



# GREENHOUSE GAS EMISSIONS MANAGEMENT STRATEGY





# CONTENTS

## GREENHOUSE GAS EMISSIONS MANAGEMENT STRATEGY 2020 – 2023

<b>01 INTRODUCTION</b>	<b>04</b>
<b>02 OUR COMMITMENT</b>	<b>05</b>
<b>03 UNDERSTANDING OUR GHG INVENTORY</b>	<b>06</b>
GHG Reporting Boundary	10
GHG Emissions Management Principles	14
<b>04 OUR APPROACH</b>	<b>18</b>
Objectives and Targets	20
Reduce	22
Advocate	28
Restore	29
<b>05 APPENDIX</b>	<b>34</b>
Embodied Carbon	36
Emissions Factors (conversion factors)	38

# 01 INTRODUCTION

The ocean is a climate hero.

**A healthy ocean is fundamental to life on Earth. It's our life support system, producing over half of the planet's oxygen and providing food for billions of people.**

The ocean plays a hugely important role in climate regulation. It's absorbing the vast majority of excess heat caused by human impact and has drawn down a quarter of CO2 emitted.

The nexus of climate change and ocean health takes centre stage in Racing with Purpose. The Race's greenhouse gas emissions strategy aims at playing our part in addressing climate change.

Most scientists agree that to stop the worst effects of climate change, we need to stay well below 2 degrees celsius global warming, and to do that there are two important milestones:

- 1) reduce GHG emissions 50% by 2030<sup>1</sup>, and
- 2) reach 'net zero' emissions by 2050<sup>2</sup>.

**Producing a high-quality global event means there are currently unavoidable greenhouse gas emissions (GHGs).**

There is the necessity to transport our workforce and equipment internationally, and we use power in our race villages. There are also GHGs embedded in all materials and supplies we use, and in the treatment of our waste and waste water.

<sup>1</sup> <https://sciencebasedtargets.org/resources/files/SBTi-criteria.pdf>  
<sup>2</sup> <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

## OUR GHG EMISSIONS MANAGEMENT APPROACH INCLUDES:

Engage	Estimate	Reduce	Analyse	Restore	Disclose
We focus on climate change impacts of race participation with stakeholders, to build awareness, understanding and commitment from them.	We are fully informed of our potential GHG impacts through running detailed impact estimations, to inform our approach.	We take steps in our pre-planning and in real-time during the Race, to avoid or reduce GHGs.	We gather extensive GHG impact data and undertake analysis for future reduction planning.	We balance our GHGs through nature-based carbon offsetting solutions. We go further towards being climate positive by drawing down more than we emit.	We share our GHG impact, analysis and learnings with our stakeholders, using this as a tool for engagement and future improvements.

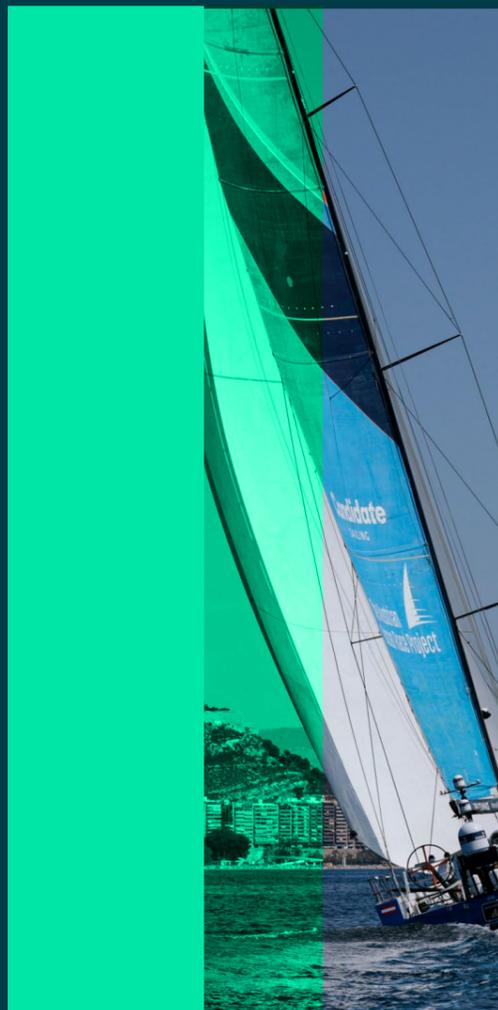
# 02 OUR COMMITMENT

**The Ocean Race acknowledges we contribute to global GHGs and we are committed to reducing Race Organiser Scope 1, 2 and 3 GHG emissions by at least 50% for the next edition of the Race ending in 2023, and keep tracking downwards towards 2030.**

**We aim to be Climate Positive by 2023 too – this means we will draw down more GHGs than we emit.**

With more than half the Race-related GHGs coming from Race Teams, Partners and Hospitality Guests, we work hard on recruiting these stakeholders in joining us to produce a Climate Positive Race.

All relevant stakeholders are actively engaged to minimise and balance unavoidable GHGs, and we include requirements for measurement and reporting by our stopover delivery partners, teams and partners.





# 03 UNDERSTANDING OUR GHG INVENTORY

# UNDERSTANDING OUR GHG INVENTORY

GHGs related to The Ocean Race are either created directly by ourselves as Race Organisers, (year-round, race and event operations), or as a consequence of wider race-related activities, such as those by our race partners, race teams and their partners.

We have categorised our GHGs into the following key categories:

- Freight
- Plant & Vehicles
- Boats
- Power
- Waste
- Production travel
- Hotel Nights
- Food



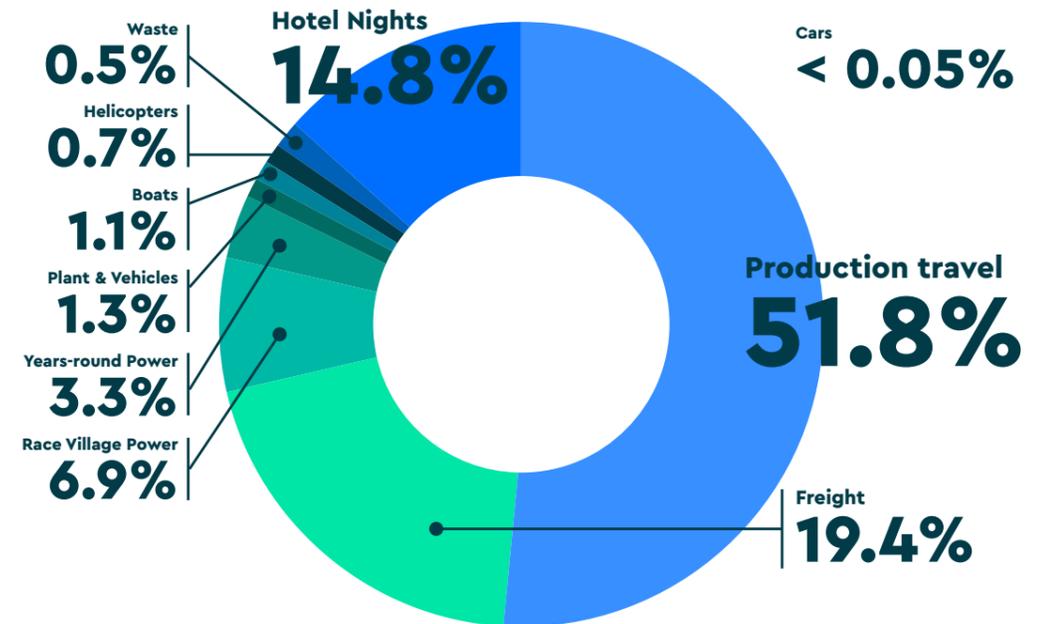
GHG emissions are also produced by hospitality guests and race village visitors.

