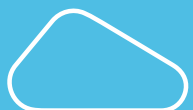
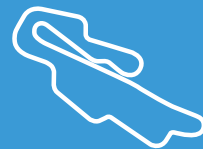




RACING TOWARDS A SUSTAINABLE FUTURE

A REVIEW OF THE SUSTAINABILITY PERFORMANCE OF INTERNATIONAL RACING CIRCUITS

Edition June 2021



FOREWORD

I have been involved with the safety and sustainability of racing tracks for many years now, as a driver, GPDA Chairman and a circuit designer. And while I would argue that big improvements have been made in terms of safety, I also know that there is a long way to go in terms of fully embracing sustainability for racing tracks around the globe. Though circuits have started to change the way in which they approach sustainability, more guidance on what sustainability means and how a circuit can be sustainable are needed. This is why I welcome this new research and the data-driven proposal of the *Sustainable Circuits Index™*, highlighting indicators from the wider sustainability and sport ecosystem, encouraging best practice and calling attention to the importance of transparent reporting and independent validation.

Motorsport has historically been defined by its commitment to innovation and excellence through competition. It's now critically important for our sport to demonstrate its commitment to sustainability through collaboration. This paper highlights the new metrics for success in this global effort and provides circuits with the tools they need to help win the race for our planet, a race which we can only win together.

Alexander Wurz

Former F1 Driver, GPDA Chairman, and Consultant on Road Safety and Circuit Design

Sustainability is one of the key issues of today's society as confirmed by the increasing attention of governments, media, academics, and industry. In the context of sustainable development, business that is often referred to as part of the problem can be part of the solution.

The topic of sustainability is relatively new in the motorsport industry, but attention from different stakeholders is growing quickly. This research is therefore well timed.

Findings of this report make an important contribution as they shed light and provide new knowledge on the current sustainability performance of leading circuits in the world.

The *Sustainable Circuits Index™* will allow those involved in this world to benchmark each other, to identify best practices and ultimately to monitor the sustainable development of this segment of the industry. Eventually, this original index has the potential to influence both practice and policy.

My congratulations to the authors of this original report.

Professor Paolo Taticchi, OMRI

UCL School of Management

EXECUTIVE SUMMARY

The motorsport industry has long been revered for its leading technological advancements, operational management and strategic thinking, pushing boundaries and influencing innovation across other sectors. Just as racing teams battle against one another in search for every competitive advantage, now more than ever motorsport circuits must apply the same competitive approach that is so intrinsic to the sport itself, to the greatest race of all – the race towards a sustainable future.

As is the case in other industries, there is a growing need for the motorsport industry to address the great environmental challenges facing society today, pushing the sustainability debate to the forefront. What has also become evident across various industries is the reckoning, on the part of many stakeholders, that there is a clear link between sustainable business practices and financial performance, forcing many industry stakeholders to take note and incorporate sustainability strategies into their core business plans.

While several sports have already identified and adopted strategies to address the environmental impact venues and stadiums have on their surrounding communities, the motorsport sector as a whole has yet to effectively tackle these issues as part of the industry's wider ambition to move towards sustainable motor racing.

In this context, Enovation Consulting Ltd. and Right Hub Srl have composed this report introducing a new index, namely the Sustainable Circuits Index™ (SCI), part of the Sustainable Motorsport Index™ (SMI) family, which reviews the disclosures made by motorsport circuits in relation to their sustainability commitments and practices. With this comprehensive review, the SCI offers an important contribution that aims to accelerate the sustainability movement across the motorsport industry.

Overall, the findings in the report highlight the current global situation – shining the light on what leading circuits are doing well, as well as identifying opportunities and areas for improvement across the industry as a whole. The results show that, out of the 96 circuits analysed, 64 fall in the bottom tier, indicating a substantial gap between the leaders and the laggards (at least in terms of disclosure practice). Only 1 circuit falls in the top category, 2 in the next tier, 4 in the intermediary group and 25 in the second-to-last group.

The topic of sustainability is still relatively new in the motorsports industry and this explains the findings of this study. Only recently have key stakeholders started addressing it in a meaningful way, thanks in large part to the influence and importance placed on sustainability practices by the Fédération Internationale de l'Automobile (FIA) and the Fédération Internationale de Motocyclisme (FIM).

The research highlights the importance of pushing circuits to disclose more about their sustainability strategies and practices, as well as the need for all stakeholders to engage in the process of defining best practices and setting relevant standards. **Contributing to this effort, the authors of this study plan to publish the SCI index annually, providing industry stakeholders with feedback and updates on progress.**

THE TOP 3

Mugello



Barcelona



Paul Ricard



21

Criteria used to assess the sustainability performance of circuits and built the Sustainable Circuits Index.

ESG

The **framework** used to create the **Sustainable Circuits Index**.

96

International circuits around the world included in the **Sustainable Circuits Index**.

31

Of these have **demonstrated and disclosed some sustainability credentials**.

7

Of them have **plans** that demonstrate a medium to **high sustainability performance**.

3

Of the 7 are showing a **good stage of implementation**.

1. BACKGROUND

Motorsport, and sports in general, have recently been recognized by the United Nations (UN) as being a significant means to convey key messages and raise public awareness on important topics such as the Sustainable Development Goals (SDGs) and climate action.

The motorsport industry alone is a truly global entity that generates a turnover of \$100 billion per year, representing approximately 0.23% of the global GDP per year. Motorsports' following is equally massive.

Despite the growing number of sports available to viewers, motorsports' global viewership numbers are immense, second only to the FIFA World Cup, and continue to grow. The 2019 figures of F1 show a TV audience above 1.9 billion, representing a 9% increase compared to the 2018 season. On average, over 200,000 spectators attended the 21 scheduled Grand Prix events in 2019 for a total of more than 4 million spectators.

The 2019 season also posted record numbers in MotoGP viewership, with over 3 million spectators. Excluding kart venues, the current global number of permanent paved circuits is estimated at approximately 600 circuits.

This number continues to increase with news of new permanent venues being planned for opening as early as 2022. The potential for the motorsport industry as a whole to leverage this immense platform to promote the sustainability agenda is great. And yet, while traditional sports stadiums and arenas have integrated sustainability practices into their daily operations, in the form of water and waste management systems or reduction of greenhouse gas (GHG) emissions, motorsport venues have largely fallen behind.



2019

FIGURES OF F1 SHOW
A TV AUDIENCE ABOVE

1.9 BILLION

2019

RECORD NUMBERS IN MOTOGP
VIEWERSHIP, WITH OVER

3 MILLION
SPECTATORS

2. PRESSURE FOR SUSTAINABILITY IN BUSINESS

In the last decade, several events have pushed the agenda for sustainable development, putting pressure and creating opportunities for businesses to play an active role. In 2015, a global partnership was signed by all UN member states to establish the SDGs, which outline a set of goals to be achieved by the year 2030. Another important event for sport stakeholders, including motorsport, was the signature of the UN Sports for Climate Action Framework. The framework invites sports organizations and stakeholders to come together in the fight against climate change by providing support and setting objectives.

