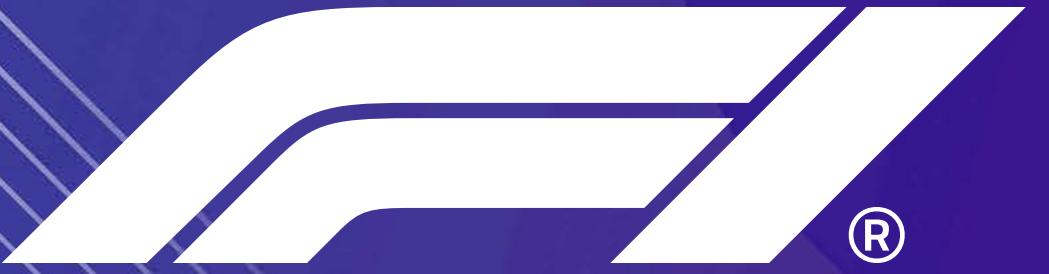




2023 FORMULA 1®  
IMPACT REPORT



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# INTRODUCTION

Over its 73-year history, the sport of F1® has pioneered numerous technologies and innovations that have positively contributed to society. Our engineering excellence is now driving our sustainability strategy and delivery, as we focus on how we can improve our own impact as well as positively influencing the wider global transportation network.

In 2019, Formula 1® launched its sustainability strategy that set out the following ambitions:

- **To achieve Net Zero Carbon by 2030**
- **To leave a legacy of positive change wherever we race**
- **To build a more diverse and inclusive sport**

To deliver our sustainability strategy, stakeholders from across our sport play a critical role. These stakeholders include: the FIA, F1 Teams, Race Promoters, Original Engine Manufacturers (OEMs), Commercial Partners, Broadcasters, Key Suppliers, Fans and many more.

Formula 1 has long been associated with innovation and speed. Innovations which pre-date our sustainability strategy, such as hybrid engines, help reduce carbon emissions on road cars today and advanced sustainable fuels of the future will be showcased in our cars in 2026. As we face the climate crisis, Formula 1 is committed to improving our own impact as well as positively influencing the wider global transportation network.

The report covers Environmental, Social and Governance activities related to the 2023 FIA Formula One World Championship™ (unless otherwise noted) featuring 10 Teams, and Events in 20 countries, with the season kicking off in Bahrain on March 5th and finishing in Abu Dhabi on November 26th.



# ACCELERATING CHANGE



**2014**

Hybrid engines introduced to the FIA Formula One World Championship™ for the first time.



**2020**

F1® Teams unite to provide expertise and material for innovative life-saving breathing devices during the COVID-19 pandemic as part of the UK Ventilator Challenge.



**2021**

The FORMULA 1 BRITISH GRAND PRIX 2021 is the first Formula 1 race broadcast to be awarded with the albert Sustainable Production Certification.



**2021**

Formula 1's Engineering Scholarship is announced, to support students from underrepresented backgrounds. The programme covers ten students per year, and will run until 2025.



**2021**

Electricity at our Formula 1 offices is sourced with a renewable energy tariff.



**2022**

Our production site at Biggin Hill transitions its gas supply to a renewable tariff.



**2022**

Freight containers redesigned to enable greater use of more efficient 777F cargo planes.



**2022**

Guidance provided to Race Promoters and process set for hosting more sustainable events.



**2024 - 2030**

Planned updates to our Sustainable Event Guidance.



**2026 - 2030**

Credible offset strategy in place.



**2026 - 2030**

Logistics network updated to maximise efficiency and latest technologies.



**2024 - 2030**

Investments in alternative fuels across our operations.



**2024**

Changes made to the F1 calendar to reduce freight distance travelled between events and create a better flow in regions.



**2026 - 2030**

F1 to power cars with 100% Advanced Sustainable Fuels creating a viable, low CO2 emissions, high-performance alternative to incumbent diesel and gasoline fuels.



**2026 - 2030**

Net Zero by 2030 based on a 50% absolute emissions cut from our 2018 baseline year including energy at factories, travel & logistics & energy at races.

# 2023 HIGHLIGHTS

**13%**

Across the 2022 season, we reduced our carbon footprint by 13% against our 2018 baseline. Throughout 2023, we continued to take further action to accelerate meaningful change.

**75%**

From trial activations to the entire event, over 75% of our promoters powered aspects of their events using renewable energy sources – compared to 50% in 2022.



F1®, F1 Teams and FIA host STEM days in schools across the UK for more than 350 children that directly meet Engineering UK's equality, diversity and inclusion criteria.

**55%**

Formula 2™ and Formula 3™ Championships use 55% sustainable fuel to power the cars.



Formula 1 launches an all-female driver category, the F1 Academy™, to develop and prepare young female drivers to progress to higher levels of competition.

**90%**

Low-carbon energy generation trial in Austria reduces emissions in the Pit, Paddock and Broadcast Compound by >90% vs 2022 Grand Prix.



Formula 1's newly reopened Media & Technology Centre welcomes local students for career insight days.

**83%**

European leg of the season delivered by DHL biofuel-powered trucks across nine races, reducing logistics carbon emissions by 83%.



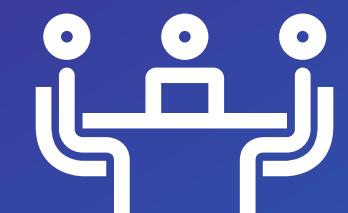
Formula 1 retains its FIA Three-Star Environmental Accreditation and becomes the first Championship with all member teams to achieve the same feat.



Formula 1® creates Charities supported by Formula 1 designation to further accelerate charitable outreach.



The first cohort of students from the Formula 1's Engineering Scholarship embark on their first work placement with the F1 Teams.



FIA Formula One World Championship™, FIA Formula 2 Championship and FIA Formula 3 Championship earn ISO20121: 2012 Event Sustainability Management System; a certification in relation to planning of events.

# VOICES FROM F1®

**Stefano Domenicali, President & CEO, Formula 1:**

"Sustainability is one of the most important factors to us, not only as a sport, but as a business. It is no longer enough for us to simply deliver great action and wheel-to-wheel racing on the track, we need to ensure that we are doing so in a sustainable way so our sport can thrive long into the future. F1 has been innovating and influencing wider society for over 70 years, and we've seen how the great minds and technology of the sport have had a positive impact in many different spaces, and now we have turned that expertise and insight to sustainability."

"We are a global sport with over 700 million fans around the world, which gives us a great platform to create change and influence those watching and engaging with F1 to act and leave their own positive legacy. Over the past four years, we have made significant progress, and we remain very focused on our goals and I'm excited to see the impact we can have."

*Throughout this report, Formula 1® staff will be sharing how they have updated their work to support the delivery of our Sustainability Strategy. Look for the video icons to hear their stories.*



# VOICES FROM F1®



## **Pat Symonds, Chief Technology Officer, Formula 1®:**

"For over half a century, Formula 1 has been at the forefront of innovation and through the years we have seen technology first used on the racetrack work its way into road transport as well as into wider society. Whether this be life-saving apparatus during the COVID pandemic, efficient cooling systems in supermarkets, or the seatbelt you use every time you set off in your car, their development was accelerated in F1. I am confident our sustainability work and innovation in the area will have a similar impact."

"The uniqueness of F1 is the intense competition to win brought about by engaging thousands of top engineers to find better solutions in very tight timescales. By shaping the regulations and direction of the competition, we can have a win-win situation, building a more competitive sport while driving invaluable technologies for the future."



## **Ellen Jones, Head of ESG, Formula 1®:**

"Sport can ignite passion and shine a light on the world around us. At Formula 1, we take this privilege seriously and are committed to continually improving our operations whilst also showcasing technologies of the future."

"To achieve this, we are integrating sustainability across all departments within Formula 1 as well as with key stakeholders across our sport. Our aim is to empower the wider sport of Formula 1 to do what it does best in finding solutions at pace. Teamwork is a key element of success within F1 and the response we've seen from our people reflects that there is desire from every corner of the business to be a part of the change."

"This report focusses on how we are making material changes to our operations so that our sport can align its innate concepts of speed and efficiency to climate action. It represents an ongoing body of work which we recognise will continue to grow in scope and ambition."

# CLIMATE ACTION

# CLIMATE ACTION

**Being at the forefront of automotive innovation we have a uniquely powerful global platform to accelerate progress and develop technologies that reduce and eliminate carbon emissions. Alongside our commitment to decarbonise the sport, we are also investing in breakthrough technologies and processes that will support the decarbonisation of the wider transport sector.**



# DEFINING OUR COMMITMENT

**Our Net Zero by 2030 commitment engages our wider sport in carbon reduction and includes the Formula 1® Group, all 10 F1® Teams, Race Promoters, logistics service providers, and key suppliers such as our tyre manufacturer and Paddock catering.**

The commitment was set in accordance with the science from the Intergovernmental Panel on Climate Change (IPCC) – aligning with its definition of Net Zero emissions and the need to keep global average temperature rise below 1.5 °C<sup>[1]</sup>. Our emissions inventory is set against a 2018 baseline and follows the guidance set by the Greenhouse Gas Protocol<sup>[2]</sup> – the most widely used international accounting tool for government and business leaders to understand, quantify and manage greenhouse gas (GHG) emissions.

