

RACING TOWARDS A SUSTAINABLE FUTURE: A REVIEW OF THE DISCLOSED SUSTAINABILITY PERFORMANCE OF INTERNATIONAL RACING CIRCUITS

2022 edition

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FOREWORD

One of the privileges that comes with working in motor sport is the opportunity to visit the countries and race circuits which host prestigious national and international events each year. They attract hundreds of thousands of members of the public together with the race teams, event staff, media, marshals and emergency services who combine to create the memorable events which many millions of motor sport fans enjoy.

It is perhaps counter intuitive that those of us engaged in international motor sport should be among those most concerned with sustainability in its widest sense, and yet we are often in the front line of witnessing the impact our sport has on environmental ecosystems and local communities.

In reading the second Sustainable Circuits Index™ (SCI™) it is clear that much work remains to be done in developing, implementing and communicating sustainability strategies for the venues which lie at the epicentre of the motor racing industry. Measurement is everything in motor sport. The truth is in the data and while many circuits have started the journey the data shows that only a minority are making the progress necessary to help ensure their activities are truly sustainable.

Certification is a key metric alongside Accreditation, Awards and the adoption of environmental, social and economic criteria against which circuits can to be measured. ISO certification, FIA environment accreditation and FIM award recognition play an important part in demonstrating an authentic, credible approach to tackling sustainability.

Some are well advanced, so congratulations are due to those circuits which have already displayed a strong commitment to achieving high standards of sustainability in their day to day operations. From ensuring access to all members of society through to managing waste, promoting the use of renewable energy and developing initiatives specifically aimed at tackling the causes of climate change, this report contains much for us all to consider.

From a personal perspective, in working with sponsors, teams and their use of corporate hospitality, I can vouch for the enormous quantities of food waste generated by major events attended by large numbers of people. There are practical steps which can be taken to eliminate this, but it requires a commitment from circuit owners, managers and suppliers to ensure this outcome can be delivered.

I would like to congratulate Enovation Consulting Ltd for their work on the Sustainable Circuits Index™ and on developing the methodology used to write this report in collaboration with Prof. Paolo Taticchi from UCL School of Management. Finally I would like to urge circuit owners and management around the world to examine the ways in which they can accelerate our journey towards ensuring that motor racing venues play their part in achieving sustainability. In doing so they can help demonstrate true leadership, protecting our planet and society as well as in encouraging others to follow suit.

Mark Gallagher

Managing Director, Performance Insights Ltd *

*Formerly senior management at Jordan Grand Prix, Red Bull Racing and Cosworth.

Technology and innovation are an essential response when it comes to sustainability challenges of this century. Some industries have been leading the technological advancements and societal transformations for decades; today, these industries are expected to contribute to the sustainable solutions of the future, developing new cleantech that can reduce the environmental impacts and increase the value generated for the stakeholders. I therefore welcome the proposition of Enovation Consulting's Sustainable Motorsport Index™, showcasing the valuable sustainability work coming out of arguably one of the most innovative industries in the world.

For the industry to truly contribute to sustainable development in a meaningful way, the entire ecosystem has to play its part, making the Sustainable Circuits Index™ a valuable tool in assessing the overall sustainability of the industry. I am encouraged by the progress we are seeing on the part of motorsport venues all over the world, and across all ESG (Environmental, Social and Governance) areas of sustainability. While pressure is certainly mounting on the industry to act and to embrace sustainability as part of their everyday business operations and relations, it's inspiring to see that momentum towards sustainable transformation within all areas of the industry is growing.

Through the sharing of industry best practice and promoting greater disclosure, this index and the whole Sustainable Motorsport Index™ family have the opportunity to inform, encourage and inspire all stakeholders to elevate their performances in this race towards a sustainable future and I look forward to seeing the developments and progress in future iterations.

Stefano Pogutz

Professor of Practice of Corporate Sustainability, SDA Bocconi

EXECUTIVE SUMMARY

The sports industry, like many industries, is rising to the growing calls for nations and organisations to address the many social and environmental challenges facing the world today. A movement towards adopting more sustainable practices is in motion, with more sports entities coming forward with their sustainability commitments and pledges, joining the likes of the UNFCCC Sports for Climate Action Framework. **The motorsports industry is no exception. In recent years, more stakeholders from across the sector have shown signs of progress towards adopting, implementing, and disclosing their sustainability efforts.**

The sustainability performance of key motorsport stakeholders is the focus of the Sustainable Motorsport Index™ (SMI™), a family of indexes developed by Enovation Consulting Ltd to review and report on the public disclosures made by key motorsport organisations in relation to their sustainability practices. The first edition of the Sustainable Circuits Index™ was published in July 2021 by Enovation Consulting in collaboration with Right Hub Srl. The study explores the sustainability performance of motorsport circuits, highlighting areas where progress is being made, as well as areas to focus on improving.

This report is the 2nd edition of the Sustainable Circuits Index™, written by Enovation Consulting with contributions on data collection by Right Hub Srl. Consistent with the approach taken for the first study, this edition of the SCI™ takes a comprehensive research-based approach to assess and report on the sustainability performance of 96 motorsport circuits globally, and sheds light on notable advancements made over the past year. The ranking is based on 21 sustainability performance criteria across 7 broad areas of sustainability, covering: certifications, accreditations, awards, environmental performance, social performance, economic impact, and sustainability approach and engagement. **Considering solely publicly disclosed information, collected between August and December 2021, the study explores how motorsport circuits are engaging with environmental, social and governance (ESG) issues.** It also takes into consideration how circuits are engaging with different stakeholders within their ecosystem.

The findings in this 2022 edition of the SCI™ show that, from the leaders to the laggards, most of the circuits reviewed have demonstrated some level of improvement on their overall sustainability performance. Leading the ranking in this edition are Circuit de Barcelona-Catalunya in first position, followed by Mugello Circuit in second and Circuit Paul Ricard in third. When looking at the 5 sustainable performance categories, which range from HIGH to LOW, 2 circuits appear in the HIGH category (versus 1 last year); 5 circuits are in the MEDIUM-HIGH tier (versus 2 in 2021) and 4 permanent motorsport venues are in the MEDIUM tier (same result as 2021). The greatest improvement was seen in the LOW category, which now includes 49 circuits (versus 64 in 2021). While most circuits reviewed showed signs of progress, there are still several circuits that have either not yet engaged with sustainability in a meaningful way, or have not effectively communicated and disclosed their efforts.

Overall, the outcome of this year's study is encouraging and indicative of the strides being made across the motorsport industry to help address the many environmental, social and economic challenges facing the world today. **Each SCI™ study is based solely on data disclosed by circuits that was accessible during the specified assessment period, which for this paper was between August to December 2021.** SCI™ papers are published annually to report on progress. With each paper published, the authors aim to accelerate sustainability across the motorsport industry, and beyond.

THE TOP 3

1. Circuit de Barcelona - Catalunya
(Spain)



2. Mugello Circuit
(Italy)



3. Circuit Paul Ricard
(France)



96

International circuits
assessed.

11

Circuits in the **top three Sustainable Performance Categories**, versus 7 in 2021.

49

Circuits in the **Bottom Tier**,
versus 64 in 2021.

43

Of circuits reviewed showed some level of sustainability engagement, versus 32 in 2021 SCI™.

9

Average **SCI™ score achieved in 2022** was 9,
versus 6 in 2021.

1. MOTORSPORT, AN INDUSTRY IN THE PURSUIT OF EXCELLENCE

With motorsport circuits hosting thousands of events around the globe each year, and some events attracting tens of thousands of fans, the opportunities for circuits to influence behaviours and have a positive environmental, social and economic impact across their ecosystems are great.

Motorsport, by its very nature, is designed to pursue excellence. Throughout history, the industry has been at the leading edge of many technological advancements and innovations that have benefitted society. While the topic of sustainability within motorsport is still relatively new, gaining traction in recent years, a report published in 2009 by the Sport Ecology Group shed light on important steps forward within the sport and motorsport industry, pointing to efforts made by the FIA Institute for Sustainability and Motor Sport Safety in a proposal they put forward to the FIA General Assembly, advocating to include sustainability in addition to safety into its 'remit'. Noting the significant role that motorsport can play in the sustainability movement, the report stated,

"Given human transport needs, motorsport arguably represents a sphere of automotive design and innovation that may assist future attempts to resolve environmental problems."¹

¹ Source: www.sportecology.org/post/sustainability-in-motorsport, accessed February 2022.

Fast-forward over a decade and the recognition of motorsport's ability to ignite change has grown as the sport continues to evolve and expand into new spheres, namely the electric-vehicle (EV) sector.

