

RACING FOR A CLEANER FUTURE, FASTER



SEASON 5 SUSTAINABILITY
REPORT 2018/19

ABB FORMULA-E
FIA FORMULA-E CHAMPIONSHIP



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The 2018/19 ABB FIA Formula E Championship was the closest and most competitive in our short history with the debut of the GEN2 car, showing the clear development of electric vehicle technology with a battery nearly double the capacity of its predecessor. This season, the battle will only intensify - in terms of manufacturers, with Mercedes-Benz and Porsche joining the electric revolution - and with the amount of capital cities set to showcase the future of motorsport. Formula E is continuing to grow at a rapid rate, but we all need to move even faster to promote a cleaner and more sustainable mobility, where electric vehicles help to us to fight climate change and improve air pollution in cities. That is what Formula E is and it's why we race - for a cleaner future, *faster*.

Alejandro Agag, Founder and
Chairman of Formula E

RACING FOR A CLEANER FUTURE, FASTER

Formula E's vision is to have a cleaner future, faster...

Air pollution kills more people every year than smoking, with the World Health Organization estimating that seven million people die from air pollution every year. Electric vehicles are one of the best solutions to reduce urban air pollution.

The ABB FIA Formula E Championship actively promotes electric mobility and alternative energy solutions to contribute to reducing air pollution and fighting against climate change around the world.

Alongside our partners and some of the leading companies in the world, we are pioneering the global adoption of clean mobility by enhancing technologies, working with cities to improve infrastructure and raising awareness of the benefits of electric vehicles and their ability to revolutionise everyday transportation.

Our role is to create motorsport experiences that excite generations about electric mobility and promote clean energy.

Our sustainability programme is based upon three pillars:

- »» Delivering a sustainable event
- »» Generating positive impacts and creating a lasting legacy in our host cities
- »» Using our global platform to create awareness on air pollution and help push electric vehicle adoption globally

SEASON FIVE HIGHLIGHTS

SEASON FIVE HIGHLIGHTS

Season 5 was a spectacular season for Formula E as we continued to showcase thrilling and exciting live events, all while working toward our **mission of promoting sustainable mobility**.

ROUND	LOCATION	DATE
ROUND 1	AD DIRIYAH, SAUDI ARABIA*	15 TH DEC 2018
ROUND 2	MARRAKESH, MOROCCO	12 TH JAN 2019
ROUND 3	SANTIAGO, CHILE*	26 TH JAN 2019
ROUND 4	MEXICO CITY, MEXICO	16 TH FEB 2019
ROUND 5	HONG KONG, CHINA	10 TH MAR 2019
ROUND 6	SANYA, CHINA*	23 RD MAR 2019
ROUND 7	ROME, ITALY	13 TH APR 2019
ROUND 8	PARIS, FRANCE	27 TH APR 2019
ROUND 9	MONACO, MONACO	11 TH MAY 2019
ROUND 10	BERLIN, GERMANY	25 TH MAY 2019
ROUND 11	BERN, SWITZERLAND*	22 ND JUNE 2019
ROUND 12	NEW YORK CITY, USA	13 TH JULY 2019
ROUND 13	NEW YORK CITY, USA	14 TH JULY 2019

*Subject to circuit homologation

>> OUR EVENTS:

We are leading the charge and setting new standards in motorsport for sustainable practice at events by retaining our status as the only racing series to receive ISO 20121 certification. This third-party certification is an assurance that we manage our events in a sustainable way – promoting social inclusivity, economic prosperity and environmental protection.

>> OUR COMMITMENTS:

This year, we also committed to become one of the first sports events to commit to the UN Sport for Climate Action Framework. We're thrilled to showcase this and all of our commitments on page 16 of this report.

>> OUR INNOVATIONS:

Formula E serves as a hotbed for technological innovation when it comes to electric vehicles. This season we unveiled our Gen2 car which has nearly double the capacity of its predecessor and completely new design. The technological platform created by the championship has inspired cross industry collaboration between some of the leading companies in the world.

