RACING TEAM

11TH HOUR RACING TEAM

CAMPAIGN REPORT 2019-2023

PUBLISHED SEPTEMBER 2023

CAMPAIGN REPORT 2019-2023
EXECUTIVE SUMMARY

11th Hour Racing Team's mission is to run a high performance ocean racing team with sustainability at the core of all operations, inspiring positive action among sailing and coastal communities and global sports fans to create long lasting change for ocean health. We will accelerate change through sporting excellence in sailing, ocean advocacy, and sustainable innovation.

On 29 June 2023, we entered the record books as the first US team to win The Ocean Race in its 50 year history. To do so was a culmination of five years of dedication to demonstrating that performance and sustainability can co-exist.

Our journey over the full 2019-2023 campaign has given us the opportunity to test, refine and reflect on best practice in performance sailing, and our campaign report is structured around five key initiative streams - Internal Engagement, Team Operations, Boat Build, The Race, and Planet Positive.

Despite the best efforts of all involved it proved strikingly difficult to reduce our operations footprint, and due to increasingly complex designs and processes our build footprint increased by 61% from the Kairos benchmark of 2010. To achieve planet positive for our campaign against this backdrop it was essential that we invested in qualitative and quantitative actions to redress the balance.

Our key takeaways are that sustainable sourcing, investment in insetting, and policies that place reductions at the heart of decision-making, are vital tools for driving positive change. Incremental reductions at the margins will only get us so far however. Competitive sailing is still moving fast in the wrong direction, and the pathway to net zero by 2050 becomes ever steeper.

The marine economy needs a new definition of success that decouples economic growth and performance from environmental impacts, a system that places sobriety of consumption above development.

We have the skills, and many of the technologies that we need already exist. Now all that remains is to act.

Thank you for reading and sharing our journey. Alone we can only do so much but collectively we can go so much further.

Charlie Enright, Skipper & Mark Towill, CEO
11th Hour Racing Team

11TH HOUR RACING TEAM

OUR KEY LEARNINGS

Sustainable sourcing - implementing a sustainable sourcing code is the single most important action an organization can take.

Insetting - improvements within our own operations can only get us so far. We need to invest in innovations in the wider value chain in order to bring down organization emissions year on year.

Policy - we recommend that organizations adhere to a carbon emissions threshold, establish an internal price of carbon, and create an internal sustainability fund, to compensate for the residual impact of their actions.

Paradigm shift - improving 'business as usual' is still reliant on the constraints of the existing systems. To place the marine sector on a truly planet positive trajectory we need a new definition of success that encompasses environmental and social impact, rather than a sole focus on economic growth and performance.

A PLANET POSITIVE CAMPAIGN

INTERNAL ENGAGEMENT

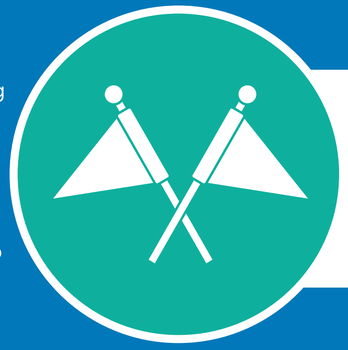
- **Empowered team members to support sustainability objectives internally** through delivery of a sustainability curriculum and 26 educational #OceanHour sessions.
- **Inspired team members to advocate externally** for sustainable innovation and ocean health. 15 team members spoke at 89 events with a total audience of 35,000.

BOAT BUILD

- Established a **key stakeholder working group** to place sustainability as part of the design and build criteria.
- **Completed 2 Life Cycle Assessments**, assessing our starting point and setting a new industry benchmark.
- **Implemented new sustainable solutions** through application of the Sustainable Sourcing Code, adaptations to the boat build facility, a circular economy approach to waste, and replaced 100kg of carbon fiber with more sustainable materials and nature-based solutions as part of piloting new IMOCA class rule.

THE RACE

- Demonstrated **high performance levels** with three leg wins, and winning the In-Port Series outright.
- **Furthered marine science** by taking water samples, 33 eDNA samples, and deploying three drifter buoys.
- Established risk mitigation protocols to **reduce the race's impact on marine mammals**.



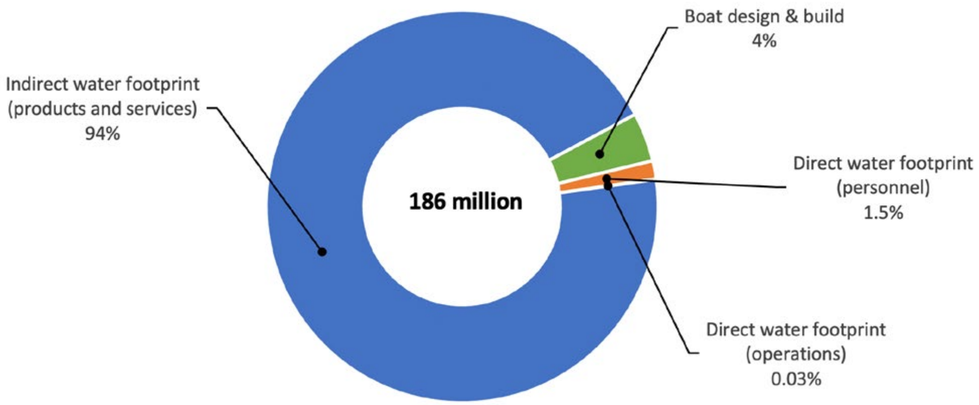
PLANET POSITIVE

- Delivered learning opportunities to 12 students and young professionals via the **NextGen Mentorship Program and Internship Program**.
- Created **The Toolbox**, providing guidance on creating a sustainability strategy to a 600 strong community across 100 countries, in four languages.
- **Collaborated** with 33 marine industry organizations to share learnings and work together to achieve better sustainability standards.
- Invested in **insetting**, delivering 81 tC02e savings via sustainable innovations in the value chain.
- **Compensated** for unavoidable GHG footprints by securing 4420 verified and quantified blue carbon credits.
- Created the **Legacy Grant Program**, distributing over €500k to 11 grassroots organizations.
- Created **20 billion** opportunities to reach an audience across 66 countries with our message of ocean health.

OPERATIONS

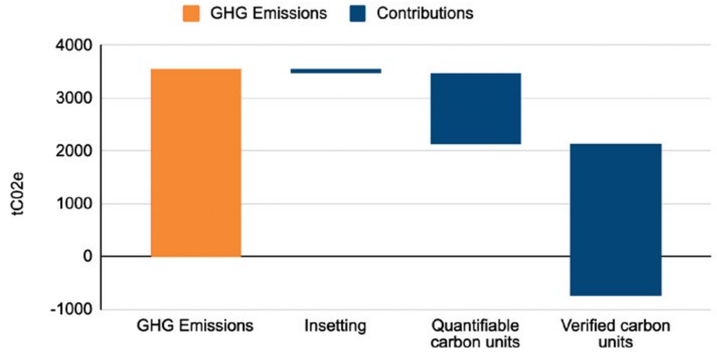
- Maintained **full Scope 1, 2 and 3 carbon emissions accounting**, and tracked embedded water footprint, taking measures to reduce consumption.
- Engaged with suppliers around our **Sustainable Sourcing Code**.
- **Comprehensive waste management processes**. Diverted 83% from landfill, and engaged teams and suppliers to recycle 3.5 tons of carbon fiber.
- **Establishment of team base in Brittany**, hub of performance sailing, reduced supply chain mileage. **Powered by 100% renewable energy**.
- Created a **sustainable travel and logistics policy, 16 tCO2e saved annually**.
- Tackled our digital footprint through **sustainable digital guidance, remote working**, and platform selection.

CAMPAIGN WATER FOOTPRINT - 186 MILLION LITERS

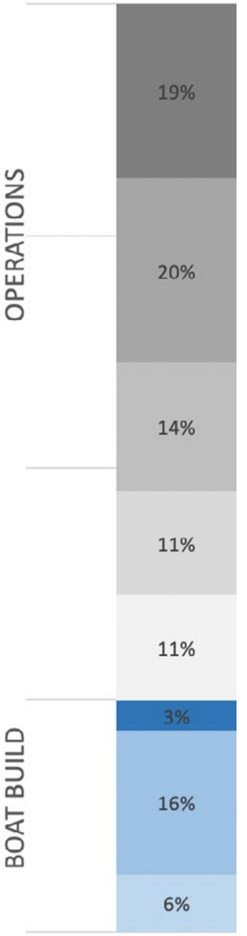


ACHIEVING PLANET POSITIVE

Impact of compensation actions on reducing total campaign greenhouse gas emissions



CAMPAIGN GHG FOOTPRINT 3,566 tCO2E



Boat build - 553 tCO2e (15.5%)
Boat optimizations - 336 tCO2e (9.5%)
Operations - 2677 tCO2e (75%)
Total - 3566 tCO2e

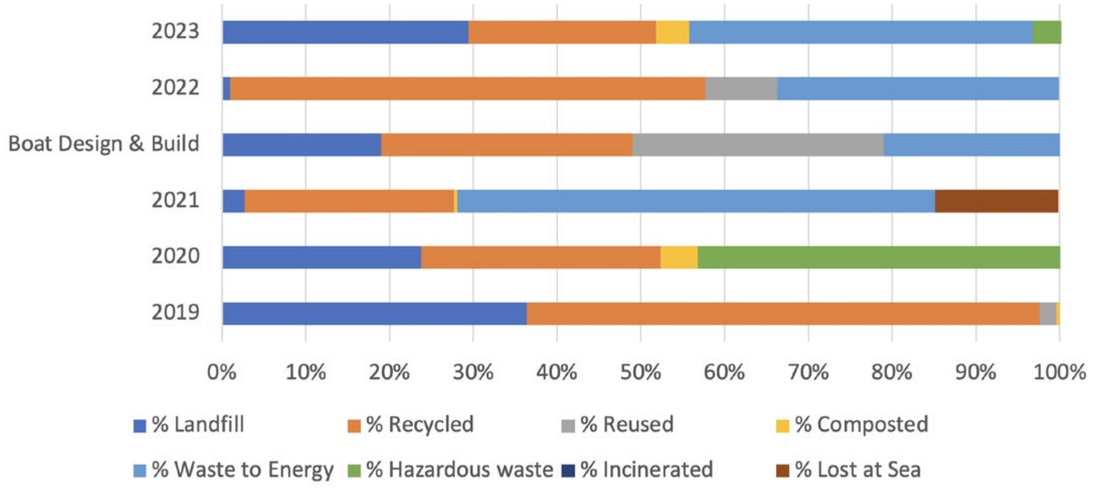
50% of our operational footprint derived from purchased products or services, with emissions occurring in our supply chain, either upstream or downstream of our own operations.

CAMPAIGN FOOTPRINT

CAMPAIGN WASTE FOOTPRINT - 47 TONS

Total campaign waste processed - 47 tons

Breakdown:
Diverted from landfill - 39 tons
Landfill - 7.5 tons
Lost at sea - 0.5 tons



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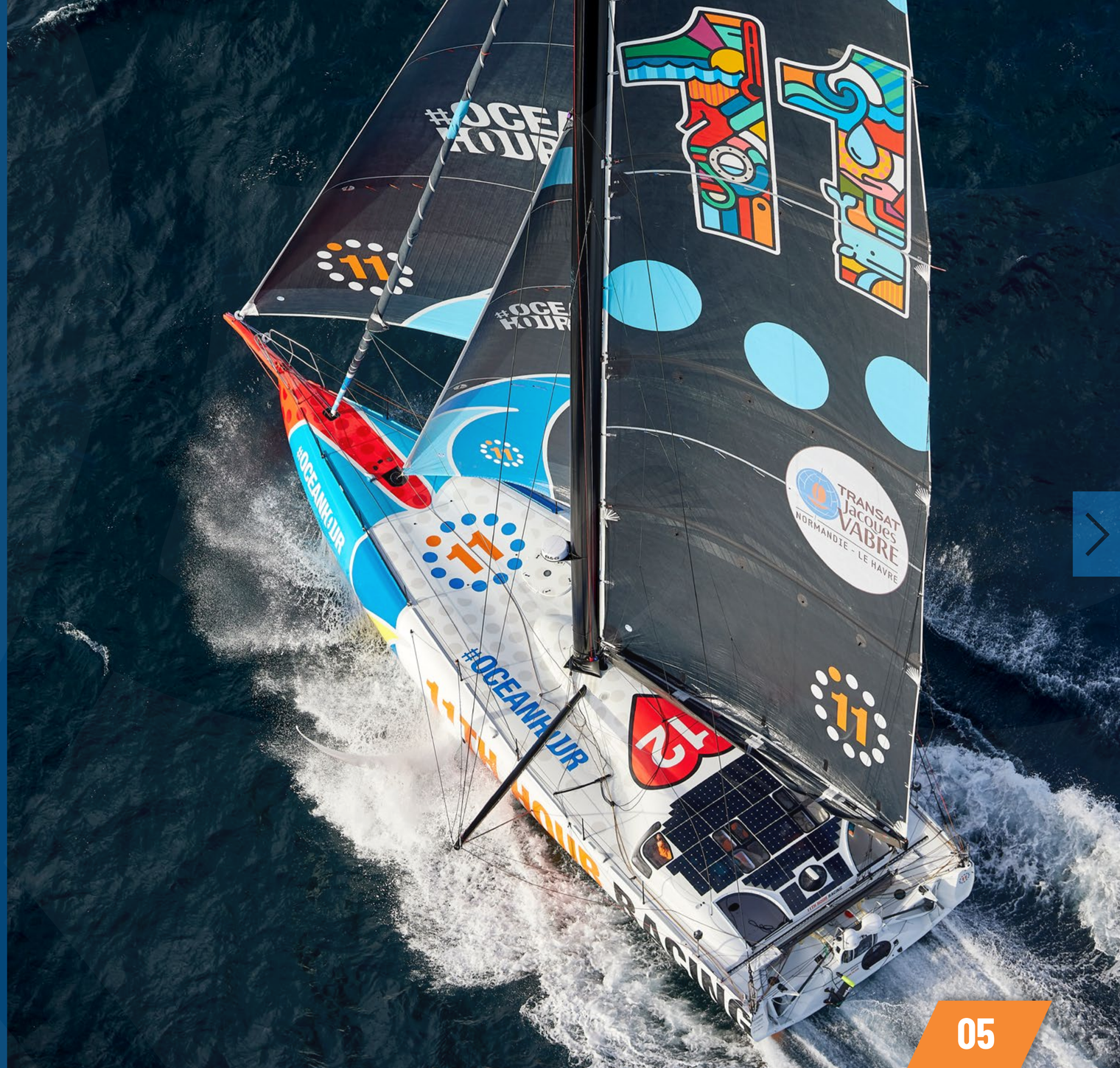


INTRODUCTION

FOREWORD

11th Hour Racing Team's mission is to run a high-performance ocean racing team with sustainability at the core of all operations, inspiring positive action among sailing and coastal communities and global sports fans to create longlasting change for ocean health. We will accelerate change through sporting excellence in sailing, ocean advocacy, and sustainable innovation.

With this in mind, we set ourselves the task of consistently challenging the status quo. Not only by asking ourselves 'how can we reduce the impact of our team and our boat build while maintaining performance', but more importantly, 'how can our learnings create tangible change within our industry and our wider community?'

Throughout the 2019-23 campaign, our team has been inspired by four **Guiding Principles - Leadership, Collaboration, Innovation and Legacy** - and we have focused our work on five key **Initiative Streams - Internal Engagement, Team Operations, Boat Build, Planet Positive, and The Race**.

Our ambition throughout has been to report openly and transparently about our impact on the planet, identify key areas where we can mitigate our impact, and work on leaving regenerative solutions in our wake.

ADDRESSING THE ISSUES OF CLIMATE CHANGE IS FUNDAMENTAL TO THE FUTURE OF OUR SPORT, THE PROSPERITY OF ALL COMMUNITIES, AND THE HEALTH OF OUR OCEAN.

On 29 June 2023, 11th Hour Racing Team entered the record books as the first US team to win The Ocean Race in its 50 year history. To achieve this result in a race considered to be the biggest test of a team and individuals in professional sport, is an honor and a privilege. We have a lot to be proud of and many supporters to thank. We have been powered forward by the vision and support from our title sponsor 11th Hour Racing, the dedication of our industrious team, and the inspiration of our partners, who have openly collaborated on innovations that have the potential for lasting impact. Without you all none of this would have been possible.

In the face of an urgent climate crisis, sport stands as a non-essential sector with a large carbon footprint. Yet we have the ability to engage and influence millions if we react responsibly and swiftly to the challenge and demonstrate the pathway to a more sustainable future.

Throughout our 2019-23 campaign and this final report, our aim has been to openly share our journey with you; our methods, key learnings, and innovations, as well as our set-backs and challenges. Our intention is that by accelerating change we will inspire positive action amongst the marine and coastal communities, and with global sports fans, to create long-lasting change for ocean health.

Thank you for reading and sharing our journey. **Alone we can only do so much but collectively we can go so much further.**

Mark Towill, CEO
11th Hour Racing Team

Charlie Enright, Skipper
11th Hour Racing Team

"The ocean connects us all, from giving us the very basic necessities for life to regulating the global climate, to providing an avenue for cultures to interact. We only thrive if our ocean thrives — this was an integral part of our decision-making process"
Charlie Enright

THE OCEAN RACE

Since 1974 The Ocean Race has represented the ultimate test of team and human endeavor, pitting the world's very best offshore sailing teams against each other in a six-month long marathon around the world.

Racing across thousands of miles of the world's most inhospitable waters, the sailors compete on state-of-the-art offshore sailing boats in a relentless pursuit of competitive edge.

Previously known as the Whitbread Round the World Race and the Volvo Ocean Race, it is acknowledged as one of the sport's 'Big Three' events along with the Olympics and the America's Cup.

The Ocean Race 2022-23 consisted of 7 offshore legs. The race started on January 15, 2023 in Alicante, Spain and the 32,000 nautical mile around the world race included stopovers in Mindelo (Cabo Verde), Cape Town (South Africa), Itajaí (Brazil), Newport (USA), Aarhus (Denmark), The Hague (Netherlands), with the Grande Finale in Genoa (Italy).

Bringing together the very best ocean sailors, The Ocean Race is a world-class sporting event that is followed by millions of fans and sits squarely at the intersection of sport, technology, nature, and adventure.

THE OCEAN RACE IS THE WORLD'S LONGEST, TOUGHEST, TEAM SPORTING EVENT, MAKING IT THE PERFECT PLATFORM TO HIGHLIGHT THE TOUGHEST CHALLENGE HUMANITY IS CURRENTLY FACING - ADAPTING TO CLIMATE CHANGE.

THE TEAM

Launched in September 2019, 11th Hour Racing Team is a high-performance offshore sailing team from Newport, Rhode Island, USA, home to our sponsor 11th Hour Racing.

Co-founders Charlie Enright RI, USA and Mark Towill HI, USA have competed in the two previous editions of The Ocean Race, with Team Alvimedica 2014-15 and 2017-18. As Vestas 11th Hour Racing they were at the forefront of bringing sustainable development into sailing, creating a new **sustainable benchmark** in the sport.

The 35-strong team is drawn from around the world, each member with their professional specialism and a passion for sustainable innovation.

11th Hour Racing Team Sets Sail with Charlie Enright + Mark Towill

The team is managed by 1 Degree, LLC of 251 Little Falls Drive, Wilmington, Delaware, 19808, United States.

OUR SPONSOR 11TH HOUR RACING

11th Hour Racing works to mobilize sports, maritime, and coastal communities with an innovative approach to inspire solutions for the ocean.

Founded by philanthropist Wendy Schmidt, sailor and sailmaker Rob MacMillan, and sailor Jeremy Pochman, 11th Hour Racing was born out of the desire to drive positive change within the sailing industry for a cleaner future.

11th Hour Racing leverages people's passions – whether it's sailing, tennis, music, or the great outdoors – to restore a balanced relationship between people and planet, a goal shared with the Schmidt Family Foundation, where Wendy Schmidt is president and co-founder. The name 11th Hour Racing comes from a sense of urgency: we are at the final hour in the struggle to restore our ocean.

11th Hour Racing is the Founding Partner of the Racing with Purpose programme and a Premier Partner of The Ocean Race and the driving force behind 11th Hour Racing Team's sustainability efforts. Our title sponsor provides guidance and expertise, assists with extending the team's reach, and supports creating strong legacy projects through grant funding with important local initiatives.

"The opportunity to build on the leadership that Mark and Charlie have demonstrated throughout the years, and develop a new campaign driven by a strong environmental and social ethos, is extremely empowering. We can accelerate change through sporting excellence in sailing, ocean advocacy, and sustainable innovation."
Rob MacMillan, Co-Founder and President, 11th Hour Racing

"Having 11th Hour Racing as a sponsor early in our campaign enables us to lead by example. We hope to inspire many people on this journey to lessen our collective impact on the environment by making small adjustments in our lives — because, with each day, we are racing together against time and this is the ocean hour."
Mark Towill, CEO, 11th Hour Racing Team

THE WHY

At 11th Hour Racing Team we know that the health of the ocean is as important for our own personal health and well-being as it is for the health of our planet. Over half of the oxygen we breathe comes from the ocean, and the plant life in it absorbs 50 times more carbon dioxide than our atmosphere. Covering 70% of the Earth's surface, the ocean transports heat from the equator to the poles, regulating our climate and weather patterns. A healthy ocean equals a healthy planet[1].

We recognize the importance of the Paris Agreement and its goal of limiting global temperature rise to 1.5 degrees Celsius above pre-industrial levels, and as a signatory of the Sports for Climate Action Initiative to the United Nations Framework Convention on Climate Change (UNFCCC), we support the target of net zero no later than 2040.

Implementing the actions needed for the sailing and marine sector to align with global targets requires a concerted effort by all. By working collaboratively within the marine industry to create a paradigm shift amongst businesses, sailing teams, events, and race organizers, as well as with sailors, sailing fans and ocean enthusiasts, our ambition is to collectively come together and create impact for positive ocean and climate health.

Our work off the water is as important to us as our determination for success on the water.

"As ocean professionals, the members of 11th Hour Racing Team are committed to being advocates for the ocean and leading by example in all aspects of our campaign, keeping the health of our ocean at the forefront of our decision-making process while promoting positive, systemic change."

Charlie Enright, Skipper

[1] https://oceanservice.noaa.gov/facts/ocean-oxygen.html
https://oceanservice.noaa.gov/facts/why-care-about-ocean.html

WHAT 'SUSTAINABILITY' MEANS TO OUR TEAM

JACK COLLINGS, TEAM RIGGER

Sustainability is living an efficient lifestyle that does not produce waste that is unable to be processed and recycled or re-purposed.

DAMIAN FOXALL, SUSTAINABILITY PROGRAM MANAGER

Leadership requires first and foremost that you 'turn up' and be present. To push for change and inspire others you have to go out and do things, spread the message and collaborate.

AMY MONKMAN, SENIOR COMMUNICATIONS MANAGER

Less materialism. I think sometimes we forget how little we need to be happy.

EMILY CAROE, COMMUNICATIONS DIRECTOR

Sustainability to me, means being creative and getting inspiration from nature on how we should live our lives.

SIMON FISHER, NAVIGATOR

I have become much more conscious of what I'm consuming and try to think about the consequences of my actions. Being mindful of what happens after I throw something away has led me to make better choices. Choosing quality over convenience, has hopefully helped to reduce my impact on the planet, which will in turn help leave it in a better place for future generations.

A PLANET POSITIVE CAMPAIGN

We have maintained a climate action strategy which has balanced greenhouse gas (GHG) emissions with reduction and carbon sequestration projects for a net zero outcome. However, over the course of our 2019-23 campaign we have had a growing awareness that given the scale of global issues even this was not enough.

In 2020 we established a **PLANET POSITIVE** approach, underlining our objective to go beyond just short-term reductions, to draw down at least 20% more GHG emissions than emitted by the totality of our operations during the period starting January 2019 and ending September 2023.

Planet positive goes beyond the minimum requirements of the Paris Agreement on climate, to address the wider range of global issues outlined by the UN Sustainable Development Goals.

STRATEGY

SUSTAINABILITY POLICY

Created in 2019 with feedback from a wide range of stakeholders, our **Sustainability Policy** provided a roadmap for the campaign, and contains our vision, mission, values, principles, objectives, and strategies for implementation.

The policy was approved by the team principals and title sponsor, and published one month after the official team launch in September 2019. It was reviewed and approved annually by the co-founders and COO, and in 2020 was updated to reflect our decision to move from a target of net zero, to the more ambitious commitment to a planet positive outcome.

"Innovation has been inherent to sailing throughout its history. What we need to do now, is to take some of that amazing capacity we have for innovation, and to focus it on making our industry sustainable. The knowledge, material, and resources exist, all that is needed is for us to take responsibility and to make the right choices, right now."
Damian Foxall, Sustainability Program Manager

VISION AND MISSION

VISION

A vibrant, healthy ocean,
and communities supported and inspired
by the sport of sailing.

"We know that our team's everyday actions have a long-lasting effect below the surface, impacting ocean health, and ultimately, our climate. We will work to minimize this impact and leverage our offshore sailing campaign, throughout The Ocean Race, as a platform to accelerate change through sporting excellence in sailing, ocean advocacy, and sustainable innovation."
Mark Towill, CEO

MISSION

To build a high-performance ocean racing team with sustainability at the core of all team operations, inspiring positive action among sailing and coastal communities, and global sports fans to create long-lasting change for ocean health. We will accelerate change through sporting excellence in sailing, ocean advocacy, and sustainable innovation.

VALUES

The core values of transparency, sustainable innovation, integrity, inclusivity, and marine stewardship underpin how the team operates. These values are tracked in our annual Sustainability Reports which have outlined key impacts, identified areas of improvement, and set out to inform best practices to inspire similar action amongst industry stakeholders, and marine communities.

OUR DEFINITION OF SUSTAINABILITY

We view sustainability as the intrinsic balance between the social, economic, and environmental aspects of our everyday actions, which respects the world's ocean, natural resources, and the needs of current and future generations. We believe that sustainability requires intergenerational empathy: our collective actions today will ensure healthy communities, prosperous economies, and a thriving planet for future generations.

IMPLEMENTATION STRATEGY

Our sustainability program was designed to contribute towards the achievement of 13 of the **UN Sustainable Development Goals**, the nine objectives of the **World Sailing Agenda 2030**, and support the goals of the Paris Agreement. Our approach was based on the international ISO20121 sustainable event standard and also aligned with industry and sport-relevant sustainability standards to ensure credibility and transparency through robust monitoring and reporting.[2]

To deliver on our objectives we aligned with the **UNFCCC's Climate Action Framework** to Measure, Understand, Take Action, and Inspire.

Our campaign contributed to 13 of the UN Sustainable Development Goals:

[2] A full overview of the references and frameworks we adhered to is included in the Appendix.

IMPLEMENTATION STRATEGY

The Ocean Race 2022-23 was Mark and Charlie's third campaign, allowing us to benefit from an eight-year time span of baseline measurements. Establishing new benchmarks for each subsequent cycle has allowed us to move from measurement to action, spring-boarding from one campaign to the next in a loop of continual improvement.

As we have progressed across three Ocean Race campaigns, a new level of commitment to sustainability has been applied at each stage, from the initial recognition of the importance of sustainability during the Alvimedica campaign, to sustainability becoming an integral part of our strategy and operations across all departments of 11th Hour Racing Team.

TEAM ALVIMEDICA 2014-2015 | VESTAS 11TH HOUR RACING 2017-2018 | 11TH HOUR RACING TEAM 2019-2023

MATURITY MATRIX

TEAM ALVIMEDICA | VESTAS 11TH HOUR RACING | 11TH HOUR RACING TEAM

ACTIVITY	BASIC LEVEL	INTERMEDIATE LEVEL	ADVANCED LEVEL
Vision, and strategy	Recognition that sustainability is important for the organization to develop.	Sustainability included in corporate plans for the organization.	Fully developed strategic sustainability vision consistent with the overall organization's vision.
Policy and governance	Leadership commitment to adopt a sustainability program.	Sustainability policy in place and lead person/department for sustainability identified.	Sustainability policy in place and clear responsibilities and accountability for sustainability across the organization.
Stakeholder engagement	Initial soundings with selected key partners and staff.	Structured approach to garnering stakeholder views.	Regular engagement with all key stakeholder groups. Feedback used to inform and refine sustainability plan.
Scope, objectives and targets	Small-scale activities undertaken on ad hoc basis.	Some prioritization of sustainability actions and initial development of an action plan.	Clear definition of scope of sustainability program and objectives, and a range of quantitztive and qualitative targets in place for each activity.
Measuring and monitoring	Purely qualitative assessment of outcomes.	Some data-gathering to complement general assessment of progress.	Formal processes in place for collecting and assessing data relating to sustainability performance, and using results to refine plans and targets.
Reporting, communicating, and sharing knowledge	Basic mention in organization's reports and communications.	Awareness-raising initiatives undertaken and early attempts to report progress via existing corporate reporting mechanisms.	Regular and proactive public reporting of progress on sustainability program via a range of communications channels. Contributing to knowledge-transfer programs.

