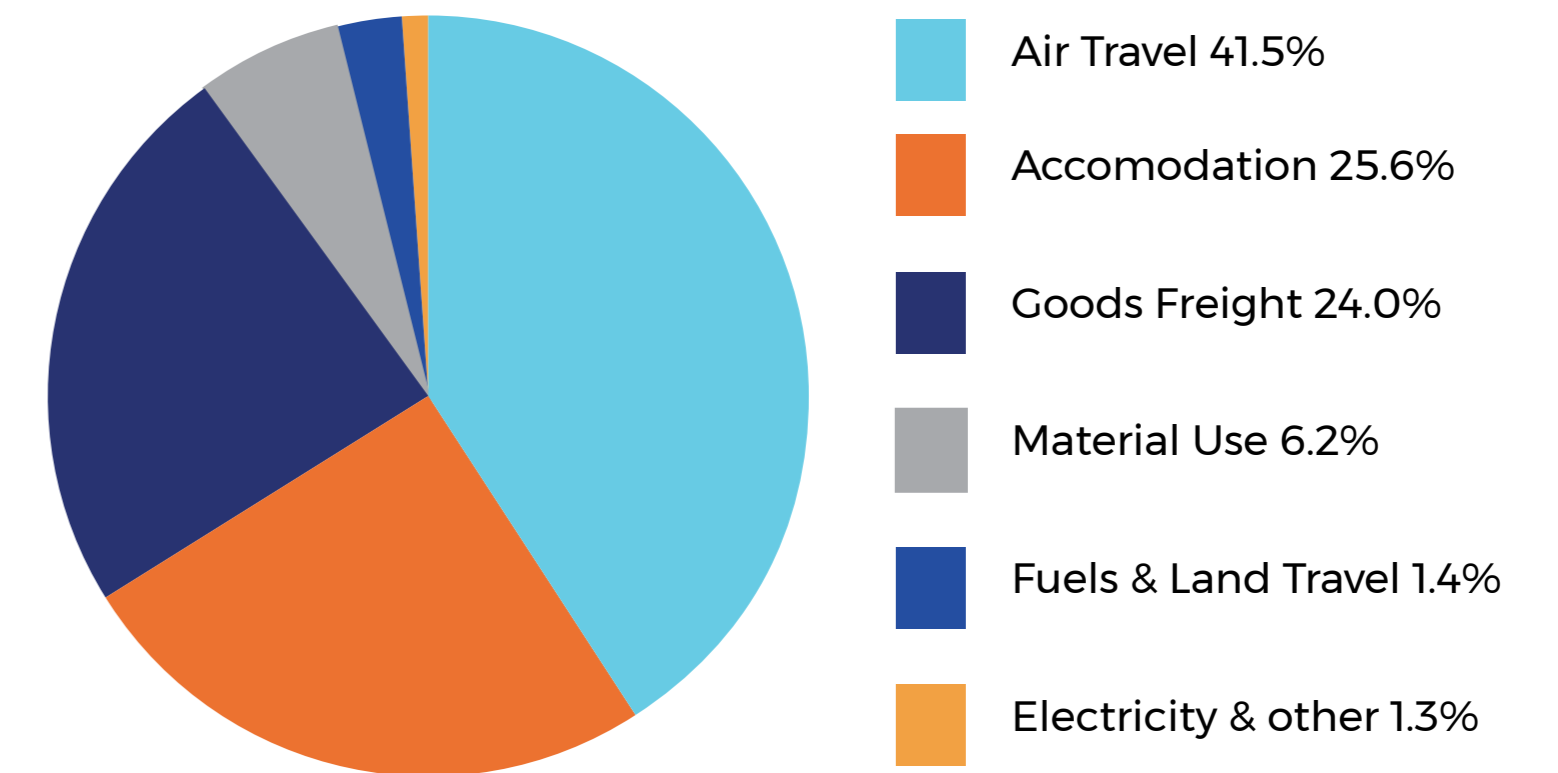
<sup>6</sup> Well-to-Tank is an analysis technique of estimating the GHG emissions of the primary (pre-road) fuel production and transportation.