The private sector has also seen some significant changes over the last decade, with more organizations moving away from sustainability approaches based on **Corporate Social Responsibility (CSR)** and the idea of 'giving back', in favour of strategic approaches aimed at integrating corporate sustainability into competitive strategies with the ultimate goal of developing a competitive advantage and creating value for a plurality of stakeholders, not only shareholders.

This shift in sustainability approaches signifies a new era, setting the foundation for a different and better type of capitalism.

Recently, the Business Roundtable, an association of the 180 CEOs of the world's leading companies, took the business community by surprise with their Statement on the Purpose of Corporations, which emphasised the clear role SDGs play in business, and the importance of balancing profit with impact. This message has also been echoed on several occasions by BlackRock's CEO Larry Fink, who wrote an open letter to global CEOs arguing that climate change "has become a defining factor in companies' long-term prospects" and that financial performance is linked to Environmental, Social and Governance (ESG) performance.

Managing sustainability in business today
means organizations **need to take a
proactive approach** to managing risks
and exploring opportunities associated
with the Triple Bottom Line (TBL) of
business.

First introduced in the 1990's, the TBL is a concept that considers businesses economic, environmental and social performance and impact, in turn creating a measurable link between profit, planet and people. This approach has the potential of giving a competitive advantage, motivating businesses to organize and improve their reputation. It is clear that mounting pressure coming from different stakeholder groups is putting sustainability in the agenda of organizations and leaders across all industries. The motorsports industry is not exempt from these pressures and calls for change, and therefore must respond and take action in a meaningful way.

3. THE MOBILIZATION OF KEY MOTORSPORTS STAKEHOLDERS

In addition to the two most visible stakeholders in the motorsport industry, the FIM and the FIA, a third key stakeholder worth identifying for their role in the sport is the International Olympic Committee (IOC), which recognizes both the FIM and FIA as sole competent authorities for motorcycle and racing cars respectively.

Recognizing the importance of embracing sustainability-driven transformation to strengthen the reputation and quality of motorsports, the FIM and the FIA have published sustainability strategies for their organizations. By inviting teams, venues, promoters and championships to embrace sustainability, the federations have underscored the vital role all stakeholders need to play in order to realise the long-term vision for sustainability within the sport. The strategies put forth by both federations also highlight the tremendous potential motorsport offers in providing a platform to educate society on climate change and related challenges, as well as to advocate for change and inspire action.

The FIM has a longstanding history of adopting sustainability and environmental practices, having promoted sustainability since the 1990's. **In 1992, the federation established a working group committed to developing environmental policies. In the same year, the FIM launched "Ride Green", a programme dedicated to raising awareness of environmental issues throughout the motorsport industry.** In 1994, the first Environmental Code was published to establish a worldwide culture of sustainability in motorcycle sport. Over time, the Code has been brought in line with the UNSDGs focusing on sustainable development, and goes beyond environmental factors to include gender equality, circular economy and society.

The FIA has also been, and continues to be, actively involved with environmental sustainability issues for many years. The federation's sustainability strategy aligns with the UNSDGs and places particular emphasis on the goals

The FIM has a longstanding history of adopting sustainability and environmental practices, having promoted sustainability since the 1990's.

linked to the use of clean energy, sustainable cities and communities, responsible consumption and procurement, safeguarding of life on land and water and climate action. The FIA's strategy emphasizes the federation's mission "to reduce motorsport impact on climate change and reinforce motorsport as the catalyst for sustainable development and innovation".

Similar to the FIM and the FIA, the IOC has also made sustainability a priority in recent years with the publication of its strategy, which identifies five key focus areas for sustainability. One area of particular relevance is the one that focuses on infrastructure and the environment, which pertains to the development and operation of indoor and outdoor sites where sports take place. The IOC states that the design, construction, and operation of all sports facilities must bring value to the communities they serve, not only during the events but also during construction and long after events have taken place. This means that from the onset, sports facilities should minimise their environmental impact by saving natural resources and energy, eliminating waste, avoiding harmful substances, and protecting local ecosystems.

Most sports depend on access to natural resources such as clean air, clean water, undeveloped land, and healthy ecosystems. The IOC recognizes the vital need to protect these natural resources, restore ecosystems damaged by human activities, integrate the value of ecosystem services in decision-making, and halt the global loss of biodiversity. Lastly, culturally significant sites provide attractive backdrops and context for sporting activities and therefore should be respected, preserved and safeguarded.

4. STUDY AIMS AND METHODOLOGY

Sustainable circuits share one thing in common: a sound sustainability approach which includes environmental, social and economic initiatives, disclosed in a transparent way. Enovation Consulting Ltd and Right Hub Srl developed this study with the purpose of providing a fair and consistent way to rank the sustainability performance of global racing circuits.

A first of its kind, this study aims to push motorsport circuits to engage more with sustainability practices, in line with the policies and incentives created by the FIA and FIM.

A total of 96 permanent international circuits engaged in hosting major international motorsport championships (FIM, FIA, NASCAR, IMSA and Indy Car) were selected for this study (the profile is presented in Appendices 1 and 2). Information regarding each circuit's sustainability approaches and practices was gathered from their disclosure (e.g. circuits' websites and reports) during the period August-December 2020.

These circuits were assessed by using 21 sustainability performance criteria (see Table 1 for the description) across seven broad areas: certifications, accreditations, awards, environmental performance, social performance, economic impact, and sustainability approach and engagement. The criteria were identified from the Sport Management and Smart Cities Literature¹.

¹ Girardi, Pierpaolo, and Andrea Temporelli. "Smartainability: a methodology for assessing the sustainability of the smart city." *Energy Procedia* 111 (2017): 810-816.

Kellison, Timothy B. "Building sport's green houses." *Sport management and the natural environment: Theory and practice* (2015): 218-237.

McCullough, Brian P., Michael E. Pfahl, and Sheila N. Nguyen. "The green waves of environmental sustainability in sport." *Sport in Society* 19.7 (2016): 1040-1065.

Mora, Luca, Mark Deakin, and Alasdair Reid. "Strategic principles for smart city development: A multiple case study analysis of European best practices." *Technological Forecasting and Social Change* 142 (2019): 70-97.

Smart City Strategy Index, 2019. Roland Berger

Vanderweil, Peter. "Greening stadiums: study of environmentally responsible methods of building and retro-fitting stadiums." PhD diss., Massachusetts Institute of Technology, 2008.

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

CERTIFICATIONS

1. ISO 14001

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

2. OHSAS 18001 or ISO 45001

It sets out the criteria for an occupational health and safety management system that an organization can use to protect employees and visitors from work-related accidents and diseases.

3. ISO 20121

It sets out the criteria for a sustainable event management system that an organization 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 organization 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 PEARL

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 circuits.

AWARDS

7. FIM ENVIRONMENTAL AWARD OR BEST GRAND PRIX MOTOGP

The FIM environmental award recognizes the efforts made by organizers, federations, circuits and teams to develop sustainable initiatives and events that minimise the environmental impact and leave a positive legacy to the local communities. The Best Grand Prix MotoGP award recognizes 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

SOCIAL CRITERIA

13. ACCESSIBILITY

Availability of services dedicated to supporting people with disabilities.