[1] IPCC Summary for Policymakers

[2] Greenhouse Gas Protocol Standards



# 1

## What is Net Zero by 2030?



Change how we operate to reduce carbon emissions by a minimum of 50%



Deliver 100% Advanced Sustainable Fuel by 2026



Drive positive change and carbon awareness across our sport and beyond



Transforming to ultra-efficient and low carbon logistics and travel



# 3

## How will we deliver?



Powering facilities, factories and Events with renewable energy



Working closely with key stakeholders to take climate action



Travel and logistics for F1®, Teams and key suppliers



Energy at F1 offices and Team facilities



Energy at Events for F1, Teams, Hosts and key suppliers

# REDUCING OUR EMISSIONS II

Our 2022 carbon footprint was 223,031 tCO<sub>2</sub>e, a 13% reduction compared against our 2018 baseline year. We are now able to focus on the carbon data gathering and calculation for 2023, which will be included in the next F1® Impact Report.

Since 2018, Formula 1® has seen significant growth, both in terms of the number of events and associated activities. As a sport we have been able to update our delivery model through remote operations and increase the use of renewable energy to power our factories and facilities.

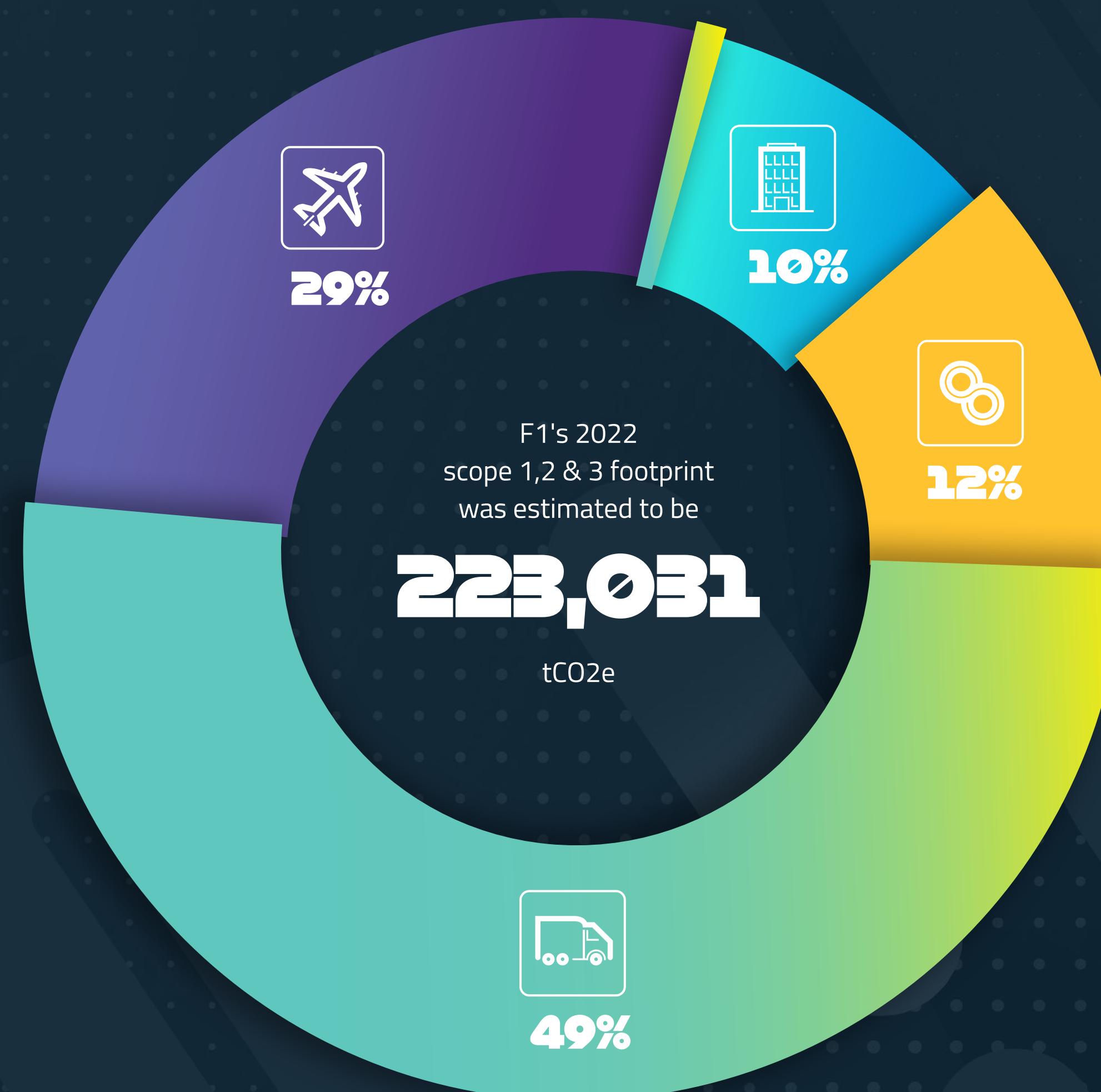
These key actions have led to an overall decrease in carbon footprint – and as 2022 represented a return to a full calendar post pandemic, it was a critical year to compare against our 2018 baseline.

We recognise that reductions will not always be linear, and we expect to see fluctuations in our carbon footprint over the coming years, as significant cultural and operational shifts are underway in our sport. This is evidenced by investments across our stakeholders in:

- Renewable energy at associated sites;
- Alternative fuel solutions;
- Remote first methodologies to limit required travel; and
- External certifications verifying and strengthening environmental policies and practices.



# 2022 CARBON FOOTPRINT



&lt;1%

## F1® CAR FUEL

Emissions from car fuel continues to be less than 1% of our total carbon footprint.

[Read more here.](#)


49%

## LOGISTICS

While we have worked to increase remote capabilities, we have seen a marginal increase in this category driven by hosting an additional event and shifting to two more flyaway races.

[Read more here.](#)


10%

## FACTORIES AND FACILITIES

A key area of emission reduction driven by renewable energy powering factories and facilities of Formula 1 and F1 Teams.

[Read more here.](#)


29%

## BUSINESS TRAVEL

Remote operations have supported the reduction in number of travelling personnel. As we further develop our remote first approach, we will continue to work to make reductions here.

[Read more here.](#)


12%

## EVENT OPERATIONS

Our emissions increased in this category based on both events increasing in size as well as improved data quality in this area.

[Read more here.](#)

# TRANSFORMING OUR BUSINESS OPERATIONS

While the carbon footprint data in this report is reflective of our 2022 season, we took further action in 2023 to significantly change the way Formula 1® operates as we continue on our journey to reach the Net Zero by 2030 commitment.

As a World Championship, travel and logistics continues to be a key driver of our footprint and is therefore a critical area for carbon reduction. In 2023, we focused on three key areas:

- Reducing the amount of kit and people that travel
- Changing the mode of travel
- Reducing the distance travelled

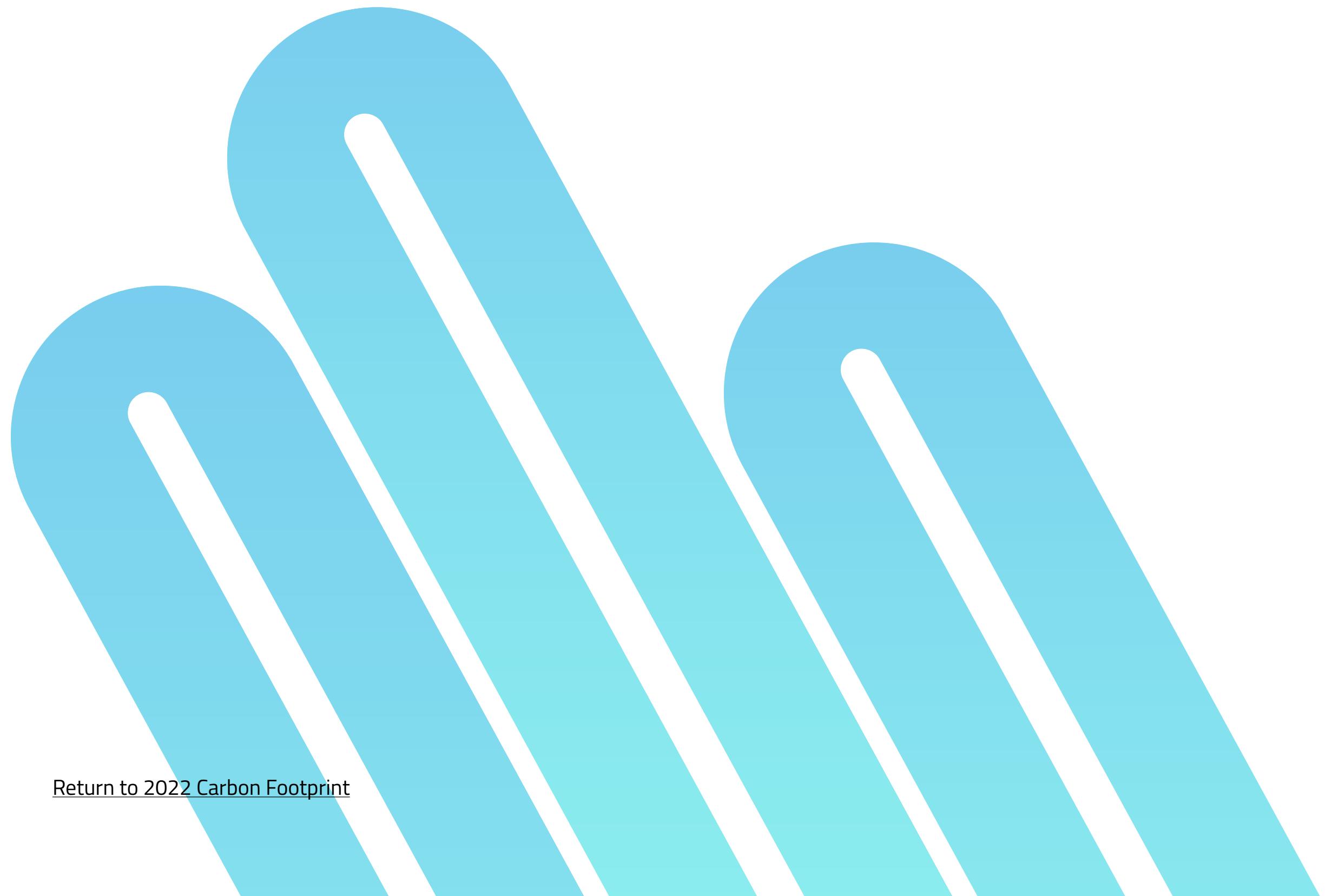
In 2024, we will see changes to the F1® calendar by moving Japan to April, Azerbaijan to September and Qatar back-to-back with Abu Dhabi at the end of the year. This calendar creates a better flow of races in certain regions to reduce freight distance travelled between events.

