



HOW FUTURE-PROOF IS THE CURRENT COMMITMENT TO SUSTAINABILITY OF THE EUROPEAN ATTRACTIONS AND THEME PARKS INDUSTRY?

GRADUATION RESEARCH

by João Camurri Fiães



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Preface

Before you lies the current situation of sustainability within the European attractions and theme parks industry. From February to June 2024, I embarked on the ride of developing this graduation research to fulfill the graduation requirements of the Leisure and Events Management bachelor at Breda University of Applied Sciences, located in Breda, Netherlands.

When thinking about the graduation research, I knew I wanted a big challenge. Since sustainability had been gaining my attention over the past years, I felt it was time to take a deeper look into it. This deeper look would also help me clarify if sustainability could soon be my field of work. Now, looking back, I can say the challenge I was looking for came with this research.

I want to thank Jeroen Nijpels for allowing me to link the graduation research to his company, JNELC; for connecting me to many industry leaders; and for always carefully and attentively replying to my emails.

I also want to thank my supervisor, Iskander Khairoutdinov, for his weekly guidance, support, and critical feedback over the last four months, as well as my assessor, Bart Stadhouders, for providing feedback on my Graduation Plan and assessing this report. Furthermore, my thanks to my Graduation Community, who made the entire graduation process lighter and more enjoyable.

I want to extend my thanks to Adrian Fees, Andreas Andersen, Christof Burgbacher, Eric J. O'Rourke, Håkon Lund, Kees Rijnen, Martin Weichselgartner, Maximilian Biller, and Veronica Celis Vergara for accepting to be interviewed and helping me with the development of the research.

Lastly, I also want to seize my last opportunity to formally thank Breda University of Applied Sciences for the truly worthy past four years.

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EXECUTIVE SUMMARY

A grayscale photograph of a large, illuminated fountain at night. The fountain features numerous water jets spraying upwards and outwards, creating a dynamic and visually striking scene. The water jets are illuminated from below, casting a warm glow. The water surface in the foreground is calm, reflecting the lights from the fountain. In the background, a small, ornate structure, possibly a pavilion or part of a larger architectural complex, is visible on the right side. The overall atmosphere is serene and majestic.

Executive Summary

The research was commissioned by Jeroen Nijpels, owner and managing director of JNELC, a consultancy company operating within the attractions and theme parks industry. Using the European industry as the research field, he wished to understand its current situation regarding sustainability and identify initiatives not all players are yet taking advantage of. This research report is the result of the execution of this task.

There were a few goals behind this research. The first one was to show the attractions and theme parks industry that it is time to improve its game, and consequently make more people become interested in the sustainability agenda. The second goal, which is linked to the previous one, was to identify Europe's scenario to be able to ignite a sustainability discussion within the continent, and later, worldwide. The third goal was to identify possibilities (or sustainability initiatives) that some players are not taking advantage of.

Chapters 1 & 2 | Introduction & Client Information

The introductory chapters aim to explain and clarify what the research looked like and which steps were taken for it to be successfully completed, as well as to give information on why Jeroen wished for the development of research on sustainability. It shows how the initial challenge was matured into a final, more concrete one. In addition, this section provides information on the client, JNELC, such as its history, which services it provides, and its company structure.

Chapter 3 | Challenge Analysis

Serves as a starting point for the research as it analyses the most relevant elements behind the given challenge, such as its stakeholders, target group, and current situation, together with trends and legislation that influence it nowadays.

Chapter 4 | Research Approach

Moves on to formulating a leading question for the research and consequently, sub-questions to help answer it.

Chapter 5 | Theoretical Framework

Gives information on models related to sustainability and further explains how each of them was applied to the research. Models used were the ESG Frameworks, the Sustainable Development Goals (SDGs), and Deloitte's TrendRadar: Future of Sustainability.

Chapter 6 | Methodology

Details how the leading question and its sub-questions were answered. Desk research focused on analysing companies' websites and sustainability reports, as well as on collecting trends and developments and watching webinars. Field research focused on interviewing industry leaders to obtain data on personal opinions and on attending a sustainability-related online conference.

Chapters 7, 8 & 9 | Findings

These chapters gather all findings originated from the research methods.

Chapter 7

Indicates how well the word 'sustainability' performs when searched for in the companies' official websites. In addition, it includes a division of theme parks and manufacturers into three categories 'beginners, shapers, and influencers', based on their performance, and provides an overview of how much focus theme parks destine to each of the ESG areas.

Chapter 8

Shows the highlights of the interviews conducted with industry experts who represented both theme parks and manufacturers: Adrian Fees, Andreas Andersen, Christof Burgbacher, Eric J. O'Rourke, Håkon Lund, Kees Rijnen, Martin Weichselgartner, Maximilian Biller, and Veronica Celis Vergara. It provides insights into the industry mindset, sustainability reporting, relationship between theme parks and guests, relationship between theme parks and manufacturers, challenges and barriers, reducing CO2 emissions, future outlook, and trends and developments. In addition, insights taken from the Greenloop Conference are also given.

Chapter 9

Focuses on current sustainability and industry trends, as given by Blooloop and Katapult. Furthermore, it gives a brief summary of relevant developments in terms of sustainability for the industry, like the United Nations Global Compact, the Corporate Sustainability Reporting Directive (CSRD), and the Global Sustainable Tourism Council's Attraction Criteria (GSTC). Lastly, the chapter tests the theme park groups (beginners, influencers, and shapers) against the future sustainability trends as indicated by Deloitte to check how future proof each group is.

Chapter 10 | Conclusions

Concludes the report and answers the leading question: 'how future-proof is the current commitment to sustainability of the European attractions and theme parks industry?'.

Chapter 11 | Recommendations

Gives five recommendations based on the conclusions of the report. In short, these are to report on sustainability and create specific and measurable goals, develop a best practices document, foster industry collaboration and create sustainability awards, improve website communication and transparency on sustainability, and humanize the science behind manufacturing.

With this research, the author made an effort to create a realistic picture of the sustainability situation within Europe and gather enough data to push the sustainability discussion forward.

INTRODUCTION

A grayscale photograph of a carnival game booth. The booth has a counter with a lever and a sign that says "Ginger HERE!". A young girl is sitting on a stool, pulling the lever. A man in a hard hat is standing behind her. The background is filled with various stuffed animals and prizes hanging from the ceiling.

1 | Introduction

In December 2023, Jeroen reached out asking if I had already found a topic for my graduation research. He explained he was looking for someone to partner with to better understand the sustainability demand that had been popping up from many players in the attractions and theme parks industry - these being his partners, other companies, or industry leaders. After an initial online meeting with him in January 2024, he indicated his wish for research that would logically revolve around sustainability.

Jeroen's motivation behind his request was clear. As a company owner, he believes he is not doing enough regarding sustainability. For example, he explains that he still prefers to meet his partners in person and have face-to-face chats rather than scheduling online meetings. Even though, for these encounters to happen, flights usually must be taken - and flying is known to be a non-sustainable practice. In addition, as an influential puzzle piece of the attractions and theme parks industry and chair of IAAPA's Manufacturer and Suppliers Committee, he also believes the industry is not doing enough. Therefore, he took the initiative to commission this research to ignite a sustainability discussion within Europe and, later, worldwide.

After a second meeting to further mature the research, Jeroen's goals, and possible end products, the proper direction of the research could be traced. He indicated he wished to identify Europe's current sustainability situation and possibilities that the industry is not yet taking advantage of. He aims to show the industry it is time to improve its game as well as to enhance one of his partners' sustainability efforts. Due to the time available to develop the research and its nature, he instructed me to focus only on ZIERER. He explained that his other four partners are on different leads in terms of the materials they use, the carbon footprint they leave, and the way they sell their products. In turn, ZIERER deals with many physical elements to keep the business running, such as steel, energy, and transportation (shipping and flying worldwide to get salespeople to meet clients).

The introductory part of this report aims to explain and clarify what this research looked like and which steps were taken. Therefore, relevant client information is given, the analysis behind the challenge the research proposed, and information about its stakeholders and target group. In addition to these elements, a brief analysis of the current situation regarding sustainability in European theme parks is given, as well as what influences this situation, focusing on trends and developments and legal framework. The theoretical framework also describes ESG Frameworks, the Sustainable Development Goals, and Deloitte's TrendRadar: Future of Sustainability. To give more precise guidance on how the research was distributed, a methodology chapter is included, which explains the relevancy behind each research question, the methods used to answer them, and the outcomes of each one.

Furthermore, the report indicates findings collected in each sub-question, which helped picture the current state of sustainability within the attractions and theme parks industry to understand how future-proof it is. The conclusion to these findings leads the reader to the recommendations to the industry.

A grayscale photograph of a carousel with people riding, overlaid with a semi-transparent gray rectangle containing the text "CLIENT INFORMATION". The carousel is ornate, with a checkered floor and a large chandelier hanging from the ceiling. The text is centered in the middle of the image.

CLIENT INFORMATION

2 | Client Information

This chapter provides information on the client, JNELC, such as its history, mission, and vision, which services it provides, and its company structure. The purpose of this chapter is to gain a clearer understanding of the client so that the solution to the challenge is developed according to the client's DNA.

2.1 | Who is the client?