SEASON FIVE HIGHLIGHTS

NEW RACES, NEW LOOK: INFLUENCING THE FUTURE OF ELECTRIC MOBILITY THROUGH INNOVATION

One of the ways Formula E influences more sustainable mobility is by providing a platform for race to road transfer of technology.

>> BATTERY:

Season 5 marked a major breakthrough in electric vehicle technology as a new battery enabled us to go from two vehicles per race to just one, eliminating the need for a mid-race vehicle swap. The new battery has more power and can regenerate faster. The GEN2 battery has nearly doubled capacity, marking a significant technological improvement for electric vehicles.

>> BODYWORK AND CHASSIS:

We also took this opportunity to completely redesign the car. The GEN2 car has a completely new look for season five - more futuristic and with its own unique identity. Part of the striking new appearance and integrated in the chassis is the new halo head protection device, along with an innovative strip of LED lighting. We also expanded the length and width and increased the minimum weight of the car.

>> TYRES

In Season 5, Michelin introduced an updated 18-inch MICHELIN Pilot Sport all-weather tyre - specifically designed for the unique demands of Formula E and the next generation of electric racing. Not only is the tyre lighter than its predecessors, but it also boasts significantly lower rolling resistance and a new graphic design.



KEY SUSTAINABILITY ACHIEVEMENTS FROM SEASON 5

1 / EVENTS / DELIVERING A SUSTAINABLE EVENT

As an ISO20121 certified event, we strive to manage our events in a sustainable way to help deliver our purpose of a cleaner future, faster.

Implemented non-PVC trackside signage to increase recyclability, preventing over **35km** of PVC branding from reaching landfill with partner CSM Live.



Recycled our season one and two **lithium-ion** battery units through our partnership with Umicore.



Saved the equivalent of over 200,000 330 ml plastic bottles by introducing hydration stations and providing Allianz reusable water pouches.



Deployed **Recycling Rangers** at all race venues to educate teams, staff and spectators on minimising waste and maximizing recycling.



Recycled 100% of Michelin racing tyres after use. Hybrid tyres **reduce shipping volumes** by 30-50% compared to other motorsports.



Recycled an average of **52% of all waste materials** across our events in season 5.



2 / CITIES

POSITIVELY
IMPACTING OUR
HOST CITIES

We positively impact our host cities with year-long community engagement to more effectively spread our global sustainability message.

Introduced tailor-made community engagement plans, achieving 100% silver level engagement at all events, working with over **55 different charities and local community groups**.



Promoted women's participation in motorsport and STEM activities through the **FIA Girls on Track** programme in Mexico City and Berlin.



Improved urban infrastructure through legacy projects in host cities, including installing **renewable LED** lighting and recycling collection points.



Continued to host the **FIA Smart Cities** programme (an initiative based on innovation and sustainable urban mobility) in Mexico City, Hong Kong, Rome and Monaco.



3 / AIR

RAISING GLOBAL AWARENESS
ON AIR POLLUTION AND
CLIMATE CHANGE

We are pioneering the global adoption of clean mobility through enhancing technologies, improving infrastructure and raising awareness.

Hosted the annual **Electric Sports Coalition** meeting to share progress, ideas and challenges faced on driving electric mobility in Marrakesh.



Collaborated with The Climate Group on the **Climate Champion Award** to recognize the Panasonic Jaguar Racing team's efforts to advance the fight against climate change.