This progress is also being seen on the operations side, primarily when circuits are operating in full swing on event weekends, with initiatives like food surplus donations being a good example of measures that a few circuits have implemented in recent years.

**As the results of this SCI™ study show,
today more than ever many circuits are
showing a genuine desire and commitment
towards operating and hosting events with
sustainability in mind.**

2. STUDY AIMS AND METHODOLOGY

By building on academic best practice for research and considering only publicly available data, the SMI™ family of indexes in its entirety provides a comprehensive and robust methodology to assess how motorsport stakeholders are performing in relation to sustainability.

With this second edition of the SCI™, the author aims to promote industry best practice and encourage motorsport circuits to engage with sustainability in alignment with the policies and incentives created by the FIA and FIM, as summarised in the first edition of the SCI™ study. This study also encourages circuits to bring their stakeholders along on their journey, promoting and furthering collaboration across the wider motorsport ecosystem.

Consistent with the first edition of the SCI™, the 2022 SCI™ study applied a comprehensive research-based approach to assess and report on the sustainability performance of motorsport circuits globally. A total of 96 permanent international circuits engaged in hosting major international motorsport championships (both two- and four-wheeled) were selected for this study (see Appendix 1 and Figure 9 for profile of circuits reviewed).

The index is based on 21 sustainability performance criteria across 7 broad areas of sustainability, covering: certifications, accreditations, awards, environmental performance, social performance, economic impact, and sustainability approach and engagement (see Table 1). The criteria are in line with the first edition of this study. **Based entirely on publicly disclosed information (e.g., circuits' websites and reports) accessed during the assessment period August to December 2021, the study explores how motorsport circuits are using the environmental, social and governance (ESG) framework.**

Table 1: criteria used to assess the sustainability performance of the circuits and build the SCI™ index.

CERTIFICATIONS

1. ISO 14001

It sets out the criteria for an environmental management system that an organisation can use to enhance its environmental performance.

2. ISO 45001

It sets out the criteria for an occupational health and safety management system that an organisation can use to protect employees and visitors from work-related accidents and diseases. Note: ISO 45001 replaced ISO 18001 (as of September 2021) as the new international standard for occupational health and safety management.

3. ISO 20121

It sets out the criteria for a sustainable event management system that an organisation can use to manage events and control their social, economic and environmental impact.

4. ISO 9001

It sets out the criteria for a quality management system that an organisation can use to demonstrate the ability to consistently provide products and services that meet customer and regulatory requirements.

5. LEED OR/AND BREEAM OR/AND PEARLS OR OTHER

They set the criteria for the design and maintenance of healthy, highly efficient and cost-saving green buildings.

ACCREDITATIONS

6. FIA ENVIRONMENTAL ACCREDITATION

An environmental accreditation programme led by FIA that helps to measure and improve the environmental performance of motorsport stakeholders.

AWARDS

7. FIM ENVIRONMENTAL AWARD OR BEST GRAND PRIX MOTOGP OR OTHER

The FIM environmental award recognises the efforts made by organisers, federations, circuits and teams to develop sustainable initiatives and events that minimise the environmental impact and leave a positive legacy on local communities. The Best Grand Prix MotoGP award recognises the best circuit that hosts the MotoGP Championship (it includes sustainability criteria).

ENVIRONMENTAL CRITERIA

8. WASTE MANAGEMENT AND CIRCULAR ECONOMY INITIATIVES

The adoption of sustainable waste management practices and the development of circular economy initiatives.

9. RENEWABLE ENERGY AND ENERGY EFFICIENCY

Procurement of green energy or/and on-site production of renewable energy. Use of LED lighting systems and other high efficiency equipment.

10. CORRECT USE OF NATURAL RESOURCES

Adequate use of natural resources (e.g., water, wood, metals) and actions to protect biodiversity.

11. TRANSPORTATION AND MOBILITY

Actions to improve mobility to/from the circuit, reduce emissions generated by transportation, and use of transportation options with a lower carbon footprint.

12. CLIMATE ACTION PROJECTS

Projects focused on fighting climate change, including the calculation of the circuits' carbon footprint, carbon offset mechanism and carbon sequestration projects.

Table 1: criteria used to assess the sustainability performance of the circuits and build the SCI™ index.

SOCIAL CRITERIA

13. ACCESSIBILITY

Availability of services dedicated to supporting people with disabilities.

14. PHILANTHROPY

Donations and fundraising events to support not-for-profit organisations and charitable causes.

15. COMMUNITY EVENTS

Organisation of initiatives and events aimed at supporting the communities adjacent to the circuits.

16. ACTIONS TO COUNTERACT FOOD WASTE

Adoption of initiatives to collect surplus and combat food waste.

ECONOMIC CRITERIA

17. IMPACT ON LOCAL ECONOMIC DEVELOPMENT

Active measurement of the circuit's impact on the local economy (e.g., on employment, tourism, local suppliers) and commitment to having a positive impact.

SUSTAINABILITY APPROACH AND ENGAGEMENT

18. SOCIAL AND ENVIRONMENTAL MANAGEMENT POLICIES OR/AND ETHICS CODE

Formal documents or webpages that disclose the commitment and behaviour of the organisation through environmental, social, and ethical standards. This could include the explicit reference to the UN Sustainable Development Goals, the UN Global Compact, and the ILO regulations.

19. ENGAGEMENT DEMONSTRATED THROUGH ACTIVISM, EVENTS AND SUSTAINABILITY INITIATIVES

Events and initiatives hosted by the circuit focused on sustainability. Examples include the K.i.S.S. (Keep it Shiny and Sustainable) programme, promoted by FIM, IRTA and Dorna or Girls on Track (GOT) promoted by FIA.

20. SUSTAINABILITY REPORTING

Disclosure of sustainable business policies and practices through websites or sustainability reports; or engagement in carbon disclosure programmes (e.g., the Carbon Disclosure Programme).

21. SUSTAINABILITY STRATEGY

Disclosure of a clear and ambitious sustainability strategy comprehensive of SMART objectives.

The methodology used in this study, which remains consistent with the approach used in the first edition of the SCI™ ranking, was developed by Enovation Consulting in collaboration with academic sustainability expert Professor Paolo Taticchi of UCL School of Management.

Different points were associated to the various metrics for a total of 100 points available. **The Sustainable Circuits Index™ was therefore created as an index ranging from 0 to 100** (highest level of sustainability performance).

Using the SCI™, **the 96 circuits were ranked and grouped into five categories of sustainability performance** – normalising the performance data over the score of the leader (see Table 2 for sustainability performance categories).

Table 2:
categories of
sustainability
performance
associated with
the SCI™ index.

	Corresponds to a LOW SCI™ SCORE
	Corresponds to a MEDIUM-LOW SCI™ SCORE
	Corresponds to a MEDIUM SCI™ SCORE
	Corresponds to a MEDIUM-HIGH SCI™ SCORE
	Corresponds to a HIGH SCI™ SCORE

3. DRIVING THE SUSTAINABILITY MOVEMENT IN MOTORSPORT FORWARD

THE BIG PICTURE

Given motorsport's enduring history and legacy, the industry's journey towards sustainability has been both gradual and complex. On the one hand, motorsport has been criticised for its role in contributing to the environmental issues the world is experiencing today. On the other hand, it has been credited for its many societal advancements and technological innovations.

And while the topic of sustainability is still relatively new to motorsport, it's encouraging to see from the findings in this study that, overall, the industry is moving in the right direction.

Upon review of the year over year sustainability performance of the 96 motorsport circuits considered in this study, the results reveal that – from the leaders to the laggards – most of the circuits reviewed have shown some level of improvement on their overall sustainability performance. As seen in Figure 1, across the 5 sustainable performance categories (which range from HIGH to LOW), the findings show that 2 circuits appeared in the HIGH category (versus 1 last year); 5 circuits placed in the MEDIUM-HIGH tier (versus 2 in 2021) and 4 placed in the MEDIUM tier (same number in 2021). The biggest improvement was seen in the LOW sustainability performance category, which included 49 circuits (versus 64 in 2021).

Overall, the findings demonstrate that the dial is moving in the right direction – **showing signs of both progress and promise for the industry.**

While most circuits showed signs of progress, with 47 achieving a LOW-MEDIUM sustainability performance level or higher (versus 32 in 2021), the results also indicate that 11 circuits have still not started to engage with sustainability – a finding that is both surprising and concerning. On a slightly more positive note, however, this number is down from 15 circuits that had not yet begun their journeys just one year ago.