The direct client is Jeroen Nijpels, owner and managing director of JNELC. Since 1996, Jeroen has actively participated in the attractions and theme parks industry. Within IAAPA, he has served on the Marketing and PR Committee, the Space Allocation Committee, the Global and EMEA Manufacturers and Suppliers (M&S) Committees, and the EMEA Regional Advisory Committee. He was on the Board from 2007-2009, currently chairs IAAPA's Global Manufacturers & Suppliers Committee, and serves for a second term on the Global Board of Directors. Nijpels is also a member of the IAAPA Foundation Board and the IAAPA Service Awards Committee (Coates, 2022).

In 2004, after only eight years in the industry, Jeroen founded his own company, JNELC. The company was founded to offer advice and project management in sales and marketing, and project development (About Us. | JNELC, n.d.). Regarding the sales consultancy part, the company represents the following partners: ZIERER, nWave Pictures, HB Leisure, Mobaro, and most recently, Triotech. JNELC is responsible for bringing these companies' products and services to theme parks and attractions worldwide. Brief information about each of these partners will be presented after the next paragraph.

Lastly, to show JNELC's relevance to and responsibility with the attractions industry, the following are accredited institutions to which the company is affiliated: the International Association of Amusement Parks and Attractions (IAAPA), the British Association of Leisure Parks, Piers and Attractions (BALPPA), the Themed Entertainment Association (TEA), the Malaysian Association of Amusement Themepark & Family Attractions (MATFA), and the American Society for Testing and Materials (ASTM International).

2.2 | JNELC's Partners



ZIERER

ZIERER is a German roller coaster and flat ride manufacturer that has been operating in the industry for more than 90 years. The company is proud to be recognized for its high-quality manufacture, low maintenance, excellent customer support, and extensive portfolio that offers rides for every taste (Kg, n.d.). Regarding sustainability at ZIERER, the company has longevity as one of its core values and is aware that its business production is energy- and resource-rich. In addition to longevity, ZIERER also has renewable energy, certifications, and innovations as values

(Kg, n.d.-b). The company works with a team of six representatives in a few areas of the world to get its products to the market.

nWave Studios

Based in Brussels, nWave Studios was founded in 1994 and has quickly become renowned for its expertise in computer-generated imagery (CGI) animation (About - nWave, n.d.). In the realm of theme parks, the company made its debut in 1995 by giving guests the chance to experience adrenaline-packed ride simulation films in 3D theatres. Since then, the studio has created different animations for multiple attractions.

HB Leisure

Founded in 1927 by Harold Burt, HB Leisure is a global leader in skill games and a major international player in family arcades. Today, the company operates in more than 150 major theme parks and attractions in over 25 countries across the world (HBL, 2023). Their website indicates that their vision revolves around the following elements: passion, outstanding and innovative game experience, and worldwide leadership. Furthermore, it is interesting to mention their commitment to reduce their environmental impact in every area they operate by focusing on greenhouse gas (GHG) emissions and landfill waste until 2030.

Mobaro

Mobaro is a software company that allows theme parks and attractions to monitor their safety, maintenance, and security procedures, all in one platform connected through the cloud. The company aims to enhance the attraction safety regime and make attractions reach a new level of transparency between departments and their individuals and shared responsibilities (Mobaro, 2023).

Triotech

Founded by Ernest Yale in 1999, Triotech has quickly become a significant player in the amusement park industry. The company has the unique characteristic of being vertically integrated, which means it provides clients with the hardware, the software, and the custom content (About | Leader in the Leisure & Entertainment Industry | Triotech, 2023). In the theme park realm, the company's main products are virtual reality (VR) rides, interactive attractions, and multimedia extreme digital (XD) immersive technology (Amusement Park Rides & Interactive Attractions | Triotech, 2023).

2.3 | Services

JNELC operates in the entertainment and leisure sectors. The company provides sales and marketing consultancy and supplies high-quality rides for these sectors on behalf of their partners, ZIERER and Triotech, for example. In addition to these two services, JNELC offers advice in procurement and project management when a client needs to know what and if to buy or how to install or develop a project (JNELC | Sales & Project Consultancy, n.d.). According to JNELC's website, its areas of services are broad, serving the following countries: Luxembourg, United Kingdom, Netherlands, Belgium, Sweden, Finland, Denmark, Norway, Singapore, Malaysia, Indonesia, Vietnam, and Poland.

2.4 | Company Structure

JNELC's company structure is simple. The company has two full-time employees: Jeroen Nijpels and Mika Nur Faezah. Jeroen is the owner and managing director, while Mika joined the company in 2013 to head its Asia Pacific office, based in Singapore (About Us. | JNELC, n.d.). In addition, it also employs Anna Shamne, who is the part-time Office Manager and is based in Luxembourg.

CHALLENGE ANALYSIS

A grayscale photograph of a man in a cowboy hat and western attire, holding a large eagle with its wings spread wide. The eagle is perched on the man's gloved hand. The background is a blurred wooden fence. The text "CHALLENGE ANALYSIS" is overlaid in the center.

3 | Challenge Analysis

This chapter analyses the most relevant elements behind the challenge, such as its stakeholders, target group, and current situation, together with trends and legislation that influence it. Furthermore, it also indicates to which of the university's competency domains the challenge connects.

3.1 | Why was this challenge a challenge for 2024?

Before looking for data, it was safe to say that society knows sustainability is a hot topic. Companies from various industries have been trying to improve their sustainability efforts little by little due to the business world slightly requiring them to do so. Companies that report on Environmental, Social, and Governmental (ESG) indicators are currently better seen than the ones that do not report them. In addition to that, and when zooming in on the European market, there are also laws and regulations that companies should follow and obey. Yet not every company thinks or acts the same, not all are on the right track, and time might be running out.

3.2 | Stakeholders

This research was extensive and could have include the attractions industry from North America, Latin America, Asia, Europe, and other areas of the world, meaning that a considerable number of stakeholders could be added to the list. Therefore, it was agreed that the focus of this research would be the European market. On the right, the most relevant stakeholders for this research are listed.

Jeroen Nijpels

Jeroen is the commissioner of this research. Even though it is not about creating an event or designing a walkthrough and will not need a green or red light at some point, he is the most interested stakeholder in it. Jeroen needs to be kept involved so that he can check the development of the research and indicate preferences or wishes along the way, such as suggesting interviewees or linking me to ZIERER's employees.

JNELC

Jeroen's company, JNELC, is one of the stakeholders of this research because the end product is aimed at one of its partners, ZIERER. The company is interested in the research's result as it will be able to provide its partner with a better service and a better strategy for the future.

ZIERER

Put in the spotlight by Jeroen, ZIERER will be one of the main benefactors of this research. It is crucial to keep the company involved since the beginning of the research phase, as internal information will be needed to trace possible strategies for the company later.

IAAPA

The International Association of Amusement Parks and Attractions is always interested in possibilities that will push the industry forward. In addition, the research revolves around a trending topic: sustainability is commonly discussed during the association's Expos, events, or webinars.

IAAPA's Manufacturers and Suppliers Committee

The Manufacturers and Suppliers Committee, which Jeroen chairs, will be one of the first to hear the results of this research and has, therefore, high interest in it.

IAAPA's Global Sustainability Committee

Chaired by Andreas Andersen, Liseberg's CEO, this committee plays a fundamental role in this research, first because of its interest in the results and second because of its knowledge. Its committee members might represent a relevant source of data for the research's development.

European Theme Parks

These parks are relevant players for this research, considering that one of the goals was to interview as many employees as possible from different parks. They also play a fundamental role in indicating where the industry currently stands in terms of sustainability.

European Manufacturers and Suppliers

These stakeholders, along with European theme parks, are also part of the research's target group. Involving them in this research was extremely interesting and valuable, but it could have been challenging, as sharing internal information through interviews is not that common.



3.3 | Target Group Analysis

This research could benefit the attractions and theme parks industry as a whole, and its target group could be extremely broad. If wanted, theme parks, manufacturers, suppliers, and even other attractions from all over the world could be researched and analysed. Nevertheless, this would not be possible considering the four-month timeframe given to deliver the final products. As mentioned before, the focus of this research was on the European market.

3.3.1 | European Theme Parks

According to the "TEA/AECOM 2022 Theme Index and Museum Index: The Global Attractions Attendance Report", which is the latest version of it, the following theme parks were the most attended during that year, from top to bottom: Disneyland Park, Europa-Park, Efteling, Walt Disney Studios Park, Tivoli Gardens, PortAventura World, Liseberg, Gardaland, Legoland Windsor, Parc Asterix, Puy du Fou, Parque Warner, Alton Towers, Phantasialand, Legoland Billund, Thorpe Park, Futuroscope, Legoland Deutschland, Heide Park, and Chessington World of Adventures (Palicki, 2022).

Together, the top 20 parks of the EMEA region saw an attendance of 63.4 million visitors in 2022, compared to 36.1 million in 2021, 22.2 million in 2020, and a similar number of 64.5 million in 2019 before the pandemic hit. In 2024, the European Amusement Park market size is expected to reach 1.27 billion US Dollars (Europe Amusement Parks Market Insights, n.d.)

Assuming that most attended equals best, this research was developed by analysing the most attended theme parks in the region.