14. PHILANTHROPY

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

15. COMMUNITY EVENTS

Organization 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 have 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 organization 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) 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.

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 index, the 96 circuits were grouped into five categories of sustainability performance (normalizing the performance data over the score of the leader).

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

5. THE SUSTAINABILITY PERFORMANCE OF MOTORSPORT CIRCUITS

THE BIG PICTURE

Sustainability is still a new and emerging topic in the motorsport industry and findings reflect only an early level of adoption on the part of the circuits. At this stage, despite best intentions by the industry to address sustainability, the topic is very often being approached in a non-holistic way, and only by a limited number of circuits (see Figure 1): out of the 96 circuits analysed, 64 fall in the bottom tier, indicating a substantial gap between the leaders and the laggards (at least in terms of disclosure practice). Only 1 circuit falls in the top category, 2 in the next tier, 4 in the intermediary group and 25 in the second-to-last group.

While the results may appear concerning, they are certainly not surprising. Given the topic of sustainability is still relatively new to the motorsports industry, engagement and disclosure about relevant activities by the circuits is limited.

Only recently have key stakeholders started addressing sustainability in a meaningful way, thanks in large part to the influence and importance placed on the topic by the Fédération Internationale de l'Automobile (FIA) and the Fédération Internationale de Motocyclisme (FIM).

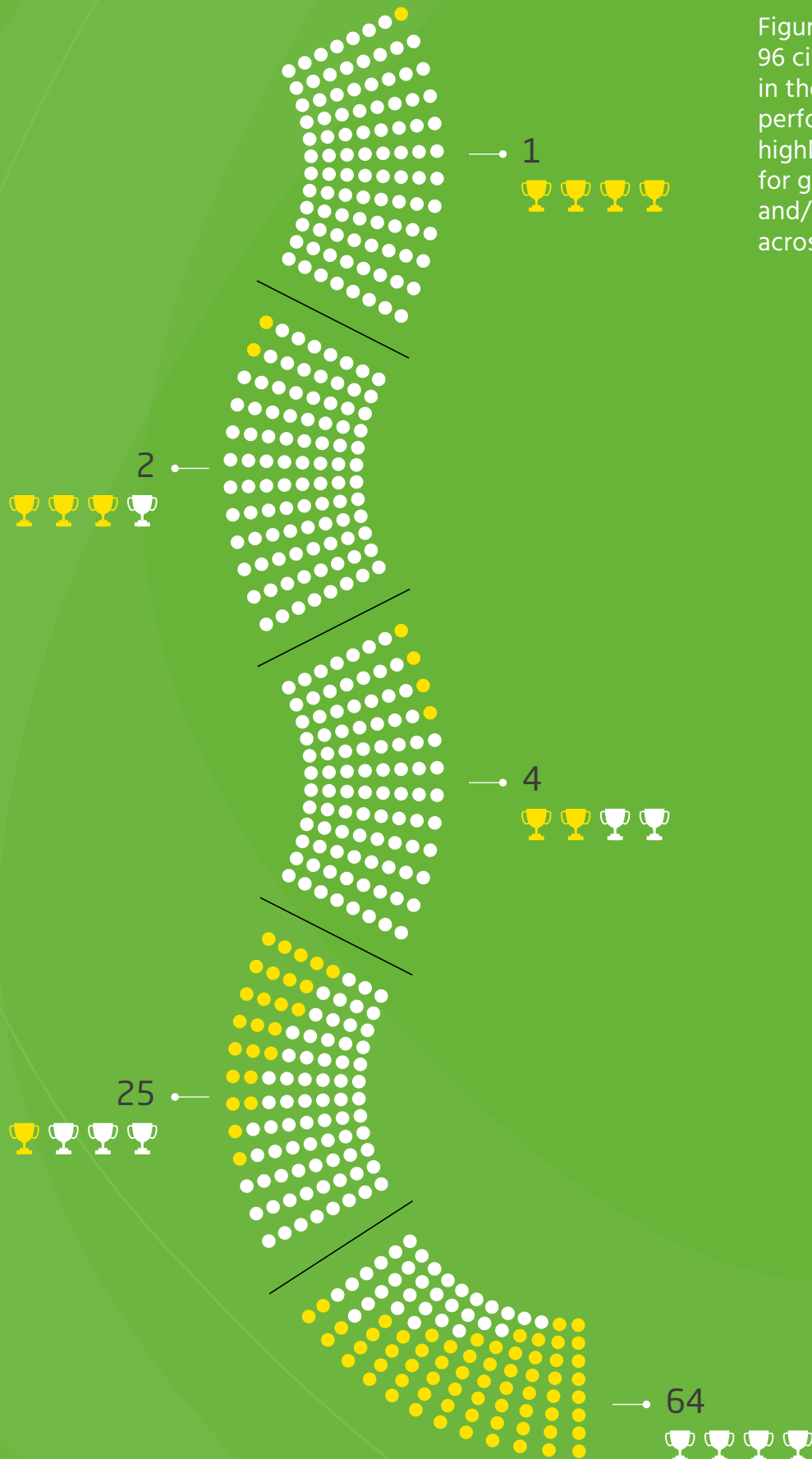
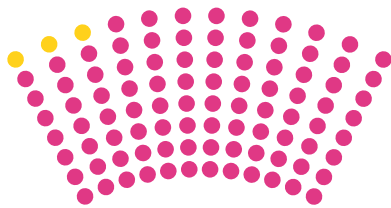


Figure 1: **only 1** of the 96 circuits analysed falls in the top sustainability performance category, highlighting the need for greater disclosure and/or engagement across the industry.

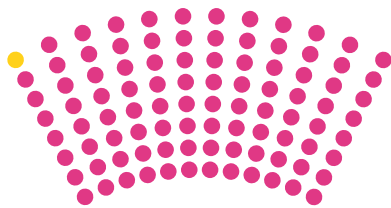
CERTIFICATIONS

When looking at the relevant certifications associated with the 96 circuits reviewed in this report, only a select few earned relevant certifications in recognition of their sustainability and quality control practices (see Figure 2).

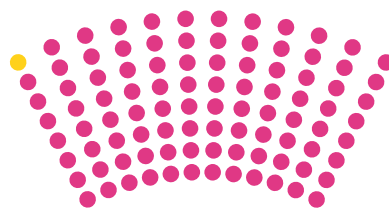


ISO 14001

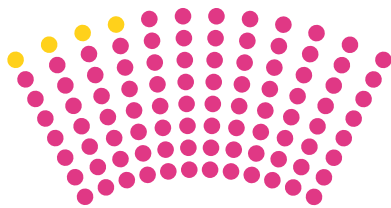
Figure 2: **only a select few** of circuits reviewed earned relevant certifications for their sustainability and quality control practices.