# VESTAS 11TH HOUR RACING CARBON FOOTPRINT

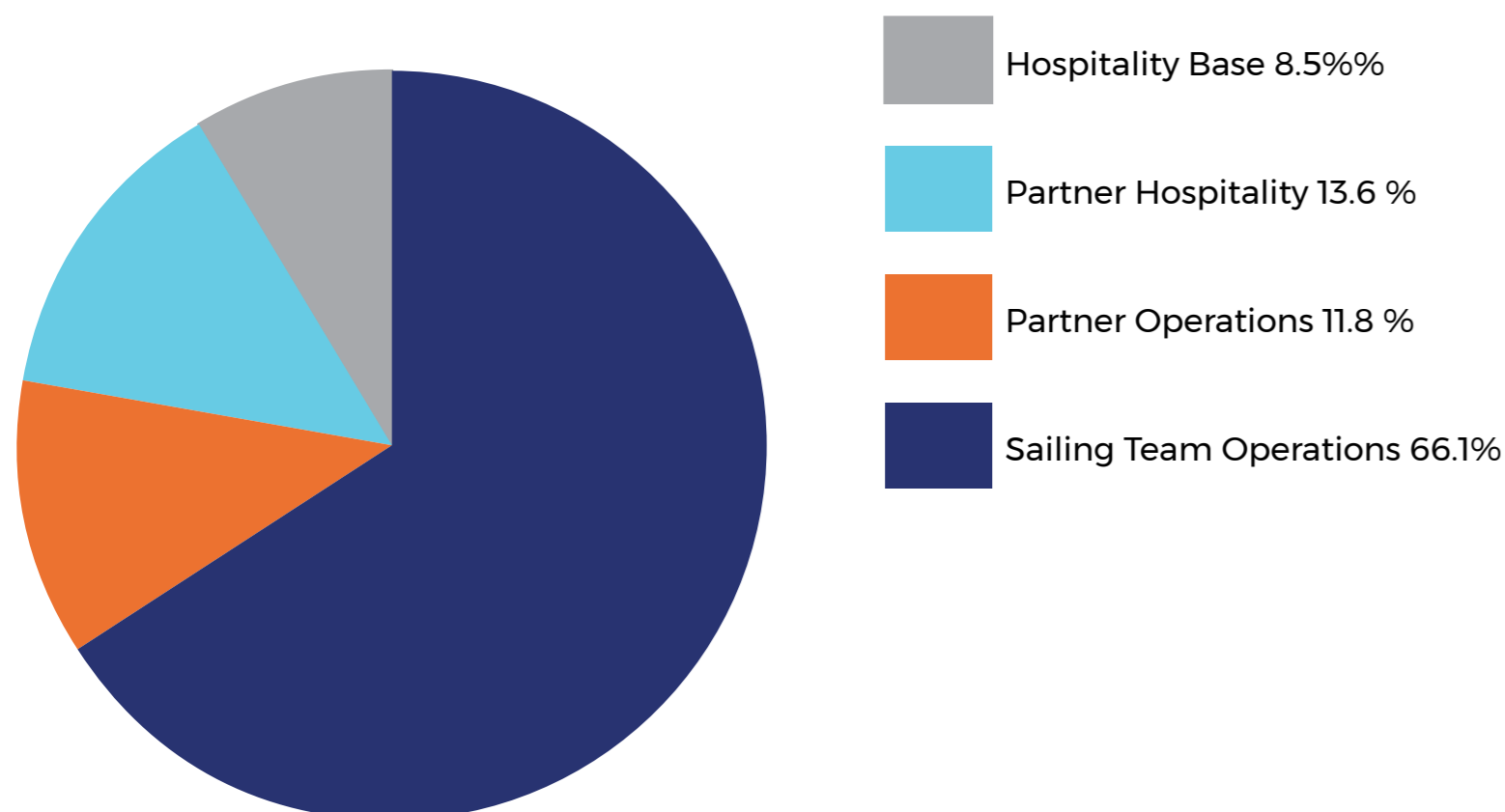
The team's carbon footprint for the 2017-18 Volvo Ocean Race was calculated as 1,218 Tonnes CO<sub>2</sub>e. Air travel, accommodations, and freight were the 'big ticket' items of the team's carbon impact, totaling more than 85% of the overall footprint. This result was similar to the findings of Team Alvimedica's Carbon Footprint calculations from the 2014-15 campaign. However, introducing tracking from the beginning of the campaign, rather than done in retrospect, revealed accommodations and freight accounted for a larger portion of the team's footprint than anticipated. The team's freight footprint was greatly impacted by the boat repair required in Auckland (see Boat Repair section) due to the necessity of shipping the boat to Auckland from Hong Kong and flying a new hull section from Italy. This was responsible for 18% of the team's freight footprint. When compared with partner operations, the team's footprint is more significant because their staff of 20 was much larger than their partners' onsite staff, and the most substantial impact items, accommodations, and flights were directly tied to staff numbers.

Standard industry practice is to set a minimum threshold for tracking categories of emissions. The team set this threshold at 1% of the total carbon footprint. However, every effort was made to track footprint categories that were below 1% of the team's total emissions, to retain this information for a baseline reference.

## VESTAS 11TH HOUR RACING CARBON FOOTPRINT BY CATEGORY



## VESTAS 11TH HOUR RACING CARBON FOOTPRINT BY DEPARTMENT



The cost of compensating for Vestas 11th Hour Racing's operational carbon footprint will be covered by a grant from 11th Hour Racing given to The Ocean Foundation's SeaGrass Grow program. The footprint associated with the team's guest hospitality program throughout the race will be divided between the team's partners Vestas, 11th Hour Racing, and Bluewater, and these three organizations have also committed to compensating for their own Volvo Ocean Race footprints.

