



# SUSTAINABILITY REPORT

**SEASON THREE**  
**PIONEERING & BREAKING BARRIERS**



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# 01 INTRODUCTION





“

**EXTREME E'S PURPOSE IS TO RAISE AWARENESS ABOUT CLIMATE CHANGE AND SUSTAINABILITY EVERYWHERE WE RACE. THE DRIVERS ALSO TAKE THEIR OWN TIME TO GET INVOLVED IN PROJECTS WHICH IS REALLY GREAT.**

**IN SPORT WE HAVE SUCH A BIG FOLLOWING THAT IT SHOULD BE A RESPONSIBILITY FOR US TO USE SPORT FOR COMMON GOOD INSTEAD OF JUST ENTERTAINMENT. AND EXTREME E IS BEING A ROLE MODEL IN THAT.”**

**Nico Rosberg,**

Founder and CEO, Rosberg X Racing



# ABOUT THIS REPORT

This is Extreme E's third annual Sustainability Report. This report covers our achievements in sustainability during Season 3, the progress we have made towards our environmental goals, and areas where we can continue to enhance our positive impact. This report covers our activities from 1 January 2023 to 31 December 2023 and was developed with support from EY, our Official Sustainability Partner.





# ABOUT EXTREME E

Extreme E is a radical off-road racing series which showcases electric SUVs and futuristic technologies in some of the world's most remote and challenging environments.

The first sport to ever be built out of a social purpose, Extreme E utilises its sporting platform for the purpose of promoting electrification, environment, and equality. The series' goal is to highlight the impact of climate change in some of the world's most endangered environments, promote the adoption of electric vehicles to pave the way for a lower carbon future, and provide a world-first gender-equal motorsport platform.

Built on five pillars - energy, environment, equality, entertainment, and e-mobility - Extreme E is a trailblazer in demonstrating how motor racing can drive positive change.

Established in 2018 in London, we are a privately owned company, which is funded through sponsorships, location fees, and media rights.



## ENVIRONMENT

Re-imagining what is achievable in motorsport, we race across the globe's most remote and formidable terrains, amplifying the urgency for climate action. The championship not only raises awareness about the profound impact of climate change on these regions and their communities, but also pioneers and promotes sustainable solutions to mitigate environmental challenges around the world.

## EQUALITY

We are committed to breaking gender barriers within motorsport and promoting equal representation across the industry. Our gender-equal team structure exemplifies the championship's ongoing efforts to dismantle gender stereotypes and provide equal opportunity to motorsport.

## ENERGY

Extreme E leads the way in the transition to sustainable energy solutions, setting the standard by championing electric SUVs in off-road racing. With steadfast support from our partners, our teams experiment with innovative and emerging technologies as we drive towards a greener future.

## ENTERTAINMENT

Extreme E revolutionises the sports entertainment space by intertwining exhilarating sporting events with climate education. The championship utilises its sporting platform to share insights from renowned scientists, inspiring collective commitments to climate action among global audiences.

## E-MOBILITY

Extreme E is an advocate for e-mobility adoption, inspiring viewers to switch to electric vehicles by showcasing their capabilities in extreme conditions. By pushing these racing vehicles to new heights, the championship demonstrates the power of EVs, promoting widespread integration in both sports and society for a more sustainable future.



# CEO STATEMENT

It is remarkable that we have now completed three seasons of Extreme E. The speed of the journey since launching has been extraordinary and we are creating a motorsport entity which will leave a long-lasting legacy, not just on track but off it, too.

Our third season was our most competitive yet and provided compelling evidence that our racing format dedicated towards a level playing field is a success. We had four different race winners in 2023, culminating in a five-team championship showdown at the season finale. We must pay huge congratulations to Nico Rosberg, Johan Kristoffersson, Mikaela Åhlin-Kottulinsky and the whole Rosberg X Racing team for their victory once again.

We have shown that the increased opportunities for women drivers to display their racing talent through Extreme E is unprecedented. Greater time behind the wheel of our ODYSSEY 21 race cars has ensured that the speed between the men and the women is now so close, which has led to some thrilling battles on track and greater exposure off it.

Extreme E's Racing for All programme also continues to go from strength to strength. Informed by the findings of The Hamilton Commission Report, more than half of the Extreme E grid is supporting a Racing for All candidate for the season ahead. We are hugely proud of these efforts, however there is still plenty of work to do.

Alongside us at Extreme E is a strong team

of partners who share the same commitments towards sustainability and solutions-based technologies to drive our championship forwards.

Our global carbon footprint and sustainable innovations remain envied across motorsport. We are continuously measuring and evaluating our carbon output given the locations we travel to, and are putting industry-leading plans in place to ensure monitoring, accountability, and reduction as we continuously enhance our series.

We have made huge strides off-track in ensuring renewable energy solutions power our race sites at each event, underlining how Extreme E continues to push the boundaries regarding site infrastructure.

As with any trailblazing organisation, you cannot stand still for too long. Last year was hugely significant for the wider organisation as we successfully met crucial milestones towards the delivery of our soon-to-be launched Extreme H racing championship – the world's first off-road hydrogen motorsport series.

Firstly, the Fédération Internationale de l'Automobile (FIA) and Extreme E signed a non-binding Memorandum of Understanding setting out the first-ever hydrogen off-road racing world championship. Extreme H is on a pathway to becoming an FIA Championship from its inaugural season in 2025, with the intention that it will become an FIA World Championship from 2026, thus joining the company

of just seven other official FIA World Championships, including ABB FIA Formula E World Championship.

Then came the announcement that the FIA, Formula One, and Extreme H would establish a joint Hydrogen Working Group. This is a tremendously forward-thinking initiative, putting us right at the top table in driving hydrogen developments across motorsport and the wider automotive industry.

A rigorous testing programme is well underway for our Extreme H car and we cannot wait to see it on track as soon as possible.

We want to remain a leader in sustainable energy developments and an innovator when it comes to e-mobility, equality, and the environment. We will always stay true to our values as a pioneering racing series with raising awareness of the climate crisis at its heart.

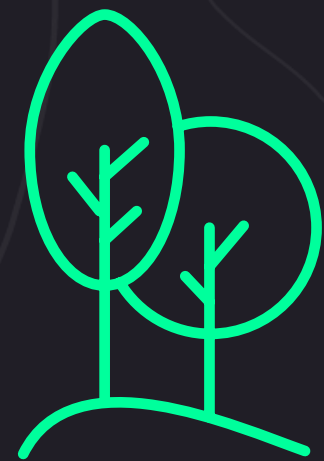
Thank you to our teams, partners, staff, and suppliers, and to our fans, who continue to push us forwards. We are ready for another ground-breaking season. This is the race for the planet and it's a race we can, and we must win, together.

**Alejandro Agag,**  
Founder & CEO, Extreme E

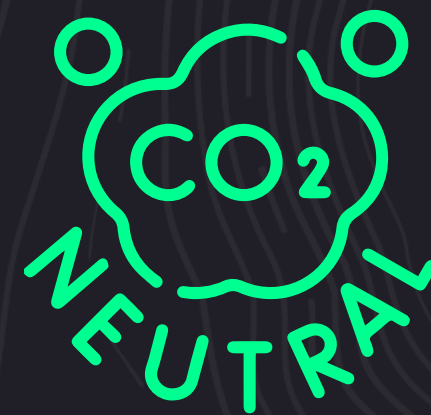





# HIGHLIGHTS



**100% RENEWABLE  
ENERGY POWERS  
RACE SITE  
INFRASTRUCTURE**



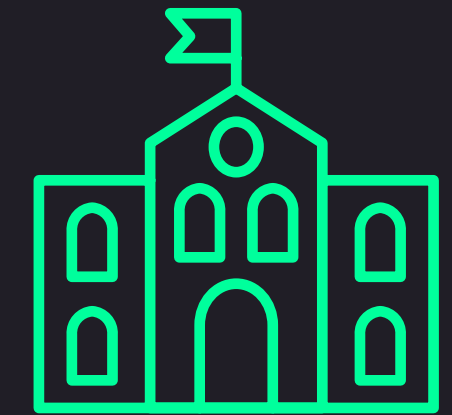
**8.2% DECREASE IN  
OUR OVERALL  
CARBON  
FOOTPRINT**



**51% - AVERAGE  
PERFORMANCE GAP  
REDUCTION BETWEEN  
MALE AND FEMALE  
DRIVERS S1 TO S3**



**8 CANDIDATES  
SUPPORTED  
THROUGH  
RACING FOR ALL  
PROGRAMME**



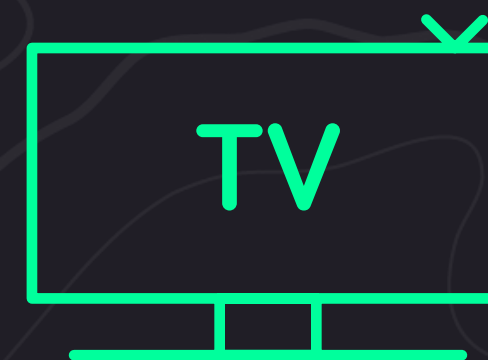
**935 STUDENTS  
ENGAGED  
THROUGH SCHOOL  
AND COMMUNITY  
OUTREACH**



**6 INDUSTRY  
AWARDS WON**



**5 LEGACY  
PROGRAMMES  
FUNDED**



**6% AUDIENCE  
GROWTH: 144.4  
MILLION VIEWERS**



**34% FEMALE  
AUDIENCE - UP  
FROM 29% IN S2**



**ONLINE GROWTH OF  
14% SINCE S2, WITH  
1.2 MILLION SOCIAL  
MEDIA FOLLOWERS  
OVERALL**



# TEAMS & DRIVERS




**ABT** Klara Andersson  
Sébastien Loeb

Formula E team & Championship-winning DTM team.



**gacina** Mattias Ekström  
Laia Sanz

First team to complete the Dakar Rally with a 100% electric vehicle led by Carlos Sainz Snr.



**HUMMER** RJ Anderson  
Amanda Sorensen

5 x Indy500 winners led by Chip Ganassi.



**JB XE** Andreas Kakkerud  
Hedda Hosås

Founded by Jenson Button, 2009 Formula One World Champion.



**VELOCE** Molly Taylor  
Kevin Hansen

The world's largest next-gen sports, gaming and media network, supported by Adrian Newey.




**ANDRETTI** Catie Munnings  
Timmy Hansen

Led by motorsport legend Michael Andretti with teams in Formula E and IndyCar.



**carlcox** Timo Schieder  
Lia Block

Led by Superstar DJ Carl Cox. New entry for Season 3.



**NEOM** Emma Gilmour  
Tanner Foust

Motorsport giants with championship winning teams in Formula One and IndyCar.



**FXR** Mikaela Åhlin-Kottulinsky  
Johan Kristoffersson

Led by Formula One World Champion Nico Rosberg, 2021 and 2023 Extreme E Champions.



**X44 VIDA CARBON** Cristina Gutiérrez  
Fraser McConnell

Founded by seven-time Formula One World Champion Sir Lewis Hamilton, 2022 Extreme E champions.








**EXTREME E** Tamara Molinaro  
Patrick O'Donovan

Extreme E Championship Drivers.




# RACE LOCATIONS

## Season 1 Calendar (2021):

	<b>01</b> 03–04 April	Saudi Arabia ( <i>Alula</i> )
	<b>02</b> 29–30 May	Senegal ( <i>Lac Rose</i> )
	<b>03</b> 28–29 August	Greenland ( <i>Kangerlussuaq</i> )
	<b>04</b> 23–24 October	Italy ( <i>Sardinia</i> )
	<b>05</b> 18–19 December	United Kingdom ( <i>Dorset, England</i> )

## Season 2 Calendar (2022):

	<b>01</b> 19–20 February	Saudi Arabia ( <i>NEOM</i> )
	<b>02</b> 06–07 July	Italy ( <i>Sardinia</i> )
	<b>03</b> 09–10 July	Italy ( <i>Sardinia</i> )
	<b>04</b> 24–25 September	Chile ( <i>Antofagasta</i> )
	<b>05</b> 26–27 November	Uruguay ( <i>Punta del Este</i> )

## Season 3 Calendar (2023):

	<b>01</b> 11–12 March	Saudi Arabia ( <i>NEOM</i> )
	<b>02</b> 13–14 May	United Kingdom ( <i>Dumfries and Galloway, Scotland</i> )
	<b>03</b> 08–09 July	Italy ( <i>Sardinia</i> )
	<b>04</b> 16–17 September	Italy ( <i>Sardinia</i> )
	<b>05</b> 02–03 December	Chile ( <i>Antofagasta</i> )

 **ARCTIC X PRIX**

 **HYDRO X PRIX**

 **JURASSIC X PRIX**

 **ISLAND X PRIX I & II**

**DESERT X PRIX** 

 **OCEAN X PRIX**

 **COPPER X PRIX**

 **ENERGY X PRIX**



# OFFICIAL SUSTAINABILITY PARTNER

EY has been working closely with Extreme E since 2020 and, as our Official Sustainability Partner, has supported our environmental objectives to achieve our shared ambitions of mitigating climate change. This partnership signifies a joint effort to promote sustainability both within motorsport and beyond, aligning both organisations' mission to building a better, more sustainable, world.