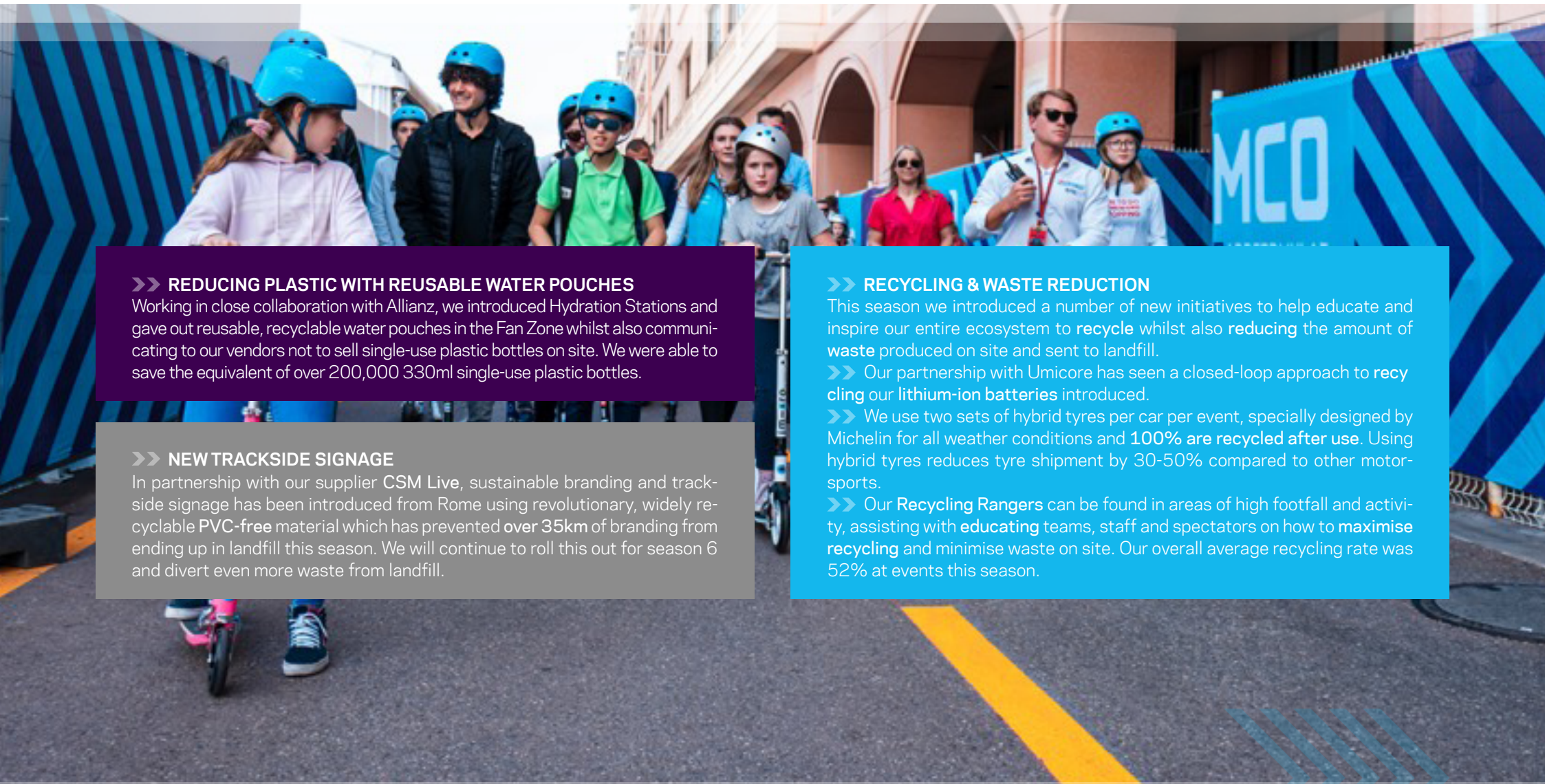
Expanded our partnership with the UNEP to advance our shared interest in improving air quality. The **#BreatheLife Campaign** was activated in our Allianz E-Village in Marrakesh, Mexico City, Rome, Paris, Berlin and New York City.



Raised awareness of Formula E's ambition to create motorsport experiences that excite generations into electric mobility through speaking **engagements at schools, universities and hospitals** around the world.



1.1 / DELIVERING A SUSTAINABLE EVENT



»» REDUCING PLASTIC WITH REUSABLE WATER POUCHES

Working in close collaboration with Allianz, we introduced Hydration Stations and gave out reusable, recyclable water pouches in the Fan Zone whilst also communicating to our vendors not to sell single-use plastic bottles on site. We were able to save the equivalent of over 200,000 330ml single-use plastic bottles.