Looking forward, we have major milestones to achieve, including further investment in alternative fuels across our operations, the delivery of sustainable fuel by 2026, and updating our logistics network to maximise efficiency and leverage the latest technologies.



# SUSTAINABLE FUEL I

As part of our journey to Net Zero, all Formula 1® Teams will be required by regulations to power their cars with 100% advanced sustainable fuels by 2026.



[Return to 2022 Carbon Footprint](#)



**WHY?**

While the fuel emissions of the cars on track are less than 1% of our overall carbon footprint, we see this sustainable fuel development as one of the biggest opportunities to have a positive impact on the environment and wider society.

The transport sector is responsible for around 15% of global GHG emissions<sup>[3]</sup>. Decarbonisation of this sector provides one of the biggest opportunities for change.

**HOW?**

For this reason, we have set our regulations for advanced sustainable fuel to be:

- Carbon neutral: The 100% sustainable fuel will be carbon neutral, meaning the same amount of carbon used to produce that fuel will be the same quantity as the carbon emitted from the engine.
- Systems thinking: While the fuel will be carbon neutral in usage, we recognise that there is energy required to manufacture and transport it. For these reasons, we're putting in place production requirements like renewable energy, to target an 80% reduction in carbon footprint which would include manufacturing, transportation and usage.
- Drop-in: The fuel developed by Formula 1® will be a 'drop-in' fuel that can be used in road cars without modification and will serve as a sustainable alternative of global relevance.
- Responsibly sourced: The fuel used in the engine is created from a combination of non-food bio sources, genuine waste sources, or carbon extracted from the air, which will lead to a dramatic reduction in emissions while delivering the same power.
- Innovation led: The fuel regulations are deliberately structured to allow a variety of alternative manufacturing methods to be explored, enhancing the relevance to the supplying fuel companies.

**RESULT**

In the 2023 season all cars competing in our junior series F2™ and F3™ used a 55% advanced sustainable fuel, in partnership with Aramco, and will aim to use 100% sustainable fuel in 2027. 100% sustainable fuel will be used in F1® from the 2026 season.



<sup>[3]</sup> IPCC Emissions Trends and Drivers

# RAISING STANDARDS: BIOFUEL-POWERED TRUCKS

Across the nine European rounds in 2023, a fleet of 18 new trucks were powered by HVO100 drop-in fuel (hydrotreated vegetable oil) and travelled more than 10,600 km, transporting an average of 300 tonnes of vital freight per race.



[Return to 2022 Carbon Footprint](#)





## WHY?

Through initiatives such as the introduction of biofuel-powered trucks, we can improve our modes of transport and reduce our carbon emissions.

## HOW?

Formula 1®, introduced a new truck fleet powered by DHL, Official Logistics Partner, to deliver Formula 1 freight to the European events. To reduce their carbon footprint, these trucks were powered by the second generation biofuel, HVO100 (hydrotreated vegetable oil), which is created from non-fossil fuel sources. These trucks maintained the same level of performance in terms of load capacity and travel distance and were equipped with GPS to monitor fuel consumption and optimise more efficient routes.

## RESULT

Following the rollout of the new fleet, the related carbon emissions were reduced by an average of 83%, compared to traditional-fuel driven trucks. The initiative has provided both DHL and F1® with crucial data and information that will help shape the expansion and development of sustainable logistics.

DHL have also committed to using the F1 trucks (running on 100% biofuel) during the off-season, where they will be deployed across the wider DHL European organisation and continue to deliver carbon reductions in logistics.

# POWERING EVENTS: RENEWABLE ENERGY

Depending on the location and associated operational requirements, F1® events are powered by energy sources from the grid, temporary generators and on-site renewables – and in many cases, a mixture of all three sources.

In 2023 Formula 1® piloted a new low-carbon energy generation system at the FORMULA 1 GROSSER PREIS VON ÖSTERREICH 2023 in Spielberg. The energy system was used to power key operational areas of the Paddock, Pit Lane and F1® broadcast areas.

[Return to 2022 Carbon Footprint](#)





## WHY?

Formula 1®, the F1 Teams, the FIA and other paddock users bring their own on-site generators to support with peak energy demands during the event. This process means there is a carbon footprint impact from the logistics to move the generators onto the site, plus the actual fuel usage at the event and therefore our total carbon footprint.

## HOW?

The trial used a renewably powered centralised system, which not only reduced the carbon footprint at the event but also looked to reduce logistics requirements in future.

The energy system was powered by a hydrotreated vegetable oil (HVO) biofuel and 600m<sup>2</sup> of solar panels. These were located on the infield of the final turn and provided an estimated 2.5MWh of energy across the event.

## RESULT

Thanks to the implementation of the pilot low-carbon energy generation system at the FORMULA 1 GROSSER PREIS VON ÖSTERREICH 2023, we were able to reduce the carbon emissions within the Paddock, Pit Lane, and broadcast areas by more than 90%, compared to estimated figures for the same areas at the 2022 event.

The pilot allowed us to collect and analyse crucial data for our logistics and operations, which will be used to further analyse options as we continue the road to Net Zero by 2030. This trial not only showcased the latest technology but also how changing ways of working across multiple stakeholders is critical to reducing carbon emissions.

# DESIGNING FOR TRAVEL: PADDOCK CLUB™

Our Paddock Club™ is the award-winning hospitality that Formula 1® operates at Grands Prix™. The space provides fans with an immersive and exclusive race-watching experience in a premium environment. To reduce the environmental impact of creating these spaces, new innovative walling was implemented in 2023.



[Return to 2022 Carbon Footprint](#)





## WHY?

For the activities that must take place at track, we are working to reduce all unnecessary travelling equipment. At the same time, we're exploring material solutions that could reduce the weight of this equipment, while still delivering a high-quality experience to fans in attendance at all levels.

## HOW?

The new sustainable wall concept was introduced this year, starting at the FORMULA 1 SPANISH GRAND PRIX 2023, and means the walls are now made of reusable textile-based panels, instead of traditional heavy timber walling systems. Panels fit into aluminium frames, which can be reused indefinitely, and the concept gives design flexibility as only canvas needs to be updated in case of damage or new branding.

The internal designs in the Paddock Club™ also received a sustainable refresh in 2023, with single-use flowers largely replaced with local, reusable succulents and trees to reduce waste and carbon emissions.

## RESULT

This new approach provides a higher quality of design and experience while reducing the amount of freight and people required to travel to events. It shows how our event partners are supporting our Net Zero by 2030 commitment by bringing their expertise and focus to align with our strategic goals.

For the walling system changes, the weight and volume for walls were reduced up to 80%, and the transition to local flower concepts minimises transport costs and has an implied waste reduction of ~50%. The overall streamlined process also means that less personnel are required to travel to help set up.

# REGIONALISING FREIGHT: FAN ZONE

The F1® Fan Zone is an area at a Grand Prix™ event where fans can engage with the sport in an interactive way through activations, workshops, driver appearances and merchandise. At each race we supply up to nine activations including simulators, photo opportunities and educational experiences. The Fan Zone is also a prime location for our Global and Regional Partners and the Race Promoter to activate and engage with the attendees.