Standard carbon offset projects have a starting cost of approximately \$10 per tonne. This price point would allow the team to offset their footprint for roughly \$12,180 - a remarkably reasonable price considering they flew over 2 million kilometers. It also shows that offsetting is financially accessible and a small percentage of the campaign budget.

However, the team opted to offset with blue carbon, through the SeaGrass Grow program. As sailors, boaters, and ocean lovers the team felt it was essential to protect these crucial marine habitats on which our livelihood and sport depends - and we urge other sailing teams to do the same<sup>7</sup>. This program, as a fledgling research area, has higher associated costs of \$25 per tonne increasing the offset cost to \$30,450. 11th Hour Racing was happy to raise their offset grant to support the development of scientific research and understanding of blue carbon offsets.

<sup>7</sup> Vestas and Bluewater's footprints were calculated with the team's assistance, and are included within the scope of this report. 11th Hour Racing offsets their operations as standard practice through a separate program, therefore are not included herein.



# CARBON FOOTPRINT COMPENSATION - SEAGRASS GROW

Seagrass Grow is a blue carbon offset program run by The Ocean Foundation, the same organization that assisted the team in identifying the legacy project grantees at each race stopover. Anyone can voluntarily use the program to calculate their footprint<sup>8</sup> and donate to offset it. These donations allow The Ocean Foundation to identify seagrass meadows, mangroves or salt marshes that are under threat and/or in need of restoration. They then work with experts, local organization and scientists to protect and restore these habitats.

Blue carbon refers to the ability of salt marshes, seagrass, and mangroves, to capture and store CO<sub>2</sub>. Seagrass meadows are found on the coast of every continent, bar Antarctica, and these humble habitats are up to **35 times more effective than Amazonian rainforests**, in their carbon uptake and storage capabilities! Like rainforests, they are experiencing an alarming rate of loss at 2-7% annually, and without protection and restoration projects these critical carbon sinks could be largely gone within 50 years.

## BY THE NUMBERS

**Scientists estimate that we lose a seagrass meadow the size of a soccer field every 20 minutes.**

## THE POWER OF BLUE CARBON



Photo credit: Jessica Seevers/ 11th Hour Racing

In Newport, the grantee selected was Save the Bay. The team learned about how marshes sequester carbon emissions and helped dig runnels to allow trapped water to flow off the marsh.

### Sequester Carbon:

Seagrasses occupy 0.1% of the seafloor, yet are responsible for 11% of the organic carbon buried in the ocean. Seagrass meadows, mangroves, and coastal wetlands capture carbon at a rate two to four times greater than tropical forests.

### Biodiversity:

Seagrass meadows form the basis of the world's primary fishing grounds, supplying 50% of the world's fisheries. They provide vital nutrition for close to 3 billion people, and 50% of animal protein to 400 million people in the third world.

### Shoreline Protection:

Seagrass meadows reduce flooding from storm surges and hurricanes by dissipating wave energy.