Analysis of the 2017-18 Race GHG inventory revealed that just under 40% of total race-related GHGs are under the financial or operational control of race organiser and host cities.

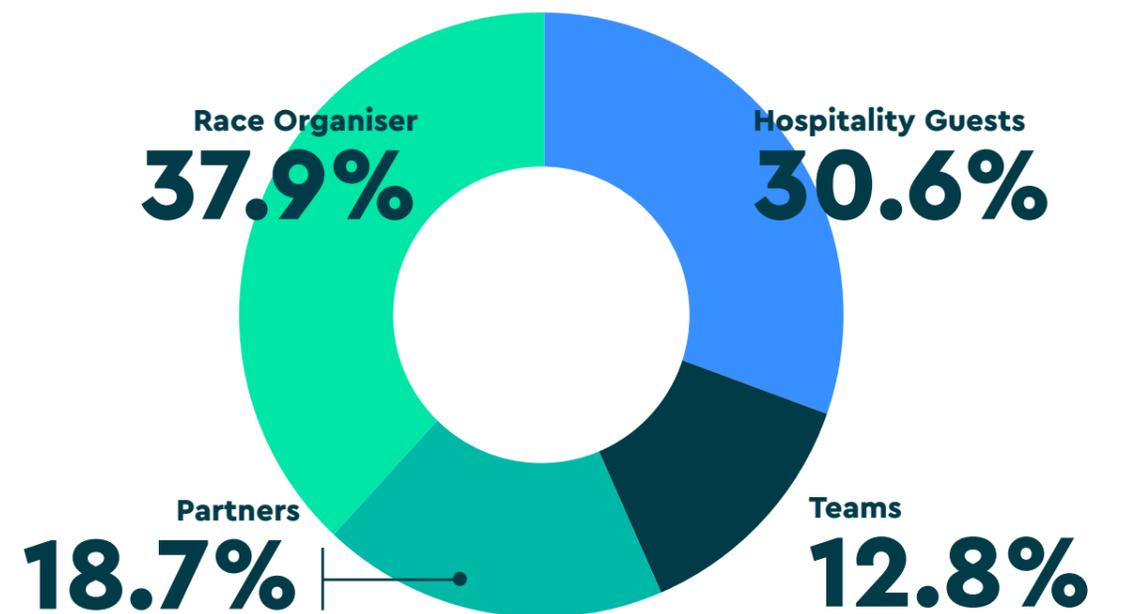
The remaining 60% of total GHGs are from activities by race teams, partners and hospitality guests of partners and teams.

To be truly climate positive, we need these stakeholders to join us in this mission. Most are already taking positive steps on climate action, and while we're confident we'll achieve our aim, we take every opportunity to advocate strong climate change action by our stakeholders.

# SUMMARY OF 2017-18 RACE ORGANISER GHG SOURCES:



# SUMMARY OF 2017-18 STAKEHOLDER GHGS



## GHG REPORTING BOUNDARY

Included in the Race GHG Boundary are all GHG emissions created as a result of the Race taking place, which are deemed material using a series of qualifying inclusion filters.

In deciding what to include in our measurement boundary we look to accepted event sector practice, what makes sense operationally for our event, and guidance by the **GHG Protocol** for **Scope 3 Emissions** and their **Corporate Standard**.

Included are **Scope 1** (direct) and **Scope 2** (indirect) GHG emissions.

**Scope 3** (other indirect) emissions need a little more consideration to determine 'materiality' and also whether the GHG's are 'owned', 'shared', 'associated' or 'informative'. Some Scope 3 emissions prove too small or too problematic to accurately measure.

**Associated:** The 'associated' GHGs are those likely to be viewed by external observers as part of the total Race's impact, but are indeed the responsibility of other entities such as teams, partners and host cities.

**Informative:** Some Scope 3 GHG emissions may be included in our measurement boundary, as they are 'informative' for measurement, context or disclosure purposes.

**DIRECT (Scope 1) emissions from operations that are owned or controlled by the organisation**

**INDIRECT (Scope 2) emissions resulting from the generation of purchased or acquired electricity, heating, cooling, and steam consumed within the organisation**

**OTHER INDIRECT (Scope 3) emissions are all indirect emissions (not included in Scope 2) that occur outside of the organisation, including both upstream and downstream emissions**

