11TH HOUR RACING TEAM

2020 SUSTAINABILITY REPORT

FOREWORD

The COVID-19 pandemic has brought challenges to so many around the world including our team members, our families, our friends and the wider marine and sporting communities, many of whom have been personally affected.

As racing was cancelled, training sessions postponed and our international team members remained home, we, like so many others, had the time to regroup and review again the WHY around what we do. What will success ultimately look like for us at 11th Hour Racing Team?

Our on-the-water mission is clear: to develop a high-performance sports team utilizing the best technologies and innovations, bringing together the very best minds in yacht design and performance, the most experienced sailors and shore crew, for the very best race-winning capabilities. This sporting effort is entirely integrated with Team-wide sustainable practices.

During 2020, we became aware that the neutral footprint and impact strategy outlined in our Sustainability Policy felt underwhelming compared to the reality and urgency of today's global issues, and we committed to shift up a gear and realign the Team with a new outcome: Net Positive - Regenerative.

This approach has provided a new lens through which to consider our work: aiming to leave our areas of operation and influence better for our presence. This year we have updated our Sustainability Policy and plans to reflect this new perspective.

Despite the limitations of travel and work restrictions, while complying with all COVID-19 regulations, the build of our new IMOCA 60 - 11.2 - continued at a steady pace. We also began a full life cycle assessment to review the impact of a new boat build from cradle to grave. This assessment, along with one we completed in 2019, will provide the industry with important benchmarks for all future boat builds. Additionally, the refit and launch of our IMOCA 60 - 11.1 - and two transatlantic sailing sessions, kept the shore and sailing teams busy.

Throughout the year we worked to embed our Team operations in the communities where we are based: our home port of Newport, Rhode Island, USA and our temporary team base in Concarneau, Brittany, France. In addition to creating local employment opportunities, a significant percentage of our annual budget was invested in the local economy through the purchase of local products and services. Our ongoing work with 11th Hour Racing grantees Clean Ocean Access, Sail Newport, and NewportFILM in the US, and Team grantees Marine Station de Concarneau and Explore in France, are activities that all Team members particularly enjoy.

FOREWORD

Our sustainability team has written a series of eight How-To Guides and accompanying resources, designed to help make sustainability more accessible for organizations of varying size and industry sectors. The series lays out a framework to help sports teams, organizations, events and businesses implement a sustainability program - from establishing a sustainability policy, to creating and implementing the plan, and reporting on progress. The suite of resources will be available at www.SustainabilityToolbox.com in May 2021.

Our established sustainability training focus shifted to remote learning and upskilling, with the introduction of a training platform. The interactive speaker sessions and courses covered topics from biomimicry and the circular economy to intersectional environmentalism, climate science and youth mentorship. These were welcome opportunities to bring us together as a Team, share our experiences and learn how to become better equipped to contribute to a low carbon and just, social future as we look to move forward from all that this past incredibly challenging year has brought.

At 11th Hour Racing Team we are committed to our four 'Guiding Principles' of Leadership, Innovation, Collaboration and Legacy, which align with our newly updated Sustainability Program. These Principles also contribute towards the achievement of 13 of the UN Sustainable Development Goals, the nine objectives of the World Sailing Agenda 2030 and the five principles of the UNFCCC Sports for Climate Action Framework.

So what will success look like for 11th Hour Racing Team as we move into 2021 and the second full year of our campaign? We will continue to demonstrate high-level sporting performance can work hand-in-hand with sustainable innovations, developments and practices. We'll champion sustainability within the marine industry and work collaboratively to develop practical solutions and mitigations with our suppliers; and we'll support the adoption of sustainability rules within the IMOCA Class and associated sailing events.

To create an impact for positive ocean health, we look forward to working with our supporters, industry colleagues and the wider marine community to collectively support the industry's alignment with the Paris Agreement's 45% reduction of our footprint by 2030 and ultimately net zero by 2050.

Charlie Enright,
Skipper, 11th Hour Racing Team

Mark Towill,
CEO, 11th Hour Racing Team

April 1, 2021

GRI Disclosure:
102-14 Statement from senior decision maker

11TH HOUR RACING TEAM
2020 SUSTAINABILITY PROGRAM ACHIEVEMENTS

10 hours of sustainability training a month provided for all team members

Gave 33 talks on sport and positive environmental impact

Developed global mentorship program

Signed up to the global movement of sports organizations, events and teams motivated to prioritize climate action

Invested 81% of our purchases in the local economy

Studied biomimicry innovations for our new boat build

Measured our digital footprint at home and work

Piloted eight sustainability program How-To Guides with peers

Diverted 76% of waste from landfill

Conducted Life cycle assessment of IMOCA 60 yacht for benchmarking

Measured all aspects of our boat build from waste to water, energy to greenhouse gas emissions

Contributed to citizen science programs while sailing

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INTRODUCTION

This is the second annual Sustainability Report of 11th Hour Racing Team (the Team), the high-performance offshore sailing team from Newport, Rhode Island, USA and operating from its temporary base in Brittany, France. This report details the Team's sustainability work and progress in 2020, the second year of operation.

Co-founders Charlie Enright (USA) and Mark Towill (USA) have competed in the two previous editions of The Ocean Race (formerly the Volvo Ocean Race) using the worldwide sporting event in 2017-18 as a platform to promote ocean health and sustainability.

Supported by its primary partner 11th Hour Racing, and a number of official partners and suppliers, The Team will compete in The Ocean Race 2022-23. The competitive sporting goal to win the overall Ocean Race Trophy will run in parallel with embedding sustainability throughout the campaign to demonstrate that sporting performance can work seamlessly with sustainability, with the ultimate goal to have a Net positive impact.

The Team's previous reports can be found here:

VESTAS 11TH HOUR RACING 2017-18 REPORT | **11TH HOUR RACING TEAM 2019 REPORT** | **11TH HOUR RACING TEAM 2019 SUMMARY** | **11TH HOUR RACING TEAM 2020 SUMMARY**

THE TEAM

The Team is managed by 1 Degree, LLC of 251 Little Falls Drive, Wilmington, Delaware, 19808, United States. The Team has established a training partnership with MerConcept, in Concarneau, France, which provides design coordination, a support base and infrastructure for the Team as it prepares two boats for the 2021 training and race season.
The Team's training boat, a second-hand IMOCA 60, known as 11.1, was refitted in Multiplast, Vannes, France in 2020, and completed two transatlantic crossings, including a stop in Newport, RI, USA.

GRI Disclosures
102-1 - Name of the organization
102-3 - Location of headquarters
102-4 - Location of operations
102-51 - Date of most recent report

GRI Disclosures
102 - 46 Defining report content and topic boundaries
102 - 50 Reporting period
102 - 52 Reporting cycle
102 - 53 Contact point for questions regarding the report

The design of a new IMOCA 60, known as 11.2, started in 2019, and the actual build started early 2020 at CDK Technologies in Brittany. Completion and launch of the new boat is planned for mid 2021. The Team consists of the sailing team, shore team and management, a number of whom work remotely when not onsite for training or specific events. The Team owns or rents a number of portacabins and containers as temporary bases, storage and workspaces.

DEFINING REPORT CONTENT

The reporting period for this annual report is the calendar year of 2020. Questions regarding this report can be sent to sustainability@1degree.us.

The Team's sustainability management system is designed to conform with the ISO 20121 standard. While this report has received a third party audit, as an organization, assuring the management system itself is out of scope of our stakeholder requirements. The Team has instead opted for a second party audit by World Sailing.

In preparation of this report the Team followed the structure that addressed each of the Team's Principles, Goals and Targets, while considering the four GRI reporting principles that define report content; stakeholder inclusiveness, materiality, sustainability context and completeness.

MATERIALITY

The materiality principle was applied to identify environmental, social and economic material topics, which can be found in full under the 'Key Issues' chapter and in more detail in the 2019 Sustainability Report which describes our assessment of our material impacts. The issues and associated targets can be found in this report structure under their relevant Principle and Goal headers.

STAKEHOLDER INCLUSIVENESS

The Team identified and consulted key internal and external stakeholders. This report not only covers topics that are material but also further topics of interest to our stakeholders. Stakeholders were contacted in January 2021 to review the chapter titles and proposed report content and were invited to provide feedback. Some example responses are detailed in the following table;

Table 1: Report content topics raised by stakeholders

Topics and report content requirements	Raised by	Where
Updates to vision and mission Celebrating what the Team has done well helps to create a good culture as much as working to fix what might have gone wrong. Social justice The way sustainability has helped give us something in common to bring us closer together when we are all working in our own areas miles apart.	11th Hour Racing Team members	INTRODUCTION, VISION, MISSION, STAKEHOLDERS LEGACY | INTERN PROGRAM & NEXTGEN LEADERSHIP GOAL ONE | CREATE AMBASSADORS
How have you dealt with the issue of carbon emissions? We would love to know more about the relationship with the communities. The way you relate to them and the impact results. We would like to know a little more about the allies you work with.	Official Supplier, Karün	COLLABORATION GOAL THREE | GHG EMISSIONS LEGACY GOAL ONE | LEGACY GRANT PROGRAM COLLABORATION GOAL ONE | FOSTER STRATEGIC PARTNERSHIPS
Clear language, tangible equivalencies	Official Supplier, Marlow Ropes	THROUGHOUT
The inclusion of GRI Disclosures; 403-1 Occupational Health and Safety	Title Sponsor, 11th Hour Racing	LEADERSHIP GOAL ONE | CREATE AMBASSADORS

VISION, MISSION & STRATEGY

Created in 2019 with feedback from a wide range of stakeholders, the Team's Sustainability Policy provides a roadmap for the Team, and has also been especially useful as an introduction for new stakeholders to the Team's ethos and mission. The Sustainability Policy, contains the Team's values and principles and is reviewed and approved annually at the Management Review in February, by the Co-Founders and COO. It is available in English.

During 2020, the Team became aware that the neutral footprint and impact strategy outlined in the Sustainability Policy 'felt' underwhelming compared to the reality and urgency of today's global issues and it was decided to 'shift up a gear' and realign the Team with a new outcome: net positive and regenerative. This approach has provided the Team with a new lens through which to consider its work and can be simply described as 'not just being 'less bad' for our natural world, but doing more good'. The Team's Sustainability Policy and plans were updated to reflect this new perspective.

The 2019 Sustainability Report details how the Team's values, principles, standards and norms of behavior were developed and approved. The Team substantially increased training throughout 2020 through internal engagement plans, training platforms, inductions for new team members and educational sessions.

GRI Disclosures
102-16 Values, principles, standards, and norms of behavior

STAKEHOLDERS

The Team's stakeholders have been mapped and grouped as follows:

Figure 2: Stakeholder Map

Having formalised the stakeholder management and discovery process in the previous report cycle[1], 2020 was a busy year for the Team as new partners and suppliers joined the campaign. This provided new opportunities, risks and resources, to be discussed with each stakeholder.

The Team continued to update its stakeholder mapping and prioritization throughout the year, taking into account the level of influence, interest and responsibility within the supply chain, to ensure that all feedback was given the importance it deserved.

Stakeholder engagement by numbers

- New Official partners: 3
- Stakeholder discovery with new suppliers stakeholder discovery: 10
- Spend with top five suppliers: 45%
- Engagement with team members: 11 Inductions, 12 #OceanHour Sessions, 12 Green Team (Hub Spot) meetings
- Engagement with industry and community groups through virtual conferences: 33 events, with a total reach of 26,103 people
- Public reached through social and digital media: Impressions (Instagram, Facebook, Twitter and YouTube): 6.54 million, Engagement (Instagram, Facebook, Twitter): 313 k, Followers (Instagram, Facebook, Twitter, YouTube and email newsletter subscribers): 37,373
- Priority* stakeholders engaged as part of the reporting process: 13

GRI Disclosures
102-40 List of stakeholder groups
102-42 Identifying and selecting stakeholders
102-43 Approach to stakeholder engagement
102-44 Key topics and concerns raised

1 See 2019 Sustainability Report

The Team gathered key topics of concern or interest raised by stakeholders in 2020 during monthly meetings with key partners, Team training and feedback workshops, and weekly management meetings. These included:

Table 2: Sustainability topics raised by stakeholders in 2020 on the campaign

Topics raised	Response	
A better understanding of practical applications of Life Cycle Assessment	The Team financially part-supported the hiring of Etienne Le Pen, life cycle assessment intern placed at CDK Technologies facility where IMOCA 60 11.2 is being constructed	INNOVATION GOAL THREE | IMPLEMENT LIFE CYCLE ASSESSMENT
A combined effort and approach to addressing marine mammal strikes	The Team created best practice guidelines for avoiding marine mammal; and research technical solutions to marine mammal strikes	COLLABORATION GOAL THREE | MARINE MAMMALS
Onboard packaging and waste	The Team is working with suppliers of alternative packaging to develop the best solutions for onboard waste reduction	COLLABORATION GOAL THREE | OPERATIONS

*Defined by our stakeholder prioritization process described in the 2019 Sustainability Report

ORGANIZATION STRUCTURE

1 Degree is responsible for the full operation of the campaign. The campaign is supported by 11th Hour Racing, title sponsor and financial stakeholder. The operational team name is 11th Hour Racing Team and the management and governance structure is outlined below. The CEO and management team is responsible for decision-making on economic, environmental and social topics, with support from the sustainability team.

Figure 2: Organization Structure

A breakdown of the Team's 2020, long-term, short-term and external contractors can be found here.

Table 3: 2020 Team

2020 Employment type	Total	Region
Long-term	19	France, USA, UK, Australia, New Zealand, Canada
Short-term	18	France, USA
External contractors	20	France, USA

GRI Disclosures
102-8 Information on employees and other workers
102-18 Governance structure

All long and short-term employment and external contractors are full-time with the exception of two who have part-time. Additional external contractors were hired during busy boat maintenance periods with high volumes of repair and improvement work being carried out on 11.1.

ROLES AND RESPONSIBILITIES

Sustainability is embedded into everyone's role, detailed in the employment contracts they sign, through the induction process and further, depending on their position within the Team. The figure below describes some of the high-level responsibilities held within different departments.

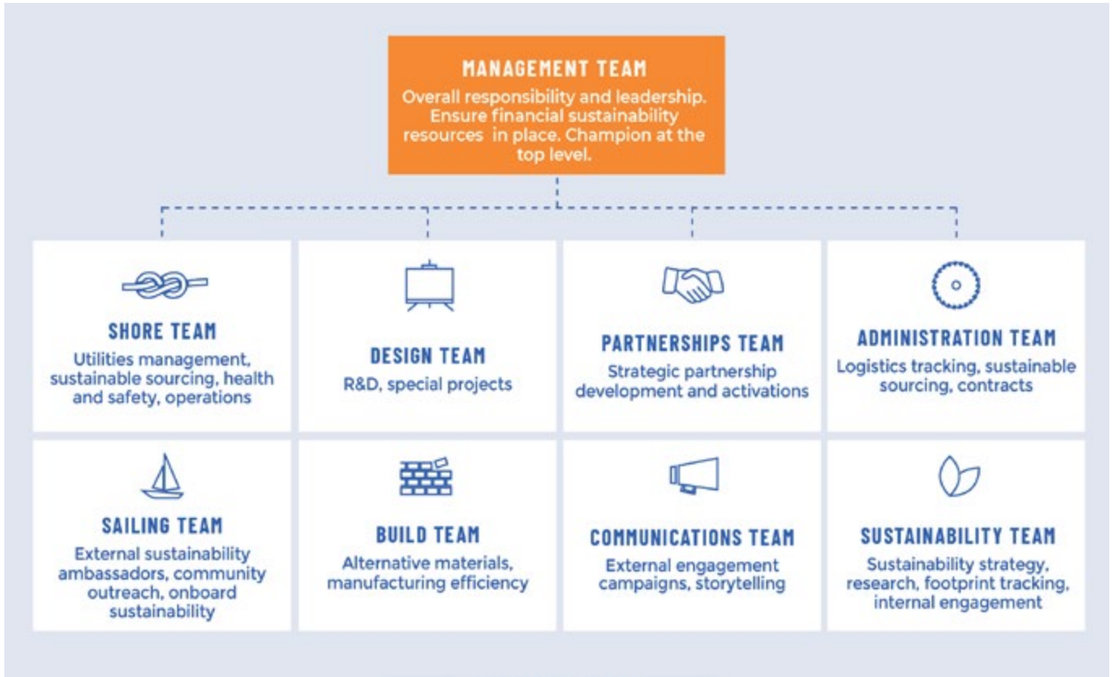


Figure 3: Roles and responsibilities

KEY ISSUES

The sustainability issues highlighted by stakeholder engagement are mapped here against the Team's activities. The issues that present risks and opportunities are ranked in order of priority, based on likelihood, severity, compliance history, stakeholder importance and legislative importance. The Team completed this process at the end of 2019 and no further changes were made in 2020. The next review is at the annual management meeting in February. 2021.