“

**WE ARE THRILLED TO HAVE EY AS OUR OFFICIAL SUSTAINABILITY PARTNER FOR 2023. THEIR CONTINUED COMMITMENT TO SUSTAINABILITY ALIGNS PERFECTLY WITH OUR MISSION TO CREATE A BETTER PLANET THROUGH SPORT.**

**WE LOOK FORWARD TO CONTINUING TO WORK CLOSELY WITH EY TO PROMOTE SUSTAINABILITY IN MOTORSPORT AND BEYOND.”**

Alejandro Agag,  
Extreme E, Founder and CEO





# EXTREME E PARTNERS



**OFFICIAL SUSTAINABILITY PARTNER**



**FOUNDING PARTNER AND OFFICIAL TYRE PARTNER**



**GREEN HYDROGEN POWER PARTNER**



**OFFICIAL TECHNOLOGY COMMUNICATIONS PARTNER**



**OFFICIAL SMART CHARGING PARTNER AND OFFICIAL  
ELECTRIFICATION PARTNER**



**OFFICIAL SUSTAINABLE MINING PARTNER**



**FOUNDING PARTNER AND OFFICIAL FASHION PARTNER**



**OFFICIAL ENVIRONMENTAL CONTRIBUTION PARTNER**



# EXTREME E PARTNERS



**OFFICIAL BIODEGRADABLE PLANT-BASED PACKAGING SUPPLIER**



**FOUNDING SUPPLIER, OFFICIAL NIOBIUM TECHNOLOGY SUPPLIER  
AND OFFICIAL CHASSIS TECHNOLOGY SUPPLIER**



**OFFICIAL CLEAN ENERGY TECHNOLOGY PROVIDER**



**OFFICIAL UNIFORM SUPPLIER**



**OFFICIAL GAMING PARTNER**



**OFFICIAL ENERGY DRINK PARTNER**



**OFFICIAL TIMEKEEPER OF EXTREME E**



# SUSTAINABILITY STRATEGY

## EXTREME ACTION

In its inaugural season, Extreme E established its sustainability strategy through a comprehensive materiality assessment, aligning with Global Reporting Initiative (GRI) principles, industry benchmarks, and sector trends.

The pillars – **extreme action, extreme impact, and responsibly extreme** – support the championship to deliver on its social and environmental goals.



## EXTREME IMPACT



## ONLY ONE RESPONSIBLY EXTREME



# SUSTAINABILITY STRATEGY

## PURPOSE

**TO USE THE POWER OF SPORT TO CHAMPION SCIENCE-BACKED IMPACT & TO INSPIRE OUR FANS & COMMUNITIES TO RAISE THEIR CLIMATE AMBITION.**

## ESG THEMES



### EXTREME ACTION



### EXTREME IMPACT



### RESPONSIBLY EXTREME

## ESG TOPICS

1. Podium for advocacy
2. Drive down carbon emissions
3. Fast-track innovation
4. Support a circular economy

5. Empower local communities
6. Motorsport for all
7. Build a winning team culture

8. Extreme success
9. Promote green events
10. Do things right
11. Deliver safe racing



The new ENOWA Hydrogen Fuel Cell System is a key sustainable innovation in Extreme E.

02

# ENERGY & EMISSIONS



# LOWERING EMISSIONS FROM START TO FINISH

Extreme E is a pioneer of low emission technology in sports.

We work to reduce emissions across all of our activities by engaging in key initiatives such as:

- Racing 100% electric race cars powered fully by renewable energy
- Leveraging solar and green hydrogen energy
- Innovating battery technology
- Utilising sea freight to reduce transport emissions
- Remote broadcasting with limited on-site fans in media production

While we are proud of our progress towards net zero operations, we acknowledge there is more work to do to achieve our decarbonisation aspirations, primarily with our travel. To address our largest source of emissions, freight, we supported Rosberg Philanthropies and Oxford SDG Labs to help minimise the environmental impact of the St. Helena. Our commitment to decarbonisation remains strong as we explore sustainable freight solutions.

## OUR SEASON 3 AIMS WERE:

- Introduce the new ENOWA Hydrogen Fuel Cell System which has a higher power output (140KW)
- Introduce six Zenobe batteries to store more renewable energy produced on-site
- Introduce more solar and wind energy infrastructure throughout the paddock and across our Extreme E race sites

## WE ACHIEVED THESE OBJECTIVES THROUGH:

- ENOWA's newly developed Hydrogen Fuel Cell System which had an output of 1000KW at the Desert X Prix
- Zenobe's second life repurposed battery storage systems proving 900KWh of energy storage
- Power Logistics flexible solar panel system accounting for up to 20% of the series' energy

## IN SEASON 4 AND BEYOND WE PLAN TO:

- Increase the number of solar and wind energy sources available to Extreme E
- Improve the output of ENOWA's Hydrogen Fuel Cell System to a minimum of 15 MWh's, allowing all event energy to be generated from green hydrogen and renewable sources
- Power Extreme E race events with 100% zero emission clean energy

ENOWA.  
NEOM

GREEN  
HYDROGEN  
POWER



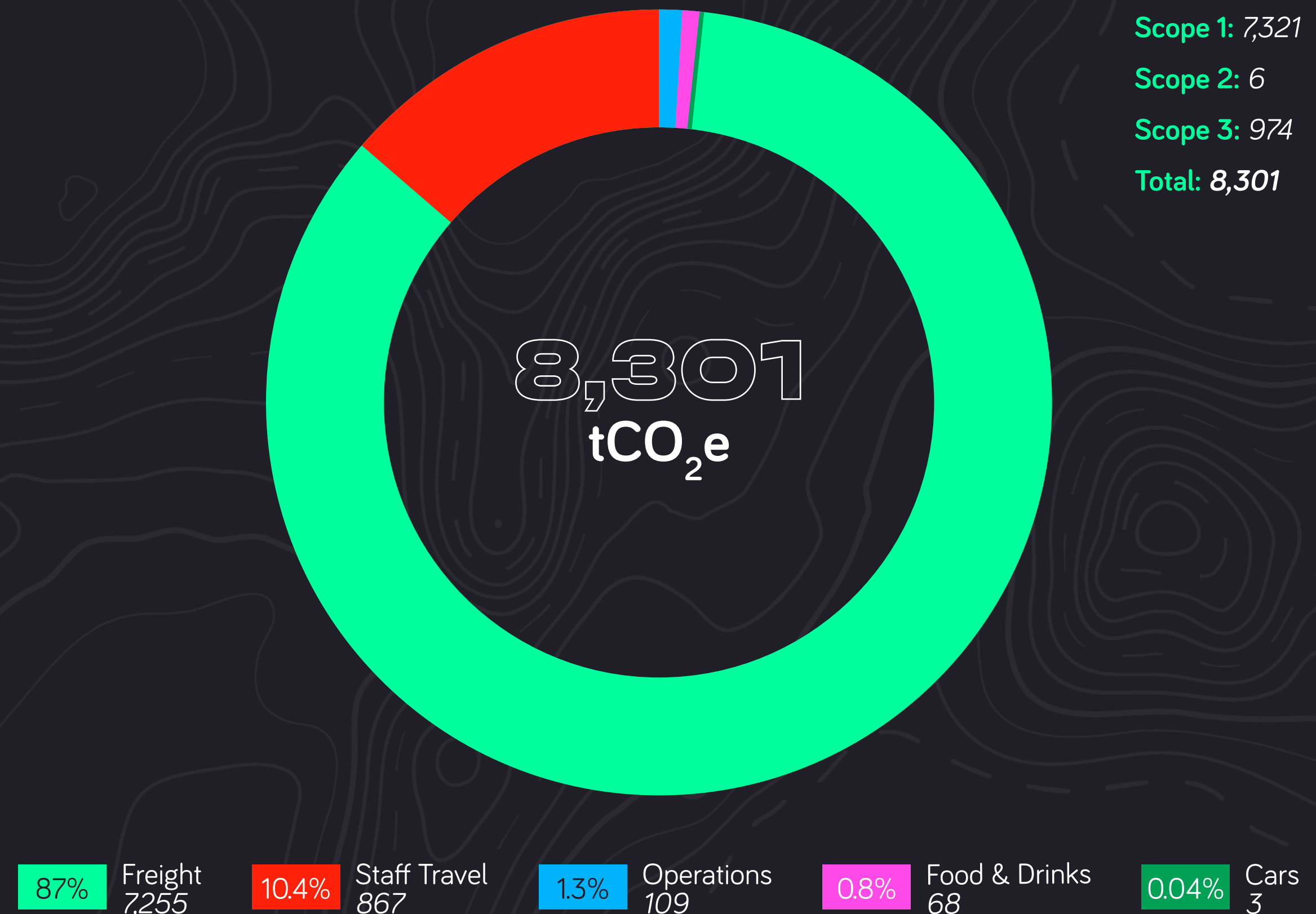
# EMISSIONS OVERVIEW

Continuously improving our methods of capturing, monitoring, reducing, and offsetting our carbon footprint is a key objective for Extreme E.

Our current operations still generate greenhouse gas emissions, which we offset through ALLCOT. As a result of the championship's race calendar changing each season, there are fluctuations in Extreme E's carbon footprint when analysing emissions generated by freight and staff travel. However, despite flying further afield in 2023, the series has still managed to reduce its carbon footprint despite holding double-header race events in each location, which increased the racing action but with minimal impact.

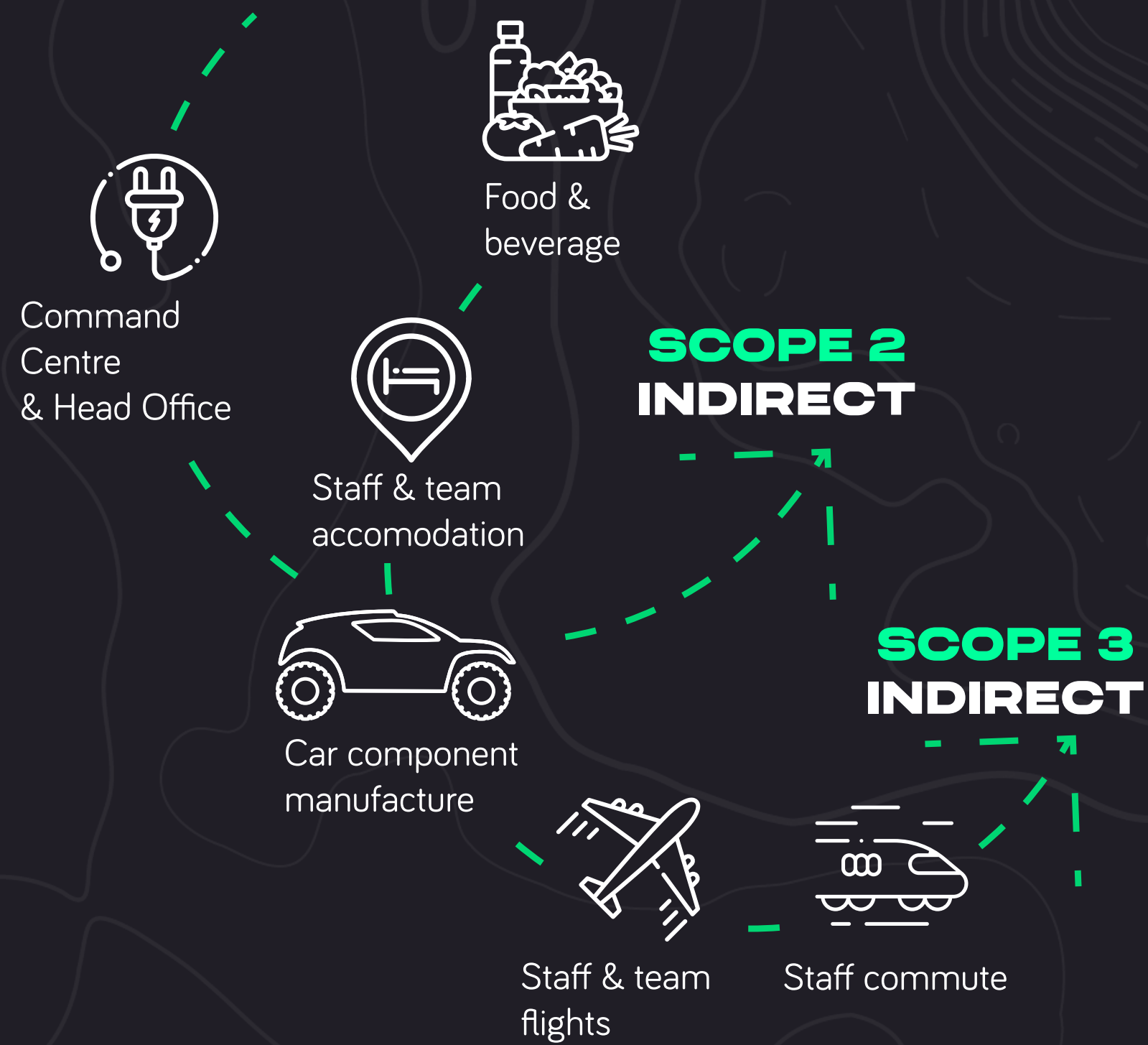
We are also working to balance growing as an established motorsport series with our mission to reduce emissions. Operationally, we are always striving to reduce our carbon footprint on site. This is achieved through our race site infrastructure powered by renewable energy sources, innovative waste management procedures, locally sourced food and drinks, our Bring Your Own Bowl policy and the use of regional suppliers at each X Prix.