3.3.2 | Manufacturers and Suppliers

In addition to European theme parks, the other target group of this research were the manufacturers and suppliers that provide the industry with outstanding attractions. It is interesting to notice that this research could have had two points of view: one where there were no competitors and one where manufacturers and suppliers were direct competitors to ZIERER. Nevertheless, since this research revolved around sustainability, these manufacturers and suppliers were not considered as competitors, but as possible sources of inspiration. The following is a list of well-known manufacturers and suppliers that offer similar products to ZIERER's within Europe but also from North America.

Europe

Bollinger & Mabillard, Fabbri Group, Gerstlauer, Intamin, MACK Rides, Maurer Rides, Technical Park, Vekoma Rides, and Zamperla.

North America

Chance Rides, Great Coasters International, Premier Rides, Rocky Mountain Construction, S&S Worldwide, and The Gravity Group.

3.4 | Current Situation

Before starting to gather findings, it was necessary to very briefly understand Europe's current situation regarding sustainability. For that, it was interesting to check which theme parks and manufacturers already had a sustainability report or anything similar. In addition, trends and developments, particularly in regulations, also needed to be collected to understand what could influence this current situation

3.4.1 | Theme Parks

In the table below, it is possible to see which of the top 20 theme parks had published a sustainability report by the time this research initiated.

	TOP 20 AMUSEMENT / THEME PARKS EMEA 2022	LOCATION	SUSTAINABILITY REPORT	ADDITIONAL
1	Disneyland Park	France	Yes	Report combined for both parks of Disneyland Paris
2	Europa-Park	Germany	No	The website provides relevant sustainability data, but it is not a report
3	Efteling	Netherlands	No	The website provides relevant sustainability data, but it is not a report
4	Walt Disney Studios Park	France	Yes	Report combined for both parks of Disneyland Paris
5	Tivoli	Denmark	Yes	
6	PortAventura World	Spain	Yes	
7	Liseberg	Sweden	Yes	
8	Gardaland	Italy	No	Sustainability data in the parent company's report: Merlin Entertainments
9	LEGOLAND Windsor	UK	No	Sustainability data in the parent company's report: Merlin Entertainments
10	Parc Astérix	France	No	Sustainability data in the parent company's report: Compagnie des Alpes
11	Puy du Fou	France	No	The website provides relevant sustainability data, but it is not a report
12	Parque Warner	Spain	No	Sustainability data in the parent company's report: Parques Reunidos
13	Alton Towers	UK	No	Sustainability data in the parent company's report: Merlin Entertainments
14	Phantasialand	Germany	No	
15	LEGOLAND Billund	Denmark	No	Sustainability data in the parent company's report: Merlin Entertainments
16	Thorpe Park	UK	No	Sustainability data in the parent company's report: Merlin Entertainments
17	Futuroscope	France	No	Sustainability data in the parent company's report: Compagnie des Alpes
18	LEGOLAND Deutschland	Germany	No	Sustainability data in the parent company's report: Merlin Entertainments
19	Heide Park	Germany	No	Sustainability data in the parent company's report: Merlin Entertainments
20	Chessington W.O.A.	UK	No	Sustainability data in the parent company's report: Merlin Entertainments

Only Disneyland Paris (Disneyland Park and Walt Disney Studios Park), Tivoli, PortAventura World, and Liseberg offer sustainability reports exclusively related to the park's performance. Europa-Park, Efteling, and Puy du Fou provide valuable information on their websites regarding sustainability. All the other parks listed do not provide sustainability reports, yet sustainability data can be found in their parent companies' reports. In contrast, Phantasialand does not provide a report nor mention sustainability on its website.

3.4.2 | Manufacturers and Suppliers

When analyzing the current situation from the manufacturers and suppliers' perspective, it became clear that sustainability is not top of mind. By checking the companies' websites, one can see that, of the 16 manufacturers mentioned in the target group, only two provided more information on sustainability: Maurer and ZIERER, both German companies.

MANUFACTURERS	LOCATION	SUSTAINABILITY AS A VALUE	SUSTAINABILITY REPORT	ADDITIONAL
Bolliger & Mabillard	Switzerland	No	No	
Chance Rides	USA	No	No	
Fabbri Group	Italy	No	No	
Gerstlauer	Germany	No	No	
Great Coasters	USA	No	No	
Intamin	Liechtenstein	No	No	
MACK Rides	Germany	No	No	
Maurer Rides	Germany	Yes	Yes	2nd hand coasters available on their website
Premier Rides	USA	No	No	
Rocky Mountain	USA	No	No	
S&S Worldwide	USA	No	No	
Technical Park	Italy	No	No	2nd hand rides available on their website
The Gravity Group	USA	No	No	
Vekoma Rides	Netherlands	No	No	
Zamperla	Italy	No	No	
ZIERER	Germany	Yes	No	

Maurer had recently published its first and extensive sustainability report, while ZIERER informed its readers that longevity is one of its core values, while further explaining some sustainability efforts. Two manufacturers, Maurer and Technical Park, offered second-hand coasters and rides on their websites, which could also be linked to sustainability if wanted.

North American manufacturers were included to check whether they could represent a possible source of inspiration. Since, as seen above, none of them had sustainability information neither a report on its website, they were not taken into consideration for the development of the research.

It is interesting to mention that, from the start of this research (February 2024) to its end (June 2024), the above table would be slightly different. Zamperla has launched its new website which includes brief information on sustainability as a value.

3.4.3 | Legal Framework

When it comes to legal framework and considering that Europe is the focus of this research, the European Union's website was used to understand what the future of sustainability is or should be. A decision was made to use only main regulations, as trying to look for all while understanding them would not be possible within the time frame of this graduation research.

The European Green Deal

This is one of the European Union's strategies to implement the United Nation's 2030 Agenda and sustainable development goals. "It is a new growth strategy that aims to transform the EU into a fair and prosperous society, with a modern, resource-efficient, and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use" (EUR-LEX - 52019DC0640 - EN - EUR-LEX, n.d.).

The European Climate Law

It protects the above-mentioned goal of having no net greenhouse gas emissions in 2050. This law establishes a framework for achieving climate neutrality within the EU by 2050 (a balance of EU-wide greenhouse gas emissions and their removal regulated in EU law). One of the critical points of this regulation is that all EU members are obliged to take all necessary measures to meet the regulation's aim (European Climate Law | EUR-Lex, n.d.).

Corporate Sustainability Reporting Directive

In addition to the European Green Deal, there is new European Union legislation that requires attention. Effective from January 5th, 2023, the Corporate Sustainability Reporting Directive (CSRD) requires EU businesses to disclose their environmental and social impacts and how their environmental, social, and governance (ESG) actions affect their business. The date companies must start complying with the CSRD varies from company to company, but it is phased from 2024 to 2029 (What Is the CSRD? | IBM, n.d.)

This brief analysis of the current situation regarding sustainability in Europe showed that the European Union is thinking about the future and wants its members to act. It was useful to clarify that companies should already have made their first step towards a greener future by now.

3.4.4 | Trends

Following the pattern to analyse European-level regulations, trends gathered were also on a mega and macro level. The following mega trends were taken from Deloitte's TrendRadar report on the future of sustainability. Deloitte is a leading global provider of audit and assurance, consulting, financial advisory, risk advisory, tax, and related services (About Deloitte, n.d.). Relevant to mention is that this report was created with data from research conducted between January and May 2023, and its focus was the sustainability market in Switzerland. According to them, there are four mega trends in sustainability that describe structural changes in society.

Corporate Responsibility

Refers to the ethical and voluntary actions taken by companies to address social, environmental and economic issues in a way that goes beyond their legal obligations. It involves considering the impact of business operations on various stakeholders, including employees, customers, communities, the environment and society as a whole (Deloitte, 2023).

Circularity

Aims at reducing waste, preserving natural resources and creating a sustainable future. It involves designing products, processes and systems that prioritize reuse, recycling, regenerating materials, and minimizing waste and pollution. The circular economy seeks to keep materials in use for as long as possible and recover and regenerate them at the end of their life cycle. By moving away from a linear, take-make-dispose model,

the circular economy can bring about economic, environmental and social benefits (Deloitte, 2023).

Sustainable Tech & Data

Technology and data-driven solutions play an important role in addressing environmental and social issues. This involves the use of innovative technologies such as eco-friendly construction, alternative materials, and clean tech. Data analysis and management also play a crucial role in supporting sustainable development initiatives by providing insights into patterns of consumption, waste generation, and environmental impact. The field of sustainable technology and data is rapidly evolving, with increasing emphasis on collaboration between technology companies, governments, and civil society to develop and implement sustainable solutions (Deloitte, 2023).

Decarbonisation

Decarbonisation refers to the process of reducing or eliminating carbon emissions, including from transportation and energy production. It is an essential component of global efforts to mitigate the impacts of climate change. Decarbonisation involves transitioning away from fossil fuels and implementing alternative sources of energy, such as renewable energy. It also requires the adoption of more sustainable practices and reduction of energy consumption through energy efficiency measures.

Decarbonisation is essential to achieving the goals of the Paris Agreement to limit global warming to well below 2 degrees Celsius above pre-industrial levels (Deloitte, 2023).

Within these four mega trends, Deloitte pointed out there were 27 macro trends. Despite their relevance for the future-proof analysis of the industry, they are not detailed in the body text of this report due to their extensiveness. However, in case detailed explanation is needed by the reader, one can find Deloitte's 'TrendRadar: Future of Sustainability' report online. It contains the exact description of each of the 4 mega and 27 macro trends.