PRINCIPLES AND GOALS

The delivery of our strategy was informed by our four 'Guiding Principles', which were underpinned by 12 specific goals

LEADERSHIP

We lead by advocating for ocean health and climate action within the industry, communities, and fan base

GOALS

> **Create ambassadors** - foster an inclusive team of diverse, motivated, and informed leaders in sustainability

> **Influence peers** - provide an exemplary model of sustainability leadership and ethical management

> **Inspire fans and followers** - inspire action among global sports fans and communities to restore the health of our ocean

INNOVATION

We explore and develop innovative solutions to manage resources, while promoting the shift to a sustainable marine industry

GOALS

> **Embed circular economy principles** - apply innovative solutions across team operations through the application of circular economy principles

> **Transform manufacturing** - employ a sustainable design and boat build process particularly with regards to resource management, production, and end of life options

> **Implement life cycle assessments** - apply to production processes to inform sustainable choices

LEGACY

We leave a lasting legacy for future generations by inspiring others to make changes - one degree at a time

GOALS

> **Investment in community outreach** - develop a legacy grant program as part of a wider outreach strategy promoting ocean health and sustainable communities

> **Develop and train** - provide education and training opportunities for key groups highlighting key ocean health issues

> **Communicate and inform** - champion transparent reporting, sharing of challenges and successes, and guiding future policy to promote long term planning around sustainability

COLLABORATION

We engage stakeholders to create sustainable solutions, minimizing the environmental footprints across the spheres of influence

GOALS

> **Foster strategic partnerships** - Engage in partnerships based on the systematic adoption of sustainable standards

> **Influence supply chains** - positively influence the marine industry supply chain

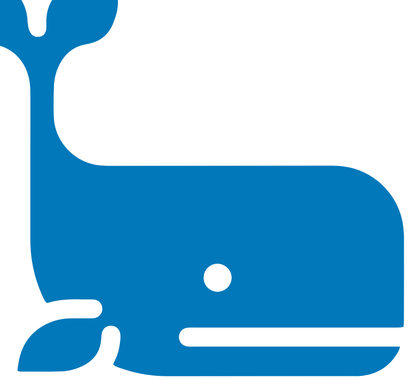
> **Implement sustainable operations** - apply best practices to reduce environmental footprints across all areas of operation

Each of our 12 goals were further broken down to establish 73 targets, enabling us to take and track the tangible steps needed to achieve our mission. A fully completed matrix tracking progress on all principles, goals, and targets is included in the Appendix here.

STAKEHOLDERS

None of our work would have been possible without the open collaboration of our stakeholders.

During the development of our sustainability strategy we engaged with our stakeholders initially to map issues, risks, and opportunities. This engagement then continued throughout the campaign as we updated our stakeholder mapping and prioritization taking into account new partners and changing levels of influence, interest, and responsibility within the supply chain, to ensure that all opportunities, risks, and resources were assessed.



TEAM MEMBERS

Team Members
Staff, contractors, management, communications, sailing, sustainability, build, commercial, logistics

OUR STAKEHOLDERS

COMMUNITIES

Peers
Competitors, other sporting events and teams

Marine Communities
World Sailing, IMOCA, La Vague

Local Communities
Grantees, communities we operate within, online sporting, and marine communities

PARTNERS

Official Sponsors
Official partners and sponsors
Official Suppliers
VIK suppliers

MARINE INDUSTRY

Suppliers
Tier 1,2,3
Race Organizers

SCOPE

To allow us to set objectives and measure our footprint it was necessary to define the scope of our sustainability program and what fell within and outside of our control. This was especially important given the wide network of stakeholders including partners, suppliers, the IMOCA Class, The Ocean Race, and other teams.

To define scopes and allocate responsibility, financial control was used, simply stated as - 'You own it or paid for it, you are responsible for it.'

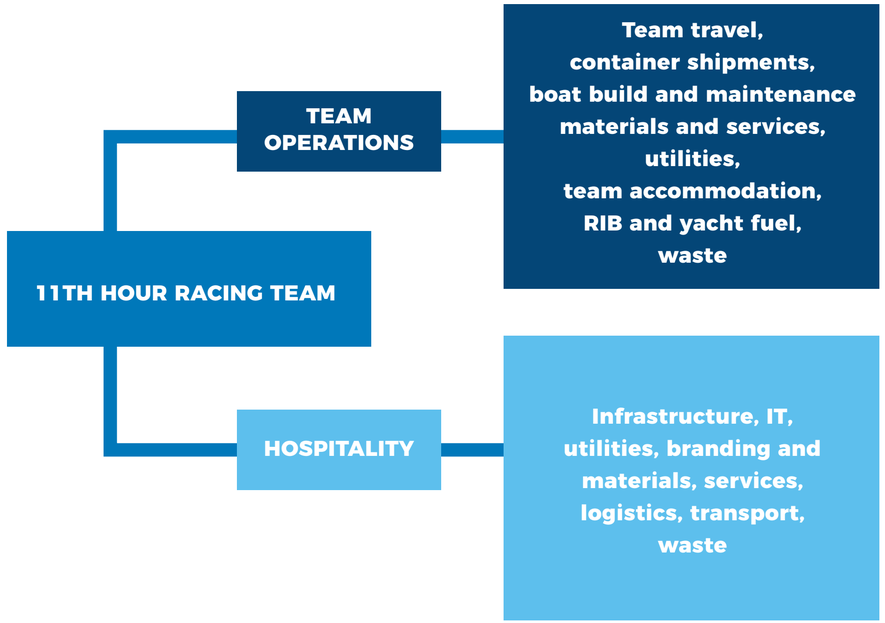
The scope of the sustainability program was therefore limited to activities directly managed or owned by us:

- All products, services, and infrastructure procured during the campaign
- All activities at our temporary and permanent construction and training bases
- All our operations related to attending and participating in events
- Specific areas where we had significant indirect control and/or influence. These included support and leadership within the sporting and marine industries

The graphic opposite represents the overlapping scope and boundaries of the team, event, and stakeholder systems.

EXAMPLES OF IN SCOPE

Items within Team's financial or direct control



EXAMPLES OF OUT OF SCOPE

Items outside of Team's financial or direct control but within their influence

Generator fuel, contractors, logistics	EVENTS & STOPOVERS
Products and services not purchased by team	SUPPLIERS
Onsite activations, travel and accommodation under partners' control	PARTNERS
Fan travel and accommodation not paid for by team	FANS

COMMUNICATIONS STRATEGY

At the heart of our mission was the desire to raise awareness on how climate change impacts ocean health, to demonstrate how sailing can be made more sustainable, and to share our learnings to inspire positive change across the wider marine community. **Implementing an effective, creative, and inspiring communications strategy was a vital component of our work, supporting all of our initiatives.**

In 2019, we worked closely with our title sponsor, 11th Hour Racing, to put together **a comprehensive communications strategy.**

Impact Strategy

To deliver quantifiable impact, we needed to connect with a wide community – bringing a large number of people into the funnel - driving awareness of the team's campaign and goals. Through content that creates conversation, we sought to raise awareness and engage our audience, which then drives advocacy, and ultimately impact.

COMMUNICATIONS GOALS

- Drive awareness of 11th Hour Racing Team's campaign to win The Ocean Race
- Engage sailing fans and the marine industry in responsible sustainable behaviors through leadership, collaboration, and innovation
- Create advocacy around the protection of the world's ocean
- Create legacy with a tangible impact that helps protect our ocean

CORE MESSAGE

"What's under the surface connects us all" — from the oxygen we breathe to the food we eat to the stability of our climate — we only thrive when our ocean thrives. But human impact — from the climate crisis to plastic pollution to the decline in biodiversity — has driven the planet to a critical moment in time. The clock is ticking. This is the #OceanHour

UNDERPINNED BY OCEAN HEALTH THEMES

- Marine debris
- Sea level rise
- Ocean acidification
- Biodiversity

ALIGNING WITH TEAM'S GUIDING PRINCIPLES

Leadership
- Advocating for change within the industry
- Demonstrating sustainability goes hand in hand with performance
- Leading a community of like-minded teams and businesses

Innovation
- Devising new solutions to be shared with the industry
- Taking part in citizen science when sailing

Collaboration
- Showcasing performance at the highest level
- Working collaboratively with experts in the sustainability world
- Sharing our learnings with peers

Legacy
- Working with our team grantees
- Leaving a positive impact on the ocean wherever we go
- Contributing to science experiments

COMMUNICATIONS STRATEGY

CHANNELS

The team's communications outreach was activated through five pillars:

PR & COMMS	EXPERIENTAL	B2B	CONTENT	COMMUNITY
Proactive outreach to target media	Hands-on demonstrations at stopovers and in the communities we reach	#OceanHour Network	Onboard footage	Grantee program
Reactive responses	Sharing resources with the communities we work with	The Toolbox	Grantee activations	Speaking engagements
Creative storytelling		#OceanHour Talks	Behind the scenes films	
Sailor and shore team stories			Science program	

And through four means:

TEXT	PHOTOGRAPHY	VIDEO	INFOGRAPHICS
News releases	Onboard images	Archive footage	Static & animated
Feature articles	Boat to boat images	Social media edits	
Social copy	Behind the scenes	Onboard edits	
Newsletters	Stopover/event highlights	Livestreams	
Crew updates		Highlights	
Onboard reports			

AUTHENTICITY

Throughout all of our communications it has been of paramount importance to be authentic.

Greenwashing is a significant challenge faced by sport, and industry as a whole, with some organizations exaggerating environmental credentials and making unsubstantiated claims for the purposes of reputation and marketing.

We have aimed to share the highs and the lows, the challenges as well as the successes, and to show the rigor of our scientific measuring process, so that audiences can know that our work is genuine and transparent.

We do also understand that to some, creating the carbon footprint involved in our team's pursuit of victory in The Ocean Race is counterintuitive to the goal of reducing global GHG emissions. We do acknowledge this dichotomy. **However, we believe that by demonstrating and communicating how sustainability can be embedded in a high-performance sports team we can change the industry from the inside and for the long term.**

"By placing ourselves at the center of the performance sailing sector, with similar performance goals and facing the same challenges as everyone else, the opportunity was to develop pragmatic solutions to the real issues facing our industry. It is about working from the inside out."
Bill Erkelens, COO

DELIVERY

CAMPAIGN OVERVIEW

2019

Purchase of second-hand IMOCA training boat (11.1 or Alaka'i)

Operational base established in Port-la-Forêt, France

Official team announcement with 11th Hour Racing as title sponsor

Compete in the **Défi Azimut** and **Transat Jacques Vabre**

Start design process for new IMOCA (11.2 or Mālama)

Launch of Internship Program and Legacy Grant Program

2020

Sailing suspended due to COVID-19

Establish temporary team base in Newport, RI, USA

Launch of NextGen mentorship program

Conducted IMOCA 60 life cycle assessment for boat build completed in 2018

2021

Became a signatory of **UNFCCC Sports for Climate Action initiative**

IMOCA publish 2021-25 class rules with new emphasis on sustainability

Launch of **The Toolbox** in English and French

Launch of Team's new IMOCA race boat Mālama

Compete in **Ocean Race Europe**, **Rolex Fastnet Race**, Défi Azimut and Transat Jacques Vabre

2022

Mālama wins the **Newport Bermuda Race** and the Défi Azimut

Publication of The Toolbox in Spanish

#OceanHour Week

Bay Rally in Newport

2023

Compete in **The Ocean Race** 2022-23

Launch of Water Footprint Compensation Framework at the UN Water Conference

Publication of The Toolbox in Portuguese

INITIATIVE STREAMS

This report describes the team's work in the context of **five initiative streams** to deliver on our principles, goals, and targets.

INITIATIVE STREAMS

- INTERNAL ENGAGEMENT
- TEAM OPERATIONS
- BOAT BUILD
- THE RACE
- PLANET POSITIVE

A matrix mapping principles and goals to our initiative streams can be found in the Appendix **here**.

In the following pages we will go into each of the streams in depth, exploring the actions we took toward our ambition of becoming a planet positive campaign.

Collaboration was a core thread throughout each of these initiative streams and will be highlighted throughout. This reflects our desire to work in partnership with global organizations, sailing bodies, industry peers, and suppliers around innovations and best practices, and to share our findings to help reduce the footprint of the marine industry in the future.

INTERNAL ENGAGEMENT

To achieve our ambitions we knew that we had to engage each team member to take positive actions internally, and to become advocates for change externally.

In 2019 we established an internal sustainability department consisting of a Sustainability Program Manager, Sustainability Officer, and Sustainability Intern. For their work to have an impact and for sustainability to be the driving purpose of the team, rather than an add-on, it was essential to transfer their knowledge, and passion to all internal stakeholders involved in the team's journey. This encompassed the entire team - onboard crew, technical shore team, and support staff - all of whom had the opportunity to contribute tangible positive impact on the team's overall footprint.

> When we create a safe environment in which people are challenged to speak up, to share different perspectives to co-create, we unlock the potential of diversity and a performance that is associated with diverse thinking.
>
> **ANJE-MARIJCKE VAN BOXTEL**
> Team Coach & Organizational Psychologist

An **Internal Engagement Plan** was created with a focus on achieving two outcomes

- Creating **internal ambassadors** - empowering every team member with the knowledge needed to understand our sustainability objectives and how they can contribute in their daily roles
- Creating **external advocates** - supporting team members to enhance their understanding of and ability to communicate on key ocean health goals, allowing them to: advocate through speaking engagements, support partner sustainability initiatives, influence policy, and champion team goals

The importance of cognitive and experiential diversity was well understood within our internal engagement work. A broad range of experience, knowledge, thinking patterns, and behavioral styles brings a diversity of perspectives. With ambitious objectives this was of paramount importance if we were to be as innovative and agile as we needed to be.

INTERNAL ENGAGEMENT

ACTIVATION OF OUR INTERNAL ENGAGEMENT PLAN

On-boarding process: induction ensuring all team members had an understanding of sustainability principles, objectives, and targets, their purpose, their personal role in delivery, and their commitment to a set of 'first actions'

Sustainability Charter: embedded in contracts and signed by all team members, confirming commitment to champion best practice at all times

#OceanHour sessions: regular sustainability-related team sessions, with specialists invited to share expertise on sustainability topics. Used as an opportunity to invite stakeholders, sharing the learning and development opportunity

#OceanHour network: group of sustainability and ocean health experts who worked with the team in an advisor capacity to bring credibility and support to our message and external campaign initiatives, and to offer guidance through the #OceanHour sessions

Internal policies: Creation of internal polices including; sustainable sourcing code, travel policy, food charter, onboard guidelines, marine mammal best practices

Verbal updates: short onsite meeting updates on topical operational items

The HUB: our online library of sustainability resources including operational information, best practice documents and providing professional development training with a minimum expectation of 10 hours per month for all team members

The 'HUB Team': sustainability representatives from each department met regularly to discuss challenges, successes and progress against initiatives

Ongoing training: to ensure the team is aware of industry and sustainability innovations, changes and trends, expand professional skills, and cultivate leaders who can advocate for ocean health

Shrink-Wrap Recycling - a session with **Clean Ocean Access**, an 11th Hour Racing grantee, to learn about their recycling program for boat owners who wrap their vessels for winter storage

#OceanHour Sessions were an invaluable learning opportunity for the team, with 26 conducted in total. Topics included:

Coral Reefs - team viewing of the documentary '**Chasing Coral**', documenting and researching the disappearance of coral reefs due to global warming. Followed by a Q&A with Richard Vevers, the inspiration behind the film

Biomimicry [3] - with experts from **Marine Station Concarneau** — an **11th Hour Racing Team grantee** — **The Big Bang Project** and the French National Institute for Advanced Studies in Industrial Design

Circularity [4] - with Thomas Kimber, founder of **Karün**, our Official Supplier of sunglasses, on how a business model can both respect and regenerate the natural environment and support communities

[3] How humans can imitate nature to solve complex problems through innovation and design.
[4] https://sustainabilityguide.eu/sustainability/circular-economy/

TEAM OPERATIONS

One of the most important aspects of the campaign was to demonstrate how to embed sustainable operations within a high-performance sailing team. Following the Measure, Understand, Act and Inspire framework set out by the UNFCCC our ambition was to design a blueprint that could be replicable.

By using a **Climate Action Tracker** to closely record the footprint of every aspect of our operations we were able to identify specific areas where our impact was highest and therefore where we should focus our mitigation efforts as the campaign progressed.[5]

The data collected on an ongoing basis in our Climate Action Tracker showed that material use and personnel travel consistently contributed the overwhelming majority of our emissions, with fuel, digital, freight, embedded water and waste contributing most of the remainder, albeit on a vastly smaller scale.

The following pages outline the actions we took to reduce emissions.

[5] The annual operational figures exclude the build of the new race boat 11.2, which was calculated in a separate detailed Life Cycle Assessment (LCA) at the end of the build in 2021, and published in the **Sustainable Design and Build Report.**

Our GHG emissions were measured in tons of carbon dioxide equivalent (tCO2e) and separated into operational Scope 1, 2 & 3 emissions (**UK GHG Protocol**). Scopes describe the level of ownership for carbon emissions:

- Scope 1 includes all direct GHG emissions from infrastructure owned or controlled by an organization
- Scope 2 includes indirect GHG emissions from consumption of purchased electricity, heat or steam
- Scope 3 includes all other value chain emissions associated with the upstream and downstream impacts of products or services procured by an organization

Scope 1 and 2 emissions are typically easier to track and address and many organisations focus on these as an initial step. It was however vital that we also tracked scope 3 as **80% of an organisation's impact typically derives from value chain emissions**. The ability to identify impact hotspots meant we could then take action with suppliers to increase efficiency.

The following calculation methods were used to ensure the most accurate and consistent results:
1. **GHG Protocol** – priority method
2. **Marineshift360** life cycle assessment tool (beta version) – marine components (boat, sails, etc.)
3. **Quantis** remote worker tool – for team members off-site
4. **Carnegie Mellon Input-Output model** – other Scope 3 by $ spend
5. Bespoke assessments – all other

"We must measure our operations, so that we can understand our impacts, to inform the right action, and inspire others to collaborate for a planet positive outcome"
Amy Munro, Sustainability Officer

CARBON FOOTPRINT PRODUCTS AND SERVICES

Detailed measurement of our GHG emissions showed material use (products and services purchased) as the inventory sector consistently responsible for the largest impact.

Impact from products and services use falls into Scope 3, which meant that the emissions occurred in our supply chain either upstream or downstream of our own operations. The interventions needed to reduce these emissions therefore required specific collaborations and investment to implement solutions within the wider value chain. This is called insetting.

By putting these protocols in place our aim was not only to reduce our own GHG footprint, but to collaborate with and inspire others throughout the supply chain to innovate and reach for new standards in their own operations.

In 2019, we created a **Sustainable Sourcing Code** (SSC) which outlined the minimum sustainability standards expected of all suppliers.

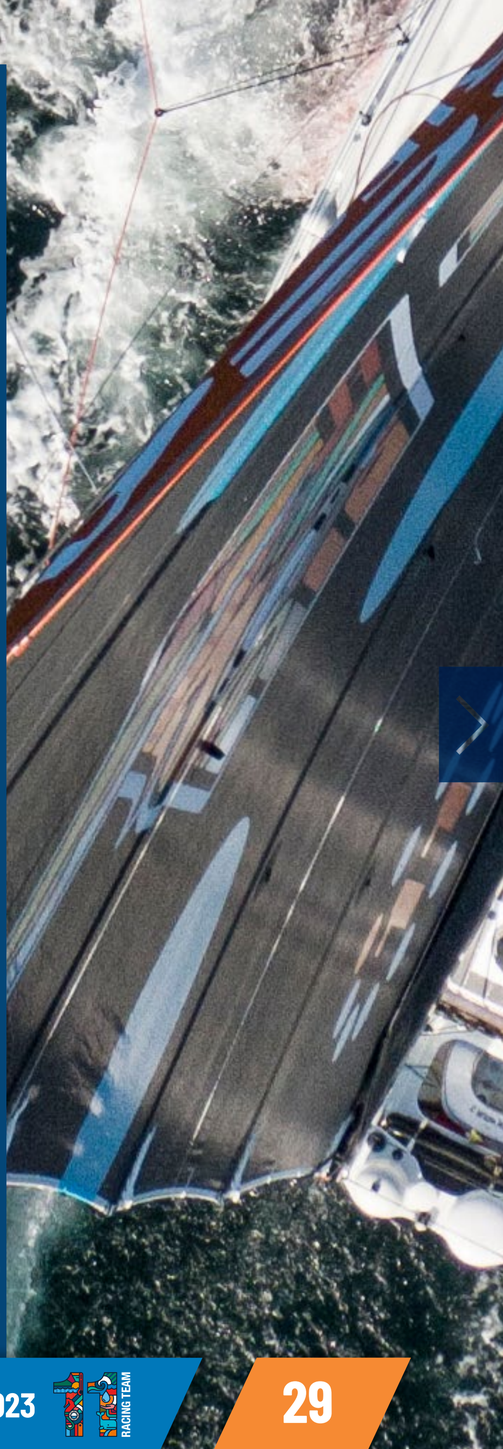
The SSC was included within a stakeholder discovery process for new partners, was referenced in contracts, and was integrated within the expense authorization process and accounts software, which enabled more precise monitoring and reporting.

- SSC principles were applied to the procurement of products and services
- We engaged with stakeholders that aligned with our sustainability ambitions
- We consulted with and co-created goals and objectives with each individual partner and reported results
- We targeted 75% local products, services, and labor at semi-permanent bases, and 10% at stopovers and short stays
- By establishing an Internal price of carbon, €100 was the additional amount we were willing to pay for a better product or service for each ton of GHG emission avoided

OPPORTUNITIES FOR IMPROVEMENT

A key mechanism for leveraging GHG emissions within an organization is the establishment of an Internal Price on Carbon. Linking this to individual department budgets can create a tangible link between budget spend and carbon footprint, and incentivise internal efficiencies.[6]

[6] See p21-22 of the **Climate Action Plan.**

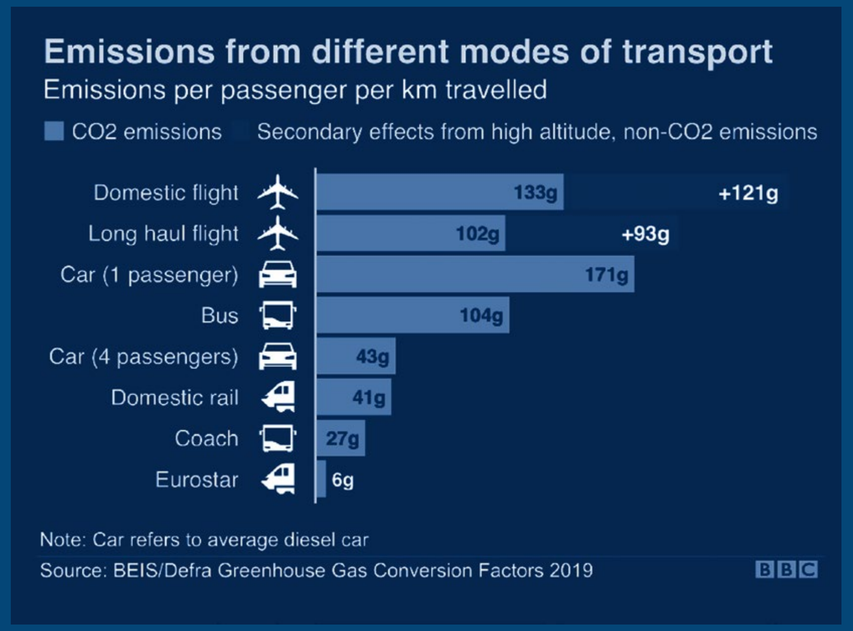


CARBON FOOTPRINT PERSONNEL TRAVEL

After material usage, personnel travel was the highest contributor to our GHG emissions. The majority of these emissions were connected to air travel, followed by land travel, and finally, by sea travel.

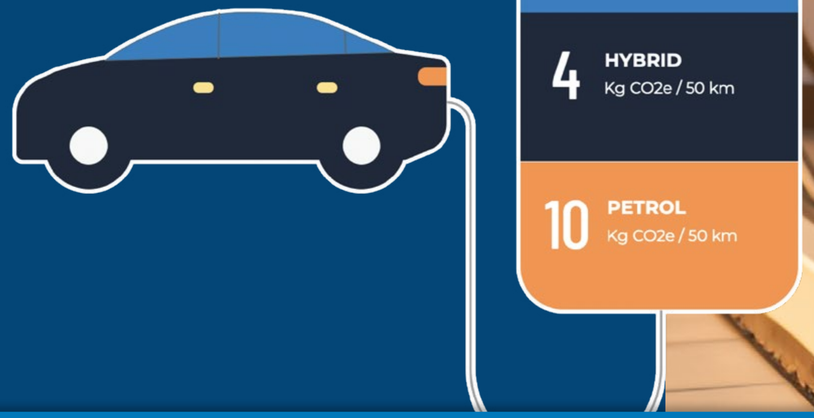
The nature of the team's global operations meant travel posed a key risk for our footprint, but also a key opportunity to achieve reductions. With this in mind we applied specialist resources to this sector to reduce impacts.

- We employed a full time logistics manager who managed the team's sustainable travel policy
- The team's **Travel Policy** was created in 2021 and set out a best practice checklist to consider when considering or booking travel. It resulted in a reduction in the number of domestic flights taken within Europe with an annual reduction of 6t CO2e, and a switch to hybrid rental cars resulting in a 60% impact reduction
- Team members were expected to reduce their individual impacts by using car share, public transport, and we provided bikes as a low impact travel option
- Our Travel Policy prioritized accommodation within proximity of work, enabling a public transport/walk/cycle commute
- Basing our activities in the marine industry hub of Brittany, France resulted in a direct reduction in distance travelled for products, services and personnel
- Remote working solutions were defined as the default method for meetings, significantly reducing the need for travel



Our **Event Sustainability Checklist** was created to support partners, media, and suppliers who attended 11th Hour Racing Team events, and to guide them in their own internal best practices. Topics covered included mitigating the impact of accommodation, travel, food, and waste, as well as providing guidance on how to positively engage with local communities and promoting the sustainability message.

In 2023 our internal travel policies were reaffirmed by the French ban on internal air travel between cities that can be connected by a 2.5 hour train ride. First approved in 2021, and now in place, the measure demonstrates the importance of public policy on influencing behaviour.



CARBON FOOTPRINT
FUEL

Our fuel usage was categorised as the petrol or diesel used in our vehicles, chase boats, RIBS, machinery, and race boats. Although it was a small part of the overall footprint, propulsion was a key aspect for us to address.

- Instead of a conventional alternator charging system, Mālama was fitted with an electric motor generator, and 48 volt system, which improved charging efficiency from around 60% to over 90%
- Onboard renewables (solar panels and hydro-generator) were fitted to provide 75% of Mālama's onboard power needs
- Hybrid Volvo vehicles were used for all stopovers
- We partnered with **Flux Marine** in Newport, RI, USA, on the development and testing of electric RIBS

OPPORTUNITIES FOR IMPROVEMENT

During the period 2019-2022 the team relied exclusively on the use of rental cars and vans, which due to a lack of availability were primarily diesel or petrol. Renting or hire/purchase EVs would have saved significant budget & ghg emissions, and as the availability of EVs increases this should be part a standard part of future strategy.

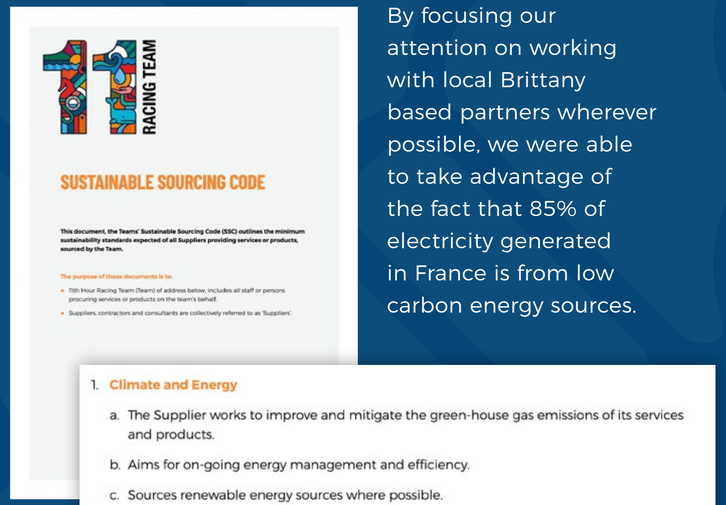
On the water, electric ribs and non fossil fuel propulsion for the race boat should be the default standard for future campaigns.

CARBON FOOTPRINT ELECTRICITY

Primary consumption of electricity by the team (Scope 2) was typically small, and the majority of our energy needs were derived from supplier infrastructures not directly under our control (Scope 3).

Scope 1 and 2 - Our base, MerConcept in Concarneau, Brittany, was powered by 100% renewable energy allowing us to reduce our electricity footprint.

Scope 3 - The use of renewable energy was a key point within our **Sustainable Sourcing Code** and was raised with stakeholders across our supply chain. Our main contractor, CDK Technologies were on a 100% renewable energy tariff, which allowed us to reduce the footprint of the build of the boat by 19%.