## SERIES 3 SUMMARY

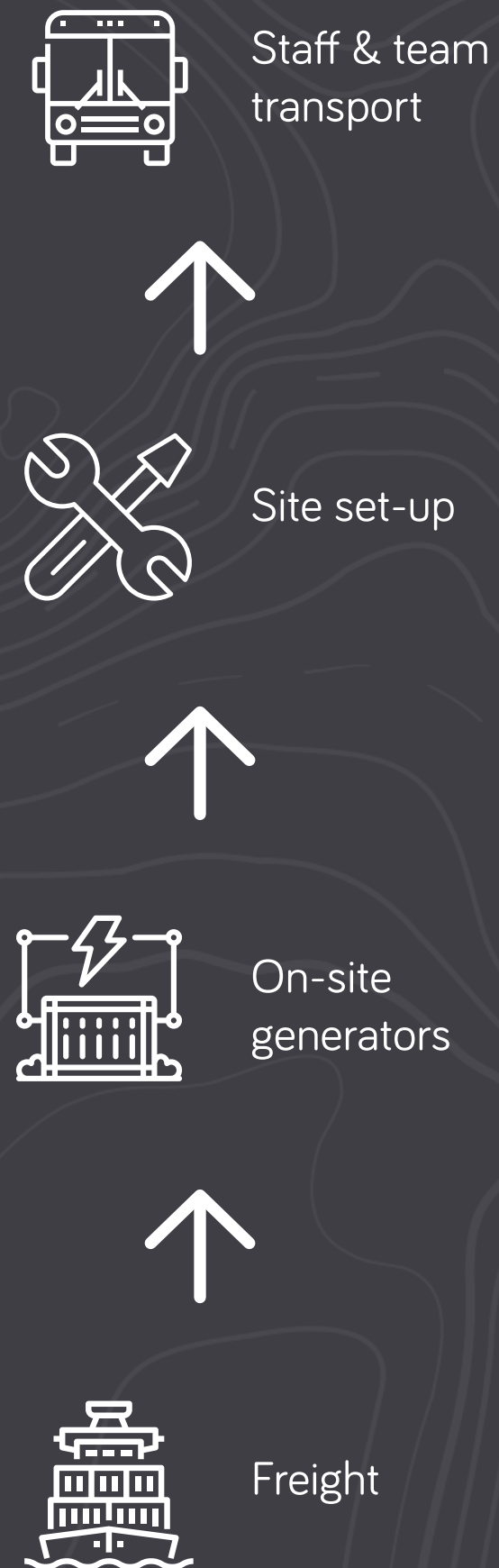




# GREENHOUSE GAS EMISSIONS



## SCOPE 1 DIRECT

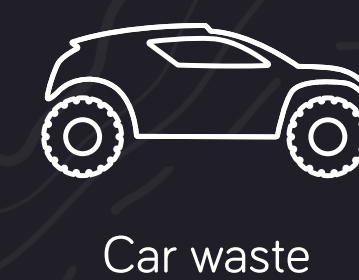


**EXTREME E**

## SCOPE 2 INDIRECT



## SCOPE 3 INDIRECT



**DOWNSTREAM ACTIVITIES**



# DRIVING TOWARDS SUSTAINABLE POWER SOLUTIONS: ENOWA

Our official Green Hydrogen Power Partner, ENOWA, is making impressive steps to help us implement pioneering green hydrogen-based technologies and showcase its capabilities.

Throughout Season 3, ENOWA developed a Hydrogen Fuel Cell System to transform our energy production approach. Through ENOWA's innovative portable hydrogen solution we have begun the transition away from hydrotreated vegetable oil (HVO) powered generators, replacing two-thirds of the HVO generators.

Based on technical specifications developed by ENOWA, the system is one of the world's largest commercial operating fuel cells, with 'first of its kind' combined functions.

The ENOWA Hydrogen Fuel Cell System has the functionality to be either grid forming or grid following (can operate off-grid standalone, and in parallel with

other power generation asset as grid-tied).

We have also increased the energy output produced from green hydrogen fuel cells. These accounted for 30%\* of the series' energy needs on-site in 2023 and that figure is projected to increase in 2024.

This approach not only reduces the volume of HVO we must transport and the total carbon emissions, but also eliminates air pollutants such as nitrous oxides and particulate matter produced by combusting liquid fuels, as the onsite production of hydrogen from methanol is a carbon neutral process.

Extreme E and ENOWA's Hydrogen Fuel Cell System initiative marks a transformative leap, showcasing the championship's commitment to pioneering cutting edge sustainability-related technology.

\*Equivalent output: 5MWh, Desert X Prix 2023.

Based on the event's energy consumption being approximately 15MWh.



## ENOWA'S HYDROGEN FUEL CELL SYSTEM - BENEFITS:

- Demonstrates the synergy of producing energy in remote locations, as well as creating water as a byproduct that can be re-used
- Can produce up to 500 litres per hour of useable potable water
- Designed to operate in harsh climates and can be brought into any remote site without any supporting utilities required
- Plug and play system, which is able to self-energise
- Voltage level and frequency can be converted to operate to both European and GCC standards
- Designed with unique cooling integration to operate at high ambient temperatures of up to +50°C for net power output, including the required derating to increase lifetime of the system
- Modular design which can be transported by road as a mobile hydrogen-based energy package solution fitted in 40ft containers
- Decreasing carbon footprint to deliver hydrogen onsite



# DRIVING TOWARDS SUSTAINABLE POWER SOLUTIONS: HYDROGEN

## FUEL CELL



## BATTERY



## CHARGER



Stored green hydrogen and air is fed into a fuel cell, creating electricity. Water is also created as a by-product. The cell is left on continually to charge the battery.

Battery provides 'on demand' power for the whole race site across each race weekend.

Extreme E's teams draw electricity to provide the power they need using Enel X Way chargers.

## WHAT IS GREEN HYDROGEN

Green hydrogen is made by splitting water through electrolysis, using power from renewable energy. It is the cleanest form of pure hydrogen, directly supporting the ambitions of the series.



# DRIVING TOWARDS SUSTAINABLE POWER SOLUTIONS: POWER LOGISTICS

Extreme E focused on building its on-site solar capacity through the adoption of groundbreaking battery technologies in 2023. Leveraging energy event data, we have increased the amount of energy produced from our solar panels. The second life repurposed battery storage systems from Zenobe provide 900KWhs of energy storage.

Our event power supplier, Power Logistics, has taken the lead to implement this innovative technology across our Extreme E events. The flexible solar panel system accounted for up to 20% of the series' energy needs in 2023 and is capable of expansion to meet future requirements. In Season 4, we seek to deploy small scale wind turbine technology to tie in with our battery storage system.





# RACE SITE ENERGY SOURCE DEVELOPMENTS

Our primary objective is to enhance our use of clean energy from hydrogen fuel cells, with the aim of achieving greater sustainability and environmental efficiency.

In Season 3, our energy distribution comprised 50% from HVO (hydro-treated vegetable oil), 30% from hydrogen fuel cells, and 20% from solar panels. This marks a significant progression from Season 1, where 90-95% of the power was derived from HVO, with only 5-10% from hydrogen fuel cells. Similarly, in Season 2, we relied on HVO for 80-90% of the energy production, with a slight increase in hydrogen fuel cell usage to 5-10%, and a contribution from solar panels ranging from 5-10%.

Looking ahead to Seasons 4 and 5, we intend to increase our reliance on the clean energy from hydrogen fuel cells. Our overarching goal in Season 4 is to transition to a model where 75% (minimum 15 KWh) or more of the site's energy demand is sourced from hydrogen fuel cells. The utilisation of fuel cells is particularly advantageous as they provide clean energy free of emissions associated with combustion, aligning with our commitment to environmentally friendly practices. Additionally, we are exploring innovative methods to harness solar and wind energy more effectively into our energy infrastructure.





# LOGISTICS AND TRAVEL

From the outset, we knew that freight would be the most material source of carbon emissions for the series. In response, we consciously selected sea freight over air travel for transporting our equipment. In alignment with our commitment to integrating circular design, we made the strategic decision to refurbish the St. Helena. We continue to strive to improve on our relatively modest footprint.

The St. Helena's multi-million pound refurbishment was undertaken to ensure the ship is as energy efficient as possible. Key adjustments included stripping and rebuilding the St. Helena's engine to run on low-sulphur marine diesel and refurbishing propellers to reduce friction and improve efficiency.

While selecting a transportation approach that minimises carbon emissions compared to conventional methods, we recognise that transportation still remains our primary source of emissions. We hope to address this in our decarbonisation plan, which we aim to develop in Season 4, and remain dedicated to exploring opportunities to further reduce the emissions output of the St. Helena.





# ST. HELENA

## ST HELENA: ROSBERG PHILANTHROPIES & OXFORD SDG LABS COLLABORATION

Extreme E, always at the forefront of innovation, is committed to minimising its carbon footprint by exploring the use of sustainable fuels to reduce environmental impact on the St. Helena. In collaboration with Neste, Rosberg Philanthropies, and the Oxford SDG Labs, we aim to forge a connection between academia and business to create a sustainable solution. This collaboration is not only focused on addressing our primary emission source, but also facilitates access to high-quality research. The research will delve into the development of existing marine stock in a manner that enhances sustainability and incorporates the use of sustainable fuels.

NESTE



ROSBERG  
PHILANTHROPIES



OXFORD SDG  
IMPACT LAB





# ALLCOT SUSTAINABILITY PARTNERSHIP

While we continue to explore opportunities to reduce emissions, we are committed to engaging in offsetting initiatives to maintain our carbon neutral status. To do so we engage our official offset partner, ALLCOT, who work with governments, businesses, and communities to develop sustainable, long-term solutions for climate change.

ALLCOT is a veteran project developer offering knowledge, expertise, and management to initiatives that reduce greenhouse gas (GHG) emissions to actively combat the climate crisis under Article 6 of the Paris Agreement in alignment with the 2030 Agenda and its 17 Sustainable Development Goals (SDGs).

ALLCOT has worked with the series since its first season and will continue to play a vital role as the Official Environmental Contribution Partner for the championship.

## ST. HELENA ACTIVE OFFSETTING PILOT PROGRAMME

In 2023, the St. Helena Active Offsetting Pilot Programme was established. The initiative is a dynamic, real-time solution that has been implemented aboard the championship's floating centrepiece.

Active Offsetting is a novel approach to carbon management that enables organisations to continuously monitor and offset emissions as they occur, providing heightened accuracy and transparency in managing their carbon footprint. Active offsetting on the St. Helena involves collecting daily fuel consumption, which is converted to CO<sub>2</sub>e. The precise amount of carbon credits required for compensation can be instantly calculated using the daily carbon footprint data. These credits are then automatically retired via a blockchain platform, leaving a transparent and traceable record of each transaction on the blockchain ledger.

Extreme E is already measuring, reducing, and compensating its emissions in line with the Sports for Climate Action framework. ALLCOT's Active Offsetting Programme allows us to go one step further and offset the St. Helena's emissions in real time. It is another example of Extreme E supporting innovation and providing a platform to demonstrate proof of concept that ultimately could have an environmental impact beyond the series.





# ALLCOT CARBON OFFSETS

## IPIXUNA REDD+ PROJECT

This REDD+ project, owned and managed by the area's indigenous inhabitants, Parintintin, aims to protect and conserve 210,000 Ha of native Amazon forest in Brazil. The Ipixuna Reserve holds valuable and unique biodiversity and is greatly endangered by deforestation. The reserve belongs to the "Arco do Desmatamento" (Arc of deforestation), a highly threatened area due to cattle farms, illegal logging and illegal mining operations.