CORPORATE RESPONSIBILITY	CIRCULARITY	SUSTAINABLE TECH & DATA	DECARBONISATION
Diversity & Inclusion Sustainability as Stakeholder Value ESG as a C-Suite KPI Fight Against Greenwashing Total Transparency Sustainable Incentives Fair & Equal Pay Corporate Activism New Era Income Structures	Sustainable Consumption & Lifestyle Sharing Economy Prosumer Economy Regeneration & Biodiversity Systems Thinking Upcycling Zero Waste	Eco-Friendly Construction Smart Data Alternative Materials Agricultural Innovations Artificial Intelligence Clean Tech	Carbon Tracking & Optimisation Renewable Energy Alternative Powertrains Emission Handling Energy Harvesting



A grayscale photograph of a man in a wheelchair and a woman in a wooden boat on a canal. The man is smiling and looking towards the woman. The woman is seen from the back, looking forward. The canal is narrow and lined with wooden buildings. The text "RESEARCH APPROACH" is overlaid in the center.

RESEARCH APPROACH

4 | Research Approach

The challenge analysis clarified which information needed to be gathered via research. To summarize, the information needed to solve the challenge was the following: data on how the stakeholders as well as the target group (top 20 EMEA theme parks and the top European manufacturers) acted on sustainability; and data on current and upcoming industry trends and regulations.

By connecting the needed information to Jeroen's wishes to ignite discussion and to the research's main purposes, a leading research question, which could already been seen on this report's cover, was formulated:

How future-proof is the current commitment to sustainability of the European attractions and theme parks industry?

To provide structure to the report and to answer the above question in the most complete way possible, further sub-questions were formulated:

Q1

How do the target group's theme parks and manufacturers act on sustainability?

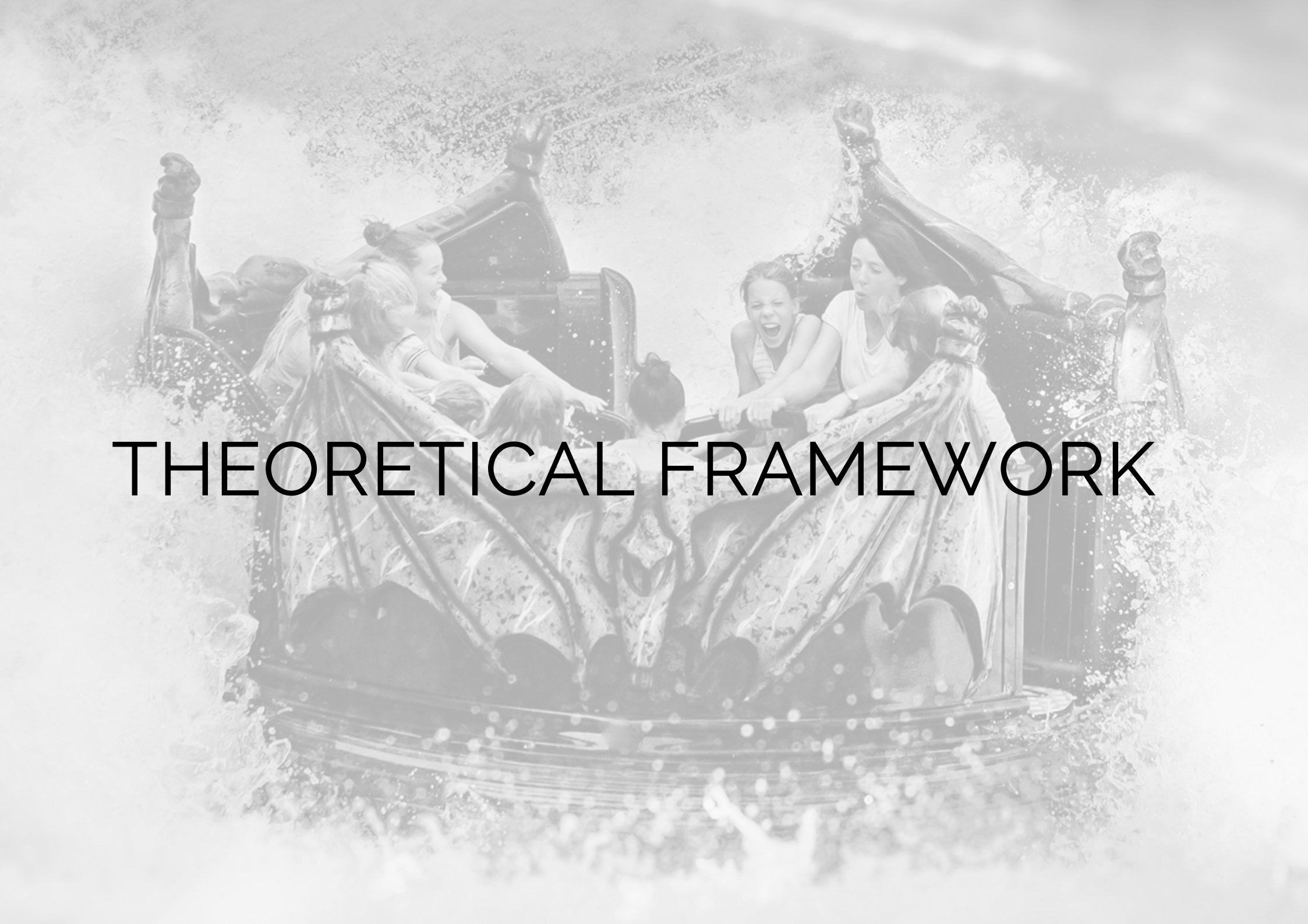
Q2

What do industry leaders say and think about sustainability?

Q3

What are the industry's trends and developments in sustainability?



A black and white photograph of a group of people on a roller coaster car, splashing through water. The text "THEORETICAL FRAMEWORK" is overlaid in the center.

THEORETICAL FRAMEWORK

5 | Theoretical Framework

The theoretical framework chapter provides information on models related to sustainability and further explains how each of them was applied to the research. Since there are still no standards for the attractions and theme parks industry in terms of sustainability, as well as no specific standards on how to report it, the goal behind using these models was to create ways to analyse the industry, evaluate theme parks' and manufacturers' performances, and design a possible ideal future situation.

5.1 | ESG Frameworks

Companies use ESG reporting frameworks to disclose data covering business operations and opportunities and risks related to the business's environmental, social, and governance (ESG) aspects. Although hundreds of ESG frameworks exist, only a dozen are considered major. Each framework typically sets the metrics and qualitative elements a company should disclose, as well as the format and reporting frequency. Some frameworks are voluntary, while others are government-mandated (What Are ESG Frameworks? | IBM, n.d.).

The relevance ESG reporting has gained over the past years is highly related to investors and community interest rising. Companies that perform well on ESG metrics are often considered to be better positioned for long-term success, as they are seen as managing risks more effectively and contributing to a more sustainable and equitable future (What Are ESG Frameworks? | IBM, n.d.).

ESG was the main model applied throughout the whole analysis of theme parks and manufacturers, as each sustainability initiative that could be found was linked to one of its corresponding areas: Environmental, Social or Governance.

5.2 | Deloitte's TrendRadar: Future of Sustainability

One of the world's most relevant and influential consultancy companies, Deloitte, has shared its take on the future. As seen in the challenge analysis chapter, the company listed 27 sustainability macro trends which are believed to be the ones companies need to pay attention to in the upcoming 10 years, and which provide guidance towards greener future scenarios.

Since the company categorized all 27 macro trends into different instruction areas (act, prepare, or watch), an idea came up to transform its analysis into a strategic decision-making model.

After all findings were gathered, this model was used to measure the future-proof performance of theme parks and manufacturers.

In addition, since the company specifically indicated the number of years each trend will take from 2023 to 2033 to become mainstream, this future prediction was used to shape recommendations and give guidance on future scenarios for the attractions and theme parks industry.

5.3 | Sustainable Development Goals (SDGs)

Developed by the United Nations and built on decades of work, the SDGs are an urgent call for action by all countries - developed or developing - in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests (THE 17 GOALS | Sustainable Development, n.d.).



Choosing the 17 SDGs as a model for this research was logical. The attractions and theme parks industry does not have a standard yet, which means that companies that already publish sustainability reports pick a standard based on their own interests. Considering that the SDGs are globally known and accepted, it was expected they would frequently appear throughout the research. Furthermore, the SDGs also served inspiration for possible strategies for the future.

A black and white photograph of a woman and a young girl blowing bubbles. The woman, on the left, is wearing a dark jacket and a cap, and is smiling while blowing into a bubble wand. The girl, on the right, is wearing a light-colored shirt and pants, and is also smiling while blowing into a bubble wand. They are standing in front of a large, circular, modern architectural structure with a spiral design. The background is bright and out of focus. The word "METHODOLOGY" is overlaid in the center of the image.

METHODOLOGY

6 | Methodology

The methodology chapter provides information on the methods chosen to answer the research's leading question:

How future-proof is the current commitment to sustainability of the European attractions and theme parks industry?