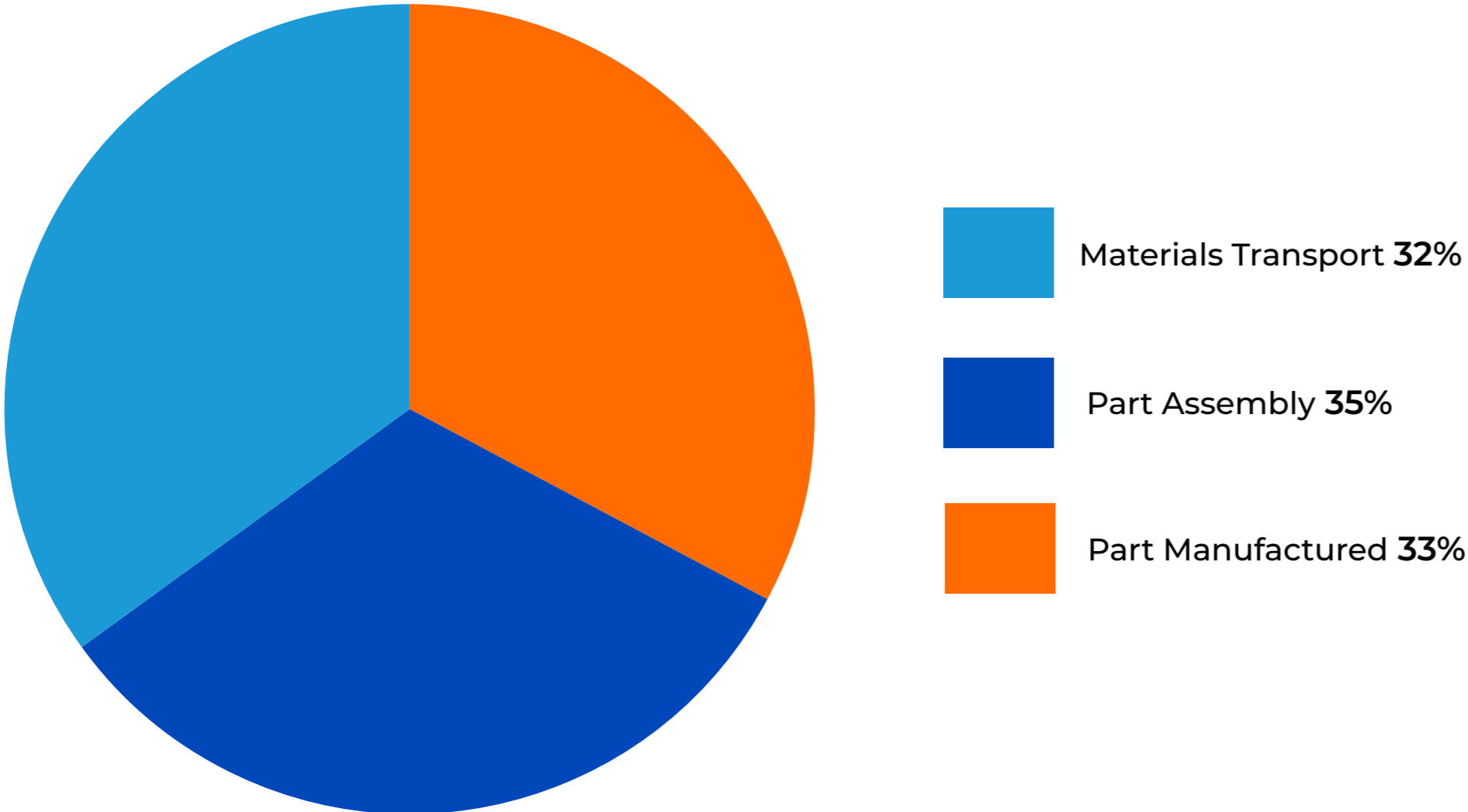
Data source: The Ocean Foundation

<sup>8</sup> It should be noted that online carbon calculator tools only offer a quick and approximate indication of a carbon footprint. As such they are not a substitute for the in-depth calculation contained in this report nor do they contain the same valuable learning opportunities.