The project aims to promote the sustainable management of the forest reserves and its improvement, and exhibits a shared environmental ethos to Extreme E.

Ipixuna REDD+ Project has many positive impacts in both the community and the area. These range from reducing emissions derived from deforestation and forest degradation, developing activities focused on non-timber products such as sustainable construction and ecotourism, and conserving carbon reserves.

The project also promotes gender equity education by increasing the leadership, empowerment and entrepreneurship capacity of indigenous women in collective territories.



allcot





# DOUBLE-HEADER FORMAT

Revving up the excitement in Season 3, Extreme E introduced an exciting new double-header format. As a result, each location played host to back-to-back rounds across each race weekend. It delivered twice the entertainment without materially adding to our carbon footprint, in line with the series' goal to keep carbon emissions to a minimum.

As a result, the new format provided double the opportunity for wins, podiums and crucial points across the ten-race calendar.

The new-look format was an undoubted success, with a record five-teams entering the Season 3 finale in Chile with a mathematical shot at winning the 2023 championship and four teams taking race victories across the campaign.

# 830

tCO<sub>2</sub>e

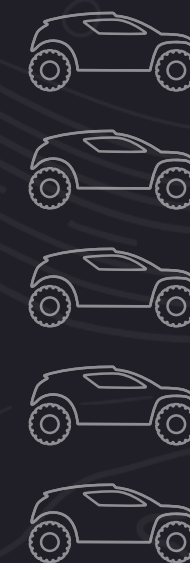
*per race on  
average*

## SEASON 3 RACE FORMAT

### X PRIX R.O1 - DAY 1

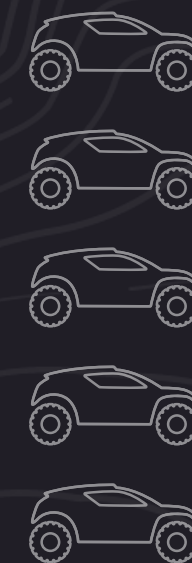
#### Q1

Two five-car heats



#### Q2

Two five-car heats



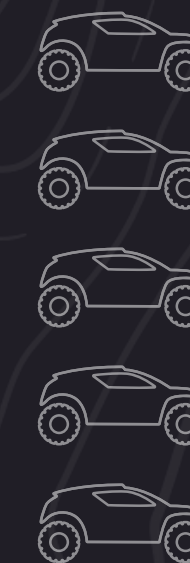
Top five - qualifiers  
go to **Grand Final**



Bottom five - qualifiers  
go to **Redemption Race**

#### REDEMPTION RACE

Five-car race



#### GRAND FINAL

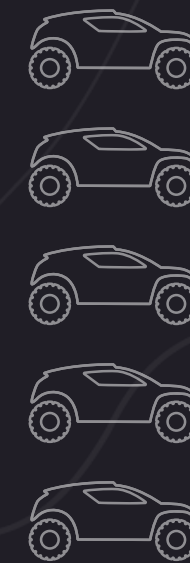
Five-car race



### X PRIX R.O2 - DAY 2

#### Q1

Two five-car heats



#### Q2

Two five-car heats



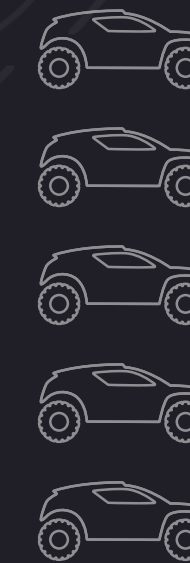
Top five - qualifiers  
go to **Grand Final**



Bottom five - qualifiers  
go to **Redemption Race**

#### REDEMPTION RACE

Five-car race



#### GRAND FINAL

Five-car race





# INTERVIEW WITH PROFESSOR RICHARD WASHINGTON

Extreme E sat down with Professor Richard Washington from the championship's Scientific Committee to learn more about his work on the St. Helena and explore his views on how technology can both exacerbate and alleviate climate issues.

**Q:** How has your collaboration with Extreme E helped expand the scope of your research, particularly the use of the St. Helena as a platform for science?

**A:** My experience partaking in Extreme E's journey has been inspiring. The championship embraces the things that we [the Scientific Committee] offer up and is willing to explore new ideas. Extreme E embodies the proactive approach needed in the fight against climate change.

Our work onboard the St. Helena has given us access to high resolution data from places that were previously hard to reach, such as the Magellan Strait. These datasets provide a new depth of insights on critical meteorological patterns, which hopefully are able to be used in future climate modelling.

**Q:** You've mentioned how technology has a paradoxical role in climate change, both contributing to and exacerbating the issue. How does your collaboration with Extreme E, a technology reliant company, impact your perspective on the complex relationship between technology and climate?

**A:** I don't think anyone would argue with the fact that technology has been incredibly successful in causing climate change. It took nature millions and millions of years to stick all that carbon in the ground, and we pulled it out and burnt it in about a century. Equally, the only way we're going to solve this issue is through technology.

It is crucial we embrace companies exploring innovative low carbon technologies. Extreme H, for instance, is continuing motorsport's longstanding history of being at the forefront of innovation. Engineers never look back, always forward. That is the thinking we need to save the planet and succeed at using renewables at scale.

**Q:** Do you see potential in more organisations or industries adopting a similar approach of combining their core operations with a focus on scientific research?

**A:** It is encouraging to see the acceptance of climate concerns alongside business operations across the board. I see the trend spreading, especially as younger demographics are more inclined to blend environmental concerns with other priorities. Within the motorsport industry, I think the intrinsic sense of urgency and knack for innovation and creative problem-solving will facilitate advancements in climate technology.





The championship's gender-equal racing format is unique in motorsport.



# 03 EQUALITY



# EQUALITY AT EXTREME E

Extreme E mandates that each team races with both a male and female driver pairing – the first gender-equal motorsport format in the world. This unique format has revolutionised motorsport by ensuring equal opportunities at the highest and most extreme level of competition, compelling drivers to adapt, learn, and collaborate, promoting inclusivity in the heat of competition.

With nearly 50% female representation across the entire workforce, Extreme E's commitment to equality extends beyond the racetrack.

Extreme E aims not only to inspire future generations of drivers, but also to elevate the profile of women across all facets of motorsport.

“

**AT EXTREME E, WE STRONGLY BELIEVE THAT THE MOST EFFECTIVE COMBINATION OF DRIVERS, TEAM, ENGINEERS, AND CAR WILL RISE TO THE TOP – AND THAT HAS BEEN PROVEN SINCE THE VERY BEGINNING.**

**THE PERFORMANCE BETWEEN ALL OF THE DRIVERS ON THE EXTREME E GRID IS INCREDIBLY CLOSE, AND THAT SHOULD BE ATTRIBUTED TO THE GREATER PLATFORM FOR WOMEN DRIVERS CREATED BY OUR PIONEERING SERIES – AND THERE IS STILL MORE WE CAN DO. THE KEY TO SUCCESS IN EXTREME E SHOULD BE SOLELY DOWN TO TALENT AND ABILITY, AND WE AS A CHAMPIONSHIP WILL CONTINUE TO STRIVE FOR GENDER EQUALITY.”**

**ALEJANDRO AGAG,**  
Extreme E, Founder and CEO





# IN THE SPOTLIGHT

## KLARA ANDERSSON

*From Championship Driver to Extreme E race winner, Klara Andersson has had a special journey in the series. In an interview with EY, Andersson shared her insights into the impact of the championship's legacy projects, the significance of sustainability in racing, and the role of women in motorsport.*

One of the first things that really struck me about the championship was how much it focuses on sustainability and the legacy projects. We're obviously here as racing drivers trying to win a championship, but there's so much more that goes on-off track. It is just so cool that we can use the platform to highlight climate change and make people more aware of the issues across the world. I have never seen any championship do anything like it before.

I think it's amazing to see what Extreme E has done for female drivers around the world. We now have this platform to speak about and showcase women racing talent. I think it's amazing that they have highlighted so many talents around the world and that we are competing against some of the best drivers in the world. I still think about when I raced against Sébastien Loeb in Sardinia and was able to sit down and look at the data with a nine-time world champion and compare myself to him. That was pretty cool.

My first Extreme E victory in Uruguay was the biggest moment of my career. At that event I was also fighting for a potential contract for the following season, so there was quite a lot of pressure. To take that win with the team in my first full weekend was one of the proudest moments I've ever had in my life.

I think it's amazing to see what Extreme E has done for female drivers around the world. Previously, there were not so many women drivers racing on the international scene. If I was 10 years younger and saw these women performing as they do now in Extreme E, I would feel so inspired to want to do the same.



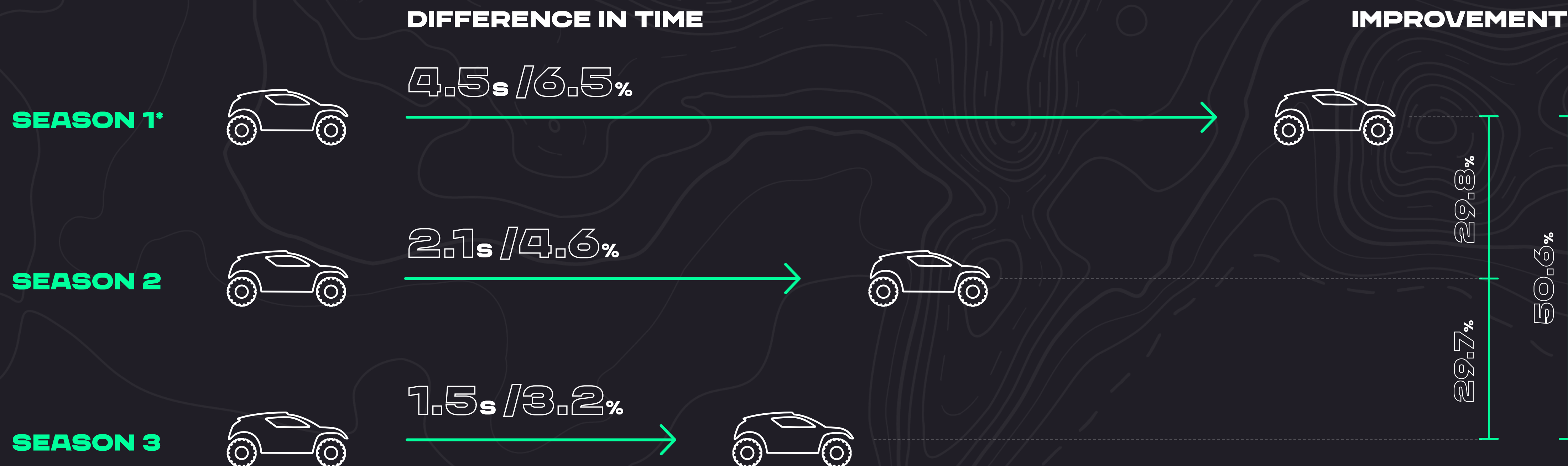


# FEMALE DRIVER PERFORMANCE & DEVELOPMENT

## FEMALES BREAKING THE TIME BARRIER

Extreme E continues to use the Continental Traction Challenge, a predefined section for each race course, as a time trial to measure performance between our female and male drivers. Over the course of the three seasons, Extreme E has seen a significant decrease in time disparities between the female and male drivers.

The time trials are evidence of the immense talent, commitment to performance, and technical prowess that female racers bring to the racetrack. The continual improvement of times across all seasons in Extreme E exemplifies a shift in the dynamics of motorsport in which excellence is celebrated irrespective of gender.



Recalculation of times has led to an adjustment of the values from 26% to 29.8%

\*Season 1 Desert X Prix Continental Traction Challenge data is not accounted



# FEMALE DRIVER PERFORMANCE & DEVELOPMENT

From Qualifying rounds through to the Grand Final, the fastest Continental Traction Challenge time for each driver is recorded. We have used this metric to compare the progression between our male and female drivers from Season 1 to Season 3.

As a result of changes ahead of Season 3, all drivers received more track time than ever, thanks to the new double-header format. Once again, the female drivers improved their race performance and closed the gap between male driver and female driver race times.

Given that we only have three seasons and a limited number of drivers to draw comparisons this can lead to an overestimation of a trend. There are other possible drawbacks to the analysis including drivers making specific attempts to focus on the Continental Traction Challenge rather than racing position, changes in driver line-up, and racing incidents.

As we move into Season 4, Extreme E will continue to look at further possibilities to better analyse timing data to create a representative, genuine, and fair comparison between all drivers.