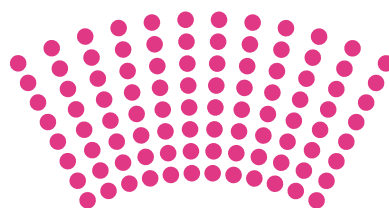
OHAS 18001/ ISO 45001



ISO 20121



ISO 9001



LEED OR/AND BREEAM
OR/AND PEARL

ACCREDITATIONS

Upon review of the disclosures examined in this study, only 3 circuits have an FIA Environmental Accreditation (**see Figure 3**) and also scored the maximum number of stars available in this framework. Interesting enough, these 3 circuits are also identified as the top 3 circuits in relation to the SCl index. Indeed, this is expected to change rapidly as a consequence of FIA making this a requirement for circuits wishing to host world-championship events.

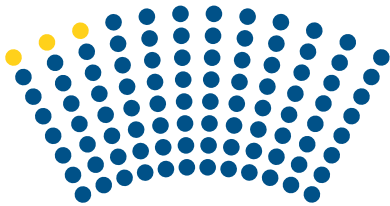


Figure 3: from the 96 circuits reviewed, **3 achieved** an FIA Environmental Accreditation.

AWARDS

Similar to the pattern seen with the FIA Environmental Accreditations, the number of circuits that have received relevant awards for their sustainability efforts are far and few between, with only 6 of the 96 circuits reviewed able to claim this status (**see Figure 4**). From these findings it is clear there is room for industry wide improvement in the area of implementing and advancing sustainability practices.

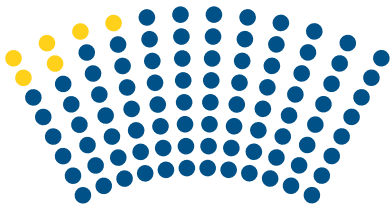
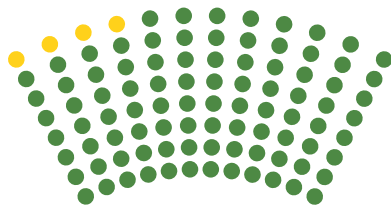


Figure 4: **only 6** of the 96 circuits reviewed earned relevant awards in sustainability.

ENVIRONMENTAL CRITERIA

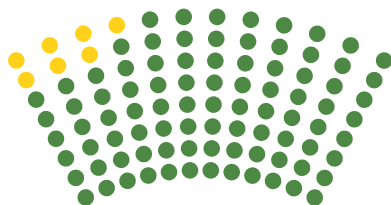
When looking at motorsport through a sustainability lens, or more specifically, through the key environmental criteria outlined in **Figure 5**, the view is a familiar one. Only a select few of the 96 circuits reviewed scored a performance level high enough in relation to the environmental criteria outlined in this study.

Once again, the findings within this report highlight either the increasing need for better disclosure by circuits, or the need for improved implementation of sustainability practices.

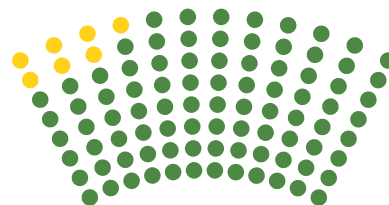


WASTE MANAGEMENT AND
CIRCULAR ECONOMY INITIATIVES

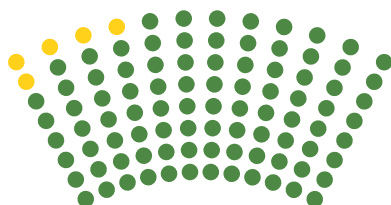
Figure 5: based on the disclosure provided by circuits, **only a select few** are scoring a performance level high enough in relation to the environmental criteria set out in this study.



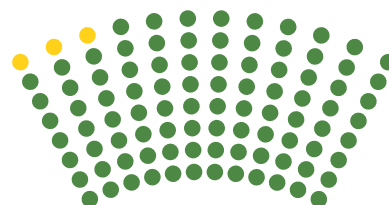
RENEWABLE ENERGY AND
ENERGY EFFICIENCY



USE OF NATURAL
RESOURCES



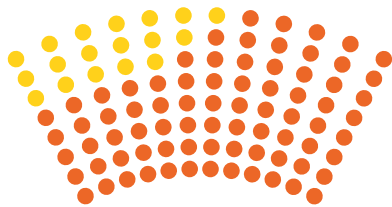
TRANSPORT AND
MOBILITY



CLIMATE CHANGE
PROJECTS

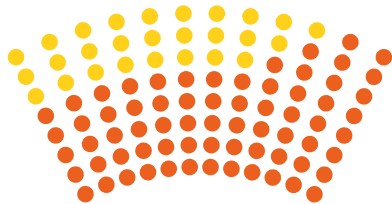
SOCIAL CRITERIA

On the topic of social impact, this study looked at the performance of all 96 circuits reviewed in relation to four key social criteria identified (see Figure 6). The results from this study showed signs of promise in some areas, and signals for improvement in others. When it comes to the social criteria of accessibility and philanthropy, a total of 18 and 27 circuits scored a performance level high enough in relation to these areas respectively (see Figure 6). **While these results reflect well on the industry as a whole, the findings also highlighted that more needs to be done in the areas of community events and actions to counter food waste.**

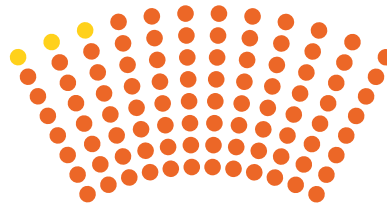


ACCESSIBILITY

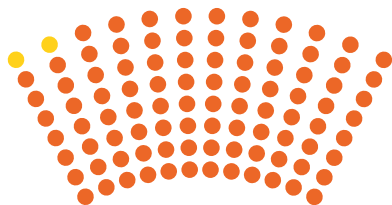
Figure 6: in the context of social criteria, there appears to be **a good number of circuits** engaged in projects addressing accessibility and philanthropy.



PHILANTHROPY



COMMUNITY EVENTS

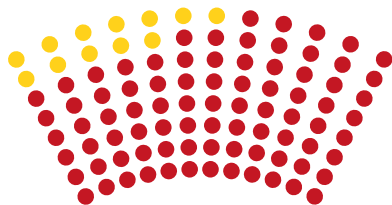


ACTIONS TO COUNTERACT
FOOD WASTE

ECONOMIC CRITERIA

Closely tied to the social aspects impacted by motorsport events, are the residual economic impacts felt by host communities. As is illustrated in **Figure 7**, on the metric that sizes the impact of local economic development, 12 circuits achieved a performance level high enough in relation to their impact on local and economic development.

The success of a motorsport event, like all sporting events, depends largely on the success of the host community. Unlike what transpires on the track, unless the economic impact on a community results in a positive 'win-win' outcome, there are no winners.



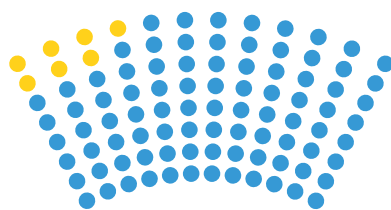
IMPACT ON LOCAL
ECONOMIC DEVELOPMENT

Figure 7: **a total of 12 circuits** performed well in relation to their impact on local and economic development.