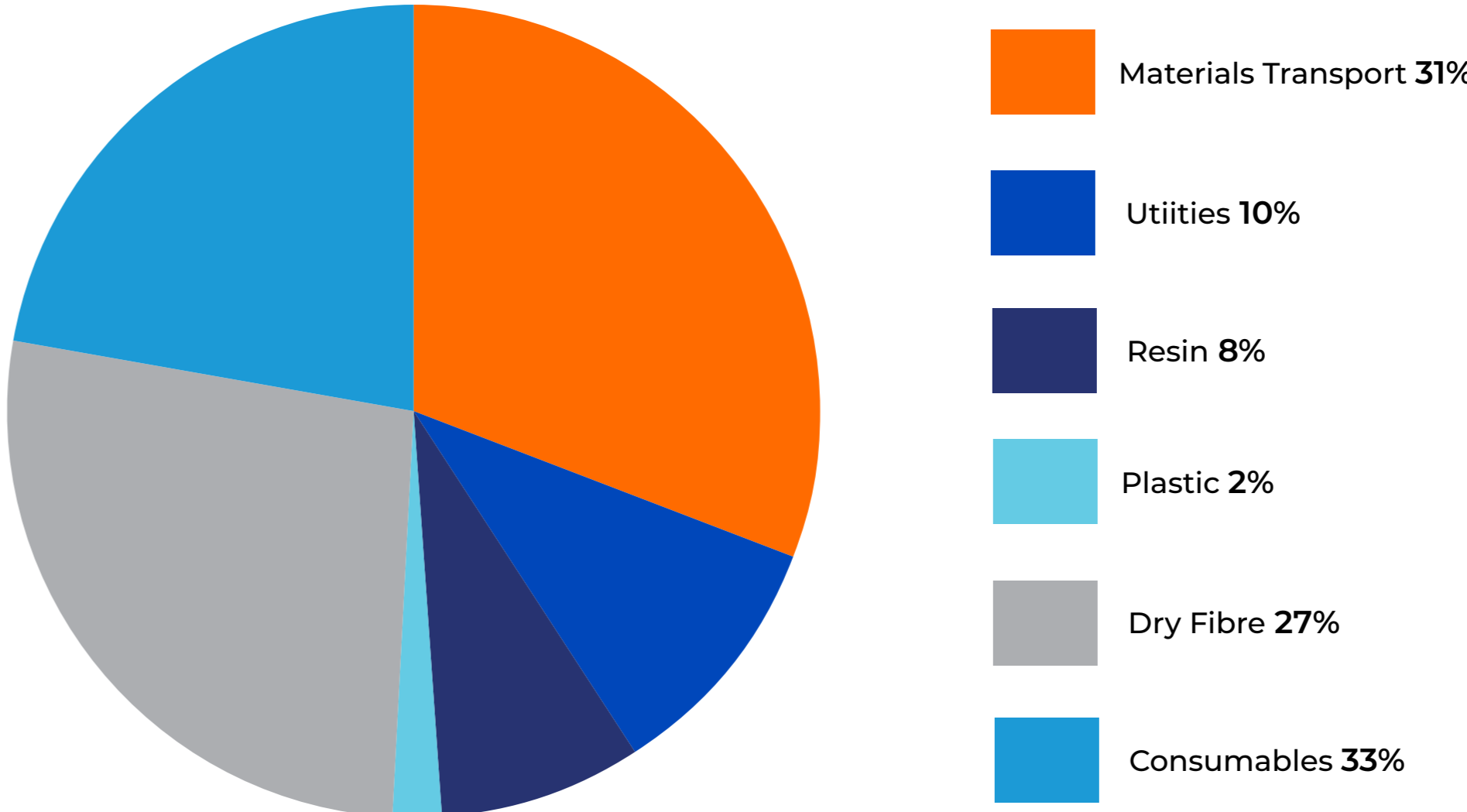
# BOAT REPAIR

Vestas 11th Hour Racing had to retire from Leg 4 and could not compete in Leg 5 and 6 following a tragic collision with a fishing vessel in Hong Kong. The team's VO65 racing yacht suffered significant damage to its port bow. The challenge of the damage, the exacting standards set by the Volvo Ocean 65 One design Rule, and the timing of the race provided only one option for repair. The boat and its equipment were shipped to New Zealand for the upcoming stopover ahead of the Volvo Ocean Race fleet to carry out the necessary repairs. This included having a new bow section built at Persico Marine in Italy and air-freighted to New Zealand. The carbon footprint of these additional logistics including building the new hull piece was recorded and added to the team's overall footprint calculation. It accounted for 6.8 tonnes CO<sub>2</sub>e. The model applied was a Life Cycle Assessment (LCA) built and developed by a previous partnership of 11th Hour Racing with Land Rover BAR in the 35th America's Cup.

**BOAT REPAIR CARBON FOOTPRINT BY MANUFACTURING STEPS**



**BOAT REPAIR CARBON FOOTPRINT BY MATERIAL TYPE**



The LCA model is the first step in a full Life Cycle Assessment tool that can be made available to the industry to help designers assess the impact of different materials in the construction, use and decommissioning of boats. The model computes the embodied carbon of the various raw materials sourced for the manufacturing of parts and calculates the CO<sub>2</sub> emissions of the various processes used in modern boat building techniques.

# WATER FOOTPRINT

Recognizing that water scarcity is a global issue of growing concern, the team approached water consumption with great responsibility. The team tracked their direct freshwater consumption at each stopover in the following areas:

- Dock
- Team base
- Team workshop
- Drinking water at the team base

The team’s total direct freshwater consumption from these four areas amounted to 14,919 liters of water.

It should be noted that these calculations did not include the team’s complete water impact, such as the upstream water impact of the products they bought, particularly food, and it also did not include the impact of processing the team’s wastewater.

Consuming water has an impact on greenhouse gas emissions, as processing and transporting water requires energy. The carbon impact of the team’s direct freshwater consumption was negligible, at 5 kilograms of CO<sub>2</sub>e.

While sailing, the crew used a watermaker to convert seawater into drinking water. Since the boat’s engine powered the water maker, the associated emissions were included in the team’s carbon calculations.

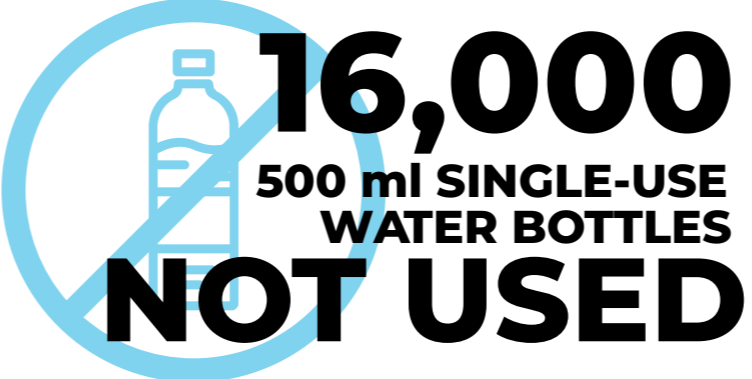
The team’s reduction techniques provide the most interesting insights regarding the overall water footprint: they reduced their water footprint by a staggering 677,000 liters through two main initiatives:

Meatless Mondays - going meat-free just one day a week during the campaign accounted for 99% of the team’s water savings!

**BY THE NUMBERS**

**2,496 meat-free meals prevented**  
**2.72 tons of CO<sub>2</sub> from being emitted and**  
**671,000 liters of water being used**

## Bluewater - Power of Partnerships



**THE TEAM PREVENTED THE USE OF 9,600 LITERS OF WATER, 2,000 LITERS OF OIL, AND 6.64 TONNES OF CO<sub>2</sub>E - IN MANUFACTURING.**

By equipping the team base with two state-of-the-art water filtration and refill systems, with a sparkling water option, official supplier Bluewater enabled the team to lower their overall footprint significantly.