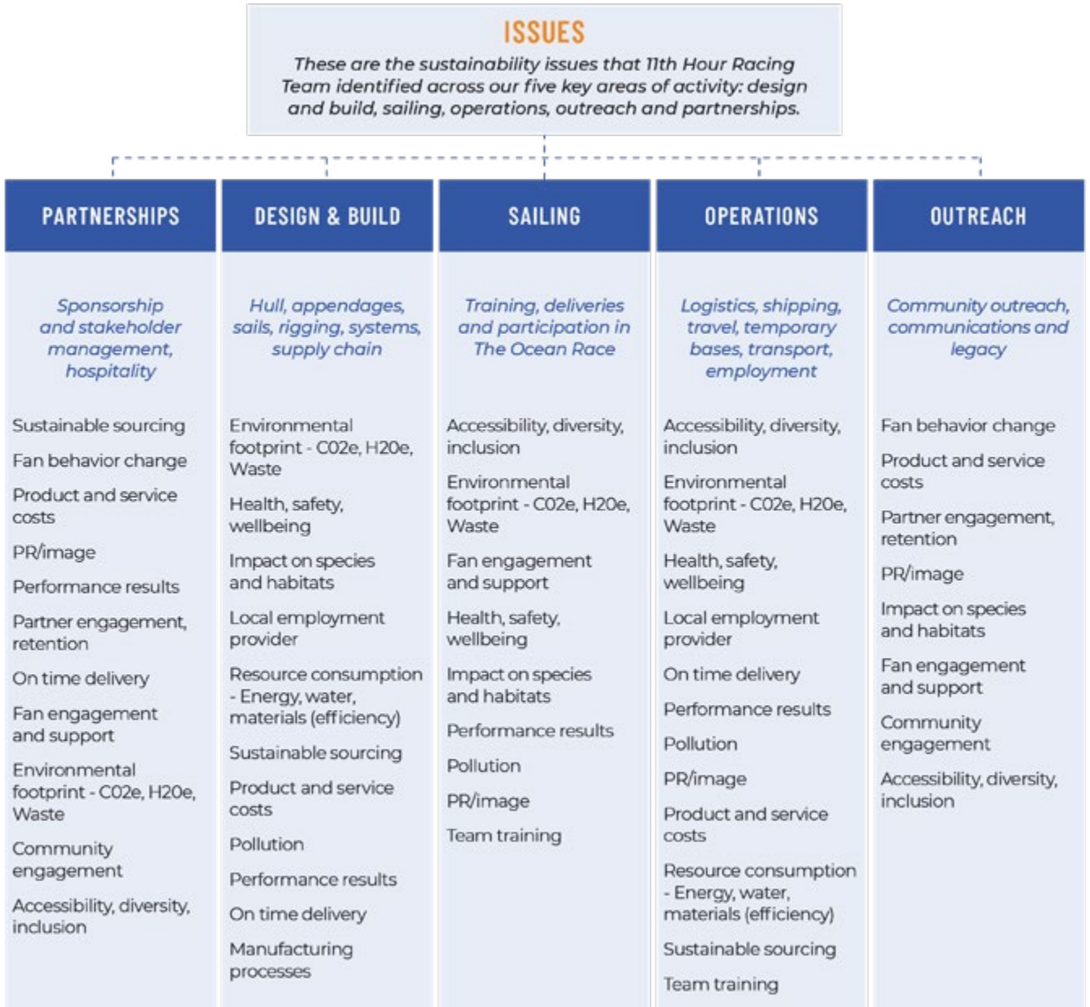


Figure 4: Activities and issues

Table 4: Material issues

ISSUE	RATING	RISK	OPPORTUNITY
Environmental footprint - C02e, H20e, Waste	1	• Legal compliance • Cost • Sponsorship risk • PR issues	• Cost savings • Compliance • Sponsorship retention • Fostering supply chain relationships • Improved operations
Impact on species and habitats	1	• Oil spills • Pollution • Carbon emissions • Water use	• Restore habitats through Grantee programs, • Embed best practices in operations • Invest in offsets
Health, safety, well-being	3	• Health and safety issues directly affect productivity • Risk of negative PR • Legal compliance	• Showcase best practices • Retain healthy and motivated employees
Product and service costs	3	• Budget • Cash flow • Sustainable options: cost too high to justify	• Drive costs down for sustainable products by stimulating demand
On time delivery	3	• Delays to schedule • Reduced training time c • Competitive edge (ie. compromising performance)	• Improved supplier relationships, • Maximize training and commissioning time
Manufacturing process	3	• Increased cost and waste due to manufacturing inefficiencies	• Cost and waste savings, • Shared best practices • Leave legacy within marine industry
Sustainable sourcing	7	• Lack of visibility through supply chain and • Sourcing contributes to welfare, environmental and reputational risks	• Through the power of partnerships the Team can work collaboratively to reach our vision faster by aligning goals with suppliers and establishing robust sourcing codes
Partner engagement, retention	8	• Cash flow	• Partner retention, loyalty • Added value through solution sharing
Resource consumption - Energy, water, materials (efficiency)	9	• Waste due to inefficiencies and associated costs for disposal, • Sponsorship expectations	• Innovative use of resources = performance differentiator • LCA identifies impact hotpots and opportunities for resource reductions, • Sharing of best practices
PR/Image	10	• Loss of fans and sponsors/ partners	• Increase in fan-base and sponsorship opportunities, • Inspire positive behavioral change amongst followers

GRI Disclosures
102-15 Key Impacts, Risks and Opportunities

ISSUE	RATING	RISK	OPPORTUNITY
Team training	11	• Underachievement of sustainability goals • Poor safety management	• Create advocates and ambassadors pertaining to the team's sustainability goals • Encourage peers, other sports teams and the marine industry to follow lead • Establish a healthy, safe working environment • Reduce staff turnover
Local employment provider	12	• Poor community relationships • Bad PR • Large carbon footprint due to travel	• Positive integration with local community • Better relationships • Stronger support from local community
Community engagement	12	• Local barriers • Lack of engagement and local support • Lack of understanding of local issues	• Improve local relationships • The ability to contribute to key local opportunities • Shared values and initiatives • Positive PR
Accessibility, diversity & inclusion	14	• Legal compliance • Lack of participation and engagement	• Improved and varied skill sets, • increased event participation and audience reach
Fan engagement and support	15	• Lack of support = reduced return on investment to sponsors and partners	• Positive behavioral change for ocean health • Global support • Increased sponsorship opportunities
Positive behavior change	15	• Team members and/or suppliers don't represent Team's values, vision, mission • Alienate fan base through communication strategy around sustainability initiatives	• Team members /suppliers embrace sustainability initiatives, resulting in changed practices into business operations and daily life. • Positively impact behavioural change amongst global fan base for the benefit of ocean health

SCOPE

The scope of the sustainability program applies to all activities directly managed or owned by the Team. The boundaries of the Team's responsibilities include:

- All products, services and infrastructure procured during the campaign
- All activities at its temporary and permanent construction and training bases
- All Team operations related to attending and participating in events.

The Team also considered some specific areas where it has significant indirect control and/or influence. These included support and leadership within the sporting and marine industries.

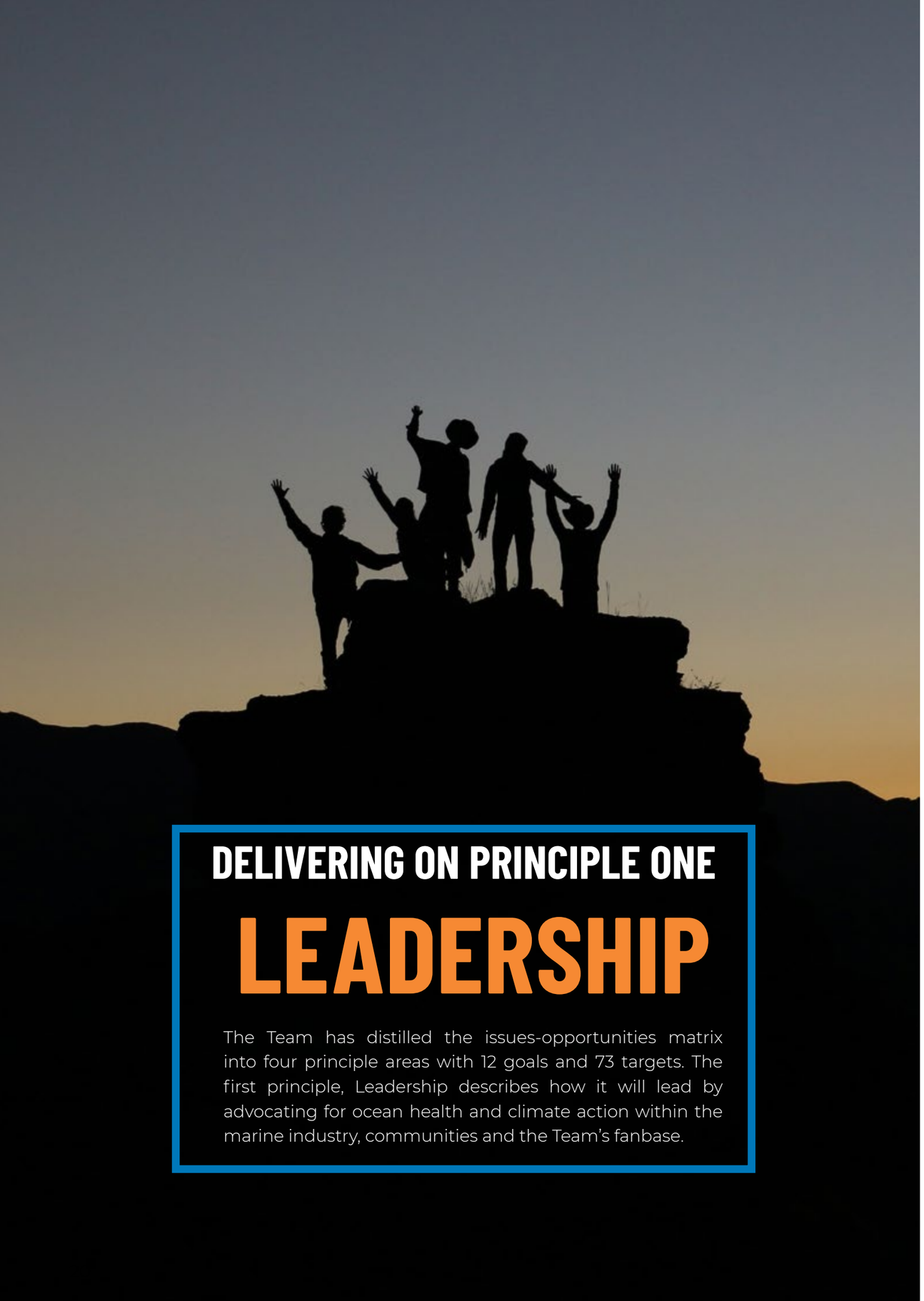
- The major activities in 2019 that required particular focus for the sustainability team included:
- The completion of the refit of the IMOCA 60 11.1 and subsequent launch in Brittany, France
- Training on the IMOCA 60 11.1: including two transatlantics and sailing sessions in France and the USA
- The ongoing design of the new IMOCA race boat 11.2
- The build of the plugs and moulds for the IMOCA race boat 11.2
- The formalization of new strategic partnerships and suppliers
- Sourcing and transport of materials
- The hire and training of new team members (seven full-time, four part-time and two interns)
- Adapting staff travel to the COVID-19 restrictions
- An increase in remote working, conferencing and educational sessions and activations
- The importance of accessibility, diversity and inclusion within the marine sector

SUSTAINABLE STANDARDS

The Team's work references the following standards and sustainability frameworks.

Table 5: Sustainable standards

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
Signatory, and active working group member	UNFCCC Sports for Climate Action Framework	Peer led
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	Insitu due diligence by the Team, supported by legal advice when relevant



DELIVERING ON PRINCIPLE ONE

LEADERSHIP

The Team has distilled the issues-opportunities matrix into four principle areas with 12 goals and 73 targets. The first principle, Leadership describes how it will lead by advocating for ocean health and climate action within the marine industry, communities and the Team's fanbase.

LEADERSHIP GOAL ONE: CREATE AMBASSADORS

"For every environmental challenge, humans are both the problem and the solution."

SAVE NATURE PLEASE - Marco Lambertini, Director General WWF International

INTERNAL ENGAGEMENT AND TRAINING

The success of the Team's Sustainability Program is reliant on exemplary leadership and an informed, motivated team. The Team has created a range of programs to support the induction, training and ongoing development of team members. Where possible the Team has made these resources available to a wider group of external stakeholders including, partners, suppliers, interns and mentees.

INDUCTION

In 2020 11 new team members and contractors received a formal induction process outlining the sustainability standards the Team aspires to, as well as expectations and contractual obligations. Periodic updates were provided directly to team members through the year.

THE HUB

The Team has established the 'HUB Team' with sustainability representatives from each department meeting monthly to discuss challenges, successes and progress against initiatives. The HUB is also an internal intranet platform that enables the sustainability team to share operational information and best practice documents with all staff and partners.

GRI Disclosure
404-1 Average hours of training per year per employee

UNSDG
4 Quality Education
4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship

UNSDG
4 Quality Education
4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development

#OCEANHOUR SESSIONS

The Team held monthly #OceanHour sessions where specialists were invited to share their expertise on specific topics around sustainability to educate team members and encourage discussion., including coral bleaching, biomimicry, sustainable food choices, leadership, doughnut economics, circular economy, climate science, plastic recycling, antarctic marine mammals, climate action, composting and youth mentorship.

The Team used #OceanHour sessions as an opportunity to invite partners, suppliers and wider stakeholders to join the sessions and share the learning and development opportunity.

THE TRAINING HUB

This is the Team's online library of resources called the 'Training HUB' providing professional development training with a minimum expectation of 10 hours per month tracked for all team members. Total number of training hours by team members in 2020 was in excess of 2,400 hours..

Additional professional development courses/training were undertaken by team members including: Ellen MacArthur Foundation - Circular Economy module and the Global Compact academy. Total number of additional professional development courses in 2020 was in excess of 50 hours.

TEAM DEMOGRAPHICS

Acknowledging the disparity of demographics within the marine industry and sailing, the Team is not only an equal opportunity employer, it proactively works to expand opportunities within the sport of sailing and specifically within the Team. This was achieved by creating the Intern and NextGen programs aligned with an internal review of the Team's employment standards on diversity, equity and inclusion.

Table 6: Team demographics

Team category	Number	Percentage	Training hours
Total: Team including part & full-time staff, interns, mentees	43	100%	3,480
Female	12	28%	1,320
Male	25	72%	2,160
Under 30	11	26%	600
Ethnic minorities*	3	7%	120
Local staff	France 10 Newport 6	37%	12
Interns	2	5%	240
Mentees	6	15%	360

To support local economies and provide employment opportunities within marine communities, The Team sources local contractors where possible. 15 full-time equivalent roles were created during the refit and maintenance of 11.1, and the design and build of 11.2.

UNSDG
5 Gender Equality
5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision making in political, economic and public life

UNSDG
10 Reduced Inequalities
10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status

GRI Disclosures
102-8 - Information on employees and other workers

**Based on UK government definition*

SPEAKER SERIES

The Team values opportunities to engage audiences on topics around sustainability and ocean health. In 2020, particularly due to the COVID-19 pandemic, the Team made it a priority to support requests for opportunities to be part of virtual speaking engagements, in particular with youth groups and students. The Team's aims for these talks was to inspire a passion for the ocean, to promote community action, to showcase the sporting platform for creating positive change, and in business-to-business forums, to present the clear economic case for embracing sustainability within organizations

Table 7: Speaking engagements

Audience	Team speakers	Events	Attendees
Universities and Colleges	Charlie Enright Amy Munro	École Nationale Supérieure de Création Industrielle Biomimicry Session, GW Grand Student SNIC	120
Schools	Mark Towill Charlie Enright	Punahou 8th grade, Barrington High School Fundraiser	435
Community groups	Mark Towill Charlie Enright Damian Foxall	US Sailing Starboard Portal, Storm Trysail Club - Webinar, Oakcliff Sailing Weekend workshop, Virtual Rocking the Boat - 11HR Grantee, Mudratz Webinar - Sustainability + Sailing, Hudson River Community Sailing Webinar Series, Sailing Heals Virtual Fundraiser, Sea Wolves	20,580
Businesses	Mark Towill Charlie Enright Damian Foxall Amory Ross Amy Munro Kristi Wilson Simon Fisher	Musto - COVID-19 Ambassador Series, North Sails Ocean Racing Webinar, Le Shack, The Ocean Race Summit - The Hague, Sport and Sustainability International, Musto - Must Know Series IG live, Hill + Knowlton Strategies - Internal presentation, Sport Positive Summit, The Ocean Summit Newport	2,541
General Public	Mark Towill Charlie Enright Damian Foxall	NYYC Live Webinar, Champions for the future, SOI World Oceans Day, Newport Homecoming, Vendée Globe show with Conrad Humphreys	2,427
		Total	**26,103**

UNSDG
4 Quality Education
4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development

HEALTH AND SAFETY

The Team is working across a number of international destinations and complies with onsite health and safety regulations as defined by its host venues and specific contracts where relevant. The Team's onsite manager provides additional training for team members and contractors when required. There have been zero onsite health and safety recordable accidents or injuries in 2020.

In addition, the Team updated its crisis management plan and put in place a live COVID-19 risk management plan, safety policy and revised travel policy in 2020, which was updated weekly with the latest location-specific guidance and best practice.

GRI Disclosure
403-2 Types of injury and rates of injury, occupational diseases and number of work related fatalities

LEADERSHIP GOAL TWO: SUPPORT PEERS

INDUSTRY PEERS

The Team continues to use opportunities to expand its influence and provide sustainability support within the marine industry. Initiatives worked on and groups created or joined in 2020 include:

Table 8: Collaboration with peers

Industry Peer	Collaboration
British Marine	Webinar collaboration with British Marine and the Royal Yachting Association (the United Kingdom's governing body for the sport of sailing) on The Environmental Future For Marine Sector Businesses ahead of the publishing of the British Marine National Environmental Roadmap. The webinar focused on raising awareness, available resources and the benefits that good environmental practice can offer, with practical case studies shared by the Team. The Team is continuing to work with British Marine on sustainability for the industry including life cycle assessment advice and composite material choices which can benefit areas like end of life choices and recycling composites.
Composites UK	The Team joined the Composites UK Sustainability subgroup, whose remit is to bring together industry players to address the challenges required to overcome and improve recycling and disposal methods of composites; to incorporate more bio-based materials; to understand the impact of the products produced both to the factory gate and through life; to include environmental impact at design stage; to spread good practice in resource and energy efficiency and structure business models to promote this[1].
The Toolbox	Collaboration with industry peers on the creation of The Toolbox; a framework and set of resources to support organizations in the implementation of sustainability programs.

"Collaborating with groups like 11th Hour Racing Team, sharing knowledge, resources and ideas which will benefit both the marine environment and industry, will drive innovation, efficiency, and design making sustainability a realistic and beneficial part of the business model – not an add on!"

James Scott-Anderson, Environment, Health & Safety Executive, British Marine

UNSDG
17 Partnerships for the Goals
17.16 Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries

1 https://compositesuk.co.uk/industry-support/sub-groups/sustainability-sub-group

SUPPORTING POLICY CHANGE

The Team is collaborating with stakeholders such as the IMOCA Class and The Ocean Race to shape policy and rules that promote better practices and new sustainability standards.

"One of the barriers to creating change within the marine sector is the limitation of manufacturers to be able to consider alternative materials and production methods, when client's decisions are primarily based on existing Class rules, performance criteria, reliability, confidence with existing products, and specific delivery timelines.

"As a sport that is reliant on new technology, teams (consumers) have a key role to play. Supported by event managers and class organizers (policy makers) with well designed rules that incentivise the innovative capacity of the industry (producers) collectively it will be possible to find more sustainable design and build solutions."

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

'Even with the best intentions, a manufacturer might typically need 18 months or more to validate and test a new material process".

Yann Dollo - Directeur General Adjoint, CDK Technologies

UNSDG
17 Partnerships for the Goals
17.14 Enhance policy coherence for sustainable development

IMOCA

Founded in 1991, the International Monohull Open Class Association (IMOCA Class) manages the class of 60-foot open monohulls, and defines the rules for the Class to guarantee sporting equity whilst focused on innovation, safety and sustainability.

The Team is training and racing in the IMOCA race calendar of events. The Team is working closely with the IMOCA Class and other teams to move the sustainability agenda forward with pragmatic solutions. Examples include:

- Creating a benchmark for Life Cycle Analysis (LCA) for the design and build of an IMOCA 60
- Collaborating around the use of LCA measurement within the Class rule for future IMOCA builds
- Joining the IMOCA sustainability committee and supported the drafting of a new set of sustainability rules for the Class including topics focused on onboard renewables, alternative build materials, life cycle assessment, and avoiding marine mammal strikes
- Trialing studies and coordinating workshops on alternative materials and build methods
- Co-creation of The Toolbox sustainability framework

"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

THE OCEAN RACE

In 2020 the Team collaborated with The Ocean Race (TOR) event organization by:

- Reviewing the interpretation of sustainability within the Race rules, including:
  - Onboard renewable energy[1] requirements
  - Waste and maritime regulations
  - Penalties and precedent case studies
  - Team and partner responsibilities pertaining to Race rules
- Participating in The Ocean Race Summit events, with Team members speaking and joining workshops at:
  - The Ocean Race Summit, The Hague
  - Hosting a breakout of The Ocean Race Summit, Newport RI, onboard the Team's IMOCA 60 11.1
- Integrating The Ocean Race Science program into onboard operations which is run in collaboration with international science networks in support of the science community and policy makers
- Sharing marine mammal best practices, and research on technical solutions to avoiding marine mammal strikes, in support of event and Race rules

1 TOR rules 2022-2023 NOR 4.4, extract: 'Teams shall generate a percentage of the total energy consumed on each Leg from renewable sources

Ainhoa Sanchez/Volvo Ocean Race

LEADERSHIP GOAL THREE: INSPIRE FANS AND FOLLOWERS

COMMUNICATIONS STRATEGY

The Team's communications goals are to:

- 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 oceans
- Create legacy with a tangible impact that helps protect our oceans

To achieve this, the communications team used a three pronged approach to deliver the impact required.