11TH HOUR RACING TEAM

SUSTAINABLE SOURCING CODE

This document, the Teams' Sustainable Sourcing Code (SSC) outlines the minimum sustainability standards expected of all Suppliers providing services or products, sourced by the Team.

The purpose of these documents is to:

- 11th Hour Racing Team (Team) of address below, includes all staff or persons procuring services or products on the team's behalf.
- Suppliers, contractors and consultants are collectively referred to as 'Suppliers'.

1. **Climate and Energy**
   a. The Supplier works to improve and mitigate the green-house gas emissions of its services and products.
   b. Aims for on-going energy management and efficiency.
   c. Sources renewable energy sources where possible.
   d. The Supplier is aware and works to optimize areas of high energy consumption: including but not exclusive to: Heating & Air treatment, Database and software services.

By focusing our attention on working with local Brittany based partners wherever possible, we were able to take advantage of the fact that 85% of electricity generated in France is from low carbon energy sources.

OPPORTUNITIES FOR IMPROVEMENT

We explored setting up a renewable energy partnership for The Ocean Race stopovers with a provider of modular hydrogen energy. However, due to various barriers such as legal safety restrictions at the Newport, RI venue, and current lack of available blue hydrogen in that area this opportunity did not work out.

The availability of renewable energy at other stopovers was varied, with Aarhus, Denmark providing electricity from their national grid heavily reliant on wind power, while venues such as Cabo Verde and Cape Town are still heavily reliant on fossil fuel generated electricity.

As global integration of renewable energy continues to scale up at pace, it is important that sports teams and events support this development by establishing the provision of fossil fuel free energy as part of sustainable sourcing contracts.

CARBON FOOTPRINT DIGITAL

While still a relatively small percentage, the digital sector worldwide contributes an estimated 3.5% of global GHG emissions, or the equivalent of the aviation industry, and is set to increase to approximately 14% by 2040. As a team which worked remotely for a significant part of the first phase of the campaign, in addition to the concentration on design and analysis services, our digital footprint was one we wanted to observe, calculate and take responsibility for by demonstrating best practice.

At the outset we carried out a high resolution assessment to analyze our digital inventory, both in-house and contracted services, looking at everything from G Suite hosting, email, website traffic, cloud storage, computer time, web searching, remote worker footprints, social media, and yacht and sail design and analysis. These elements were then tracked over the course of the campaign, and we took the following actions to mitigate impact.

The net carbon emissions associated with our G Suite platform were zero. This was due to Google's **renewable energy purchases** offsetting the emissions from the Google data center energy use

We used Kinsta for website hosting, which uses the Google Cloud Platform, powered by renewable energy

We used a certified B-Corp, for our digital asset management. They use Amazon Web Services to hold the digital assets, which **exceeded 50% renewable energy usage for 2018, with key market areas reaching 95% renewable energy by 2021**

The two supercomputers used in the design and analysis of our boat build (based at the Wolfson Unit at the University of Southampton) were rated in the Top 500 of the world's greenest machines.[4]

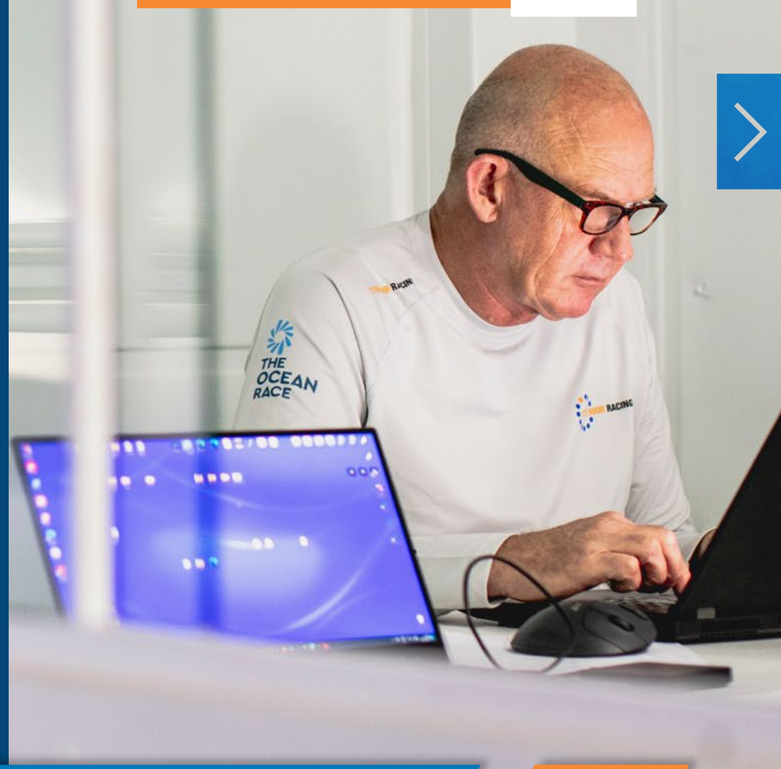
Over the course of the campaign we identified additional reductions which became part of a revised set of digital guidelines, including

- Minimizing email content and quantity and cleaning out inboxes
- Turning off cameras during video conferencing which can reduce impacts by 96%[5]
- Attending conferences virtually rather than in-person
- Encouraging remote workers/offices to use renewable energy sources

[4] **GREEN500 list, 2017.**
[5] **Study by Purdue University.**

OPPORTUNITIES FOR IMPROVEMENT

In the future our approach would be more formalized, with a standard set of internal guidelines for server use, web content and creation, data storage, and email protocols.



CARBON FOOTPRINT FREIGHT

The breakdown of the footprint by freight mode showed that air transport clearly generated the biggest proportion of emissions, as opposed to road and sea freight. For example in 2019 air freight totalled just 1.2% of shipments by weight, but made up 57% (5.3 tCO2e) of the annual freight emissions.

The impact of shipping proved difficult to reduce, given the increase in activity as we approached and competed in The Ocean Race. Opportunities to keep emissions to a minimum were also lost when, for example, following breakages, last minute shipping had to take place, necessitating air freight.

Best practice protocols were, however, put in place and followed wherever possible including:

- Working closely with logistics partners and suppliers to consolidate shipments, identify the potential for use of more sustainable shipping lines, and ensuring return of materials or packaging where possible
- Our procurement and logistics teams planning forward, allowing time for shipping rather than air freight wherever possible

OPPORTUNITIES FOR IMPROVEMENT

Logisitics is one of the main sources (+/- 25%) of impact during The Ocean Race. It is crucial that global events and teams collaborate to reduce cost, and impact. Approaches to include:

- An assessment of what actually needs to be shipped, versus what can be sourced onsite
- Use of better transport options (rail rather than road, shipping rather than air) through forward planning
- Sourcing of low carbon shipping, which is starting to become more easily available as the sector evolves

* Events that have less stopovers, or have the same start and arrival destination significantly limit shipping footprints
* Prior planning prevents big footprints

EMBEDDED WATER FOOTPRINT

In assessing our total water footprint, we applied several methods:

Indirect consumption associated with the products and services purchased by the campaign. Where water footprint specific data was not available, the calculations were generated from the MarineShift360 LCA tool or Carnegie Mellon models

Direct consumption by personnel estimated based on per capita averages of direct water use (tap, shower, kitchen etc)

Direct consumption by operations measured by monitoring water flow at the boat build facility, team dock, and shore operations

In 2021 we partnered with The Netherlands-based Water Footprint Implementation, which provided specialist support to track water usage, reduce consumption, and finally compensate for the unavoidable remaining footprint from our campaign, which we did through support for **Environmental Monitoring Group** (EMG) in Cape Town.

water footprint implementation

Calculating our water footprint total allowed us to understand that on average 94% of our usage stemmed from indirect (or embedded) water in products and services purchased. This highlighted the importance of considering these impacts as an integral part of the sustainable sourcing process and allowed us to make more sustainable decisions when sourcing inventory.

"Partnering with Water Footprint Implementation is step one of many as we seek to minimize our water footprint…Their expertise will enable us to understand the importance of tracking and quantifying our embedded water footprint, allowing us to build an effective strategy to mitigate our water use and optimize opportunities for making considered choices when purchasing our goods and supplies."
Damian Foxall, Sustainability Program Manager

OUR SUSTAINABLE SOURCING CODE – CONTRACT STIPULATIONS

Our environmental standards:
Suppliers and partners shall conduct all operations in full compliance with all applicable environmental laws and regulations as well as develop, implement, and maintain business practices that minimize the impact of their operations, products and services on the environment. Suppliers and partners shall support a precautionary approach to environmental challenges.

Natural Resources – Water:
The Supplier ensures pristine standards of water treatment and sustainable water use of all water sources throughout its value chain.

River clean up, Environmental Monitoring Group, Cape Town

WASTE FOOTPRINT

We set out with an ambitious target of reducing waste to landfill by 90%. This was a challenge as we were often spread across multiple temporary bases and involved in short-term project phases.

We worked to address these issues through the following initiatives.

Collaborating on a pilot carbon fiber recycling collection program, resulting in 3.5 tons of material diverted from landfill, and facilitated a recycled carbon fiber infrastructure pilot with rival team Guyot

Working with suppliers on packaging return schemes

First and foremost, waste needs to be reframed as a resource to be recovered

Applying sustainable sourcing to the supply chain. Priority suppliers were expected to have high standards of reuse and recycling, promote circular economy solutions, keep packaging to a minimum, prioritize sustainable materials, mark recycling options clearly, and promote end of life recovery solutions

Working with the boat yard on waste audits to address potential reductions

Implementing a waste management plan and training for team members

Creating an Onboard Sustainability Plan to reduce onboard waste

Working with local organizations to source solutions for organic waste

Participating in Givebox, a circular economy initiative created at the Port of Lorient La Base, allowing offshore racing teams to donate equipment no longer needed and make it available to other racers. We contributed approximately one ton of high-quality equipment for reuse, in addition to facilitating pop-up Giveboxes in satellite locations

"As with everything related to waste this is about choosing the right materials and packaging at the time of design, and end of life solutions need to be defined at the point of conception."
Amy Munro, Sustainability Officer

BOAT BUILD

A key part of our mission was to find innovations and manufacturing efficiencies that would reduce the footprint of an IMOCA boat build. In doing so we would be able to test that could then be shared within the performance sailing industry, to help inform sustainability rules and standards and reduce the footprint of future builds.

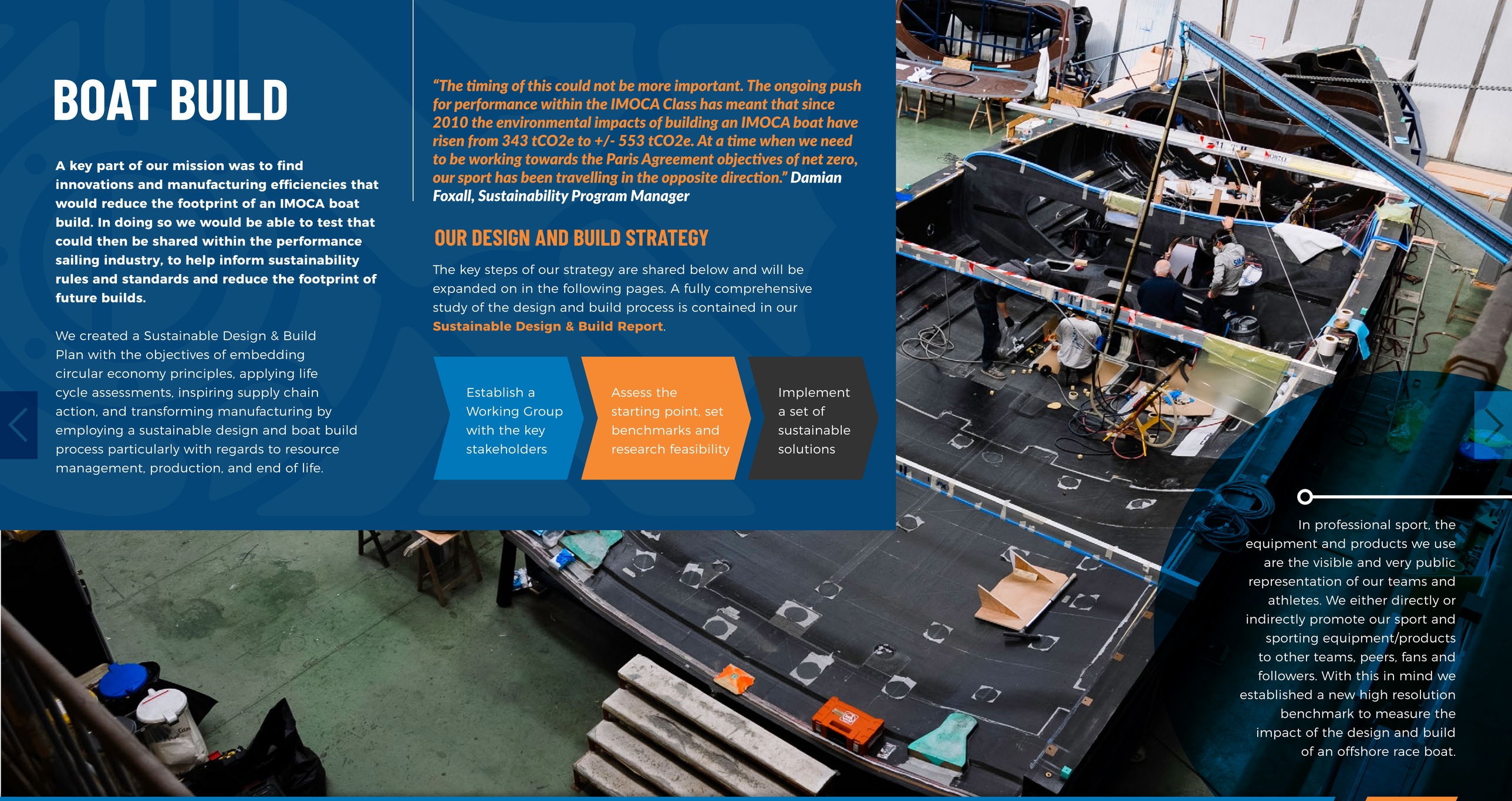
We created a Sustainable Design & Build Plan with the objectives of embedding circular economy principles, applying life cycle assessments, inspiring supply chain action, and transforming manufacturing by employing a sustainable design and boat build process particularly with regards to resource management, production, and end of life.

"The timing of this could not be more important. The ongoing push for performance within the IMOCA Class has meant that since 2010 the environmental impacts of building an IMOCA boat have risen from 343 tCO2e to +/- 553 tCO2e. At a time when we need to be working towards the Paris Agreement objectives of net zero, our sport has been travelling in the opposite direction." Damian Foxall, Sustainability Program Manager

OUR DESIGN AND BUILD STRATEGY

The key steps of our strategy are shared below and will be expanded on in the following pages. A fully comprehensive study of the design and build process is contained in our **Sustainable Design & Build Report**.

- Establish a Working Group with the key stakeholders
- Assess the starting point, set benchmarks and research feasibility
- Implement a set of sustainable solutions



In professional sport, the equipment and products we use are the visible and very public representation of our teams and athletes. We either directly or indirectly promote our sport and sporting equipment/products to other teams, peers, fans and followers. With this in mind we established a new high resolution benchmark to measure the impact of the design and build of an offshore race boat.

STEP 1 ESTABLISH WORKING GROUP WITH KEY STAKEHOLDERS

To achieve the sustainability objectives of the build it was essential to engage key stakeholders at the outset to understand their areas of interest, assess their key sustainability issues, identify areas of opportunity, and crucially to work together on the uptake of circular economy principles.

OUR SUSTAINABLE DESIGN AND BUILD WORKING GROUP WAS CREATED IN 2019

Collaborator	Role	Risks and Opportunities
CDK Technologies	Builder	Key issues: material, waste, energy, supply chain Areas of opportunity: tooling, bio-resins, core, fiber
Guillaume Verdier Design Studio	Boat designers	Key issues: server time, last minute design changes Areas of opportunity: in-house design
MerConcept	Performance partners	Key issues: server time, last minute design changes Areas of opportunity: in-house design
Kairos	Consultant services	Key issues: material, waste, energy, supply chain Areas of opportunity: tooling, bio-resins, core, fiber

BENEFITS OF ESTABLISHING A WORKING GROUP

- A group aligned on finding sustainable solutions, with collaborative contributions of knowledge and ideas
- Group accountability through regular meetings and updates
- Joint research, evaluation and implementation of life cycle assessments, environmental audits, biomimicry, and alternative materials
- Sharing of R&D with future teams to reduce the price point of components made from alternative, more sustainable materials
- Opportunity to share our challenges and successes with Composites UK, Sport and Sustainability International, The Ocean Race, and IMOCA

RECOMMENDATIONS

- Establishing a working group at the earliest stage ensures that the existing resources and time frame is used to best effect
- Placing sustainability clearly on the agenda up front ensures that stakeholders assign the relevant importance and resources, and prioritize them accordingly
- Establishing your team base in a hub of performance sailing, such as Brittany, reduces supply chain mileage, allows access to local specialist skills, and optimizes timelines[6]

[6] A total of 7 tC02e can be saved by using closer supply chain solutions and builders from the same country of construction site. See p91-92 of **Sustainable Design & Build Report**

STEP 2 ASSESS THE STARTING POINT, SET BENCHMARKS, AND RESEARCH FEASIBILITY

To help us establish where we could implement sustainable solutions during the build we undertook the following investigations and actions.

Life Cycle Assessment 1 - We identified **life cycle assessment (LCA)** as a key measurement and diagnostic tool. In 2019-2020 we completed LCA 1 for an IMOCA project completed in 2018 to understand the footprint of a boat from construction to end of life. We used this as a benchmark to work from, identifying impact hotspots to target[7].

Sustainability Audit - We undertook a sustainability audit of CDK Technologies' boatbuilding facilities to understand the infrastructure, the material and utility flows in and out, make recommendations to inform our future build, and create templates to efficiently track the information generated for the purposes of LCA. The audit resulted in a list of 40 recommendations for the boatyard and build process.

Alternative Materials Report - We commissioned a report by **Kairos** on sustainable alternative materials and build processes that could be used for performance yacht builds. The report was designed to provide us - and the marine industry more widely - with the tools and data to introduce low impact materials and processes, and also to help better understand the potential and limitations of 'eco design'. **The report** compared the environmental and structural properties of a number of biobased composite materials which could potentially be used in the build process[8].

Stakeholder Discovery Process - We drew together a component inventory for the build and defined quantities and suppliers. We then engaged in a stakeholder discovery process with higher impact suppliers, ensuring broad discussion around the issues, impacts, and opportunities associated with key products, as well as an agreement to share critical data for the life cycle assessment process.

OPPORTUNITIES FOR IMPROVEMENT

Changing the status quo of established boat building methodology and process requires that alternative materials and processes are rigorously researched and tested.

Establish research and testing program at the earliest stage to ensure it is relevant to the timeline of the build process.

[7] The datasets and LCA method used are those within the MarineShift360 model, a bespoke marine industry tool that provides a cradle to grave assessment of the materials and processes involved in yacht construction. We were key pilot development partners of the tool, supporting its development through beta testing to launch with valuable feedback, bug identification and stress testing.
[8] The Marine Alliance now compiles a comprehensive **database** of Alternative materials and comparative characteristics.

STEP 3 IMPLEMENT SET OF SUSTAINABLE SOLUTIONS

With the information gathered through our research, we were able to implement the following sustainability initiatives across our supply chain, waste management processes, and build materials.

SUPPLY CHAIN

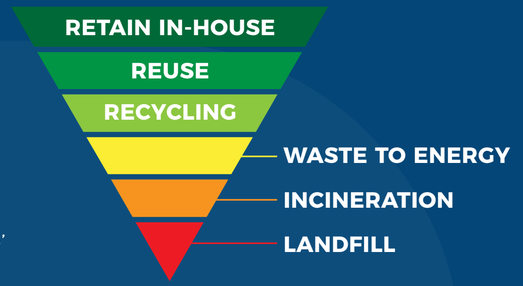
Given the impact of supply chain emissions we applied significant effort to applying the Sustainable Sourcing Code. The team engaged with 50 high priority suppliers (defined by spend), 100% of which were willing to collaborate on the sustainability agenda and many of which worked with us to co-create and deliver goals and initiatives.

CDK Technologies implemented a range of sustainability initiatives including:

- Insulation of the manufacturing building roof at Port La Forêt
- Energy sourced on a 100% renewable tariff
- Manufacturing efficiencies including 30% reuse of steel materials in the plug component resulting in an energy reduction of ~30,000 MJ
- New partnership with local window manufacturers who took dry cloth carbon offcuts for processing into new products
- Switched to LED lighting throughout the site, which lasts five times as long as fluorescent equivalent, with energy savings of 20-30%
- New route for recycling prepreg backing through a local waste contractor who collected and processed it for remanufacturing, saving 528 kg CO2e per year
- Adapted existing material management and tracking system to incorporate data collection requirements of the LCA inventory

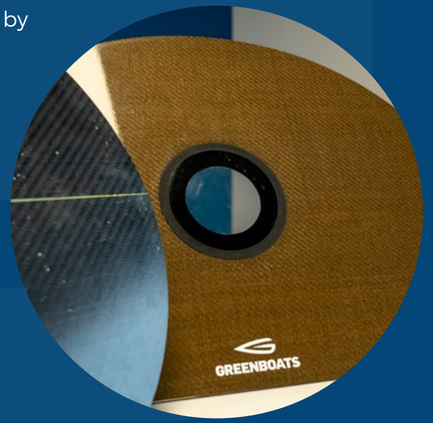
WASTE MANAGEMENT

We set a goal of 90% diversion from landfill across the project. Our aim was to establish a circular economy approach, treating 'waste' as a resource.



Key actions included:

- Used the environmental audit of CDK Technologies to understand and optimize the waste and resource management system
- Engaged with suppliers on design, packaging, and end of life solutions, eg. working with carbon fiber supplier Gurit to return packaging for reuse, saving both budget and 1 tCO2e annually
- Supported the **Givebox** initiative, consolidating a large inventory of products to be passed on to new owners
- Hull and deck molds reused immediately by another IMOCA team
- 3.3 tons of EPS foam from male plugs mechanically recycled
- Worked with **Gen 2 Carbon**, the IMOCA Class, and a number of teams and suppliers in the Brittany region, on a pilot carbon fiber recycling collection program. The result was 3.5 tons of material diverted from landfill
- Facilitated a recycled carbon fiber infrastructure pilot with IMOCA, and IMOCA team sponsor Guyot



STEP 3 IMPLEMENT SET OF SUSTAINABLE SOLUTIONS

MATERIALS

Carbon fiber is the ubiquitous material in the marine industry, however the environmental impacts associated with its production can be more than 100 times that of natural fibers. Addressing how we use carbon fiber was therefore key to our short and long term strategy.

Taking the Kairos report's recommendations we undertook an alternative material and process testing program to find non-structural areas that could receive alternatives, such as recycled carbon, flax, and bio-inspired solutions.[11]

"We're constantly asking the question: 'How can we use different composites to build parts, and what are the applications of those? - are they safe? - will they last?' I pick components on the boat that are strong candidates for a sustainable alternative. From there we explore whether it is a possibility. Sometimes my ideas don't work, but often we are able to prove that more sustainable alternatives really can compete with the more common construction methods... It has been a highlight of my career to get involved in something new, rather than doing the same old same old."
Wade Morgan, Boat Build Manager

As a result of this process we were able to replace over 100kg of carbon fiber with more sustainable materials and nature-based solutions. Innovations included:

PURCHASED 50 LINEAR METERS OF RECYCLED, NON-WOVEN CARBON FIBER MAT, FOR USE WITHIN OTHER COMPONENTS

REMANUFACTURED BROKEN CARBON COMPONENTS TO PRODUCE RECYCLED CARBON TAPE

THREE HATCH DOORS MADE OF FLAX, BIO-BASED RESIN, AND 100% RECYCLED PET CORE

CORE OF MAJORITY OF MARLOW ROPES ONBOARD MADE FROM 100% BIO-BASED DYNEEMA®

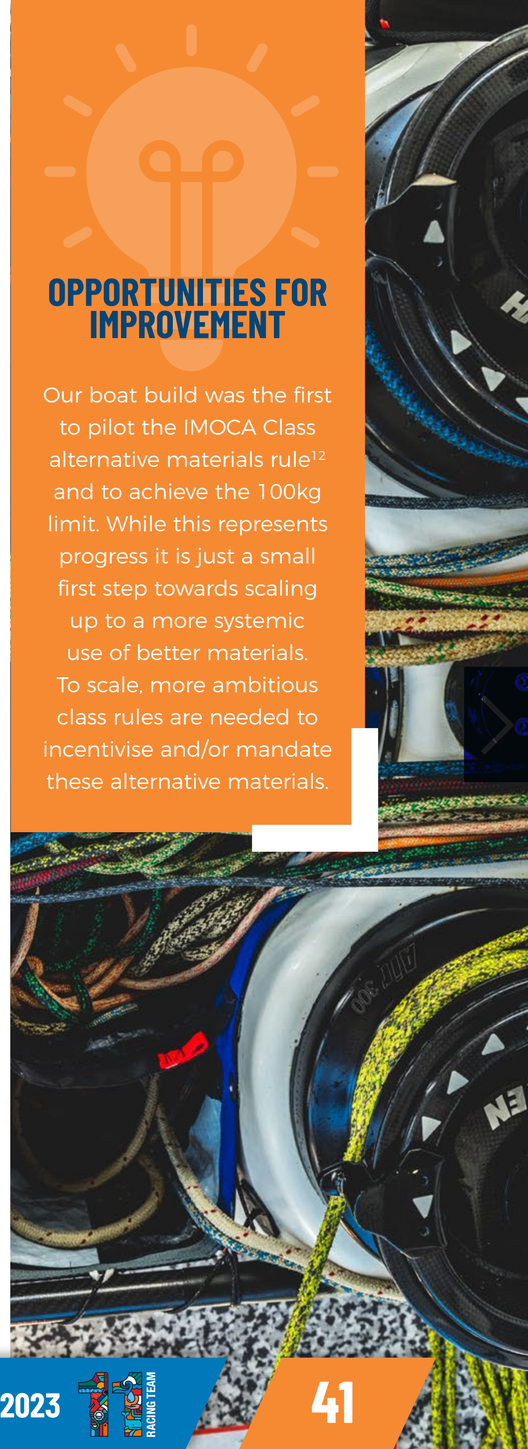
PADEYES MADE FROM FLAX, BIO-BASED RESIN, AND MARLOW'S BIO-BASED DYNEEMA® (BY-PRODUCT OF THE TIMBER AND PULP INDUSTRY)

ENGINE BOX, BATTERY BOX, AND FOREDECK FAIRINGS, BUILT WITH FLAX, BIO- RESIN, RECYCLED PET AND POWERRIBS™ (A LEAF VEIN INSPIRED BIO-BASED MATERIAL TO INCREASE STRENGTH AND STIFFNESS)

CRADLE SPLASH MADE FROM RECYCLED CARBON, BIO-BASED RESIN, RECYCLED PET CORE, AND POWERRIBS™

OPPORTUNITIES FOR IMPROVEMENT

Our boat build was the first to pilot the IMOCA Class alternative materials rule[12] and to achieve the 100kg limit. While this represents progress it is just a small first step towards scaling up to a more systemic use of better materials. To scale, more ambitious class rules are needed to incentivise and/or mandate these alternative materials.



[11] See p56-69 of Sustainable Design & Build Report for more information.

[12] See p4 of IMOCA Purpose Report 2022.

PLANET POSITIVE

PLANET POSITIVE

In order to support our planet positive approach[13], which included drawing down at least 20% more carbon than emitted across all areas of operation, it was essential that we delivered on the legacy aspect of our campaign.

We worked to achieve this through a combination of qualitative and quantitative approaches that encompassed the following areas of focus.

Development and training - providing the next generation of marine professionals with the opportunity to learn in an environment where performance and sustainability go hand in hand, and providing practical support and guidance through The Toolbox to other organisations seeking to implement their own sustainability strategies

Advocacy - collaborating with other organisations within the marine industry, to share learnings and work together to achieve new sustainability standards

Insetting[14] - providing funding to, and collaborating with suppliers to develop sustainable innovations that have the potential to reduce the footprint of future campaigns

Compensation[15] - addressing the campaign's unavoidable footprints of water, waste, and GHG emissions by contributing to blue carbon and other mitigation projects

Grant making - supporting and promoting local grassroots projects, organizations, and innovations, that highlight and deliver sustainable solutions to ocean health issues

These areas of focus will be explored in more depth in the following pages.

[13] This describes our team's strategy with regards to all of our sustainability objectives, considering how our team can leave our sector of operations and influence better for our presence – a restorative and regenerative approach. While Planet positive describes this broader set of objectives, it includes a climate positive approach in relation to GHG emissions.
[14] A partnership/investment in an emission reducing activity within the value chain of an organization where mutual benefit is derived.
[15] Carbon compensation, also called carbon offsetting, is based on the principle of a global balance. An organization's residual emissions left over after taking measures to reduce their carbon footprint, can be compensated for by supporting climate sequestration or protection projects elsewhere.