The team’s relationship with Bluewater led to one of the most impressive sustainability achievements of the Volvo Ocean Race: in Cape Town, South Africa, a mega-city affected by a severe drought, Bluewater installed four water stations in the Race Village with the support of 11th Hour Racing. Each unit was capable of producing 8,000 liters a day of clean drinking water from previously untapped non-potable water, therefore avoiding the need to bring in tens of thousands of plastic water bottles for the visitors.

# WASTE FOOTPRINT

## BY THE NUMBERS

**61%** of the operational waste was recycled

**13%** of the operational waste was composted

**26%** of the operational waste went to a landfill

The sustainability plan developed by the team at the beginning of the race included several best practices to help them reduce waste and encourage resource recovery throughout their operations.

The team's Environmental Purchasing Plan (EPP) was the best practice which underpinned all of the team's purchasing and had a significant impact on the overall waste reduction efforts.

Moving around the world was an added challenge for resource recovery from the team base, as each stopover had different rules and regulations. The Volvo Ocean Race sustainability team provided a sustainable stopover guide for each host city, which outlined waste management systems for the event, and the team used this information to label our bins appropriately. Moreover, the Volvo Ocean Race sustainability team had largely prepared centralized resource recovery recycling systems at each host city stopover. These systems included:

- Composting
- Common recyclables (e.g. aluminum, plastic, glass, paper)
- Plastic film recycling in Auckland and Cardiff supported by host city event delivery partners

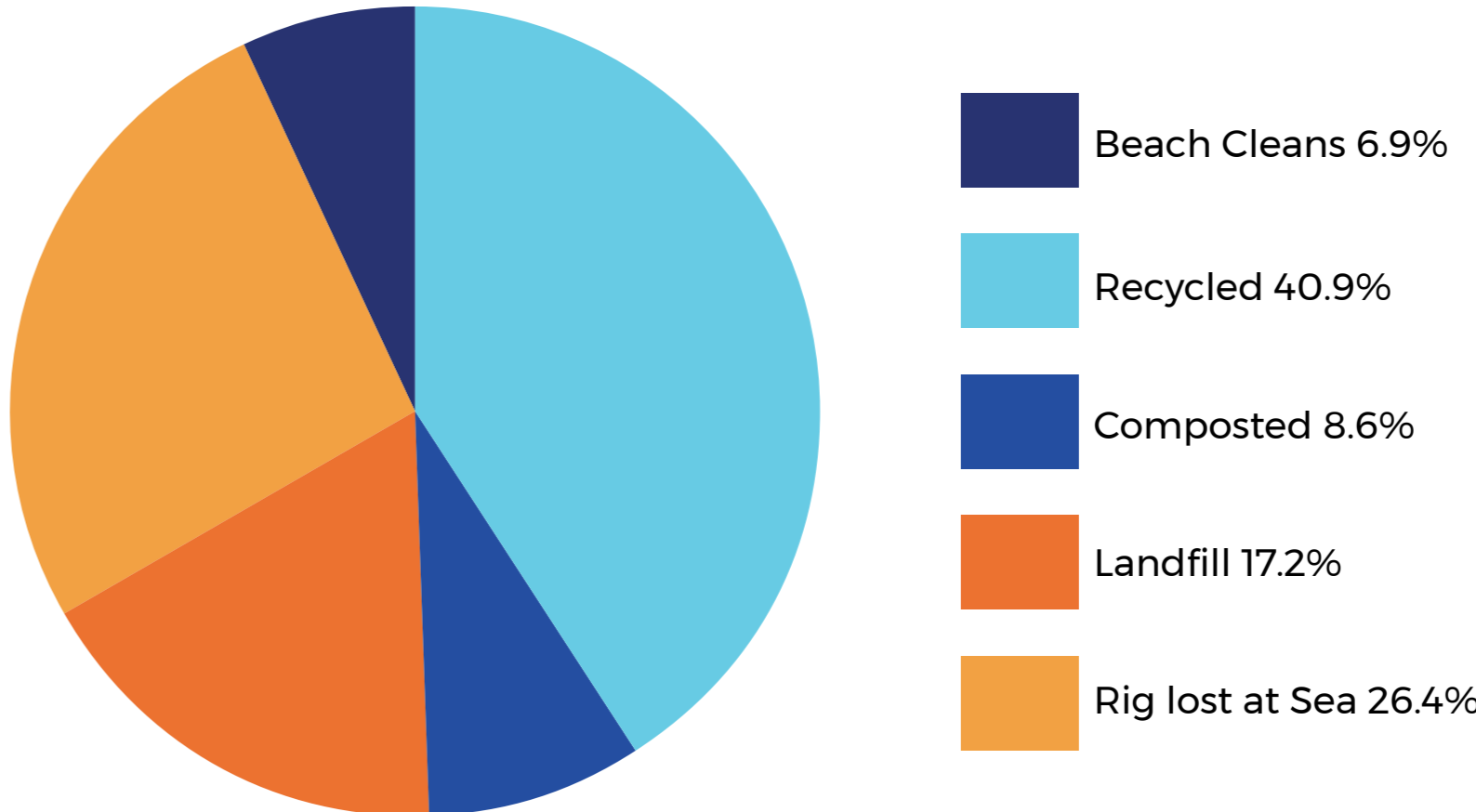
The team separated and tracked by weight all of the waste produced on each race leg and at each stopover, and classified it as recyclable, non-recyclable or compostable.