SEASON 1	DESERT X PRIX		OCEAN X PRIX		ARCTIC X PRIX		ISLAND X PRIX		JURASSIC X PRIX		TOTAL
Female Median Time	N/A		124.19		55.27		47.16		53.74		
Male Median Time	N/A		114.49		53.63		43.20		51.01		
% Difference	N/A		8.47%		3.07%		9.16%		5.35%		6.51%
SEASON 2	DESERT X PRIX		ISLAND X PRIX		ISLAND X PRIX II		COPPER X PRIX		ENERGY X PRIX		TOTAL
Female Median Time	71.69		37.60		36.56		36.74		43.01		
Male Median Time	67.39		36.03		35.09		35.03		41.73		
% Difference	6.38%		4.37%		4.18%		4.88%		3.07%		4.58%
SEASON 3	DESERT X PRIX		HYDRO X PRIX		ISLAND X PRIX		ISLAND X PRIX II		COPPER X PRIX		TOTAL
	R.01	R.02	R.03	R.04	R.05	R.06	R.07	R.08	R.09	R.10	
Female Median Time	70.15	67.10	28.70	30.10	45.20	45.05	59.30	57.50	33.30	32.70	
Male Median Time	67.40	65.40	28.20	29.05	44.10	43.90	57.05	56.00	32.05	31.30	
% Difference	4.08%	2.60%	1.77%	3.61%	2.49%	2.62%	3.94%	2.68%	3.90%	4.47%	3.22%

The Continental Traction Challenge (previously named the Super Sector) was only introduced from the Ocean X Prix in Season 1.

By using the median time data from the Continental Traction Challenge, as opposed to the mean, we aim to eliminate anomalies including crashes and breakdowns. A primary limitation of this analysis is the size of the dataset.



# IN THE SPOTLIGHT

## CRISTINA GUTIÉRREZ

*In an exclusive interview Cristina Gutiérrez, recognised as the fastest female driver through the Continental Traction Challenges in 2023, outlined her motorsport journey so far, the responsibility of being part of a sustainable racing series and the importance of the championship's gender-equal format.*

I dreamt of being a driver in Extreme E because I understood the importance of the championship and I knew there were many other aspects including equality. It was difficult. When I started to drive, I didn't have many role models because there weren't a lot of girls competing in motor racing. I think to have a role model is very important to the people who want to become, in my case, a rally driver, because you can see for real that it is possible to achieve. You can see that a woman can drive as a professional driver – I am doing this, I can do it, and you can do it!

There are not a lot of sports where you see men and women competing at the same time and at the same level, with the same purpose. That is the key focus of Extreme E. The knowledge of the girls started on a lower level. In the beginning, you could see a lot of difference between the men and women in seconds, but now it is getting closer and closer, and there are times where we are even faster. As you can see now, it is more mixed and there is more equality in the competition, and this is good to see.

As a woman in motorsport, Extreme E has given us confidence and it has provided so many opportunities since I started competing in the series. When we have confidence we can fight for another goal, another dream. After Extreme E, I fight for more things, I drive much more, I drive many kilometres in different conditions. I have learned a lot and I have added that to my driving style. I think I have grown a lot since the beginning, so I think Extreme E has been great for women.

It's very nice that we can share many things like the competition and the adrenaline on track, but also focus on sustainability off it, through taking care of nature and trying to understand the problems around the world.

At each event we learn more about the environmental problems. I think it's a big opportunity for us to discover these issues and try to educate people about them through social media, our communities, and explain to people the problems that we have found affecting our planet.





# CASE STUDY

## RACING FOR ALL

Extreme E's Racing for All programme is an inclusive initiative designed to inspire and empower individuals, irrespective of gender, background or experience, to get involved with the electrical and mechanical engineering aspects of motorsport. The Racing for All programme provides vocational opportunities for aspiring mechanics and engineers to engage with cutting edge technology.

Informed by the findings of The Hamilton Commission, Racing for All attempts to break down barriers by creating a diverse, inclusive environment, enabling anyone interested the opportunity to participate in the championship. Since launching in 2022 the programme has gone from strength to strength, with more than half of the Extreme E grid supporting a candidate for the season ahead.

Through this inclusive approach, Extreme E is reshaping the narrative of motorsport to show that the thrill of racing can captivate a diverse audience. The commitment to inclusive participation not only challenges traditional societal norms but also fosters a shared sense of unity across the championship's community.





## GEORGE IMAFIDON MBE

In 2023, George Imafidon, Performance Engineer at Season 2 champions X44 Vida Carbon Racing, was awarded with an MBE in the King's Birthday Honours' List, for services to young people and STEM sectors. As a board member of The Hamilton Commission and an integral member of the X44 Vida Carbon Racing team led by Sir Lewis Hamilton, George has become an invaluable part of Extreme E's paddock.

**Congratulations, George!**



# FIA GIRLS ON TRACK

A joint venture between the FIA, Motorsport UK, and Extreme E, **Girls on Track** is a pioneering effort to champion gender diversity and equality in motorsport. The programme offers educational resources, mentorship, and hands-on experience to nurture the next generation of women leaders in motorsport.

As part of the initiative, Extreme E hosted 80 schoolgirls at the Hydro X Prix in Scotland, offering a behind-the-scenes look at the championship and exposing them to a multitude of career opportunities in motorsport. Throughout the day, the children practiced STEM skills via a coding challenge, participated in resuscitation training from a team doctor, and spoke with female drivers learning about their journey into motorsport.

The girls also cheered on Girls on Track ambassador Chloe Grant in her first-ever drive in an Extreme E race car. Reflecting on the experience, Grant said: *"It means a lot to me to be an ambassador for FIA Girls on Track and I'm hoping that I can help more girls into the sport and show them what they can achieve."*



Athlete Sir Chris Hoy and racing driver Chloe Grant at the Hydro X Prix in Scotland



Extreme E Legacy Programmes take fans deep into the heart of the most pressing issues facing our planet's future.

04

IMPACT THROUGH  
COLLABORATION



# LEGACY AND ENVIRONMENTAL AWARENESS PROGRAMMES

Our impact extends far beyond the racetrack. As such, we are dedicated to addressing ecological challenges prevalent in our race locations, and supporting communities impacted most by the negative consequences of climate change. In collaboration with local grassroots organisations across each of our race locations, we fund initiatives that empower communities and raise awareness of climate and conservation-related issues impacting local areas.



# SUSTAINABLE DEVELOPMENT GOALS

## MAPPING CURRENT LEGACY PROJECTS TO UN SUSTAINABLE DEVELOPMENT GOALS (SDGs)

LEGACY PROJECT	1 NO POVERTY	2 ZERO HUNGER	3 GOOD HEALTH AND WELL-BEING	4 QUALITY EDUCATION	5 GENDER EQUALITY	6 CLEAN WATER AND SANITATION	7 AFFORDABLE AND CLEAN ENERGY	8 DECENT WORK AND ECONOMIC GROWTH	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	10 REDUCED INEQUALITIES	11 SUSTAINABLE CITIES AND COMMUNITIES	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	13 CLIMATE ACTION	14 LIFE BELOW WATER	15 LIFE ON LAND	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	17 PARTNERSHIPS FOR THE GOALS
Turtle Conservation - Saudi Arabia														✓	✓		✓
Mangroves Planting - Senegal													✓	✓	✓		✓
Amazon Conservation - Brazil		✓						✓				✓	✓		✓		✓
Rewilding - United Kingdom				✓		✓							✓	✓	✓		
Climate Education - Greenland				✓									✓				✓
OCC - Uruguay				✓									✓	✓			✓
Seagrass Planting - Italy													✓	✓			✓
Salmon Conservation - Scotland						✓							✓	✓			
Regreening - Saudi Arabia													✓		✓		✓
Circular Economy- Senegal						✓					✓		✓		✓		✓
Conservation of species - Chile				✓										✓	✓		✓

Extreme E recognises the United Nations Sustainable Development Goals (SDGs) as the preeminent internationally recognised sustainability framework. Therefore, when it came to measuring the social and environmental outcomes of our Legacy Programmes it was the logical framework to assess each programme against.

We have mapped each of our Legacy Programmes against the SDGs. This mapping frames the outcomes that have been measured as part of the Legacy Programme’s outcomes measurement framework that EY developed. It shows a great breadth of outcomes achieved with the environmental and partnerships pillars at the core.



# OPTIMISING LEGACY PROGRAMMES FOR IMPACT

Throughout Season 3, Extreme E collaborated with EY to develop a comprehensive Outcome Measurement Framework (OMF) for Extreme E's Legacy Programme partners. OMFs help organisations articulate their impact, especially when those impacts are non-financial. This is a key step in the maturity of a Legacy Programme as we now have a framework upon which we can demonstrate the true outcomes of our Legacy Programme efforts.

## METHODOLOGY AND IMPACT

EY held interviews with Legacy Programme partners to obtain data that informed the OMFs for each Legacy Programme. This exercise was invaluable as it uncovered opportunities to improve data collection processes and empowered organisations to develop reporting procedures that are contextually relevant to programme objectives. We will continue to collaborate with our Legacy Programme partners to ensure accuracy in the OMFs so that programme impact is adequately tracked. This iterative approach ensures that Extreme E and our Legacy Programme partners remain at the forefront of contributing to a sustainable future, in harmony with the global agenda set forth by the UN's Sustainable Development Goals.

As Extreme E prepares for Season 4 and beyond, we remain dedicated to our mission of making a sustainable, lasting change. The OMFs devised in Season 3 will enable Extreme E to make informed and impact-driven decision-making, to ensuring sustainable and long-term impact across all racing locations and the world.





# CASE STUDY

## TURTLE CONSERVATION, SAUDI ARABIA

In 2021, Extreme E partnered with Ba'a Foundation and Beacon Development for a five-year initiative supporting environmental and turtle conservation in Saudi Arabia. With three key objectives—mitigating human impact, launching an education and awareness Campaign, and addressing climate change—the Ras Baridi Turtle Conservation Initiative aims to secure safe nesting environments for Green and Hawksbill turtles.

Extreme E's contribution supports strategies to mitigate human impacts, conduct educational campaigns, and address climate change effects, aiming for lasting impact on marine turtle conservation and ecological sustainability in the region.





TURTLE CONSERVATION, SAUDI ARABIA





# CASE STUDY

## BEAVER REINTRODUCTION, UK

In Season 1, we joined forces with the National Trust to reintroduce free-living beavers to the Purbeck Heath wetlands in Dorset, UK. Despite the suspension of the beaver relocation initiative due to unforeseen licensing issues, the collaboration had a meaningful impact. The heightened media exposure from Extreme E's marketing efforts facilitated awareness building and community engagement on the local wetlands issue. Extreme E's coverage propelled the National Trust's impact to a next level, opening doors for the organisation to support national policy in preserving and rehabilitating wetlands across the UK.

The OMF project enables Extreme E to evaluate the true impacts of its Legacy Programme, identifying both areas for improvement and unexpected outcomes

that reinforce its value. Recognising our privilege as entertainers with access to a large audience, we have consistently used our platform to advocate for climate action. This commitment, along with the expanded audience exposure, proves advantageous for our non-profit partners as well, as exemplified through our collaboration with the National Trust.

“

**EXTREME E'S [SUPPORT] GAVE US THE STATUS TO GET TO WORK ON A NATIONAL SCALE”**

 National Trust





# CASE STUDY

## VODAFONE BUSINESS' TRANSFORMATIVE PARTNERSHIP WITH EXTREME E

Throughout Season 3, Extreme E worked with its Technology Communications Partner, Vodafone Business, to help deliver impactful Legacy Programmes. Vodafone Business offers innovative solutions, which pioneer the use of communications technology for monitoring and evaluation in some of our key Legacy initiatives.

### WILDFIRE RESPONSE IN SARDINIA

In Season 2, Vodafone Business donated ultra-early forest fire detection systems in Sennariolo, Sardinia. The long-life Low Power Wide Area Network (LPWAN) sensors are low-cost Internet of Things (IoT) gas sensors which operate without cell coverage. The sensors support early detection of smouldering, which occurs before fire takes hold, to help shorten firefighter reaction times.

This programme was expanded in Season 3 to the Cagliari region to include installation of tree growth monitors to track tree growth success. This technology, alongside community engagement, will be used to support raising awareness and understanding of the climate emergency by highlighting and informing the work of those on the front line, in turn promoting positive action.

### RESTORATION OF THE RIVER NITH

In Season 3, the championship also collaborated with Vodafone Business on the restoration of the River Nith in Scotland ahead of the Hydro X Prix. The river's fish population and wider ecosystem are suffering due to rising water temperatures and changing rainfall patterns.

In response, Extreme E has partnered with the Nith District Salmon Fishery Board to reverse the impact of climate change through interventions such as community engagement, education, and the application of science. For

this project, Vodafone Business provided sensors which monitor temperatures, acidity levels, and pollution levels in the water.

Monitoring the area with these sensors from Vodafone Business will be important for the team on the ground as they will be able to associate the environmental conditions with fish populations and see how these interventions are making a difference over time.