DEVELOPMENT AND TRAINING

INTERNSHIP PROGRAM

In 2019 we initiated a sustainability internship program to help train the next generation of marine professionals. Over the course of 2019-21 our interns contributed to the audit of the CDK Technologies facility, compiled and calculated data for the MarineShift360 LCA tool, and provided recommendations to reduce the footprint of the design and build process. From 2022 onwards we created an internship program with our partner, Oakcliff, offering opportunities for aspiring sailors to support the crew during The Ocean Race itself.

"My primary mission is to achieve a Life Cycle Assessment (LCA) of 11.2... Looking for continuous efficiency while seeking solutions to limit the environmental footprint makes every day more challenging. I'm very fortunate and grateful to CDK Technologies and 11th Hour Racing Team for giving me the opportunity to associate my passion for sailing and my professional activity."
Etienne Le Pen, Sustainability Intern, 11th Hour Racing Team

THE TOOLBOX

One of the team's projects that has scaled to stand alone as a lasting legacy is The Toolbox, an open access suite of tools giving step-by-step guidance for developing a sustainability program within any organization.
By sharing the processes and templates we have created, The Toolbox empowers organizations to join the movement towards a sustainable future. The Toolbox is available in English, French, Spanish, and Portuguese, and is supported by a dedicated Toolbox Community Manager to provide user support and build the network.

NEXTGEN MENTORSHIP PROGRAM

From 2020 onwards we operated the international NextGen mentorship program, enrolling six young students and professionals. The program was designed to give young people with a passion for sustainability the benefit of a range of virtual learning opportunities, including our #OceanHour training program, individual coaching sessions, and networking opportunities to grow their career and personal projects. Over the campaign, the mentees, from the US, France, Argentina, Jamaica, and Chile also brought a critical youth voice to our team. They held us to account, and asked us the hard questions, to make sure we were always driving to be more ambitious with our actions.

"I'm very grateful that I got to experience the team effort and feel their passion...being in the NextGen program came at the right time for me. I had the chance to open my eyes and see beyond. I always knew that I wanted a mix between science and nature in my professional development and you showed me what is possible...Gracias gracias gracias!"
Jazmin Sopeña Clemençon, NextGen Mentee

ADVOCACY

A key ambition is to transform the sustainability standards within sailing and shift the paradigm that the industry operates within.

With this in mind we set out to communicate and collaborate with a range of organizations, working together to find new solutions and new steps along the path to being planet positive.

Supported the early stages of setting up **LA VAGUE** (The Wave), a collective bringing together sustainable development players in the world of ocean racing

Joined the **Composites UK** Sustainability Subgroup, addressing the challenge of recycling methods and tooling construction

Became a Board member of the **Sustainable Marine Alliance**, building on the legacy of The Ocean Race Innovation Workshop Series, creating a roadmap and actions for sustainable boat-building

Engaged as an active member of the **UNFCCC Working Group**

Became a Pilot Partner of the LCA assessment tool **MarineShift360**, contributing to the development of the tool for the benefit of the broader marine industry

Worked collaboratively with **The Ocean Race**:

- Reviewed interpretation of sustainability within the Race rules
- Worked with The Ocean Race Climate Action, Sustainable Event, and Sustainable Boat Building groups
- Provided content, data, and facilitation for The Ocean Race's series of sustainable boat-building innovation workshops
- Spoke at The Ocean Race Summit events
- Established The Ocean Race's Marine Mammal Advisory Group sharing marine mammal best practices and helping to develop a set of **recommendations**
- Integrated The Ocean Race Science Program into onboard operations

Worked successfully with our Class organizers, **IMOCA**, on a number of policy areas:

- Participated on the IMOCA Technical Committee and Sustainability and Climate Action Working Group
- Supported the development of diversity, equity and inclusion standards, and safeguarding action plans
- Submitted proposals to IMOCA for the creation of an internal price of carbon, carbon caps, and a climate action fund
- Supported the creation of a series of IMOCA **sustainable transition workshops** arranged around themes from our Sustainable Design and Build Report, sharing recommendations and learning from others. In 2021 the IMOCA Class made it compulsory to carry out an LCA for all new boat builds
- Showcased the new IMOCA rule, where 100kg of non-structural components made from natural or recycled materials can be removed during measurement
- Facilitated a partnership between IMOCA and MarineShift360 to develop the **Green Sail rule**

Sat on the World Sailing Sustainability Commission, supporting the sports global federation in their delivery of Agenda 2030:

- Led the Technical Working Group, supporting the Olympic classes' LCA and circularity projects
- Member of the Diversity, Equity and Inclusion Working Group
- Member of the Bio-diversity Working Group

ADVOCACY

Nowhere was advocacy more important than with our boat build, where our ambition was to find innovations and manufacturing efficiencies that had the potential to reduce the footprint of future builds. Having completed our design and build process, our next step was to share our findings with the wider sailing community, and to help inform, shape, and advance the environmental standards of our sport.

In 2021 we published our Sustainable Design and Build Report in both **English** and **French**. This provided in-depth insight into the boat's construction, material components, supply chain, and the full results of our cradle-to-gate LCA of Mālama.

The report was designed to be a transparent telling of our build journey, communicating successes and challenges, setting a new industry benchmark, making key recommendations for future builds and policy development, and providing a roadmap for aligning with international frameworks for positive climate action.

To help share the design and build story of the new IMOCA with a wider audience we created a three part video series. **Episode 3** explored some of the key areas of sustainable innovation.

To further develop the legacy of the report we undertook the following outreach:

- Presented the results at the IMOCA AGM
- Supported the creation of a series of IMOCA workshops arranged around themes from the Design and Build Report, sharing recommendations and learning from others
- Supported the calibration of the IMOCA LCA process and its partnership with MarineShift360
- Supported IMOCA LCA presentation and workshop at the Paris Boat Show
- Presented the data and learnings in The Ocean Race sustainable boat building innovation workshops
- Supported partners on their own transferable design and build processes
- Presented the report and findings to young boat builders from the Herreshoff Marine Museum in Newport, Rhode Island

"Thanks again for sharing the work done by your team, this is proving instrumental in being able to embark people on this journey!"
Katia Merle, Naval Engineer, Van Peteghem Lauriot Prévost Design

INSETTING

Although a relatively new concept within sustainable transformation, this is one of the most important areas to invest in for transformative change. Insetting[16] can be defined as collaboration and investment in new solutions within the wider value chain with the aim of bringing down emissions.

In this and the following page we will show how we pursued insetting through both investment and collaboration.

We developed a process to identify potential innovations which could reduce a supplier's operational footprint, and subsequently selected two projects to invest in.

Using our LCA and GHG emissions tracking we identified impact hotspots within our value chain, and considered where investment could be best made to address them

↓

We engaged with our value chain and issued an RFP, inviting proposals for supplier-led projects for footprint reduction within their processes

↓

We developed our own insetting framework[17] to assess the proposals, defining the boundaries and requirements of what we considered to be a robust insetting project

↓

We identified two suppliers to support with investment on specific insetting projects

"A successful implementation of insetting opportunities would mean that if we repeated the same campaign in the future, the footprint of our activities would be smaller from the outset. Insetting is really the missing link, which when set as a priority in climate strategy creates long term emission reductions across value chains ."

Damian Foxall, Sustainability Program Manager

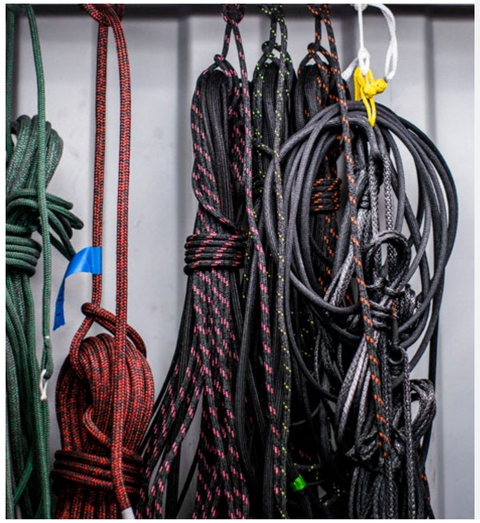
Holy – Holy develop recyclable carbon fiber solutions. Our investment funded the purchase of a 3D-printer, allowing Holy to print toolings and molds instead of machining them out of aluminium. Our investment will result in a reduction of more than 180 tCO2e equivalent over the next 10 years.

Lineat – Lineat breaks down used carbon fiber to produce recycled aligned carbon fiber tape. We invested in research into an inline Venturi mixing process to allow them to break down the used bulk fiber more efficiently, and help increase productivity and reduce energy consumption though increased throughput. The new mixing process saves 1-1.3 kg CO2e per kg of used carbon fiber processed. Once scaled the in-line Venturi mixing is projected to avoid 15 tCO2e emissions over a five year period.

[16] See p22-24 of our **Climate Action Plan**.
[17] See template in **Appendix**.

COLLABORATION

By collaborating with our suppliers we were able to reduce our own scope 3 emissions, as well as support the development of material and process innovations.



Marlow

We worked with **Marlow Ropes** to trial and test their development of innovative rope made from bio-based Dyneema®, which was used extensively on Mālama. Bio-based Dyneema® has identical technical characteristics and performance as conventional Dyneema® but uses waste from the pulp and timber industry as its primary raw-material. For every ton of bio-based Dyneema® used there is a reduction of five tCO2 compared with conventional Dyneema®. Marlow Rope's R&D division also worked with us to minimize waste by providing lengths that were exact to the boat's specification and needs.

"We're proud to be one of the first manufacturers to integrate recycled-based Dyneema® within our products and demonstrate the material's feasibility. Our products are trialled and tested by professional offshore sailing teams including 11th Hour Racing Team, a proud partner of ours at Marlow, with whom we share a progressive approach to seeking sustainable solutions."
Jon Mitchell, Managing Director, Marlow Ropes

GEN 2 CARBON

We partnered with leading carbon fiber recycling company **Gen 2 Carbon** and a number of teams and suppliers in the Brittany region of France to recover used boat components and manufacturing offcuts. The result was 3.5 tons of carbon fiber recovered, with future impact still to come as the ongoing scheme allows for recycled carbon to be incorporated into future boat builds.

MUSTO

We worked collaboratively with Musto to design and develop more sustainable clothing with a circular mindset to minimize the environmental footprint. The OSM Collection, launched in 2021 is made entirely from one single material, making recycling easier, and avoids any damaging production processes, or use of raw virgin materials.

ecoworks® marine

Official team supplier **Ecoworks** is a global leader in producing marine cleaning products which are made from naturally derived, replenishable resources. Products are 100% biodegradable, pH neutral, phosphate-free and are compliant with all official standards in the industry. We collaborated with Ecoworks on the set-up of new bulk refill stations to minimize the frequency of change for the recycled refill plastic bottles, and they became an early pilot tester of The Toolbox, working to further integrate sustainability across their operations.

COMPENSATION

Taking a regenerative approach we developed a compensation strategy in 2021 to address the campaign's unavoidable footprints of water, waste, and GHG emissions.

We set a base rate for an internal price of carbon of €25 per tCO2e, which allowed us to allocate a climate action account within the overall campaign budget. The account was used to build a compensation portfolio, which was then invested across a range of solutions using insetting (outlined in the previous pages), and nature based solutions - either Quantified or Verified carbon credits.

NATURE BASED SOLUTIONS

Nature-based solutions to carbon drawdown have multiple benefits beyond just the sequestration and storage of carbon. Blue carbon collectively describes the marine drawdown systems: mangrove, seagrass, seaweed, and wetlands.

QUANTIFIED

Early-stage funding for blue carbon projects. In 2020 Verra established the first verified standard for blue carbon, but still today the carbon market offers very few projects to invest in, and these are often purchased on a large scale outright by corporations and brokers. It was evident to our team that the real need is for early investment to provide seed funding to nascent projects. Our team defined an intermediate stage - Quantified - as being a project that aligns with all criteria of credible carbon offsets and has the ability and intention to become Verified.

VERIFIED

A credible approach for carbon credits.
The global carbon offset market is a complex system, with multiple standards and gatekeepers. For this reason, we recognized the importance of consistent and established international standards and included Verra Verified Carbon Standard (VCS) projects for inclusion in the compensation portfolio

A COLLABORATIVE APPROACH TO CLIMATE ACTION

The team collaborated with suppliers and partners to align our climate action strategies to collectively invest for greater positive impact at scale.

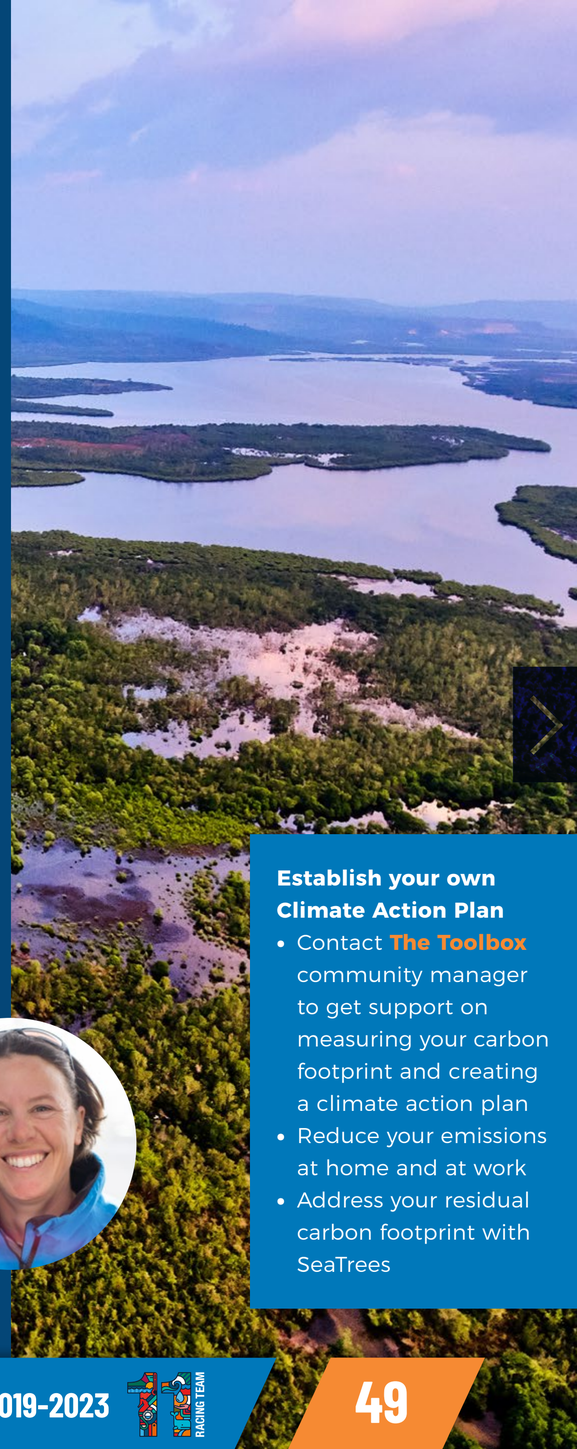
VIDA MANGLAR

In 2022, we purchased 1,500 Verra Verified Carbon Credits for the Vida Manglar mangrove forests in Colombia. For the 12,000 people who depend on the mangroves for food, firewood, and livelihoods, the sale of carbon offsets will provide a degree of financial security as well as the initial funding needed to develop a sustainable ecotourism program and improve fishing practices in the region. Local wildlife will be protected, and a healthier mangrove forest will provide more secure employment — not to mention food security, water purification, and better coastal protection against storm surges.

OFFICIAL SUPPLIER OF BLUE CARBON - SEATREES

In 2023 we purchased 1,360 carbon credits from our Official supplier of blue carbon SeaTrees, supporting Quantified projects in Kenya and Verified projects in Cambodia. SeaTrees is a global organization that directly supports communities and scientists who protect and regenerate blue carbon coastal ecosystems. This includes planting mangrove trees, restoring kelp forests, coral reefs, seagrass meadows, and conserving coastal watersheds. Each verified SeaTrees Token was matched with a quantified Token, which supported bringing nascent blue carbon projects to market that have the intention to become verified in the future. Our partnership with SeaTrees allowed us to implement a key element of our climate strategy, reaching out to our partners and suppliers, fans and followers, and encouraging them to take action with us.

"We are asking anyone who is following our team in The Ocean Race to help address their carbon footprint firstly by measuring their emissions and making reductions wherever possible. And then for the unavoidable footprint, they can purchase SeaTrees Tokens. It's a direct way to have a positive impact on the climate and leave a positive legacy not only for the planet, but also for local communities."
Francesca Clapcich, Sailor



Establish your own Climate Action Plan

- Contact **The Toolbox** community manager to get support on measuring your carbon footprint and creating a climate action plan
- Reduce your emissions at home and at work
- Address your residual carbon footprint with SeaTrees

[18] See p29-34 of our Climate Action Plan.
[19] Setting an internal price of carbon is also an effective tool for triggering behavior change and incentivising investment into lower carbon alternatives. See EcoAct fact sheet here.

GRANT MAKING

Facilitated by 11th Hour Racing, our Legacy Grantee Program was designed to showcase grassroots projects, organizations, and innovations which highlight local sustainable solutions to global issues, and promote social and environmental solutions as they relate to ocean health initiatives.

A total of over half a million euros was distributed to our grantees, all geographically located in areas where we either had a team base or at one of The Ocean Race stopovers. Our investment allowed us to support specific areas of their work, and with each grantee we also held an activation, either prior to the race start, or during a stopover, enabling us to spotlight the organization and raise awareness of their work to our international audiences.

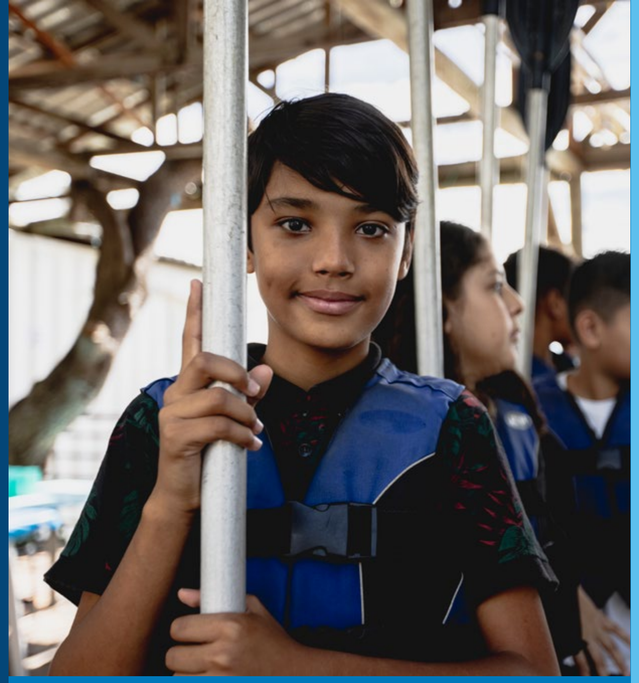
Station Marine de Concarneau (MSC), France
MSC is the world's oldest marine biology station still in operation. Established in 1859, the facility is dedicated to advancing marine research and connecting the public to the marine environment.
Project: This project expanded ongoing marine educational activities through the development of onsite educational programs, field visits to nearby beaches, and in-classroom participatory scientific projects. MSC expanded outreach activities and educational workshops with regional schools, including providing transportation to increase accessibility to students in rural areas. Hundreds of students engaged in a year-long 'Living Beaches' citizen science project exposing them to the diverse ecosystems along the French coast, experiencing first-hand human impacts on these ecosystems, and advancing their scientific curiosity. Find out more **here**.
Activation: Each year Station Marine de Concarneau runs a Young Reporters Program, with hundreds of students visiting the station and engaging in diverse projects, blending scientific research with practical sessions on the beach. Our Sailors Justine Mettraux and Charlie Enright, as well as Sustainability Program Manager Damian Foxall, joined the students and enjoyed a performance of song and dance dedicated to the journey of waves and marine life through the ocean. **Read** and **watch** more here.

EXPLORE, France
EXPLORE is a Concarneau-based incubator supporting exploration around scientific understanding, innovation, and raising awareness of current human and environmental issues.
Project: EXPLORE used the legacy grant to develop 12 new educational kits with its incubator winners, based on the technological and scientific discoveries of ocean-related explorations, and to train educators and NGOs on their use. The lesson plans are designed to teach students about marine biodiversity, plastic pollution, energy reduction, and the preservation of water resources. Find out more **here**.
Activation: Alongside the educational actions during the school year, EXPLORE created a 'Village of Explorers' mobile learning van to exhibit all 12 toolkits at public and family events, providing a unique opportunity for young people to meet the explorers who are acting today for a sustainable tomorrow. The first of these took place alongside 11th Hour Racing Team's participation at the race village during the start of the Transat Jaques Vabre.

Biosfera, Cabo Verde
Biosfera's mission is to promote the conservation of coastal and marine species and their habitats and mobilize Cabo Verdean civil society to protect the environment.
Project: This grant focused on the restoration of the important nesting sites for the Loggerhead Sea Turtle in São Vicente. Initiatives included beach clean ups, primary and secondary school education programs, a local business campaign around single use items, and the development of reusable alternatives to single use plastic.
Activation: Members of Biosfera and 11th Hour Racing Team participated in the first aquatic clean up in Mindelo. Using snorkels and dive equipment, half a ton of trash was collected and assessed in order to identify and address the source. Read more **here**.

GRANT MAKING

Environmental Monitoring Group (EMG), South Africa
EMG's focus is on enhancing people's relationships with the environment and with each other, working to end inequality, establish participatory processes, and build social justice related to the use and management of natural resources.
Project: The grant funded the management of an Integrated Community Environment Project along the extremely polluted Kuils River, where environmental racism sees low-income communities living in environmentally harmful conditions.
Activation: 11th Hour Racing Team joined a mass river clean up organized by EMG during The Ocean Race stopover and visited a community garden initiative based at a school in the township. The objective was to help shine a light on the inequalities in Cape Town, galvanize local authorities, build stronger civil society networks, re-ignite community activism, and facilitate learning. Find out more through our **news article** and **video**.



Associação Náutica de Itajaí (ANI), Brazil
The sailing school in Itajaí works to engage the community with the nautical world through opportunities to try sailing, rowing, and canoeing, with the motto 'to know is to preserve'.
Project: ANI's greatest needs at the moment are to expand their presence in the local community. They are currently operating out of two shipping containers and our funds will go towards expanding their physical footprint, enabling more students from Itajaí to access their waterfront programs.
Activation: While in Itajaí we were pleased to host ANI students on our boat and to visit ANI, where Damian Foxall and Jack Bouttell spoke with young people and joined them for a rowing boat tour of Itajaí harbor. Read and watch **more** about our visit. We also joined ANI at their volunteer-run boat building workshop, Paiol.

Conanincut Island Sailing Foundation (CISF), USA
CISF is a non-profit based in Jamestown, RI whose mission is to inspire and engage people of all ages, backgrounds, and abilities with the marine environment through boating and education. Their vision is to connect the community to the water and our environment through the promotion of four key values: opportunity, education, stewardship, and positive youth development.
Project: The grant supported the Marine Trades WorkForce Development Field Trip Program, with the goal of building the marine trades workforce from within RI as well as providing more choice of work for a group of typically underserved high school and young adults from Providence. The Program is designed to give young adults an overview and brief exposure to a variety of trades through a series of field trips to marine businesses.
Activation: Students from the Program joined 11th Hour Racing Team during The Ocean Race Newport stopover and met with Team members to learn about how they apply their trades within a high performance sailing environment. Read more **here**.

Plant a Million Corals Foundation (PAMCF), USA
Plant a Million Corals Foundation is committed to restoring the Florida Reef Tract, the world's third-largest coral reef. Using a method called micro-fragmentation the Foundation is able to grow corals 25-40 times faster than on a natural reef, successfully reproducing thousands of fast-growing and resilient corals that help to recover lost reefs. **Watch** to find out more.
Project: The grant supported the development and testing of 20 new coral restoration tanks, designed to better facilitate the growth of coral through increased water flow, and use of lighter, more affordable materials. These innovations have helped to increase coral production and survival rates and reduce the cost of each tank by 50%, meaning the Foundation now hopes to get to 1 million corals in the next 1-2 years. Read more **here**.
Activation: Our team visited PAMCF in Florida, to better understand their work and to create **content** and media coverage, designed to raise awareness on the issue of the decline of corals reefs and why coral restoration matters.

GRANT MAKING

UNLEASH Greenland, Denmark
UNLEASH is a global initiative committed to bringing youth together to share ideas, build networks and create innovative and scalable solutions to help reach the Sustainable Development Goals. Every year, they unite young people from across the world for a Global Innovation Lab, organize dozens of local UNLEASH hacks and accelerate the implementation of top solutions through the incubator UNLEASH Plus.

Project: In 2022 UNLEASH hosted its first Regional Innovation Lab with focus on the Arctic, which brought together 200 Greenlandic, Nordic, and Arctic youth. Our grant and collaboration is providing ongoing support for this through post lab mentorship to finalist Teams, hosting innovation workshops in Greenland and sending three finalist teams to share their ideas at The Ocean Race stopover in Aarhus.
Activation: At the Aarhus stopover we brought together young people from across four projects - UNLEASH, **Rise**, Ripples for Change,RI, plus our own NextGen students, to take part and present in a calendar of events including The Ocean Race **Summit**, Youth Summit and **Business Summit**. The aim was to champion these young adults and their work, highlighting how they are the voice of the future.

Water Footprint Implementation (WFI), The Netherlands
WFI provides insights and solutions to organizations and government agencies who want to assess and reduce their water footprint.
Project: Our support of WFI is focused on their innovative development of the WFI Compensation Framework, allowing organizations to measure their water consumption and compensate for residual impact by matching them with local project owners working on water solutions. Using 11th Hour Racing Team as a pilot project we were able to bring WFI together with our South African Legacy Grantee EMG, to allow them to become a project owner, and for our water footprint to be offset through investment in their work.
Activation: The WFI Compensation Framework was launched at the start of The Ocean Race in Alicante. During the Cape Town stopover WFI attended the mass clean up organized by our Grantee EMG at Kuilis River, and contributed to community workshops and training. The pilot project was highlighted at the global launch of the framework at a UN Water conference side event in New York and at the local launch in The Hague during the stopover. Read more **here**.

Save the Med Foundation, Mallorca
Save The Med Foundation's mission is to protect and regenerate the Mediterranean Sea, which has greatly suffered from human impact, in particular overfishing and pollution. Their team conducts marine research and innovative educational projects to inspire local communities to take action to protect the environment that surrounds them.
Project: The grant supports the establishment and management of a new marine protected area (MPA) in the Tramuntana region of Mallorca, with a new methodology based on the recommendations of **Aichi Biodiversity Target 11**. The methodology will further be developed as a framework for the establishment of future MPAs in the region and beyond. Read more **here**.
Activation: A small group of team members visited Mallorca to learn more about the MPA. While there, we attended their Changemakers event for young environmental activists around the Balearic Islands, and took part in a dive trip to see the marine ecosystem first hand. Watch our video **here** to learn about the visit.

Fondazione Acquario di Genova Onlus, Italy
Genoa Aquarium Foundation's mission is to raise awareness and educate the public on conservation, management, and responsible use of aquatic environments. It does so by organizing educational programs, exhibitions, conferences, environmental awareness campaigns, and applied scientific research projects, and through collaborations with public and private bodies.
Project: Our grant will be used to promote Mediterranean Monk Seal conservation in the Pelagos Sanctuary and the wider Mediterranean Sea and will also be invested in a pilot project to trial the use of bio-activators to improve the water quality in Genoa's polluted Ancient Harbour.
Activation: While in Genoa, members of the team met with Elena Valsecchi, PhD from the Marine eDNA Group, MaRHE Center at the University of Milano-Bicocca. Prior to this, Elena connected us with Giacomo Tavecchia from IMEDEA in Mallorca and we visited some of the historic sites of the Monk Seal in the Mediterranean. In meeting Giacomo, he explained the process for identifying locations of endangered monk seals through an innovative and non invasive eDNA process, and how we as a sailing team could contribute to this work in a citizen science capacity.


#OCEANHOUR
11TH HOUR RACING
GENOVA
VOLVO
ULYSSE NARDIN
MUSTO

THE RACE

OUR ONBOARD SQUAD

After three years of hard work and preparation and with Mālama launched and optimized, the team was finally ready for the main event, to embark on The Ocean Race itself.

This was a key moment for our overall mission: to win The Ocean Race with sustainability at the heart of the campaign would be a victory not only in terms of performance, but also for our ability to show the marine community that sport and sustainability can go hand in hand.