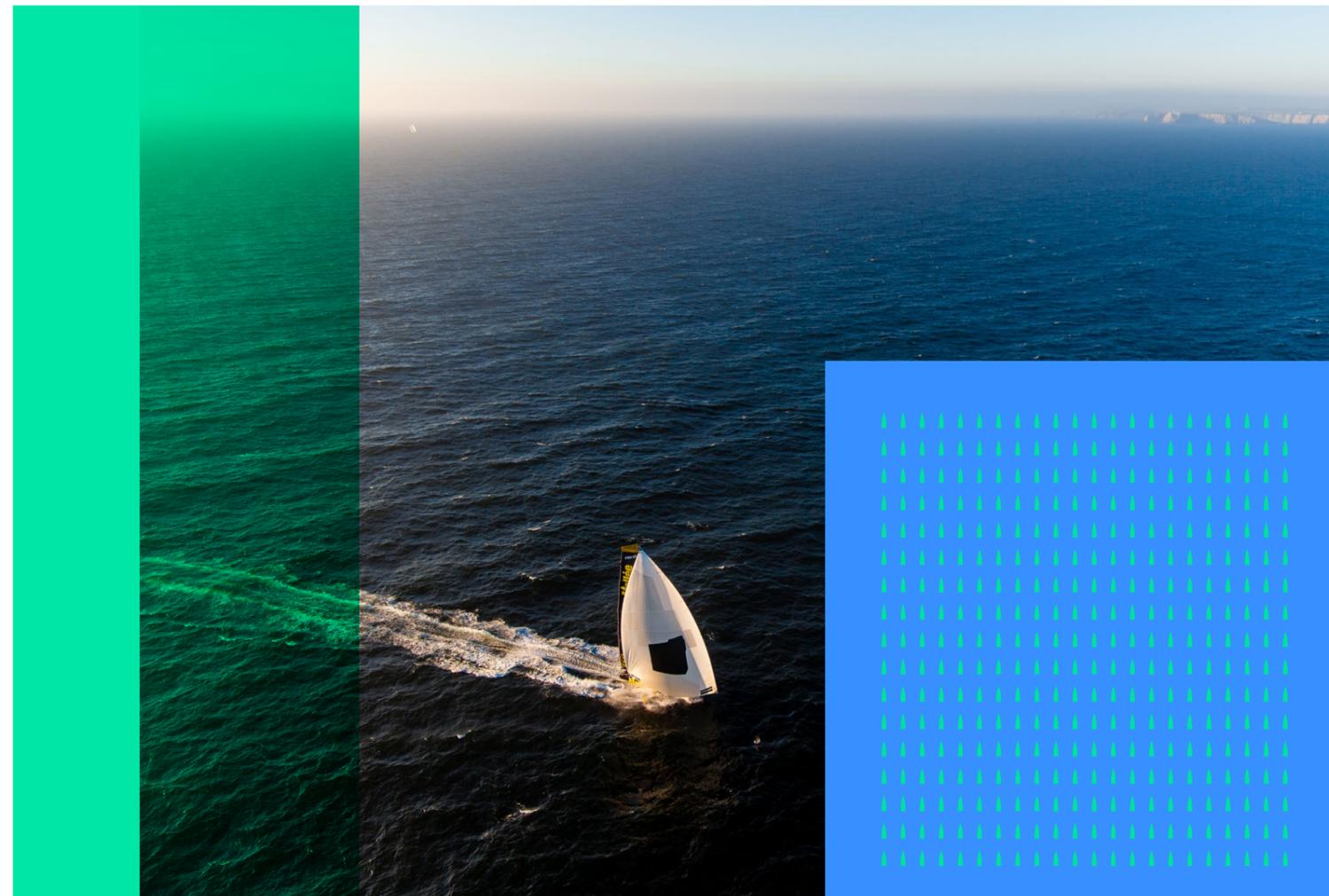
## ORGANISATIONAL BOUNDARIES

We measure and report our '**Carbon Account**' (deemed to be owned by The Ocean Race S.L.U. or shared with other stakeholders), and the Race's entire '**GHG Emissions Inventory**' - to include those created by our participating entities such as:

- Race Partners
- Race Teams
- Official Suppliers
- Contractors
- Host cities/Delivery Partners
- Hospitality guests

## TIME BOUNDARIES AND REPORTING SEGMENTS

We report our GHGs by whole of Race, by stakeholder group, by stopover and also if the data deems it relevant, by 'GHG intensity' (such as per person, or per day).



## GHG REPORTING BOUNDARY

Our Carbon Account	Associated Stakeholder GHGs
<p>For The Ocean Race 1973 SLU, the following GHGs are included for management, measurement and balancing:</p> <p><b>Scope 1:</b></p> <ul style="list-style-type: none"> <li>• Fuel – boats owned/controlled</li> <li>• Fuel – cars owned/controlled</li> </ul> <p><b>Scope 2:</b></p> <ul style="list-style-type: none"> <li>• Mains power (office and race villages)</li> </ul> <p><b>Scope 3:</b></p> <ul style="list-style-type: none"> <li>• Freight/transport</li> <li>• Travel</li> <li>• Helicopters</li> <li>• Fuel – Boats short term use</li> <li>• Fuel – generators</li> <li>• Fuel – plant and machinery:</li> <li>• Waste to landfill</li> <li>• Hotel nights</li> </ul>	<p>Included in The Ocean Race GHG Measurement Boundary, but balancing responsibility is with the stakeholder:</p> <p><b>Scope 3 Associated:</b></p> <ul style="list-style-type: none"> <li>• Freight/transport</li> <li>• Travel (staff and guests)</li> <li>• Fuel – boats (race boats, RIBs, hospitality)</li> <li>• Fuel – generators</li> <li>• Fuel – plant and machinery</li> <li>• Hotel nights</li> </ul> <p>We engage our teams, partners, host cities and official suppliers in GHG management, reductions, measurement and offsetting.</p> <p>Included in issues engagement with stakeholders to effect GHG reductions:</p> <ul style="list-style-type: none"> <li>• Food</li> <li>• Apparel</li> <li>• Look and overlay</li> <li>• Other significant materials</li> </ul>
<p><b>Informative Scope 3</b></p> <ul style="list-style-type: none"> <li>• Food</li> <li>• Apparel and branded merchandise</li> <li>• Look and overlay</li> <li>• ITC equipment</li> <li>• Other significant materials</li> </ul> <p>* may be included in the carbon account and included in offsetting strategy</p>	<p><b>Team Operations</b></p> <p>There are GHGs produced by teams and partners during the pre-race development period. These will not be included in the measurement boundary we establish for the Race, but may be included in reporting for informative reasons, where information is provided to The Ocean Race by these stakeholders.</p> <ul style="list-style-type: none"> <li>• Year round/TOR project base</li> <li>• Boat development/build</li> <li>• Team training and development</li> <li>• Partnership and business management</li> </ul>
<p><b>Excluded GHGs:</b></p> <ul style="list-style-type: none"> <li>• Water supply (unless moved by tanker truck)</li> <li>• Waste water and sewage treatment (unless moved by tanker truck)</li> </ul>	

## SCOPE 3 GHG INCLUSIONS DECISION FILTERS

The **GHG Protocol** counsels the following when choosing which Scope 3 GHG emissions to include for measurement:

- Include if it is large or relatively large compared to the event's Scope 1 and 2 emissions;
- Include if deemed critical by stakeholders
- Include if we could undertake or influence potential reductions.

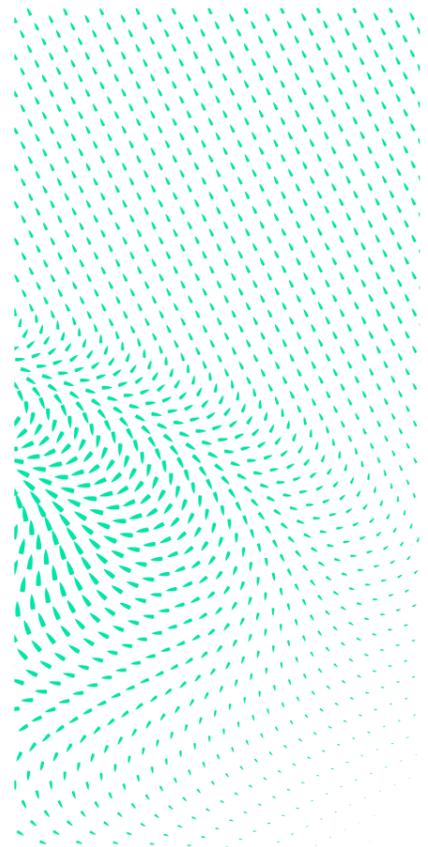
### Additional considerations we ask:

- Do we use GHG-intensive materials at scale?
- What will the measurement information tell us, how can we act on it?
- Do estimated GHGs make up more than 1% of total?
- Is it technically feasible, practical or cost effective to measure?



# GHG EMISSIONS MANAGEMENT PRINCIPLES

We follow the globally accepted GHG measurement principles in compiling our GHG impact these principles include: relevance, completeness, consistency, transparency and accuracy.



Principle	Details
<b>Relevance</b>	Ensure the GHG inventory appropriately reflects the GHG emissions attributed to the event. It will be relevant if it is helpful for future decision-making.
<b>Completeness</b>	Account for all GHGs within the boundary. Disclose and justify exclusions. Identify any duplications/ double accounting across stakeholder groups.
<b>Consistency</b>	Ensure that methodologies from event to event are consistent to allow for meaningful comparisons.
<b>Transparency</b>	Ensure the collation of GHG emissions data can be evaluated by auditors. Disclose assumptions, reference methodologies and data sources. Include a 'Qualifying Explanatory Statement' if claiming carbon neutrality.
<b>Accuracy</b>	Data should be sufficiently precise to enable intended users to make decisions with reasonable assurance that the reported information is credible.



We are guided by various protocols and standards:

- **Greenhouse Gas Protocol (international), Corporate Standard and Scope 3 Calculation Guidance**
- **UNFCCC Sports for Climate Action framework and Race to Zero**
- **ISO 14064 3 (international)**
- **PAS 2050 Specification for the assessment of the life cycle greenhouse gas emissions of goods and services**
- **PAS 2060 Specification for the demonstration of carbon neutrality (UK)**
- **National Carbon Offset Standard (Australia)**

## MEASUREMENT METHODOLOGY

Our **GHG Data Collection Methodology Procedure** explains the steps taken to collect data.