## WHY?

As this is a key element of every race weekend we wanted to explore opportunities to reduce the travel required for these activations and equipment.

We are constantly reviewing the design and freight options to minimise air freight whilst still ensuring the delivery of fantastic events. As a result, we are regularly able to discover new and innovative ways of operating, even as the sport and Grand Prix™ experience grows.

## HOW?

The kit for our Fan Zone is now stored in-market in hubs in Europe, UAE, and USA, meaning equipment used for races in these regions can be provided more locally, therefore reducing the distance it has to be transported.

Design features within the activations, such as the Tension Frame System (TFS) in the Driver Selfie experience, allows for a lightweight design and easy set-up/de-rig. The TFS consists of a printed fabric material that is held taut within a metal frame and, critically for Formula 1®, the materials pack away in a flight case and can be easily stored for the next event.

## RESULT

All Fan Zone assets are shipped via sea freight or road freight – a more carbon efficient way to travel than air freight. Only in exceptional circumstances is anything conveyed via air freight such as replacement kit being needed for unforeseen circumstances.

# F1® STUDIO 1

Formula 1® broadcasts to more than 180 territories around the world, all from the Media & Technology Centre (M&TC) in Biggin Hill, Kent. This is the world's largest intercontinental remote production operation, which is responsible for creating the International Feed, that broadcast partners use to bring the action to fans at home.

The M&TC was revamped at the end of 2022, in time for the start of the new season, further enhancing the possibilities available to our award-winning broadcast team. This included a state-of-the-art broadcast studio that provided new opportunities for our remote broadcast operation.

[Return to 2022 Carbon Footprint](#)





### WHY?

The remote broadcast operations approach, which started in 2020, helps us to reduce the amount of kit and personnel that needs to travel from race to race.

### HOW?

The Studio is designed to produce multiple live shows, recordings, and host events for F1® TV enabling productions to be made in Biggin Hill – thus reducing travel and logistics of both freight and personnel to our events.

Further to the build of the physical set, we are developing a virtual set which will be available for the 2024 season. This enables us to reduce our carbon emissions by building fewer physical elements, storing less kit, and it requires fewer personnel to travel to fit new sets.

### RESULT

The Studio further enhances our 'remote first' approach to broadcasting, meaning that we consider how new productions can be made remotely from Biggin Hill, rather than travelling to event sites.

Productions like F1® Kids for this year's Singapore and Abu Dhabi Grands Prix™ can now be showcased from this multi-purpose space.

# positive legacy

# POSITIVE LEGACY

Formula 1® is committed to leaving a legacy of positive change wherever we race. Race Promoters, who host the Formula 1 events, are critical partners in delivering this commitment and we work closely with them throughout the year to develop annual sustainability plans, which are reflective of local infrastructure and communities and ensures best practice when putting on a sustainable event.

In practice, these plans result in actions such as:

- Plastic & Waste: Reducing single-use plastic through initiatives such as reusable cups and ensuring recycling streams are in place and well communicated.
- Local Fan Travel: Promoting the uptake of public transport, carpooling and other lower carbon ways to get to the event.
- Wellbeing & Nature: Providing water refill areas and fan activations on topics like biodiversity.
- Local Community: Donating food to local charities post-event and engaging communities in outreach activities.
- Energy: Increasing events powered by renewable energy through initiatives such as biofuel generators and solar panel installations.
- Carbon: Reporting carbon data annually for the event.



## 2023 EVENT HIGHLIGHTS

We work closely with Race Promoters to ensure best practice when putting on a sustainable event and leaving a positive legacy.

To read more, [rollover locations](#).

# FORMULA 1 LAS VEGAS GRAND PRIX 2023 WATER CONSERVATION

The LAS VEGAS GRAND PRIX (LVGP) launched a first-of-its-kind water conservation programme, as they look to implement technologies that can reduce, and eventually offset, outdoor water consumption at large-scale sporting events.



**WHY?**

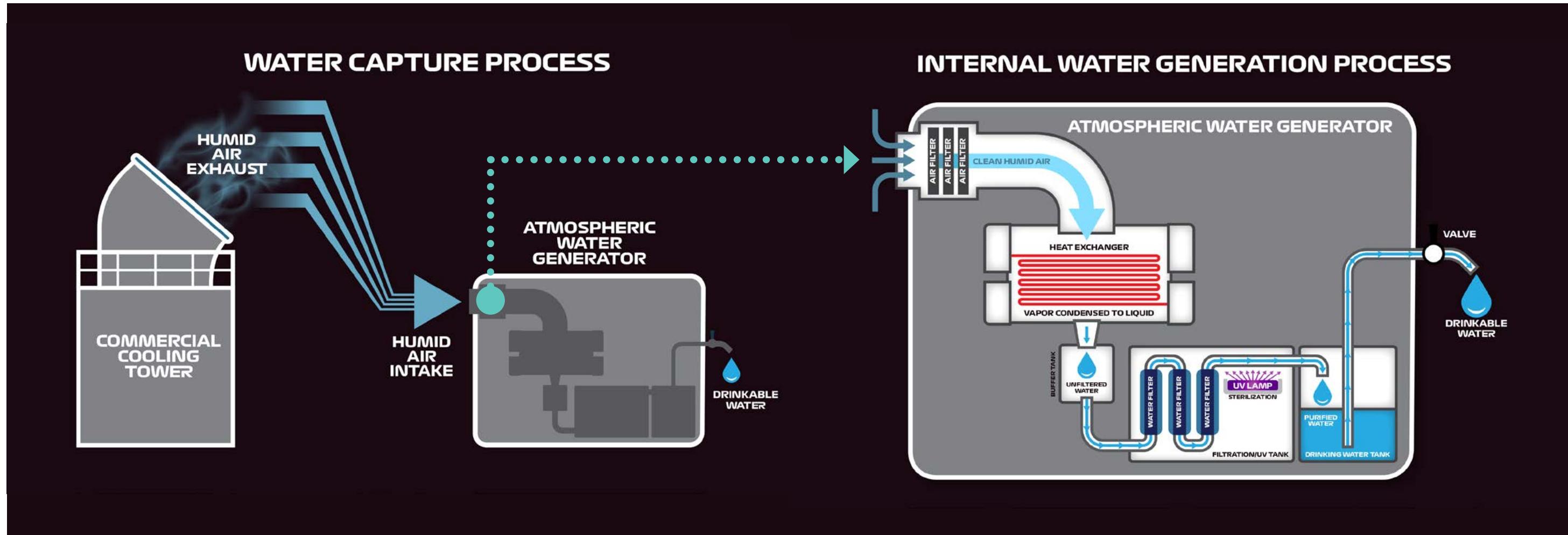
Southern Nevada is in a federally declared state of drought. Water is the most precious natural resource in the region and the LAS VEGAS GRAND PRIX has the platform and opportunity to be responsive to the community's pressing environmental challenge and be a leading example of positive change within its community through the event.

**HOW?**

The LAS VEGAS GRAND PRIX and their partners, Southern Nevada Water Authority, MGM Resorts, and WaterStart, installed an atmospheric water generator (AWG) – used around the world today to capture water vapor that would otherwise be considered waste product and return it back into the system – to offset the expected outdoor water usage throughout race weekend.

**RESULT**

With a successful trial, not only can this be extended to the 2024 race, but Clark County Commissioner Marilyn Kirkpatrick, who serves as chair of the Board of Directors of the Southern Nevada Water Authority said "This project has the potential to serve as a template for other events held in our community and reaffirming our collective commitment to water conservation in our destination."



# ENGAGING FANS: GREENER CHOICES

Our fans also play a critical role in bringing these initiatives to life and improving the event's impact through their engagement. Examples seen across our events where fans take action include: refilling reusable water bottles, recycling waste in the appropriate bin and choosing lower carbon ways to travel.



# OFFERING GREENER WAYS TO REACH THE RACE

Our fans make up a core part of the F1® weekend, bringing the electric atmosphere to the event as they watch their favourite teams and drivers battle it out on track. A Grand Prix™ can be attended by hundreds of thousands of fans over the course of a weekend.



## WHY?

For any event from sports to entertainment, fan travel is a critical area of impact for both carbon emissions and for the day-to-day life of local communities. In addition to Formula 1® developing road relevant technologies of the future, we are taking action today to help give fans a greener way to reach our events.

## HOW?

Local fan travel is one of the six key areas of focus in the event's annual sustainability plans. Race Promoters implement these plans to encourage greener ways to reach the race based on their local infrastructure and needs. After each event, fan travel is incorporated into the feedback process where we agree areas for improvement and actions for the next year with the Race Promoter.

Throughout the year, F1's Sustainability Team and Race Promoters work to continuously improve in this area by sharing best practices and learnings from other large-scale events.



## RESULT

Formula 1 events are increasingly supporting fans in choosing lower carbon alternatives to travel to our events. Over 85% of our promoters offered greener ways to reach the race, compared to 70% in 2022. These activities in 2023 included:

- Collaboration with local government and public transport providers to increase public transportation options.
- Provision of key infrastructure such as shuttle buses, bike parking and park and rides.
- Trials of new technical solutions such as carpooling apps to increase car sharing.
- Initiation of walking initiatives where areas surrounding certain circuits are pedestrianised.