A mix of methods was used to answer this question. Desk research focused on analysing companies' websites and sustainability reports, as well as on collecting trends and developments and watching webinars. In turn, field research focused on interviewing industry leaders to obtain data on personal opinions and on attending a sustainability-related online conference.

Both quantitative and qualitative data were highly relevant to the research. However, they do not mix. Q1 originated percentages and graphs from initiatives collected online, while Q2 resulted in key themes mentioned by interviewees after a thorough thematic analysis was conducted. Not mixing means that percentages and graphs were not drawn from the interviews, for example.

As indicated in the Research Approach chapter, the research had sub-questions that provided structure to the report and helped to answer the leading question. Below, information is given on why each sub-question was asked, the methods used to answer it, and the question's outcomes.

6.1 | Sub-Question 1

How do the target group's theme parks and manufacturers act on sustainability?

Why

The main reason behind answering this sub-question was to create an overview of the sustainability performance of European theme parks and manufacturers.

Methods

The methods used revolved around desk research and focused on the region's top 20 theme parks and the most known manufacturers and suppliers. A decision was made to only analyse each company's official website and sustainability or CSR report (if it had yet published one), which aimed at understanding how much information each theme park publicly shares via its official channels.

Outcomes

Many outcomes originated from this sub-question. The first one was gathering sustainability initiatives and strategies from the target group. Results also made it possible to categorize theme parks and manufacturers into different groups. For example, the ones that already perform well in sustainability, the ones that might be on the right track, and those that do not even act on it.

6.2 | Sub-Question 2

What do industry leaders say and think about sustainability?

Why

As the previous question, creating an overview was also the reason behind answering this sub-question. In addition, Jeroen wished to understand if leaders, for example, still prefer to meet their suppliers face to face or would rather skip social connections and organize online meetings in the interest of sustainability; or if they still prefer to meet their suppliers face to face but will only select A, B, or C, depending on their sustainability efforts.

Methods

Field research was the main method used to answer this sub-question as interviews with industry leaders were conducted. To select interviewees, the research stakeholders were considered. To strengthen this sub-question's findings, data was also collected by attending Blooloop's online conference on sustainability: Greenloop. The conference was held on the 30th of April and brought together leaders from across the industry to discuss relevant topics.

Outcomes

This sub-question led to many outcomes. Outcomes were to get insights into how these leaders prioritize sustainability within their organization; to understand how they perceive the impact of sustainability initiatives on corporate reputation and brand image; to know how aware they are regarding the future of sustainability within the European Union; and to identify key themes.

6.3 | Sub-Question 3

What are the industry's trends and developments in sustainability?

Why

Trends and developments are always fundamental for developing research around a specific topic, especially around a burning issue as sustainability. The reason behind answering this sub-question was to understand to which direction the industry can go.

Methods

The method used to answer this question was the same as the one used for the first sub-question: desk research. This meant analysing industry-related websites and articles, as well as watching IAAPA webinars. In addition, the regulations analysed were selected accordingly to interviewees responses, who indicated these regulations' relevance. Moreover, comparative analysis needed to be conducted when findings from Q1 were combined with findings from Q3 to check how the collected trends performed.

Outcomes

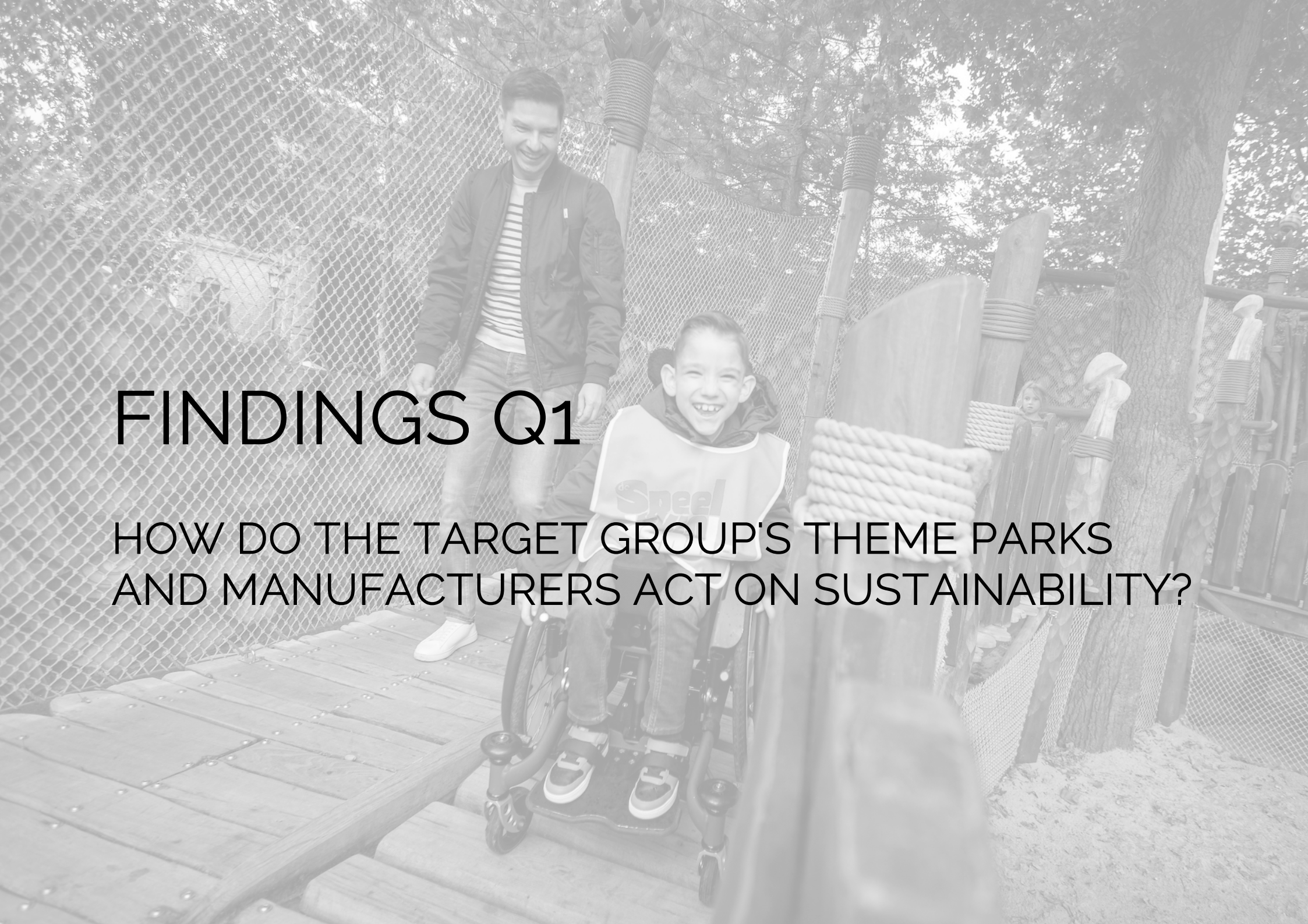
This sub-question made it possible to identify current and future sustainability trends shaping the attractions and theme parks industry and to collect insights into regulations and requirements that will soon bring changes to it. It also made it possible to understand which initiatives or areas gathered in Q1 are soon to become mainstream as well as to understand the need for action from the industry, which helped to trace possible strategies, and possible future directions, recommended in the end product.

6.4 | Methodology Overview

The table below is an overview of what is written in the Methodology chapter and should help in visualizing how the research was structured. It includes additional details, such as who the interviewees were, or which webinars were watched to answer the leading question: "How future-proof is the current commitment to sustainability of the European attractions and theme parks industry?".

SUB-QUESTION	WHY	METHOD	WHO / WHAT	OUTCOMES
Q1 How do the target group's theme parks and manufacturers act on sustainability?	Overview of the European theme parks' and manufacturers' performance regarding sustainability.	Desk Research	TOP 20 EMEA Theme Parks (2022)	Insights into sustainable and inspirational initiatives.
		Company Websites	Disneyland Park, Europa-Park, Efteling, Walt Disney Studios Park, Tivoli Gardens, PortAventura World, Liseberg, Gardaland, Legoland Windsor, Parc Asterix, Puy du Fou, Parque Warner, Alton Towers, Phantasialand, Legoland Billund, Thorpe Park, Futuroscope, Legoland Deutschland, Heide Park, and Chessington World of Adventures.	Insights into strategies linked to SDGs.
		Sustainability or CSR Reports	Well-Known European Manufacturers and Suppliers	Understanding how theme parks perform in terms of ESG.
			Bolliger & Mabillard, Fabbri Group, Gerstlauer, Intamin, MACK Rides, Maurer Rides, Technical Park, Vekoma, Zamperla, and Zierer.	Understanding how manufacturers perform in terms of ESG
			Other Manufacturers and Suppliers Chance Rides, Great Coasters International, Premier Rides, Rocky Mountain Construction, S&S Worldwide, and The Gravity Group.	Identifying opportunities. Creating groups of theme parks. Creating groups of manufacturers.