Despite the primary aim of this study being to shed light on best practice and areas of progress, it is important to note that with 49 circuits appearing in the bottom tier, unfortunately **there are still too many circuits that are not yet engaging with sustainability in a meaningful and impactful way, or at least if they are, they are not yet disclosing their activities publicly.**

Conversely, the circuits that are leading the way are doing so by adopting a holistic approach to sustainability, with the goal of addressing issues across each of the environmental, social and economic areas reviewed.

Another key factor that is setting the leaders apart from the rest of the pack is the simple fact that they are effectively communicating and disclosing their efforts, which is an important component of every organisation's sustainability journey, as well as a key component of this ranking.

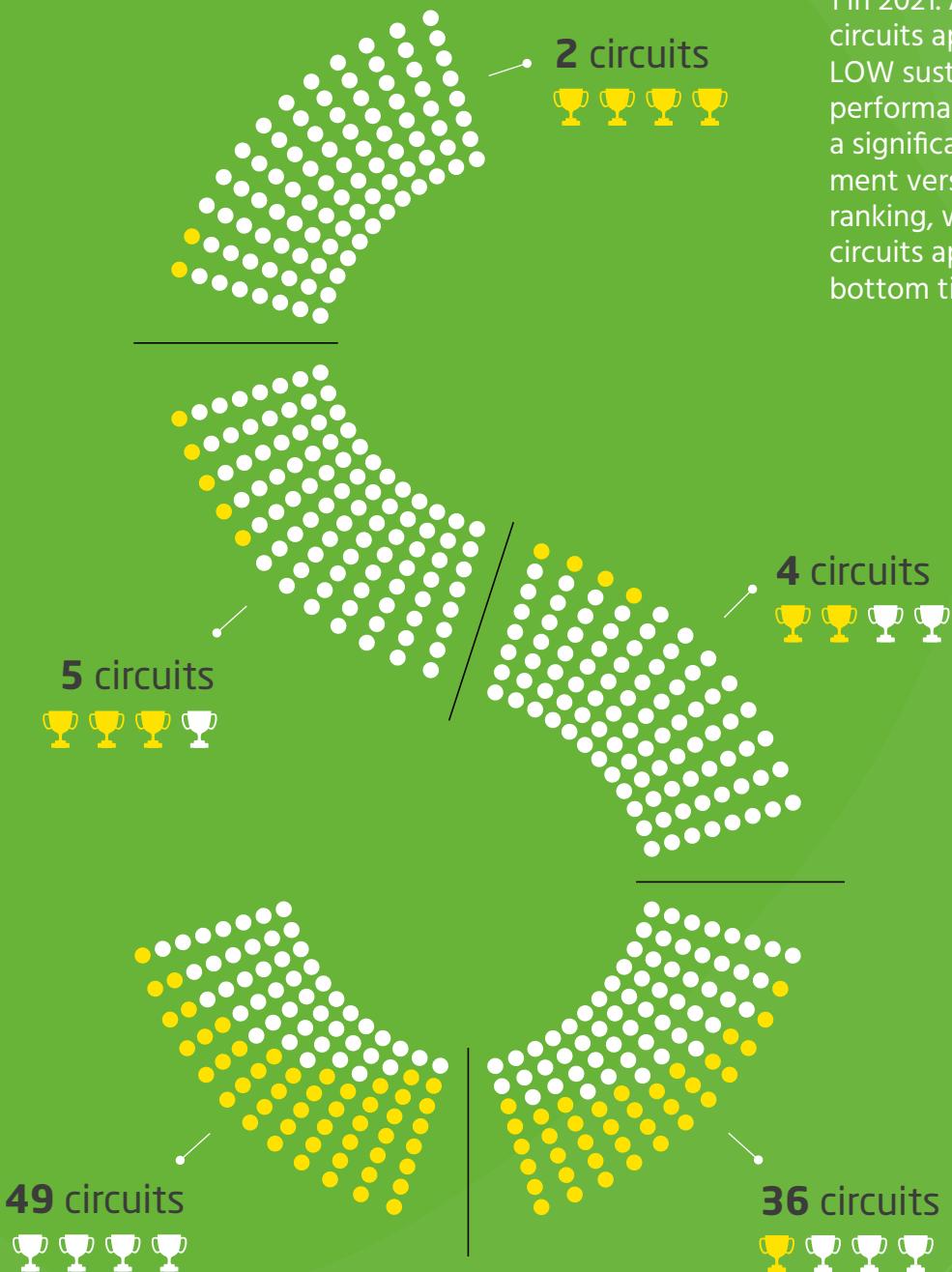
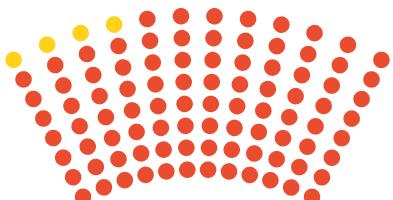


Figure 1: of the 96 circuits reviewed, **2 circuits** achieved a HIGH sustainability performance, up from 1 in 2021. A total of 49 circuits appeared in the LOW sustainability performance category, a significant improvement versus last year's ranking, which saw 64 circuits appear in the bottom tier.

CERTIFICATIONS

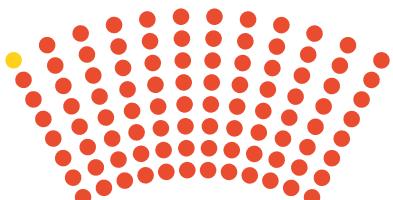
Certifications play an important role in an organisation's sustainability journey, as they confirm the behaviours and steps being taken meet industry standards that have been established and are widely recognised.

When comparing the number of relevant certifications earned by the 96 circuits reviewed in this study, 5 new certifications were disclosed this past year by 5 separate circuits, for a total of 14 certifications identified versus 9 last year (see Figure 2).

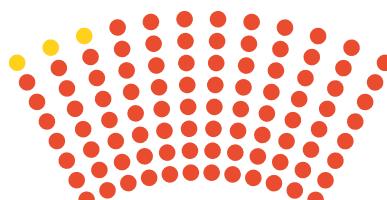


ISO 14001

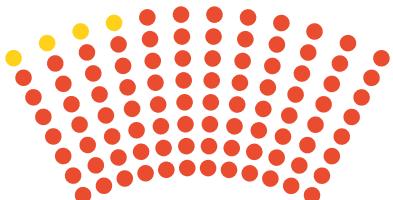
Figure 2: a total of
**14 certifications have
been issued and disclosed,**
up from 9 certifications
identified last year.



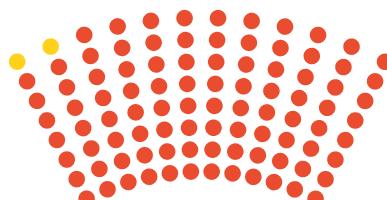
ISO 45001



ISO 20121



ISO 9001



LEED OR/AND BREEAM OR/AND
PEARLS OR OTHER

ACCREDITATIONS

The FIA Environmental Accreditation is issued by the motorsport's top governing body to member organisations that have at a minimum met the environmental policies set out by the federation. Organisations can earn a 1-Star, 2-Star or 3-Star Accreditation, depending on their level of performance in environmental management and implementation. Upon review of the accreditation category in this year's study, **the number of circuits that have earned an FIA Environmental Accreditation has doubled in the last year**, jumping from 3 circuits in last year's index to 6 circuits in this year's assessment (see Figure 3). This result is expected to increase even further in the coming years, with the FIA making the accreditation a requirement to host world-championship events from 2025.



Figure 3: 6 circuits achieved a FIA Environmental Accreditation, up from 3 circuits last year.

AWARDS

Relevant industry awards are distributed to showcase the achievements made by recipients in relation to their sustainability focused programmes and initiatives. These types of industry awards highlight best practice and are a testament to the strides being made within, and across, different organisations and sectors. A total of 7 circuits received a relevant award in recognition of their sustainability efforts, compared to 6 circuits last year (see Figure 4).

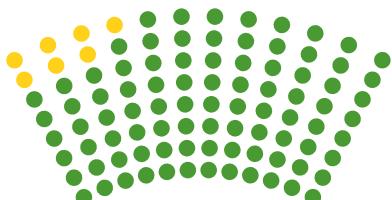
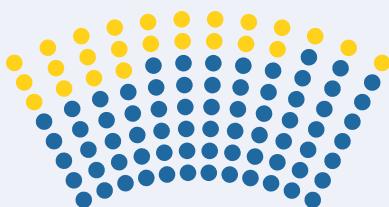


Figure 4: a review of this category showed that an additional relevant award was issued to 1 circuit in the past year, bringing the total number of **circuits receiving an award to 7** (up from 6 last year).