»» NEW TRACKSIDE SIGNAGE

In partnership with our supplier CSM Live, sustainable branding and trackside signage has been introduced from Rome using revolutionary, widely recyclable PVC-free material which has prevented over 35km of branding from ending up in landfill this season. We will continue to roll this out for season 6 and divert even more waste from landfill.

»» RECYCLING & WASTE REDUCTION

This season we introduced a number of new initiatives to help educate and inspire our entire ecosystem to **recycle** whilst also **reducing** the amount of **waste** produced on site and sent to landfill.

»» Our partnership with Umicore has seen a closed-loop approach to **recycling** our **lithium-ion batteries** introduced.

»» We use two sets of hybrid tyres per car per event, specially designed by Michelin for all weather conditions and **100% are recycled after use**. Using hybrid tyres reduces tyre shipment by 30-50% compared to other motor-sports.

»» Our **Recycling Rangers** can be found in areas of high footfall and activity, assisting with **educating** teams, staff and spectators on how to **maximise recycling** and minimise waste on site. Our overall average recycling rate was 52% at events this season.

IN DETAIL: OUR SUSTAINABILITY PROGRAMME

1.2 / DELIVERING A SUSTAINABLE EVENT

MEASURING AND MONITORING OUR CHAMPIONSHIP IMPACTS

At Formula E, we are committed to delivering a sustainable event, which means we need to monitor our carbon footprint and work to reduce it as much as possible.

The ABB FIA Formula E Championship has one of the lowest carbon footprints among international sporting events. Our total season 5 carbon footprint was 45,000t CO₂-eq. By spectator, our carbon footprint is just 112kg CO₂-eq, which is the equivalent to driving around 500km in a non-electric vehicle.

Freight is by far the biggest contributor to our total carbon footprint, and we work closely with our Official Logistics Partner DHL to try and reduce this where possible. Whether this be optimising the calendar, favouring sea/road freight over air freight or only freighting race-critical items, everything is taken into consideration.



72% FREIGHT

Freighting the cars and equipment between the races is the biggest contributor to our footprint.



14% STAFF

Staff travel to the races is the second highest contributor to our footprint.



6% SPECTATORS

Our spectator footprint continues to be low at only 6% of our total footprint, due to the location of our races being in the heart of cities and encouraging public/sustainable transport.



4% FOOD

We work with food vendors in our Allianz E-Villages and our catering providers for teams/staff to ensure we have vegetarian/locally sourced options, keeping this a low contributor to our footprint.



4% OPERATIONS

Including infrastructure, track overlay and energy usage at the events; this is a very low contributor to our footprint.



1% CAR

This is the first year we have included the manufacturing of the car in the total footprint.

IN DETAIL: OUR SUSTAINABILITY PROGRAMME

2.1 / POSITIVELY IMPACTING OUR HOST CITIES

We positively impact our host cities with year-long community engagement to more effectively spread our global sustainability message.

Our races take place within city centres; our tracks run throughout the downtown areas and it's here that we create our temporary Formula E venues at each location. While this adds to the excitement and thrill of our races, we're aware of the disruption it can have on the city and its residents. We're committed to leaving a positive impact on our host cities – both while we are racing and long after we've wrapped up each event.

This season we worked with cities to develop a tailor-made community engagement plan for each event to build acceptance and support for our races and leave a lasting legacy. We achieved our goal of silver level for every engagement and worked with over 55 different charities/local community groups in the cities where we race.



2.2 / POSITIVELY IMPACTING OUR HOST CITIES



Some notable highlights from our engagement work in season 5:

- »» Established volunteer programmes at a number of our events to involve local residents in the event.
- »» Continued to host the [FIA Smart Cities](#) programme in Mexico City, Hong Kong, Rome and Monaco, which includes a Forum, Awards and Start-Up Contest, all of which are designed to demonstrate how cities can grow in a more sustainable and inclusive way.
- »» Promoted women participating in motorsport activities through the [FIA Girls on Track](#) programme in Mexico City and Berlin.
- »» Conducted Community Tours across all event locations. These included children and adults from [Con Ganas De Vivir](#), our charity partner who support patients and families of low income cancer patients and DIF, a charity supporting the welfare of low-income families in Mexico.
- »» In Mexico City, we also provided a booth and materials for charity [Con Ganas De Vivir](#) in the Allianz e-Village, which included monetary donations from our Teams and Partners to go toward a new patient development centre.
- »» We worked closely with city authorities in Santiago to allocate financial tax contributions for hosting the event, funnelling this directly to the local communities and district decision-makers. We also worked with Enel X to install renewable LED lighting in Parque O'Higgins.
- »» In Santiago, we worked with a local charity [EtoDog](#), a dog behavioural improvement and rehabilitation service, as we had to displace a number of stray dogs for our race.
- »» In Rome, we offered pre-event work opportunities, including grass cutting, for a rehabilitated prison workforce.
- »» In Paris, famed racer Tom Dillman visited the children's ward in Hospital Armand-Trousseau, and in Berlin, Max Gunther from GEOX Dragon visited the children's ward at the Charite Virchow Clinic.



2.3 / POSITIVELY IMPACTING OUR HOST CITIES



A Deeper Look: FIA Girls on Track

Motorsport is one of the only sports where men and women can compete as equals. However, as of today, only 1.5% of total licensees recorded in the world are women. Motorsport is also strongly linked to major industry, giving the girls involved in the programme the chance to engage with career opportunities in all aspects of Motorsport and beyond.

In season 5, the FIA Women In Motorsport Commission teamed up with Susie Wolff and Dare to be Different to pilot an exciting new educational motorsport programme for girls between the ages of 8-18 years old in the backdrop of the ABB FIA Formula E championship. This brought together two successful existing programmes with the aim of reaching a broader audience to highlight the number of opportunities for girls to participate in motorsports.

The programme consists of a number of enjoyable activities that provide a unique insight into what a potential career in the vibrant world of motorsport can offer, including:

- >> Electric karting
- >> A pit-stop challenge
- >> Media tutorials
- >> Practical STEM activities
- >> Fitness and well-being
- >> Environment and air pollution
- >> Road safety awareness

We will continue this collaboration into season 6 and beyond to inspire and motivate more young girls to enter into the motorsports world.

IN DETAIL: OUR SUSTAINABILITY PROGRAMME

3.1 / RAISING GLOBAL AWARENESS ON AIR POLLUTION AND CLIMATE CHANGE

We are pioneering the global adoption of clean mobility through enhancing technologies, improving infrastructure and raising awareness.



Improving the air quality of the cities in which we race remains a priority. As part of our overall Sustainability programme, we developed this third pillar with the goal of Raising Global Awareness on Air Pollution and Climate Change. We are driven to do more each season to promote and support the research, development and promotion of electric vehicles, both on and off the racetrack.

>>> #BreatheLife Campaign

In season 5, we expanded our partnership with the United Nations Environment Programme (UNEP) to advance our shared interest in improving air quality. The #BreatheLife Campaign was activated in our Allianz E-Village in Marrakesh, Mexico City, Rome, Paris, Berlin and New York City. We will continue to expand our partnership in the seasons to come to reinforce

our shared ambition of reducing air pollution.

>>> Electric vehicles on the big screen

In early 2019, we were thrilled to present And We Go Green Here, a film debuted at Cannes Film Festival. This film presents electric vehicles and other green technologies as the future of innovation, and better air quality for all. → [Link to TRAILER](#)

>>> Co-founding the Electric Sports Coalition

We are proud to continue our important work as co-founders of the Electric Sports Coalition, a joint effort between FIA Formula E and the Moroccan Agency for Energy Efficiency (AMEE). The Coalition continues to meet annually to share progress, ideas and challenges towards carbon emission reductions and electric mobility developments.

IN DETAIL: OUR SUSTAINABILITY PROGRAMME

3.2 / RAISING GLOBAL AWARENESS ON AIR POLLUTION AND CLIMATE CHANGE

»» COLLABORATION WITH THE CLIMATE GROUP

This season, we collaborated with The Climate Group on the Climate Champion Award which recognized the efforts of Panasonic Jaguar Racing in advancing the fight against climate change with ambition, innovation and pace within the Formula E ecosystem. The Jaguar I-PACE eTROPHY is the official support series of Formula E with all-electric performance SUV's modified for the track. The series shows clear race-to-road transfer and demonstrates the rapid advancements of EV technology.