SUB-QUESTION	WHY	METHOD	WHO / WHAT	OUTCOMES
Q2 What do industry leaders say and think about sustainability?	Overview of the European industry leaders' opinions regarding sustainability.	Field Research	Theme Parks Current Leaders	Insights into how sustainability is prioritized // whether sustainability was truly within the leaders' DNAs.
		Interviews with Leaders	Andreas Andersen, Christof Burgbacher, Håkon Lund, and Kees Rijnen	Identifying key themes.
			Manufacturers and Suppliers Current Leaders	Identifying concern and challenges.
			Adrian Fees, Eric J. O'Rourke, Martin Weichselgartner, Maximilian Biller, and Veronica Celis Vergara	Understanding how leaders perceive the impact of sustainability initiatives on corporate reputation and brand image.
		Greenloop Conference	Greenloop Speakers (2024)	Understanding the awareness regarding the future of sustainability within the European Union
			Emily Dow, Andreas Andersen, Dare Ilori, Caitlin Krasovic, (+)	Identifying possible future directions or strategies.
Q3 What are the industry's trends and developments in sustainability?	Overview of what influences or will influence the situation and to understand to which direction the industry can go.	Desk Research	Blooloop, Deloitte, KPMG, IAAPA.	Identifying relevant sustainability trends.
		Websites	Blooloop's "Top 9 Sustainability Trends in the Attractions Industry for 2024"	Identifying relevant regulations and requirements.
		Webinars	IAAPA's "2024 Trends Unveiled: Future of Attractions Industry"	Identifying which initiatives are soon to become mainstream.
		Industry Documents	Firsy Draft of GSTC's Attraction Criteria	Identifying possible future directions or strategies.
		Comparative Analysis	Findings from Q1 against Deloitte's Future Sustainability Trends	



FINDINGS Q1

HOW DO THE TARGET GROUP'S THEME PARKS
AND MANUFACTURERS ACT ON SUSTAINABILITY?

7 | Findings Q1

The first sub-question aimed at getting insights into sustainable initiatives and strategies, so that it would be possible to categorize theme parks and manufacturers according to their performances. To understand how future-proof the industry is, its current state needed to be analysed first.

As indicated in the methodology chapter, for theme parks and manufacturers that had sustainability reports published, these were used for the analysis. For theme parks and manufacturers that had not yet published one, data was gathered from their official websites.

The following findings will be presented in two sections: the first refers to theme parks, while the second, to manufacturers and suppliers.

7.1 | Theme Parks: Sustainability in Website Pages

To briefly see how the word "sustainability" performed within the theme park's websites, a "fun-fact-type" exercise was thought of: to look for the search function on each official website and type the word "sustainability".

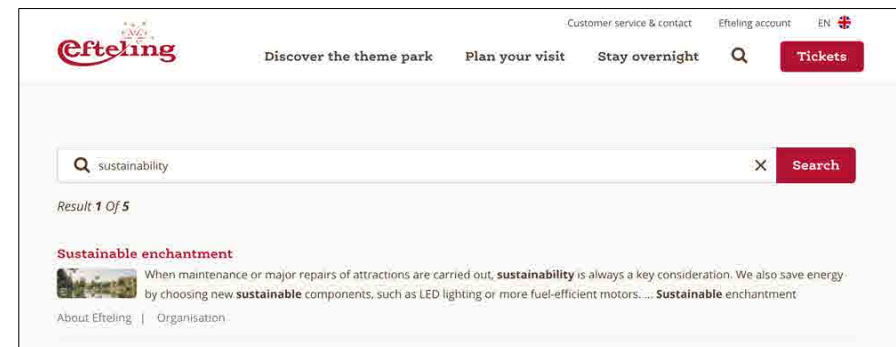
Europa-Park, Efteling, Tivoli and Liseberg lead the readers to the right information. All have links that connect the parks to sustainable initiatives. However, the Scandinavian parks are the only ones that link their sustainability reports to this search's interior page.

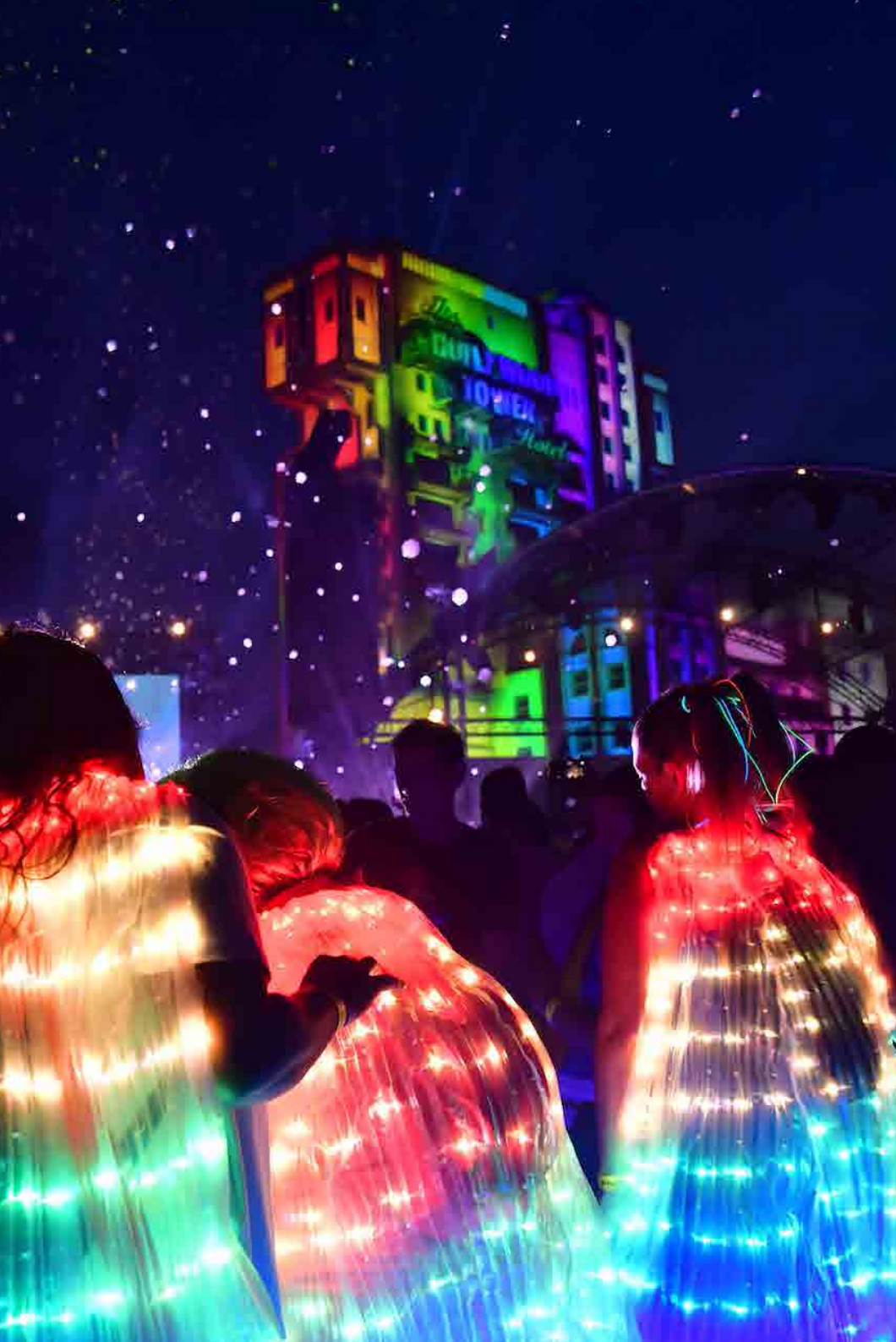
PortAventura World, in turn, takes reader back to Google. Yet the first two links shown are strictly related to the park's sustainability efforts and to its report. Its neighbouring park, Parque Warner Madrid, leads readers to the certifications it has obtained in sustainable tourism.

Disneyland Paris, even though publishing a sustainability report and having much information on their sustainable initiatives, does not link the word to any links, neither to its report.

Out of Merlin Entertainments' eight analysed parks, only two provide links with a bit of information on their sustainability efforts: Chessington World of Adventures and LEGOLAND Billund. The other six either show a message that no results were found or links that are not strictly related to sustainability.

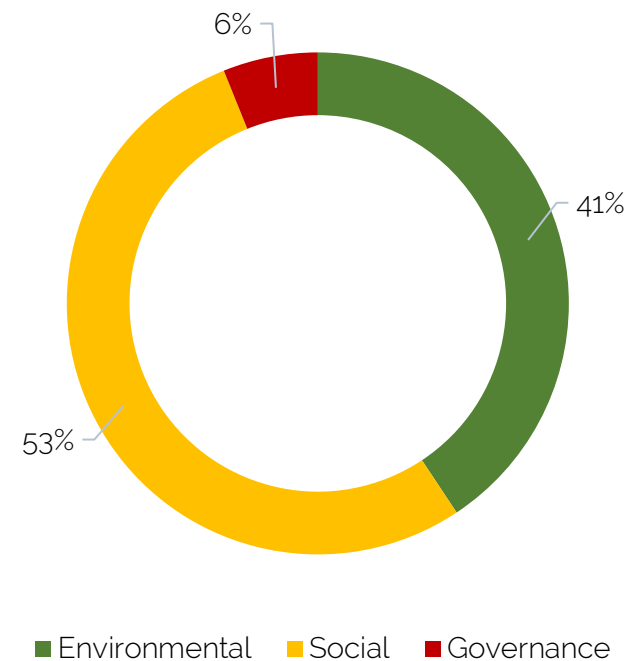
Compagnie des Alpes' two analysed parks also do not show results to the search, as well as the other French park, Puy du Fou. Lastly, Phantasialand does not have a search function, meaning this exercise could not be done on its website.