To help increase uptake and the conversation with fans about greener options, the following activities took place in 2023 at associated events:

- Expanded communications on how to get to the event using public transport.
- The promotion of active travel messaging on our world broadcast.
- A joint campaign with broadcaster, race promoter and Formula 1 to raise uptake of public transport.
- Incentives such as public transport discount offered when purchasing Grand Prix tickets.
- Education tools for fans to help calculate travel emissions and contribute towards a cause that promotes change.

# DRIVING CONTINUAL IMPROVEMENT

After each event, the Race Promoters are provided with feedback on their delivery using evidence collected from our onsite audits and given tailored next steps to improve the following year. This process, along with the Sustainable Event Guidance, sets a bespoke roadmap for the Race Promoter allowing for year-on-year improvement.



# CHAMPIONING CHANGE: ON-SITE SUPPORT

In 2023, we launched our Green Champions programme, which sees on-site staff responsible for conducting audits at each race. The findings are then used by Formula 1® to develop constructive feedback and a sustainability action plan for upcoming events. These contribute towards the continual development of our Race Promoters in the annual sustainability plan progress.



## WHY?

Onsite audits are an important part of our governance system as they help us recognise trends across the race calendar, understand where we are performing well and where there are areas for additional development or improvement.



## HOW?

To reduce our travel requirements, Green Champions are already part of the travelling team as on-site Event Coordinators. The Event Coordinators received tailored sustainability training and these additional sustainability responsibilities were then integrated into their existing roles.

Our Green Champions complete sustainability audits of each circuit covering considerations from waste and recycling through to water access across the Fan Zone and the Formula 1® Paddock. They also act as the on-site point of contact for F1 staff to raise any sustainability issues, which can be either resolved at track or raised to our Sustainability team back at base.

## RESULT

Since the implementation of Green Champions at our events, we have been able to audit the delivery of availability of waste streams and recycling, water refill, and accessibility at every event. These audit findings have helped us develop year on year improvement plans, sharing examples of best practice and identifying time sensitive issues on the race weekend. The success of the program has now encouraged other business functions to establish Green Champions for the 2024 season.



# DIVERSE AND INCLUSIVE SPORT

# DIVERSE & INCLUSIVE SPORT

We are committed to taking steps to build a more diverse and inclusive sport by removing barriers, nurturing talent, and inspiring change.

Increasing diversity and inclusion is critical to our sport as the next generation of engineers and changemakers across our communities will enable the future technologies that drive our sport. In 2023, activities focused on increasing access for underrepresented groups to early career and driver development programmes on the track, in local communities and in our offices.

Stakeholders from across Formula 1® make this possible, including the FIA, F1® Teams and drivers, Race Promoters and local charities.



# DRIVING IN F1®

As the most visual representatives in our sport, it is important that Formula 1® creates opportunities for the next generation of drivers. That means removing the barriers to entry and enabling people from all backgrounds to have as much chance as they can to pursue their dreams of becoming an F1® driver.



# DEVELOPING DRIVERS: F1 ACADEMY™

In 2023, we launched F1 ACADEMY™, an ambitious new all-female series with the goal of increasing opportunities for female participation in motorsport. The series is providing young women with the support and resources to overcome some of the barriers that face them as they look to break into elite motorsport.



**WHY?**

Motorsport has historically been a male-dominated sport. F1 ACADEMY™ goal is to be a catalyst for change, making the sport more diverse and inspiring the next generation of young women to pursue a career in motorsport, be it as a driver, an engineer, or in any number of roles within the Paddock.

**HOW?**

The series has been designed to create the best possible structure to find and nurture female talent on their journey to the elite levels of motorsport, giving drivers access to more track time and support from five of the best junior teams in motorsport. The driver contribution is also limited to €100,000 to create a more accessible entry point to the single seater ladder.

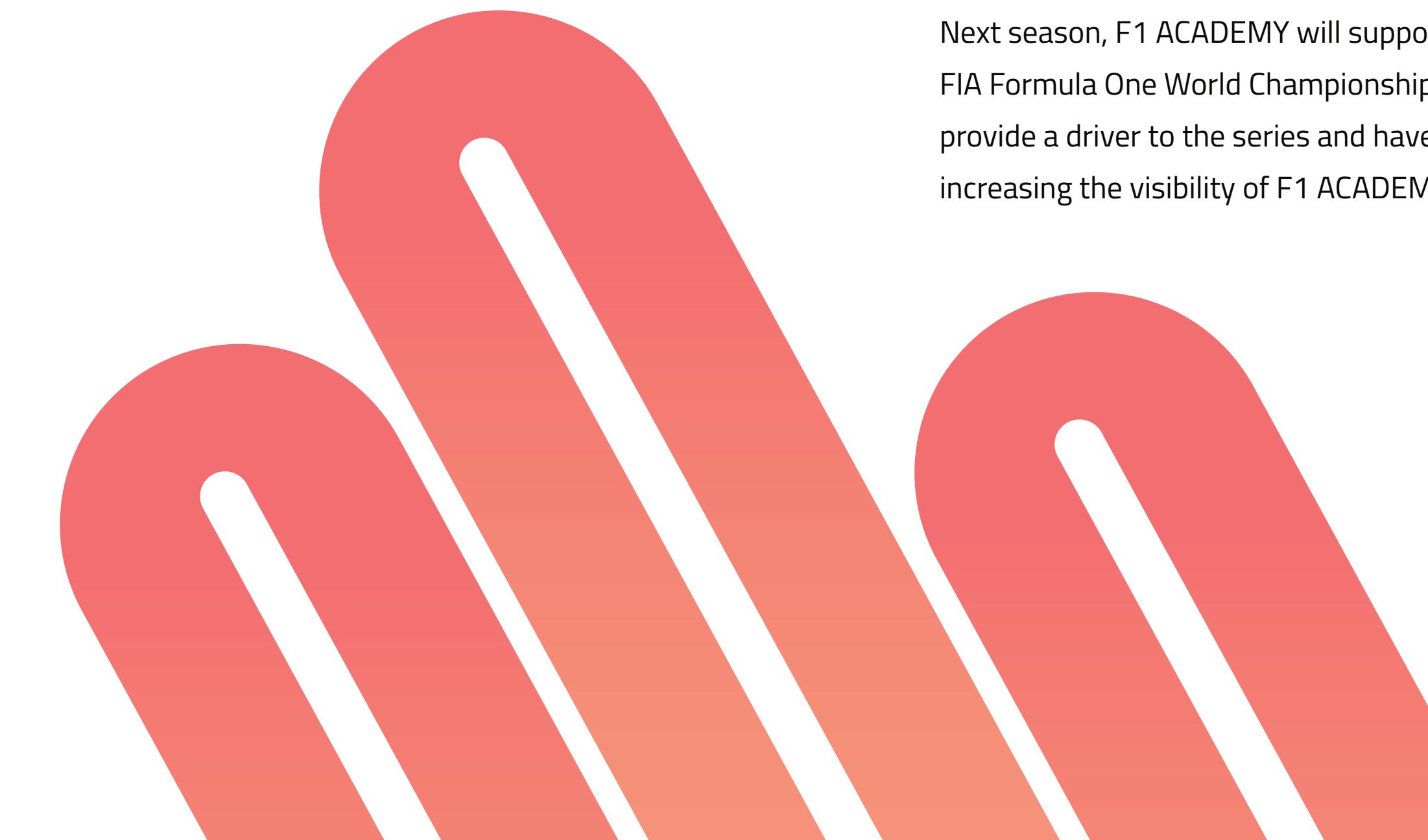
Earlier this year F1 ACADEMY also launched F1 ACADEMY DISCOVER YOUR DRIVE™, a global initiative to increase the pipeline of talent entering motorsport. The initiative focuses on four pillars: youth engagement, talent identification, participation and progression, and community.

**RESULT**

The inaugural F1 ACADEMY Champion, Marta García, will receive a fully funded seat with PREMA Racing for the 2024 Formula Regional European Championship by Alpine (FRECA). This underlines F1 ACADEMY'S commitment to preparing drivers for a higher level of competition and supporting their progress up the single seater ladder.

At the grassroots level, the number of girls qualifying for the British Indoor Karting Championship (BIKC) local finals increased from 2.5% in 2022 to 9% in 2023 following the launch of the first F1 ACADEMY DISCOVER YOUR DRIVE programme, in collaboration with Motorsport UK and TeamSport.

Next season, F1 ACADEMY will support F1® at seven events of the FIA Formula One World Championship™ and all ten F1 Teams will each provide a driver to the series and have their livery on one car, further increasing the visibility of F1 ACADEMY and its mission.



# WORKING IN F1®

**While the drivers are the faces of Formula 1®, the sport is driven by teamwork so there are career options covering everything from marketing to finance, engineering to design. STEM is a huge part of the sport, but we are also raising awareness of the other professions that underpin a career in motorsport and to inspire the Paddock of tomorrow.**

To support early career engagement, we work with specialist organisations to identify young people from underrepresented backgrounds and give them access to career experiences and opportunities.