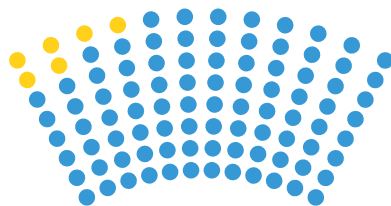
SUSTAINABILITY APPROACH AND ENGAGEMENT

After years of growing concerns about sustainability across many industries, the topic of how to best address sustainability is beginning to gain traction on many boardroom agendas, including within the motorsport industry. And while motorsport industry as a whole remains the same, to work towards a more sustainable future, the approaches and strategies set by different stakeholders to achieve this goal and to engage in sustainability practices may differ.

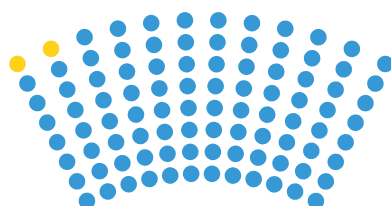
This report looked at four such approaches and strategies (see Figure 8). The findings showed that, for a select few circuits, strides are being made in the areas of events and initiatives aimed at increasing awareness about sustainability issues, and the disclosure of ethics codes and policies. What also stood out in the findings however, was what was missing. It appears all 96 circuits have not provided sufficient disclosure of their sustainability strategies. It's clear from these findings that there is a need for greater understanding about the importance of disclosure and transparency related to sustainability approaches and strategies, across all circuits. Defining a sustainability strategy is key for change.



ETHICS CODE AND POLICIES

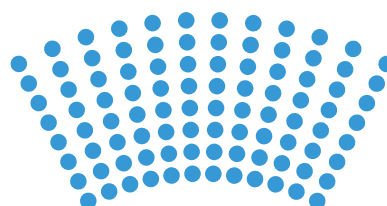


EVENTS AND INITIATIVES ORGANIZED
WITH FOCUS ON SUSTAINABILITY



SUSTAINABILITY
REPORTING

Figure 8: while a few circuits scored a performance level high enough in relation to their ethics & code policies, sustainability focused events and reporting practices, **none of the 96 circuits** reviewed revealed sufficient disclosure around their sustainability strategies.



DISCLOSURE OF
SUSTAINABILITY STRATEGY

6. A LOOK AT TODAY'S SUSTAINABILITY LEADERS

Following this comprehensive review of the 96 motorsport circuits engaged in hosting international motorsport championships, there were a few early adopters that stood out from the rest. The circuit that received the highest absolute score was the Mugello Circuit (Italy) SCI 48/100, followed by Circuit de Barcelona (Spain) SCI 38/100 in second and Paul Ricard (France) in third place with SCI 33/100.

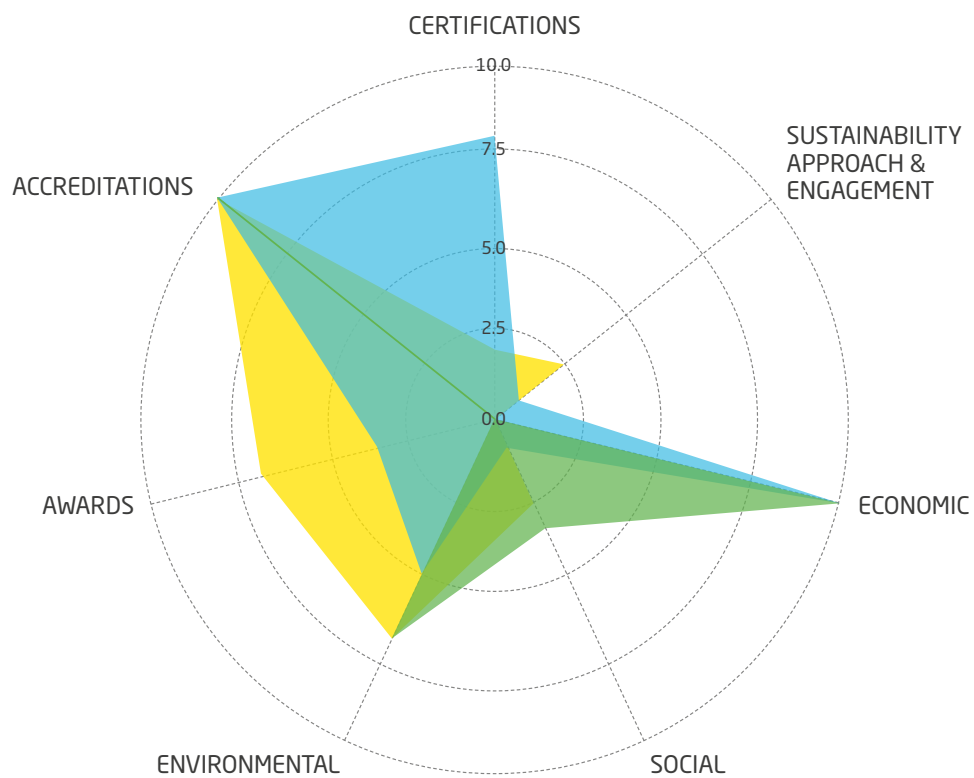
Not surprisingly, all leading circuits are located in Europe, showing the importance of this topic in the region where, similarly to the past, the sustainability topic found a great ground for development as for example in the case of sustainable investments.

In this section, the authors of this study provide examples of what these top tier motorsport venues are doing, in turn offering a benchmark for other circuits that are starting this journey only now. Figure 9 provides the sustainability profile of current leaders.

Finishing in the top spot, the Mugello Circuit performed well across a number of categories outlined in this study. What is particularly interesting from their result however is that, although they achieved the highest overall performance, they did not necessarily score the highest on each category/criteria measured. In fact, of the 7 categories reviewed, the Mugello Circuit scored above the rest in only one area, that of Certifications. **For all the rest, they achieved a score that was either equal to or slightly less than the next two leading circuits, the Circuit de Barcelona and Paul Ricard.**

What all three circuits share in common however, is that they have all demonstrated an understanding of the importance of adopting a holistic approach to sustainability, with each circuit having performed well in at least four or more of the criteria areas analysed in this study. **This result underscores the fact that a holistic approach, combined with good disclosure practices, will in fact deliver the most meaningful and rewarding results.**

Figure 9: the profile of today's sustainability leaders' performance in the various dimensions expressed from 0 to 10.

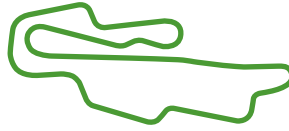


- Mugello Circuit
- Circuit de Barcelona
- Paul Ricard

EXAMPLES OF SUSTAINABILITY APPROACHES OF LEADING MOTORSPORT CIRCUITS INCLUDE:



MUGELLO CIRCUIT - ITALY (BEST PERFORMER)



100%

RENEWABLE ENERGY
USED BY THE CIRCUIT

120

WATER FOUNTAINS
INSTALLED IN PUBLIC
AREAS

1.130

JOBS CREATED

This circuit received the highest score among the 96 circuits analysed. It has ISO 9001, ISO 14001, ISO 45001 and ISO 20121, and the EU Eco-Management and Audit Scheme (EMAS). It has also obtained the motorsport industry standard 3 Star FIA's Environmental Accreditation.