This includes links to a live worksheet which catalogues the data and links to sources.

## EMISSIONS CONVERSION FACTORS

The sources of GHG emissions conversion factors can be found in the **appendix**.

## WHICH GREENHOUSE GASES?

GHG emissions will be reported as 'CO2 equivalent' (CO2e), which can encompass CO2, CH4, N2O.

## SPORTS FOR CLIMATE ACTION

The Ocean Race has joined leading sports organisations to participate and support the principles of UNFCCC's **Sports for Climate Action**.

This is also part of the UNFCCC's **Race to Zero** which has mandatory reporting.

Sports for Climate Action works towards two overarching goals:

- 1.** Achieving a clear trajectory for the global sports community to combat climate change, through commitments and partnerships according to verified standards, including measuring, reducing, and reporting greenhouse gas emissions, in line with the well below 2 degree scenario enshrined in the Paris Agreement;
- 2.** Using sports as a unifying tool to federate and create solidarity among global citizens for climate action.

We full support and enact the five principles which make up the Sports for Climate Action approach:

- **Principle 1: Undertake systematic efforts to promote greater environmental responsibility**
- **Principle 2: Reduce overall climate impact**
- **Principle 3: Educate for climate action**
- **Principle 4: Promote sustainable and responsible consumption.**
- **Principle 5: Advocate for climate action through communication**





**04** OUR  
APPROACH

# OUR APPROACH

Our strategy is anchored three main approaches:

**1**

## Reduce

Firstly we aim to reduce race organiser GHGs by 50%, and will continue to seek reductions every race thereafter. We will seek innovations in our supply chain and approach and efficiency in our operations. Potential climate impact guides operational decisions.

**2**

## Advocate

We will use the race platform, our Summits, Science programme, Learning Programme and engaging with stakeholders<sup>4</sup> to build awareness, commitment and action on climate change. Climate change through a blue lens is one of the core focuses of our impact campaign.

**3**

## Restore

For those GHG emissions which cannot be avoided, we will compensate them by investing in nature-based carbon offsetting projects, with an emphasis on blue carbon. We aim to reach a climate positive status through drawing down more GHG emissions than we create.

We have established an all-of-company management focus on the GHG impacts of our activities, analysing where our biggest impacts lay and taking action to completely avoid or drastically reduce our GHG emissions.

The climate impact of the Race and related activities is included in discussions and planning with race teams and delivery partners, as well as race partners. Our staff have continuing professional development on climate impact and climate-responsible decision making.

## ENGAGEMENT AND TRAINING

We have dedicated programmes to work with race teams and host cities to reduce their impacts too. Requirements: There's a requirement for a minimum of 20% of energy on race boats to be from renewable sources. Contracts with host cities require action on energy efficiency, travel and transport impacts. Training: We also provide climate change training

and sustainability guidelines and tools. Sailors are encouraged to become ocean guardians that not only reduce, measure and offset their impact, but encourage their partners and fans to do the same.

## A NOTE ON THE SBTi APPROACH AND EVENTS

The Science Based Targets approach to keeping global warming below 1.5 degrees celsius asks that reductions of 45 – 50% are made to Scope 1 and 2 emissions by 2030.

As with most events, our Scope 1 and 2 emissions actually only take up a small proportion of our total GHGs. As a global event, production travel and transport emissions make up the largest proportion of our footprint.

Therefore, the majority of our reductions efforts are in the area of Scope 3.

# OBJECTIVES AND TARGETS

In line with our overall sustainability strategy, our objectives and targets are from both the 'impact' and 'footprint' perspectives.

More detail can be viewed in the [appendix](#), but top line information is below:

IMPACT	FOOTPRINT	LEGACY
<p><b>Elicit commitments and climate change action by stakeholders.</b></p>	<p><b>Minimise Race-related greenhouse gas emissions.</b></p>	<p><b>Contribute to climate science data collection. Achieve climate positive status.</b></p>
<p><b>TARGETS</b></p> <ul style="list-style-type: none"> <li>All host cities have Net Zero or Climate Positive commitments or achievement.</li> <li>All race teams make climate change commitments and action, including joining Sports for Climate Action. All major sports entities in host cities are signed to UNFCCC <b>Sports For Climate Action</b>.</li> <li>All race partners make climate change commitments and action through the Race.</li> <li>30% of targeted individuals<sup>5</sup> make commitments to act on climate change.</li> <li>50% of target audiences indicate increased awareness, understanding and appreciation of the importance of ocean health issues and the role of science-based decision making.</li> <li>50% of visitors have measurable change in attitudes, opinions, and/or actions affected through exposure to our campaigns, communications and activities.</li> </ul>	<p><b>TARGETS</b></p> <ul style="list-style-type: none"> <li>100% mains and mobile is supplied from renewable energy sources.</li> <li>A proportion of energy onboard all boats is from renewable energy sources (20% for VO65's and 30% for IMOCAs)</li> <li>40% relative reduction in staff travel GHG impacts from the 2017-18 Race.</li> <li>40% relative reduction in freight impacts from the 2017-18 Race.</li> <li>90% of travel by local visitors to the Race Village via public transport or active travel.</li> <li>100% of organic waste to be collected for responsible processing.</li> <li>50% relative reduction in Race-related greenhouse gas emissions from the 2017-18 edition to the 2022-23 edition.</li> </ul>	<p><b>TARGETS</b></p> <ul style="list-style-type: none"> <li>All race boats using OceanPacks, achieve data quality rating for integration into SOCAT [Surface Ocean Carbon dioxide Atlas] database.</li> <li>Contribute data to at least three peer-reviewed scientific publications in reputable journals.</li> <li>Contribute data annually to Global Carbon Budget publications.</li> <li>All Delivery Partners/Host Cities, Race Teams, Race Partners and Team's partners balance their unavoidable GHGs through carbon offsetting or other mitigation practices.</li> <li>70% uptake of carbon offsetting by hospitality guests.</li> <li>More than 100% of GHGs are offset to allow a climate positive status.</li> </ul>

<sup>1</sup> <https://sciencebasedtargets.org/resources/files/SBTi-criteria.pdf>

<sup>2</sup> <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

<sup>3</sup> Stakeholders include race teams, partners, host cities and delivery partners, hospitality guests, fans and followers, students and young sailors, and all other people and organisations the Race impacts.

<sup>5</sup> 'Target audiences' for The Ocean Race includes operational stakeholders, general public, fans and followers, race village visitors, government, hospitality guests, Summit participants, teachers and students, sailors. In this case we mean individuals who are targeted for personal engagement on the topic of climate change.

# REDUCE

We are committed to reducing our GHGs by at least 50%, in line with the Science Based Targets Initiative **guidance**, and reaching a 'climate positive' status by 2023.

The first step is understanding our impact. We measured the GHGs impacts of our 2017-18 Race to identify our most carbon intensive activities, and to reveal where we can reduce.

Reduction of GHGs is achieved through efficient operations, transporting less or lighter loads, looking for more sustainable transport and travel options, sourcing locally, making smart air travel choices, and sourcing renewable energy.

## CARBON BUDGET

Our analysis of the previous budget allows us to identify the relative carbon intensity of each of our functional areas or activities of the Race and event. We work with each project team to identify their carbon budget and track their progress against this.