Our three key areas of focus for the race were:

Performance - showcase the skill of our sailors and the quality of our boat build and shore team through exceptional results on and off the water

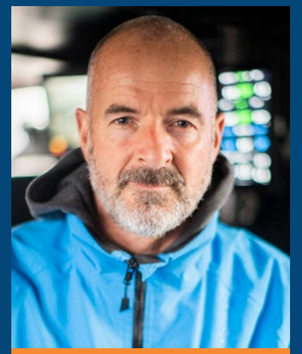
Citizen science - support scientific initiatives bringing together the marine community for the protection of our ocean

Communications - use the drama of the race and beauty of the ocean as a platform to engage new audiences and shine a light on solutions that address ocean health and sustainability


CHARLIE ENRIGHT


FRANCESCA CLAPCICH


AMORY ROSS

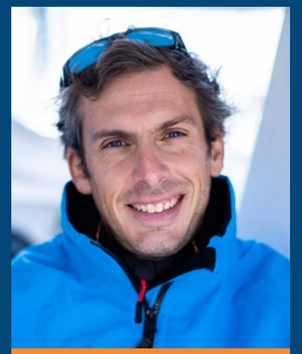

DAMIAN FOXALL


FRANCK CAMMAS


SIMON FISHER


JACK BOUTTELL


JUSTINE METTRAUX


CHARLIE DALIN


PIERRE BOURAS

LEG BY LEG REVIEW

Leg 1 - Alicante, Spain to Mindelo, Cabo Verde
A 'baptism of fire' is how skipper Charlie Enright summed up Leg 1 of the Ocean Race, a 2,401 nautical mile leg from Alicante, Spain, to the Cabo Verde island of São Vicente. There was no opportunity to ease our way into this race. Even before the fleet had left the Mediterranean we were struggling to make way against winds in excess of 50 knots, forced to make running repairs to the boat as we battled through the worst of the stormy conditions. Once out into the Atlantic Ocean, Leg 1 turned into more of a drag race towards the Cabo Verde Islands. We finished in second place behind Team Holcim-PRB, just 2 hours, 48 minutes, and 46 seconds ahead.

Result: 2nd
Duration: 5d 13h 50m 45s
Distance sailed: 2,401 nautical miles
Crew: Enright, Fisher, Clapcich, Bouttell, Ross
Top speed: 38.1kn
Max wind: 52.9kn
Longest distance sailed in 24h: 538.6 Nm
In-Port Race result: 2nd

Leg 2 - Mindelo, Cabo Verde, to Cape Town, South Africa
The 6,500 nautical miles from Mindelo, Cabo Verde to Cape Town, South Africa, took the best part of 18 days, yet the finishing order remained uncertain until the final hour before the finish. After working our way through the fickle Doldrums and crossing into the southern hemisphere, the fleet battled each other across the broad expanse of the South Atlantic. However on the final approach to Cape Town the fleet compressed and the final 24 hours saw six lead changes. Effectively it was a restart of Leg 2. In the end Team Holcim-PRB took the win, followed closely by Biotherm. We completed the podium, finishing an agonizing 25 minutes off the winning time.

Result: 3rd
Duration: 17 days, 20 hours, 35 minutes, and 40 seconds.
Distance sailed: 6,514.01 nautical miles
Crew: Enright, Fisher, Clapcich, Bouttell, Ross
Top speed: 35.2kn
Max wind speed: 36.9kn
Longest distance sailed in 24h: 574.4 Nm
In-Port Race result: 2nd

LEG BY LEG REVIEW

Leg 3 - Cape Town, South Africa, to Itajaí, Brazil

'Grueling' was Charlie Enright's word for Leg 3 from Cape Town, South Africa through the Southern Ocean to Itajaí, Brazil. Enright had predicted even before the departure that the month-long passage would be a war of attrition. He was proven right in more ways than he would have liked or could have predicted. Broken battens in the mainsail, two damaged rudders, damaged foil downlines, as well as a huge rip in the mainsail, time and time again we had to dig deep for creative solutions to complete the long list of repairs while racing. After 37 days, 20 hours, 10 minutes, and 23 seconds, we completed the 14,840 nautical mile race through the Southern Ocean, the longest ever leg in the 50-year-history of the race. While a third place on this double-points leg might have been disappointing, we had to remind ourselves that there were many times when it looked like we would never finish the leg at all. Surviving the 'war of attrition' was a victory in itself.

Result: 3rd
Duration: 37 days, 20 hours, 10 minutes, and 23 seconds
Distance sailed: 14,840 nautical miles
Crew: Enright, Fisher, Mettraux, Bouttell, Ross
Top speed: 36.3kn
Max wind: 52.5kn
Longest distance sailed in 24h: 594.7 Nm
In-Port Race result: 1st

Leg 4 - Itajaí, Brazil to Newport, Rhode Island

Lying in third place overall after the first three legs, the Team pressed the 'mental reset' button. We used the stopover in Itajaí to regroup and steel ourselves for Leg 4, a 5,500 nautical mile race towards our hometown of Newport, Rhode Island. If ever there was a leg that we wanted to win, this was it. Over the 17 days of racing the crew faced multiple weather system transitions as they sailed through the southern hemisphere tradewinds, past a surprisingly benign Doldrums, and onwards into the North Atlantic tradewinds. The final 600 miles of the leg delivered some of the strongest winds of the race, with 12 hours of 40 knots plus, gusting over 50 knots. Much as we would have liked to take the foot off the gas to help keep Malãma in one piece, the threat of Team Malizia breathing down our necks forced us to keep on pushing hard all the way. Exhausted and elated, we were first to cross the finish line, beating second-placed Malizia home to the Ocean State by just 31 minutes and 41 seconds.

Result: 1st
Duration: 17 days, 2 hours 26 minutes, and 41 seconds
Distance sailed: 5,882 nautical miles
Crew: Enright, Fisher, Clapcich, Foxall, Ross
Top speed: 33.4kn
Max wind: 45.8kn
Longest distance sailed in 24h: 560.6 Nm
In-Port Race result: 2nd

LEG BY LEG REVIEW

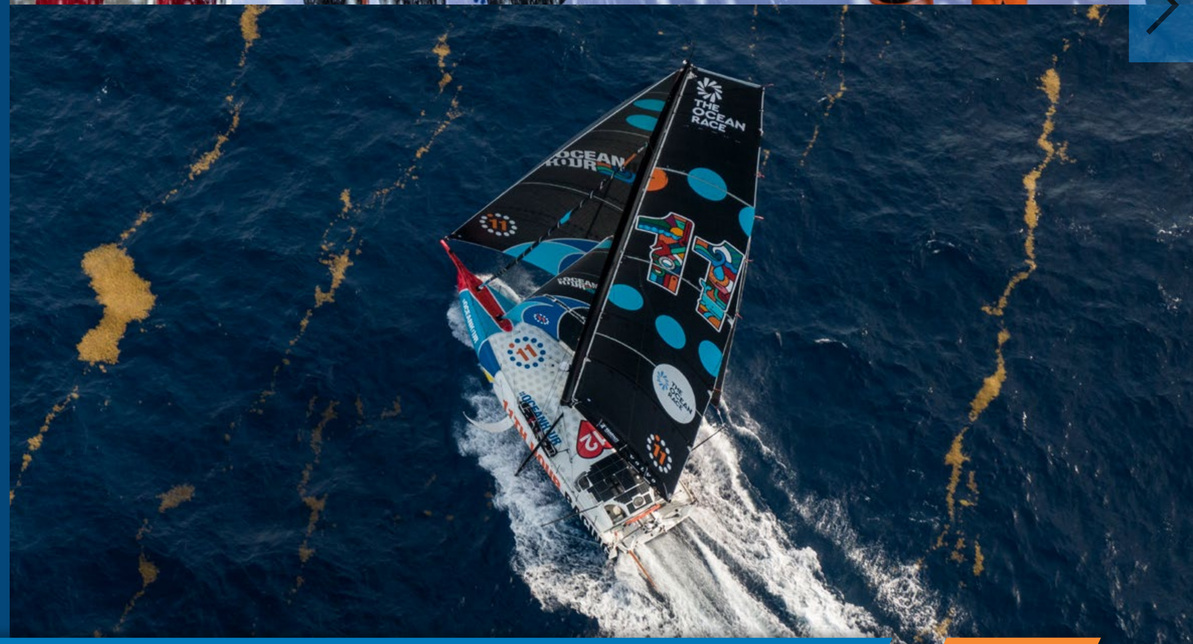
Leg 5 - Newport, Rhode Island to Aarhus, Denmark
The 3,874 nautical mile leg from our hometown Newport, RI, U.S. to Aarhus, Denmark was far quicker than any of the predictions. We led the charge across the Atlantic for the majority of the leg, with the front three boats posting record-breaking 24-hour distances. Traveling at such high speeds brings its own risks, as we found to our cost on May 25 when we activated our Hazard Button to alert Race Control and the wider fleet we had **hit something**, suspected to be a marine mammal or megafauna. As the boat lurched to a sudden stop, Amory Ross (USA), our media crew member, and Charlie Dalin (FRA), the double IMOCA World Champion who joined the crew for this transatlantic leg, were both injured. The crew had to dig deep into their emotional and physical tanks to keep Malãma ahead of the chasing pack. We were first to arrive in Aarhus after a rollercoaster 7 days 8 hours 41 minutes, and 49 seconds across the Atlantic.

Result: 1st
Duration: 7 days 8 hours 41 minutes, and 49 seconds
Distance sailed: 3,874 nautical miles
Crew: Enright, Fisher, Mettraux, Dalin, Ross
Top speed: 38.9kn
Max wind: 42.6k
Longest distance sailed in 24h: 620.0 Nm
In-Port Race result: 3rd

Leg 6 - Aarhus, Denmark to The Hague, Netherlands
The intensity ramped up even more with the 915nm coastal sprint from Aarhus, Denmark, to The Hague, The Netherlands. “This leg really found a way to turn the stress up to the max,” said Navigator Simon Fisher (GBR). Skipper Charlie Enright said the stress was there right to the moment where they managed to cross the line in first place, 11th Hour Racing Team’s third leg win in a row.

“It has been a crazy leg - we were in a tacking duel with Holcim thirty miles offshore! It wasn’t going to be over until it was over. Everyone is exhausted. We each got maybe three to five hours of sleep over the course of the whole leg.” Franck Cammas, France’s Sailor of the Decade, joined the crew for this leg, which also included a fly-by past the German city of Kiel where thousands of spectators came out to cheer the IMOCA fleet on its way to The Hague.

Result: 1st
Duration: 7 days 8 hours 41 minutes, and 49 seconds
Distance sailed: 3,874 nautical miles
Crew: Enright, Fisher, Cammas, Clapcich, Ross
Top speed: 38.9kn
Max wind: 42.6k
Longest distance sailed in 24h: 620.0 Nm
In-Port Race result: 3rd



LEG BY LEG REVIEW

Leg 7 - The Hague, Netherlands to Genoa, Italy
With a two-point advantage at the top of the leaderboard ahead of Team Holcim-PRB, 11th Hour Racing Team were geared up for one last push on the final leg with 2,500 nautical miles to race from The Hague, The Netherlands to Genoa, Italy.

Just 17 minutes after the start, however, and everything changed in an instant.

Coming to the end of the two-lap inshore departure section of the race, Mālama was hit by competitor GUYOT environnement - Team Europe. The collision from GUYOT's bow punched a large hole in the aft section of the boat. Thankfully there were no injuries, although extensive damage to both boats saw them return to port in The Hague and both forced to retire from the leg.

11th Hour Racing Team's shore crew worked day and night over the next 72 hours in a race to get Mālama seaworthy again. After more than 600 combined hours of work and non-destructive testing analysis of the repair by an independent surveyor, the team was given the all-clear not only to deliver the boat to Genoa, but to take part in the final In-Port Race on Saturday, July 1.

Meanwhile, 11th Hour Racing Team requested redress from the World Sailing International Jury at a hearing in Genoa after the finish of the race. After a morning of deliberations, the Jury awarded the team average points for the leg - putting 4 points on the overall leaderboard - securing the very first win for an American team in the 50-year history of the race.

Result: Retired
Delivery duration: N/A
Distance sailed: 3,874 nautical miles
Crew: Enright, Fisher, Bouttell, Clapcich, Ross
Top speed: 38.9kn
Max wind: 42.6k
Longest distance sailed in 24h: 620.0 Nm
In-Port Race result: 1st
Retired: Redress awarded averaged points (4)

CITIZEN SCIENCE

During the race we embraced citizen science in support of a number of initiatives bringing together the marine community for the protection of our oceans.

The Ocean Race Science Program

The Ocean Race sailors race through some of the most remote waters on the planet - places seldom reached by scientific vessels - which means we are ideally placed to collect vital data about the health of the ocean. The 2022-23 edition of the race had the most ambitious **science program** to date, which we were able to contribute to by carrying the OceanPack Race, which takes water samples to measure levels of carbon dioxide, oxygen, salinity, temperature, and trace elements. The data collected is being analyzed by scientists from eight leading research organisations.[20] In addition, we deployed three buoys, two in the Atlantic which transmit data to the **Global Ocean Observing System**, an international network run by organizations including UNESCO's IOC, that aims to improve understanding of our ocean. The third was a NOAA buoy, deployed at 55 degrees south which will support their **Global Drifter Program**.[21]

Uniquely the team also compiled eDNA data from the South & North Atlantic on Leg 4, from Itajaí, Brazil to Newport, Rhode Island providing vital trace information of biodiversity in these ocean regions.

"Seafarers are the eyes and ears of the scientific community. By sharing your observations with the relevant organizations, we can build a better understanding of ocean life and use this knowledge to inform, adapt, and revise the way we interact with the ocean and all that exists in it."

Damian Foxall, Sustainability Program Manager

Charlie Enright and Simon Fisher unpack the NOAA drifter buoy onboard Malama

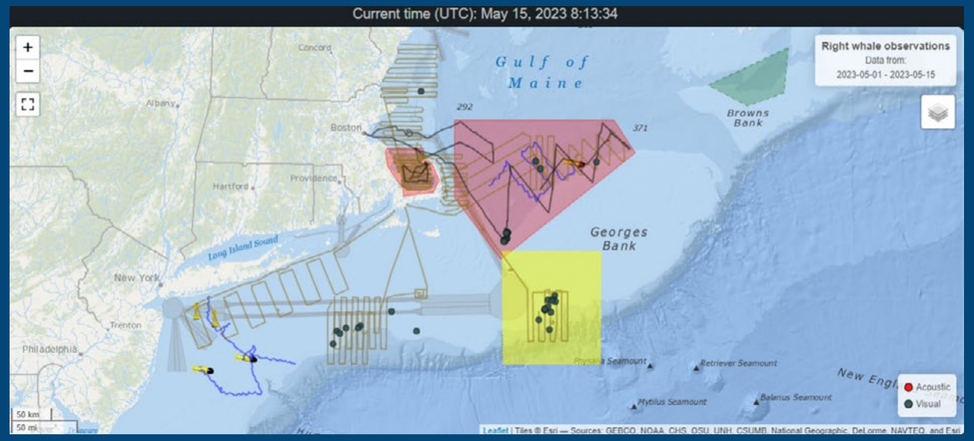
[20] Including World Meteorological Organisation, National Oceanography Centre, Max Planck Society, Centre National de la Recherche Scientifique and National Oceanic and Atmospheric Administration.
[21] Visit the OceanOPS website to view and track the position of our first, second and third buoys.

MARINE MAMMALS

Marine Mammal Mitigation
Collisions between sailing boats and marine megafauna - including whales, sharks, and large fish - can have fatal consequences for the animal and pose a serious danger to sailors and the boats. Our Sustainability Program Manager Damian Foxall as a founding member of The Ocean Race's Marine Mammal Advisory Group, developed a set of **recommendations**, for action taken by The Ocean Race as follows:

- Working with the International Whaling Commission and other stakeholders to build an up-to-date database of marine mammal strikes from the sailing sector. This includes compiling existing data, and reports of marine mammal strikes, as well as one-on-one interviews with sailors.
- A detailed risk assessment for each leg of the race was produced, using global marine mammal distribution data and modelling this with the fleet's route to make an assessment of any potential interaction. During the Skippers' Briefing, before each leg, a section was dedicated to making the sailors aware of the habitats they were sailing through or near and identifying any 'no-sail' exclusion zones.
- During the race, all teams were obliged to report any marine mammal sighting or incidents to Race Control using a hazard button,[22] which logs the position, immediately informing the rest of the fleet to keep a close watch.

Example of **live right whale** tracking information provided to Race Control and fleet during leg 5 of the race



Definite sightings
Acoustic glider survey track
Vessel visual survey track
Aerial visual survey track
Lastest glider position
Shipping lane
Protected area

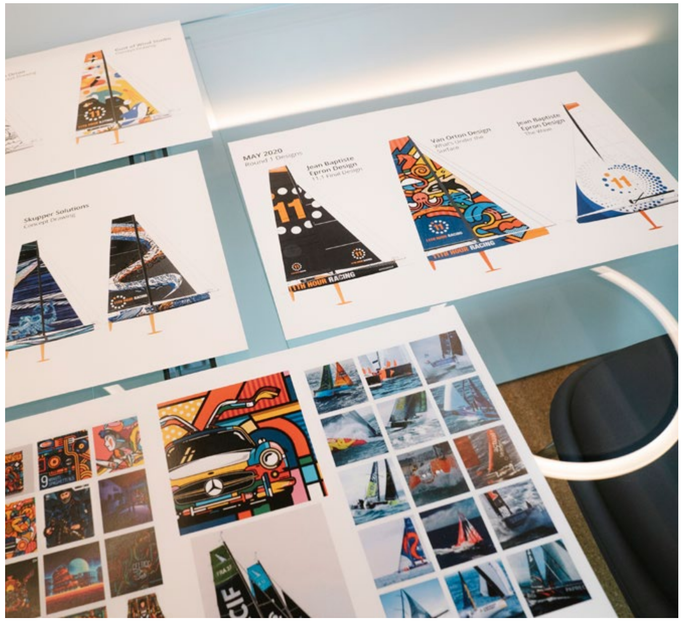
Contact damianfoxall@gmail.com for more information on how to report marine mammal strikes

- Download the Hazard button plugin for your navigation software - **Adrena** or **Expedition**
- Boat owner/Team, event organizer, or Class/Federation - **apply best practices**

[22] The importance of this was underlined when on Leg 5 the team **reported** a marine mammal strike mid-Atlantic.

COMMUNICATIONS

Our ambition was to use the platform of The Ocean Race to put the issue of ocean health and sustainable solutions centre stage. With this in mind we designed a comprehensive communications strategy covering the entirety of the Race.



Boat branding - we partnered with Van Orton Design and Jean-Baptiste Epron to turn Mālama into an **artistic canvas** for ocean health. Incorporating marine animals and natural elements such as bubbles and waves to create an engaging design, to trigger an emotional response and establish a real connection with the ocean.

The inspirational **Oceanview Effect** film created by Emmy Award nominee Richard Vevers. This conveyed our sailor's profound experience of escaping our terrestrial world and appreciating the power of the ocean, the fragility of our planet, and feeling utterly compelled to protect it.

We worked with our sponsor on the film **Shaped by Water**, produced by 11th Hour Racing and presented in collaboration with Protect Our Winters. From beneath the ocean's surface to the mountain summits, water weaves in and out of our lives and connects us all like a thin, blue thread of silk. To highlight this connection, the group brought together an internationally renowned freediver, a world champion freeskier, and our professional offshore sailing team.

"The Ocean Race, with its rich narrative around human adventure, brings new audiences into the fold, providing us with a unique opportunity to engage people through storytelling."
Amy Monkman, Senior Communications Manager

6.4M
SOCIAL ENGAGEMENTS

81.7M
SOCIAL MEDIA IMPRESSIONS

41M
VIDEO VIEWS

19,065
MEDIA ARTICLES PUBLISHED, WITH AN AGGREGATE READERSHIP OF
52 BILLION

RESULTS

INTRODUCTION

In 2019 we set off on our mission to compete in the world's longest and toughest team sporting event, The Ocean Race, with a campaign that would take the message of innovation around the world for solutions for ocean health.

Our stated mission was two-fold:

- To build a high-performance ocean racing team with sustainability at the core of all team operations

and

- To inspire positive action amongst the marine community and accelerate long-lasting change for ocean health change through sporting excellence in sailing, advocacy and sustainable innovation

Hand in hand with our sponsor 11th Hour Racing we brought together the very best from the four corners of the world to build a team and network of collaborators we are hugely proud of. Sustainability became a key point of reference for all decisions and steps along the way, and for the first time ever in the history of the The Ocean Race our campaign has drawn down 20% more GHG than we have emitted, highlighting our planet positive approach.

In winning this toughest of races, we have shown that performance and sustainability can co-exist, and we extend a huge thank you to all those who have helped us along this journey.

We will now share the results of our campaign; starting with a summary of our key actions and impact, followed by an account of our footprint, before sharing our key recommendations, and our reflections on what next for the future sustainability of our sport.

KEY ACTIONS AND IMPACT

A full summary of progress against our stated goals and objectives can be seen here.

INTERNAL AND EXTERNAL ENGAGEMENT

Inspired and equipped team members to support sustainability objectives internally:

- Developed and delivered a bespoke sustainability curriculum
- Created The HUB, an online library of sustainability resources
- Delivered 26 #OceanHour Sessions, allowing the team to learn directly from sustainability experts

Inspired and equipped team members to advocate externally for sustainable innovation and ocean health:

15 TEAM MEMBERS SPOKE AT 89 EVENTS WITH A TOTAL AUDIENCE OF

35,000

55% OF EVENTS WERE VIRTUAL

82% OF AUDIENCES WE SPOKE IN FRONT OF WERE VERY OR INCREDIBLY ENGAGED [26]

TEAM MEMBERS DELIVERED 15 SESSIONS FOR SCHOOL OR HIGHER EDUCATION STUDENTS

[26] Each of our speakers was asked to fill in a post speech feedback report, which included reflections on levels of audience engagement, size and detail such as media attendance and networking opportunities

TEAM OPERATIONS

Maintained full Scope 1, 2 and 3 carbon emissions accounting, and tracked embedded water footprint, taking measures to reduce consumption

Implemented **comprehensive waste management processes**, diverting 83% from landfill and engaging teams and local suppliers around carbon fiber recycling

Engaged with all suppliers around our **Sustainable Sourcing Code**

Established a team base in Brittany, hub of performance sailing, to reduce supply chain mileage and take advantage of low carbon energy component in France. Temporary base at MerConcept in Concarneau, **powered by 100% renewable energy**

Created a **sustainable travel and logistics policy**, resulting in **16 tCO2e saving annually**

Tackled our digital footprint through **sustainable digital guidance, remote working**, and platform selection

KEY ACTIONS AND IMPACT

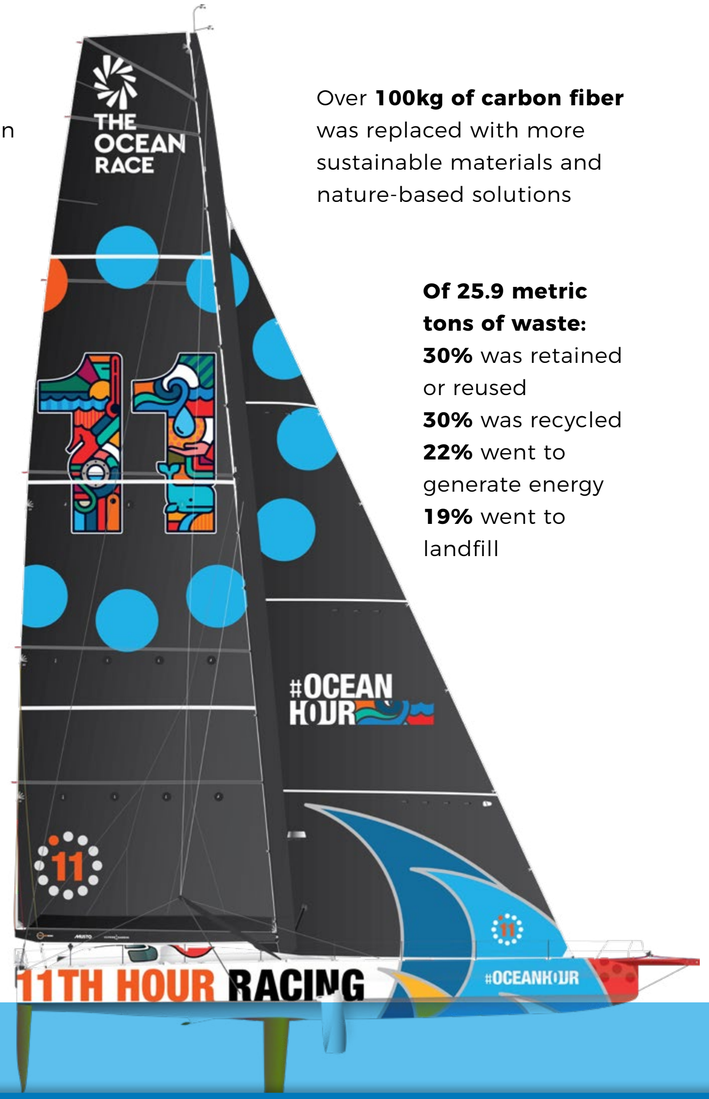
BOAT BUILD

Established a **key stakeholder working group** to drive collaboration and place sustainability at the top of the agenda

Assessed our starting points and set benchmarks through a sustainability audit of the boat build facility, an LCA of a previous 2018 IMOCA build, and a report on the viability of alternative materials

Implemented new sustainable solutions through application of the Sustainable Sourcing Code, adaptations to the boat build facility, a circular economy approach to waste, and developing alternative nature-based materials

Conducted an LCA of the actual design and build of Mālama the race boat to set a new benchmark



Over **100kg of carbon fiber** was replaced with more sustainable materials and nature-based solutions

Of 25.9 metric tons of waste:
30% was retained or reused
30% was recycled
22% went to generate energy
19% went to landfill

THE RACE

Demonstrated the **highest performance levels** with three leg wins, and winning the In-Port Series outright

Used stories of human endeavour, adventure and grantee activations to engage and inspire a wide audience on sustainability and ocean health themes

Helped to further marine science by taking water samples and deploying three drifter buoys in remote areas of the ocean

Worked to address the race's impact on marine mammals by contributing to the development of protocols around race course risk assessment, exclusion zones and live collision reporting

KEY ACTIONS AND IMPACT

TRAINING & DEVELOPMENT

Our **Internship Program** gave six young people first hand experience of working within the professional sporting sector

Our **NextGen Mentorship Program** offered six young students and professionals the opportunity to benefit from a range of virtual learning and networking opportunities

Created **The Toolbox**, an open source suite of guides, tools and templates available in four languages, so that any organization can develop their own sustainability strategy.

THE TOOLBOX

4 TOOLBOX PUBLISHED IN FOUR LANGUAGES

TOTAL COMMUNITY OF (TARGET EXCEEDED) **600+**

95% OF SPORT USERS DRAWN FROM OUTSIDE SAILING

EDUCATION AND RESEARCH, AND SUSTAINABILITY ORGANISATIONS, MAKE UP THE LARGEST PROPORTION OF THE TOOLBOX COMMUNITY AFTER SPORT

71 SECTORS ENGAGED (TARGET EXCEEDED)

120+ OVER 120 NATIONAL OLYMPIC COMMITTEE USERS

5 BESPOKE WORKSHOPS DELIVERED AS PART OF A COLLABORATION WITH THE ASSOCIATION OF NATIONAL OLYMPIC COMMITTEES (ANOC)

113 COMMUNITY FROM 113 COUNTRIES (DOUBLED TARGET)

ADVOCACY

Over five years **collaborated with special interest groups, suppliers, The Ocean Race, IMOCA Class and World Sailing to shift sustainability standards and develop new sustainable solutions** within the marine industry

Shared key successes, challenges and recommendations through the **publication** of four Annual Reports, the Climate Action Plan, internal policy guidelines, and the Sustainable Design and Build Report

Worked closely with The Ocean Race and the IMOCA Class on policy development, partnerships and the development and delivery of workshops to share best practice and learnings

Submitted proposals to the IMOCA Class on creation of an internal price of carbon, carbon caps and climate action fund

Led on the inclusion of compulsory LCA for all new boat builds in new IMOCA Class rules

INSETTING

Invested in insetting, helping suppliers to make sustainable innovations that will result in long term GHG reductions in the value chain (Total = 70+ tC02e)

COMPENSATION

Created a climate action fund, underpinned by an internal price of carbon, to compensate for unavoidable campaign footprints (Total = 4,320 tC02e)

Invested in compensation, securing 4,220 verified and quantified blue carbon credits

KEY ACTIONS AND IMPACT

GRANT MAKING

Legacy Grant Program distributed over €500k to 11 grassroots organizations

11 grantee activations, spotlighting and raising awareness of their work

Supported the development of a new Marine Protected Area under regeneration, 169km^2 [27]

Supported the creation of a global water footprint compensation framework, launched at the UN Water conference, New York in 2023

Community capacity building project initiated in Khayelitsha, South Africa, including 10 Kuils River and wetland clean ups and 4 agroecology workshops

Secured the supply of fresh clean water from 11th Hour Racing Team partners, Bluewater, with **3 clean water stations** installed at Sinako High School in Makhaza, Khayelitsha where 1500 children only had one municipal tap to access water.

Half a ton of subaqua waste collected with Biosfera in Cabo Verde

27 eDNA samples taken between Itajai and Newport, identifying 12,000 species, and 7 eDNA samples taken between Genoa and Gibraltar

COMMUNICATIONS

Throughout our campaign we have shared our story to inspire change; in person, at events, online, in video and through the media. Using our platform of world class sport there have been over 20 billion opportunities to see content featuring our team and to hear our story of competition, innovation and performance, all in the name of ocean health.