The team also recorded the amount of litter removed at beach cleanups hosted by Volvo Cars at several stopovers - this activity wouldn't reduce the team's own waste footprint, but it had a positive impact by directly preventing waste and plastic from entering into the ocean.

Additionally the team recorded and included the impact of the rig of their boat that had to be cut away and left in the Southern Ocean after the dismasting incident of leg 7.

The total waste footprint (operational waste plus lost rig & beach cleans) was 3.03 Tonnes. This comprises of 1.71 Tonnes of positive impact, i.e. recycling, composting and beach cleans, and 1.32 Tonnes of negative impact, i.e. Landfill and the lost rig. The negative impact was compensated for through a ghost fishing initiative, see Waste Footprint Compensation section.

## TOTAL WASTE FOOTPRINT OF VESTAS 11TH HOUR RACING



# DISMASTING

Leg 7, from Auckland, New Zealand, to Itajaí, Brazil, was one of the most grueling Southern Ocean legs in the history of the Volvo Ocean Race. Vestas 11th Hour Racing rounded Cape Horn in second place, but approximately 100 nautical miles southeast of the Falkland Islands, the team's mast broke just above the first spreader. Winds were over 25 knots with 3-meter waves. To protect the integrity of the boat and for the safety of the crew, the only option was to cut away the rig, leaving it in the ocean. The team then motored to the Falkland Islands where they regrouped and worked tirelessly to rejoin the race. The sailors managed to build a jury rig out of an old lamp post with the help of the Islanders, and the team made it back to the start line of Leg 8.

The team donated the jury rig to ANI (Associação Náutica de Itajaí), a local sailing school in Itajaí that fosters social inclusion for young people who wouldn't have the chance to sail otherwise. The organization is now using it as a flagpole.



*The decision to cut away the rig did not come lightly. We never want to put anything in the ocean. We set out in this campaign to be the most sustainable team in the race, and we are not going to let this incident stop that. We are working with 11th Hour Racing to support an organization that removes marine debris in an effort to compensate for this incident.*

**- Charlie Enright, Skipper, Vestas 11th Hour Racing.**

# WASTE FOOTPRINT COMPENSATION

Working with 11th Hour Racing and The Ocean Foundation, the team compensated for their waste footprint through the work of Healthy Seas, the final grantee of Vestas 11th Hour Racing's legacy project. [Healthy Seas](#) is a collaborative, cross-sector organization that works alongside divers from the NGO Ghost Fishing to collect abandoned fishing nets - often called ghost gear. Aquafil Group, a for-profit entity, then creates a high-quality raw nylon yarn that can be reused and recycled continuously and is currently used to make socks, bathing suits, and car carpets. The \$10,000 grant awarded by 11th Hour Racing for this project will enable the team to compensate for their entire waste footprint as it will empower Healthy Seas and their partners to remove up to 2.1 tons of ghost gear - while also supporting the circular economy.

Thanks to the generous donation from 11th Hour Racing we will be able to organize about seven diving trips which will allow us to remove approximately 2.1 tons of ghost gear from the seas. We can't save the world alone, but by doing something good, we hope to inspire others to follow. According to a recent report, by 2050 there will be more plastic in the ocean than fish. We all have to work hard against it, not to let it happen.

- Veronika Mikos, Project Coordinator, Healthy Seas.