In 2023, we worked with multiple organisations including Aspiring Solicitors, Social Mobility Business Partnership, Black Collective of Media in Sport, Mission 44, and Bromley Council to provide opportunities such as work experience and career insight days.



# ENGINEERING SCHOLARSHIPS

In 2023, five leading universities in the UK and Italy – Oxford University, Cambridge University, Imperial College London, the University of Strathclyde, and the Motorvehicle University of Emilia-Romagna (MUNER) – offered the Formula 1® Engineering Scholarship to a new cohort of engineering students as part of the ongoing Formula 1® scholarship programme, which was first announced in 2021.



### WHY?

The scholarship programme is part of our wider commitment to make motorsport more diverse and accessible, with the vision to increase career opportunities for students from underrepresented groups.

### HOW?

Each scholarship covers the full cost of the student's tuition alongside living expenses for the full duration of their degree. The scholars will also undertake work experience at one of the ten F1® Teams during the second year of study as well as having access to career workshops and mentoring from personnel throughout the sport.

### RESULT

Since the beginning of the scholarship programme, we have been able to support 30 students from the five partner universities, and in 2022 Formula 1® announced that the program had been extended to support students until 2025 inclusive.

This year, the first cohort of students attended their scholarship programmes with F1 Teams and saw first-hand what a career in the sport could look like for them.



# CAREER JOURNEYS: MY UNTOLD STORIES



'My Untold Story' is a video series that shares inspiring stories of people from across the F1® community, and how their voice can be a vehicle for change. The aim of the series is to share exciting and inspiring career stories of people working across the F1 community, whether they work for Formula One Management, the FIA or one of the F1 Teams.



### WHY?

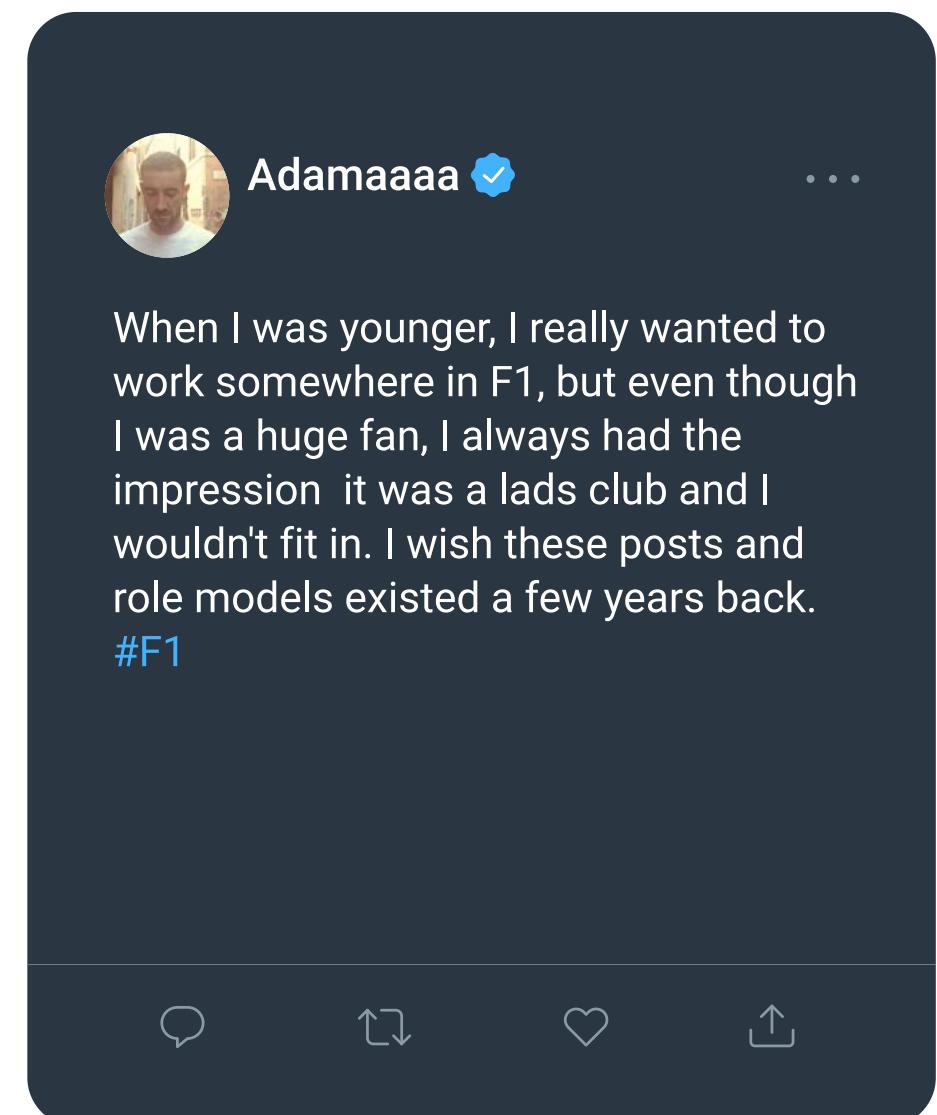
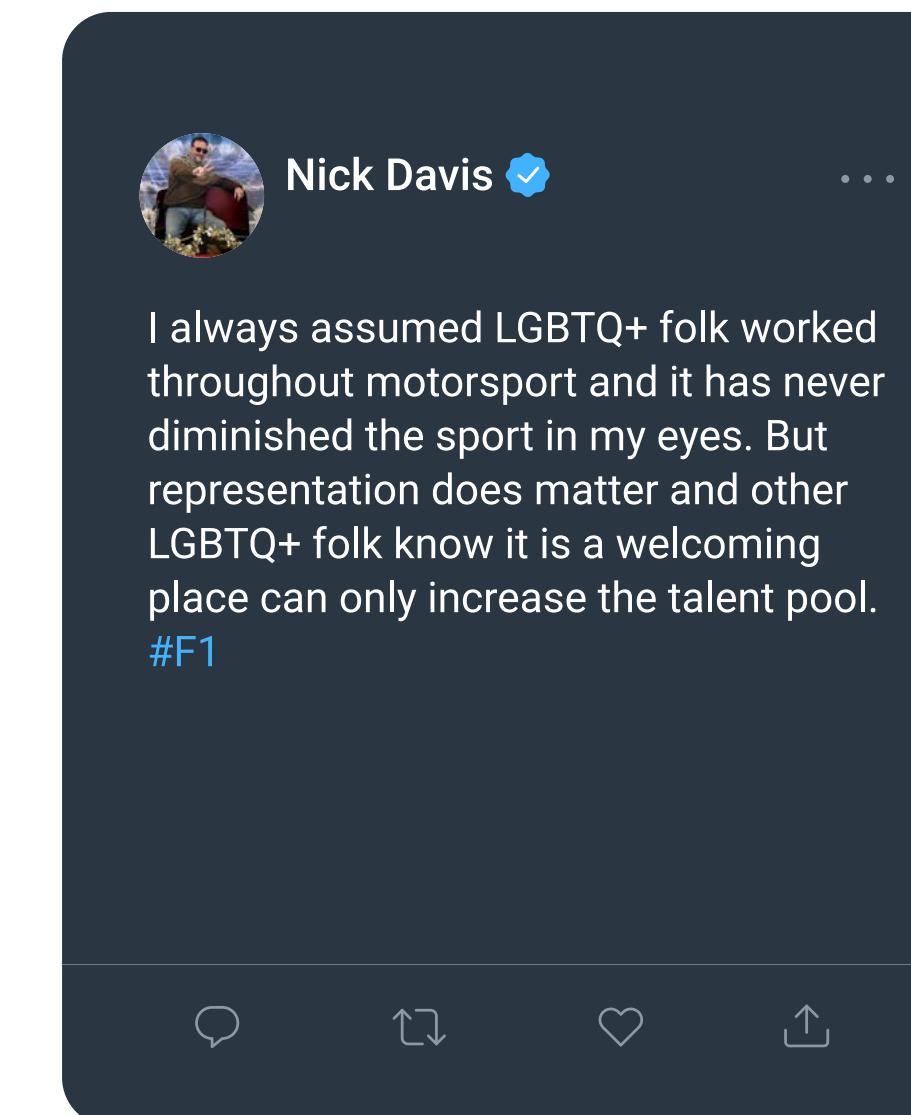
The aim of the initiative is to showcase the variety of different opportunities available in F1® and to shine a light on our existing diversity. We hope this content will be shared across social platforms to inspire young people, particularly those from underrepresented groups, and show that there are opportunities to have a career in motorsport. Together they showcase that, no matter what your background, a career working in Formula 1® could be for you.

### HOW?

Formula 1®, F1 Teams, and the FIA came together to create full-length videos which can be found on f1.com and LinkedIn, with shorter social media edits shared on Instagram and X.