To deliver quantifiable impact, the Team needs 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 informative, creative and inspiring output that creates conversation, the Team is developing engagement, which then drives advocacy and ultimately impact.

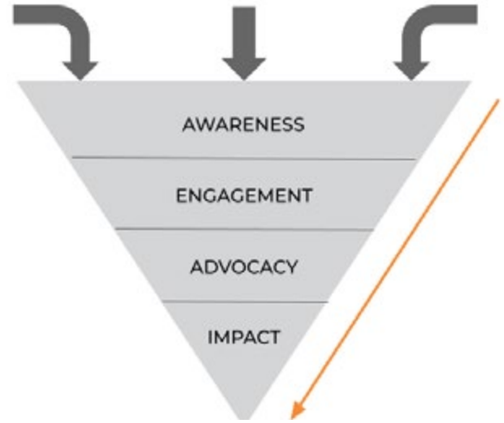


Figure 5: Communications impact strategy

The Team creates and shared news through social and digital channels, proactive PR and communications and speaking engagements aligning with the Team's four pillars of Leadership, Collaboration, Innovation and Legacy.

Figure 6: Sustainability pillars and communications

The Team's communications outreach is activated through five pillars:

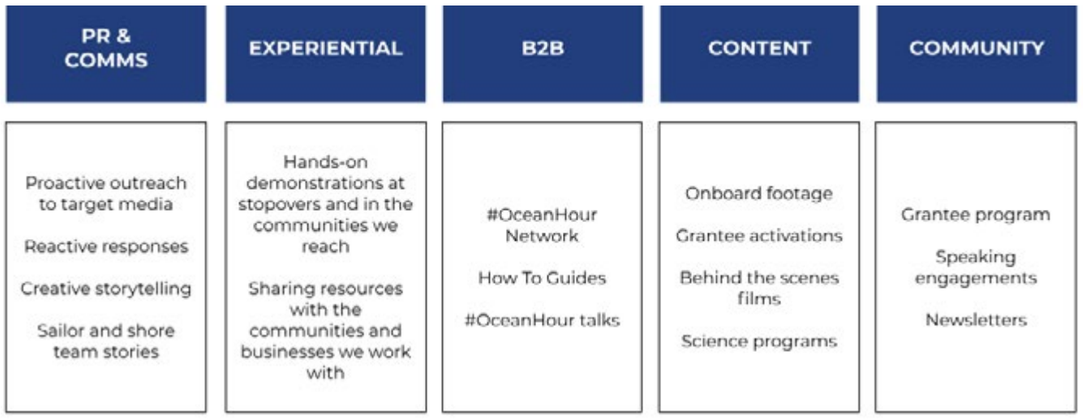


Figure 7: Communications pillars

And through four means - text, photography, video and infographics:

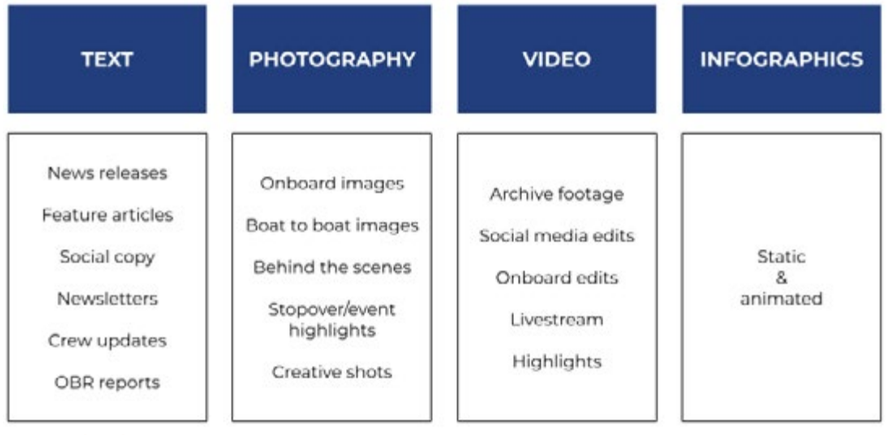


Figure 8: Communications means

INSPIRE THROUGH EVENTS

With a focus on virtual events, seven team members spoke on sustainability at 33 conferences and events with a total of 26,103 participants. The events provided network opportunities for the Team to build new relationships with other speakers and specialists which has resulted in bringing expertise and ideas back into the Team's own work.

INSPIRE THROUGH DIGITAL MEDIA PLATFORMS

The Team's objective is to inspire behavior change among global sports fans and communities to restore the health of the ocean. Throughout the course of 2020 the Team reached a larger audience than in 2019 to engage our online community with the #OceanHour messaging:

- Impressions across social media: 6.54 million
- Engagement across social media platforms: (Instagram, Facebook, Twitter and): 313 k, Followers (Instagram, Facebook, Twitter and YouTube/email sign-ups): 37,373
- Followers online community: 37,373

In 2020 624 articles appeared featuring the Team, despite the lack of opportunities for Team storytelling due to the pandemic and minimal team training and events.

Coverage about the Team was regularly secured in key sailing media targets in the USA, France and UK, as well as all international sailing newsletters.

A key storyline for the Team in October was the announcement of the construction of the Team's new IMOCA 60. The story was picked up by 28 media outlets with reporting around the sustainable initiatives and innovations used in the boat build.

Through liaison with US based news wire, AP, the Team's return crossing from France to Rhode Island in September 2020 was picked up nationally across the US by 45 publications and news stories were featured regularly in the Newport, Rhode Island media, the home base of the Team.

UNSDG
17 Partnerships for the Goals
17.16 Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries

4 Quality Education
4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development

DELIVERING ON PRINCIPLE TWO

COLLABORATION

COLLABORATION GOAL ONE: FOSTER STRATEGIC PARTNERSHIPS

TITLE SPONSOR

11TH HOUR RACING

11th Hour Racing establishes strategic partnerships within the sailing and maritime communities to promote collaborative, systemic change benefitting the health of the ocean. From plastic pollution to climate change to the environmental impacts of the sport, the ocean is threatened, and the clock is ticking. Since 2010, 11th Hour Racing has been harnessing the power of sport through three primary areas of engagement: sponsorships, grantees, and ambassadors.

11th Hour Racing has been the driving force behind the Team's sustainability efforts. The title sponsor provides guidance and expertise, assists with extending the Team's reach and supports the creation of strong legacy projects through grant funding with important local initiatives. In particular in 2020, 11th Hour Racing enabled the creation of The Toolbox, the Team's key legacy project.

PARTNERS AND OFFICIAL SUPPLIERS

The Team's partners and official suppliers provide both the means and motivation to achieve new sustainability goals.

MARLOW ROPES

Marlow Ropes supply the Team with high-performance lines as well as the Blue Ocean Dockline from recycled materials. Marlow's R&D division is working together with the Team to minimize waste by providing lengths that are exact to the boat's specification and needs. In 2020, Marlow Ropes launched its Sustainability Manifesto, along with the innovative bio-based dyneema that the Team will use extensively in the 11.2 rigging specification.

MUSTO

Musto, the world's leading premium technical sailing brand, provides the Team with high performance clothing on and off the water. In 2020, the Team worked with Musto to design and develop more sustainable clothing with a circular mindset that minimizes the environmental footprint.

KARÜN

Karün's complete line of high-performance sunglasses is made with recycled ocean plastics from Patagonia, striking a balance between sustainability and performance. In 2020, Karün and the Team collaborated on a leadership talk with Thomas Kimber, the founder of the brand, as part of the Team's #OceanHour sessions. Thomas spoke on how the principles of circularity are applied to Karün's products, in addition to sharing how a business model can both respect and regenerate the natural environment and support communities.

UNSDG
17 Partnerships for the Goals
17.16 Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries

ECOWORKS

Ecoworks is a global leader in producing marine cleaning products which are made from naturally derived, replenishable resources and are 100% biodegradable: 80% breaks down within 28 days and the remaining 20% within 90 days. Ecoworks products are pH neutral, phosphate-free and are compliant with all official standards in the industry. In 2020 Ecoworks and the Team collaborated on the set-up of new refill stations, and Ecoworks became an early pilot tester of The Toolbox.

SOURCEMAP

Sourcemap; A key part of the Team's Sustainability Sourcing Code, Sourcemap assists the Team with supply chain visualization, giving us insight into potential areas of sustainability risk exposure. Sourcemap's network mapping solutions help the Team identify where products and materials are manufactured and then shipped to the Team. Understanding this enables the Team to make more informed decisions when selecting suppliers and creating operational efficiencies to reduce its carbon footprint.

The Team has signed up new Official Suppliers and Partners:

B&G

B&G; the world's leading sailing navigation and instrument specialist, which is providing the Team with the latest race-proven marine electronics. In addition to the newly launched Nemesis screens, B&G will be supplying the Team with BioBase™ technology, a subsidiary of its sister brand C-MAP. Supporting the Team's mission to protect aquatic environments, BioBase is a one-of-a-kind mapping solution for monitoring vegetation densities, bottom hardness and other water quality characteristics.

GUZZLE H20

Guzzle H20; The Guzzle H2O STREAM water filtration system provides the Team with clean, fresh-tasting water when access to potable water is limited. The Team uses the system dockside to refill water canisters for offshore sailing sessions and personal water bottles, helping to reduce our plastic footprint.

SAIL NEWPORT INC

Sail Newport, Inc., a non-profit 501 (c) (3) organization founded in 1983 and home to New England's premiere public sailing center, its mission is to provide affordable public sailing programs, regattas and events for all ages and attract new sailors to the sport. Sail Newport hosts the Team when at the its home base in Newport, Rhode Island and is the host of The Ocean Race 2022-23 only North American stopover.

To inform strategies and effective plans, the Team has assessed where additional specialist information and resources are needed:

WATER FOOTPRINT

Water Footprint Implementation is a Netherlands based company that provides insights and solutions to organizations and government agencies who want to assess and reduce their Water Footprint. This partnership provides the Team with valuable support and methodology to translate scientific data into practice and to help quantify and manage the Team's water risks.

COLLABORATORS AND ADVISORS

Specialist consultants have been engaged by the Team on various topics including:
Dr Robert Mulvaney - Climate Change; Chris Goodall - Carbon Commentary ; Dr Ari Friedlaendar, Dr Sean Brillant, Anne Di Monti, Robert Rocha, Monica Pepe - Marine mammals; Emily Healy - Circular Economy;

Jill Savery, Sustainability Director, 11th Hour Racing has provided expert counsel.
Craig Simmons, Chief Technology and Metrics Officer, Anthesis has provided sustainability consulting and third party review.

COLLABORATION GOAL TWO: INFLUENCE SUPPLY CHAINS

SUPPLIERS

In 2020, the Team's supply chain predominantly related to the purchasing of materials and services relating to the design and build of 11.2. The Team engaged with suppliers through a Stakeholder Discovery process, which ensured a broad discussion around the issues, impacts and opportunities associated with key products or services supplied to the Team. With the build of 11.2 in 'full swing', significant effort was applied keeping up with the inventory of spend going out and materials coming in to the campaign.

The Team's spend in 2020 was spread across over 515 different vendors which supplied the Team with boat-related products and services, personnel, transportation, accommodation, other products and services (such as insurance, legal and accounting). 90% of the Team's total spend in 2020 went to 53 vendors. Almost half of that spend went towards boat-related services, 31% went towards Team personnel, 15% to boat-related products, and 5% to accommodations, transport and other services.

Table 9: Top 10 supplier analysis

Supplier	Percentage of Total spend	Supplier Type	Geographical Location	Engagement level to date
Supplier 1	22%	Boat-related Service	Brittany, France	1
Supplier 2	8%	Boat-related Service	Brittany, France	1
Supplier 3	5%	Boat-related Service	Brittany, France	1
Supplier 4	5%	Boat-related Service	Italy	2
Supplier 5	4%	Boat-related Service	Brittany, France	1
Supplier 6	3%	Boat-related Product	Brittany, France	1
Supplier 7	3%	Other Services	USA	3
Supplier 8	1%	Boat-related Product	France	1
Supplier 9	1%	Boat-related Service	UK	3
Supplier 10	1%	Boat-related Product	Brittany, France	2

TOP TEN SUPPLIER ANALYSIS

When looking at external vendors (excluding Team personnel), 52% of the Team's total spend was paid to 10 vendors:

Level 1 - Stakeholder discovery completed, stakeholder management plan in place, with regular communications
Level 2 - Stakeholder discovery completed
Level 3 - Stakeholder yet to be engaged

81% of the Team's top ten supplier spend in 2020 was invested within the Brittany region where the Team has a temporary base.

In 2020, the Team engaged ten key suppliers in its Sustainability Discovery and engagement plan. 100% of these suppliers expressed a willingness to collaborate on the sustainability agenda, and are working with the Team to co-create and deliver goals and initiatives. These new suppliers include: Ecoworks, Caraboni, AMPM, Karver, Harken, Lorima, Diverse, Persico, Pixel sur mer, Southern Spars.

Ongoing engagement occurred with existing stakeholders: Musto, Marlow, MerConcept, CDK, Guillaume Verdier design, Multiplast, North Sails, and The Ocean Race.
Whilst compiling this report, it came to light that two of the top tier suppliers (7 & 9) had not yet been engaged through the stakeholder discovery process. The Team has subsequently made contact with both suppliers, and will work to improve the monthly review process of spend and supplier engagement.

UNSDG
12 Responsible Production and Consumption
12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities

UNSDG
8 Decent Work and Economic Growth
8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavor to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programs on sustainable consumption and production, with developed countries taking the lead

GRI Disclosures
102-9 Supply chain
308-1 New suppliers that were screened using environmental criteria
308-2 Negative environmental impacts in the supply chain and actions taken

SUSTAINABLE SOURCING CODE

The Team's Sustainable Sourcing Code (SSC) outlines the minimum sustainability standards expected of the procurement staff, and all suppliers providing services or products, sourced by the Team. The SSC is included within a Stakeholder Discovery process for new partners, and is also referenced within team member, supplier and partner contracts. The SSC is integrated within the expense authorization process and accounts software, which enables more precise monitoring and reporting.

By leveraging the 'Class' function in Quickbooks Online - the Team's accounting software - and Expensify - the Team's expense reporting system, team members are prompted to input which element of sustainable sourcing, if any, they were able to apply to each purchased item.

By example: if a purchase is over €500, pre-approval is requested with a justification of which area(s) of the sourcing code have been applied before it is approved for payment. A trigger for a more comprehensive interaction with the sustainability team occurs for spend exceeding €10,000.

Table 10: Sustainable sourcing code application

Sustainable sourcing code criteria applied	Percentage total
Sourcing and provenance	70%
Labor and social impacts	20.5%
Material selection	0.5%
Manufacturing process	<0.5%
Packaging	<0.5%
End of life plan	<0.5%
SSC - Not applied	8%

Each individual purchase requires a different set of sustainable sourcing considerations, an ongoing challenge reflected by the 8% of purchases that did not receive attention. The Team will continue to work with team members to provide specific product and sector information, training and improve the overall procurement process.

UNSDGs
8 Decent Work and Economic Growth
8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavor to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programs on sustainable consumption and production, with developed countries taking the lead

12 Responsible Production and Consumption
12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities

13 Climate Action
13.2 Integrate climate change measures into national policies, strategies and planning

COLLABORATION GOAL THREE: IMPLEMENT SUSTAINABLE OPERATIONS

FOOTPRINTS

Within the Team's scope of responsibility the material, logistical, water and energy needs were tracked and the unavoidable impacts compiled to produce a Greenhouse Gas (GHG) emissions, water, and waste footprint.

CLIMATE ACTION PLAN

The Team's climate action strategy is based on the following steps: Measure - Understand - Take Action - Inspire.

Measure:
The Team's GHG emissions are measured in tonnes of carbon dioxide equivalent (tCO2e) and separated into operational Scope 1, 2 & 3 emissions[1]. Scopes describe the level of ownership for carbon emissions:

- Scope 1 includes infrastructure owned or controlled
- Scope 2 includes direct electrical consumption
- Scope 3 includes procured services and products.

A final sector, Well to Tank (WTT) takes into account the upstream impacts of the Scope 3 inventory.

Understand:
The primary objective of the Team's measurement of GHG emissions is to establish high quality benchmarks for the marine industry which will be shared open source to inform future target reductions of these impacts.

Take Action:
Building on the Team's work to reduce operational impacts, the initial climate action plan will be further developed in the next reporting cycle with input from specific partners and advisors. The underlying question for this work will be how should the Team as part of the wider marine industry consider and establish goals that are based on science based targets to align with the Paris Agreement's 1.5°C targets for GHG emissions.

Inspire:
What will our industry and sport look like in 2030 & 2050? And how do we get there? These are the fundamental questions that define the Team's day to day work and overall strategy.

"Pour ce qui est de l'avenir, il ne s'agit pas de le prévoir, mais de le rendre possible."
"With regards to the future, it is not about predicting it, but about making it possible."

Antoine de Saint Exupéry, Citadelle, 1948

1 UK GHG Protocol

GREENHOUSE GAS FOOTPRINT

Despite the differences of scope and scale from one campaign to the next, the table below provides an indication of the impacts of a year's operations associated with sailing projects of this type.

Table 11: GHG Footprints by campaign

Team / Year	tC02e
Alvimedica 2015	377
Vestas 11th Hour Racing 2017	1402
11th Hour Racing Team 2019	537
11th Hour Racing Team 2020	578

A significant additional footprint associated with the 2020-2021 period, will be the design and build of the new race boat 11.2. This footprint is not included within the Team's annual reports, and will be described separately in a specific Design and Build report following the completion of the build and launch of the boat mid 2021.

The Team's 2020 GHG emissions is broken down further opposite.

The Scope of the Team's sustainability program is defined by boundaries that describe what the Team is, and is not directly responsible for. The Team encourages its partners to also track, calculate and to take responsibility for their respective footprints associated with the campaign. The partner's footprints are outside of the Team's direct responsibility, but where possible are acknowledged as part of understanding the campaign's Total footprint.