ENVIRONMENTAL CRITERIA

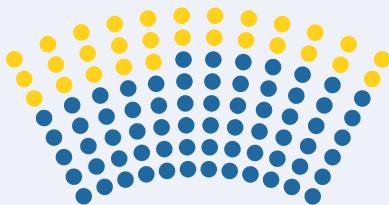
Upon review of the 96 circuits' performances in relation to the 5 environmental criteria identified in this study, several circuits achieved a performance level high enough to be recognised for their efforts in each category (**see Figure 5**).

The environmental criteria that showed the most promising level of engagement was transport and mobility, which showed 41 circuits are engaging in initiatives aimed at encouraging more sustainable modes of transportation to events hosted at their venues. On the renewable energy and energy efficiency dimension, a total of 29 circuits are showing signs of engaging in this area of sustainability. While many circuits are making strides to address environmental issues, the results also show that, with only 17 of the 96 circuits reviewed working on initiatives to address climate change, there are still a significant number that are not yet addressing environmental issues in a meaningful way. **Overall, the findings highlight there is still a need for greater disclosure or improvement in this area on the part of many of the circuits reviewed in this study.**

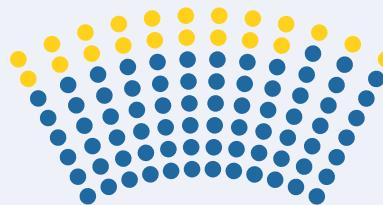


WASTE MANAGEMENT AND CIRCULAR ECONOMY INITIATIVES

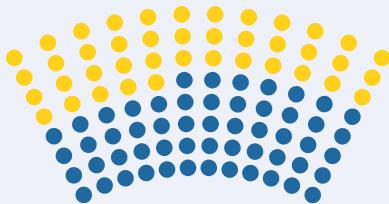
Figure 5: a **total of 41 circuits** are demonstrating they are engaging in initiatives aimed at improving transport and mobility options to the venues, and **29 circuits** are leveraging renewable energy and energy efficiency initiatives.



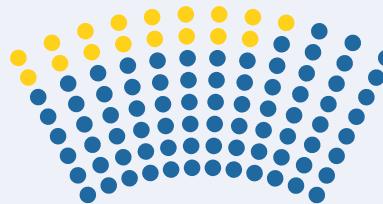
RENEWABLE ENERGY AND ENERGY EFFICIENCY



USE OF NATURAL RESOURCES



TRANSPORT AND MOBILITY

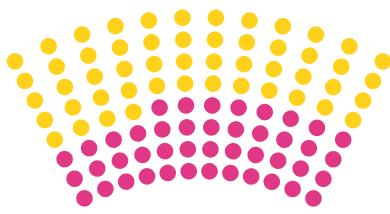


CLIMATE CHANGE PROJECTS

SOCIAL CRITERIA

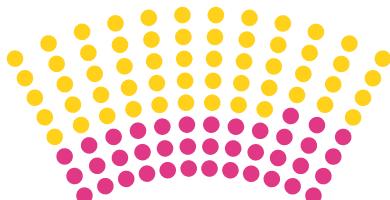
In addition to organising and hosting spectacular events for fans visiting from around the world, motorsport circuits also play an important role in supporting their surrounding communities and ecosystems. Upon review of the 7 broad sustainability categories outlined in this study, the area that showed the highest level of engagement was the social category (see Figure 6). The findings showed that a total of 57 circuits are committed to philanthropic initiatives that benefit their surrounding communities, and 28 are engaged in various community events and partnerships. What is concerning from the results in this category, however, is that only 52 of the 96 circuits reviewed have disclosed information that demonstrates they meet the accessibility criterion.

With several circuits not addressing the accessibility needs of their visitors, it's clear that more work needs to be done by many circuits to either increase their disclosure and/or to take the steps needed to meet this critical requirement.

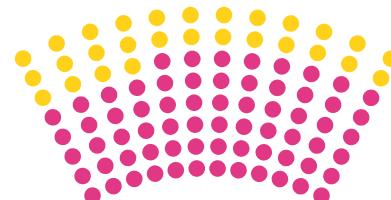


ACCESSIBILITY

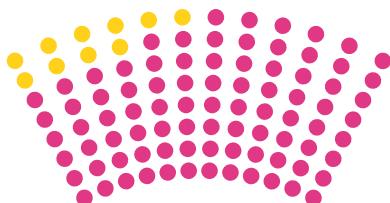
Figure 6: when looking at the social criteria, 57 circuits are engaging in philanthropic activities, and only 52 of the 96 circuits reviewed met the criterion that looks at accessibility.



PHILANTHROPY



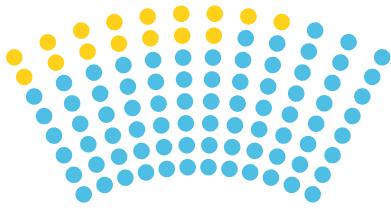
COMMUNITY EVENTS

ACTIONS TO COUNTERACT
FOOD WASTE

ECONOMIC CRITERIA

Local economic development is a vital component for any venue or event that depends on the health and well-being of its surrounding community.

When assessing the economic impact motorsport circuits have on the local economy, a total of 16 circuits have disclosed they are making a positive economic impact on their surrounding communities, with the most significant impact coming from hiring employees locally and driving tourism to the areas surrounding the circuits (see Figure 7).

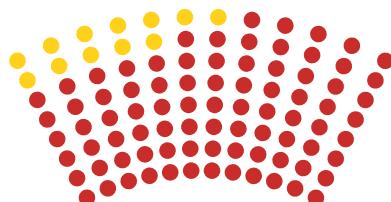


IMPACT ON LOCAL
ECONOMIC DEVELOPMENT

Figure 7: a total of 16 circuits performed well in relation to their impact on local and economic development, compared to 12 circuits last year.

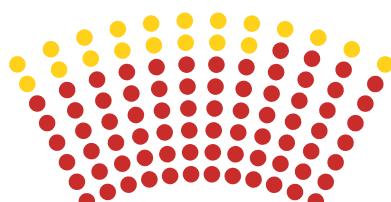
SUSTAINABILITY APPROACH AND ENGAGEMENT

With pressure mounting to address the greatest environmental, social and economic challenges facing the world today, more organisations are coming forward with commitments and pledges that outline their aims to be part of the solution. And while these commitments are certainly a welcome step forward, for words to be turned into actions, there is a growing need for organisations to disclose their sustainability approach in the form of Sustainability Reports and Strategies that meet industry standards and benchmarks. Upon review of the 96 motorsport circuits assessed in this study, only 3 circuits have published a Sustainability Report, and 2 have formalised and disclosed their efforts in the form of a Sustainability Strategy (see Figure 8). Given commitments and pledges are certainly a good starting point for organisations that are beginning their sustainability journey, hopefully more circuits and stakeholders will come forward with reports outlining their accomplishments to date, as well as their strategies that map out the path ahead.

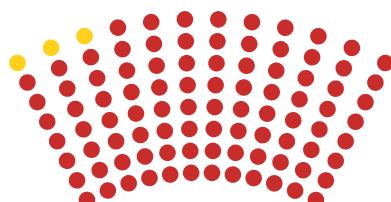


ETHICS CODE AND POLICIES

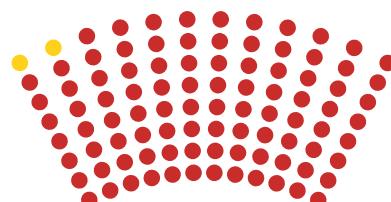
Figure 8: of the 96 circuits reviewed, 3 have disclosed their Sustainability Reports and 2 have formalised and outlined their goals in a Sustainability Strategy.



EVENTS AND INITIATIVES ORGANISED WITH FOCUS ON SUSTAINABILITY



SUSTAINABILITY REPORTING



DISCLOSURE OF SUSTAINABILITY STRATEGY

4. A LOOK AT THE LEADING SUSTAINABLE MOTORSPORT CIRCUITS

Following a review of the sustainability performance of 96 global motorsport circuits, the findings in this year's Sustainable Circuits Index™ study are twofold.

First, it confirmed that the holistic sustainability approaches adopted by the leading circuits continue to pave the way for the industry to follow. Secondly, it brought to light the circuits that have made the greatest strides since the first edition of this study, highlighting the point that with the right set of goals and actions – meaningful gains can most certainly be made and, regardless of where organisations are on their journeys, all stakeholders can indeed improve their sustainability performances going forward.