### RESULT

The series showcases the breadth of diversity already within the sport, in the hope of inspiring anyone who may be considering a career within F1 or motorsport. The videos, which were rolled out in the second half of 2023, have amassed over 50,000 interactions and 10.5 million impressions on social media with positive comments and engagement:



# INSPIRING THE NEXT GENERATION OF F1®

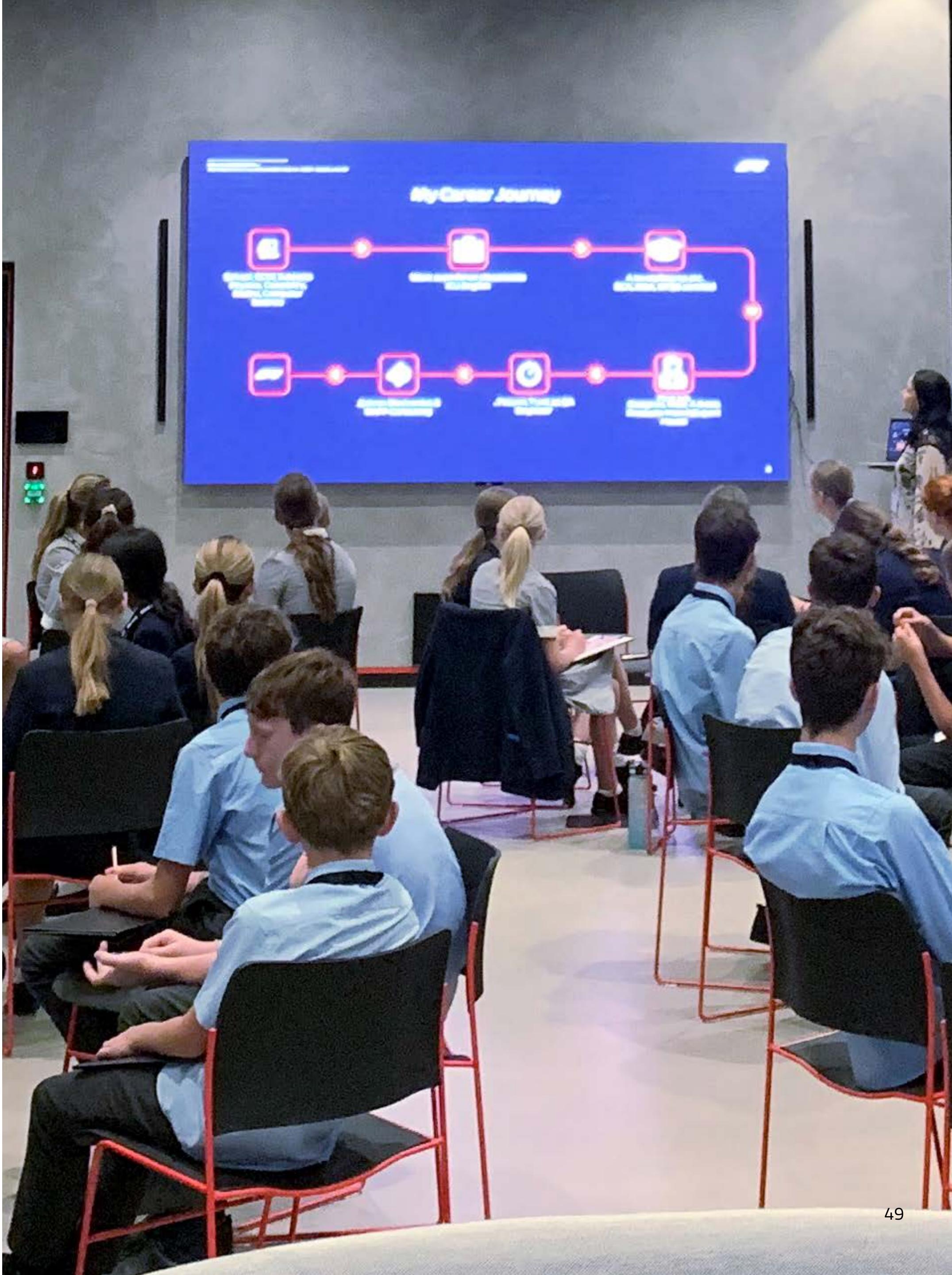
Education is a critical part of joining the Formula 1® progression path. From school programmes through to scholarships, the Formula 1 community works together to inspire the next generation to pursue their education in our outreach work, particularly in STEM (Science, Technology, Engineering and Math) topics.

In 2023, F1 Teams, Race Promoters and Formula 1 worked together to host students, particularly those from underrepresented backgrounds, at their headquarters and at our events around the world. The Formula 1 Scholarships programme also welcomed the first work experience within the participating F1 Teams in 2023.



# REACHING OUT: SCHOOL PROGRAMMES

In partnership with the FIA and F1® Teams, we put on STEM Days in schools across the UK that directly met Engineering UK's equality, diversity and inclusion criteria in 2023. Representatives from Formula 1, F1® Teams and the FIA gave presentations on their roles and provided insight into how to pursue a career in motorsport, as well as an overview of the wide range of job opportunities in F1.



**WHY?**

The UK's engineering sector is considerably less diverse than the general population, meaning many groups are underrepresented in the engineering workforce. The UK is home to seven of the ten F1® Teams and is also where Formula 1® is based with facilities in Central London and Kent.

**HOW?**

Together with Small Peice Trust, technical experts from across the Formula 1 community were involved in the curation of the STEM Day. Representatives included Pat Symonds, Chief Technical Officer of Formula 1, Tim Goss, the Technical Director at the FIA and Luca di Marino from the MoneyGram Haas F1 Team.

The STEM day covers a range of engineering activities, including designing, building, and testing their own aerodynamic racing cars. The day culminates in racing their cars against the clock and presenting their designs to the judges.

Following the events, F1 remains in touch with the children at these schools, providing links to early career information across all organisations. Many F1 Teams have offered opportunities to visit their respective technology centres for the winning teams of each event.

**RESULT**

Seven STEM days have taken place across 2023, engaging with more than 350 children across the UK. 44% of these were female and 90% of students provided positive feedback on the day, with:

- 97% survey respondents saying they enjoyed the day.
- 92% saying that they understood engineering better after attending.
- 69% saying that they would consider a career in engineering and of those respondents who answered positively, 85% were female.



# CHARITY OUTREACH

# CHARITY OUTREACH

Formula 1® was proud to support the following charities in 2023. These charities represent only a small piece of the charitable work conducted by the wider sport.

We would like to say a huge thank-you to the wider F1® community, including Formula 1 fans, F1 Teams, Race Promoters, Commercial Partners, Broadcasters, and many more who have raised awareness and funding to countless charities and causes.



# RACE AGAINST DEMENTIA



# CHARITY SUPPORT

## UNICEF

UNICEF, the United Nations Children's Fund, works to build a better world for every child, every day, everywhere.

We are supporting UNICEF to improve access to education through the expansion of UNICEF's Learning Passport – a portable, highly flexible digital skills platform that enables children to access quality education through digital learning online and offline. Alongside this, we are supporting UNICEF to bolster its humanitarian response worldwide to help protect children in emergencies.

## Race Against Dementia

Race Against Dementia, founded by three-time Drivers World Champion Sir Jackie Stewart, was established to fund early-career researchers to accelerate progress towards a cure for dementia. We are providing a platform for Race Against Dementia's fundraising efforts including funding The Sir Jackie Stewart Team. The Sir Jackie Stewart Team will be made up of an elite group of researchers striving to find a new clinical breakthrough for dementia.

In 2023, Race Against Dementia raised over £500,000. These essential funds were raised across the Formula 1® calendar, for example with partnerships such as Ferrari Trento donating auction proceeds from Podium Bottle sales and a virtual auction at the FORMULA 1 LAS VEGAS GRAND PRIX 2023.



## 2023 IMPACT REPORT

### Make-A-Wish

We are supporting Make-A-Wish to grant life-changing wishes to children living with critical illnesses throughout the year, offering once-in-a-lifetime experiences at our events.

In 2023, over 50 wishes were granted with the support of F1® Teams, Race Promoters, and the wider F1 Paddock. Wish children and their families have experienced exclusive F1 Paddock Tours, meet and greets and been invited to watch the Grand Prix across the event weekend.

### Great Ormond Street Hospital

Great Ormond Street Hospital (GOSH) supports its hospital and patients by fundraising for rebuilding, support for families, research, and life-saving medical equipment.

We support GOSH to help raise funds at FORMULA 1 BRITISH GRAND PRIX and additional Formula 1 events. At the 2023 Silverstone Grand Prix over £30,000 was raised towards the new Children's Cancer Centre at GOSH and over 90 patients and their families were given a tour of the F1 Paddock.

**"Thank you so much for the most incredible day at F1 Silverstone! It was an amazing experience and we made memories that we will never forget. Thank you for looking after us and treating us like VIPs for the day! We really are so grateful to you for giving us this opportunity, it was a once in a life experience for Ralph and for us! After everything we have been through, life has really been put in perspective, making memories is so important and I just want you to know how much this day meant to us!"**

GOSH Parent



## 2023 IMPACT REPORT

### Children in Need

Children in Need aims to make sure that every child has the childhood they deserve and the support they need to thrive.