Table 12: 2020 GHG emissions breakdown

11th Hour Racing Team 2020	tCO2e	% Total	Scope	Total Scope tC02e
Fuels	2.83	0.49%	1	2.83
Overseas Electricity	1.72	0.30%	2	1.72
Water supply	0.18	0.03%	3	558.69
Material use	422.00	73.03%	3	
Waste disposal	0.58	0.10%	3	
Business travel - air	93.92	16.25%	3	
Business travel - sea	0.26	0.04%	3	
Business travel - land	9.59	1.66%	3	
Freighting goods	4.78	0.83%	3	
Hotel stays	17.80	3.08%	3	
Managed assets - remote workers	3.65	0.63%	3	
Managed assets - digital footprint	5.94	1.03%	3	
Transmission & distribution	0.13	0.02%	3 UPSTREAM AND DOWNSTREAM	14.59
WTT - fuels	0.72	0.12%	3 UPSTREAM AND DOWNSTREAM	
WTT - UK & overseas	0.50	0.09%	3 UPSTREAM AND DOWNSTREAM	
WTT - Business travel air	10.29	1.78%	3 UPSTREAM AND DOWNSTREAM	
WTT - Business travel sea	0.05	0.01%	3 UPSTREAM AND DOWNSTREAM	
WTT - pass veh & land travel	2.30	0.40%	3 UPSTREAM AND DOWNSTREAM	
WTT delivery vehs & freight	0.75	0.13%	3 UPSTREAM AND DOWNSTREAM	
TOTAL **Team events** **TEAM TOTAL**	577.82 0.85 578.67	100		577.82

GRI Disclosure
305-1 Direct (Scope 1) GHG emissions

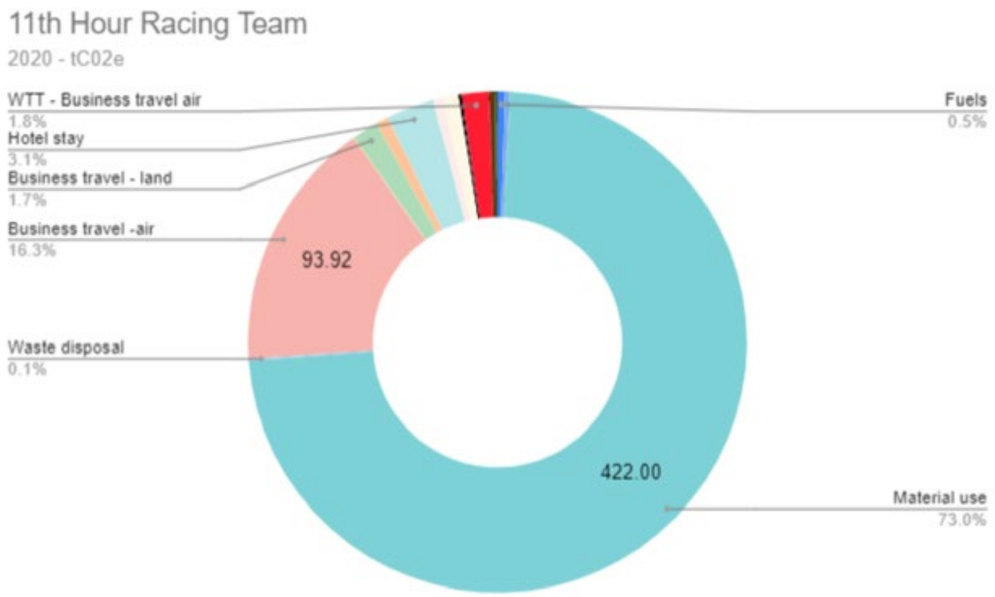


Figure 9: 2020 GHG emissions breakdown. (Sector impacts such as electricity which represent less than 0.5% of the total can be found in the preceding table)

2019 VS 2020

Comparing the GHG emissions to the previous year, the Team noted some key considerations:

- An overall increase of 40.7 tC02e.
- The big picture is consistent, with material, travel and accommodation representing the primary impacts.
- The increase in material impacts in 2020 compared with the previous year reflects additional optimization of the training boat and overall maintenance program, however this does not take into account the actual build of the new race boat 11.2 which will be calculated in a separate LCA case study at the end of the build in 2021.
- Transport and shipping: 50% less (-4.55 tC02e)

COVID-19 impacts

- Reduction in team member travel: 50% less (-91.5 tC02e)
- Increase in accommodation due to longer periods onsite: 100% more (+7.9 tC02e)
- Increase in remote working: 100% more (+1 tC02e)
- Increase of internal[1] Team digital footprint: 200% more (+2 tC02e)
- Total estimated reductions as a result of adapting to COVID-19 (-80.6 tC02e)

1 In 2019 the Team's external contracts included significant super computer use, that is reflected in the 2019 digital total (8.76 tC02e), however from 2019 to 2020 the actual team members' digital use tripled from 1.07 tC02e to 3.15 tC02e in 2019-2020.

The Team's GHG emissions decrease in 2020 was largely due to the significant reduction in staff travel due to COVID-19, which has provided a new vision for the Team's management with remote working, training and virtual conferencing.

11th Hour Racing Team 2019-2020	2019 tCO2e	2019 % Total	2020 tCO2e	2020 % Total	Delta 2019-2020 tCO2e
Fuels	2.87	0.67%	2.83	0.49%	-0.04
Electricity	0.489	0.14%	1.72	0.30%	1.23
Water supply	0.069	0.01%	0.18	0.03%	0.11
Material use	293.37	54.61%	422.00	73.03%	128.63
Waste disposal	0.025	0.00%	0.58	0.10%	0.55
Business travel - air	137.35	25.57%	93.92	16.25%	-43.43
Business travel - sea	0.48	0.09%	0.26	0.04%	-0.22
Business travel - land	44.46	8.27%	9.59	1.66%	-34.87
Freighting goods	9.33	1.73%	4.78	0.83%	-4.55
Hotel stays	9.9	1.84%	17.80	3.08%	7.90
Managed assets - remote workers	1.75	0.33%	3.65	0.63%	1.90
Managed assets - digital footprint	8.76	1.63%	5.94	1.03%	-2.82
Transmission & distribution	0.13	0.02%	0.13	0.02%	-0.13
WTT - fuels	0.77	0.14%	0.72	0.12%	-0.05
WTT - UK & overseas	0.13	0.25%	0.50	0.09%	0.37
WTT - Business travel air	15.04	2.80%	10.29	1.78%	-4.75
WTT - Business travel sea	0.02	0.00%	0.05	0.01%	0.03
WTT - passenger vehicle & land travel	10.62	1.97%	2.30	0.40%	-8.32
WTT delivery vehicles & freight	1.55	0.28%	0.75	0.13%	-0.80
TOTAL **Team events** **TEAM TOTAL**	537.113 537.113		577.82 0.84 578.66	100	40.71 40.71

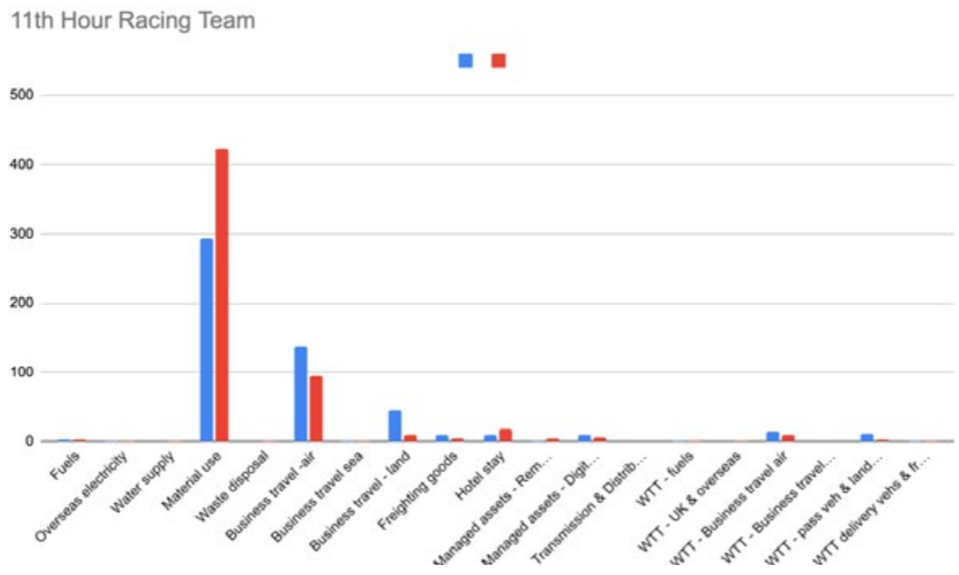


Figure 10: 2019 (Blue) and 2020 (Red) Greenhouse Gas emissions comparison

DIGITAL

By analyzing the Team's digital inventory, both in-house and contracted services, the growing importance of the impacts[1] of this sector became evident. To understand how each part of the digital inventory was represented, the Team included the widest possible selection, however small, measured by computer hardware use[2] (kWh), data storage and transfer (GB), super computer and contracted computing (kWh), messaging, email and conference calls.

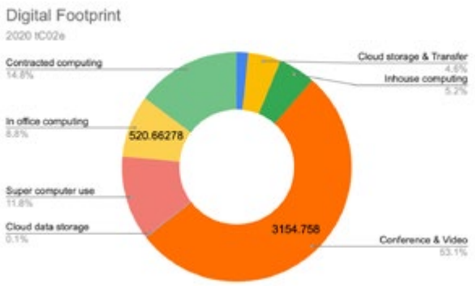


Figure 11: 2020 digital footprint by type

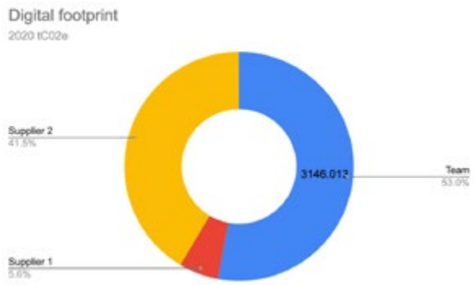


Figure 12: 2020 digital footprint breakdown by supplier

1 For context, a recent report from Bristol University highlighted netflix streaming at 100gC02e per hour
2 Internal team computer hardware use was not calculated under digital footprint, but was included in remote working, by combining both the Team gets a full picture of the digital footprint

WORKING REMOTE

Given the growing importance of remote working within the organization, the Team used the Anthesis methodology[1] to measure this impact. Measured as a percentage of daily electricity consumption per person per country, the impacts were accounted under the GHG protocol scope 3 - managed assets (electricity).

The Team considered remote working to be primarily reliant on digital and online technologies, and combined both impacts, to get the following result.

Table 14: Digital and remote working footprint breakdown

Sector	tCO2e	% Total GHG emissions
Digital	5.94	1.03%
Remote working	3.65	0.63%
Total	9.6	1.66%

Whilst still a relatively small percentage, the 9.6 tC02e mirrors the impact of the digital sector worldwide, estimated at 3.5% of global GHG emissions or the equivalent of the aviation industry. More importantly the global impact of IT is set to increase to possibly 14% by 2040, underlined for the Team the importance of understanding and taking responsibility for impacts in this sector.

The Team IT setup and associated reductions are outlined in the 2019 Sustainability Report. The Team has identified additional reductions which will become part of a revised set of digital guidelines for all team members including:

- Eco-friendly web design and hosting
- Minimizing email content and quantity and cleaning out inboxes
- Turning off cameras during video conferencing which can reduce impacts by 96%
- Attending conferences virtually rather than in-person

ENERGY AND FUEL

Primary consumption of energy and fuel (Scope 1 and Scope 2) are typically small for the Team due to being a consumer of finished products rather than a producer/manufacturer. and services,

At the French team base and partner bases, the GHG emissions factor per kWh electricity is low due to the energy being primarily sourced from nuclear power which has almost the same GHG emissions as the 100% renewable solar electricity emissions that are being used at the Team base in MerConcept. The Team is pleased to highlight the renewable energy source used at Mer Concept, and underlines the fact that environmental impacts should not only be measured in GHG emissions.

The Team's total electricity use was 21,680 kWh, including remote worker energy needs.

1 The environmental impacts of remote work - methodology by Anthesis

When the Team operates or uses supplier infrastructures which are not under its direct control specific attention is paid to the opportunity to positively influence utility use. In 2020 the build facility at CDK Technologies started to implement some of the actions from the 2019 environmental audit commissioned by the Team. Examples achieved by CDK Technologies include:

- Insulation of the main manufacturing building roof at Port La Fôret
- Energy sourced on a 100% renewable tariff
- Manufacturing efficiencies including a 30% reuse of steel materials in the plug component resulting in an energy reduction of ~30k MJ.

To directly reduce energy needs onsite and at temporary bases under its direct control the Team has sourced a renewable energy partner which will be announced in 2021.

GHG emissions from electricity use Total: 1.72 tC02e
[25% renewable : 75% non renewable]

FUEL

The Team's fuel usage is a very small part of the overall footprint. The breakdown is as follows:

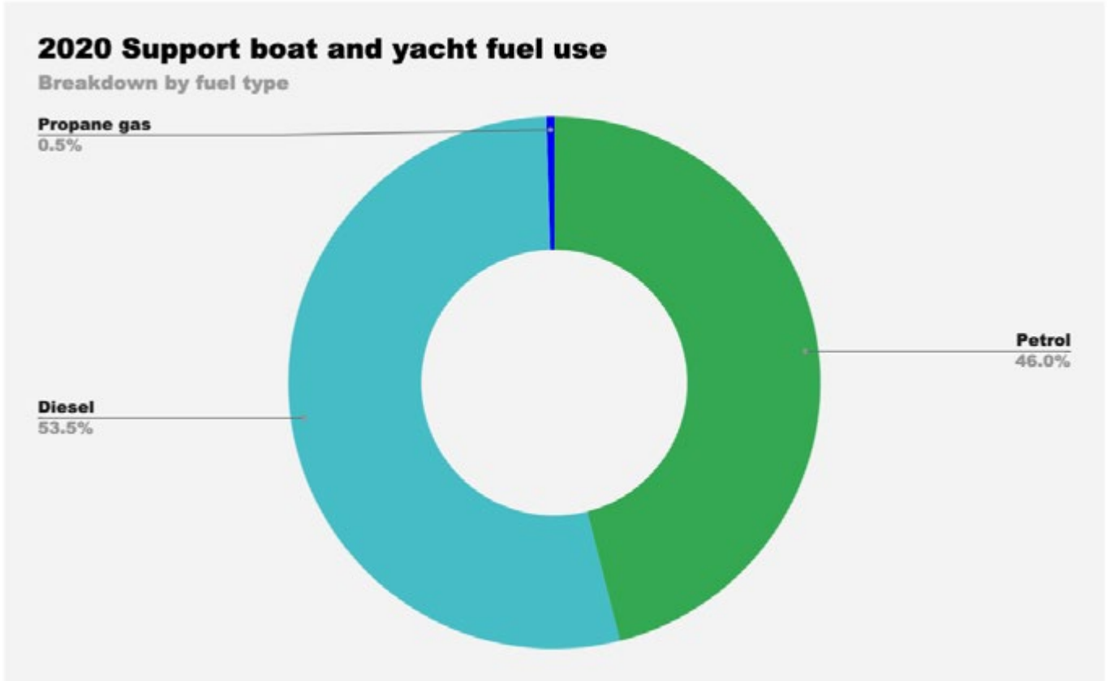


Figure 13: 2020 support vessels and yacht fuel use breakdown by fuel type

GRI Disclosure
302-1 Energy consumption within the organization

UNSDG
7 Affordable and Clean Energy
7.2 By 2030, increase substantially the share of renewable energy in the global energy mix

The Team is exploring partnership opportunities to electrify support vessels and increase onboard energy efficiencies, renewable capacity in line with IMOCA Class rules. We can report more on this in the 2021 annual report.

Table 15: 2020 support and yacht breakdown by fuel type

Fuel type	Fuel (liters)
Petrol	569.5
Diesel	662
Propane Gas	5.92

PURCHASED MATERIALS

Purchased materials represent the Team's largest impact sector.. This confirms a growing understanding of the importance of supply chain impacts as outlined by a recent Carbon Disclosure Project (CDP) report.

> "The scale of impact in the supply chain is increasingly being recognized by suppliers. Supply chain emissions are on average 11.4 times higher than operational emissions, more than double previous estimates, due to suppliers improving their emissions accounting."
>
> **Carbon Disclosure Project 2020 Supply Chain Report**

The overall footprint reduction across the value chain is a multi-stakeholder process that hinges on the Stakeholder Discovery process and Sustainable Sourcing Code previously outlined. While the GHG emissions related to the supply chain are a key consideration, it was of equal importance to include other impacts such as water, waste, toxicity and land use to achieve a balanced understanding of the overall impact of an activity by the Team.

The Team uses the following methodologies[1] to calculate the footprints of products and services:

1. ISO14044-compliant life cycle assessments using the MarineShift360 streamlined life cycle tool and impact database.
2. Water Footprint Implementation methodology[2]
3. The GHG Protocol Corporate Accounting and Reporting Standard for non marine specific inventory
4. Input-Output[3] model ($ spend[4] converted to GHG emissions) for remaining inventory not otherwise accounted for.

UNSDG
12 Responsible Production and Consumption
12.2 By 2030, achieve the sustainable management and efficient use of natural resources

1 See introduction and exclusions table in annexe for more detail on methodologies and tools
2 Water Footprint Assessment Manual by Hoekstra, A.Y., Chapagain, A.K., Aldaya, M.M. and Mekonnen, M.M. (2011) Earthscan, UK
3 The Team uses the Carnegie Mellon model, but it is worth noting both the UK GHG Protocol, and Ademe websites also provide GHG emissions impacts based on spend
4 Where relevant an additional factor is applied to take into account the difference of cost for a generic component versus the real cost of high-end marine/custom products

The majority (97.5%) of the material impacts were associated with the optimization and maintenance of 11.1.

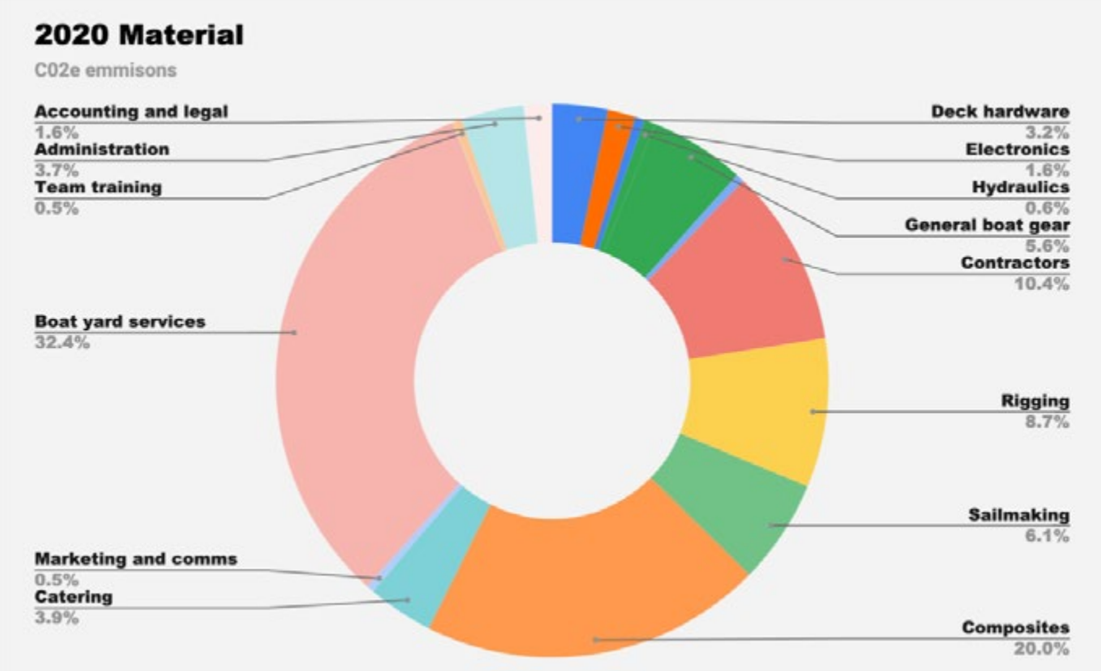


Figure 14: 2020 material GHG emissions breakdown

Material footprint (products and services) Total: 422 tC02e, (73% of total annual emissions)

LOGISTICS

The Team's training and racing schedule saw the Team's staff mobilize to different locations in 2020. This involved:

- The relocation and set-up of the necessary equipment and containers needed on site for the Team to work at temporary Team bases
- Booking travel (air and ground transportation) for team members to travel from their respective locations to the Team bases
- Booking accommodation and organizing ways to commute to and from Team housing and the Team bases
- Establishing an onsite food program
- Purchasing the required equipment needed for Team operations

When the Team was not required to work onsite the team members worked remotely.