**46,762**  
NAUTICAL  
MILES  
SAILED



**\$120,000**  
GIVEN TO LOCAL  
ENVIRONMENTAL ORGS



**1218** TONNES  
OF CO<sub>2</sub>  
EMITTED



BY SUPPORTING THE PLANTING OF SEAGRASS



**41%**  
AIR TRAVEL



**24%**  
FREIGHT



**26%**  
HOUSING



**09%**  
ELECTRIC, FUEL  
& MATERIAL USE

**GO REUSABLE  
WE DO!**



STRAWS  
COFFEE CUPS  
CUTLERY  
CUPS  
GROCERY BAGS



**15,987**  
500 ml SINGLE-USE  
WATER BOTTLES  
NOT USED

## FOOTPRINT REDUCTION

### LANDFILL REDUCTION



**61%**  
RECYCLED



**13%**  
COMPOSTED

### SUSTAINABLE TRANSPORT



**92%**  
OF HOUSING  
REACHABLE BY  
PUBLIC TRANSIT  
OR WALKING

### MEATLESS MONDAYS



**2.72**  
TONNES OF CO<sub>2</sub> AVOIDED



**671,000**  
LITERS OF WATER SAVED



FROM  
**2,496**  
MEAT FREE MEALS

## EDUCATION



**99,300**  
VISITORS TO OUR EXPLORATION ZONE



**558,000**  
VIEWS OF SUSTAINABILITY VIDEOS



**975**  
ARTICLES ON SUSTAINABILITY



**212**  
KILOS OF  
TRASH  
REMOVED  
FROM  
BEACHES

**Vestas**



# APPENDIX

## File Links

- [Team Alvimedica Sustainability Report](#)
- [Vestas 11th Hour Racing Sustainability Plan](#)
- [Environmental Purchasing Plan \(EPP\)](#)
- [Food Charter](#)
- [Team accommodation and flight tracker](#)
- [Air and sea freight tracker](#)
- [GRI tracker](#)

## Inclusions and Exclusions

INCLUSION	BOUNDARY
<p>UK 2017 GHG conversion factors were used for tonnes CO<sub>2</sub>e (tCO<sub>2</sub>e) calculations, with the exception of:</p>	<p><b>Electricity</b> – Being less than 2% of the total GHG footprint it was decided not to buy the current 2018 factors but to use the International Energy Agency 2013 model. Factors used are in the Carbon Calculator.</p> <p><b>Water</b> – Being only a small percentage of the total GHG footprint, the UK conversion factors (as opposed to using different factors per country visited) were used for all stopovers</p> <p><b>Material and products purchased:</b></p> <ul style="list-style-type: none"> <li>- GHG emissions were sourced using the <a href="#">Carnegie Mellon EIO-LCA model</a> to give CO<sub>2</sub>e per Euro spent</li> <li>- A factor was used to account for inflation from the model base year 2002 to the campaign year 2018</li> <li>- Euros were converted to US\$</li> </ul>
<p>A Life Cycle Analysis (LCA) using the Land Rover BAR LCA model was done to take into account a boat repair and replacement part made in the UK and shipped to New Zealand mid-race</p>	<p>For the calculation this model uses its own database with more than 200 entries collected from:</p> <ol style="list-style-type: none"> <li>i. “Online available information”</li> <li>ii. “Computation using the estimated price of each items x a carbon coefficient from various sources”</li> <li>iii. “Computation using EC values from raw materials (or estimated from equivalent materials EC values)”</li> <li>iv. “Computation using EC values from raw materials and estimated amount of energy”</li> <li>v. “Information input from various composite materials manufacturers”</li> </ol>
<p>Accommodation</p>	<p>As per the 2017 UK GHG reporting protocol, business accommodation is included</p>
<p>Air travel was calculated using UK ranges:</p>	<p><b>Domestic (&lt;785 km)</b> – As the event ranged across various countries, this UK domestic factor was used for internal flights under 785 km in other countries as well</p> <p><b>Short haul (&gt;785&lt;3700 km)</b></p> <p><b>International (&gt;3700 km);</b> was used for all flights above 3700 km (UK included)</p> <p>All flights were factored as economy flights</p>



# APPENDIX

## Inclusions and Exclusions

EXCLUSION	EXPLANATION
GHG emissions are stated in CO <sub>2</sub> e only	The breakdown of various GHG gases was not included: carbon dioxide (CO <sub>2</sub> ), methane (CH <sub>4</sub> ), nitrous oxide (N <sub>2</sub> O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF <sub>6</sub> ) that comprise the final emission figures.
<1% emission categories	Certain categories were not tracked if the amount fell below 1% of the total footprint and were overly complicated to recover
Certain categories listed in the UK Government GHG Conversion Tables that have little or no relevance to the team's operations were excluded or had no data to include:	<ul style="list-style-type: none"> <li>• Bioenergy was not relevant and the tab was excluded from the CO<sub>2</sub>e calculations</li> <li>• Refrigeration and air conditioning – The team bases had no air conditioning and only two small second-hand fridges which were not refilled or serviced</li> <li>• Company owned vehicles (scope 1) – No company owned vehicles were used</li> <li>• Electricity for electrical vehicles (EVs) were not used</li> <li>• Managed asset vehicles – N/A</li> </ul>
VOR owned assets	<p>To participate in this edition of the Volvo Ocean Race, the organizers provided the teams with a package of boats, equipment, sails, shipping containers and centralized services. The cost of this was included in the team's race entry fee.</p> <p>As such, and as agreed with Volvo Ocean Race sustainability team, the environmental footprints associated with the construction/production of the boat, mast, sails, and equipment is being tracked, calculated and acknowledged (but not compensated for) by Volvo Ocean Race</p>

# Vestas® 11TH HOUR RACING

Sub-Sponsors

 **ARGO GROUP**

**MUSTO**

 **Bluewater**

  
**KARÜN**  
DIFFERENT POINT OF VIEW

**AETHIC®**

**SOS+**

Collaborators

  
**U.S.M.M.A.  
SAILING FOUNDATION**

  
**OAKCLIFF**