In 2023, we supported BBC Children in Need through an F1® 23 sim racing tournament. Over 1,300 racers took part in the competition which held qualifying activations at the FORMULA 1 BRITISH GRAND PRIX 2023, Goodwood Festival of Speed, Carfest, Insomnia, and shopping centres across the UK, as gamers were challenged to post their fastest lap time around Silverstone and encouraged to donate to the cause.

### The Grace Influential Positive Impact Award

The Princess Grace Foundation honours the legacy of Her Serene Highness Princess Grace of Monaco (née Grace Kelly) through its prestigious awards programme celebrating and supporting excellence in the arts. In 2022, the Foundation partnered with Formula 1® to extend the Princess' legacy of philanthropy, launching the Grace Influential Positive Impact Award at the most iconic race in the calendar, the Grand Prix de Monaco.

An industry first, the Award brings together Princess Grace's philanthropic spirit with the sustainability goals of Formula 1® to create a prestigious initiative that recognises F1 Teams' positive social and environmental impact.

Of the nine submissions, the Mercedes-AMG PETRONAS Formula One® Team was crowned winner for their ambitious Accelerate 25 programme, their initiative to recruit 25% of new team members from under-represented groups by 2025.



# INCREASING ACCESS

The Awabot mobile telepresence robot gives young fans who are hospitalized or home-bound the chance to meet their heroes through a video presence system – taking them to the heart of the action from afar.

**"It was a great opportunity to meet the Formula 1 champions thanks to Awabot's project. Children from the Child Neuropsychiatry and Pediatric Oncohematology Department of IRCCS San Gerardo dei Tintori were able to meet and chat with Charles Leclerc, Carlos Sainz, Fernando Alonso and even Stefano Domenicali. Walking through the Paddocks and having a few minutes of normalcy became a special occasion. Thanks to the video link made with a small Robot that moves with the boy's face, a kind of screen on two wheels, the little guests of the Hospital directly cuddled their Formula 1 idols. To see the emotion on the faces of the kids who are coping with the disease is priceless. It is a race of the heart that makes us proud."**

Dr. Claudio Cogliati, President of the IRCCS San Gerardo dei Tintori Foundation of Monza



**WHY?**

The programme brings young patients, their families and the carers into the world of Formula 1®. Race Promoters will utilise relationships with local hospitals and charitable organisations to spread the word about the Grand Prix™ beyond the circuit to create special moments that will improve wellbeing at a crucial time.

**HOW?**

Awabot deploy two telepresence robots at select Grands Prix™, which gives children the chance to control the devices from the comfort of their home or hospital and roam the Paddock. Working with Awabot, F1® will set up meetings with the drivers, visits of Teams' garages, walks down the Pit Lane and even the starting grid. The Awabot is manned by a person on site who acts as a "guide" and facilitates the interactions with drivers, Teams and staff.

**RESULT**

Across eight Grands Prix (Bahrain, Miami, Spain, Austria, Netherlands, Monza, Austin, Abu Dhabi) over 150 children with suffering from illnesses or disease including, neuromuscular disability and neuro-psychiatric disorder have been connected to their F1 heroes and inspirational people from around the Paddock.

# Governance

# GOVERNANCE

We are committed to reducing the impact of our operations on the environment and to collaborating with our stakeholders to make the sport and all events more sustainable and inclusive.

The Formula 1® Sustainability Strategy works to drive positive change and carbon awareness across our sport and beyond. Our framework is based on Environment, Social & Governance objectives of Formula 1's activities and operations, consistent with the F1 Sustainability Strategy in compliance with the international standard ISO 20121:2012<sup>[5]</sup>, and the United Nations' Sustainable Development Goals<sup>[6]</sup>.

Our scope for ISO 20121:2012 includes operations in relation to the FIA Formula One World Championship™, FIA Formula 2 Championship and FIA Formula 3 Championship.

Formula One Management Limited and Formula Motorsport Limited, which promotes and operates Formula 2 and Formula 3, have achieved Three-Star level within the FIA Environmental Accreditation Framework.

[5] ISO 20121 Sustainable events

[6] United Nations' Sustainable Development Goals



# DELIVERING CHANGE

Many stakeholders and organisations are involved in helping to deliver this change. The Sustainability Management System (SMS) helps identify the impact of the wider stakeholder environment and helps us encourage partners to support the delivery of the Sustainability Strategy, objectives and targets. Where practical, we will incorporate actions within the SMS to address this. In particular, the SMS will support the setting out of legal agreements, guidelines and operational procedures for stakeholders such as:

## Race Promoters

Our Race Promoters host, stage and promote Grands Prix™ across the world. We work closely with Race Promoters throughout the year to develop annual sustainability plans, which reflect local infrastructure and communities.

## F1® Teams

The F1 Teams compete in the World Championship and are responsible for the manufacturing of their race cars. We work with the sustainability leads at each team to develop our work and share best practice across the sport.

## Commercial Partners & Suppliers

We work with our commercial partners and suppliers to understand mutual material sustainability topics and work collaboratively to run projects that can make a positive impact on both people and the planet.



## FIA

The FIA provides sporting, technical, and financial regulation to the FIA Formula One World Championship™. We work with the FIA across ESG topics to support the development of the sport.

## Broadcasters

We work with global broadcast partners who are responsible for streaming and broadcasting our live feed and content from race weekends. We work with these partners to amplify the voice and stories of our sustainability progress.

# WORKING COLLABORATIVELY

Cross-functional working groups are critical to ensuring delivery of our Sustainability Strategy is integrated across our business and sport and are deployed for ongoing topics or for project specific delivery.

Examples of these working groups include:

## DIVERSITY & INCLUSION WORKING GROUP

Representatives from Formula 1®, the FIA and all 10 F1® Teams have come together to create the Formula 1 Diversity and Inclusion Working group. The aim of the group is to work collaboratively to find ways to increase diversity across F1 and the wider motorsport industry.

The focus of the working group to date has been to attract and engage children from a variety of different backgrounds to F1, diversifying future talent into the sport.

## F1® TEAM SUSTAINABILITY WORKING GROUP

Whilst F1 Teams are incredibly competitive, certain areas of sustainability are pre-competitive and working together ensures that the sport can continue to improve at pace.

As a result of this the Formula 1 Team Sustainability Working Group includes all Teams and the Formula 1 Management (FOM). The working group focuses on ensuring strategic alignment, creation of joint projects where applicable and the enablement of continuous improvement by sharing best practices.

## SUPPLY CHAIN WORKING GROUP

The internal Formula 1 Supply Chain Working Group consists of representatives from sustainability, procurement, finance, and compliance with the aim to ensure continual improvement in our supply chain for environment, social and governance criteria.

Addressing both potential and existing supplier management, the procurement department are then enabled to identify key sustainability issues for each category to ensure that sustainability risks are assessed with appropriate knowledge and understanding.

# REPORTING PROGRESS

In 2023, Formula 1® participated in the following voluntary and regulatory frameworks to ensure that we are on a continuous improvement path.



## ISO20121: 2012 Event Sustainability Management

**System:** Certified in 2023. This certifies that a Sustainability Management System is in operation for events with respect to planning of events for the FIA Formula One World Championship™, Formula 2 Championship and Formula 3 Championship.



**FIA 3 Star Environmental Accreditation:** Maintained the highest level of environmental sustainability recognition from the sport's governing body.



**The UN Sports for Climate Action:** Signatory since 2020 to this UN-led initiative that aims to provide a clear direction for the global sports community to reduce GHG emissions in line with the Paris Agreement, and to use sports as a unifying tool to encourage citizens' engagement in climate action.



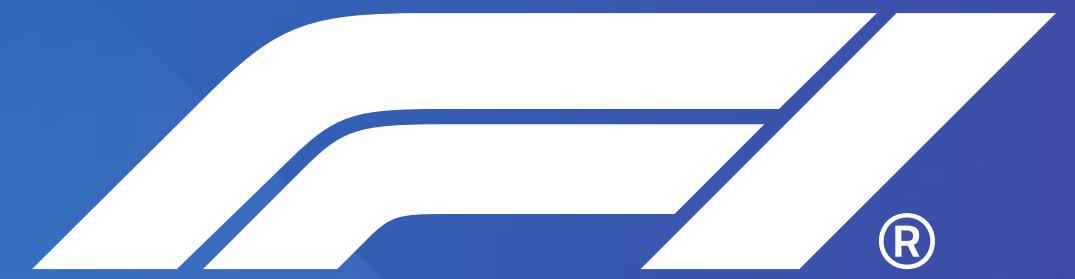
**BAFTA albert certification:** Since 2021, Formula 1 has certified its FORMULA 1 BRITISH GRAND PRIX broadcast through BAFTA's albert Sustainable Production Certification. We also use the training from BAFTA to embed best practices across our operations year-round.



**Formula 1's Code of Conduct:** Underlying policies and compliance procedures ensure that business is carried out ethically and in compliance with applicable laws.



As a material subsidiary of Liberty Media Corporation, a US public company, Formula 1 is required to comply with the **Sarbanes–Oxley Act**.



**2023 FORMULA 1®  
IMPACT REPORT**