Key highlights from the 2022 edition of the Sustainable Circuits Index™ showed Circuit de Barcelona-Catalunya, Mugello Circuit and Circuit Paul Ricard leading the race towards sustainability, placing first, second and third in the ranking, respectively.

Of the 96 circuits reviewed in the 2022 edition, 43 demonstrated some level of engagement with sustainability.

In a slight change from last year's results – leading the pack in this year's SCI™, and moving up from 2nd position last year, is **Circuit de Barcelona-Catalunya** (Spain) with an absolute SCI™ of 52/100 (compared to SCI™ 38/100 in 2021). In second position is the **Mugello Circuit** (Italy) with an absolute SCI™ of 50/100 (compared to 48/100 in 2021).

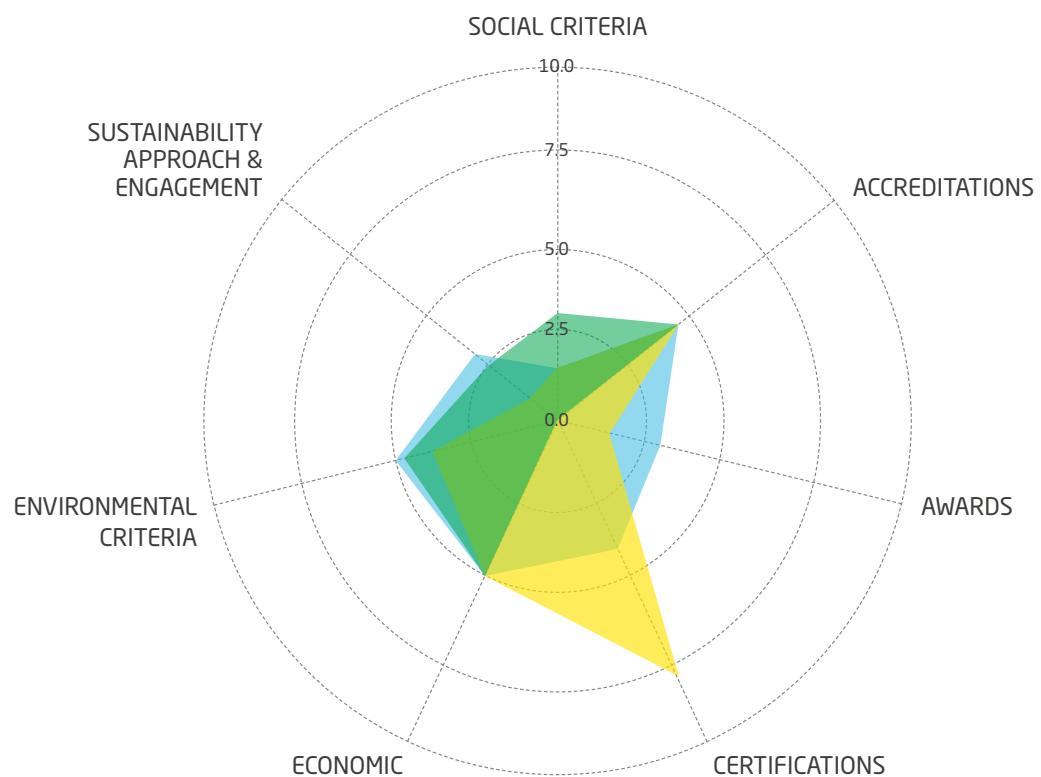
Although Mugello Circuit moved from top position to second in this year's ranking, it's important to note that the circuit achieved a higher SCI™ score this year, showcasing it is indeed committed and improving on its sustainability journey. Rounding off the top 3 for a second-year running is **Circuit Paul Ricard** (France) who achieved an absolute SCI™ of 39 (compared to 33/100 last year).

Similar to a pattern that was seen in the first edition of the SCI™ study, the findings from this year's assessment show that each of the leading circuits performed well in at least 4 of the 7 criteria areas analysed (see Figure 9 for profile of today's leading circuits).

In turn, each of the circuits leading the way forward for the industry are continuing to do so by adopting a holistic approach to sustainability, by disclosing their efforts, and by bringing their stakeholders along on their journeys.

It is only through this kind of collaboration and transparent approach to sustainability that the industry can have the greatest impact.

Figure 9: profiles of today's sustainability leaders' performance in the various dimensions measured across the 25 indicators and expressed in values from 0 to 10.



- Circuit de Barcelona-Catalunya
- Mugello Circuit
- Circuit Paul Ricard

EXAMPLES OF SUSTAINABILITY APPROACHES OF LEADING MOTORSPORT CIRCUITS



CIRCUIT DE BARCELONA-CATALUNYA – SPAIN (BEST PERFORMER)



CHARGING STATION

INSTALLED FOR ELECTRIC VEHICLES

300

TREES PLANTED IN THE UNIVERSIA-SANTANDER WOODS

FOOD WASTE

SOCIAL INITIATIVES, FOCUSED ON THE REDUCTION OF FOOD WASTE

The Circuit de Barcelona-Catalunya demonstrated an impressive performance for the second consecutive year, earning the circuit the top spot in this year's index, up from second place in 2021, and placing it just ahead of the Mugello Circuit.

The performance achieved by Circuit de Barcelona-Catalunya in this year's SCI™ report is demonstrative of the circuit's continued commitment to embracing a holistic approach to sustainability.

The greatest improvements seen by the circuit this past year can be attributed to two key areas of sustainability: certifications and local economic development. In the area of certifications, in 2021 the Circuit de Barcelona-Catalunya added ISO 20121 to its impressive list of certifications, accreditations, and awards, which already included ISO 14001 and a 3-Star FIA Environmental Accreditation, as well as an award from Barcelona Biosphere Commitment to Sustainable Tourism.²

Regarding the circuit's contribution to local economic development, despite a year where ticket sales and event attendee numbers were significantly impacted by the Covid-19 pandemic, in February 2021, Circuit de Barcelona-Catalunya's Managing Director Josep Lluis Santamaria issued a statement reinforcing the organisation's commitment to sustainable and economic development in the surrounding region, stating,

"The management of Circuit de Barcelona-Catalunya, a company dedicated to the organisation of sports events and the rental of its facilities, publicly declares its

firm commitment to sustainability in the global strategy of its activities and in the organisation of competitions, which have worldwide impact, with the aim of providing environmental, social and economic value to its surroundings, as a legacy based on the Statement of Purposes and Values, which are in harmony with the Sustainable Development Goals.”³

According to research firm DEP Institut, in a normal year prior to the pandemic, the Spanish F1 Grand Prix has an enormous impact on the local economy, generating approximately 163 million euros in communities surrounding the circuit.⁴ When it comes to matters concerning the environment, Circuit de Barcelona-Catalunya have been engaging in several initiatives aimed at addressing key areas, including: the installation of Tesla recharging points for electric vehicles; the use of electric supply with 100% renewable origin with Estabanell; the planting of 300 trees in the Universia-Santander woods; and the donation of excess food during race weekends in partnership with the El Xiprer Foundation, to name a few.

Underscoring the circuit’s commitment to sustainability, in 2020 the circuit published a “Statement of Purpose and Values” on their website, reinforcing the organisation’s leadership position in the area of sustainability, not only through achievements made to date, but also through its commitments and goals for the way forward.⁵

²Source: <https://www.circuitcat.com/wp-content/uploads/2021/07/CERTIFICADO-2021-INI-20121-V1-2.pdf>, accessed between August and December 2021.

³Source: https://www.circuitcat.com/wp-content/uploads/2021/04/Sustainability-Policy_2021.pdf, accessed between August and December 2021.

⁴Source: <https://www.laprensalatina.com/economic-impact-of-spanish-grand-prix-dampened-by-pandemic/>, accessed between August and December 2021.

⁵Source: https://www.circuitcat.com/wp-content/uploads/2021/04/Declaracio_PropositsValors_ENG.pdf, accessed between August and December 2021.



MUGELLO CIRCUIT – ITALY (SECOND BEST PERFORMER)



FOOD WASTE

SOCIAL INITIATIVES,
FOCUSED ON THE
REDUCTION OF FOOD WASTE

PIT WALK

INITIATIVE THAT WELCOMES
PEOPLE WITH DISABILITIES

VACCINATION HUB

TO FIGHT THE COVID-19

For the second year running the Mugello Circuit demonstrated an impressive sustainability performance, finishing second overall in this year's ranking versus the top spot in 2021. The circuit, however, continues to be an industry leader in the area of sustainability, improving upon its own SCI™ performance, indicating it has no intention of slowing down on this journey towards a more sustainable future.