Since 2013, the circuit has hosted the K.i.S.S environmental and social sustainability programme developed in conjunction with MotoGP Grand Prix and promoted by FIM, Dorna and IRTA. The circuit uses 100% renewable energy and produces 25% of its annual energy demand on site using photovoltaic systems installed in the premises. To save on energy, the circuit uses LEDs on the external lighting systems. The circuit also has a rainwater recovery system which is used to operate toilets and for irrigation purposes. Approximately 120 water fountains are installed in public areas and additional drinking fountains are available to staff and racing personnel during the events, limiting use of plastics and plastic waste production.

Although the circuit is not well served by public transport, organisers work closely with public transport authorities to ensure that during events spectators can reach the event using either train or bus. A study carried out by the Regional Institute for Economic Planning of Tuscany reported that the circuit contributed to the creation of 1,130 jobs and an annual economic impact on the local community of € 130 million.

**This circuit received the highest score
among the 96 circuits analysed.**



CIRCUIT DE BARCELONA - SPAIN (SECOND BEST PERFORMANCE)



100%

RENEWABLE ENERGY
USED BY THE CIRCUIT

CHARGING STATION

INSTALLED FOR ELECTRIC
VEHICLES

FOOD WASTE

SOCIAL INITIATIVES,
FOCUSED ON THE REDUCTION
OF FOOD WASTE

Within the Sustainability Circuits Index, the Circuit de Barcelona received the second-highest score. This circuit tied with Mugello Circuit and Paul Ricard for the highest score in the accreditation criteria, and also tied with Paul Ricard for the highest score in the environmental criteria.

This motorsport venue is ISO 14001 certified, has a 3 Star FIA Environmental Accreditation and promotes a number of environmental and social sustainability programmes.

The Circuit de Barcelona strives to minimise environmental impacts, specifically: the activities associated with mobility and commitment to managing external noise in accordance to conditions provided by environmental authorization, the leadership in the Ki.S.S programme during MotoGP Grand Prix, the CirCuitCat programme aimed at reducing the environmental impact of facilities, and more recently the biodiversity initiatives that are widely recognized by the FIM.

Among other environmental practices, the circuit uses 100% renewable energy, has installed a number of charging stations for electric vehicles and it uses a solely electric fleet. It also uses its premises for a number of initiatives to promote electric mobility. The circuit also has a number of social initiatives, focused on minimising food waste, sourcing local and healthy food and actively promoting awareness on reducing food waste. The circuit is also considered a Biosphere Committed Entity for the region of Barcelona.

**The circuit is also considered a
Biosphere Committed Entity for
the region of Barcelona.**



CIRCUIT OF PAUL RICARD - FRANCE (THIRD BEST PERFORMANCE)



4

HIVES INSTALLED TO
COLLECT AND ANALYZE
POLLUTANTS

20.000 m²

OF PHOTOVOLTAIC
PANELS GENERATING
CLEAN ELECTRICITY.

99%

OF LED BULBS USED

This circuit received the third-highest overall score. Similar to the previous two venues, this circuit also received a 3 Star FIA Environmental Accreditation. Paul Ricard tied with the Circuit de Barcelona for the highest score in the environmental criteria, excelling across all indicators in that category. This circuit also performed remarkably well in the economic category, dramatically impacting the circuit's local economy.

The commitment to sustainability extends beyond the track as it installed four beehives to collect and analyse pollutants in the air, water and flora surrounding the circuit. It also is seriously committed to a transition to renewable energy, having 99% of LED light bulbs, a fleet of electric vehicles, and over 20,000 m2 of photovoltaic panels generating clean electricity.

However, it appears to lag behind its leading counterparts in the certification and awards categories.

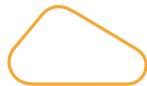
**Paul Ricard was awarded the
highest score in the environmental
criteria, excelling in all indicators
in that category.**

OTHER NOTABLE MENTIONS

Although not identified as sustainability leaders, a number of circuits demonstrate sustainable practices that are worthy of mentioning.

For example:

POCONO RACEWAY - USA



SONOMA RACEWAY - USA



Pocono and Sonoma Raceway, both US circuits hosting Nascar and Indy car races, have in recent years built a **strong commitment towards environmental and energy management**, share mobility and engagement with the fan community. **A successful community initiative has been the establishment of family-friendly areas** to host families with children of all ages and abilities.

MISANO WORLD CIRCUIT MARCO SIMONCELLI - ITALY



CIRCUIT RICARDO TORMO - SPAIN



Misano World Circuit Marco Simoncelli, located in Italy, or **Circuit Ricardo Tormo**, Valencia, Spain, have demonstrated a great focus and ability in engaging with charities for **collecting surplus food during events**.

AUTODROMO VALLELUNGA PIERO TARUFFI - ITALY



Autodromo Vallelunga Piero Taruffi, in Italy, has partnered with a provider of technology and energy **to deploy race car charging infrastructure** in the paddock, and promoting electric mobility, **becoming the official testing circuit for the Electric Touring Car Racing**.

7. THERE IS NO NEED TO GET LEFT BEHIND: CONCLUSION

For an industry driven by technological innovation, creativity and speed, relative to other industries, the pace at which the motorsport industry is moving to address sustainability is surprisingly slow. It's clear from the findings in this study that while strides are being made among a few top circuits, too many are falling short with the adoption of sustainability practices.

This study's results are based on publicly disclosed data from motorsport racing venues. This data highlights that sustainability practices and disclosure are still not at the level of maturity and transparency needed for key stakeholders to act and contribute in a collective and meaningful way. In order to attain the sustainability shift that the motorsport industry wants to achieve as a whole, more needs to be done.

Specifically, the data has shown that there are barriers to implement change. As is the case with any seismic transformation in an industry, there will always be some 'resistance to change'.

Educating stakeholders on the meaning of sustainability and the importance of aligning with best practices from other industries, including disclosure, can also be a challenge. Leaning on knowledge and experience gained in the field, and aligning it with indicators widely used to assess sport venues sustainability, with this paper the authors aim to offer industry stakeholders a better understanding of each of the 21 indicators used to measure sustainability performance. These indicators help to explain why many circuits have yet to reach their full potential.

It is apparent from the results in this study that many circuits are not aware of the importance of public disclosure of their existing sustainability practices.

Although the leading circuit identified in this study has made substantial inroads, having adopted several good sustainability initiatives, it needs to be pointed out that its absolute score was 48 out of a possible 100 points, emphasizing that even among the leaders there is still much room for improvement in the area of sustainability.