TRAVEL

COVID-19 impacted the Team's operations and travel plans, which can be seen by comparing the 2019 and 2020 GHG emissions totals, with a corresponding 48 tC02e (25%) reduction in air travel, and further reductions in other travel sector emissions.

It is worth noting that airplanes were typically much less than 50% capacity, which is not reflected or accounted for in the GHG emission totals. As average flight emissions per person are based on aircraft fuel consumption divided by passenger capacity, the real impacts of individual flights will be much higher during this period.

The default standard for travel by team members is economy class and public transport solutions when possible.

Travel footprint (all types travel combined) Total: 116.7 tC02e

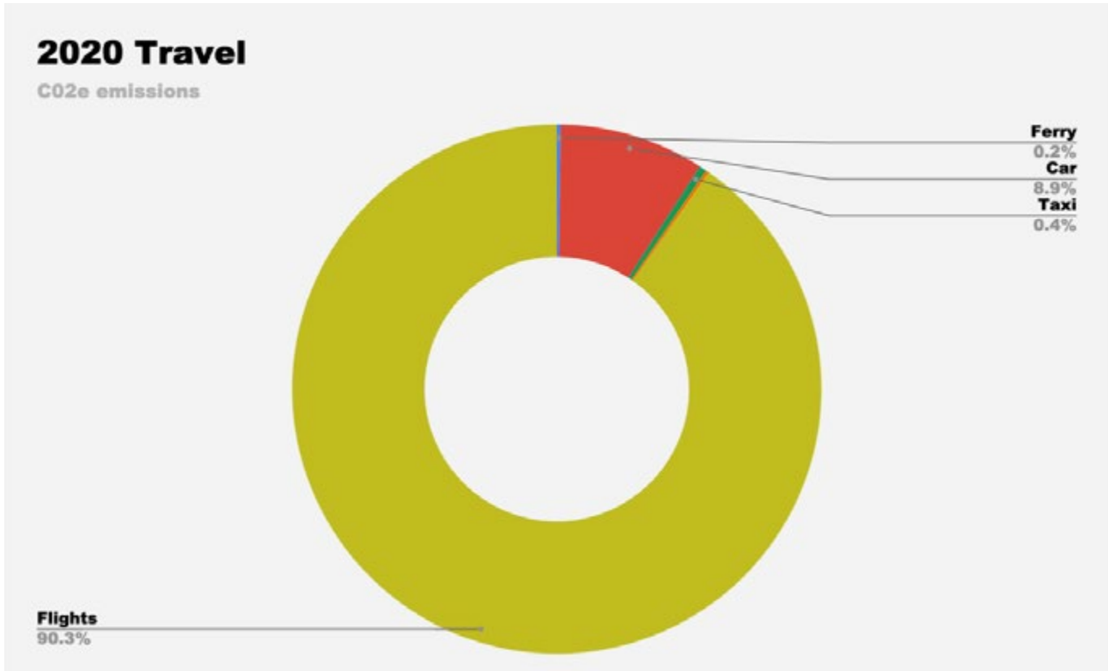


Figure 15: 2020 travel GHG emissions, breakdown by transport mode

Given the importance of this sector both in terms of business and operational efficiency but also considering this sector as having the second largest footprint, the Team employs a full time logistics manager who manages the team's sustainable travel policy, and produces stopover guides to advise team members on best practice.

Due to the COVID-19 pandemic, team members spent longer periods onsite and with less frequent commuting to and from their personal home bases. This resulted in an increase in the accommodation footprint however a clear reduction in the travel footprint.

ACCOMMODATION

Accommodation represented the third largest GHG emissions impact for the Team.

The Team sourced accommodation within the closest proximity to onsite operations coupled with local commuting networks. Public transport, bicycle travel and, where necessary, car sharing are the commuting standard for team members.

It is worth noting that the Team's economic impact within the community is primarily a result of providing local employment, and products and services procured locally. In 2020, 62% of the Team's annual budget was spent within local economies[1]. Rented accommodations, B&B, or hotel rooms, as well as spend at local restaurants represented +/-5% of this revenue stream.

Table 16: Local economic impact

Venue	**Local economic impact** Percentage of total annual budget	**Staff accommodation and restaurants** Percentage of local spend
Brittany, France	53%	+/- 5%
Rhode island, USA	9%	8%
Total Local	62%	+/- 5%

Accommodation Total: 17.8 tC02e

SHIPPING

The Team shipped a total of forty tonnes of equipment, including a 40-foot shipping container across the Atlantic twice to support the Team's temporary base installation in Newport, Rhode Island. A significant portion of the GHG emissions impact related to shipping were due to last minute air freight of equipment from France to Newport. While this was a performance necessity, the Team recognizes the need for more forward-planning of logistics to reduce the footprint of shipments.

The Team worked with each supplier to ensure combined shipments and return of materials or packaging where possible. The Team's shipping footprint was 50% lower than 2019, a direct result of less international operational movement due to the COVID-19 pandemic

Shipping Total: 4.53 tC02e

1 In this context of economic impact, the Team defines local economies as being within the state (USA), within region (France), or national boundary of similar scale for other countries, where the Team is based temporarily or permanently.

WATER FOOTPRINT

Calculating the water footprint helps the Team understand for what purposes our limited freshwater resources are being consumed and polluted. The impact it has depends on where the water is taken from and when: if it comes from a place where water is already scarce, the consequences can be significant and require action.

Direct and indirect water use

The Team's water footprint looked at both direct and indirect water use of a process, product, company or sector and included water consumption and pollution throughout the full production cycle from the supply chain to the end-user. The direct water footprint of a consumer or producer refers to the fresh water consumption and the pollution that is associated with the water use by the Team. It is distinct from the indirect water footprint, which refers to the water consumption and pollution that can be associated with the production of the goods and services consumed by the Team or the inputs used by the producer.

In assessing the Team's total Water Footprint, the Team has applied several methods for arriving at a volumetric indication of its water use.

Indirect water consumption associated with the products and services purchased by the campaign are calculated using support from Water Footprint implementation which provides specialist support to the Team. Where water footprint specific data was not available, the calculations are generated from the MarineShift360 LCA tool or Carnegie Mellon models[1].

The Team has estimated water use during operations based on per capita averages of direct water use (tap, shower, kitchen etc) for staff and in operations.

Table 17: Water footprint breakdown

	2019	**2020**
Direct water footprint (operations)	8,500	10,400
Direct water footprint (personnel use)	190,000	516,300
Indirect water footprint (products and services)	35,500,000	32,220,000
Total water footprint	35.5 million liters	32.7 million liters

1 Factors adjusted for marine industry high-end products

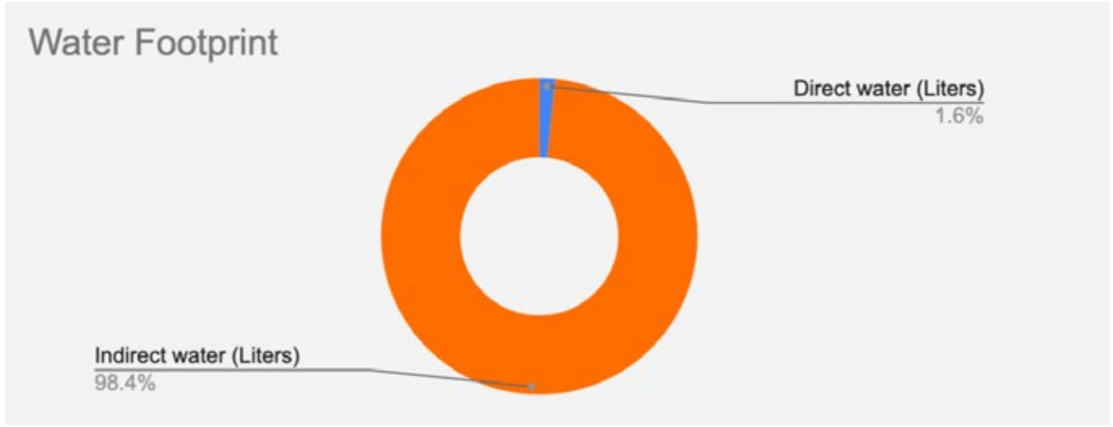


Figure 16: 2020 water footprint breakdown by direct and indirect water use

The Team's water footprint total: 32.7 million liters water represented more than 98% indirect (or embedded) water in products and services purchased by the Team This highlighted the importance of considering these impacts as an integral part of the sustainable sourcing process. Further detail of the impacts from each sector is provided below.

Figure 17 Part One: 2020 water footprint breakdown by sector

11th Hour Racing Team - 2020				
SECTOR	**Water million litres**	**%Total**	**Scope**	**Total Scope Million litres**
Fuels	0.04	0.13%	1	0.04
Electricity	0.04	0.11%	2	0.04
Direct water use - operations	0.01	0.03%		
Direct water use - staff	0.3	0.94%		
Direct water use - remote workers	0.2	0.63%		
Material use & other spend	30.34	92.53%		
Waste disposal	tbc	tbc		
Business travel -air	1.2	3.66%	3	32.71
Business travel sea	<0.01	<0.01%		
Business travel - land	0.25	0.77%		
Freighting goods	0.28	0.87%		
Hotel stay	0.11	0.33%		
Managed assets - digital footprint	tbc	tbc		
TOTAL (million liters)	**32.8**			**32.8**

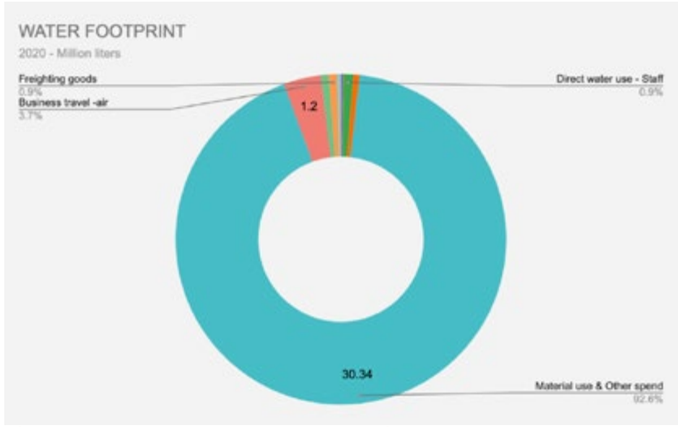
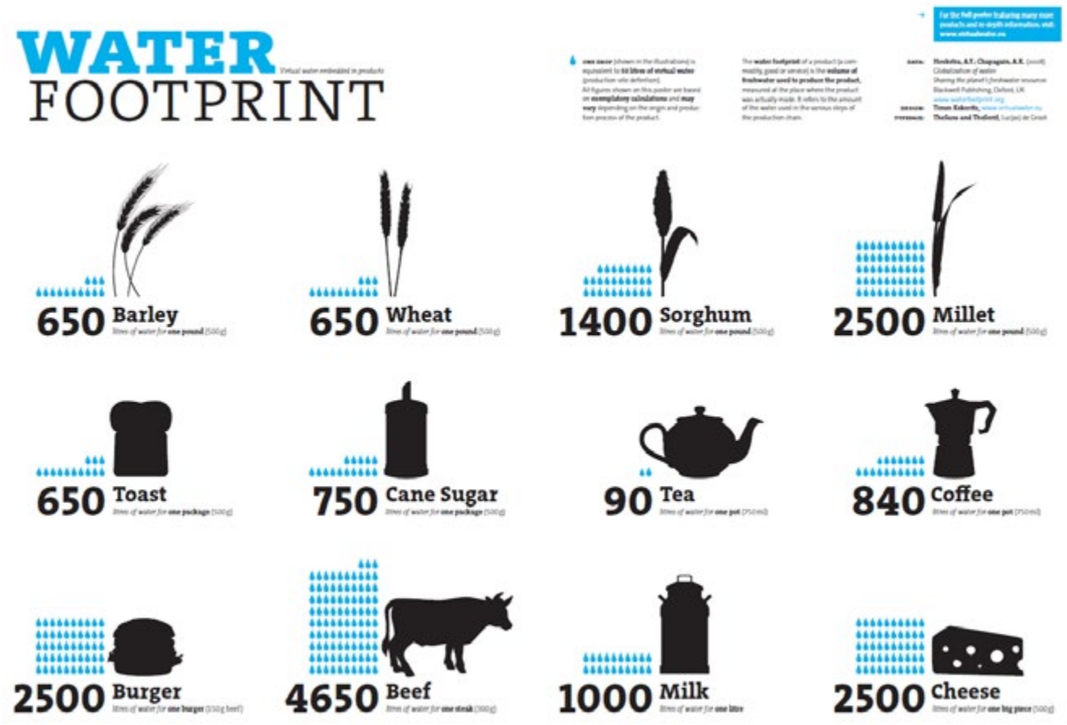


Figure 17 Part Two: 2020 water footprint breakdown by sector

The Team's indirect water footprint will be further analysed by mapping out the virtual water trade along some of the supply chains of the products used by the Team. Knowing where, at what time and under which conditions the water for the production of the goods and services was used will enable the Team to understand its impact on water resources from a more complex and integrated perspective

It will also allow the Team to make more sustainable decisions when sourcing inventory. The indirect water footprint and virtual water trade will be explored further with the assistance of Water Footprint Implementation, to enable the Team, partners and suppliers to better understand how to address these important environmental impacts.



Credit: Water Footprint Implementation

WASTE

In 2020, the Team's ambitious target of 90% diversion of waste from landfill was not achieved, processing 4.62 tonnes of waste and diverting 3.52 tonnes (76%) from landfill.

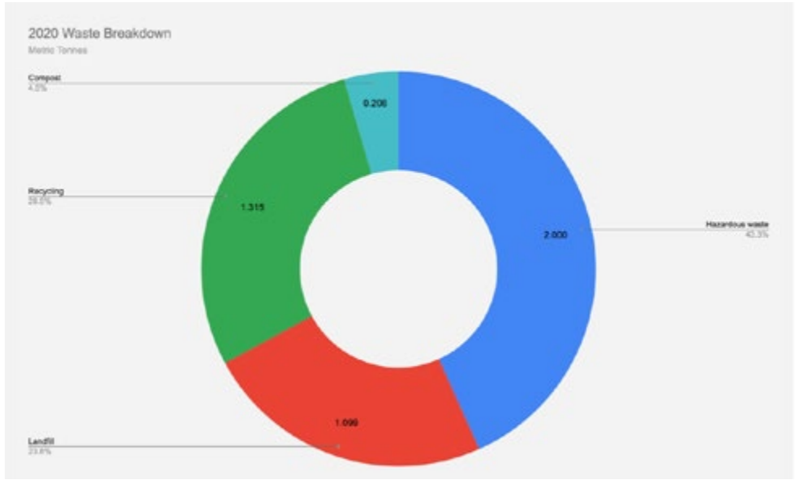


Figure 18: 2020 Waste breakdown by disposal method

The Team is spread across multiple temporary bases and is involved in short-term project phases that make effective waste management a challenge at this scale.

The Team also noted that even with a permanent base and a well developed waste management system it would still produce significant amounts of waste primarily as a result of marine construction materials and processes.

"This underlines one of the real challenges faced by the marine sector, and the importance of finding scalable solutions. As with everything related to waste this is first and foremost about choosing the right materials and packaging at the time of design, end of life solutions need to be defined at the point of conception." Amy Munro, Sustainability Officer

The Team worked to address these issues by:

- Researching and choosing alternative materials for components of the boat build
- Applied sustainable sourcing to the supply chain
- Focused on reducing single use packaging
- Worked with boat yards on waste audits to address potential reductions
- Implemented a waste management plan and training for team members
- Worked with suppliers on packaging return schemes

GRI Disclosure
306-1 Waste generation and significant waste-related impacts
306-2 Waste by type and disposal method

UNSDGs
12 Responsible Consumption and Production
12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse
14 Life Below Water
14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution

The Team's 100% organic waste to compost goal was achieved by working with local organizations to source solutions where needed. It is worth noting that while the actual GHG emissions of waste treatment for the Team is relatively small, using composting solutions for organic waste produces up to 60 times[1] less GHG emissions than sending the same waste to landfill, underlining the importance of this simple solution.

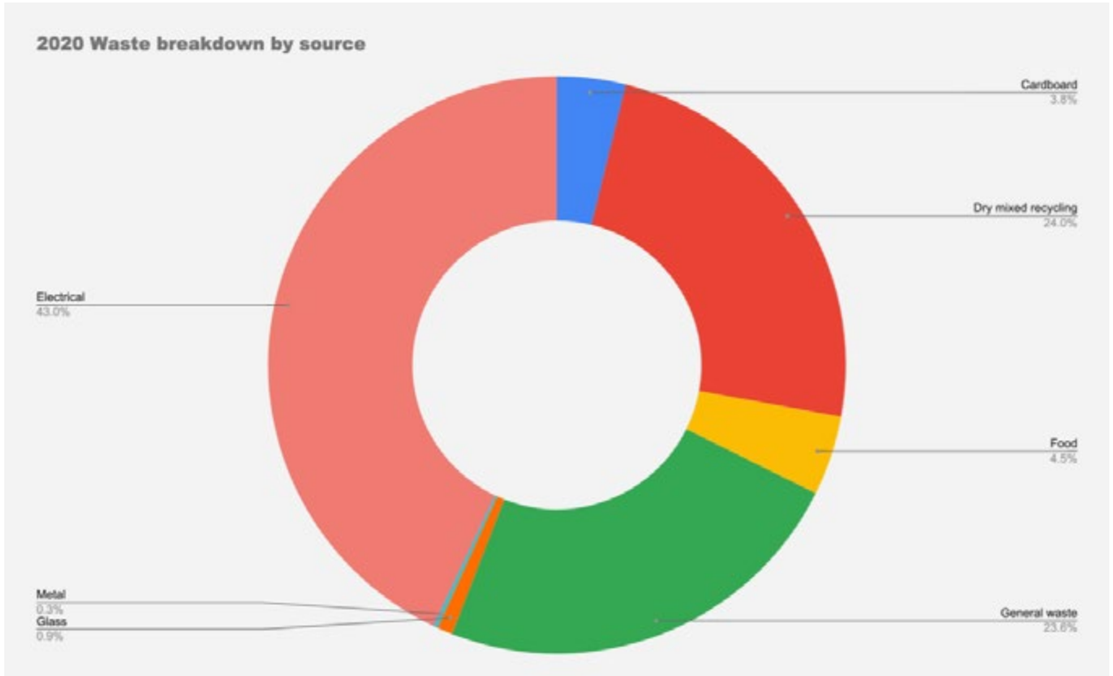


Figure 19: 2020 waste breakdown by source

Notwithstanding these efforts, the Team recognizes that waste reduction within the Team is an ongoing effort, and there is a long way to go. The Team has decided not to change its original target, but to retain 90% diversion from landfill as the goal as part of its circular economy ethos.