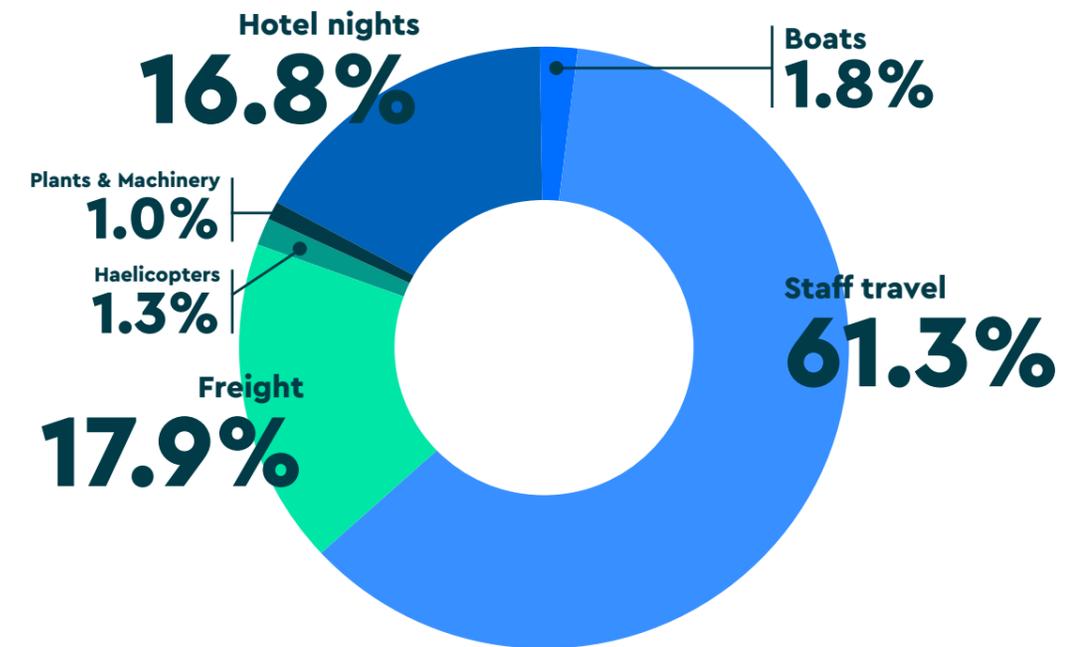
The following describes the action we are taking to reduce our own GHG inventory.

### SUMMARY OF REDUCTIONS\*

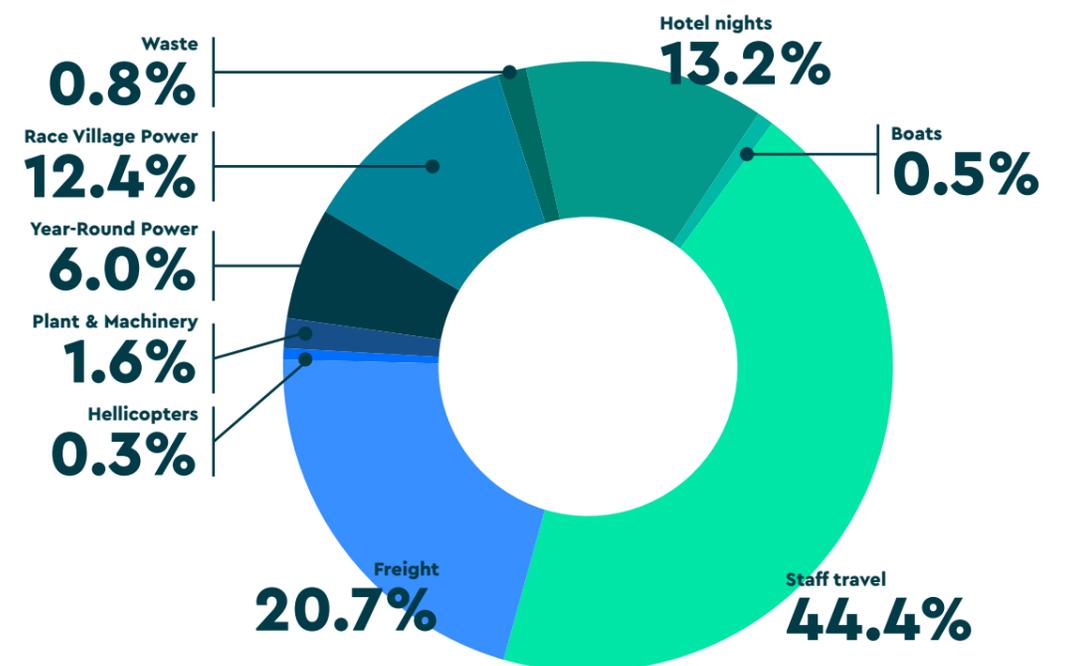
GHG SOURCE	Relative Reduction TONNE CO2e	Total Reduction TONNE CO2e	2022-23 Race Forecast Total TONNE CO2e
BOATS	11	31	94
STAFF TRAVEL	1949	2932	3185
FREIGHT	506	1367	930
CARS	4	5	0
HELICOPTERS	7	22	66
PLANT & MACHINERY	0	107	50
YEAR-ROUND POWER	215	394	0
RACE VILLAGE POWER	684	820	0
WASTE	47	56	0
HOTEL NIGHTS	583	874	874
	<b>4006</b>	<b>6608</b>	<b>5199</b>
	<b>41%</b>	<b>56%</b>	

\* Estimates based on known Race and Event elements and assumptions at time of publication. These estimates will be continually refined.

## 2022-23 FORECAST



## TOTAL REDUCTIONS





## BOATS

**Race Control and Hospitality Boats:** There is the continued need for race control boats and we anticipate we will have hospitality boats chartered by race organisers. However we aim to achieve a 10% reduction in GHG impact either through reduced use or fuel efficiency improvements due to technical advances in machinery. We are also looking for electric boats/RIBs to replace traditional boats running on fuel. These are not available in every stopover and in some circumstances are not practical given the way in which the boats are operated.

**Absolute reduction: 11 tonne | Total reduction: 31 tonne**  
**Actual CO2e forecast: 94 tonne**



## TRAVEL AND TRANSPORT

**STAFF TRAVEL:** We provide staff shuttles to reduce single car trips, provide staff bikes and allow staff to transport bikes in TOR shipping containers to each stopover. We will have fewer people travelling with the Race, and more efficient staffing plans, meaning fewer international flights. We are exploring a book & claim system for sustainable aviation fuel, effectively sourcing reduced emissions flights.

**Absolute reduction: 1575 tonne | Total reduction: 2550 tonne**  
**Actual CO2e forecast: 3559 tonne**

**FREIGHT:** We will plan the most efficient logistics possible, including packing optimisation and routing shipping containers to the closest port. We will prioritise sourcing of structures and infrastructure at each stopover locally where it is logistically, financially and environmentally beneficial, allowing reduction in numbers of shipping containers for the Race.

**Absolute reduction: 506 tonne | Total reduction: 1367 tonne**  
**Actual CO2e forecast: 930 tonne**

**COURTESY CARS:** We are discussing with Volvo Cars the ambition of having all courtesy cars being electric.

**Absolute reduction: 4 tonne | Total reduction: 5 tonne**  
 (An additional 90 tonne could be avoided if all cars provided by Volvo Cars used for guest relations and by race teams are electric, and recharged on 100% renewable energy)  
**Actual CO2e forecast: 0 tonne**



**HELICOPTERS:** We anticipate the continued need for helicopters, however we will aim to achieve a 10% reduction in GHG impact either through reduced use or fuel efficiency improvements due to technical advances in machinery.