7.2 | Theme Parks' Overall Numbers

By combining all theme parks' initiatives, a total overview was created. A total of 622 initiatives was collected and the analysis shows theme parks still mainly focus on Social aspects. The proportion of each ESG representation within theme parks ended up being the following:

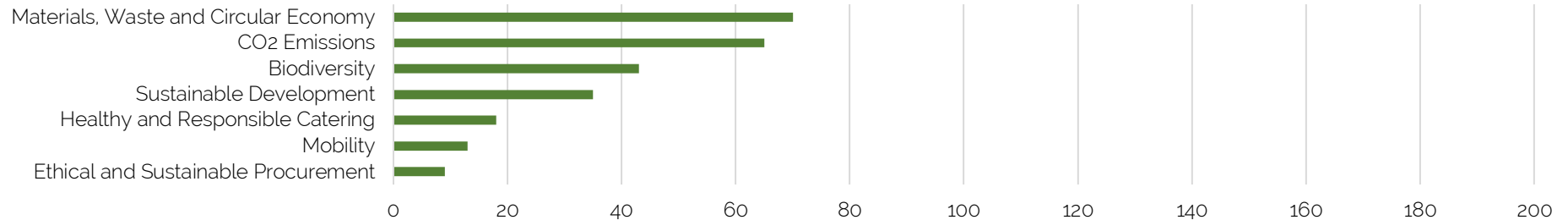


Columns of the created overview include the initiatives, where they were collected from, the indication of which ESG letter they correspond to, and which main and sub-categories they could be linked to.

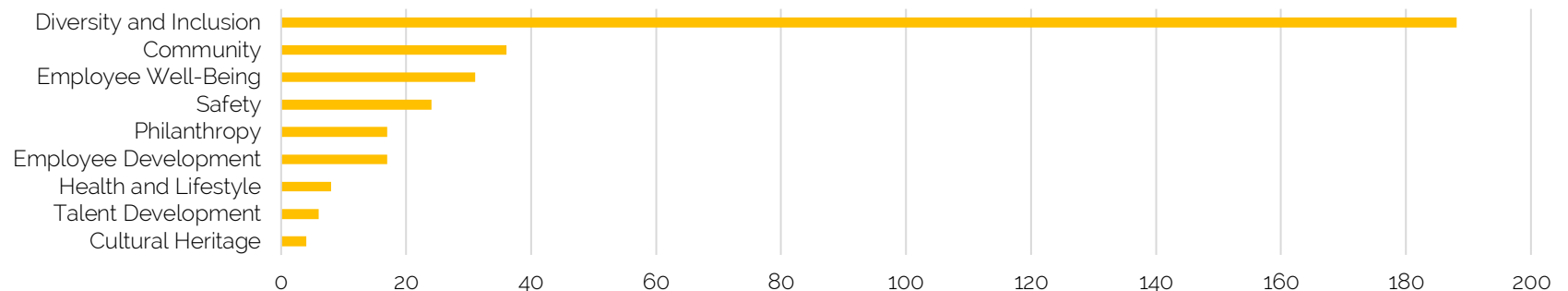
Main Categories

These 622 initiatives were primarily divided into main categories. The number of initiatives per main category indicates that there is a clear focus in three main areas: Diversity and Inclusion leads the rank with 188 initiatives, while the second largest group is composed of Materials, Waste and Circular Economy, and CO2 Emissions.

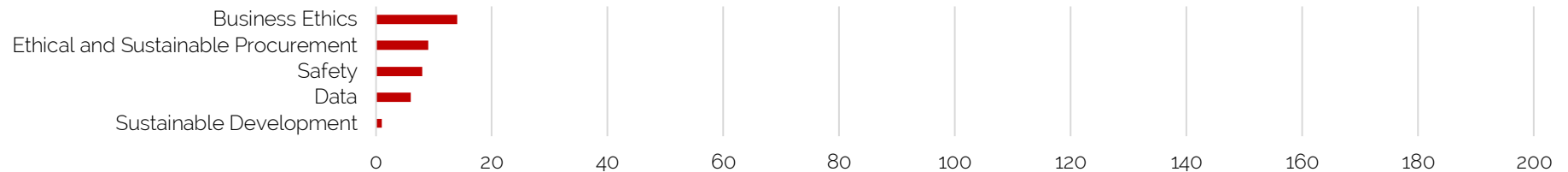
Environmental



Social



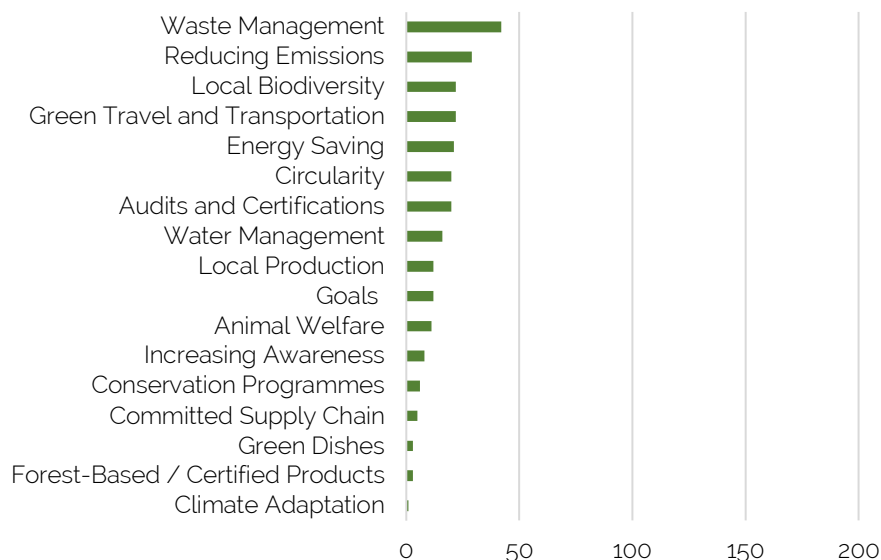
Governance



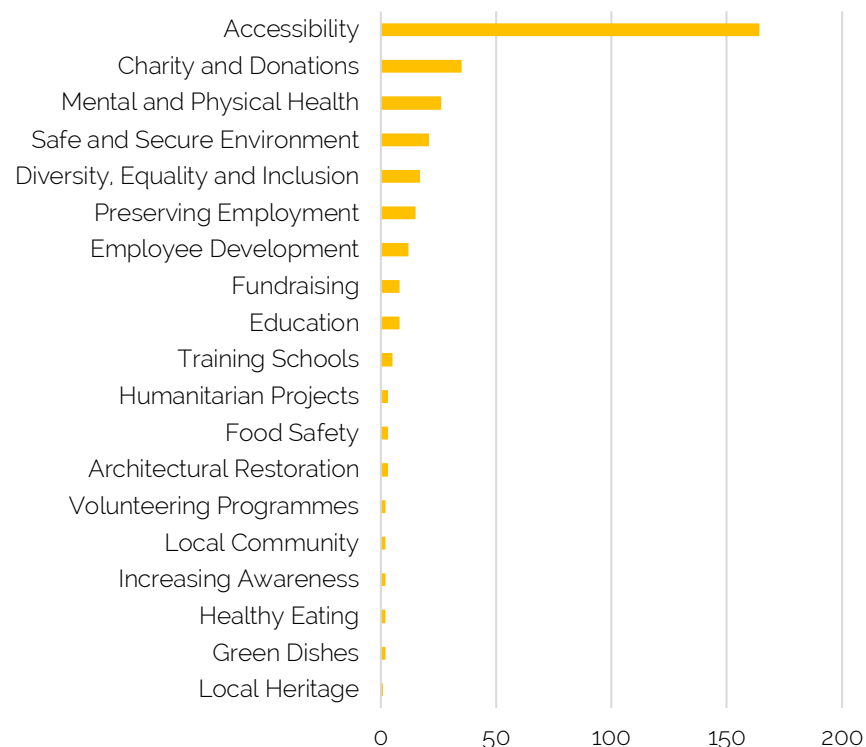
Sub-Categories

These main categories were further divided into more specific sub-categories to deliver a more detailed analysis. Out of the 188 initiatives related to Diversity and Inclusion, 164 are linked to Accessibility. The reason behind this result is due to many of the analysed theme parks not publishing a sustainability report. Therefore, the only official source available was their websites, which all include information regarding an accessible visit. It is important to restate that this research did not analyse how effective these initiatives are in real life. It is known that, even though almost 27% of the initiatives are accessibility-related, the experience theme parks create are not yet fully accessible and guests with disabilities still face challenges when visiting these.