# PETER WADHAMS ON “PLAYING WITH FIRE & ICE”

Extreme E serves as the nexus of sport and science, harnessing both powers to pioneer innovative frontiers and chart unexplored terrain within motorsport. Since its launch, Extreme E has partnered with climate scientists, providing them the opportunity to leverage the championship's resources for climate research. This openness to collaboration has not only facilitated unexpected discoveries but also propelled climate research, promoting a culture of cooperation and knowledge-sharing amongst the scientific community, and enriching the overall impact of Extreme E events.

This integration of science and sport is exemplified in Professor Peter Wadhams' recount of Extreme E's events in Greenland and Sardinia. The experiences in both locations unveiled the connection between the two juxtaposing and geographically separated landscapes, one of fire and the other of ice, showcasing the profound insights that can emerge from scientific exploration facilitated by Extreme E.

During the investigation of the ice caps at the Arctic X Prix, the Scientific Committee realised debris from wildfires darkened the ice surface, thus increasing thermal absorption and accelerating the rate of ice melt. When Extreme E visited Sardinia in Season 2 it was following a

prolonged period of forest fires that had turned the landscape black. Remarkably, the black soot from the Sardinian fires matched the particulates found on Greenland's glaciers, causing the black ice.

To validate the connection between the Greenland and Sardinian ecological events, the scientists sought the assistance of Extreme E drivers in selecting ice samples. Klara Andersson outlined how her trip to the ice caps had a profound impact on her: “I was lucky to be able to go to Greenland in 2023. It was actually quite emotional being there. It just struck you how the planet is changing just before your eyes, but so many of us are unaware of this. [The experience] is something I still think about.”

Professor Wadhams attributes these findings to Extreme E's exploration into extreme terrains and the series' openness to scientific collaboration: “discoveries can occur simply because of just being in [the] place and having access to facilities”.

Further investigation into the interconnectedness between Sardinia and Greenland's ecological crises can be explored in the Scientific Committee's paper 'Fire and Ice'.

“

**WHY EXTREME E IS ATTRACTIVE AS FAR AS A SCIENTIST IS CONCERNED [IS THAT] YOU END UP DOING THINGS THAT YOU DIDN'T EXPECT TO DO...YOU [GO] TO PLACES THAT YOU WEREN'T GOING TO GO. WE'RE ABLE TO DO THINGS**

**THAT NORMALLY WOULD BE VERY DIFFICULT TO ARRANGE, SUCH AS THE SARDINIAN FIELDWORK AND GREENLAND FIELDWORK AT THE SAME TIME... THIS WAS POSSIBLE BECAUSE OF EXTREME E.”**



# ENOWA HYPERDRIVE MVP AWARD

At Season 3's Antofagasta Minerals Copper X Prix, Extreme E and ENOWA presented the inaugural Hyperdrive Most Valuable Person (MVP) Award to Megan Alldridge and Tom Badham. The award honours individuals within the paddock who embody the values of circularity, innovation, and collaboration.

Megan, Series Producer at Aurora Media Worldwide, was acknowledged for her contributions to the Extreme E media team. Her expertise in investigative journalism and impactful storytelling brings the series' media pieces to life. She captures the true essence of the sport, intertwining stories of equality, innovation, technology, and climate change, and packages them into meaningful stories that resonate with our community.

Tom, an engineer for the JBXE team, received recognition for his engineering excellence and commitment to sustainable practices through developing systematic protocols for the assessment, disassembly, repair, and reuse of non-critical. Use of the protocols resulted in reduced waste and increased savings, as repair and reuse was prioritised over replacement, where viable.

Megan and Tom's exceptional dedication, innovation, and contributions not only shape the championship's narrative for extreme innovation but also underscores Extreme E and ENOWA's commitment to taking action in the fight against climate change.

# ENOWA. NEOM





# CONTINENTAL: INDUSTRY LEADING SUSTAINABLE TYRES

Extreme E founding partner, Continental Tyres, has taken a ground-breaking stride by utilising recycled championship racing rubber in the production of mainstream forklift tyres.

Using recycled carbon black at its plant in Korbach, Germany, the company employs a specialised pyrolysis process to repurpose the tyres. To date, 300 CrossContact Extreme E racing tyres have been transformed, marking a monumental leap in integrating sustainable circular economy solutions into real world production. This initiative not only aids in the conservation of virgin raw materials but also significantly reduces CO<sub>2</sub> emissions.

Collaborating with Pyrum Innovations, Continental is actively developing processes to optimise and expand end-of-life tyre recycling through pyrolysis. This pioneering endeavour aims to incorporate recovered industrial carbon black, a vital component in tyre construction, into a growing menu of Continental rubber compounds, enhancing the circularity of production.

Pyrum's patented pyrolysis technology enables the extraction and recycling of valuable raw materials from end-of-life tyres, such as oil, gas, and industrial carbon black.

The German tyre manufacturer's commitment to sustainability is further magnified by its exclusive partnership with Extreme E. The CrossContact Extreme E racing tyres, comprised of approximately 43% recycled and renewable raw materials, have been pivotal in all of the X Prix events across three championship seasons.

Continental's dedication to circular economy principles doesn't stop here. In a previous initiative, tyres from the 2021 Extreme E season were repurposed into rubber paving stones, creating a basketball court in Hanover for local children.

Now, with the tyres from the 2022 season, Continental is harnessing the recycled materials to reinforce its commitment to sustainability by channelling them back into tyre production.

The adoption of recovered carbon black from end-of-life tyres stands as a pivotal move in Continental's sustainability strategy, aligning with the company's continued pursuit of circular business practices.

With a resolute aim to achieve 100% carbon neutrality by 2050, Continental Tyres stands as a beacon of sustainability in the tyre industry.

**Continental** 





Extreme E continues to raise awareness of the climate crisis in the areas it races in, such as the Atacama Desert in Chile.

05

ENVIRONMENT



# WASTE MANAGEMENT

Waste minimisation is a key component of our mission to support a circular economy. We continue to strive to leave no trace of waste at our race sites and our approach is guided by the waste management hierarchy as we prioritise avoiding and reducing waste. We do this at our events through minimising the use of single use materials, such as cutlery and food containers, and using materials designed for minimal environmental impact, such as the Polymateria biodegradable plastic alternative coffee cups.

Where avoiding and reducing waste is not feasible, we seek to reuse or recycle materials. Of our main three sources of waste - general waste, organic waste, and car parts - we are able to separate and salvage some components for reuse, such as car parts for local artists and car clubs. Where waste cannot be treated, such as general and organic waste, this is sorted and disposed of in line with local regulation and available infrastructure.

We recognise that there are untapped opportunities to improve our waste management approach by pioneering new and effective waste management systems across the vast range of regions and terrains that we operate in. In Season 4, we will improve data collection and monitoring of our waste to better understand our waste footprint. This will inform the development of new and improved waste management strategies.

## CHALLENGES OF CAPTURING WASTE

Extreme E seeks to exemplify leading sustainability practices, such as in waste management, across all aspects of our operations. However, we acknowledge that there are a series of challenges that inhibit our ability to execute a pioneering strategy, due to both the nature of our business and the resources and support available.

Key challenges identified throughout the season include the number, infrequency, and disparity of locations where Extreme E events are held. This results in a broad range and variety of regulations, standards, and infrastructure available to support with waste management. Difficulties identifying waste management partners further perpetuate the challenges, due to the lack of availability and appropriateness of partnerships for Extreme E's needs.





# WASTE STRATEGY IN ANTOFAGASTA MINERALS COPPER X PRIX

In 2023, Extreme E partnered with Plasticoin to pioneer a new waste management strategy and report back findings for the Antofagasta Minerals Copper X Prix in Chile. The strategy included a series of actions from labelling and placement of containers to real time monitoring and sorting of waste. Through these actions and monitoring activities the team was able to measure a recycling average of 97.76% and a composting average of 36.46%.

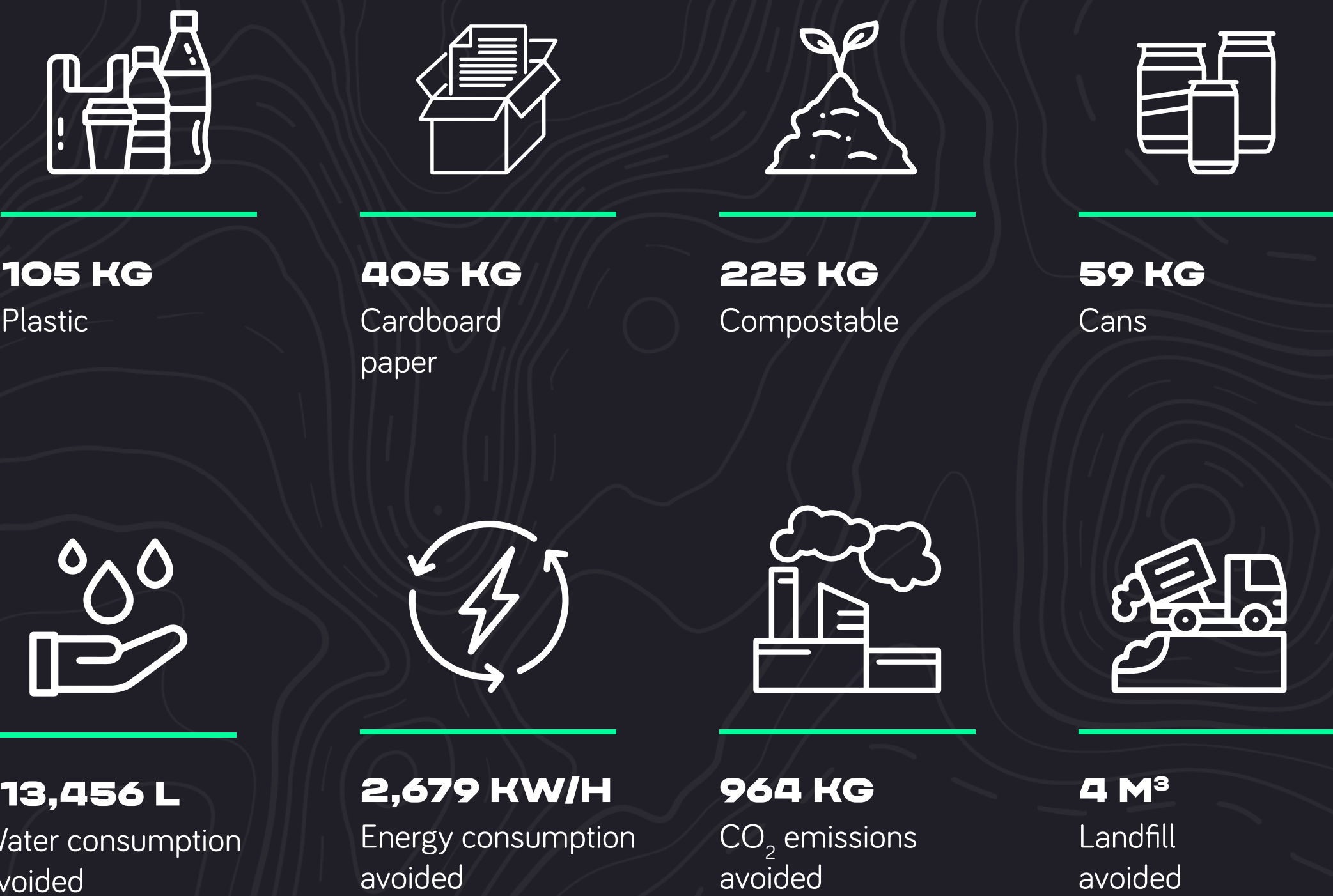
The report also identified potential improvements to Extreme E’s event waste management system and suggestions for collaborative efforts in the future. Long-term focuses are food waste management, location and appropriateness of waste collection methods, and managing hotspots for heightened waste collection.

## LESSONS LEARNT

Despite these challenges, we will continue to pursue actions that improve our waste management approach. We will do this by seeking new partners and examining parts of our business for avoiding, reducing, and reusing waste.

We will try to ensure the proper disposal through certified waste transfer notes and collaboration with local waste experts to streamline our efforts effectively.

### STATISTICS — TOTAL





# OCEAN BOTTLE PARTNERSHIP

Extreme E will partner with Ocean Bottle for the 2024 season to reduce plastic waste polluting the ocean. Ocean Bottle was launched in 2019 and has prevented over 10 million kgs of ocean-bound plastic from reaching our oceans.

The scheme works by collecting 11.4 kilograms worth of ocean bound plastic from high pollution areas (such as the Philippines and Indonesia), for every one Ocean Bottle sold. Extreme E have already purchased 250 bottles, with the target being 1,000 throughout the partnership, which will prevent 1,000,000 plastic bottles from entering oceans.

The bottles also have inbuilt smart chips, which means owners can register their bottle on the mobile app, and every time the bottle is refilled, they are funding the collection of more ocean-bound plastic.