**Absolute reduction: 7 tonne | Total reduction: 22 tonne**  
**Actual CO2e forecast: 66 tonne**

**PLANT AND MACHINERY:** With the reconfiguration of the Race Village and its structures we anticipate less plant and machinery will be required. We also hope for fuel efficiencies due to advances in equipment technologies and fuel types.

**Total reduction: 110 tonne**  
**Actual CO2e forecast: 50 tonne**



## ENERGY

**RACE VILLAGES:** We aim to have our Race Villages powered by 100% renewable energy throughout the 150 days that they operate. This will be achieved through prioritising mains power supply and sourcing the highest percentage renewable energy tariff possible in each destination. Where a direct 100% renewable tariff is not available, we will firstly look to purchasing instruments such as renewable energy certificates, and if these are not available we will invest in renewable energy generation through our offsetting programme. Where mobile power supply is required, we will source renewable fuels for generators (such as biodiesel or green diesel) and use portable zero emissions energy supply such as solar, wind and hydrogen fuel cell. Battery bank systems will also be deployed. We are also engaging an energy efficiency specialist to produce smart power plans for each Race Village.

**Absolute reduction: 684 tonne |**  
**Total reduction: 820 tonne**  
**Actual CO2e forecast: 0 tonne**

**ALICANTE HQ AND BOATYARD:** We have converted the year-round office to 100% renewable energy supply. There is no longer a race-owned boatyard for the VO65's.

**Absolute reduction: 215 tonne |**  
**Total reduction: 400 tonne**  
**Actual CO2e forecast: 0 tonne**



## WASTE

We're planning on reducing total waste to landfill by 50% and keeping 100% of biodegradable waste from landfill too.

**Absolute reduction: 47 tonne | Total reduction: 56 tonne**  
**Actual CO2e forecast: 0 tonne**



## HOTEL

During the 2017-18 Race, 28 000 hotel nights were booked for Race organiser staff. This does not include team and partner's staff. The GHG emissions factors from 'Book Different' were used to calculate the 'informative' status, as at the time no robust data source was available to draw on. This calculation amounted to approximately 500 tonne. The GHG emissions conversion factors are now available from UNFCCC Calculator. The Hotel emissions factors are sourced in this calculator from Cornell Hotel Sustainability Benchmarking Index. Retrospective analysis shows that the GHG impact of hotels is three times greater than originally estimated. Previous estimate: 560 tonne | New estimate: 1748 tonne Assuming a 60% staffing level, and approximately 80% number of event days compared to the 2017-18 Race.

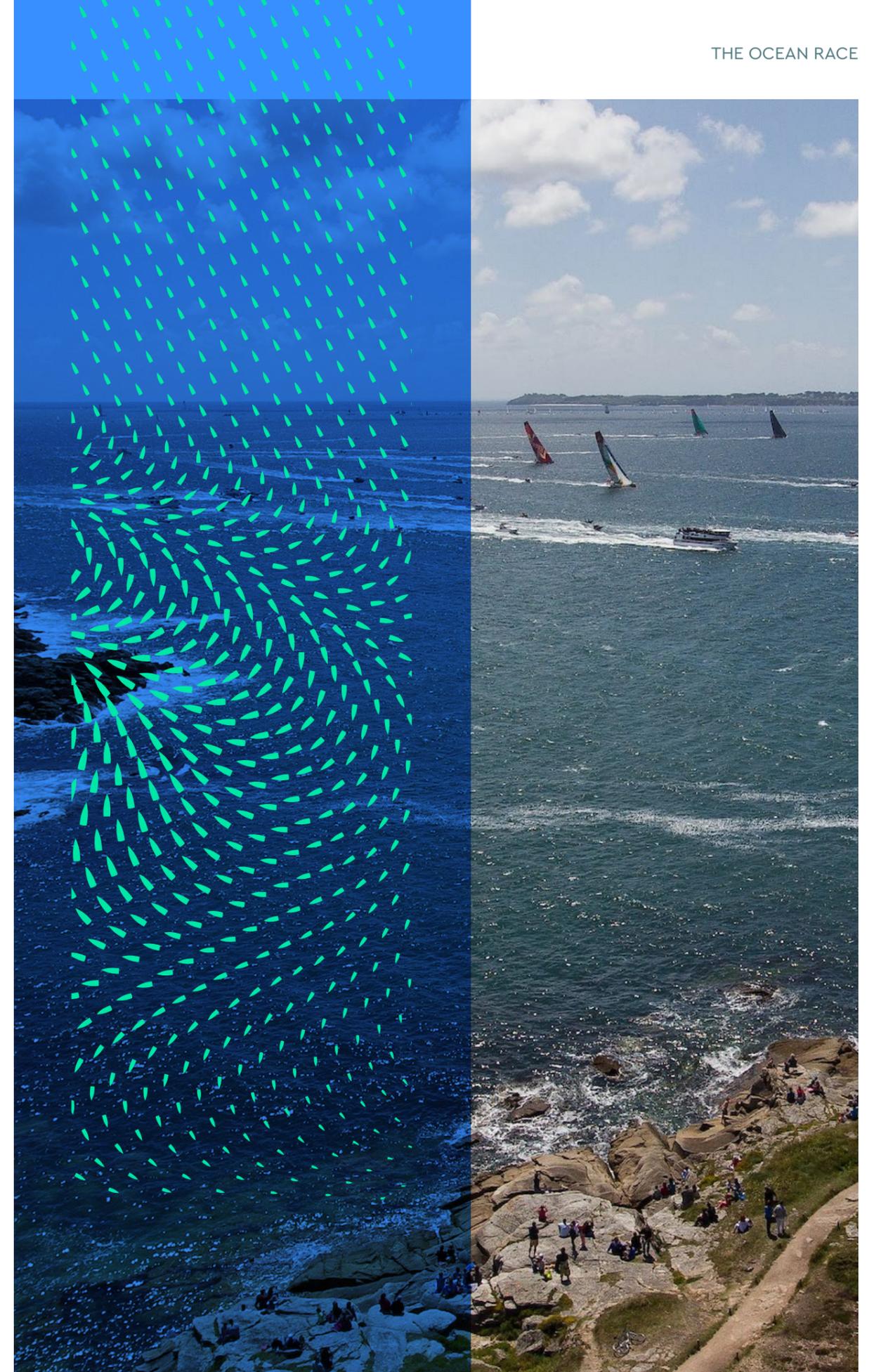
**Absolute reduction: 582 tonne | Total reduction: 873 tonne**  
**Actual CO2e forecast: 873 tonne**



## PURCHASING

We'll achieve GHG reductions through purchasing locally and by working with suppliers who are likewise addressing their own climate change impacts, with decarbonised supply chains.

Read more on our approach to embodied carbon in the Appendix.





## MANAGING OTHER GHG SOURCES – STAKEHOLDERS

### RACE TEAMS

Analysis of the 2017-18 Race shows teams produce an average of 580 tonne per team. Presuming 12 teams rather than 7, but with fewer stopovers and a slightly shorter race period, we estimate total GHGs will be slightly more than the previous race.

**Total increase: 611 tonne**  
**Actual CO2e forecast: 4698 tonne**

### RACE BOATS

We require all boats to have at least 20% of energy demand onboard, supplied through renewable energy.