[27] Has the potential to sequester up to approximately 45,000 tCO2e. Calculations based on methodology, and calculated up to 100m isobath.

IN THEIR WORDS

"Working with 11th Hour Racing Team has allowed us to develop a practical understanding of sustainability within an IMOCA team. We have been able to go into further detail thanks to the wide knowledge and experience of Damian and Amy and work with them to develop a unique Toolbox package for other IMOCA teams."
Imogen Dinham-Price, Sustainability Manager, IMOCA Class

"11th Hour Racing Team's support of The Ocean Race Sustainable Boat Building Innovation Workshop Series has been integral to its success. The personal contributions of Amy and Damian - both during the events and in the planning stages - have directly helped me maintain momentum, offer engaging content and deliver actionable results. Alongside this, the team's broader program, including the design & build report, LCA study and carbon fibre recycling project, has directly progressed the industry roadmap that the workshop participants co-created in 2021. This team is making stuff happen and leaving an industry legacy in their wake."
Kellie Covington, Sustainability Consultant, The Ocean Race Boat Building Workshops

"The Toolbox offered a very easy way forward. We chose to use the tools because they were simple and straight to the point....It has been a great partnership and we look forward to continuing to build on it."
Gustavo Hardara - Association of National Olympic Committees

"As bad as the collision has been for the outright race victory that 11th Hour Racing Team was sure to clinch on the last leg – I'm really inspired by the actions and response of the entire 11th Hour Racing Team crew, because it's exactly in line with the ethos and the mission of the campaign. The cooperation, expertise, team work, dedication, ingenuity, tenacity (and dare we say empathy toward others) that was on full display to 'right the ship' in record time – is exactly what it's going to take for the world to genuinely manage the looming challenges of the climate crisis, and to ultimately reverse global warming. Your team frankly just showed us all the path forward, and how it should look when done in an honorable way with integrity. We all already know that you have the fastest boat with the best skipper and crew, so your comeback effort is what will really stick with me as the highlight of The Ocean Race."
Michael Stewart, Co-Founder, Seatrees

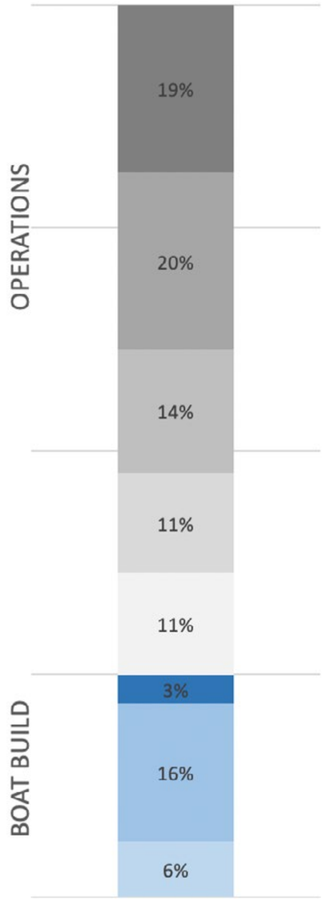
"I've done this race six times now, and it has consumed almost 20 years of my life. It's nice at this stage of my career that I can be involved with a campaign that's trying to do something more than 'just' be competitive and has a positive impact on the sport, the wider community, environment, people, and planet. That's really important to me. Winning is important, and it is what we all strive for, but personally, for me, I hold a lot of value in winning the right way and doing things the right way. And so, to win The Ocean Race with 11th Hour Racing, a team like this, with such a great group of people and a positive mission, is really incredible."
Simon Fisher, Navigator, 11th Hour Racing Team

FOOTPRINT ANALYSIS

TOTAL CAMPAIGN GHG FOOTPRINT

The total GHG emissions associated with our campaign from 2019 to 2023 were 3,566 tC02e, the equivalent to 720 gasoline-powered cars being driven for a year.

BUILD	Development	11-1 Optimized	Training	220
	Design & Build	11-2 Design & Build	D&B	553
	Optimize	11-2 Optimized	TOR	116
OPERATIONS	Operations	2019	Annual	406
	Operations	2020	Annual	399
	Operations	2021	Annual	481
	Event		TOR	14
	Operations	2022	Annual	706
	Operations	2023	Annual	671
	Event		TOR	
Total: 2019-2023				**3,566 tCO2e**

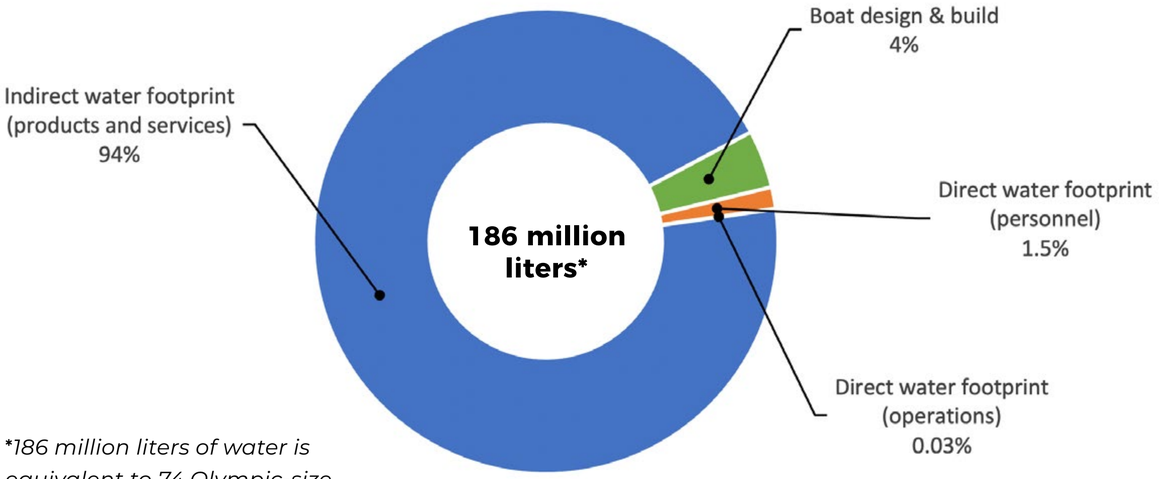


Total campaign footprint 2019-2023, broken down by boat build and operations.

The design and build process is shown in blue and the annual operations in grey. It is important to note that the development of 11.1, the build of 11.2 and optimization for The Ocean Race, only represents approximately 25% of the total GHG emissions of the full five year campaign. The majority of a campaign's impact is in the use phase and in team operations, which underlines the importance of sustainable event guidelines, race rules and team operations.

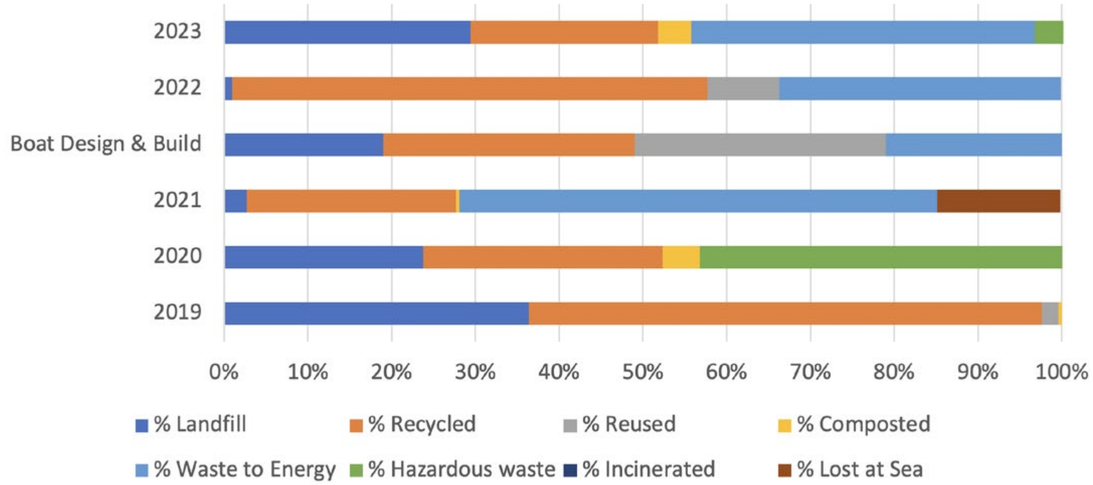
FOOTPRINT ANALYSIS

TOTAL CAMPAIGN WATER FOOTPRINT



**186 million liters of water is equivalent to 74 Olympic-size swimming pools*

TOTAL CAMPAIGN WASTE FOOTPRINT



TOTAL CAMPAIGN WASTE PROCESSED - 47 TONS

Breakdown:
Diverted from landfill[28] - 39 tons
Landfill - 7.5 tons
Lost at sea - 0.5 tons

[28] Resources recovered through reuse, recycled, compost or waste to energy

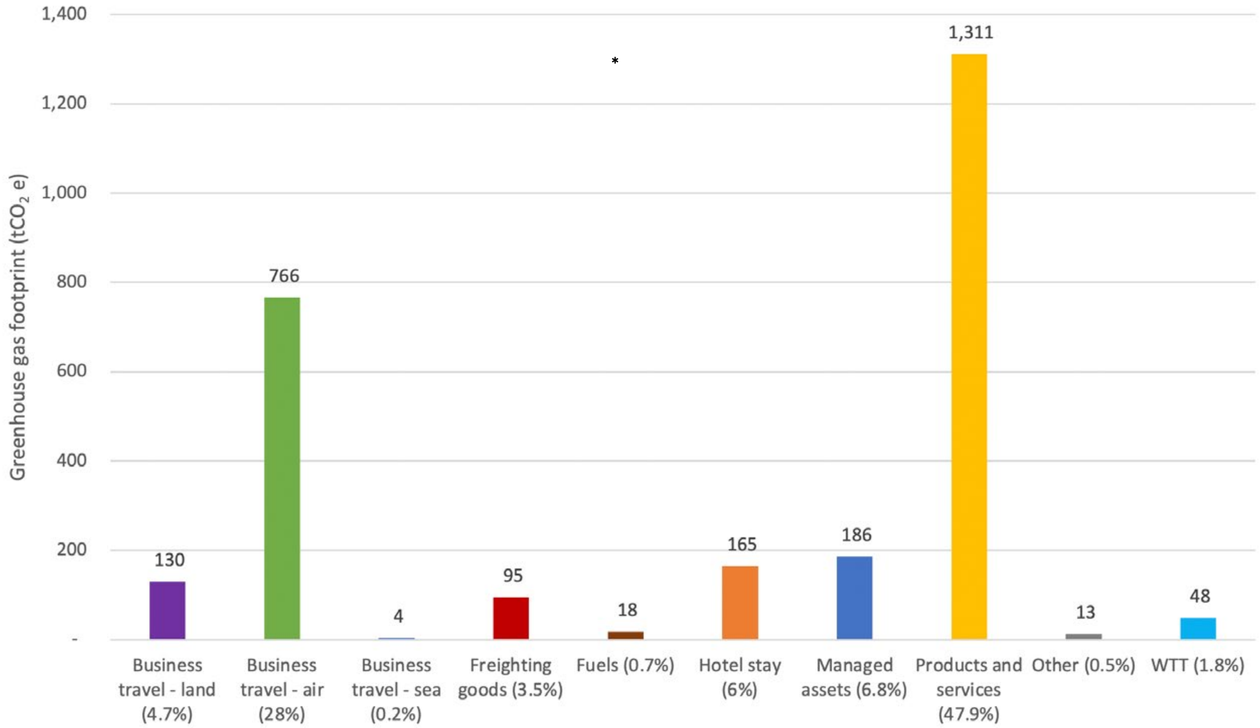
FOOTPRINT ANALYSIS

OPERATIONS - FOOTPRINT BREAKDOWN

Our total operational GHG emissions were 2,677 tCO2e.

If we look at the breakdown, Scope 3 products & services is by far the biggest contributor of GHG emissions, generating just under 50% of total impact. This is followed by business travel (34%), hotel stays (6%) and freighting goods (4%).

Total operational footprint 2019-2023 breakdown by sector



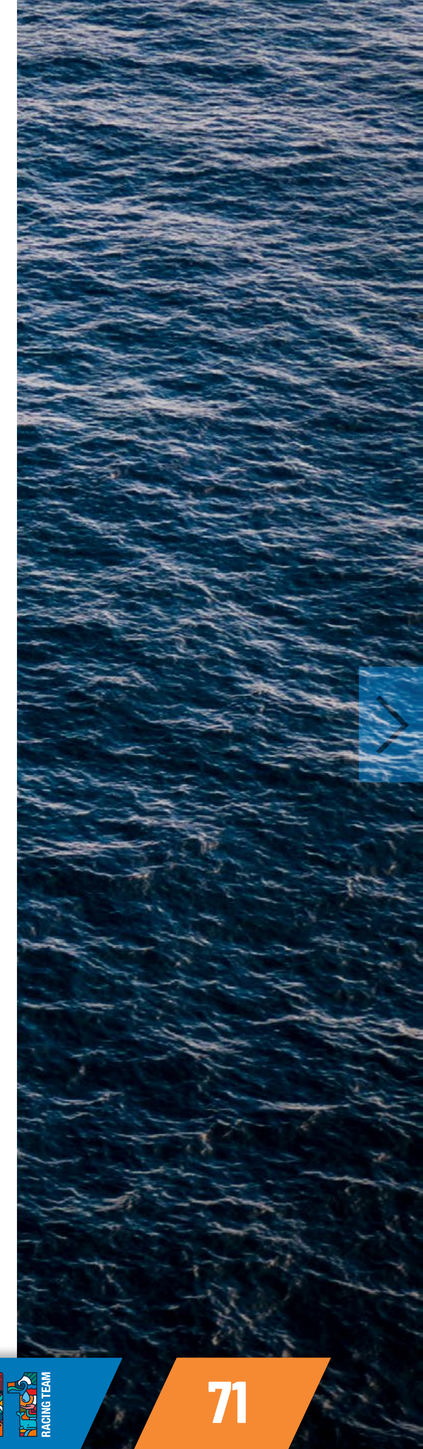
Figures above each bar represent the total footprint of that sector in tCO2e.

Despite the best efforts of all concerned it has proved difficult to create a discernible step forward from the benchmark set by Vestas 11th Hour Racing in 2017-18.

This is mainly due to the fact that Scope 3 products and services make up such a large proportion of the footprint, with emissions ocurring in our supply chain either upstream or downstream of our own operations. This highlights the crucial importance of insetting. Improvements within our operations can only get us so far, we need to collaborate with suppliers and invest in them to find solutions in the wider value chain that will enable us to bring down our emissions year on year.

"Throughout our research we have found a lack of emphasis on the importance of external investment to reduce emissions in the value chain. We strongly believe that there can be no climate positive without insetting."

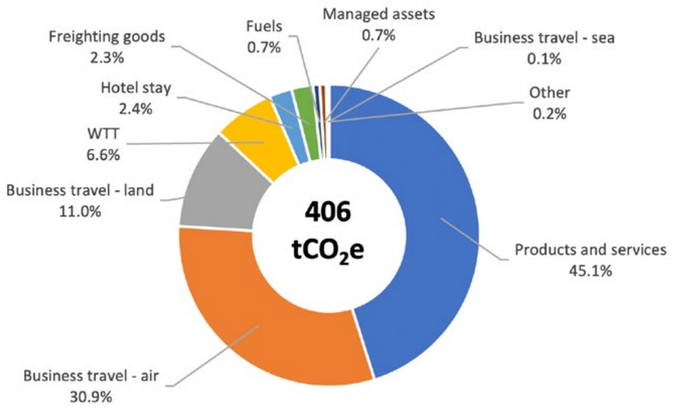
Damian Foxall, Sustainability Program Manager, 11th Hour Racing Team



FOOTPRINT ANALYSIS

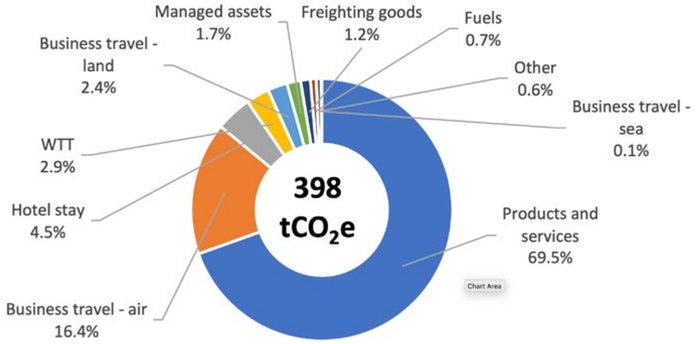
OPERATIONS - FOOTPRINT BREAKDOWN

The following illustrations highlight the key source of operational GHG emissions per year. A full account, broken down by source and year, is captured in our **Climate Action Tracker**



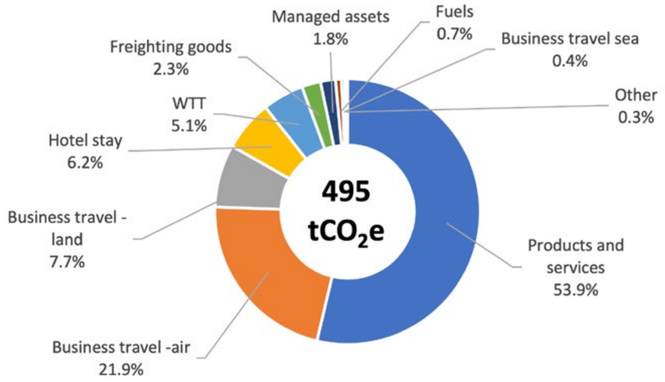
2019

Primary impact was in the products and services procured sector. This is consistent with the first year of the campaign where emphasis is on procurement of infrastructure and services, design and analysis and the first stages of manufacturing.



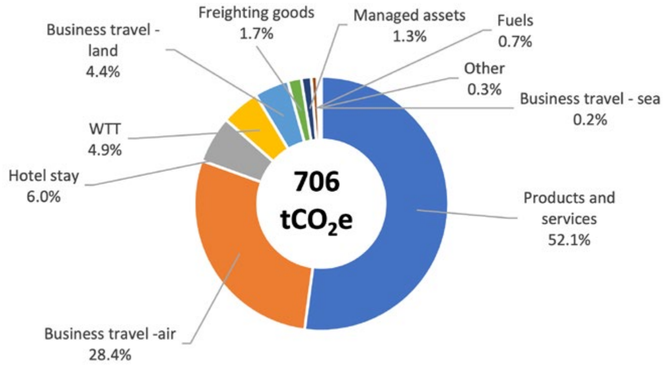
2020

Impact of COVID-19 and subsequent decrease in travel resulted in a reduction of tC02e, despite our use of materials increasing, as is consistent with the second year of a campaign.



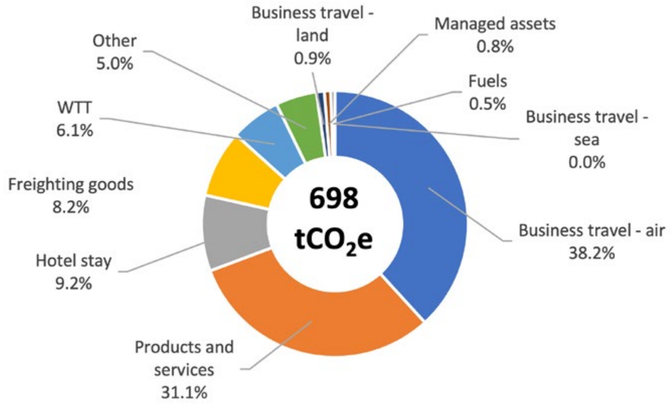
2021

GHG emissions increased across most sectors, highlighting the difficulties of reducing impact during high intensity periods. With the easing of COVID-19 restrictions, operational elements of sustainability such as travel were also harder to maintain.



2022

An active year, with a growing team, resulted in an increased carbon footprint, especially in the travel, accommodation, and transport sectors.



2023

Race year meant high use of products & services, personnel travel, hotel accommodation and freighting. With the race and campaign ending at the start of July however, the overall total for the year is kept in check.

FOOTPRINT ANALYSIS

BOAT BUILD - FOOTPRINT BREAKDOWN

In 2021 we published our **Sustainable Design and Build Report**. This included the full results of our cradle-to-gate LCA of Mālama, which calculated the total boat build footprint at 553 tCO2e. The graphic shared here illustrates the breakdown by group and subgroup.

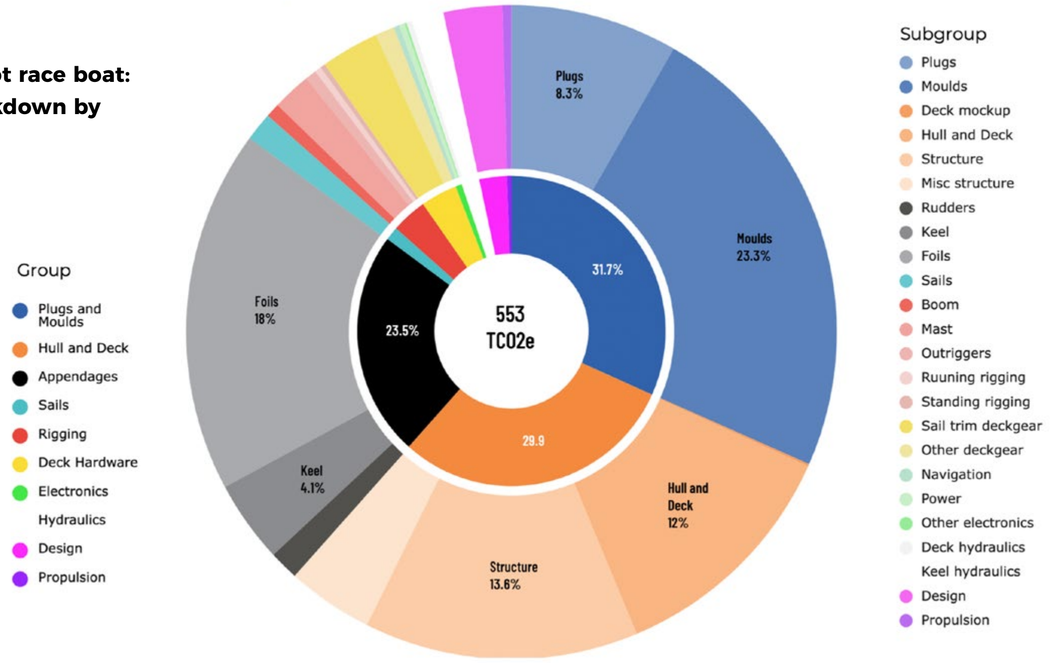
The hull and deck, with their associated plugs and molds (342 tCO2e) and appendages (129 tC02e) contributed 85% of the GHG emissions and require the largest focus for improvement.

Previous studies have also highlighted the important impact of composite parts and the need to rethink the build process by implementing 'greener' materials, or simply reducing their weights and processes, for example avoiding plugs and reusing molds. When reviewed by components, 32% of the GHG emissions come from the plugs and molds. Reusing or removing these components completely will offer significant reductions.

Although the foils are not the heaviest composite parts within the inventory, their related carbon footprint is notable. This is mainly due to the amount of high modulus carbon used and waste generated (~300% of final component weight).

The remaining emissions are divided evenly across the other subgroups of components of Malama's build.

Building a new 60-foot race boat: greenhouse gas breakdown by group and subgroup



MĀLAMA LIFE CYCLE ASSESSMENT RESULTS

553 tCO2e
GHG EMISSIONS
THE AVERAGE ANNUAL GHG FOR A USA INDIVIDUAL IS CURRENTLY 14 TCO2E

7,500 m³
WATER CONSUMPTION
THE EQUIVALENT OF THREE OLYMPIC-SIZE SWIMMING POOLS

25.9
METRIC TONS OF WASTE
OF WHICH 30% WAS RETAINED OR REUSED; 30% WAS RECYCLED; 22% WENT TO GENERATE ENERGY; AND 19% WENT TO LANDFILL

10,300 kg cue
MINERAL RESOURCE SCARCITY
ENOUGH TO PRODUCE 130 ELECTRIC CARS

15,900,000 mj
ENERGY CONSUMPTION EQUIVALENT TO 370 NORTH AMERICAN HOMES' ENERGY USE FOR ONE YEAR

MARINE EUTROPHICATION
THE IMPACT OF OUR MATERIALS AND PROCESSES AS IT RELATES TO THE MARINE ENVIRONMENT
231.7 kg Ne

FOOTPRINT ANALYSIS

BOAT BUILD - FOOTPRINT BREAKDOWN

The 2010 Kairos LCA report of an IMOCA build set a benchmark of 300 tCO2e for a Vendée Globe campaign.

Given that both the 2010 Kairos LCA and our own Mālama LCA focused on the build of an IMOCA for a round the world race, over a similar time period, and with similarly strong sustainability and performance standards, it is instructive to compare the two carbon footprints, taking into account the scope and boundaries of each.

Allowing for a different handling of the mold impact allocation (and an error factor of +/- 10% based on changes in assessment method) the total footprint of the Kairos IMOCA in 2010 is estimated to be 343 tC02e, compared to Mālama's footprint of 553 tC02e.

This shows that GHG emissions for a build have increased by 61% from 2010 to 2021.

The majority of this increase can be attributed to evolutions in construction processes, materials, and components, as well as increasingly complex deck designs and new appendages, which have increased the footprint of materials and more than doubled energy use and build time.

The trend upwards when we need to be reducing our impact towards net zero is troubling and highlights the need for a systemic shift in how we pursue our sport.

It is striking that despite the collective best efforts of all concerned, only 100kg of the new boat, or less than 2% by weight, represent alternatives to 'business as usual' composites.

This reflects one of the key challenges we encountered: the restricted timeframe we had available. In the case of our build, CDK Technologies would have needed a minimum of 12-18 months to validate and test new materials and processes prior to confidently incorporating them into the build. They were designated as our team's builders only nine months prior to starting the build, so were immediately limited on options available for disruptive innovation.This highlights the importance of Class rules, and research and development innovations being shared between teams and passed on to subsequent campaigns.

Topics that have potential but we did not have the opportunity to explore or implement during our campaign included:

- Testing and building confidence with bio-resin to enable systematic use across the build
- Innovation vacuum consumables for reduction of single use plastic
- 'Green' sail design, and recycling
- Female only molds (no plug)
- Recycled carbon fiber and alternative materials in molds
- Thermoset and recyclable or thermoplastic resins
- Bio-plastics and alternatives to single use plastic consumables
- Alternative materials such as: bamboo, basalt, alternative to Nomex for honeycomb core
- Automated robotic based systems

REACHING FOR PLANET POSITIVE

GHG EMISSIONS

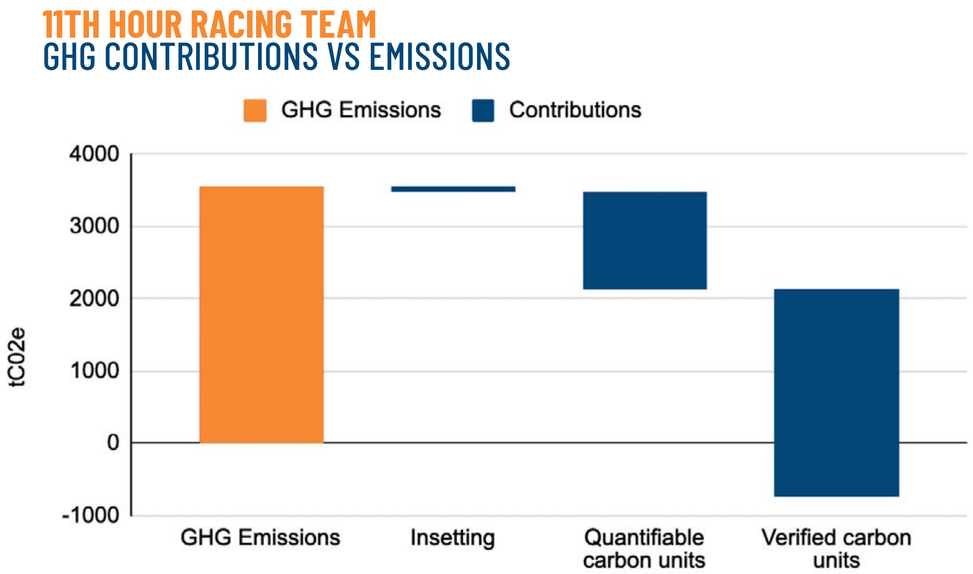
After efforts internally and with our partners and suppliers to reduce GHG emissions across the 2019-2023 campaign, the final total was 3,566 tC02e including the boat build footprint.

To achieve our ambition of planet positive, which included drawing down 20% more carbon than emitted across all areas of operation, it was essential that we took action to address these residual emissions to achieve a positive impact on our industry, ecosystems, and people.