Ocean  
bottle





Built out of a social purpose, Extreme E utilises its sporting platform for the purpose of promoting electrification, environment, and equality.

06

ENTERTAINMENT



# EXTREME E STUDIO AND BROADCASTING

Extreme E's broadcast infrastructure was designed from the outset to achieve two goals:

- Deliver a world-class production from the most remote corners of the globe
- Use and develop emergent broadcast technologies to reduce the environmental impact of the production

The latter is enabled by using a remote production approach. Aurora Media Worldwide, Extreme E's host broadcasting agency, facilitates the broadcasting logistics using remote production teams across four geographic regions:

- On-location staff capturing the event — approximately 37 staff members
- Barcelona-based sports graphic team — approximately 2 staff members
- Netherlands-based AR and VR creative graphics team — approximately 30 staff members
- HQ Broadcast Hub — approximately 35 staff members





# EXTREME E STUDIO AND BROADCASTING

Staff across the locations work to design their content and share with the HQ team where the live show is composited, commentated, and distributed.

- Carbon Neutral Sustainable Production

### Season 3

- In Season 3 we achieved an 89% Carbon Action Plan Score.
- Carbon Action Plan Rating —3 stars
- Total CO<sub>2</sub>e —555 tonnes
- Per hour CO<sub>2</sub>e —55 tonnes
- A significant chunk of this is apportioned to accommodation and transport.
- Offsetting through albert's REDD+ portfolio
- In addition, a contribution is made to UK tree planting in accordance with the Woodland Carbon Code

METRIC	UNIT	2021	2022	2023
Total Emmissions	tCO <sub>2</sub> e	192	744	555
Per Hrs Em	tCO <sub>2</sub> e	19	74	55
Viewers*	People	102M	135M	144M





# FAN ENGAGEMENT

Extreme E has continued to widen its audience over the course of three successful seasons. The championship's total broadcast audience has shown an upward trend once again, increasing by over 6% to more than 144.4 million viewers across linear and digital TV combined.

The series has also bucked the trend of male-dominated viewership. The split between male and female viewers is 66% to 34%, respectively, compared to Season 2's 71%-29% figures. As the world-first gender-equal motorsport platform, Extreme E's growth has attracted more women and younger viewers to its pioneering motorsport championship.

## GENDER SPLIT

SEASON 2 - **71%** male and **29%** female

SEASON 3 - **66%** male and **34%** female

## SEASON 2

TOTAL BROADCAST AUDIENCE: **135.1 m**

LINEAR TV: **90.5 m**

DIGITAL TV: **44.5 m**

## SEASON 3

TOTAL BROADCAST AUDIENCE: **144.4 m**

LINEAR TV: **89.7 m**

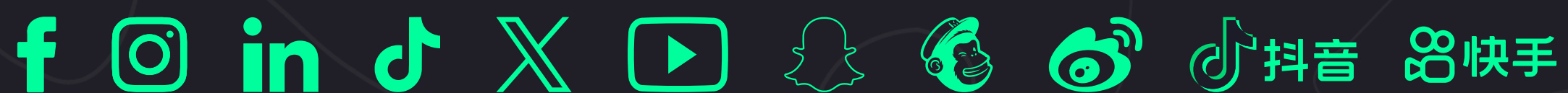
DIGITAL TV: **54.6 m**

Extreme E's following also continued to grow across its digital and social media channels.

OWNED AND EARNED ENGAGEMENT: S3 **109.8m** versus S2 **93.4m**\*

OWNED AND EARNED VIDEO VIEWS: S3 **104.7m** versus S2 **77.5m**\*

The series' overall social media following grew by 14% from 2022, increasing to a total of **1.2 million online followers**\*\*.



\*Data provided by YouGov covering the periods two weeks before and after each raceweek

\*\*Data provided by Little Dot Studios covering all content on Extreme E owned channels with a season defined as the entire year the season took place in





# REACH

## COMBINED TALENT HAS +74 MILLION SOCIAL REACH



**LEWIS HAMILTON**

Combined reach  
53.6m followers



**NICO ROSBERG**

Combined reach  
8.5m followers



**JENSON BUTTON**

Combined reach  
5.4m followers



**CARLOS SAINZ SR**

Combined reach  
1.3m followers



**CARL COX**

Combined reach  
5.8m followers

- Extreme E has the best of the best talent and a massive fanbase across OTT & streaming platforms.
  - 20% of global audience expressed to be an avid electric motorsports fan\*
- +50% of electric motorsports fans watch live content via OTT and streaming platforms.



# COUNT US IN

In Season 3, Extreme E launched a new Count Us In Challenge format where each event was assigned a specific sustainability theme and related challenge, resulting in five actionable pledges throughout the circuit.

Fans visited Extreme E's Count Us In webpage during each campaign to sign the pledge on behalf of their team of choice. After each event, as the team with the highest overall number of pledges received a digital award. At the season finale in Chile, the Count Us In Award was presented to **Rosberg X Racing** as the team with the highest overall pledges throughout the season.

## EVENT 1 DESERT X PRIX THEME

"GROW MORE TREES" - **Winner: NEOM McLaren Extreme E team**

## EVENT 2 HYDRO X PRIX THEME

"VOLUNTEER" - **Winner: Robsberg X Racing**

## EVENT 3 ISLAND X PRIX THEME

"USE LESS PLASTIC" - **Winner: Carl Cox Motorsport**

## EVENT 4 ISLAND X PRIX THEME

"WALK & CYCLE MORE" - **Winner: Rosberg X Racing**

## EVENT 5 COPPER X PRIX THEME

"REDUCE AND RECYCLE" - **Winner: Rosberg X Racing**

# COUNT US IN



## LOOKING FORWARD

Over the course of three seasons, we estimate that Extreme E fans participating in the challenge saved a total of 893 tonnes of CO<sub>2</sub> emissions - estimated to be carbon sequestered by 44,670 trees\*. While we have enjoyed hosting the Count Us In Challenge over the years, Extreme E has decided to discontinue the challenge in Season 4 to prioritise efforts in identifying new fan engagement opportunities.

We are proud of the advocacy spurred by the challenge and encourage our viewers to remain committed as responsible stewards of the Earth.

Data from Count Us In

\*For the capture of 1 tonne of CO<sub>2</sub> emissions, 50 trees must grow for one year.



A large cargo ship, the St. Helena, is shown at night, illuminated by its own lights. The ship has a white hull with a green stripe and a green funnel. The text "ST HELENA LONDON" is visible on the side. The ship is sailing on a body of water, and city lights are visible in the background.

Sustainability has been at the centre of Extreme E's mission since its inception, such as using its St. Helena ship to transport the championship's freight and infrastructure.

07

# SUSTAINABILITY & GOVERNANCE



# GOVERNANCE

We recognise the importance of a robust governance structure to deliver on our sustainability goals. Extreme E's leadership and board reflects the championship's commitments to advancement in sustainable motorsport, and we are establishing management-level resourcing to ensure appropriate sustainability and social impact oversight across all operations.

Extreme E's Board of Directors is responsible for the leadership, stewardship, strategic direction, and governance of the organisation.



Extreme E's BASIS Awards underscore leadership's commitment to sustainable racing and social impact excellence.

**ALEJANDRO AGAG**

CEO and Chair

FORMULA E



FORMULA E

**SHANGHAI JINGCHEN ENTERPRISE  
MANAGEMENT PARTNERSHIP**



PIF



# EXTREME E TEAM

Extreme E is made up of a small, purpose-driven team who are passionate about using motorsport to break boundaries and pioneer sustainability awareness and innovation. All Extreme E permanent staff are based in the United Kingdom and work full-time.



# EXTREME E TEAM

## TEAM COMPOSITION\*

TEAM	UNIT	2022	2023
Workforce – Male	%	63%	62%
Workforce – Female	%	37%	38%
Extreme E team	Headcount	40	45
Team nationalities	Nationalities**	18	14

## GENDER BY RANK - EMPLOYEES ONLY

AGE	TOTAL		JUNIOR MANAGEMENT Band 1		MIDDLE MANAGEMENT Bands 2-5		SENIOR MANAGEMENT Bands 6-7	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
20-29	6	5	5	5	1	1	0	0
30-40	8	5	2	3	5	2	1	0
41-50	2	2	0	1	2	0	0	1
51+	6	0	1	0	3	0	2	0
TOTAL	22	13	8	9	11	3	3	1

\*Includes employees, contractors, and Championship Drivers.  
\*\* Where a team member is a dual citizen both nationalities are represented in the nationalities figure.



# SIGNATORIES



Since Season 1, we have been proud signatories to the United Nations Sports for Climate Action initiative, led by the UN's Framework Convention on Climate Change (UNFCCC).

As such, we are guided by Sports for Climate Action's five principles:

- Promote greater environmental responsibility
- Reduce the overall impact from sports
- Use its platform to education for climate action
- Promote sustainable and responsible consumption
- Advocate for climate action through communication

The Sports for Climate Action framework commitment was updated during COP26 to further align with the Race to Zero criteria and science-based targets. Extreme E aims to sign the updated commitment letter in Season 4.



We are signatories of the Sports for Nature Framework, led by the IUCN, reaffirming our drive to become an industry leader in environmental stewardship. With these new pledges we commit to:

- Protecting nature and avoiding damage to natural habitats and species
- Restoring and regenerating nature wherever possible
- Understanding and reducing risks to nature in our supply chains
- Educating and inspiring positive action for nature across and beyond sport





# AWARDS

Extreme E has been recognised for its sustainability efforts in 2023, picking up multiple accolades to demonstrate its industry-leading work.



- Rising Star Award - Extreme E's Social Impact Strategist, Naganethra Reddy
- Strategic Leadership Award Winner



- Joint-fifth overall
- Joint-second in motorsport



- Sustainability Champion of the Year award - Aurora Media Worldwide, Extreme E's host broadcast agency
- Young Talent of the Year - Production Manager Kelsey Gallagher





# CONTINUOUS IMPROVEMENTS

We understand that lasting change stems from consistent small improvements and moments challenging the status quo. Over the course of three seasons, Extreme E has consistently defied norms and envisioned new possibilities. Season 3 was defined by numerous small wins, collectively contributing towards meaningful impact and transformative, sustainable change.

## SCHOOL & COMMUNITY OUTREACH - ON TRACK

In 2023, Extreme E drivers contributed to the championship's educational enrichment initiatives, visiting several schools and universities across the race locations. The drivers interacted with a total of **935 students** on the impacts of the climate crisis and inspired the students by speaking about their sporting journeys.

Additionally, we welcomed **277 school and university students** to our racing sites to spend 'a day in the life' in the motorsport industry.





# CONTINUOUS IMPROVEMENTS



## SCHOOL & COMMUNITY OUTREACH - OFF TRACK

Our drivers made visits to schools to engage with students. They met a total of **658 students** in their respective school environments, introducing themselves and talking about Extreme E with them.



## BRING YOUR OWN BOWL

The championship continues to use its 'Bring Your Own Bowl' (BYOB) policy at all events, circumventing single use plates and utensils from entering landfills during Season 3. Approximately 500,000 food containers and 180,000 items were saved from going to landfill. Approximately 300,000 items (food containers/cutlery/plates per meal alongside hot/cold beverage containers) were avoided going to the landfill. Furthermore, by not providing packaged soft drinks or snacks, we have also avoided disposing of 15,000 single use items.