Contributing to Mugello Circuit's sustainability achievements are several initiatives that cover each of the sustainability areas assessed in this report. The circuit showed the most progress in the area of certifications this past year, having passed from OHSAS 18001 to the ISO 45001 in 2021, adding to its list of previously earned certifications which already included ISO14001, ISO 20121 and ISO 9001.⁶ The circuit also achieved a 3-Star FIA Accreditation in 2015. When looking at the circuit's efforts to address environmental issues, the venue has several initiatives in place including a food surplus programme dedicated to collecting and donating excess food during the MotoGP Italian Grand Prix to charities within the local community.⁷ Committed to ensuring motorsport is accessible to all, the circuit has also organised an initiative called "Solidarity Pit Walk", which welcomes people with disabilities to visit the pit and to meet with riders and teams during the event weekend.⁸ Additionally, in June of 2021, the circuit set up a vaccination hub on its grounds to help the local community fight the Covid-19 pandemic.⁹

⁶ Source: <https://mugellocircuit.com/en/sistemi-di-gestione/iso-20121>, accessed between August to December 2021.

⁷ Source: <https://www.circuitpaulricard.com/en/pages/sustainable-social-development/>, accessed between August and December 2021.

⁸ Source: <http://www.kissmugello.com/it/>, accessed between August to December 2021.

⁹ Source: <https://www.lanazione.it/firenze/cronaca/hub-vacinale-mugello-1.6448019>, accessed between August and December 2021.



CIRCUIT PAUL RICARD – FRANCE (THIRD BEST PERFORMER)



ECO-RESPONSIBILITY CHARTER

PUBLICATION WHICH OUTLINES 9 OBJECTIVES WHICH THE CIRCUIT IS COMMITTED TO ACHIEVING

RECYCLEAT

A SYSTEM THAT TREATS ORGANIC WASTE TO PRODUCE COMPOST

Circuit Paul Ricard secured its position among the leading sustainable circuits for the second consecutive year, finishing in third place overall in this year's SCI™ ranking. Circuit Paul Ricard's strong SCI™ performance can be attributed to the implementation of several initiatives aimed at addressing each of the sustainability areas assessed in this report. In addition to obtaining a 3-Star FIA Accreditation in 2020, for the past decade the circuit has been indubitably committed to a holistic approach to sustainable development, benefitting the circuit and its surrounding areas. One of the circuit's most notable and innovative sustainability focused initiatives is its organic waste programme. To manage organic waste throughout its grounds in a sustainable manner, the circuit installed Recycleat, a system that collects and processes organic waste to produce compost that is then used on the green spaces surrounding the circuit. Focused on adopting practices that are more sustainable for the environment, Circuit Paul Ricard published its Eco-Responsibility Charter, which outlines nine key objectives that the circuit is committed to achieving, including: responsible communication, responsible choice of services and supplies, sustainable mobility, public tranquillity, responsible catering, reduce energy consumption and optimise waste management, respect for natural resources, citizenship and solidarity, and take a responsible approach.¹⁰ In addition to the many environmental initiatives the circuit has implemented, it is also steadfastly committed to ensuring motorsport plays a role in addressing social issues and making motorsport accessible to everyone. Over the years, Circuit Paul Ricard has formed several partnerships with local charities focused on supporting the needs of the surrounding community.¹¹

¹⁰ Source: <https://www.circuitpaulricard.com/en/pages/sustainable-social-development/>, accessed between August and December 2021.

¹¹ Source: <https://www.circuitpaulricard.com/en/pages/sustainable-social-development/>, accessed between August and December 2021.

MOST IMPROVED CIRCUITS

CIRCUIT DE LA SARTHE - LE MANS (FRANCE)



The *most improved circuit* of the past year goes to Circuit de la Sarthe (Le Mans), achieving fourth place overall in the 2022 SCI™ ranking. In the 2021 SCI™ ranking, this circuit appeared in the bottom tier of the sustainability performance categories. Following the 2022 SCI™ assessment, Circuit de la Sarthe moved up 3 categories to the 2nd highest level (MEDIUM-HIGH category). An impressive year over year result, and a great testament to the circuit's efforts and commitment to sustainability. **The significant improvement in performance can be credited primarily to the increased disclosure of the circuit's sustainability commitments and practices**, which they unveiled as part of their CSR (Corporate Social and Responsibility) Strategy in June 2021.¹²

Included among the circuit's many sustainability driven initiatives is its use of hydrogen-powered generators to power the big screen positioned in the circuit's fan zone, in turn reducing carbon emissions at its events.¹³ Additionally, the circuit has planted 550 trees on its grounds as part of its effort to combat climate change. On the criteria that looks at social impact, the circuit has set out to tackle food waste by partnering with Pain Contre la Faim, a charity that collects and donates leftover bread from events to those in need. Perhaps the circuit's most heartfelt social initiative however is its partnership with Coeur de Pilotes, a charity that organises amazing live experiences for children with serious illnesses.¹⁴ The circuit's ESG focused initiatives have been guided by six key principles, including: giving back, encouraging sustainable mobility, hosting responsible events, making a difference locally, and promoting the use of hydrogen.¹⁵ Overall, through its holistic approach to sustainability, the Circuit de la Sarthe has shown it is unquestionably committed to creating a more sustainable and thriving future for its surrounding community, and for the motorsport sector.

¹² Source: <https://www.lemans.org/en/news/the-aco-unveils-its-csr-strategy/55223>, accessed between August and December 2021.

¹³ Source: <https://www.24h-lemans.com/en/csr/introducing-hydrogen-power>, accessed August to December 2021.

¹⁴ Source: <https://www.24h-lemans.com/en/csr/giving-back>, accessed between August and December 2021.

¹⁵ Source: <https://www.24h-lemans.com/en/news/how-the-aco-is-putting-csr-into-action-during-the-24-hours-of-le-mans-55421>, accessed between August to December 2021.

YAS MARINA (UNITED ARAB EMIRATES)



The second *most improved circuit* from the data collected between August and December 2021 is the Yas Marina Circuit. Following Circuit de la Sarthe's lead by moving from the bottom tier to the second highest sustainability performance category this year, Yas Marina Circuit placed fifth overall in this year's ranking. The circuit's performance over the past year reflects its commitment and continued efforts to drive the sustainability movement forward. The circuit's greatest achievement in 2021 was being awarded a 3-Star FIA Accreditation, the highest level of environmental certification from the international motorsport federation.

To tackle plastic pollution and waste reduction at its premises, the circuit removed all single-use plastic from its events and staff areas and committed to increasing recycling by 20% across its operations. The circuit also announced it would be installing charging stations for electric vehicles and reducing office supplies by 80% by the end of 2021.

One of the circuits most innovative initiatives is the installation of a water recycling system, called Eshara, which uses atmospheric water generators that are capable of producing drinking water, quite literally, out of thin air. Circuit Yas Marina's efforts over the past year have certainly earned its position among the leading sustainable motorsport circuits who are setting the pace for the industry.

NOTABLE PERFORMANCES AND MENTIONS

MISANO WORLD CIRCUIT MARCO SIMONCELLI (ITALY)



Sharing fifth position in this year's SCI™ ranking with Circuit Yas Marina is Misano World Circuit Marco Simoncelli. The circuit's most notable achievement this past year was earning an FIA 2-Star Accreditation in September 2021 in recognition of its sustainable environmental practices¹⁶.

INDIANAPOLIS MOTOR SPEEDWAY (UNITED STATES)



Indianapolis Motor Speedway was the highest-ranking circuit from the Americas, finishing seventh overall in the index. Contributing to the circuit's commendable performance over the past year, in 2021 the Indianapolis 500, the largest single-day sporting event in the world, was recognised by the Council for Responsible Sport as a Certified Responsible Event for its sustainability efforts. The certification marks a milestone for the industry, as it's the first time a motorsport event has been given this distinction. In response to the recognition received, Indianapolis Motor Speedway President J. Douglas Boles stated, "As the world's largest single-day sporting event, we know we have an opportunity to be a leader in encouraging other major events to strive toward sustainability and positive impact."

The circuit has introduced several initiatives focused on improving its operations, including the organisation of a 'Bike to the 500' initiative, giving spectators a carbon-free travel option to attend the event. With an eye on how to further improve its sustainability performance in the future, the circuit collaborated with Waste Management Sustainability Services on a greenhouse gas emissions (GHG) inventory, with the goal of establishing a baseline for future improvements around activities such as energy usage and team and spectator travel.¹⁷

¹⁶ Source: <https://www.motorinolimits.com/2021/09/17/al-misano-world-circuit-laccredimento-ambientale-fia-due-stelle/>, accessed between August to December 2021.