1 UK GHG protocol comparison - 1 metric ton organic food waste emits 10 kgC02e if composted vs 627 kgC02e in landfill

GOOD FOOD GUIDE

In 2020 the Team developed a Good Food Guide to help Team members on sourcing food at home, restaurants and during training sessions. The Guide identified opportunities to support local economies, growers and rebuild biodiversity, to support team member health and wellbeing, to source ethically and consider animal welfare and fair trade.

The Team aligned with the Slow Food Movement philosophy that envisions a world in which all people can access and enjoy food that is good for them, good for those who grow it and good for the planet.

For the Team training session in Newport, Rhode Island, the Team hired a local cook, who provided meals for 10-15 members of the Team for a period of seven weeks. Great care and attention was taken to apply all aspects of the Good Food Guide, some key highlights included:

- 100% of food waste composted - the team base and each crew house used in Newport had Rhodeside Revival composting buckets (a Healthy Soils, Healthy Seas partner) that would be collected each week for composting
- 100% single use plastic free deliveries
- Seven meat free Mondays
- Using local seasonal produce, reducing food miles and purchasing the bulk of food from local farmers markets in Rhode Island using the Mobile Market service from Farm Fresh RI – a consortium of local farms offering a wide range of options for meal planning, available for online ordering
- Meal planning reduced waste and ensured the cook made the best nutritional choices
- Limiting Waste, buying in bulk and reusing containers and tins to keep waste down. Containers were washed out and reused, rather than purchasing more.
- Read more about the Team's food practices here.

FOOTPRINT COMPENSATION

The Team will develop a compensation strategy in 2021, based on its Climate Action Plan, to address the full campaign's unavoidable footprints of water, waste and GHG emissions. The strategy will take a net positive and regenerative approach with the intention of leaving the Team's areas of operation and influence better for its presence, and aiming to embody the most recent knowledge and thinking with regards to carbon reduction and sequestration.

UNSDGs
8 Decent Work and Economic Growth
8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavor to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programs on sustainable consumption and production, with developed countries taking the lead

15 Life on Land
15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world

12 Responsible Consumption and Production
12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses

MARINE MAMMALS

Marine mammals play a crucial role as part of the ocean's biodiversity. Their feeding and movement directly affect ocean health on a global scale. The Team recognized the marine sector has an important role to play by highlighting the opportunities and the challenges associated with marine traffic and ocean life.

With input from experts, the Team updated its best practices standard for sailors, which highlights actions[1] to be taken by teams and event organizers.

The Team focused on the issue of collisions at sea, and collaborated with other organizations to research the best mitigation strategies for improved watch keeping and avoidance technologies, including:

- The installation and ongoing development of the OSCAR, an infra-red thermal camera system which provides improved onboard watch keeping capabilities
- The decision to install a pinger on 11.2, which is designed as a marine mammal deterrence system

1 The marine mammals best practices are also described in this video produced by the Team with support from Anne Di Monti - The Audubon society of Rhode island

DELIVERING ON PRINCIPLE THREE

INNOVATION

INNOVATION GOAL ONE: EMBED CIRCULAR ECONOMY PRINCIPLES

WORKING GROUPS

In 2020, the Team held two working group sessions with the Sustainable Design and Build Group, a collaboration of the team's core builders and designers with a remit to contribute to the boat building industry's uptake of circular economy principles. The Team held two remote meetings to present research and continue development of the plan.

The first was held in May 2020, and focussed on the boat build facility environmental audit recommendations, supply chain optimization and LCA data capture processes, as well as the presentation of the power-rib test results, and the use of recycled carbon.

The second was held in November 2020, and had a focus on alternative materials, learning about recent developments in re-use, recycling, recovery, re-purposing of fibre reinforced polymer composite parts, fibres and resins through Composite UK's RECOMP conference.In addition, the meeting heard an update on the proposed IMOCA alternative materials rules, a review of the Team's biocomposite test hatch, and the intention to map out a selection of further components to be built from materials with a lower embodied carbon.

The outcomes of these discussions are further developed in the following chapters.

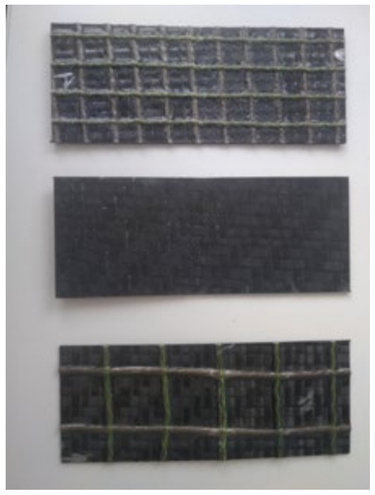
BIOMIMICRY

In nature, both natural processes and organizational forms allow fine, complex, local and optimized management of resources. There is neither waste that nature cannot recycle, nor pollution that it does not know how to regulate. With nearly 226,000 known marine species, the marine world is a fantastic source of inspiration. Applications mimicking marine flora and fauna are numerous and increasingly reach a commercial level. Through the platform of an #OceanHour Session, the Team, its grantees and partners explored what concepts have or could be applied to sustainable boat building and more generally to maritime mobility innovation.

In collaboration with a cohort of students for a new Masters program from École Nationale Supérieure de Création Industrielle in Nature Inspired Design, and the Marine Station in Concarneau, the group explored innovative bio-inspired and biological solutions to deal with contemporary problems, and the Masters students presented projects that reflected on all the possibilities of a future robust, fast, sustainable and bio-inspired racing yacht.

Building on the lessons learned from the session, the Sustainable Design and Build Working Group commissioned a research and development project, testing a leaf vein inspired bio-based material called Powerribs, to better understand the mechanical properties and applications, and comparisons to standard boat build materials from both an environmental and life cycle assessment perspective, as well as strength, stiffness deflection and fracture properties.

UNSDGs
9 Industry, Innovation and Infrastructure
9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities



Key outcomes included the discovery that the use of PowerRibs increases the flexural strength and stiffness. The stiffness is increased by a factor 1.5 and the strength by a factor 1.3. The Team is considering which applications and components would be best suited to this material. The full report can be found in the appendix.

Figure 20: Power-Rib test plates used for the three point bending tests

ONBOARD RENEWABLES

The theme of onboard renewable energy systems has centered around planning for the new boat which will be launched in the summer of 2021. The goal is to make the onboard system as energy efficient as possible and surpass any renewable targets set by The Ocean Race. The Team seeks to gain performance advantage with the installed renewable energy sources onboard through measurement incentives in the IMOCA rule and the need to carry less diesel onboard. The primary renewable energy source onboard will be from a custom solar array mounted on deck which in good weather conditions will meet the majority of the daily energy demands. A hydro generator will be used as a backup.

For safety reasons the boat will have a diesel engine installed as per class rules. The Team worked hard to ensure this is as efficient as possible further driving down our use of fossil fuels onboard. Instead of a conventional alternator charging system the boat will be installed with an electric motor generator which will improve charging efficiency from around 60% to over 90%. The work achieved in this space together with Diverse Performance Systems is intended to pave the way for the development of a suitable hybrid system which will further reduce dependence on fossil fuels while not compromising on safety.

ONBOARD SCIENCE

The two Atlantic crossings gave the Team the opportunity to conduct a trial of the science equipment that will be installed for the next Ocean Race enabling the measurement of ocean environmental variables. Partial pressure of carbon dioxide, salinity, pH and temperature were measured throughout the trip using the SubCTek OceanPack installed onboard.

The data from the two Atlantic crossings last year have now been quality-checked and accepted to NOAA's National Centers for Environmental Information open access database.

The Team released an Argos float mid Atlantic to capture meteorological data on behalf of the scientific community. The position of the drifter buoy drop was determined in real time

in order to best cover the gaps in the buoy network. A reduction of transatlantic shipping due to the Covid-19 pandemic meant that there were fewer opportunities for these buoys to be deployed. The data from the drifter buoy was available to other maritime users immediately as an input to the weather models for routing and strategy.

INNOVATION GOAL TWO: TRANSFORM MANUFACTURING

ALTERNATIVE MATERIALS

Moving from research to selection and sourcing alternative materials that fulfill the technical requirements of the various components of the boat build has been a focus for the build team. Key actions include:

- The commissioning hatches from flax and eco-friendly core
- Purchasing 50 linear meters of recycled, non-woven carbon fibre mat, for use within other components
- Collaborating with the IMOCA class on the definition of alternative materials within the class rule
- Advancing discussions around scaled recovery and reuse of recycled carbon by the marine industry

UNSDGs
12 Responsible Consumption and Production
12.2 By 2030, achieve the sustainable management and efficient use of natural resources

"One of my key roles is exploring how to utilize and exploit alternative materials. 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. We have final parts on the way to use on our new IMOCA - It's a first for the fleet I think, probably any racing fleet. Along with this delivered outcome we have regular workshops to keep the ideas coming in- It's a long road but we are making headway."

Wade Morgan, 11th Hour Racing Team Build Manager

NEW COMPONENTS

In 2020 the Team commissioned the build of a test transom hatch, constructed from alternative materials with a lower carbon footprint than the 'business-as-usual' carbon composite approach. The intention was to investigate the feasibility that bio-based materials could provide the strength and weight qualities required from this component. The part underwent non-destructive testing with the same engineering parameters as a carbon composite part and satisfied the design and build team to the extent that five further hatches were commissioned for build in 2021. The materials used were flax fibre, a 35% biobased resin and a 100% recycled PET core.

MANUFACTURING EFFICIENCY

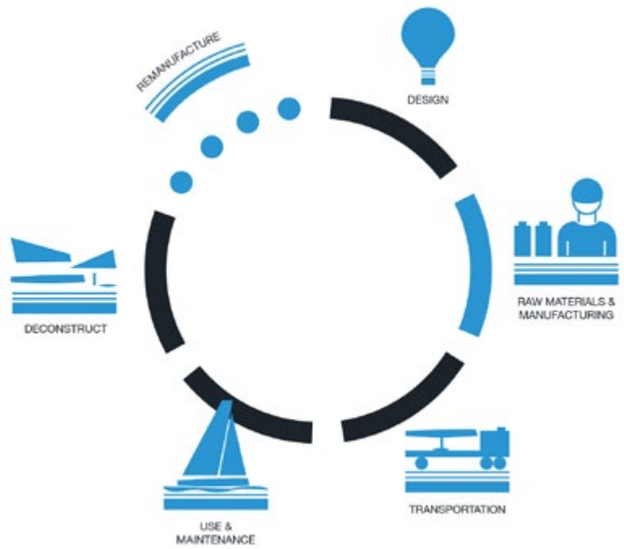
Showcasing that sustainability just makes good business sense, a key manufacturing efficiency initiative from the Team's boat builders CDK Technologies was the collection and bulk return of carbon fiber product packaging to the supplier for reuse.
When taking into account the cost and impacts of packaging and transport, the action of returning product packaging to the supplier Gurit for reuse resulted in the approximate reduction of 1 metric tCO2e per year, and annual financial savings of approx. €4,000-€4,500.

UNSDGs
7 Affordable and Clean Energy
7.3 By 2030, double the global rate of improvement in energy efficiency

INNOVATION GOAL THREE: IMPLEMENT LIFE CYCLE ASSESSMENT

MARINESHIFT360

Key to measuring the impacts associated with the complex process of designing and building the Team's race boat, was the ISO14044-compliant life cycle assessment tool - MarineShift360. The Team has been a key pilot partner and super user of MarineShift360, and has fed into the development of the platform, and a growing awareness[1] of the need for this process within the marine sector. All calculations represented in this report should be considered provisional as they were undertaken using the beta version of the software[2].



LIFE CYCLE ASSESSMENT ONE

The team undertook an LCA using beta software provided by MarineShift360 to determine the footprint of a theoretical build and deconstruction of an IMOCA 60.

The study provided information on the main environmental concerns of the studied system, highlighting material and process 'hotspots'. This information will be used to help identify best practices and areas for improvement. The information will also be compared with a 2010 scenario and a 2020 scenario to highlight change in impact hotspots over time and validate data collection and processing.

UNSDGs
12 Responsible Consumption and Production
12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment

1 The IMOCA Class voted to integrate a LCA by all new IMOCA builds
2 Disclaimer: LCA results were calculated using MarineShift360, which is in active development and is currently offered in beta testing form only; no statement regarding accuracy is made and results may change over time as MS360 development continues.

Key findings:

- The total estimated footprint calculated was 586 metric tons CO2e.
- The construction components account for 50% of the overall build.
- The next largest GHG emissions impact is the appendages (27% includes keel, rudders, foils and cases)
- Fitout (13% includes hydraulics, electronics, deck fittings and machinery)
- Rig (6% includes standing rigging, running rigging and mast)
- Sails (4% includes seven sails)

Key recommendations from the report include:

- The need to run a study to capture the exact energy usage for computer numerical control (CNC) machining processes.
- The use of PEFC Certified wood in the deck mock-up reduced the impact from 375 kg CO2e to 330 kg CO2e. All wood be PEFC or FSC certified due to the benefits of sourcing from sustainably managed forests.
- Build in facilities powered by 100% renewable energy.
- Test alternative composites with a lower embodied carbon than carbon fiber for non structural parts.

General recommendations and notes for future builds include:

- Building using a female mould only and no plug would reduce the footprint of future builds by 1.6% or 8.3 tonnes, equivalent to 33,500 kilometres driven by an average passenger vehicle.
- The build study took place in France where energy has a low carbon mix. Compared with an average European build, this study was approximately 30% lower for the build overall. Switching to a renewable energy provider for manufacturing processes is the single biggest way to reduce the footprint of the construction.

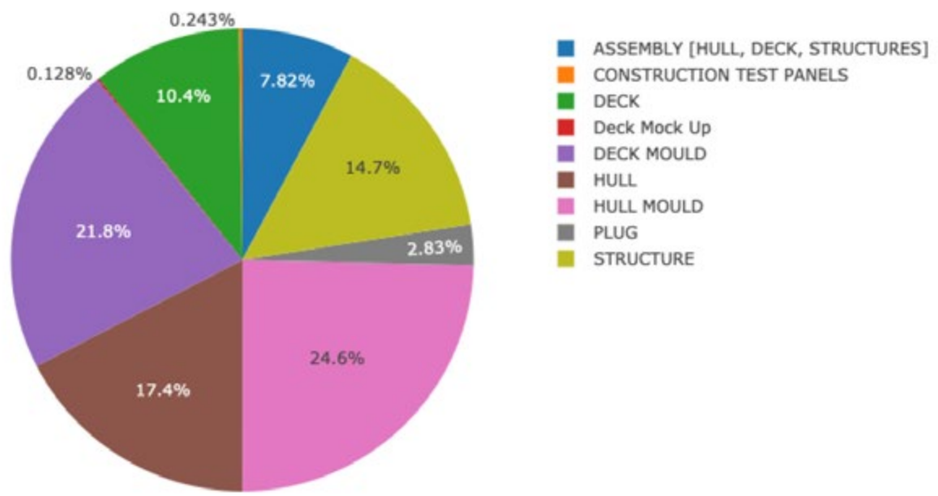


Figure 21: LCA1 GHG emissions impact breakdown by component from MarineShift360 beta software

LIFE CYCLE ASSESSMENT TWO

This life cycle assessment has been worked on by the Team and CDK Technologies and captures the build of 11.2. During 2020, the Team's contractors built the plugs and moulds and started laying up the hull and deck. The mid-way report details some key findings of the environmental impacts of 11.2's hull and deck moulds built in 2020 (see appendix).

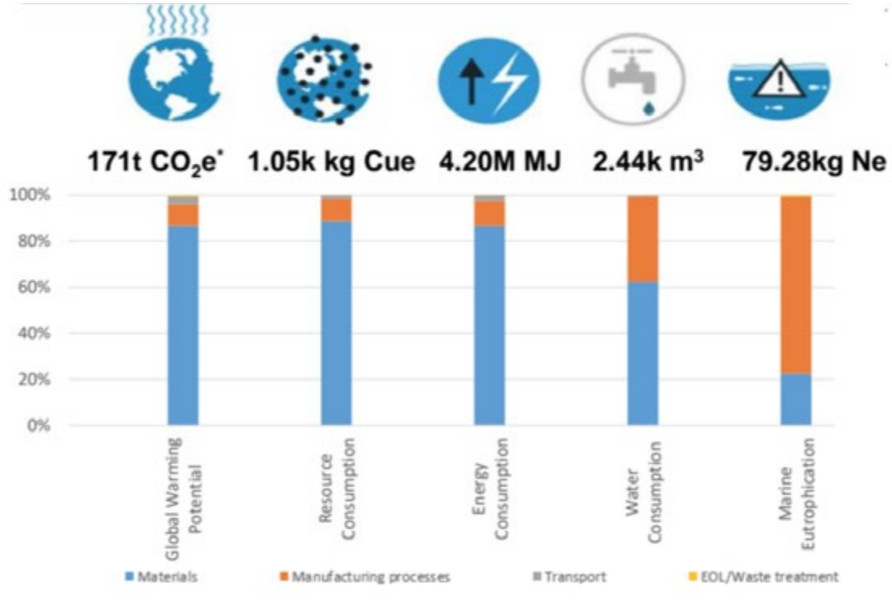


Figure 22: Contribution by life cycle stage to the environmental impacts from MarineShift360 beta software

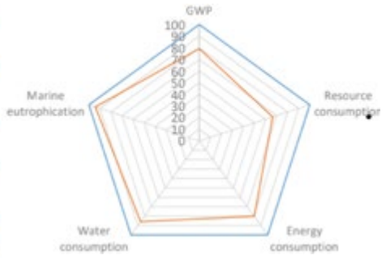
Results:

- The total GHG emissions (171 tCO2e) is equivalent to 673,340km driven by an average passenger vehicle.
- The energy consumed (4.20 million MJ) is equivalent to 98 homes' energy use for one year.
- The material's extraction and production stages contribute to more than 60% for the majority of the impact categories. This is mainly due to the important amount of material produced from non-renewable resources (steel, carbon fiber, resins etc)
- Build for reuse and disassembly at design stage.

The Team investigated a number of scenarios to see how alternative material use could bring down the plug and moulds impacts. The table below describes the scenarios, the feasibility and improvement potential.