The following table and graph summarizes the breakdown of our GHG emissions, and how we balanced them through a combination of qualitative and quantitative approaches

t CO2e	Category	Break Down
3,566	Total campaign GHG emissions	11th Hour Racing Team
-81	Insetting	Holy and Lineat
-1360	Quantifiable carbon units	SeaTrees
-2,860	Verified carbon units	Vida Manglar and SeaTrees
-735	**Total**	**Climate Positive**

Impact of compensation actions on reducing total campaign greenhouse gas emissions (tCO2e) 2019-2023



Outside of the direct scope[28] of the campaign, partners and suppliers inclusive of 11th Hour Racing, Bluewater and GAC Pindar joined our climate action plan by calculating the footprint of their activities associated with the Team's participation in The Ocean Race, and compensating for their footprint through our Blue Carbon Partner, Seatrees.

[28] See SCOPE **Page 20**

REACHING FOR PLANET POSITIVE

WATER

Understanding the embedded water footprint of the campaign enabled the team to implement key actions as part of a local, regional and global strategy. With our partners, we explored the needs of local communities as it relates to equitable access to safe water, regional watershed management, matched with a global framework for water footprint compensation.

186 Million Liters	**Water Footprint**	**11th Hour Racing Team**	**Description**
NA	Contribution	Water Footprint Implementation	Supported the creation of a global water footprint compensation framework
NA	Contribution	Environmental Monitoring Group	Community capacity building project initiated in Khayelitsha, South Africa, including 10 Kuils River and wetland clean ups and 4 agroecology workshops
NA	Contribution	Bluewater & Sinako High school	Secured the supply of fresh clean water from 11th Hour Racing Team partners, Bluewater, with 3 clean water stations installed at Sinako High School in Makhaza, Khayelitsha where 1500 children only had one municipal tap to access water
NA	**Total**	These projects supported by 11th Hour Racing Team, will have long-lasting benefits for the stakeholders.It is not currently possible to credibly quantify the long term benefits of these initiatives.	

REACHING FOR PLANET POSITIVE

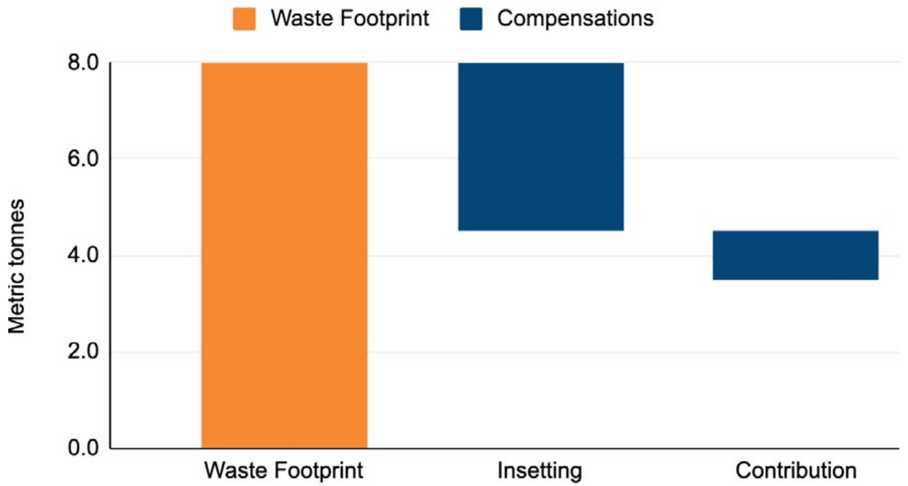
WASTE

Beyond the core actions of resource and waste recovery, the team worked to balance the campaign's waste footprint by targeting carbon fiber recycling, and recovering lost waste from natural environments.

8.0 Metric Tonnes	**Waste Footprint**	**11th Hour Racing Team**	**Description**
-3.5	Insetting	GEN2	Established a pilot carbon fiber recycling collection within local marine industry stakeholders, Brittany, France
-0.5	Contribution		Half a ton of subaqua waste collected with Biosfera in Cabo Verde
-0.5	Contribution		Beach cleans during the campaign
NA	Contribution	IMOCA & GUYOT	Supported set up of a carbon recycling partnership with IMOCA, GUYOT and other teams and suppliers
3.5	**Total**	As it is not currently possible to credibly quantify all the long term benefits of some of these initiatives, the team reports a residual 3.5 ton waste footprint which falls short of the Planet Positive objective in this sector.	

Impact of compensation actions on reducing total waste footprint 2019-2023

11TH HOUR RACING TEAM
WASTE CONTRIBUTIONS VS FOOTPRINT



OUR KEY RECOMMENDATIONS

Our journey over the full 2019-2023 campaign has given us the opportunity to test, refine and reflect on our sustainability strategy. Our key learnings are:

INTERNAL

1.Internal Engagement
Place sustainability at the heart of your team objectives, and inspire and equip team members to support internally and advocate externally

2.Governance
Establish good governance as part of a strong leadership and a business with purpose strategy

3.Benchmarks and standards
Showcase best practice and push for bold new steps, and the policies that continue to push them forward

4.Culture
Within your organisation address the development of safeguarding, inclusion and retention. Work within community and peers to foster safe and inclusive working environments for all

5.Diversity
Develop pathways, representation, and access within your organisation and across supply chain demographics, through investment, training, culture audits, placement of recruitment opportunities, and fair and equal compensation

6.Management systems
Embed sustainability within management systems and reporting structures, to provide accountability and robust business integration

7.Finance
Choose and leverage the financial systems to drive planet positive results within and beyond your organization

PLANET POSITIVE

8.Residual emissions
Track your footprint so that you can address residual emissions through compensation and insetting

9.Grass roots initiatives
Establish a grant program to further local ocean health initiatives

10. Education
Share your learnings so that future campaigns and marine professionals can build on your work

11. Communications
Use the platform of performance sport to share the message of ocean health, through events, online, video and through the media

12. Advocacy
Use your knowledge and influence to press for the adoption of sustainability as a key criterion within class and race rules

OUR KEY RECOMMENDATIONS

OPERATIONS AND BOAT BUILD

13. Planning and coordination
Define sustainability objectives up front to provide a common goal, establish a working group to coordinate, and ensure stakeholders are engaged and prioritize accordingly

14. Timelines
Set build timelines that allow room for testing of new processes and materials

15. Base operations
Consider geographical implications of your base operations with regards to proximities of labor, materials, and expertise so that travel and freight are reduced

16. Supply chain
Apply sustainable sourcing to the supply chain. Create a protocol, integrate with procurement, contracts and accounting systems, and work with motivated suppliers to find innovations

17. Environmental audit
Assess infrastructure, integrate sustainability into contractual agreements, and collaborate to find opportunities to create change

18. Energy
Ensure manufacturing needs are sourced from 100% renewable energy, and make renewable energy a key point in sustainable sourcing code

19. Digital
Set a green digital policy, including sourcing sustainable hardware, using green web design and hosting services, and reducing stored data

20. Composites
Reduce use of high modulus virgin carbon fiber and replace with alternative materials wherever possible

21. Alternative materials
Prepare an alternative material and testing program early to allow time for testing and integration

22. Plugs and molds
Avoid use of male plugs, use alternative materials such as recycled carbon fiber and/or flax to replace virgin carbon fiber, design and build for reuse, prioritize local suppliers to reduce need to transport

23. Design for longevity and end of life
Promote reuse wherever possible; a component that is used for twice as long has half the impact.100% of impact is borne by the original purchaser

24. Resource and waste
Design end-of-life into the process from the start, keep materials in the system as long as possible, create demand for recycled materials 'in and out', use waste to energy as last resort, strict zero waste to landfill policy

25. Electric vehicles
Make sourcing of electric vehicles, and support craft a priority. Push for innovation and inclusion of non fossil fuel and improved power & propulsion systems onboard

26. Freight transport
Where long distance transport is required forward planning enables the use of rail freight and/or sea freight which has a 100 times lower impact than air freight

27. Packaging
Engage your suppliers on the topic of transport, packaging, waste and product end of life, put in place packaging reduction and return schemes

Work with purpose to all of these goals, being comfortable that your own organization's resources and efforts will leave a legacy, and often specifically, benefit others.

OUR BIG THREE TAKEAWAYS

SUSTAINABLE SOURCING

Sustainable sourcing is the single most important action any individual or organization can make. By putting in place a **sustainable sourcing code** we established a minimum set of standards that we expected a supplier to conform to across the full spectrum of impact - from energy efficiency and source, logistics, chemicals and biodiversity to human rights, ethical business, and healthy, safe working environments. When we built it into our procurement and accounting systems it became a backbone of decision-making and inspired positive action throughout the supply chain.

INSETTING

Initial GHG emission reductions due to improvements within an organization's operations only get us so far, there is always a quantity of remaining emissions. The vast majority of this impact occurs in the value chain, and addressing it often requires specific collaborations with suppliers and investment in their processes to implement solutions. This is insetting - a critical step that is not widely addressed due to budget and attention typically being focused on internal operations. It is however essential to driving down impact year on year. A suggested framework for organizations to adopt is as follows:

a) Conduct full GHG inventory of operations and LCA of key components

b) Identify where the emissions hotspots are in the materials and services used

c) Issue a request for proposals for insetting projects that will help drive down emissions in these target areas

d) Drive investment into spaces where it's needed, enabling innovations that will produce long term reduction of impacts

A successful implementation of insetting opportunities would mean that if we repeated the same campaign in the future, the footprint of our activities would be smaller from the outset.

POLICY

The reality of build timelines and performance objectives, means all parties are locked into the status quo of *business as usual*. Only when there are changes to rules and policy will the cycle be broken. Our key policy recommendations are as follows:

a) A threshold for carbon emissions for each team, component, boat build or similar unit, would be a direct method to define limits for the transformation of raw materials to finished components, as well as boundaries for the use phase. Based on the most recent LCA or use emissions data, thresholds should be set at a level that is achievable, but also incentivizes innovation. It should be updated periodically to reflect new innovations and regularly revised targets

b) An internal price for carbon emissions placing reductions at the heart of decision-making and innovation. This promotes an internal market incentivizing longevity, reuse, and best practice both within the system, and its external supply chain, while also putting a cost on negative impacts. The internal price should be reviewed periodically to keep momentum along the pathway to net zero and could be:

- Fee based, with an actual financial transaction for participants based on emissions, thereby creating an internal carbon emission reduction fund.
- Virtual, with no monetary transaction (shadow price), but designed to guide decision-making.

c) Establish an internal sustainability fund, to compensate for the residual impact of activities. This could be funded through redirected cost savings (achieved by the simplification and down scaling of rules around materials), or through a system of internal taxation or financial incentive

Don't let perfection be a barrier to action

REIMAGINING THE FUTURE

REIMAGINING THE FUTURE

With the campaign at an end, our team's sustainability leads - Amy Munro and Damian Foxall - have taken a step back to interpret the results, evaluate the state of play post campaign, and reimagine the future of the sport of sailing.

As a team we believe that given the degraded state of the Earth's resources, we need to push beyond net zero. Impacts should always be considered through a planet positive lens; how can we achieve the social values we globally aspire to, and have healthy equitable economies to support them, and how can our presence leave things better than we found them?

Around us, governments and other industries are taking stock and implementing increasingly rigorous new policies and standards. The performance marine industry is no exception, and the path to the scale of reductions our industry needs to achieve by 2030 is steep: >8% annual reductions, starting now (2023).

Efficiencies and implementing best practices are important contributors and can take us so far, but to achieve real leaps forward we need to be prepared to reimagine the nature of the system that we operate within and this is well within our industry's scope: international competition exists to push boundaries, and our focus on elite performance demands innovation. Bold paradigm shifts are within our gift, and if we seize the opportunity to place the marine sector on a truly planet positive trajectory, we can continue to grow the sport we love, and to be a viable and positive force in a vastly different world.

"Innovation has been inherent to sailing throughout its history. In every aspect of the sport, the focus has been on performance, developing new designs, and using new technologies which allows us today to 'foil and fly' far beyond what Archimedes could ever have dreamt of. What we need to do now is to take some of that amazing capacity we have for innovation, and to focus it on making our industry regenerative. The knowledge, material, and resources exist, all that is needed is for us to take responsibility and to make the right choices, right now."

Damian Foxall, Sustainability Program Manager, 11th Hour Racing Team

THE WHY

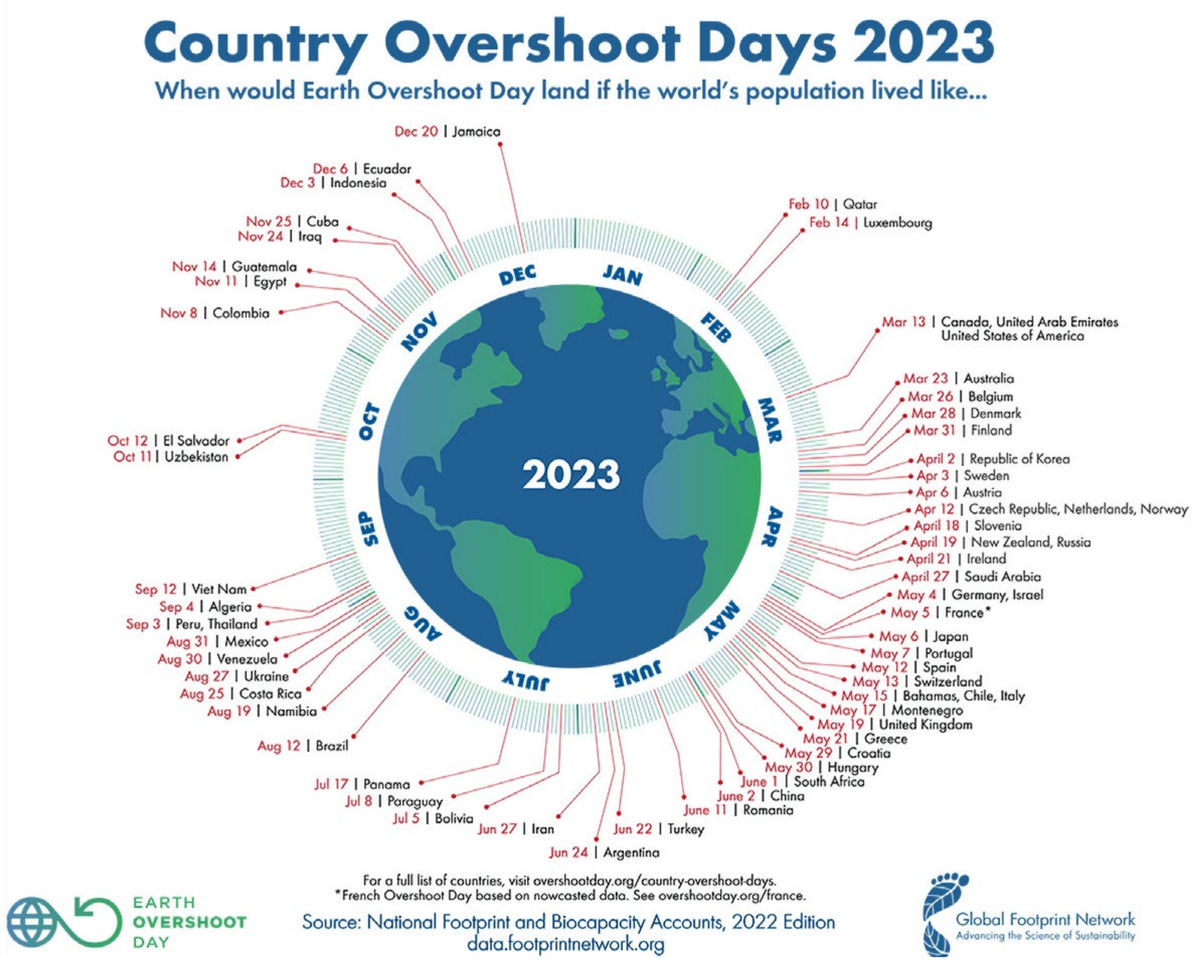
While the performance sailing sector and much of the leisure marine industry is geographically centred in the northern hemisphere and a few other well-off regions, we live in a fragile bubble of prosperity.

This alternative reality does not reflect either the reality for the majority of the world's citizens, or the availability of the earth's resources. Inherently tied to the ongoing growth of global economies, we would need 1.7 Earths each year[29] just to maintain the situation for the average global citizen. Scaled to the typical lifestyles associated with the marine industry this is more like >5 Earths each year, resulting in a growing annual debt.

The direct impacts of this annual shortfall are typically transferred to many underdeveloped countries and the natural environments which provide the large percentage of our material, energy, and supply chain needs.

"Climate change is remapping where humans can exist on the planet. As optimum conditions shift away from the equator and toward the poles, more than 600 million [2023] people have already been stranded outside of a crucial environmental niche that scientists say best supports life. By late this century, according to a study published last month in the journal Nature Sustainability, three to six billion people, or between a third and a half of humanity, could be trapped outside of that zone" [30]

Each organization has their own climate action pathway they need to follow to achieve the Paris climate targets. But while we either zoom in to calculate the details of our carbon emission inventories, or zoom out to address the scale of our organizational carbon accounting, we must be honest in keeping in mind absolute reference points. One such reference point is that to achieve the Paris climate targets, individual footprint should be 2 tC02e by 2050.[31] Globally, the average carbon footprint is currently closer to 4 tC02e. Acknowledging these reference points is key to understanding our place and establishing purpose, defining how we will contribute to the global picture of climate change in the future.



"The planet is a boat with a growing crew but diminishing resources. We must change direction before there is a mutiny."

Roland Jourdain, Skipper, IMOCA - Véolia Environnement

29. S Earth Overshoot Day - Global Footprint Network
30. PROPUBLICA
31. Calculate your own carbon footprint

THE WHY

Against this urgent context it is clear that the marine industry is still yet to wake up to reality.

The perfect illustration of the extent to which we are travelling in the wrong direction is a comparison of boat build footprints between 2010 and 2021.

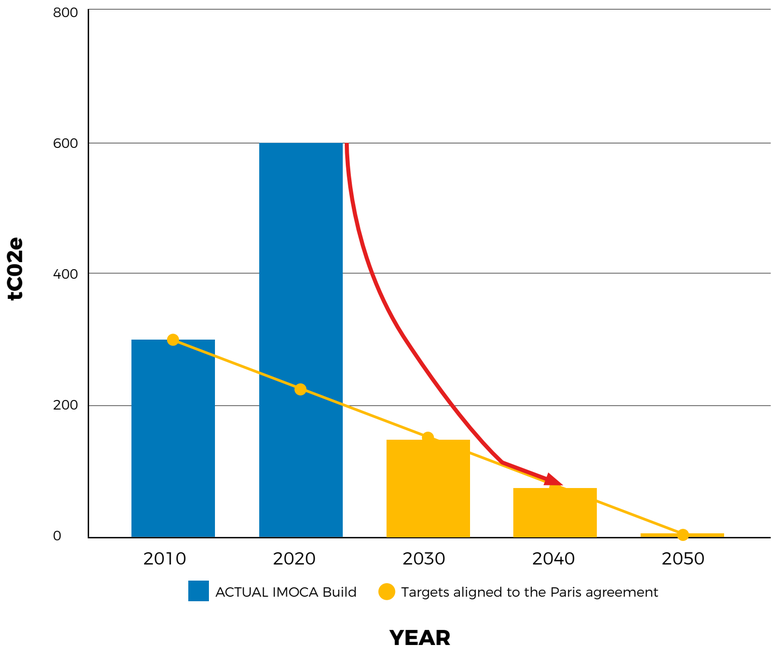
Over the last ten years, competitive sailing has made impressive progress in on-the-water performance, but locked into the status quo of this 'arms race' there have been important side effects. Since 2010 the environmental impacts of building an IMOCA have grown from 343 tC02e to +/- 553 tC02e. The following figure shows the extent of the challenge we face if we are to achieve the reductions needed by 2030 and 2050.

GREENHOUSE GAS EMISSIONS

Since 2010 the build footprint of an IMOCA has increased by nearly 2/3 – as an industry we're trending in the wrong direction.

553 tC02e = Driving 55x around the equator

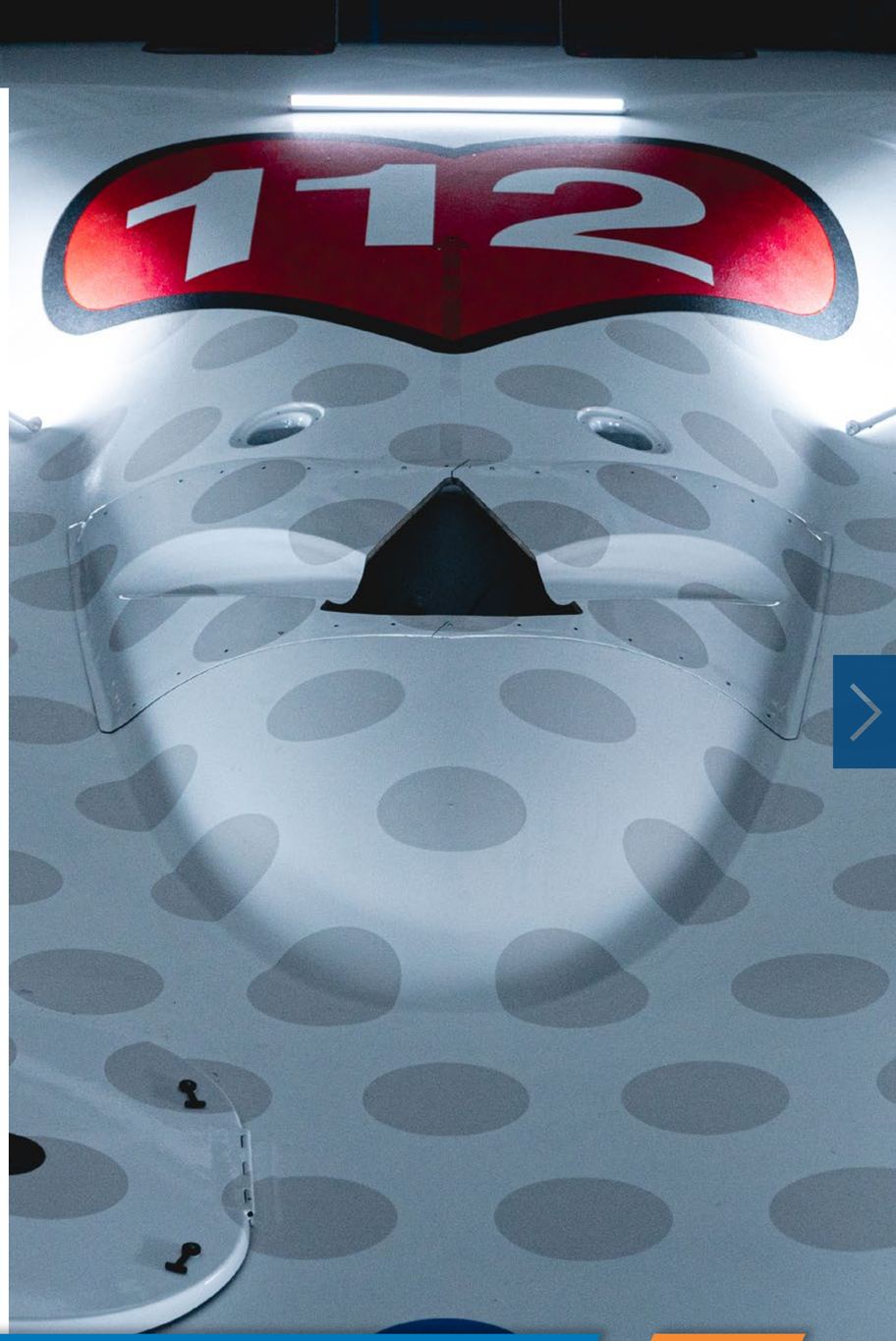
Aligned to the Paris agreement



The yellow line aligns the base year 2010 to the Paris Agreement:
- 45% reduction by 2030 - 190 tC02e (absolute reductions)
- Net Zero by 2050 - 0 tC02e (ongoing reductions and sequestration 23t of remaining C02e)

The red line represents the new, steeper and now more urgent pathway to Net Zero

[32] To keep global warming to no more than 1.5°C – as called for in the Paris Agreement – emissions need to be reduced by 45% by 2030 and reach net zero by 2050.



PATHWAY TO NET ZERO

It is clear that the performance sailing and marine sectors need to urgently change course, but how does that look and how do we make a positive contribution to the challenge that we are collectively facing?

The mechanisms for sustainable change can be described as follows:

- Increased efficiencies
- Absolute reductions
- Modal shift

Otherwise stated as: better, less, and alternative.

Looking at this mechanism for change from the marine industry perspective suggests that change is a function of multiple actions including:

Better	**More energy and resource efficient processes**
Less	**Sobriety with regards to consumer choices**
Alternative	**A systemic shift to a different model of operation**

Throughout our campaign we focused on all three of these areas. Maximizing the efficiency of our operations and boat build, reducing our consumption, and making modal shifts wherever possible. We won The Ocean Race with this approach at the heart of our team, and in doing so were able to demonstrate that a new way of operating is compatible, and even conducive, to the highest levels of performance.

But the actions we took are only the start. Our campaign highlighted the challenges facing us - despite the best efforts of all, our operational footprint showed no discernible shift from previous benchmarks, and our boat build footprint showed a 61% increase from the 2010 Kairos benchmark, due to increasingly complex construction processes and ever advancing performance standards. There is much, much more work to be done. How do we take our approach and map out a pathway to take us to net zero by 2050?

PATHWAY TO NET ZERO

Since 2014, we have measured the team's greenhouse gas emissions annually to establish baselines and identify hotspots that require action.[33] Tracking the inventory has allowed us to create a projection of the future emission reduction initiatives needed as part of a climate action pathway.[34]

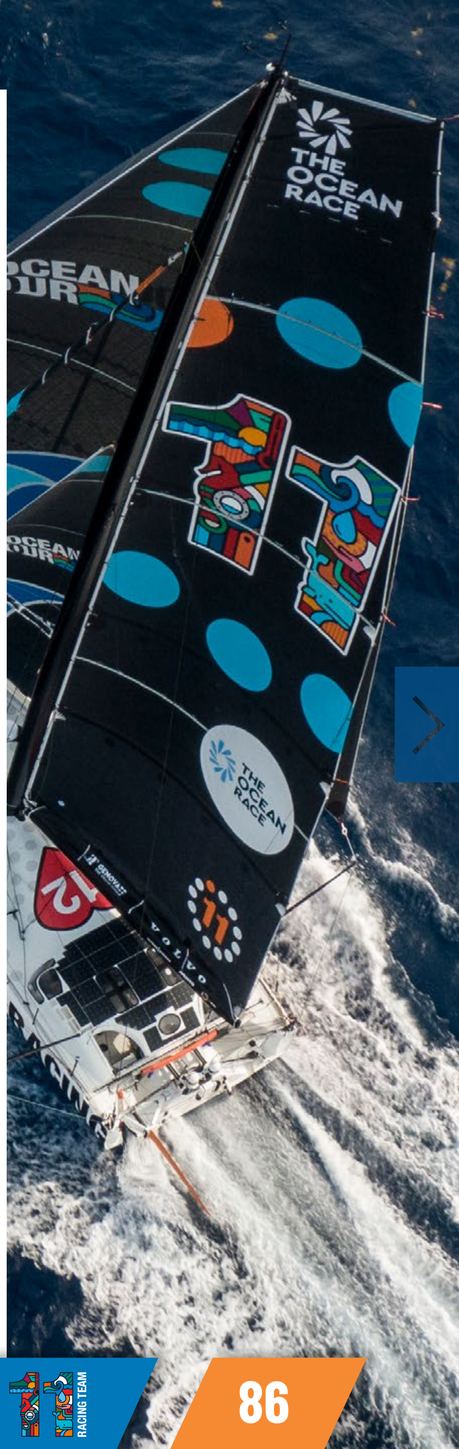
Internal report: Budget vs Annual GHG impact

CLICK TO OPEN

10,600,000

	BASE YR	2017-2018 (TOR)										
11th Hour Racing	2030			REDUCTION METHOD				PROJECTION				
SECTOR	tC02e	tC02eReduction	% Reduction	REDUCTION	LESS	BETTER	ALTER.	TYPE	QUALITY	NED OREXTERI	SOURCE	
Fuels	1.129	13.93	92.50%									
		1.51	10.00%	Race boat - Elec motor				Best guess	Low	Owned		
Electricity	0.835	7.52	90.00%									
		7.52	90.00%	90% Renewable energy onsite			•	Observation	Medium	External	TOR Net Zero plan	
		0.84	10.00%	Global decrease in elec. impacts 10%.10years	•			Estimation	Medium	External	Operations plan	
		-0.84	-10.00%	Replace fuel with electricity (Increase)				Best guess	Low	Owned		
Water supply	0.004	0.00	20.00%									
		0.00	20.00%	20% less stopovers	•			Observation	High	External	Operations plan	
Material use	109.683	151.47	58.00%									
		52.23	20.00%	20% less stopovers	•			Calculation	High	External	Operations plan	
		15.67	6.00%	Ongoing efficiency within supplychain		•		Observation	Low	External	nple: Northsails transfering to 100% renewables	
		31.34	12.00%	Global decrease in elec. impacts 10%.10years	•			Estimation	Medium	External		
		52.23	20.00%	Net zero products		•		Best guess	Low	Sourced		
Waste disposal	0.044	0.04	45.00%									
		0.02	20.00%	20% less stopovers	•			Calculation	High	External	Operations plan	
		0.02	25.00%	Better circular materials and waste manageme	•			Best guess	Low	Owned		
Business travel -air	271.876	37.07	12.00%									
		0.00	0.00%	20% less stopovers/But more crew=no change	•			Calculation	High	External	Operations plan	
		6.18	2.00%	Use alternative to domestic airtravel (-6tC02e)			•	Estimation	Medium	Owned	Travel policy	
		30.90	10.00%	Net zero flight products	•			Best guess	Low	Sourced		
Business travel sea	0.008	0.01	45.00%									
		0.00	20.00%	20% less stopovers	•			Calculation	High	Owned	Operations plan	
		0.00	25.00%	Net zero services (Ferry and better fuels)	•			Best guess	Low	Sourced	IMO Net zero plan	
Business travel - land	1.170	0.24	17.00%									
		0.24	17.00%	Switch to EV (50% of all cars)		•		Calculation	High	Owned	Net zero Calculator 2022	
Freighting goods	59.840	111.13	65.00%									

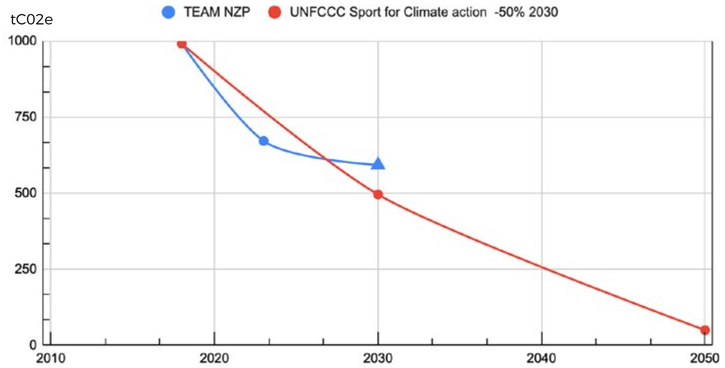
[33] The results can be seen in our **Climate Action Tracker**.
[34] When comparing greenhouse gas emissions it is important to define consistent reference points. In lifecycle assesment terminology, this is called a 'functional unit'. This is especially important when comparing across sectors, events, or organizational scopes that may differ from one period to the next.