¹⁷ Source: <https://www.indianapolismotorspeedway.com/news-multimedia/news/2021/08/17/indianapolis-500-gains-distinction-with-responsible-sport-certification>, accessed between August and December 2021.

MICHIGAN INTERNATIONAL SPEEDWAY (UNITED STATES)



The second highest rating North American circuit in the 2022 SCI™ is Michigan International Speedway. Among its list of accomplishments, the circuit has recycled 273,834 pounds of plastic and other materials since 2008. **Also contributing to its environmental efforts, the circuit has paved 10 miles of road using recycled asphalt.** For its efforts to support social initiatives, in 2021, the circuit continued to engage with its local community through the annual MIS Cares Charity Track & Toy Drive, an initiative that collects and donates toys and food to local charities.¹⁷

CIRCUIT GILLES-VILLENEUVE (CANADA)



Circuit Gilles-Villeneuve, named after the world-renowned Formula One driver, demonstrated its commitment to sustainability through several notable initiatives that addressed social, environmental, and economic development. In addition to being home to the Formula One Grand Prix du Canada, the circuit is located in Parc Jean-Drapeau, a year-round natural space enjoyed by the local community. **Built on a foundation of promoting a sustainable and responsible outdoor space, together the Circuit Gilles-Villeneuve and Parc Jean-Drapeau invite visitors to respect the outdoors with a set of principles called "Leave No Trace Canada".**¹⁷ In addition to its commitment to preserving its surrounding environment, the circuit's greatest accomplishment this past year was seen in its various contributions to the local community through its efforts to provide year-round employment opportunities, donations to local charities, and through its support of community focused projects developed in collaboration with local universities.¹⁸

¹⁷ Source: <https://www.mispeedway.com/2021/12/01/mis-cares-charity-track-toy-drive-returns-for-13th-year/>, accessed between August and December 2021.

¹⁸ Source: <https://www.parcjeandrapeau.com/en/sustainable-development/sustainable-and-responsible-outdoors/>, accessed between August and December 2021.

¹⁹ Source: <https://www.gpcanada.ca/en/what-we-do/>, accessed between August and December 2021.

SONOMA RACEWAY (UNITED STATES)



Rounding out the top ten leading circuits in the 2022 SCI™ is Sonoma Raceway. Central to the circuit's approach to sustainability is its commitment to supporting social initiatives through its work with the Sonoma Chapter of Speedway Children's Charities. Since its creation, the charity has raised more than \$6.8 million (US) in support of Sonoma County youth groups. In 2021, the circuit continued this important work to raise and distribute funds to local charities in need.²⁰

It is important to emphasise the SCI™ was not designed or intended to compare the sustainability performances of one circuit to another, but to improve upon and accelerate the performance of each individual circuit as each entity continues on its own journey towards improving, adopting, and implementing more sustainable practices going forward.

It is also worth reiterating that the data collection for this ranking and paper took place between August and December 2021, with any credentials published or communicated about after this time not considered until the next iteration.

²⁰ Source: speedwaycharities.org/sonoma/, accessed between August and December 2021.

5. CONCLUSION: SETTING THE PACE FOR THE WAY FORWARD

At the time of publishing this paper, the world is currently off pace to achieve the 2030 targets set out by the UN Sustainable Development Goals²¹. During this ‘decade of action’, clear and urgent steps are needed to get the world on track towards achieving these goals.

As the findings in this report have shown, there are clear signs of progress being made among the global motorsport circuits reviewed. Most encouraging is the upward trend in sustainability performances seen by many circuits, illustrating an industry-wide shift towards an increase in disclosure and adoption of sustainable practices across the board. And while most circuits reviewed are engaging with sustainability on some level, with 49 circuits appearing in the bottom, there are still too many players that have not yet shown signs of engaging in a meaningful way, or with the sense of urgency that is needed today.

For the second consecutive year, the top three leading circuits – Circuit de Barcelona-Catalunya, Mugello Circuit and Circuit Paul Ricard – are continuing to set the pace for the industry to follow. By adopting a holistic approach to sustainability, engaging with their key stakeholders and disclosing their activities, each of the leading circuits are committed to ensuring sustainability is a year-round priority that extends well beyond key events and race weekends.

²¹ Source: <https://www.wri.org/insights/climate-action-progress-indicators-2030-2050-targets>, accessed between August and December 2021.

Showing an impressive performance and improvement, Circuit de la Sarthe and Circuit Yas Marina have shown that every stakeholder is on their own journey towards sustainability, and what matters most is commitment to engaging and improving along the way. **This paper aims to emphasise that there is no single winning approach to sustainability.** Rather, it is the combined efforts of the entire motorsport ecosystem working together, sharing best practice, and raising the standards that will position the industry on the right track. Only then will this timely race towards a sustainable future be won.

Following this comprehensive review of 96 motorsport circuits, the author of this study would like to highlight that every effort, improvement, and advancement made across the industry deserves to be acknowledged. Just as motorsport, and more broadly the automotive industry, made countless advancements that contributed to the rise of the first industrial revolution over 100 years ago, no doubt it can once again play a pivotal role in accelerating the sustainable revolution that is currently underway today.

Only this time, it is one that is being driven by sustainability, a sense of urgency, and the knowledge that - in this race towards a sustainable future - there is only one way forward, and failure is simply not an option.

ABOUT SUSTAINABLE MOTORSPORT INDEX™

Following the motto of 'if you cannot measure it, you cannot improve it', the Sustainable Motorsport Index™ (SMI™) assesses and measures motorsport stakeholders' sustainability performance against the UN SDGs and the ESG framework.

An industry first, the SMI™ is the only global performance system of its kind, benchmarking and comparing stakeholders of different categories (circuits, championships) based on publicly disclosed data. Through this approach, the level of sustainability data disclosure on the part of the organisations becomes a factor in and of itself. The findings within the reports identify and highlight industry best practice, showcasing to all stakeholders how they can adopt and improve their own sustainability performances, in turn elevating performances across the motorsport sector. The SMI™ uses carefully calibrated indicators and third-party validation by industry experts to provide a comprehensive and balanced comparison across five broad areas: environment, social, governance, sustainability approach and engagement, accreditations and awards. The Sustainable Circuits Index™ (SCI™) and Sustainable Championships Index™ (SChI™) are part of the SMI™ family of indexes developed by Enovation Consulting Ltd.

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Enovation Consulting Ltd is a leading purpose-driven sustainability and strategic management agency driving the sustainability movement forward in the motorsport and sport industries. Founded in 2018 by motorsport engineer and sustainability expert Dr. Cristiana Pace, Enovation Consulting works with sport and motorsport stakeholders to provide a sustainable, strategic long-term approach to building value for companies, people and planet. Creativity, innovation, research and data-based solutions are the driving forces behind Enovation Consulting's approach to working with clients, with the aim to empower organisations with the knowledge they need to integrate sustainability into their short, medium and long-term business strategies. Enovation Consulting Ltd runs two not-for-profit initiatives, the Sustainable Motorsport Index™, which measures the global sustainability performance of motorsport stakeholders, and Thursday for the Future, an initiative that gives the next generation access to the industry.

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Right Hub Srl, founded in 2014, is a leading Italian consulting firm with distinctive expertise and experience in sustainable event management systems and has an outstanding track record of facilitating motorsport stakeholders to understand and embrace the ISO 20121 standard. Furthermore, the firm designs and develops ad-hoc initiatives focused on improving the environment and social impact connected to the world of events. Right Hub Srl fully supports all the key motorsport events' stakeholders at the international level: promoters, organisers, circuits, teams, sponsors and partners, suppliers of goods and services. Right Hub also has a wealth of experience in delivering consultancy services related to sustainable supply chains, social procurement and supplier diversity.

For further information: www.righthub.it/en

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His latest book, published in January 2021, is titled "Corporate Sustainability in Practice". Paolo is regularly invited to give keynote talks at world-class academic, governmental and industry events. His projects, quotes and opinions have been featured over 250 times in media outlets like The Financial Times, Forbes, Sole 24 Ore, Sky News, Mediaset and CNN. In 2021, Paolo was named by Italy's leading business daily Sole 24 as the most influential Italian under the age of 40.