»» CONNECTING WITH STUDENTS

We consistently visit local schools and universities to speak to students on the benefits of EV uptake on air pollution and climate change. In Marrakesh, we were thrilled to present Mark Preston (Team Principle of DS Techeetah) as he spoke to renewable energy students at the Mohammed VI Polytechnic University. In Bern, we presented as part of a school programme with MyClimate for 11 different classes in Schule Laubegg on sustainability, mobility and climate change. We also showcased an Earth Day demonstration of Show Car at PS15 and 295 school classes in Brooklyn, USA.

»» COMMUNITY TOURS

In the cities where we race, we try to offer behind-the-scenes experiences to an average of 100 participants, typically comprised of local residents, children and students. These tours showcase our race track, the Allianz E-Village as well as provide an educational opportunity to share the importance of EVs and renewable energy technology in improving air quality in cities.



Community tour comprising of children from a number of schools and charities local to Marrakesh including Education For All, Ecoles Des Mines, Universite Euro-Mediterraneenne De Fes, Centre D'emancipation de la commune, Solar Race Challenge and more.

BROADENING OUR IMPACT

ALIGNING WITH THE UN SUSTAINABLE DEVELOPMENT GOALS



Our work directly contributes to 8 of the SDGs, thanks to our promotion of electric vehicles, partnerships to fight climate change and support of technological advancements.

3 GOOD HEALTH AND WELL-BEING



Promoting Air Quality Awareness

- » Partner with the UNEP to showcase #Breathelife Campaign at all events.
- » Speak at universities and schools to educate on air quality in city centers.

11 SUSTAINABLE CITIES AND COMMUNITIES



Promoting sustainable cities

- » With our Smart Cities Initiative, we encourage startup organizations to improve the sustainability of urban areas.
- » We actively encourage spectators to utilise public transportation when attending FE events.

5 GENDER EQUALITY



Driving gender equality in motorsports

- » As a strong supporter of FIA Girls on Track, Formula E conducts several events across multiple cities each season to promote women in motorsport.
- » Employing females (over 40% female) and encouraging women's involvement in motorsport and technology development

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Working with sustainable suppliers

- » We work to ensure our suppliers procurement practises and processes are aligned with FE sustainable and ethical standards.

7 AFFORDABLE AND CLEAN ENERGY



Committed to Renewable Energy

- » As partner to The Climate Group, we are committed to RE 100 and are working to 100% renewable energy targets.

13 CLIMATE ACTION



Promoting uptake of electric vehicles

- » Our mission is to promote EVs and educate on the importance of EV uptake in order to improve air quality and reduce vehicle GHG emissions globally.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



Innovation is at our core

- » Through technology developed at FE, our vehicle batteries now last longer and can hold more charge. Our mission is to share this technology to advance EVs widely and globally.