This study has also underlined that the 3 leading circuits are all located in Europe, showing the importance of this topic in the region where, similarly to the past, the sustainability topic found a great ground for development in this region as for example in the case of sustainable investment. While sustainability is a topic still relatively new to the industry, the set of action principles provided from the top-down by the FIM and FIA are essential in the overarching approach to sustainability, as they offer guidance and support, and a road map of sorts for circuits to follow. What appears to be missing from the industry's overall approach to sustainability, however, is an independent forum for individual actors to collaborate, disseminate lessons learnt and to share best practices. **This forum, combined with the principles framework put forth by the FIM and FIA, would help guide industry stakeholders towards increased understanding, implementation, accountability and transparency.**

It is apparent from the results in this study that many circuits are not aware of the importance of public disclosure of their existing sustainability practices. For their part, the authors are mindful of a number of relevant initiatives supported by different circuits, but because these initiatives have not been communicated and disclosed, they did not make it into this ranking.

In addition to the top down leadership and support that is in place in the area of sustainability, another promising trend that appears to be emerging within the industry is the rise of a bottom-up approach, where individual circuits are engaging directly with industry experts (sustainability experts, consultancies, academics) to create bespoke sustainability agendas and pursue their ambitions.

Sustainability can help circuits in various ways, from allowing operations to become more efficient, reduce costs, improve brand value, and strengthen stakeholders' relations.

This entails win-win-win triple bottom line scenarios, where circuits benefit financially while creating a positive impact on the local communities and the planet. As demonstrated by the UN Sports for Climate Action Framework, which now has 175 sports organizations as signatories, sustainability is a priority for many companies, fans, athletes, and investors. The wider sport and sustainability movement has also seen an increase in athlete activism (e.g., Lewis Hamilton on climate change and diversity; Marcus Rashford on social injustice; and Marc Márquez acting as one of the FIM Green Ambassadors) and high-profile naming rights partnership deals.

For motorsport to remain relevant and sustainable in the long run, circuits must develop long-term ambitious strategic plans between now and 2025 that clearly identify their commitments concerning the sustainable management of their venues and events. **The most successful strategies will involve a diverse set of stakeholders in the process, each bringing a different perspective, including workers, fans, customers, organizers, teams, drivers, sponsors, suppliers, and the local community.** As has been shown throughout this study, the circuits that choose this holistic approach to sustainability will be rewarded with countless benefits, and will no doubt lead the way in sustainability performance, setting the pace for others to follow. For the industry as a whole, by applying the same competitive drive that is so synonymous with motorsport, there is no reason for any circuit to get left behind in this race towards a sustainable future.

NOTE 1: The second edition of this report updating the Sustainability Circuits Index will be published in June 2022. As explained in the methodology, the index will only consider data that is publicly disclosed.

NOTE 2: The Sustainability Circuits Index is part of a new family of forthcoming indexes which will be grouped under the brand "Sustainability Motorsport Index™" that will analyse the sustainability of the motorsport industry from different perspectives.

ABOUT THE AUTHORS



Enovation Consulting Ltd is purpose-driven sustainability and strategic management consultancy, specialising in helping motorsport companies drive their sustainability agenda. We believe that motorsport and sport as a whole can be part of the solution to climate change by embracing and being powerful vehicles to convey the sustainability message.

We use a cross-sectoral approach to create and implement bespoke, data-driven, robust and resilient sustainability strategies, meaningful partnership activations, positive impact campaigns and legacy projects to drive brand value and societal changes.

Deeply rooted in the motorsport industry, with an exceptional understanding of sustainability, motorsport technology, ecosystems and business models, we truly believe that each and every one of our customers can play a significant part in building the legacy of sustainability.

For further information: www.e-novationconsulting.com



Right Hub Srl is a leading Italian consulting firm with a 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 we design and realize ad-hoc initiatives in order to improve the environment and social impact connected to the world of events. We fully support all the key motorsport events' stakeholders at international level: promoters, organizers, circuits, teams, sponsors and partners, suppliers of goods and services.

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For further information: www.righthub.it/en

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The authors thank Prof. Paolo Taticchi for his guidance on this work.

Professor Paolo Taticchi teaches Strategy and Sustainability at UCL School of Management. Paolo's research on corporate sustainability is internationally recognized.

Paolo's last book is titled "Corporate Sustainability in Practice" and was published internationally by Springer in January 2021. He is regularly invited to give keynote talks at world-class academic, governmental and industry events. His projects, quotes and opinions have been featured over 200 times in media outlets like The Financial Times, Forbes, Sole 24 Ore, Sky News, Mediaset and CNN. In 2021, Paolo was indicated by Italian's leading business daily Sole 24 Ore as the most influential Italian under the age of 40.

For further information: **paolotaticchi.com**

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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
Autódromo 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.

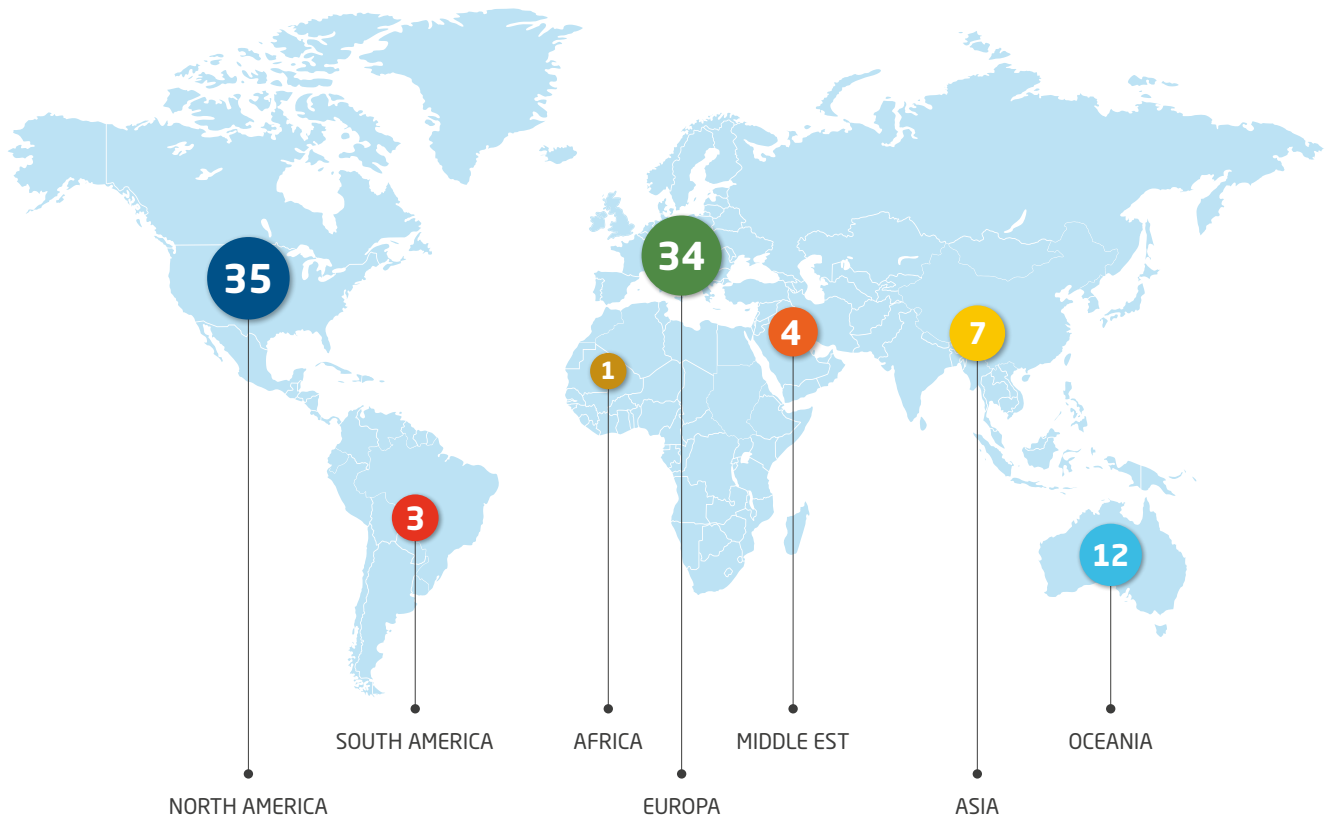
Appendix 2: SCI Index (performance data normalized over the score of the leader)