Left: Table 23: Evolution of the impact categories in relation to the base scenario

	FEASIBILITY	GWP(%)	RC(%)	EC(%)	WC(%)	ME(%)
1. Reuse of steel structure at 50%	GOOD	-3,9	-28,4	-1,7	-3,0	-0,6
2. Recycling of production waste (EPS,foams,CF/GF)	LIMITED	-1,4	-0,8	-1,3	-1,5	-0,4
3. Integrate recycled carbon fibre	LIMITED	-13,8	-3,3	-15,4	-8,1	-4,8
4. Substitute all epoxy resins by biosourced epoxy	GOOD	-1,6	-0,9	-1,3	-1,5	-0,1
All improvements tracks		-20,8	-33,5	-19,8	-14,0	-5,9
Reuse of the moulds	EASIEST	50% less impacts if the moulds are entirely reused, 33% if reused twice				



Right: Figure 24: Comparison of impact categories according to the different scenarios

In 2020, the first stages of LCA2 was completed with the capture of the plugs, moulds and deck mock-up. The capture of data for the hull, deck, structures and other components was generated in real time throughout the build process, with the remainder of the LCA data capture and processing to be completed in 2021 as described in the diagram below:

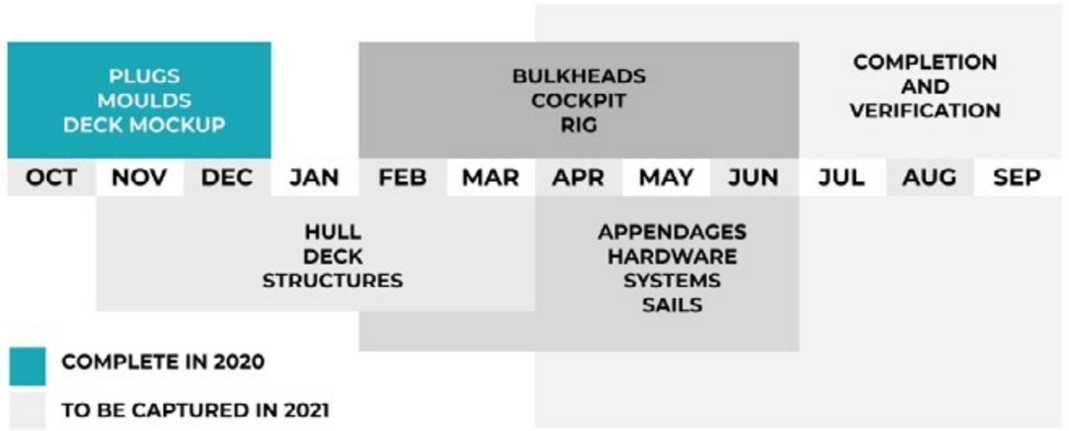


Figure 25: Timeline describing the level of completion of LCA2

DELIVERING ON PRINCIPLE FOUR

LEGACY

LEGACY GOAL ONE: INVEST IN COMMUNITY OUTREACH

LEGACY GRANT PROGRAM

The Team's Legacy Grant Program aims to support and promote local grassroots projects, organizations and innovations that highlight sustainable solutions to ocean health issues. The Legacy Grant Program will consist of 10-12 Grantees, each of which are located at a corresponding stopover of The Ocean Race, or a location where the Team has spent significant time training. These project-based grantees are selected in line with 11th Hour Racing's grantmaking strategy and align with ocean health issues relevant to the location of the grantee.

The two Brittany-based Grantees (Marine Station Concarneau and Explore) announced in 2019 experienced delays on the progress of their grant projects due to COVID-19.

Whilst based in Newport, RI, the Team had the opportunity to learn about two projects from 11th Hour Racing grantee, Clean Ocean Access, which targets ocean health issues relevant to Rhode Island and its large maritime community.

Shrink Wrap Recycling and Life Cycle Analysis Project

Through this project grant, Clean Ocean Access is implementing a shrink wrap recycling program in southern New England (including Rhode Island). The shrink-wrap recycling project aims to demonstrate the effectiveness of domestic recycling efforts, circular economies, and prevent the plastic film from entering landfills or incinerators – a risk that is increasing with severe reductions in plastic recyclables that are accepted by Chinese recycling businesses, which used to handle a large portion of plastic recycling created by US consumers, but has recently changed its policies. The Team had a virtual session with Clean Ocean Access project leaders to learn about the issue and to promote the initiative to the Team's audience.

GRI DIsclosure
413-1 Operations within local community engagement, impact assessments and development programs

UNSDGs
12 Responsible Consumption and Production
12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature
14 Life Below Water
14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts.

Healthy Soils - Healthy Seas Rhode Island

In Rhode Island, food waste makes up 30-35% of the trash entering the landfill, which is rapidly filling up. The cross-collaboration program called Healthy Soils, Healthy Seas Rhode Island brings together four organizations (Clean Ocean Access, Aquidneck Community Table, The Compost Plant, Rhodeside Revival, and Rhode Island Nurseries) to establish business, residential, and backyard composting aims to divert food waste from entering the landfill while also educating the public on the many benefits of composting for the environment and our oceans. The Team used this composting service during its time in Newport and also visited the composting site to hear from the project leaders to learn about the benefits of composting, why it's important and about the project's achievements and goals for the upcoming year.

LEGACY GOAL TWO: DEVELOP AND TRAIN

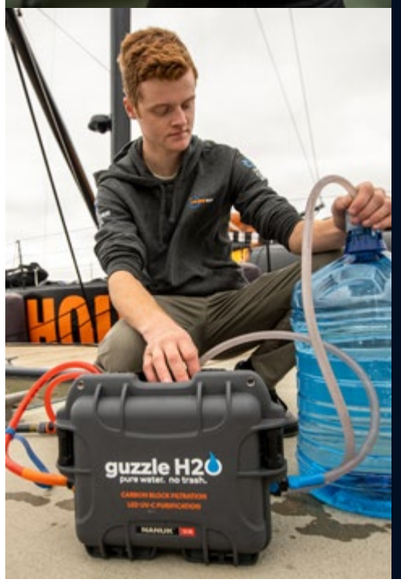
INTERN PROGRAM

Building on the success of the Intern program, the Team hired two interns in 2020. Etienne Le Penn, an LCA student at the Université Bretagne Sud was placed with CDK Technologies to manage onsite the compilation and calculation of data relating to the build of 11.2.

As part of the Team's ongoing relationship with Oakcliff Sailing, Cullen Zalenka was embedded in the team for a part-time placement during the Newport stopover in October 2020.

"My primary mission is to achieve a Life Cycle Assessment (LCA) of 11.2 consisting of collecting the data and flows involved throughout the life cycle of 11.2 and converting them into environmental impacts using the MarineShift360 software. 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, CDK Technologies and 11th Hour Racing Team



"Working with 11th Hour Racing Team has been an invaluable opportunity that came from my involvement with Oakcliff Sailing," Zelenka stated, "From helping the shore crew with foil modifications and doing light rigging work, to keeping the boat in pristine condition, every job was interesting and taught me something new. I was grateful to be looking over the shoulders of sailing professionals, learning first-hand as they tackled complicated tasks and problem-solved their way to a better performance on the water."

Cullen Zelenka, Sustainability Intern, 11th Hour Racing Team

UNSDG
8 Decent Work and Economic Growth
8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training

NEXTGEN PROGRAM

In October 2020, the Team created the NextGen mentorship program, inviting a small group of six motivated young students and professionals to join the program based on their inspirational leadership in sustainability.

Objectives of the 12 month off-site program are;

- To expand the Team's legacy by empowering young people
- To improve access to opportunities in the marine and sustainability sectors,
- To integrate the unique insights that the youth voice can provide to the Team's work with a focus on international diversity.

Jazmin Sopena Clemencon
Argentina
Biochemistry and pharmacy student
Mentor: Damian

John Kimber
Chile
Forestry student
Mentor: Damian

Elizabeth Goodleigh
Jamaica
Environmental education officer
Mentor: Amory

Anne Longo
USA
Sailor and Sustainability graduate
Mentor: Amy / Damian

Rose Gallichan
France
Future environmental sciences student
Mentor: Kristi & Emily

Serena Woodall
New Zealand
Volunteer at Waiheke Marine Project & future marine biology student
Mentor: Aimee & Sifi

The six mentees are aged between 18-25 are from the US, France, Jamaica, Argentina, Chile and New Zealand, and have backgrounds in forestry, materials science, marine biology, community engagement and teaching.

"I was really pleased to join 11th Hour Racing TeamNextGen program. It's an opportunity for me to both learn, and share my knowledge about sustainability. It's great to have a mentor who walks with me on this pathway to become more confident about what I want for my personal and professional life. This mentorship helps me to understand the importance to be true to what I want to achieve with my goals and the desire to work as a team to make the changes that we need to do, to take care of the world we live in."

Jazmin Sopena Clemencon, Buenos Aires, Argentina.

LEGACY GOAL THREE: COMMUNICATE AND INFORM

THE TOOLBOX

In 2020 the Team developed The Toolbox a suite of guides, tools, and templates for the purpose of establishing a sustainability program within any organization, no matter the size or industry sector.

Figure 24: The Toolbox Features

The Toolbox will be made available in 2021, using the creative commons open access platform, to be used, shared, and developed by the community of Toolbox users.

Figure 26: Resources in The Toolbox

UNSDG
12 Responsible Production and Consumption
12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

APPENDIX

ASSURANCE

This report is based on the GRI reporting standards but not formally GRI assured. It has been reviewed by Craig Simmons, Chief Technology and Metrics officer UK - Anthesis Group, and by Jill Savery, Sustainability Director - 11th Hour Racing.

GRI DISCLOSURES INDEX

Disclosure	Chapter	Level of reporting	Reasons for omissions
102-1 Name of the organization	Introduction	Full	
102-3 Location of headquarters	Introduction	Full	
102-4 Location of operations	Introduction	Full	
102-8 Information on employees and other workers	Organization structure	Full	
102-9 Supply chain	Partners and suppliers	Full	
102-14 Statement from senior decision maker	Foreword	Full	
102-15 Key impacts, risks and opportunities	Key Issues	Full	
102-16 Values, principles, standards and other norms of behavior	Vision, mission and stakeholders	Full	
102-18 Governance structure	Organization structure	Full	
102-40 List of stakeholder groups	Vision, mission and stakeholders	Full	
102-42 Identifying and selecting stakeholders	Vision, mission and stakeholders	Full	
102-43 Approach to stakeholder engagement	Vision, mission and stakeholders	Full	
102-44 Key topics and concerns raised	Vision, mission and stakeholders	Full	
102-46 Defining report content and topic boundaries	Scope	Full	
102-50 Reporting period	Scope	Full	
102-51 Date of most recent report	Introduction	Full	
102-52 Reporting cycle	Scope	Full	
102-53 Contact point for questions regarding the report	Scope	Full	
102-54 Claims of reporting in accordance with the GRI standards	Assurance	Full	
102-55 GRI content index	GRI Disclosures	Full	
102-56 External assurance	Assurance	Full	
302-1 Energy consumption within the organization	Energy and fuel	Full	
303-5 Water consumption	Water Footprint	Full	
305-1 Direct (Scope 1) GHG emissions	Footprint	Full	
306-2 Waste by type and disposal method	Waste	Full	
308-1 New suppliers that were screened using environmental criteria	Supply Chain	Full	
308-2 Negative environmental impacts in the supply chain and actions taken	Supply Chain	Partial	Incomplete data
404-1 Average hours of training per year per employee	Internal engagement	Full	
413-1 Operations within local community engagement, impact assessments and development programs	Invest in community outreach	Partial	Incomplete data
403-2 Occupational Health and Safety	Health and Safety	Partial	Incomplete data

GRI Disclosures
102-56 External assurance
102-54 Claims of reporting in accordance with the GRI standards
102-55 GRI content index

PROGRESS AGAINST TARGETS

			Complete / In Progress / Not Started	
GOAL 1 CREATE AMBASSADORS				
Foster an inclusive team of diverse, motivated and informed leaders in sustainability.	Building the team	Define the scope of the project; Create a comprehensive Sustainability Plan; Apply the resources to ensure success		5.5
		The team is an equal opportunity and disability confident employer		4.4
		Under 30 - Team provides opportunity for youth employment		10.2
		Employment policy sets a priority on local staffing and services.		4.7
	Development and Training	Staff induction ensures that all team have an understanding of Sustainability Principles, Objectives and Targets, their purpose and their role in delivery		4.7
		Team members provided with ongoing professional development and training aimed at increasing their knowledge of sustainable behaviours		4.7
		Team members signed Sustainability Charter, defining commitment to champion best practices at all times		4.7
		Engage with regular public and marine industry speaking engagements		4.7
		Create Ocean Hour advisory network to support team work		17.16
	External Ambassadors	Team supports ocean education programs		4.7
		Each team member will champion one of the Team's goals to communicate to their fan base. Sustainability Team will speak at 4 events per year		4.7
GOAL 2 SUPPORT PEERS				
Provide an exemplary model of sustainability leadership and ethical management	Support Peers	Collaborate with TOR and industry community on at least 2 projects per year, to achieve sustainability improvements, including footprint reduction and increasing positive impacts.		17.16
	Influence Policy	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		17.14
		Support TOR and other stakeholders to engage with local & national government/organisations to positively effect sustainability policy		17.14
GOAL 3 INSPIRE FANS AND FOLLOWERS				
Inspire behavioural change among global sports fans and communities to restore the health of our oceans.	Inspire through events	The team attend and support all known Ocean Race key sustainability events, Ocean Summits and key host city sustainability events as opportunities to engage influencers and policy makers as may be relevant		17.16
		If invited, the team principles will present and promote sustainability at 100% of 11 Ocean Summits.		4.7
	Inspire through digital platforms	Execute the sustainability communications plan		4.7
GOAL 4 FOSTER STRATEGIC PARTNERSHIPS				
Foster partnerships based on the systematic adoption of sustainable standards.	Seek aligned partnerships to accelerate strategic success	The team will only engage with stakeholders that align with the team's sustainability ambitions		17.16
		Consult and co-create goals and objectives with each individual partner and report on results		17.16
GOAL 5 INFLUENCE SUPPLY CHAINS				
Positively influence the marine industry supply chain.	Supply chain mapping	10 Products of concern mapped through to source		12.7
	Sustainable sourcing code	SSC Principles applied to 100% of products and services as defined within the code		12.7
		75% local products, services & labour at semi-permanent bases. 10% local products, services & labour at stopovers and short stay venues		12.7
	Improved supply chain performance	10 suppliers have improved their internal sustainability practices as a result of engagement with the team, with a special focus on Single-use plastic		8.4
GOAL 6 IMPLEMENT SUSTAINABLE OPERATIONS				
Apply best practices to reduce environmental footprints across all areas of operation	Energy and fuel	Create and implement a CLIMATE ACTION PLAN to reduce fossil fuel use, emissions, and optimize energy needs		13.2
		Maximise renewable energy solutions. 10% improvement from baseline		7.2
	Logistical footprint	Optimize personnel transport to reduce emissions		12.2
		Optimize in goods transportation to reduce emissions		12.2
		90% of Self-catering accommodation to be within sustainable transport proximity of team base venues		12.2
	Sustainable catering guide	100% Compliance with Sustainable Catering Guide principles		8.4
		100% Staff engagement Meat Free Monday		15.3
	Zero waste	90% Landfill diversion rate at permanent Team bases		12.5
		80% Landfill diversion rate at temporary Team bases		12.5
		100% Composting or anaerobic digestion at all venues		12.3
		Zero avoidable single-use plastic		14.1
		Provide filtered water at all team venues		14.1
		50% onboard waste reduction compared to baseline		12.5
	Water (Net Positive)	Reduce shore operations water by 10% compared to baseline data		6.4
		Establish baseline data for embedded water, and compensate for a Net Postive outcome		6.4

GOAL 7 EMBED CIRCULAR ECONOMY PRINCIPLES				
Apply innovative solutions across team operations through the application of circular economy principles.	Design out waste and pollution	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		9.4
		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 consider possible useful applications of by-products and wastes.		12.5
		Achieve % manufacturing and packaging waste reduction over the campaign on identified projects		12.5
	Keep products and materials in use	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.		12.2
	Preserve and enhance natural capital	Identify one project to tackle using a biomimicry approach to problem solving		12.2
		Reinvest in natural capital through grant and offsetting programmes. (Mangrove / seagrass projects..)		11.4
		Promote a specific marine protected area each year/ race leg, or similar ocean conservation issue		14.5
		Support the TOR onboard science programme		14.3
GOAL 8 TRANSFORM MANUFACTURING				
Employ a sustainable design and boat build process particularly with regards to resource management, production, and end of life options.	State of Play	All contracts to include Supplier Sustainability Commitments		12.7
		Commission a survey of state-of-the-art alternative materials that are available for marine industry build options		12.2
		Audit of boat yard energy, waste and resource with recommendations for improved efficiency		7.3
	Improvement	%tbc improvement - boat yard energy and resource management		12.2
GOAL 9 APPLY LCA				
Apply Life Cycle Analysis to production processes to inform sustainable choices.	Measurement	Production of exploratory LCA report using historical data and the most recent IMOCA build		12.4
	Interpretation and implementation	Interpretation of study to inform x# process/material/transport/production/EOL improvement choices, and a comparison to 'business as usual' to be made.		12.4
	Validation	Production of as-built LCA report		12.4
		Develop 1 case study describing better design choices made as a result of LCA studies, including recommendations/lessons learnt		12.4
GOAL 10 INVEST IN COMMUNITY OUTREACH				
Develop a legacy grant program as part of a wider outreach strategy promoting ocean health and sustainable communities.	Develop programme	One legacy per quarter, & One for each race leg		14.2
	Participate	Each team staff will participate in at least 1 community outreach / industry sustainability event per year		12.8
		The team will integrate a local community project in Newport, RI		14.2
	Showcase	Amplify the sustainability efforts of coastal marine communities and cities visited during the campaign		14.2
		The team will collaborate with internal, External staff and TOR teams to leverage the value of the message locally and internationally		12.8
	Follow up	The team will support TIHR with the development of long-term relationships with each of the Grant recipients.		14.2
GOAL 11 EDUCATE AND TRAIN				
Provide education and training opportunities for key groups highlighting key ocean health issues.	Exploration zone	The Exploration zone will be neutral environmental impact		12.2
		The Exploration zone staff will have in-depth knowledge of subjects interpreted within the displays		4.7
		The exploration zone materials will have a meaningful/relevant 'end/next life' post-race.		12.5
	Intern programme	One intern per stopover or campaign period, supported by all departments, and facilitate ongoing post internship opportunities		8.6
		The Team creates mentorship program, supporting a diverse, international group of young professionals		8.6
GOAL 12 COMMUNICATE AND INFORM				
Champion transparent reporting, sharing of challenges and successes, and guiding future policy to promote long term planning around sustainability	Climate positive	Offset our Greenhouse Gas Emissions to achieve Carbon positive target		13.3
	Water footprint	Monitor, reduce water footprint according to a recognised standard, and share learning and engage with the industry to support adoption		6.4
	Design and build report	Use the LCA and Design and Build reports to make industry recommendations		12.4
	Annual reports	Publish annual Sustainability reports in accordance with GRI reporting standards and map the team's contribution to the UN Sustainable development goals		12.6
		Inform improvements for the next cycle & updates to the team's Sustainability plan		8.4
	The Toolbox	Create a framework to facilitate the creation and implementation of sustainability program for all		12.6

UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

TEAM GOAL	UNSDG	UNSDG DESCRIPTION	CHAPTER
1.1.3	4.4	By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship	Create Ambassadors
1.2.1 **1.2.2** **1.2.3** **1.3.1** **1.3.3** **1.3.4** **3.1.3** **3.2.2** **11.1.2**	4.7	By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development	Create Ambassadors Inspire Fans and Followers Educate and Train
1.1.2	5.5	Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision making in political, economic and public life	Create Ambassadors
9.5.1 **9.5.2** **12.2.1**	6.4	By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity	Implement Sustainable Operations Communicate and Inform
9.1.2	7.2	By 2030, increase substantially the share of renewable energy in the global energy mix	Implement Sustainable Operations
5.1.3	7.3	By 2030, double the global rate of improvement in energy efficiency	Transform Manufacturing
8.3.1 **9.3.1** **12.4.2**	8.4	Improve progressively, through 2030, global resource efficiency in consumption and production and endeavor to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programs on sustainable consumption and production, with developed countries taking the lead	Influence Supply Chains, Implement Sustainable Operations, Communicate and Inform
11.2.1 **11.2.2**	8.6	By 2020, substantially reduce the proportion of youth not in employment, education or training	Educate and Train
4.1.1	9.4	By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities	Embed Circular Economy Principles
1.1.4	10.2	10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status	Create Ambassadors
4.3.2	11.4	Strengthen efforts to protect and safeguard the world's cultural and natural heritage	Embed Circular Economy Principles
4.2.1 **4.3.1** **5.1.2** **5.2.1** **9.2.1** **9.2.2** **9.2.3** **11.1.1**	12.2	By 2030, achieve the sustainable management and efficient use of natural resources	Embed Circular Economy Principles, Transform Manufacturing, Implement Sustainable Operations, Educate and Train
9.4.3	12.3	By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses	Implement Sustainable Operations