17 PARTNERSHIPS FOR THE GOALS

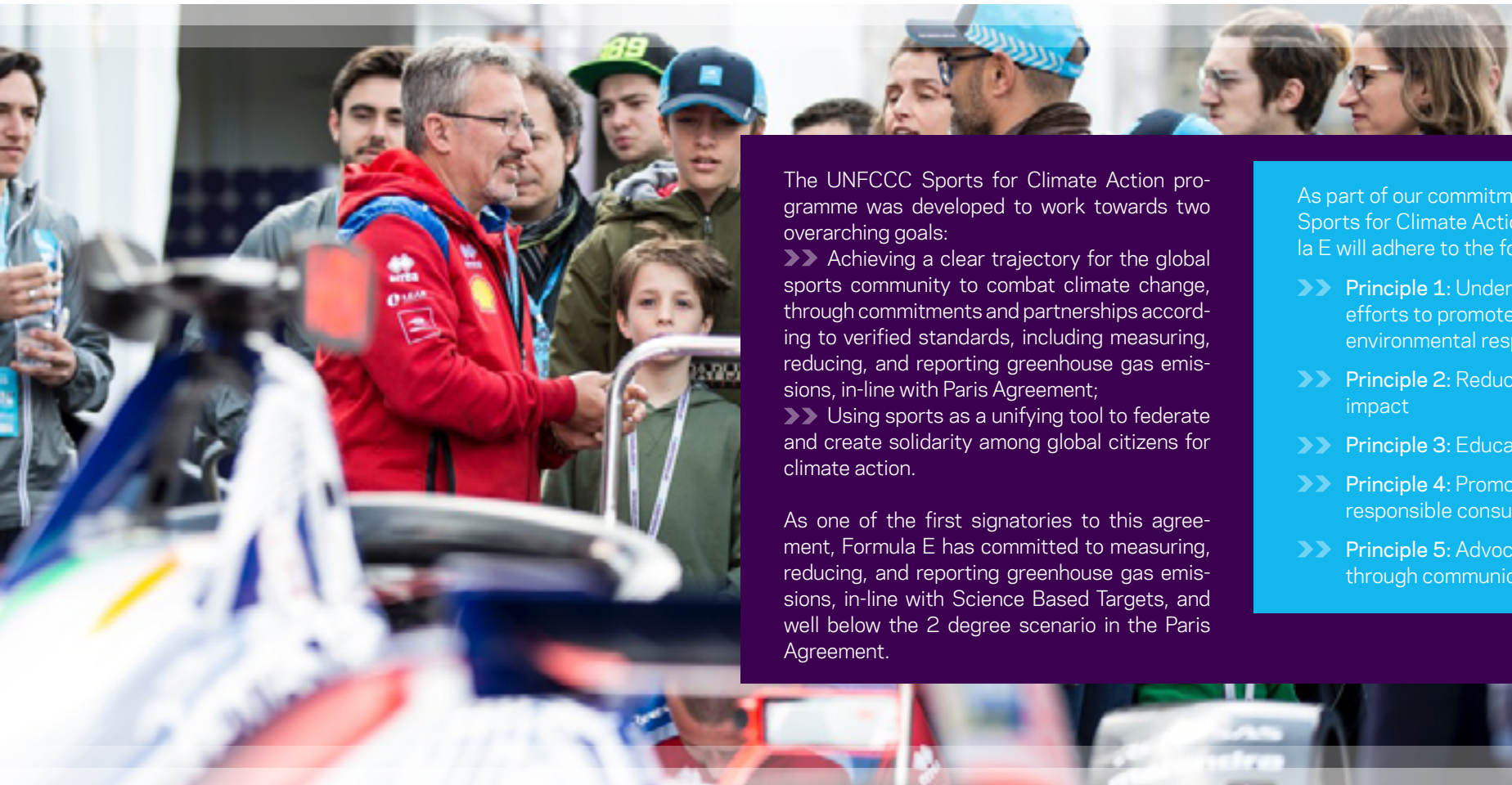


Partnering with global organizations

- » As co-founder of the Electric Sports Coalition, we raise awareness of electric sports and mobility and report on the progress made towards CO2 emission reductions.
- » We partner with UNEP #Cleanseas, UNEP #Breathelife and Education for All to promote and advance our common goals.

BROADENING OUR IMPACT

COMMITTING TO THE UN FRAMEWORK CONVENTION ON CLIMATE CHANGE SPORTS FOR CLIMATE ACTION PROGRAMME



The UNFCCC Sports for Climate Action programme was developed to work towards two overarching goals:

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

As one of the first signatories to this agreement, Formula E has committed to measuring, reducing, and reporting greenhouse gas emissions, in-line with Science Based Targets, and well below the 2 degree scenario in the Paris Agreement.

As part of our commitment to the UNFCCC Sports for Climate Action programme, Formula E will adhere to the following five principles:

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



The ABB FIA Formula E Championship would like to thank all those who have contributed to the fight against climate change and to reduce inner-city air pollution, as we continue the charge towards an electric revolution.

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