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Appendix 1 : list of all surveyed circuits in alphabetical order and country

CIRCUIT NAME	COUNTRY
Atlanta Motor Speedway	U.S.A.
Auto Club Speedway	U.S.A.
Autodrom Most	Czech Republic
Autòdromo El Villicum San Juan	Argentina
Autodromo Hermanos Rodriguez	Mexico
Autódromo Internacional Algarve	Portugal
Autodromo Internazionale Enzo e Dino Ferrari	Italy
Autodromo Jose Carlos Pace (Interlagos)	Brazil
Autodromo Nazionale di Monza	Italy
Autódromo Termas de Río Hondo	Argentina
Autodromo Vallelunga Piero Taruffi	Italy
Automotodrom Brno	Czech Republic
Bahrain International Circuit	Bahrain
Barbagallo Raceway	Australia
Barber Motorsports Park	U.S.A.
Bend Motorsports Park	Australia
Brands Hatch Circuit	United Kingdom
Bristol Motor Speedway	U.S.A.
Chang International Circuit	Thailand
Charlotte Motor Speedway	U.S.A.
Chicagoland Speedway	U.S.A.
Circuit de Barcelona - Catalunya	Spain
Circuit de La Sarthe (Le Mans)	France
Circuit de Nevers Magny-Cours	France
Circuit de Spa-Francorchamps	Belgium
Circuit Gilles-Villeneuve	Canada
Circuit Of The Americas	U.S.A.
Circuit Ricardo Tormo	Spain
Circuit Zandvoort	Netherlands
Circuit Zolder	Belgium
Circuito de Jerez Ángel Nieto	Spain
Darlington Raceway	U.S.A.

CIRCUIT NAME	COUNTRY
Daytona International Speedway	U.S.A.
Donington Park	United Kingdom
Dover International Speedway	U.S.A.
Fuji International Speedway	Japan
Hidden Valley Racetrack	Australia
Hockenheimring	Germany
Homestead-Miami Speedway	U.S.A.
Hungaroring	Hungary
Igora Drive	Russia
Indianapolis Motor Speedway	U.S.A.
Intercity Istanbul Park	Turkey
Kansas Speedway	U.S.A.
Kentucky Speedway	U.S.A.
KymiRing	Finland
Las Vegas Motor Speedway	U.S.A.
Lausitzring	Germany
Losail International Circuit	Qatar
Martinsville Speedway	U.S.A.
Michigan International Speedway	U.S.A.
Mid Ohio	U.S.A.
Miller Motorsports Park (Utah Motorsports Campus)	U.S.A.
Misano World Circuit Marco Simoncelli	Italy
Morgan Park Raceway	Australia
MotorLand Aragón	Spain
Motorsport Arena Oschersleben	Germany
Mount Panorama Bathurst	Australia
Mugello Circuit	Italy
New Hampshire Motor Speedway	U.S.A.
Ningbo International Speedway	China
Nuerburgring	Germany
Paul Ricard	France
Phakisa Freeway	South Africa

CIRCUIT NAME	COUNTRY
Phillip Island Circuit	Australia
Phoenix International Raceway (ISM Raceway)	U.S.A.
Pocono Raceway	U.S.A.
Portland International Raceway	U.S.A.
Queensland Raceway	Australia
Raceway Venray (Circuit de Peel)	Netherlands
Red Bull Ring (Österreichring)	Austria
Richmond International Raceway	U.S.A.
Road America	U.S.A.
Sachsenring	Germany
Sandown International Raceway	Australia
Sebring Raceway	U.S.A.
Sepang International Circuit	Malaysia
Shanghai International Circuit	China
Silverstone	United Kingdom
Slovakiaring	Slovakia
Snetterton	United Kingdom
Sonoma Raceway	U.S.A.
Suzuka Circuit	Japan
Sydney Motorsport Park	Australia
Symmons Plains International Raceway	Australia
Talladega Superspeedway	U.S.A.
Texas Motor Speedway	U.S.A.
TT Circuit Assen	Netherlands
Twin Ring Motegi	Japan
Virginia International Raceway	U.S.A.
Wakefield Park Raceway	Australia
Watkins Glen	U.S.A.
WeatherTech Raceway Laguna Seca	U.S.A.
Winton Motor Raceway	Australia
World Wide Technology Raceway	U.S.A.
Yas Marina	U.A.E.

Appendix 2: SCI Index (performance data normalized over the score of the leader)

CIRCUIT NAME	CATEGORY OF PERFORMANCE
Circuit de Barcelona - Catalunya	Corresponds to a LOW SCI SCORE
Mugello Circuit	Corresponds to a MEDIUM-LOW SCI SCORE
Paul Ricard	Corresponds to a MEDIUM SCI SCORE
Circuit de La Sarthe (Le Mans)	Corresponds to a MEDIUM-HIGH SCI SCORE
Misano World Circuit Marco Simoncelli	Corresponds to a HIGH SCI SCORE
Yas Marina	Corresponds to a HIGH SCI SCORE
Indianapolis Motor Speedway	Corresponds to a HIGH SCI SCORE
Circuit Gilles-Villeneuve	Corresponds to a HIGH SCI SCORE
Michigan International Speedway	Corresponds to a HIGH SCI SCORE
Sonoma Raceway	Corresponds to a HIGH SCI SCORE
Circuit Of The Americas	Corresponds to a HIGH SCI SCORE
Pocono Raceway	Corresponds to a HIGH SCI SCORE
Darlington Raceway	Corresponds to a HIGH SCI SCORE
Phoenix International Raceway (ISM Raceway)	Corresponds to a HIGH SCI SCORE
Circuit Ricardo Tormo	Corresponds to a HIGH SCI SCORE
Road America	Corresponds to a HIGH SCI SCORE
Homestead-Miami Speedway	Corresponds to a HIGH SCI SCORE
Portland International Raceway	Corresponds to a HIGH SCI SCORE
WeatherTech Raceway Laguna Seca	Corresponds to a HIGH SCI SCORE
Autodromo Internazionale Enzo e Dino Ferrari (Imola)	Corresponds to a HIGH SCI SCORE
Silverstone	Corresponds to a HIGH SCI SCORE
Las Vegas Motor Speedway	Corresponds to a HIGH SCI SCORE
Autodromo Nazionale di Monza	Corresponds to a HIGH SCI SCORE
KymiRing	Corresponds to a HIGH SCI SCORE
MotorLand Aragón	Corresponds to a HIGH SCI SCORE
Circuit Zolder	Corresponds to a HIGH SCI SCORE
Dover International Speedway	Corresponds to a HIGH SCI SCORE
Barber Motorsports Park	Corresponds to a HIGH SCI SCORE
Brands Hatch Circuit	Corresponds to a HIGH SCI SCORE
Circuit Zandvoort	Corresponds to a HIGH SCI SCORE
Hungaroring	Corresponds to a HIGH SCI SCORE
Auto Club Speedway	Corresponds to a HIGH SCI SCORE

CIRCUIT NAME	CATEGORY OF PERFORMANCE
Autodromo Vallelunga Piero Taruffi	
Charlotte Motor Speedway	
Sydney Motorsport Park	
Watkins Glen	
Circuit de Nevers Magny-Cours	
Daytona International Speedway	
Kansas Speedway	
Martinsville Speedway	
Richmond International Raceway	
Snetterton	
Donington Park	
Losail International Circuit	
New Hampshire Motor Speedway	
Sepang International Circuit	
Talladega Superspeedway	
Lausitzring	
Mount Panorama Bathurst	
Texas Motor Speedway	
TT Circuit Assen	
World Wide Technology Raceway	
Atlanta Motor Speedway	
Autódromo Internacional Algarve	
Bristol Motor Speedway	
Hidden Valley Racetrack	
Hockenheimring	
Kentucky Speedway	
Miller Motorsports Park (Utah Motorsports Campus)	
Nuerburgring	
Phakisa Freeway	
Phillip Island Circuit	
Red Bull Ring (Österreichring)	
Sebring Raceway	

CIRCUIT NAME	CATEGORY OF PERFORMANCE
Twin Ring Motegi	
Virginia International Raceway	
Chang International Circuit	
Chicagoland Speedway	
Mid Ohio	
Raceway Venray (Circuit de Peel)	
Symmons Plains International Raceway	
Autodrom Most	
Autodromo Jose Carlos Pace (Interlagos)	
Automotodrom Brno	
Bend Motorsports Park	
Circuit de Spa-Francorchamps	
Fuji International Speedway	
Intercity Istanbul Park	
Morgan Park Raceway	
Motorsport Arena Oschersleben	
Queensland Raceway	
Sandown International Raceway	
Suzuka Circuit	
Wakefield Park Raceway	
Autòdromo "El Villicum"	
Autodromo Hermanos Rodriguez	
Autódromo Termas de Río Hondo	
Bahrain International Circuit	
Barbagallo Raceway	
Circuito de Jerez Ángel Nieto	
Igora Drive	
Ningbo International Speedway	
Sachsenring	
Shanghai International Circuit	
Slovakiaring	
Winton Motor Raceway	

Appendix 3: geographic distribution of circuits



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