CIRCUIT NAME	CATEGORY OF PERFORMANCE	
Mugello Circuit		 Corresponds to a LOW SCI SCORE
Circuit de Barcelona - Catalunya		
Paul Ricard		 Corresponds to a MEDIUM-LOW SCI SCORE
Misano World Circuit Marco Simoncelli		
Sonoma Raceway		 Corresponds to a MEDIUM SCI SCORE
Indianapolis Motor Speedway		
Michigan International Speedway		 Corresponds to a MEDIUM-HIGH SCI SCORE
Pocono Raceway		
Circuit Gilles-Villeneuve		 Corresponds to a HIGH SCI SCORE
Circuit Ricardo Tormo		
Phoenix International Raceway (ISM Raceway)		
Circuit Of The Americas		
Homestead-Miami Speedway		
Darlington Raceway		
Road America		
Autodromo Nazionale di Monza		
Portland International Raceway		
Silverstone		
MotorLand Aragón		
Autodromo Vallelunga Piero Taruffi		
Dover International Speedway		
Richmond International Raceway		
Circuit de Nevers Magny-Cours		
Circuit Zolder		
Daytona International Speedway		
Hungaroring		
Watkins Glen		
Kansas Speedway		
Sepang International Circuit		
Snetterton		
Sydney Motorsport Park		
Talladega Superspeedway		

CIRCUIT NAME	CATEGORY OF PERFORMANCE
Atlanta Motor Speedway	🏆🏆🏆🏆
Auto Club Speedway	🏆🏆🏆🏆
Bristol Motor Speedway	🏆🏆🏆🏆
Charlotte Motor Speedway	🏆🏆🏆🏆
KymiRing	🏆🏆🏆🏆
Martinsville Speedway	🏆🏆🏆🏆
Red Bull Ring (Österreichring)	🏆🏆🏆🏆
TT Circuit Assen	🏆🏆🏆🏆
WeatherTech Raceway Laguna Seca	🏆🏆🏆🏆
Yas Marina	🏆🏆🏆🏆
Circuit Zandvoort	🏆🏆🏆🏆
Donington Park	🏆🏆🏆🏆
New Hampshire Motor Speedway	🏆🏆🏆🏆
Phakisa Freeway	🏆🏆🏆🏆
Sebring Raceway	🏆🏆🏆🏆
Texas Motor Speedway	🏆🏆🏆🏆
Twin Ring Motegi	🏆🏆🏆🏆
Virginia International Raceway	🏆🏆🏆🏆
Autodromo Internazionale Enzo e Dino Ferrari	🏆🏆🏆🏆
Chicagoland Speedway	🏆🏆🏆🏆
Hockenheimring	🏆🏆🏆🏆
Las Vegas Motor Speedway	🏆🏆🏆🏆
Losail International Circuit	🏆🏆🏆🏆
Mid Ohio	🏆🏆🏆🏆
Nuerburgring	🏆🏆🏆🏆
Raceway Venray (Circuit de Peel)	🏆🏆🏆🏆
Symmons Plains International Raceway	🏆🏆🏆🏆
World Wide Technology Raceway	🏆🏆🏆🏆
Autodrom Most	🏆🏆🏆🏆
Autodromo Jose Carlos Pace (Interlagos)	🏆🏆🏆🏆
Automotodrom Brno	🏆🏆🏆🏆
Barber Motorsports Park	🏆🏆🏆🏆

CIRCUIT NAME	CATEGORY OF PERFORMANCE
Brands Hatch Circuit	   
Chang International Circuit	   
Circuito de Jerez Ángel Nieto	   
Fuji International Speedway	   
Hidden Valley Racetrack	   
Kentucky Speedway	   
Miller Motorsports Park (Utah Motorsports Campus)	   
Morgan Park Raceway	   
Motorsport Arena Oschersleben	   
Mount Panorama Bathurst	   
Phillip Island Circuit	   
Queensland Raceway	   
Shanghai International Circuit	   
Slovakiaring	   
Suzuka Circuit	   
Wakefield Park Raceway	   
Winton Motor Raceway	   
Autódromo "El Villicum" San Juan	   
Autodromo Hermanos Rodriguez	   
Autódromo Internacional Algarve	   
Autódromo Termas de Río Hondo	   
Bahrain International Circuit	   
Barbagallo Raceway	   
Bend Motorsports Park	   
Circuit de La Sarthe (Le Mans)	   
Circuit de Spa-Francorchamps	   
Igora Drive	   
Intercity Istanbul Park	   
Lausitzring	   
Ningbo International Speedway	   
Sachsenring	   
Sandown International Raceway	   

Appendix 3: Geographic distribution of circuits ranked



Appendix 4: Racing championships distribution in the circuits ranked

MOTORCYCLING CHAMPIONSHIP	NUMBER OF HOST CIRCUITS	REGION
FIM EWC (Endurance World Championships)	11	Asia, Europe, Middle East, North America, South America
MotoGP (Moto2, Moto3, MotoE)	20 + 1 (extraordinary event 2020)	Asia, Europe, Middle East, North America, Oceania, South America
Other national championships (Italian Championship CIV, Spanish Championship CEV, French Superbike Championship, Australian Superbike Championship)	12	Europe, Oceania
WorldSBK	13	Europe, Middle East, Oceania, South America

Appendix 5: Racing championships distribution in the circuits ranked

CARS CHAMPIONSHIP	NUMBER OF HOST CIRCUITS	REGION
DTM (Deutsche Tourenwagen Masters)	9	Europe
EuroNASCAR	7	Europe
Ferrari Challenge (Asia Pacific, Europe, North America, UK)	23	Asia, Europe, Middle East, North America
FIA WTCR (World Touring Car)	12	Asia, Europe, South America
Formula 1 (Formula 2, Formula 3, Porsche Mobil 1 Supercup)	16 + 5 (extraordinary event 2020)	Asia, Europe, Middle East, North America, South America
GT Endurance	4	Europe
GT Sprint	4	Europe
GT4 European Series	6	Europe
Indycar	7	North America
Lamborghini Super Trofeo (Asia, Europe, North America)	15	Asia, Europe, North America
Nascar	25	North America
Supercars Championship Series	7	Oceania



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