**This will save approximately 300kg of GHGs per race boat.**

### ATTENDEE TRAVEL

We always promote sustainable travel options to the race for visitors and will continue to do so. Most Race Villages are not easily accessible by private vehicle, and prioritise enabling mass transit and shuttles connectivity. We encourage and incentivise cycling and walking to Race Villages where practical, including safe bike parking.

### HOSPITALITY GUEST TRAVEL

With 10% of hospitality guests travelling to the Race Villages by air, for the 2017-18 Race this accounted for 1/3 of the entire Race impact. We will continue to encourage teams and partners to focus on local markets for hospitality guest invitations, and to ensure that those who do fly in, opt in to carbon offsetting alongside the Race and Teams. Partners are encouraged to consider including offsetting in-bound guest's flight GHG impacts as part of the hospitality package.



## ADVOCATE

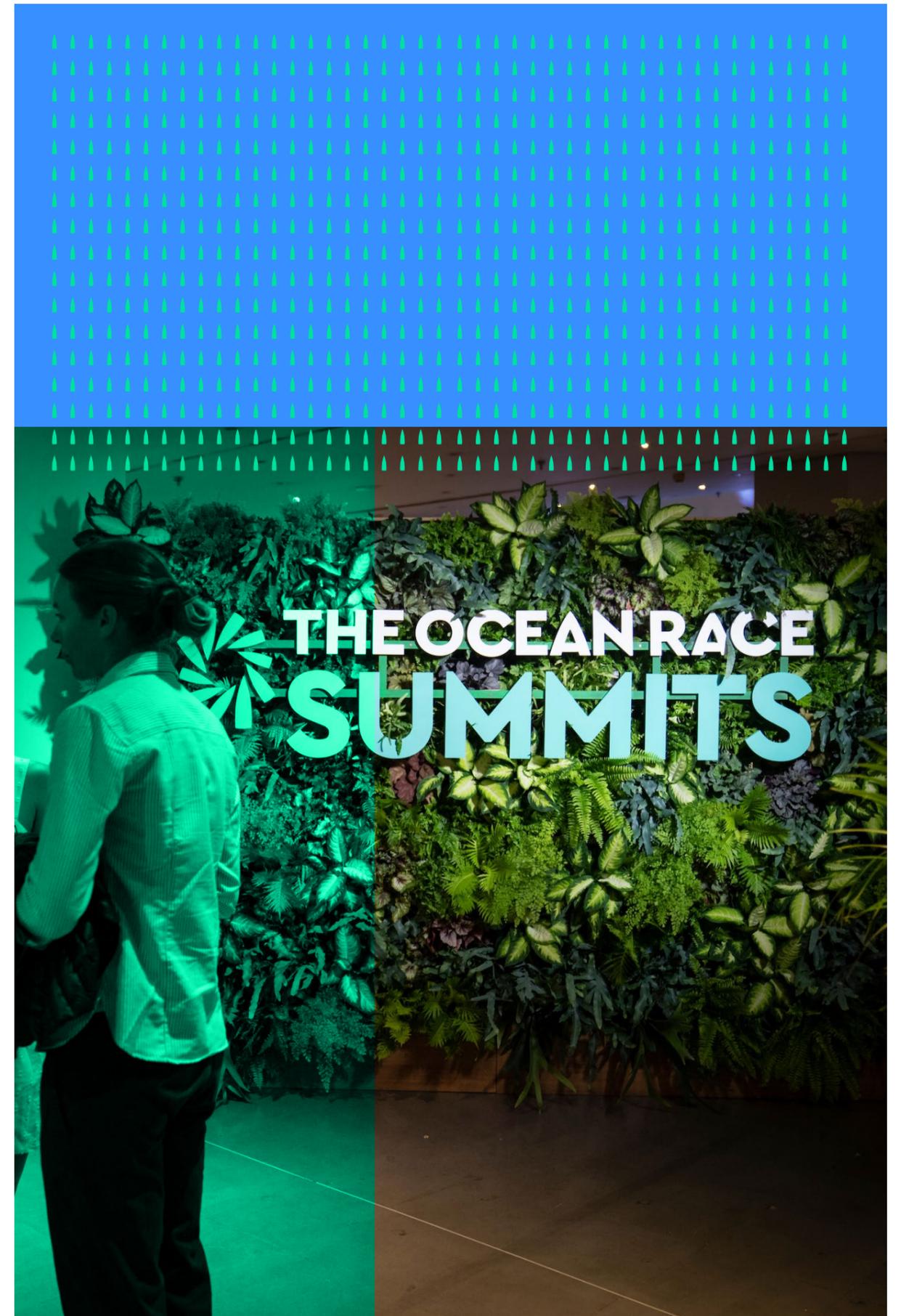
**The role of the ocean as a climate hero takes centre stage in our advocacy programme.**

We work with leading organisations such as UNFCCC, UNEP, Ocean Unite, and IUCN, and are part of the UN Decade for Ocean Science and UN Decade for Biodiversity Restoration.

We have a series of high level gatherings, **The Ocean Race Summits**, which bring together global players from the worlds of government, science, industry, NGOs, media and sport, including sailing, which aim to help drive solutions around some of the major causes of the deterioration of our seas, including climate change.

The Ocean Race's award-winning learning programme **Champions for the Sea**, for 6–12 year olds, has helped over 160,000 children in more than 54 countries understand one of the main threats to the ocean, plastic pollution, and what can be done to combat it. Next month new resources will be launched that introduce the important role that the ocean plays in our climate.

The Race's Innovation Workshops bring together industry expert groups to tackle specific sustainability challenges. As part of this are a series of Sustainable Boat Building workshops to engage the industry to measure CO2 impacts and share best practice to accelerate reductions.



## RESTORE

**We support science and conservation and take a nature-based restorative approach in our carbon offsetting strategy.**

### ■ SCIENCE

During The Ocean Race some of the teams capture data about the state of the seas as part of an innovative collaboration between sailors and ocean research organisations. Race boats capture data from parts of the ocean rarely accessible for scientific research. Along with measuring microplastics in the water, boats gather data on CO<sub>2</sub>, sea surface temperature and salinity – indicators of climate change. CO<sub>2</sub> measurements are submitted to the Surface Ocean Carbon Dioxide Atlas (SOCAT), which provides data for the Global Carbon Budget, a yearly assessment of CO<sub>2</sub> that informs targets and predictions for carbon reduction.

### ■ RESTORATION

We also hope to take direct action in restoration and sequestering carbon. We have an ambition for at least one environmental restoration project to be undertaken in each of our stopovers, through the collaboration with host cities and the support of our partners, race teams, hospitality guests, fans and followers.

### ■ OFFSETTING

For our unavoidable GHGs, we must look to carbon offsetting, and here we also take a restorative approach. In our advocacy programme we are focussing on the increasing role of blue carbon in climate change policy, and hope that by the end of the Race in 2023, we can place a large proportion of our offsetting funds into verified blue carbon projects. We will, nonetheless, always take a nature-based GHG balancing approach, supporting projects that not only capture greenhouse gases, but help to restore ocean ecosystems and provide a habitat for marine life. The offsetting projects, which have previously included mangrove restoration in Myanmar, will help to balance the Race's unavoidable carbon emissions.





# 05 APPENDIX

## EMBODIED CARBON

All materials come with 'embodied carbon'. This is the 'carbon footprint' of the material.

Embodied carbon is the entire life cycle impact of the material or product, to include production, growing or mining, manufacture, transport and disposal.