TEAM GOAL	UNSDG	UNSDG DESCRIPTION	CHAPTER
6.1.1 **6.2.1** **6.3.1** **6.3.2** **12.3.1**	12.4	By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment	Apply Life Cycle Assessment, Communicate and Inform
4.1.2 **4.1.3** **9.4.1** **9.4.2** **9.4.6** **11.1.3**	12.5	By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse	Embed Circular Economy Principles, Implement Sustainable Operations, Educate and Train
12.4.1 **12.5.1**	12.6	Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle	Communicate and Inform
5.1.1 **8.1.1** **8.1.2** **8.2.1** **8.2.2**	12.7	Promote public procurement practices that are sustainable, in accordance with national policies and priorities	Transform Manufacturing Influence Supply Chains
10.2.1 **10.3.2**	12.8	By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature	Invest in Community Outreach
9.1.1	13.2	Integrate climate change measures into national policies, strategies and planning	Implement Sustainable Operations
12.1.1	13.3	Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	Communicate and Inform
9.4.4 **9.4.5**	14.1	By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution	Implement Sustainable Operations
3.1.2 **10.1.1** **10.2.2** **10.3.1** **10.4.1**	14.2	By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans	Inspire Fans and Followers Invest in Community Outreach
4.3.4	14.3	Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels	Embed Circular Economy Principles
4.3.3	14.5	By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information	Embed Circular Economy Principles
9.3.2	15.3	By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world	Implement Sustainable Operations
2.2.1 **2.2.2**	17.14	Enhance policy coherence for sustainable development	Support Peers
2.1.1 **3.1.1** **7.1.1** **7.1.2**	17.16	Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries	Support Peers Foster Strategic Partnerships

WORLD SAILING AGENDA 2030

TEAM SUSTAINABILITY GOAL	WORLD SAILING OBJECTIVE	WORLD SAILING OBJECTIVE DETAIL	CHAPTER
Goal 7	Objective 1	Establish a robust approach to sustainability across the sport, sharing best practice and setting standards and targets, focusing on World Sailing operations, events and venues	Foster Strategic Partnerships
Goal 4, 8, 9	Objective 2	Reduce World Sailing's carbon footprint and promote resource efficiency across the sport	- Embed Circular Economy Principles - Influence Supply Chains - Implement Sustainable Operations
Goal 10	Objective 3	Respect and contribute to ecosystem health and biodiversity	Invest in Community Outreach
Goal 1	Objective 4	Promote diversity and accessibility across the sport, drive gender equity at World Sailing events in line with IOC 2020 targets	Create Ambassadors
Gaol 11	Objective 5	Ensure sustainability is embedded into teaching of sailing through teaching and coaching frameworks	Educate and Train
Goal 3	Objective 6	Promote a culture of sustainability by sharing best practice and increasing sustainability awareness across MNAs, events, venues and affiliated industries	Inspire Fans and Followers
Goal 2	Objective 7	Set technical standards by 2030 to reduce environmental impact of sailing industry focusing on end of life of composites and engine and energy technology	Support Peers
Goal 5, 6	Objective 8	Take a science based approach underpinned by research to understand our impact and identify solutions	- Transform Manufacturing - Apply Life Cycle Assessment
Goal 12	Objective 9	Ensure credibility and transparency through robust monitoring and reporting	Communicate and Inform

TOOLS & REFERENCES

Inclusion	**Boundary**
The Toolbox	The Toolbox framework and templates were used to design, implement, track and report the Team's sustainability plan
GHG Protocol Corporate Accounting and Reporting Standard	2020 conversion factors were used to give metric tonnes CO2e results with the exception of: · Electricity, where the national emission figures were used · Water, being only a small percentage of the total GHG emissions, the UK conversion factors (as opposed to using different factors per country visited) were used for all locations.
Carnegie Mellon EIO-LCA Model	This input-output model was used for materials and products purchased not related to the GHG protocol tool to give CO2e per US$ spent. A deflator index (0.71) was used to adjust 2020 dollar spend to 2002 values for input used by the model. Spend in marine sectors was adjusted by a factor of 2 to take into account the additional cost of bespoke/custom marine equipment.
The MarineShift360 Life Cycle Assessment (LCA) tool was used to calculate the footprint of the deck mock up	The datasets and LCA method used are those within the MarineShift360 model. The MarineShift360 model is a bespoke marine industry tool that provides a cradle to grave assessment of the materials and processes involved in yacht construction. The methodology used in the model has been reviewed by experts at Anthesis to ensure it conforms with best practise and is suitable for producing ISO14044 compliant reports. The database behind the tool is made up of Ecoinvent and derived data from marine industry experts/partners. The beta tool has been developed by 11th Hour Racing.
Other sources	Certain sectors such as digital footprint and national energy intensity factors required additional research, and sources such as Ademe were used to provide the best estimations.
Water footprint methodology	Water footprint measures the consumption of fresh water resources for producing goods and services. The water footprint has three components: green, blue and grey. Together, these components provide a comprehensive picture of water use by specifying the source of water consumed, either as rainfall/soil moisture or surface/groundwater, and the volume of fresh water required for assimilation of pollutants. The water footprint of a product is the volume of freshwater used to produce the product, measured over the full supply chain The water footprint calculations follow the methodology of Hoekstra et al (2011). The data used for the calculations come from academic research performed by WF experts and from various international databases such as Aquastat and Faostat.

Water Footprint Factors used	The WF of transport of freight is based on the WF of the fuels for each mode of transportation (air, land, sea), including the average fraction of biofuels (biodiesel and bioethanol) in each of the modes of transportation (land transport(1) 4% bioethanol and 6,4% biodiesel; 0,016% biokerosene world average in air transport(2); not available for sea transport). The WF of diesel, petrol and propane are calculated based on their potential embedded energy according to Gerbens-Leenes, P. W., Hoekstra, A. Y., & van der Meer, T. H. (2008). Water footprint of bio-energy and other primary energy carriers. UNESCO-IHE. The Total WF of hotel accommodation includes the Blue and the Grey WF. Blue water footprint is calculated by assuming 10% of water withdrawal is actually consumed and 90% returns to the water system according to Hoestra & Mekonnen. Grey water footprint is calculated by considering the percentage of return flow that is treated before being discharged to the environment according to Hoekstra & Mekonnen. Percentages per country on return flow rates treated in a wastewater treatment plant (WWTP) are taken from UNdata and OECD http://data.un.org/Data.aspx?d=ENV&f=variableID:164
Accomodation	The GHG Protocol Corporate Accounting and Reporting Standard 2020 conversion factors for accommodation by Room.Night: · France - 7.6 kgC02e · USA - 21.4 kgC02e · Portugal - 27.6 kgC02e · UK - 17.4 kgC02e · Australia - 44.9 kgC02e
Air travel was calculated using GHG Protocol Corporate Accounting and Reporting Standard ranges:	Domestic (<785 km) - as the Team's operations ranged across various countries, the UK domestic factor was used for all flights under 785 km in other countries as well;pPassenger km - 0.2443 kgC02e Short haul (>785<3,700 km); passenger km - 0.15298 kgC02e International (>3,700 km) - was used for all flights above 3,700 km; Passenger km - 0.139245 All flights were factored as economy flights
Electricity	The national emission figures used: · 2020 French average emission per kWh 0.059 gC02e · French 100% solar emissions per kWh 0.056 gC02e - (Source Ademe) · 2018 Rhode Island, USA average emissions per kWh 0.25158 gC02e As provided by the UK GHG protocol, transmission and distribution losses associated with the electricity used was taken into account.
Digital footprint measured as kWh or GB	The Team has made a specific effort to include the digital footprint of internal Team operations, as well as the design and analysis associated with the Team's boat build process Computing time, energy consumption, as well as the materiality of online services have been included ranging from: texts and messaging at one end of the scale to super-computer time at the other Where possible direct energy consumption has been measured to generate emissions. When not possible, estimations have been applied using the best possible researched data. Specialist advice was received from Sylvain Baudoin, The Shift Project This impacts was reported under the UK GHG protocol scope 3, Managed Assets
Remote workers	The impact of remote working was included by using the methodology provided by Anthesis 2020 Reported under the UK GHG protocol scope 3, Managed Assets
Economic impact	In the context of economic impact - the Team defines local economies as being within the state (USA), within Region (France), or national boundary of similar scale for other countries, where the Team is based temporarily or permanently.

Direct and indirect water calculations	The Team tracked and/or estimated direct water use. Where sector/product data was available (sourced from Water Footprint Implementation), this data was used for indirect water MarineShift360 LCA tool provided indirect water footprint for marine sector and boat build components The remaining inventory was calculated using the Carnegie Mellon model
Hospitality Events	The Team included the GHG emissions impacts associated with the homecoming event in Newport, RI, as well as the travel and accommodation footprints of those invited.
WTT - well to tank	Being part of the consumer tier in the marine industry most of the Team's emissions are classified as Scope 3. Where required by the UK GHG protocol, the Scope 3 emissions also took into account upstream ell to ank (WTT) impacts associated with extraction, refining and transportation of the raw fuel sources prior to their combustion.
Exclusion	**Boundary**
Partner footprints	The Team encourages its partners to use similar methodology to calculate its own impacts associated with the partnership, and offers the opportunity to combine efforts with the Team to compensate for these footprints.
Second hand assets	The Team will not be including second-hand assets on the basis that the ownership of the footprint remains with the original purchaser.
GHG emissions are stated in CO2e only	Carbon dioxide equivalent is the measure used to compare the emissions from various types of greenhouse gas (GHG) based on their global warming potential (GWP). The key greenhouse gases are: Carbon dioxide (CO2), Methane (CH4), Nitrous Oxide (N2O), Chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), hydrochlorofluorocarbons (HCFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6). As the reference gas, C02 has a GWP factor of 1, yet it will last thousands of years in the atmosphere, Methane has a GWP of 28-36 but lasts 'only' 100+ years in the atmosphere, whilst the high-GWP fluorocarbon gases can have tens of thousands more global warming potential. The Team calculations reference GHG emissions in tC02e, but do not provide a breakdown report of the individual gases.
Certain categories listed in the GHG Protocol Corporate Accounting and Reporting Standard that have little or no relevance to the Team's operations were excluded or had no data to include	· Bioenergy, heat and steam were not relevant and this information was excluded from the CO2e calculations · Refrigeration and air conditioning – the Team bases had no air conditioning and only two small second-hand fridges which were not refilled or serviced · No company-owned vehicles were used · Electrical vehicles (EVs) were not used - N/A · Managed asset vehicles – N/A
< 1% detail	To understand the relative importance of the impacts in each sector every effort was made to include all inventory whatever the amount, however certain footprints that are less than 1% of the overall total may be omitted
Digital hardware	Unless specifically embedded in the researched factors used for calculating certain aspects of the digital inventory, no upstream, manufacturing or end of life impacts were accounted for in the digital footprint. The digital footprint comprises the use phase only.

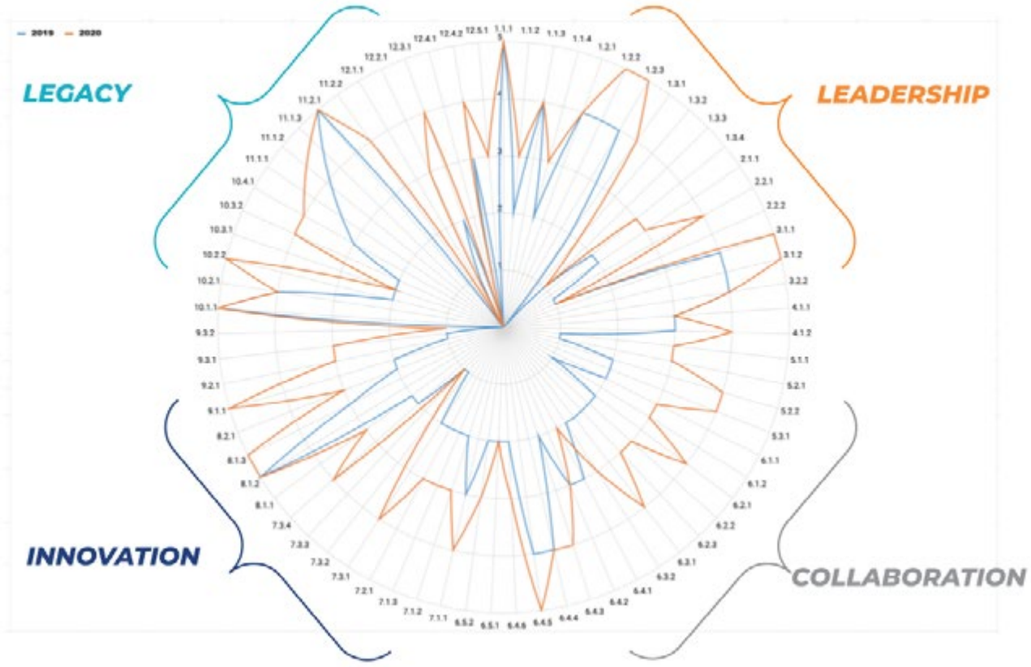
MATURITY MATRIX

The following maturity matrix sourced from World Sailing, describes the Team's maturity level in 2020 by value; inclusivity, integrity, stewardship, and transparency.

Principle	Minimal	Improving	Engaged
Inclusivity How involved are the stakeholders and how are the issues identified and addressed	Limited number of stakeholders consulted. Limited amount of information shared. Limited options given to stakeholders on how they can get involved. Limited time and resource given to identifying issues.	Comprehensive list of stakeholders created. All stakeholders given the opportunity to provide feedback in a structured and fair way. Key issues addressed. Lessons learned from addressing key issues shared with peers, including using this acquired knowledge as a part of the marketing, with the goal of creating a competitive advantage.	Constant engagement with stakeholders. Constant education of stakeholders. Consider issues in a structured way. Take action to address all issues. Consider stakeholder feedback when addressing issue.
Integrity How open, honest and transparent is the approach	Short term profit. Immediate financial and reputational gains. Reaction in response to shareholder/stakeholder/ peer pressure. Reaction to market trends with minimal response.	Consideration of how suitable development may affect the organization's reputation or may be a risk to it. Reaction in response to other companies behaviour towards sustainability.	Long term business development and profit. Implementation of sustainability as a strategic process and advantage aligned with broader organizational strategy, including vision, mission and goals.
	Application of standards only when legally required. Application of sustainable initiatives only when legally required.	Application of standards which may affect the organization's reputation. Application of standards which align with the business vision and mission. Application of sustainability initiatives under pressure from shareholders (e.g. community involvement programmes).	Application of all new relevant industry standards. Clearly written and communicated sustainable development policy. Staff, supplies, stakeholders are all aware of, understand and behave in accordance with the sustainable development policy.
Stewardship How is this topic being managed with suppliers, stakeholders, internal teams	Meeting legal requirements only. No focus given to sustainability.	Sustainability is public relations/ marketing initiative. Basic internal programme for sustainability exists involving a limited number of staff.	All staff well trained and able to change their ways of working and implement increased sustainability with reward/ incentive scheme. Company lessons learned on sustainability are shared externally with peers.
	Minimal training given. No education specifically on sustainability green.	New employees given education on sustainability. Limited education plan available.	All staff trained and able to adapt their ways of working and implement increased sustainability with a reward/incentive scheme. The organization's lessons through sustainability are communicated externally with peers.
	Suppliers are chosen on price only. Supplier payment is delayed as long as possible.	Supplier payment is within time frame stated by supplier. Some sustainability factors are considered, including location of supplier, types of materials used.	Supplier payment is immediate. Sustainable procurement strategy in place. Suppliers are asked to share their sustainability development policy and demonstrate their commitment to sustainability. Suppliers are considered on all factors, including location, transport used, materials used, cost, equal opportunity employment, disability employment and post-use life of material. Educational assistance and encouragement given to smaller suppliers, or suppliers new to sustainability.
	No assessments have been undertaken. Lack of awareness for environmental assessments.	Basic environment policies and standards applied. Basic internal training provided in environmental assessments.	Potential environmental impacts and risks considered and business decisions made based on these considerations.
Transparency How clear is the approach	No one acts on the feedback or considers the feedback as lessons learned to take on in the future.	Feedback reviewed by middle management only. Feedback reviewed but with limited action.	All levels of the company are exposed to, pay attention to and implement lessons learned from the feedback.
How this affects the future	It is not considered, no one reports on sustainability.	Selective elements are considered.	All elements are considered. Reports are made and shared with all stakeholders.

TARGET MATURITY MATRIX

Target maturity matrix comparing more detailed progress from 2019 and 2020



PRINCIPLE		GOAL		OBJECTIVE
LEADERSHIP	Be leaders, advocating for ocean health, climate action and sustainability with the industry, communities and fan base.	1	Create Ambassadors	Foster an inclusive team of diverse, motivated and informed leaders in sustainability.
		2	Support Peers	Provide an exemplary model of sustainability leadership and ethical management.
		3	Inspire Fans and Followers	Inspire behavioural change among global sports fans and communities to restore the health of our oceans.
COLLABORATION	Collaborate with partners to create sustainable solutions, minimizing the environmental footprint across spheres of influence, including going zero waste and implementing a ban on single-use plastics.	4	Foster Strategic Partnerships	Foster partnerships based on the systematic adoption of sustainable standards.
		5	Influence Supply Chains	Positively influence the marine industry supply chain.
		6	Implement Sustainable Operations	Apply best practices to reduce environmental footprints across all areas of operation*
INNOVATION	Develop innovative solutions to responsibly manage resources, applying circular economy principles to material needs, as well as reducing water and climate footprints, and becoming water neutral and climate positive.	7	Embed Circular Economy Principles	Apply innovative solutions across team operations through the application of circular economy principles.
		8	Transform Manufacturing	Employ a sustainable design and boat build process particularly with regards to resource management, production, and end of life options.
		9	Apply Life Cycle Analysis	Apply Life Cycle Analysis to production processes to inform sustainable choices.
LEGACY	Leave a lasting legacy by inspiring others to make changes -- one degree at a time -- including a community outreach program, internships and grant-giving	10	Invest in Community Outreach	Develop a legacy grant program as part of a wider outreach strategy promoting ocean health and sustainable communities.
		11	Educate and Train	Provide education and training opportunities for key groups highlighting key ocean health issues.
		12	Communicate and Inform	Champion transparent reporting, sharing of challenges and successes, and guiding future policy to promote long term planning around sustainability.

11TH HOUR RACING
SAILING TEAM

To keep up to date with our latest sustainability news, please visit ***11thHourRacingReam.org/ForOurOcean***

All enquiries, comments or suggestions related to the sustainability report should be directed to ***sustainability@1degree.us***