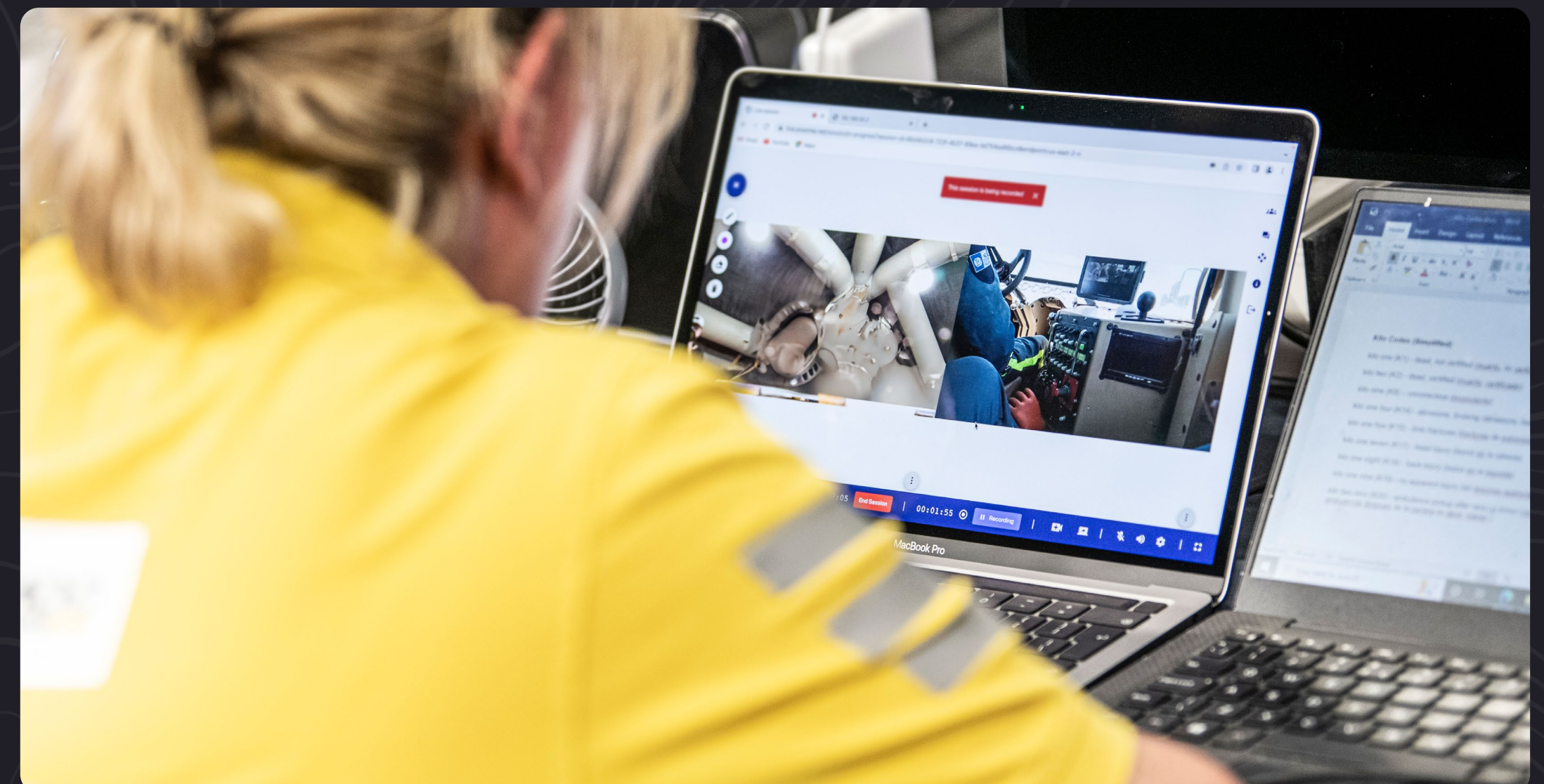


# CONTINUOUS IMPROVEMENTS



## ACTS OF KINDNESS

To deliver on our company mission of Extreme Impact, Extreme E actively seeks opportunities to support local communities at every race event. At the Antofagasta Minerals Copper X Prix, Extreme E partnered with three local education centres to donate event items, reducing waste and supporting programmes in need. Escuela Diferencial F-33 Loa, a differently-abled school, received picnic benches, books, blankets, and plants. The ‘Yo Existo’ school for children with autism received decorative items from the Explorer Lounge to brighten its space; and Fundación de Cultura, Turismo y Deportes de la comunidad de Maria Elena, received benches and tables for its communal area.



## FEMALE STEWARDS

Rounds 7 and 8 at Island X Prix II marked a significant milestone for Extreme E where, for the first time, the majority of stewards were women, including both the assistant stewards supporting the appointed Chairman of Stewards.



# CONTINUOUS IMPROVEMENTS



## RACE SUITS\*

In 2023, Extreme E's Championship Driver racing suits and shoes were constructed from at least 51% and 70% regenerated fabric, respectively. Sparco's fuel efficiency project adapted the production process to attain zero waste by regenerating scrap fabric, promoting a circular production cycle.



## BIODIGESTER FOR LOCAL WASTE MANAGEMENT

As part of the Antofagasta Minerals Copper X Prix in Chile, Extreme E donated a biodigester to a local municipality in Chile. Biodigesters are used to process organic waste that is difficult to compost due to the unique desert climate. The biodigester will benefit the community by increasing the amount of compostable organic waste, which will be used to grow local plants.



# TIPPING POINT

As part of its commitment to raising awareness of the climate crisis, Extreme E hosts 'Tipping Point' panels at every race location, where guests have the opportunity to engage with climate change and sustainability experts, ambassadors, and drivers discussing key regional sustainability issues.

## SEASON 3 TIPPING POINT PANELS

EVENT	TOPICS
1	Future of coral reefs Actions are the Antidote to Climate Despair
2	Climate prediction for rivers and the impact of global warming Racing for All
3	How mobility drives market change A Hydrogen Powered Future Unique challenges of climate change in Sardinia
4	How technology can shape climate change in Sardinia Embedding sustainability into business
5	Circular economy The future of mining and metals (event held in Spanish)





# SUSTAINABILITY ADVISORY NETWORK

Extreme E has comprising of its own Scientific Committee, concluding leading academics from the Universities of Oxford and Cambridge, who advise on the series' education and research programmes, event logistics, and impact, as well as the recommendation of positive legacy initiatives to support local communities in each race location.

Extreme E coordinates progress towards its environmental and social goals with the support of our Sustainability Advisory Network. We view our value within the broader sustainability agenda as best encapsulated through showcasing the practicality of electric vehicles. Extreme E can use its platform and marketing channels to advocate for complete EV integration as we continue to champion the global economy's transition towards a more sustainable future.

Extreme E collaborates closely with advisory leaders, scientists, and industry experts, ensuring that strategic environmental initiatives are not only innovative, but also backed by scientific evidence and expert consultation.



## PROF. CARLOS M. DUARTE

*Head of Scientific Committee 2023 & Climate Expert  
Distinguished Professor, King Abdullah University of Science and Technology*



## PROF. RICHARD WASHINGTON

*Head of Scientific Committee 2022 & Desert Expert  
Professor of Climate Science, University of Oxford*



## PROF. LUCY WOODALL

*Ocean Expert  
Principal Scientist, Nekton Foundation*



## PROF. PETER WADHAMS

*Head of Scientific Committee 2021 & Arctic Expert  
Head of Ocean Physics, University of Cambridge*



## DR. FRANCISCO OLIVEIRA FILHO

*Amazon Deforestation Specialist,  
University of Cambridge*



## JULIA PALLÉ

*Sustainability Advisor at Extreme E  
Vice President of Sustainability at Formula E*



## PIERLUIGI ZACHEO

*Sustainability Advisor at Extreme E*



## EY

*Official Sustainability Partner*



## ALLCOT

*Official Environmental Contribution Partner*



# PROFESSOR CARLOS DUARTE

Distinguished Professor Carlos Duarte is based at the King Abdullah University of Science and Technology (KAUST) and holds the Tarek Ahmed Juffali Research Chair in Red Sea Ecology.

During his decades of dedication to ocean health, Professor Duarte has published more than 900 scientific papers and has been ranked within the top 1% of Highly-Cited Scientists by Thomson Reuters. His research focuses on understanding the effects of global change in marine ecosystems and developing nature-based solutions to global challenges, including climate change, and evidence-based strategies, which aim to help rebuild the abundance of marine life by 2050.

## Climate Expert

Head of Scientific Committee, Season 3

Distinguished Professor, King Abdullah University of Science and Technology



“

In its third season, Extreme E continues to break barriers across dimensions of climate and biodiversity — two sides of the same problem — by delivering Legacy projects that tackle that interface. The programmes have ranged from rewilding projects that render habitat restoration efforts more resilient, to introducing pollinators that accelerate ecosystem recovery, to addressing the need for circular economies that reduce the demands for metals for batteries.

Indeed, I sincerely welcome the transition initiated this year to hydrogen as a fuel. Hydrogen sourced from renewable energy is emerging as the solution to support the energy transition, while avoiding a surge for mining that may impact biodiversity on land and in oceans.”



# PROFESSOR RICHARD WASHINGTON

South African native Professor Richard Washington is Professor of Climate Science at the University of Oxford and a Fellow of Keble College, Oxford. With degrees from the University of Natal and University of Oxford, Richard has lectured at the University of Stellenbosch and University of Cape Town.

His doctorate on Africa-wide rainfall variability was undertaken alongside the University of Oxford and the UK's Meteorological Office.

His research focuses on African climate systems, as well as climate change and its knock-on effects such as drought and flooding.



“

I'm really keen on sport; it's long been a passion of mine.

When I came across Extreme E as a concept around four years ago, it was immediately clear that I was looking at a masterstroke that combines urgent societal goals, science, and sport. It makes the seemingly intangible much more relatable to people.”

**Head of Scientific Committee, 2022  
and Desert Expert**

Professor of Climate Science,  
University of Oxford

# PROFESSOR LUCY WOODALL

Marine Biologist Professor Lucy Woodall oversees the championship's ocean events, having dedicated her career to understanding the impact of humans on the health of the world's marine environments and the factors that drive biodiversity in the ocean.

Lucy has also pioneered research into the consequences of marine litter, and the effects and ubiquity of micro plastics in the deep sea.



“

Sustainability is about looking at the past and considering the future. Reflecting on what is working well, owning where challenges still lie, and implementing changes for a more sustainable future.

This report is an important part of the process and that brings many successes to the fore, but also provides clear direction about opportunity for the future. I look forward to seeing how Extreme E is able to continue to visualise and showcase this in the coming season.”

**Ocean Expert**

Principal Scientist at Nekton Foundation,  
University of Exeter



# DR. FRANCISCO OLIVIERA FILHO

Dr. Francisco Oliveira is a leading Brazilian conservation expert with over 20 years' experience of working on the issues facing the Amazon Rainforest and its communities.

Formerly the Director of Policies to combat deforestation at the Brazilian Ministry of the Environment (2012-2015), he recently completed a PhD on Amazon conservation in the Department of Geography at the University of Cambridge. Francisco believes working with local communities to find real workable solutions is an important way to generate change and protect the region for future generations. He is currently working for the Gordon and Betty Foundation to conserve the Amazon rainforest and avoid the tipping point.



“

We have to balance conservation and development in the Amazon rainforest; achieving compromise is the future we need and want, and there's a lot of research to show that it's possible. We need science and nature-based solutions. Working directly with smallholders and engaging local groups to generate positive change by creating sustainable solutions and business can benefit both communities and the rainforest.”

**Amazon Expert and Amazon deforestation specialist**

University of Cambridge and Gordon and Betty Moore Foundation

# PROFESSOR PETER WADHAMS

Professor Peter Wadhams has spent his career in the polar regions, with more than 50 expeditions to the Arctic, including some in submarines with the Royal Navy under the polar ice.

He is credited with being the first scientist to show that the ice that once covered the Arctic Ocean was beginning to thin as well as to shrink. He was Director of the Scott Polar Research Institute in Cambridge from 1987 to 1992, and has served as Professor of Ocean Physics at the University of Cambridge since 2001.

His book, A Farewell to Ice, tells the story of his study of these alarming Arctic trends and describes what the consequences for our planet will be if Arctic ice continues to disappear at its current rate.



“

Climate change has many aspects, but the main cause is CO<sub>2</sub>. We put about 40-50 gigatonnes of CO<sub>2</sub> into the atmosphere every year. Whilst we are developing carbon capture techniques to take it out of the air, we need to do everything we can to minimise our emissions to help slow down the rapid rises in concentration that we are experiencing.”

**Arctic Expert**

Head of Scientific Committee, 2021  
Head of Ocean Physics, University of Cambridge





08

LOOKING AHEAD



# TRANSITION TO EXTREME H

In keeping with our legacy of breaking barriers, Extreme E has unveiled its plans to launch an off-road hydrogen championship – Extreme H – a world first.

As a natural evolution of Extreme E's mission to showcase cutting-edge climate technology, the transition does not signify the end of Extreme E. Rather, it's a testament to the championship's success in advancing e-mobility and extreme motorsport, marking a clear evolution and ensuring pioneering solutions in e-mobility is at the core of our championship.

A test programme for Extreme H is running alongside Extreme E in 2024 ahead of beginning officially in 2025.

## DEVELOPING THE FIRST EXTREME H CAR

The first Extreme H car represents a bold leap into the hydrogen-powered future, showcasing the fusion of racing thrill and clean energy. With its cutting-edge technology, the vehicle features an innovative hydrogen fuel cell from Symbio, fueled by green hydrogen powered by solar energy.

Building on lessons learned from Extreme E, the new chassis is designed for optimal performance, safety, and resilience. A Hydrogen Technical Working Group, featuring experts from the FIA, FIA Formula One World Championship, and Extreme H, will work to ensure all safety and sustainability standards are met.

This transition not only promises faster and more intense races, but also signifies a commitment to exploring the potential of hydrogen as a sustainable and powerful source of energy, revolutionising carbon-free mobility on a global scale.







# THANK YOU

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