All materials used by the Race, therefore, have a carbon footprint. Our race boats, supplies, equipment and infrastructure are made up of multiple materials and therefore likewise have their own carbon footprint. Food, of course, has a carbon footprint. Even supply of water and treatment of wastewater has embodied carbon.

### OUR APPROACH TO MEASUREMENT AND REPORTING OF EMBODIED CARBON

We analyse our supply chain and purchases to identify potential carbon-intensive purchasing categories. Alternatives are identified to allow us to de-carbonise our purchasing impact through selective sourcing.

We work with our major suppliers to encourage or require them to provide details and reporting on the GHG impact of their products or services they provide us.

Certain supplier categories that are specifically purchased for our event, and where accurate GHG impacts are possible (for example our uniform and clothing range), these would be included in the Race's Carbon Account.

We are aware of double accounting – to identify those supplier categories which already compensate for or balance their materials and product's carbon footprint.

Food and beverage is a particular category of interest for the events sector and one we are working with industry colleagues on an aligned approach.

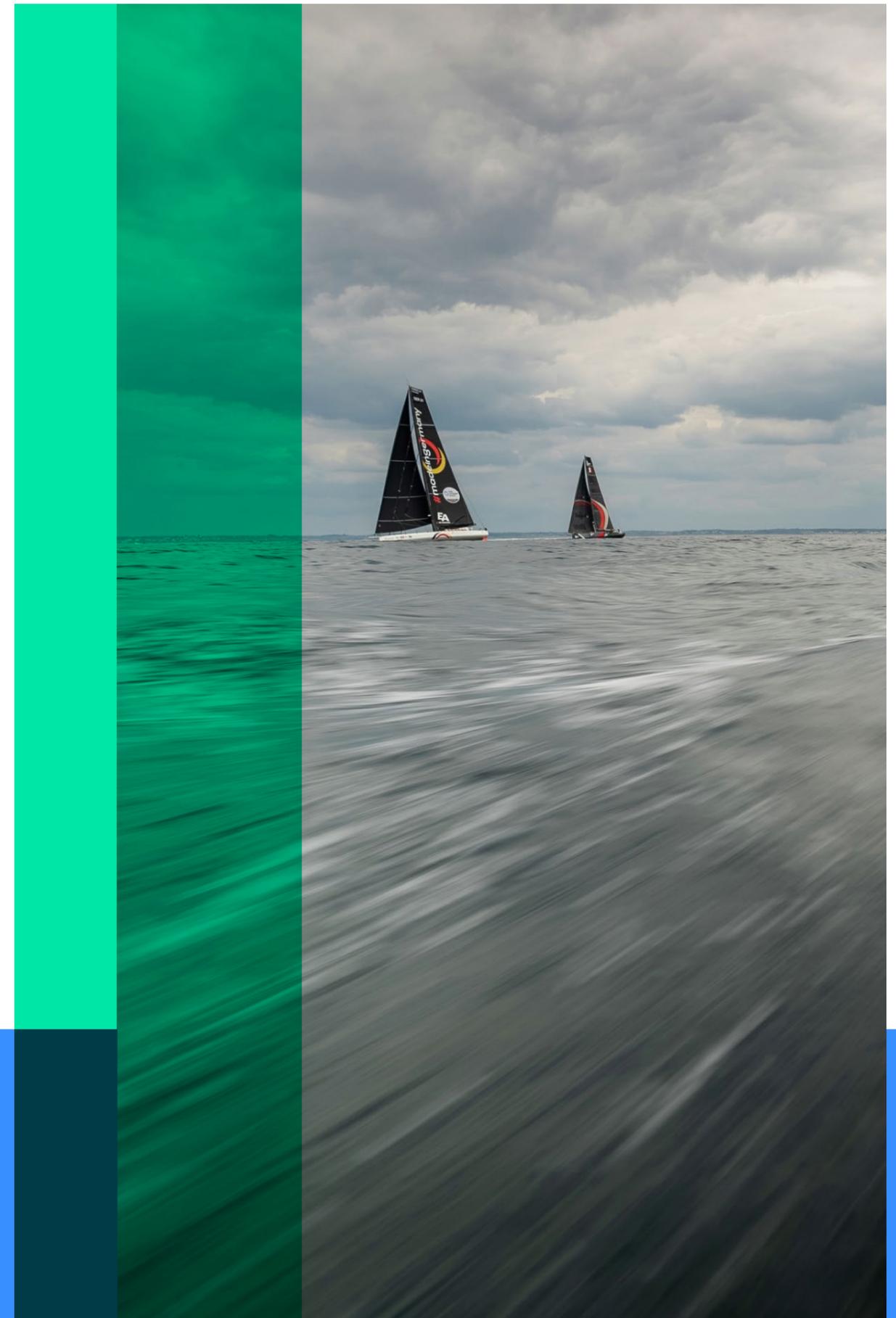


# EMISSIONS FACTORS (conversion factors)

Emissions factors (EFs) are the kilograms of GHGs attributable to each certain measure of activity. These EFs are applied to our collected data in order to calculate total estimated GHGs.

The development of the emissions factors comes through industry and is consolidated, most comprehensively currently, by the UK.

Category	Emissions Factor Source
<b>Air travel</b>	<p>We use the ICAO emissions factors.</p> <p>The methodology applies the best publicly available industry data to account for various factors such as aircraft types, route specific data, passenger load factors and cargo carried.</p> <p><a href="https://www.icao.int/environmental-protection/CarbonOffset/Pages/default.aspx">https://www.icao.int/environmental-protection/CarbonOffset/Pages/default.aspx</a></p>
<b>Mains electricity</b>	<p>We use the International Energy Agency emissions factors.</p> <p>These are a paid-for dataset. The IEA can be visited <a href="#">here</a>.</p>
<ul style="list-style-type: none"> <li>• <b>Passenger vehicles / managed assets vehicles</b></li> <li>• <b>Public transport</b></li> <li>• <b>Ground freight</b></li> <li>• <b>Air freight</b></li> <li>• <b>Sea freight</b></li> <li>• <b>Fuel</b></li> <li>• <b>Waste</b></li> <li>• <b>Materials and Food</b></li> <li>• <b>Hotel nights</b></li> </ul>	<p>We use the UK published emissions factors for the following unless a verifiable regional/local emissions factor is published.</p> <p>The UK emissions factors and methodology papers can be found <a href="#">here</a>.</p> <p>We are currently working with events industry leaders to confirm a harmonised approach to food and beverage GHGs.</p>



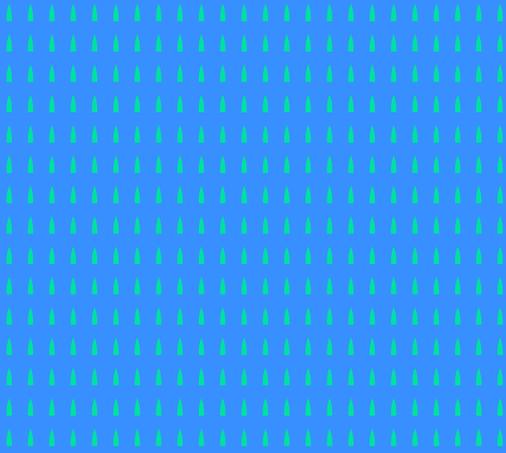


THANKS!



# THE OCEAN RACE

## GREENHOUSE GAS EMISSIONS MANAGEMENT STRATEGY



### PREMIER PARTNERS

V O L V O



### OFFICIAL PARTNERS