PATHWAY TO NET ZERO

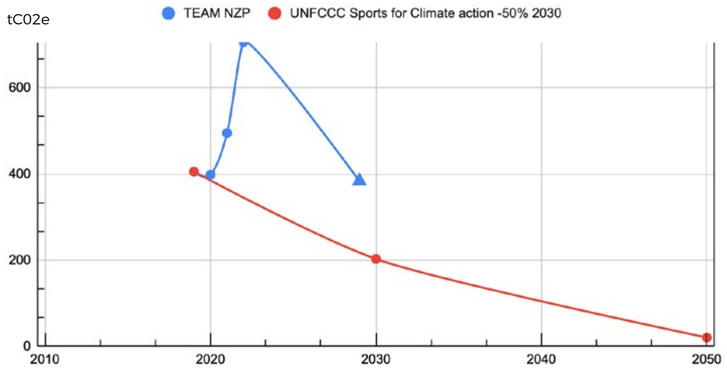
If we follow through on the emission reduction initiatives identified, the trajectory of 'Team Net Zero Pathway' (Team NZP) will look as follows.

RACE YEARS



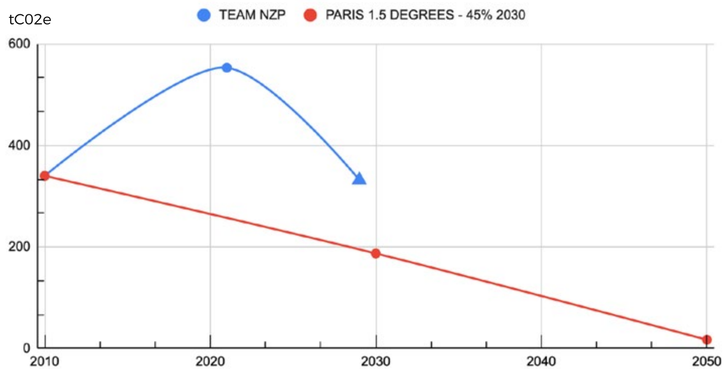
Operational footprint of the team during The Ocean Race year/ period. Showing participation in The Ocean Race 2017/18, 2022/23, projected reductions by 2030, and Paris agreement aligned targets for 2030/2050.

TRAINING YEARS



Annual operational footprint of the team in years leading up to The Ocean Race. Showing participation in years 2019-2022, projected reductions by 2030, and Paris agreement aligned targets for 2030/2050.

DESIGN AND BUILD PHASE



Design and build of an IMOCA (cradle to launch), showing a reference boat built in 2010, the build of Mālama in 2021, projected reductions by 2030, and Paris agreement aligned targets for 2030/2050.

The projected reductions are significant, and are reliant on intensive ongoing collaboration within and across the marine value chain. Levers include better materials, sustainable packaging, decarbonizing energy sources, and financial contributions from mechanisms such as insetting.

Note that even with this ideal scenario, reliant on best efforts by all concerned to achieve relatively accessible initial reductions, we still only get so far. The graphs show that we will still fall short of the 2030/2050 Paris agreement targets.

This is because the crucial work of 'improving business as usual' is still reliant on the constraints of the existing systems within which we operate.

"Insanity is doing the same thing over and over and expecting different results."

Albert Einstein

PARADIGM SHIFT

A paradigm shift is needed to place the marine sector on a truly planet positive trajectory. We need to reimagine a system which will make us relevant in a changing world.

Adapted from work undertaken for The Ocean Race by Kellie Covington, this interpretation of the Pathway to Net Zero maps the milestones we will need to meet to achieve the 2030/50 goals.

There is growing recognition that to achieve these great leaps forward, the reductions, efficiencies, and innovations we have highlighted in this report will only get us so far. We are still reliant on the constraints of the existing systems within which we operate: systems that equate success with economic growth and performance, and make no allowance for environmental impact. While this remains true, incremental steps forward risk being drowned out by the quest for ever more, ever faster.

The marine economy needs a new definition of success that decouples economic growth and performance from environmental impacts, a system that places sobriety of consumption above innovation and development.

CLICK TO OPEN

ROADMAP 2030 : PATHWAY

Timeframe	2021	2020-2024	2024-2028	2028-2032	2050
Global Targets	**Global Net Zero**				
Paris Agreement	Reduce GHG emissions in line with 2030 target	50% Global GHG Reductions by 2030			Global Net Zero
UN Sustainable development goals		UN Sustainable development goals supporting Net Zero			
Maritime Targets	**Aligned with Global Targets**				
Maritime Targets		RCD III consultation outcomes	Zero-emission capable vessels		90% emissions reductions in shipping sector
World Sailing Targets		Specify that all new offshore race yachts (OSR Cat 0, 1 & 2), constructed after 2022, will produce at least 20% of their power requirements using renewable energy sources while racing.	Work with key industries to promote new products used in our sport with a lower environmental impact and work to make these available to sailors across the world by 2024.	All new class bids for 2028 olympics, and beyond, to provide a LCA that demonstrates that 90% of the boat (by weight) is recyclable.	
IMOCA	2021 Rule	2024 Rule	2028 Rule	2032 Rule	
IMOCA Rules	Pilot of 2024 Rules	- Team sustainability charter - LCA for future IMOCA builds - 100kGco2e Alternative materials - One Greensail aboard	- Carbon emission cap for all IMOCA builds - Moulds using 100% recyclable materials - rCF value chain established - End of life obligation for 100% IMOCA components	- IMOCA class eco-label - IMOCA internal price on CO2e - **IMOCA class is Net Zero**	
MATERIALS	**100% CIRCULAR INPUT MATERIALS**				
Build trust and knowledge in alternative material mix	Only a few pilot projects are using nominal amounts of AltMat	2023: Sustainable marine alliance publishes AltMat database 2024: Scale up the AltMat rule			
Scale up the use of alternative materials in non-structural and peripheral elements		2025 : 100 % Renewable or recyclable materials for moulds and non-structural parts			
Scale up the use of alternative materials in structural parts	No AltMat is used in hull, deck or structure	2026: 25% off all IMOCA components by weight/volume are built from AltMat		2030 Target: 75%	
End of life plan for all materials and components, especially non AltMat	End of life is not considered with the exception of the APER standard	2023/4: Carbon recycling network established for all IMOCA teams and suppliers 2026: End of life obligation for all IMOCA manufacturer components			
Reuse	A healthy 2nd hand IMOCA market exists for boats, moulds and components	2024: Strengthen the 2nd hand market by strongly incentivising build for longevity and reuse of all assets stipulated within the rules			
Reduce the use of toxic chemicals	Builders are gaining confidence with Bio-sourced resins	The reduction of toxic chemicals progresses at the inverse pace as the increased use of AltMat			
ENERGY	**NET ZERO EMISSIONS**				
Coordinate efforts to improve energy efficiency	A growing number of organisations are using renewable energy sources	2024: All IMOCA suppliers are on a 100% renewable energy			
Scale up renewable energy onboard	What is the current IMOCA requirement for onboard energy?	2024: All IMOCA are 100% renewable onboard			
Integrate non-fossil fuel propulsion system	Despite ongoing research, only a few teams have made progress	2028: All IMOCA use non-fossil fuel propulsion systems			
Reduce GHG emissions	Footprint of an IMOCA - 2010: 300 tCO2e - 2020: 600 tCO2e	Change the trend of growing GHG footprint to achieve 8% annual reductions IMOCA-Class, and each team report GHG emissions annually		Target 150 tCO2e by 2030	
IMOCA events		2024: All IMOCA events are 100% renewable energy			
WASTE	**ZERO WASTE**				
Coordinate efforts to understand waste streams and challenges		Collectively define targets for waste reduction			
Reduce reliance on waste to energy systems	Currently significant amounts of boatbuilding waste end up in waste to energy or landfill	2024: 90% waste streams have alternative circular solutions available			
Reduce carbon fiber waste	The rCF market and options are scaling up	2024: The IMOCA class has facilitated an rCF valuechain	2026: 100% of all carbon fibre components are recycled, in parallel the use of rCF in the IMOCA class increases		
Work with suppliers to reduce single use plastic	Stringe use plastic is currently ubiquitos to boatbuilding	2024: IMOCA policy incentivises building processes that limit SUP	2026: 80% reduction in SUP, zero to landfill		
Develop circular end of life solutions		2026: 75% of an IMOCA by weight is recycled		**2028 Target: 90%**	
POLICY	**INCREASING EOL AND ENVIRONMENTAL LEGISLATION**				
Define relevant strategies	IMOCA sustainability committee	Collaboratively define targets, share best practices and invest in R&D			
Use the rules as a key enabler	Develop class rules that align the industry with the level of reductions needed to meet global reduction targets				
Maximise uptake of Life Cycle Analysis	Existing benchmarks for 2010 & 2021	Set LCA requirement for all future builds	2024: Set LCA cap for all IMOCA builds and major selected components components		
Establish an Internal cost for carbon emissions			2024: Establish an Internal cost of carbon for the IMOCA class, create a market	2026: IMOCA class - Net Zero	
SOCIAL	**IMPROVE SOCIAL ASSETS**				
Build UN SDG goals into sustainability plan	The IMOCA class sustainability goals	IMOCA class sustainability goals support UNSDGs as integral			
Diversity		Develop pathways, representation and access within your organisation and across supply-chain demographics, through investment, training, culture audits, placement of recruitment opportunities, and fair and equal compensation			
Safe working spaces	Lack of consistent safeguards and standards	Aaddress the development of safeguarding, inclusion and retention. Work within community and peers to foster safe and inclusive working environments for all through safe working standards, education and reporting protocols			
Grow sailing's reach, audience and participation		Extend all aspects of the marine industry and access to careers to new groups			
MARINE SECTOR	**INFLUENCE PEERS**				
Build sponsor value through environmental performance	Sustainability KPIs in sponsorship agreements				
Drive sustainable event and hospitality standards		All IMOCA and partner events are accredited			
Influence other industry sectors		Expand green technology into other sectors Develop the Toolbox into new languages and sectors			
Develop an industry-led accreditation standard		Toolbox scorecard			

An independent interpretation offered by the 11th Hour Racing team

PARADIGM SHIFT

To reimagine the future, we must start by understanding the limitations of prevailing perspectives and systems.

CLIMATE CHANGE VS PLANETARY BOUNDARIES

The need to focus on climate change is undoubtedly one of the most pressing challenges of our time, and many organizations are now taking steps to address their carbon footprints. By focusing purely on reducing GHG emissions, however, organizations risk ignoring other important environmental impacts, and the related business challenges and risks that they bring. A broader **planetary boundaries** approach is needed, which takes a wider lens, requiring companies to address climate, biodiversity, water, land use, and beyond, through one integrated plan that finds synergies while minimizing trade-offs.

EGOCENTRIC VS ECOCENTRIC

The current prevailing worldview is egocentric, framing nature as a commodity to buy, sell, extract, and exploit for our own benefits and interests. A shift towards the **ecocentric** school of thought is needed, which places humans in the service of a healthy planet and recognizes that all beings are interdependent and every form of life has value regardless of its worth to human beings.

To extend a legal framework to support this, the rights of nature have been accorded in a growing number of countries[35] to various natural resources. Championed by The Ocean Race - the **Genova process** has proposed a charter that aims to establish legal rights for the Ocean as its own entity.

SUPPORT THE UNIVERSAL DECLARATION OF OCEAN RIGHTS

ONE BLUE VOICE

[35] In 2008, Ecuador became the first country in the world to **formally recognize and implement the Rights of Nature**, which Ecuadorians refer to as the Rights of Pachamama (Mother Earth).

PARADIGM SHIFT

There are many models that can help us to conceive a paradigm shift, and shed the prevailing perspectives in order to reimagine our place in the future.

SYSTEMS THINKING

Systems transformation is a coordination across all parts of the system we are trying to change.[36] Instead of focussing on incremental fixes of broken parts of an existing system,

It is a holistic approach to problem solving that requires a zoomed out approach, with all elements considered together, in order to enable conditions for paradigm shifts to emerge. This can look like interconnected changes to technologies, social practices, business models, regulations, and societal norms. An example of using this lens to reimagine the future is the Danish municipality, **Kalundborg**. Systems thinking is demonstrated here through coordination among industries of different types located near one another, creating a kind of ecosystem with closed-loop flows of energy, water, materials, wastes, etc.

ACCESS OVER OWNERSHIP - THE SHARING ECONOMY MODEL

The access over ownership paradigm challenges capitalist models of infinite growth. Instead of the conventionally linear buy-use-dispose consumption, rental models, and second-hand sales platforms highlight the importance of careful management for lifecycle continuity and service maintenance, by encouraging a closer connection between consumers, provider, and product/service. Effective 'collaborative consumption' creates a more stable and cost-effective market which adapts in a slower, more controlled way to demand. The internet has played a crucial role in facilitating the transition towards the sharing economy model. Although this system has traditionally been applied for years in the accommodation and transport industries, for example, the concept is progressively spreading to other areas.

CIRCULAR BUSINESS MODELS

Integrating circularity into business models is crucial to transitioning the wider economy away from linear, destructive production chains. The Ellen MacArthur Foundation champions the circular economy and has narrowed the concept down to three main design-based principles:

- Eliminate waste and pollution
- Circulate products and materials (at their highest value)
- Regenerate nature

Incorporating these principles into smaller-scale business models is integral to creating a virtuous cycle of increased economic resilience in the long term. The consumer electronics business **Fairphone** is exemplifying a paradigm shift towards a circularity business model, striving to make a positive impact at all stages of their products' lifecycle.

[36] **https://www.theguardian.com/sustainable-business/systems-thinking-sustainable-transformation**

PLAYING TO OUR STRENGTHS

We are in a position as a high profile, international sporting team, where we have a disproportionate amount of influence and impact when compared with our size.

We can use our strengths, which include access to funding, networks, and the ability to move faster than businesses or governments to push for change. While the marine industry may be small, the opportunity for driving impact through our collective supply chain and networks is great, as long as we can redefine the parameters of our growth within the limits of the planetary boundaries.

"Pour ce qui est de l'avenir, il ne s'agit pas de le prévoir, mais de le rendre possible."

Antoine de Saint Exupéry, Citadelle, 1948

"With regards to the future, it is not about predicting it, but about making it possible."

THE KEY LEVERS OF CHANGE AT OUR DISPOSAL

Agility

Unrestrained by the slower pace of change of business and governments, we have the capacity to redefine success, redesign the system we operate in, and rethink the rules we play by.

Redistributing finance

Finance is going to be the critical way that we can support a just transition at the interface of action on climate and biodiversity. Whether through a focus on insetting within our value chains, funnelling investments into carbon storage, enhancing biodiversity, or providing long-term benefits to people, while giving essential consideration to the communities and land rights involved, finance is a key part of the story.

Harnessing networks

We must use the power of our networks to elevate and support the local communities we operate within, to push for policy level change, and to develop a diverse workforce, with safe, accessible, and fair working cultures that we can be proud of.

We have the skills, and often even the technologies that we need to make an impact. Now all that remains is to act.

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CAMPAIGN REFERENCES AND FRAMEWORKS

Level	Standard	Level of assurance
Team sustainability management system in conformance	ISO20121	Second party assured by World Sailing
Annual reports are referenced	Global Reporting Initiative	Third party assured by Anthesis
Sustainability goals reference	UN Sustainable Development Goals	Reviewed by Jill Savery, 11th Hour Racing
Team is aligned	World Sailing Agenda 2030	Reviewed by Jill Savery, 11th Hour Racing
Team operates in conformance	IMOCA class sustainability guidelines	Reviewed by IMOCA Class
Team operates in conformance	The Ocean Race sustainable guidelines for teams	Reviewed by The Ocean Race
Team operates in compliance	Relevant national and local legislation	Due diligence by the Team, supported by legal advice when relevant

11TH HOUR RACING TEAM RESOURCES

Annual sustainability report **2019**
Annual sustainability report **2020**
Annual sustainability report **2021**
Annual sustainability report **2022**
Climate Action **Plan**
Climate Action **Tracker**
End of Campaign **Report** 2019-23
End of Life **Plan**
Event Sustainability **Checklist**
Glossary
Insetting Assessment **Template**
Mapping Principles and Goals to Our Initiative Streams
Sustainable Sourcing **Code**
Sustainable design and build report – **English**
Sustainable design and build report - **French**
Sustainability **Policy**
The **Toolbox**
Travel **Policy**

EXTERNAL RESOURCES

The Ocean Race 2023 **report**

For questions about this report, please contact **sustainability@1degree.us**

APPENDIX

PRINCIPLES, GOALS AND TARGETS TRACKER

LEGEND

5	4	3	2	1	0

5: Target achieved

0: no progress made

PRINCIPLE	GOAL	OBJECTIVE	WORLD SAILING		TARGET	2019	2020	2021	2022	2023
LEADERSHIP	Create Ambassadors	Foster an inclusive team of diverse, motivated and informed leaders in sustainability.	Objective 4 Objective 1		Define the scope of the project; Create a comprehensive Sustainability Plan; Apply the resources to ensure success	5	5	5	5	5
				1.1	The team is an equal opportunity and disability confident employer	2	3	3	3	3
					Under 30 - Team provides opportunity for youth employment	4	4	5	4	5
					Employment policy sets a priority on local staffing and services.	2	3	4	4	4
				1.2	Staff induction ensures that all team have an understanding of Sustainability Principles, Objectives and Targets, their purpose and their role in delivery.	4	4	4	4	4
					Team members provided with ongoing professional development and training aimed at increasing their knowledge of sustainable behaviours	4	5	5	4	5
					Team members signed Sustainability Charter, defining commitment to champion best practices at all times	4	5	5	5	5
				1.3	Engage with regular public and marine industry speaking engagements. Sustainability Team will speak at 4 events per year	2	4	5	5	5
					Create Ocean Hour advisory network to support team work	0	2	5	5	5
					Team supports ocean education programs through minimum 5 initiatives /year	1	1	3	3	5
					Each team member will champion one of the teams goals to communicate to their fan base / networks.	2	3	3	3	4
	Support Peers	Provide an exemplary model of sustainability leadership and ethical management.	Objective 7	2.1	Collaborate with TOR [and other events] and Industry community to acheive sustainability improvements, including footprint reduction and increasing positive impacts.	2	3	5	5	5
				2.2	Support strategic partnerships to facilitate specific policy changes in one or more of the following sectors: Marine Industry, World Sailing, IMOCA Class, The Ocean Race	1	4	5	5	5
					Support TOR and other stakeholders to engage with local & national government/organisations to positively effect sustainability policy	1	1	4	5	5
	Inspire Fans and Follc	Inspire behavioural change among global sports fans and communities to restore the health of our oceans.	Objective 6	3.1	The team attend and support all known Ocean Race [or other event] key sustainability events, Ocean Summits and key host city sustainability events as opportunities to engage influencers and policy makers as may be relevant	4	5	5	5	5
					If invited, the team principles will present and promote sustainability at 100% of 11 Ocean Summits.	4	5	5	5	5
				3.2	Execute the sustainability communications plan	4	4	3	5	5
COLLABORATION	Foster Strategic Partnerships	Foster partnerships based on the systematic adoption of sustainable standards.	Objective 1	4.1	The team will only engage with partners that align with the team's sustainability ambitions	3	3	4	4	4
					Consult and co-create goals and objectives with each individual partner and report on results	3	4	4	3	4
	Influence Supply Chains	Positively influence the marine industry supply chain.	Objective 2	5.1	10 Products of concern mapped through to source	1	3	1	1	1
				5.2	SSC Principles applied to products and services as defined within the code	1	3	4	4	4
					75% local products, services & labour at semi-permanent bases. 10% local products, services & labour at stopovers and short stay venues	2	4	4	4	4
				5.3	10 suppliers have improved their internal sustainability practices as a result of engagement with the team	2	4	4	4	5
	Implement Sustainable Operations	Apply best practices to reduce environmental footprints across all areas of operation*	Objective 2	6.1	Create and implement a CLIMATE ACTION PLAN to reduce fossil fuel use, emissions, and optimize energy needs	2	3	3	3	5
					Maximise renewable energy solutions	1	3	3	3	3
				6.2	Optimize personel transport to reduce emissions	2	4	2	3	3
					Optimize in goods transportation to reduce emissions	2	3	3	3	3
					Self-catering accommodation within sustainable transport proximity of team base venues	2	3	2	3	4
				6.3	Compliance with Sustainable Catering Guide principles	2	4	3	3	4
					Staff engagement Meat Free Monday	2	3	1	1	1
				6.4	Landfill diversion rate at Team bases	3	2	5	2	n/a
					General waste diversion	3	3	2	1	3
					Composting or anaerobic digestion at all venues	2	4	2	2	3
					Avoidable single-use plastic	4	4	2	2	2
					Provide filtered water at all team venues	4	5	4	5	5
					Onboard waste reduction compared to baseline	2	3	3	2	2
				6.5	Reduce shore operations water by 10% compared to baseline data	2	2	2	2	2
					Establish baseline data for embedded water, and compensate for a Net Positive outcome	2	3	3	4	5

CLICK TO OPEN

PRINCIPLE	GOAL	OBJECTIVE	WORLD SAILING		TARGET	2019	2020	2021	2022	2023
INNOVATION	Embed Circular Economy Principles	Apply innovative solutions across team operations through the application of circular economy principles.	Objective 2	7.1	Commit to setting up a collaborative build and design working group with a remit that contributes to the boat building industry's uptake of circular economy principles	3	4	5	5	5
					Minimize leakage of waste by identifying 5 areas to develop a boat design strategy for circularity** **e.g. material selection, standardised components, designed-to-last products, design for easy end-of-life sorting, separation or reuse of products and materials, and design-for-manufacturing criteria that take into account possible useful applications of by-products and wastes.	2	3	5	5	5
					Achieve % manufacturing and packaging waste reduction over the campaign on identified projects	2	3	3	3	3
				7.2	Identify 2 partners per year to implement Reverse Cycles with. Projects could include collection, refurbishment and resale / Establishing reverse supply chain / Remanufacturing projects / Leasing or sharing economy initiatives / packaging take back schemes.	2	3	4	4	4
				7.3	Identify one project to tackle using a biomimicry approach to problem solving	2	4	5	5	5
					Reinvest in natural capital through grant and offsetting programmes. (mangrove / seagrass projects..)	1	2	5	5	5
					Promote a specific Marine protected area each year/ race leg, or similar ocean conservation issue	1	1	5	5	5
					Support the TOR onboard science programme	2	4	5	1	5
	Transform Manufactu	Employ a sustainable design and boat build process particularly with regards to resource management, production, and end of life options.	Objective 8	8.1	All contracts to include Supplier Sustainability Commitments	2	3	4	5	5
					Commission a survey (report) of state of the art alternative materials that are available for marine industry build options	5	5	5	5	5
					Audit of boat yard energy, waste and resource with recommendations for improved efficiency	3	5	5	5	5
				8.2	%tbc improvement - boat yard energy and resource management	2	3	3	2	3
	Apply Life Cycle Anal	Apply Life Cycle Analysis to production processes to inform sustainable choices.	Objective 8	9.1	Production of exploratory LCA report using historical data and the most recent IMOCA build	2	5	5	5	5
				9.2	Interpretation of study to inform x# process/material/transport/production/EOL improvement choices, and a comparison to 'business as usual' to be made.	1	3	5	5	5
				9.3	Production of as-built LCA report	1	3	5	5	5
					Develop 1 case study describing better design choices made as a result of LCA studies, including recommendations/lessons learnt	0	1	5	5	5
LEGACY	Invest in Community Outreach	Develop a legacy grant program as part of a wider outreach strategy promoting ocean health and sustainable communities.	Objective 3	10.1	One legacy per leg or 2-3 per year	5	5	5	5	5
				10.2	Each team staff will participate in at least 1 community outreach / industry sustainability event per year	4	4	2	2	5
					The team will integrate a local community project in Newport, RI	2	5	5	2	5
				10.3	Amplify the sustainability efforts of coastal marine communities and cities visited during the campaign	2	2	3	5	5
					The team will collaborate with Internal, External staff and event teams to leverage the value of the message locally and internationally	2	4	5	3	5
				10.4	The team will support TIHR with the development of long term relationships with each of the Grant recipients.	3	4	4	4	5
	Educate and Train	Provide education and training opportunities for key groups highlighting key ocean health issues.	Objective 5	11.1	The Exploration zone will be neutral environmental impact	N/a				
					The Exploration zone staff will have in-depth knowledge of subjects interpreted within the displays	N/a				
					The exploration zone materials will have a meaningful/relevant 'end/next life' post-race.	N/a				
				11.2	One intern per stopover or campaign period, supported by all departments - and facilitate ongoing post experience opportunities	5	5	5	0	5
					Create mentorship program, supporting a diverse, international group of youg professionals	0	4	5	5	5
	Communicate and Inform	Champion transparent reporting, sharing of challenges and successes, and guiding future policy to promote long term planning around sustainability.	Objective 9	12.1	Offset our Greenhouse Gas Emissions to acheive Carbon positive target.	0	0	0	1	5
				12.2	Monitor, reduce water footprint according to a recognised standard, and share learning and engage with the industry to support adoption	1	3	4	4	5
				12.3	Use the LCA and Design and Build reports to make industry recommendations	2	4	5	5	5
				12.4	Publish annual Sustainability reports in accordance with GRI reporting standards and map the team's contribution to the UN Sustainable development goals	0	3	5	4	5
					Inform improvements for the next cycle & updates to the team's Sustainability plan	3	4	4	4	5
				12.5	Strategy and Targets for Toolbox 2022-23	0	3	5	5	5

APPENDIX

CAMPAIGN CONTRIBUTORS

11th Hour Racing Team would like to thank all those who contributed to our campaign. Only by working together was all this possible.

Our partners and official suppliers:
11th Hour Racing
Water Footprint Implementation
Gen2Carbon
Karun
Bluewater
Seatrees
Ecoworks Marine
GuzzleH20
Musto
B&G
Marlow
YETI
Oakcliff Sailing
Sail Newport
USMMA Sailing Foundation

Our incredible grantees:
Environmental Monitoring Group
Save the Med Foundation
Biosfera
Plant a Million Corals Foundation
Station de la Marine Concarneau
EXPLORE
Associação Náutica de Itajaí
Conanincut Island Sailing Foundation
Water Footprint Compensation
UNLEASH
Fondazione Acquario di Genova Onlus

Specific thanks to our team of report editors, reviewers and content contributors:
Amy Monkman - 11th Hour Racing Team
Amy Munro - 11th Hour Racing Team
Damian Foxall - 11th Hour Racing Team
Emily Caroe - 11th Hour Racing Team
Meredith Carroll - 11th Hour Racing Team
Emma Janson - Majenta Project Mentee
Jazmin Sopena Clemencon - NextGen Mentorship Progam
Rose Gallichan - NextGen Mentorship Program

To our community, during the Team's turbulent adventure in this race, the support has been overwhelming. The messages from around the world have shown us that our 'one big family' is perhaps even bigger than we originally imagined. So thank you.

And finally, to all our colleagues and team members, thank you for your continued creativity and contributions throughout the campaign. This report represents the sum of all of your amazing efforts.


THANK YOU