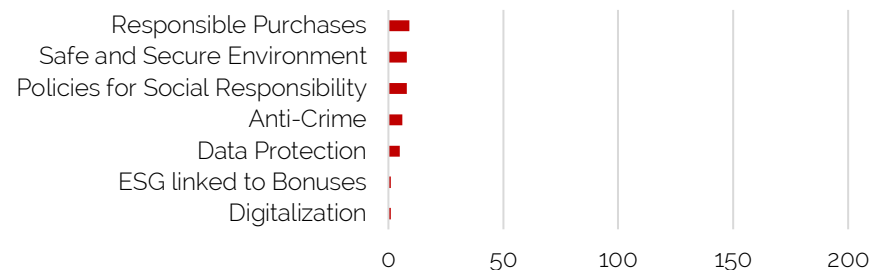
Environmental



Social



Governance



Mainstreamness

The analysis has shown common topics that theme parks address. The most mentioned topic is Accessibility, which leads the rank with 164 linked initiatives out of the 622 gathered. Further in this report, when trends' performances are tested, Diversity and Inclusion is categorized as soon to become mainstream, in less than two years' time. Results obtained in this chapter prove Deloitte's prediction. Waste and water management together have 58 initiatives and has proved, by mainstreamness, to be an area that theme parks should act if they are not already.

7.3 | Theme Parks' Actions on Sustainability

As seen in the Challenge Analysis, the theme parks that publish official sustainability reports are Disneyland Paris, Liseberg, PortAventura World and Tivoli.

Other theme parks, such as Efteling, Futuroscope, and Puy du Fou, have not yet published sustainability reports but provide relevant information via their official websites. Europa-Park does belong to this same group, but the amount of information they provide via their sources could be considered by many as a report.

The remaining theme parks, Alton Towers, Chessington World of Adventures, Gardaland, Heide Park, LEGOLAND Billund, LEGOLAND Deutschland, LEGOLAND Windsor, Parc Astérix, Parque Warner, Phantasialand, and Thorpe Park, have minimum information regarding sustainability on their official websites.

On the following pages, each of the mentioned theme parks is analysed individually or within its parent company's group. The paragraphs indicate their strategies, if there is a link to the Sustainable Development Goals or not, how theme parks performed in terms of ESG, as well as inspirational initiatives found. The following analysis is presented in alphabetical order and does not represent a possible ranking of theme parks and parent companies.

THEME PARK	REPORT / SOURCE
Alton Towers	Official Website
Chessington World of Adventures	Official Website
Disneyland Paris	The Environment at Disneyland Paris 2023
	Disneyland Paris Corporate Social Responsibility 2020
Efteling	Official Website
Europa-Park	Corporate Website
	Open Hearts Online Magazine
Futuroscope	Official Website
Gardaland	Official Website
Heide Park	Official Website
LEGOLAND Billund	Official Website
LEGOLAND Deutschland	Official Website
LEGOLAND Windsor	Official Website
Liseberg	Liseberg's Sustainability Report 2023
Parc Astérix	Official Website
Parque Warner	Official Website
Phantasialand	Official Website
PortAventura World	PortAventura World's Sustainability Report 2022
Puy du Fou	Official Website
Thorpe Park	Official Website
Tivoli	Tivoli's Sustainability Report 2023

Compagnie des Alpes

Even though Compagnie des Alpes' Annual Financial Report 2023 has not been deeply analysed for this research, a few insights were collected when reading parts of it.

The company has four pillars, which guide its operations: accelerating the ecological transition; creating connections between people; acting for the vitality of its regions; and helping to improve employees' lives. From these four pillars, the company draws ten commitments, which include achieving "Zero Net Carbon" for scopes 1 and 2 by 2030; acting to reduce scope 3 emissions; participating in the management of water resources; or reducing the impact of activities on resources and biodiversity.

In addition, renunciations are also drawn, but all are related to company's ski resorts. One of its renunciations is, for example, that there is no stubborn continuation of skiing activity when climate change makes any part of its areas unsuitable for skiing. Even though the report is pretty detailed and indicates goals, initiatives and impacts, none of them are linked to the Sustainable Development Goals.

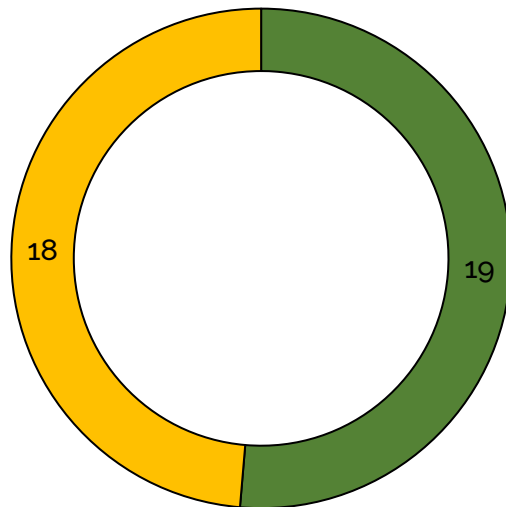
Futuroscope and Parc Astérix, both operated by Compagnie des Alpes, do not have their own sustainability reports. Analysis of data gathered through their websites, shows Parc Astérix only focuses on initiatives within the Social area, which are mostly related to accessibility. On the other hand, the company's Annual Report indicates Parc Astérix has obtained ISO 50001, having an energy management system for all its activities. It also mentions the park has been awarded a gold medal for its CSR performance in 2021, by ECOVADIS assessment platform. It is interesting to see how the official website misses an opportunity to share relevant data about the park's sustainability efforts.

Regarding Futuroscope, its website provides a larger amount of information on sustainability and details the environmental initiatives that aim at getting the park closer to its goal of carbon neutrality in 2025. Futuroscope's focus points are CO2 Emissions, Diversity and Inclusion, and Waste and Water Management. The company's Annual Report adds that the park also obtained ISO 50001 certification for all its activities.

Within these initiatives and following its name and theme, Futuroscope seems to be ahead of its brother park towards a more sustainable future. The park funds carbon sinks, with 27 hectares of forest planted; purchases 100% of its electricity from renewable sources since 2020; and has installed a biomass heating system as well as solar panels that produce the required energy for its hotel and Space Loop restaurant. Furthermore, Futuroscope also innovates in clearly stating that it links its attractions to educational themes, which entails what the industry calls "edutainment", and represents a form of sustainability.



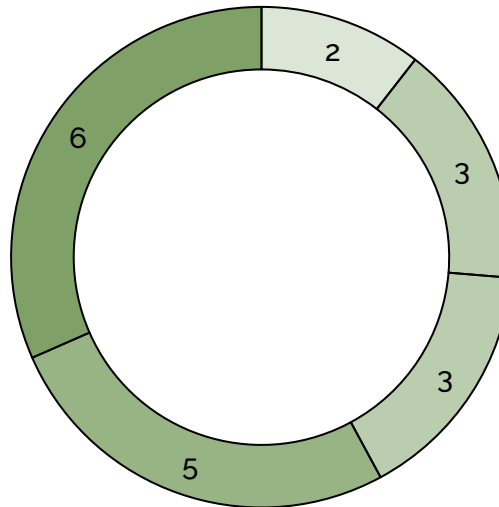
ESG Distribution



■ Environmental

■ Social

Environmental Initiatives



■ Sustainable Development

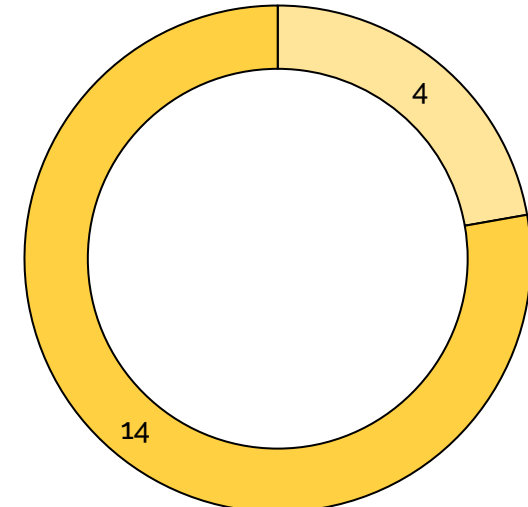
■ Mobility

■ Biodiversity

■ Materials, Waste and Circular Economy

■ CO2 Emissions

Social Initiatives



■ Community

■ Diversity and Inclusion

Disneyland Paris

The resort, which includes both Disneyland Park and Walt Disney Studios Park (soon to be renamed to Disney Adventure World) follows its parent company guidance in terms of sustainability. The Walt Disney Company is the owner of many subsidiaries, including Disneyland Paris, and publishes an extensive and detailed sustainability report every year. Even though its report has not been deeply analysed for this research, a few insights were collected when reading parts of it.

TWDC clearly indicates to which Sustainable Development Goals as well as to which SASB indicator the respective chapter is linked as seen in the picture below. In addition, it indicates specific and measurable goals related to the company's emissions.

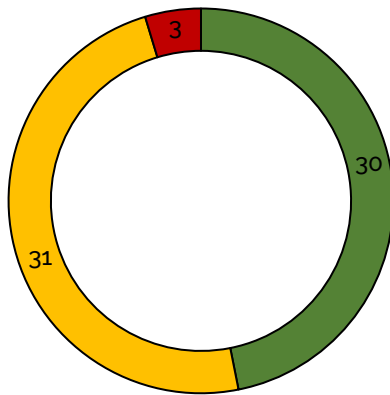


In addition to this report, the company also published a document in which its environmental goals for 2030 are indicated, these revolving around emissions, water, waste, materials, and sustainable design.

Disneyland Paris nurtures these five goals on its own and specific way. In its own sustainability report (The Environment at Disneyland Paris 2023), it is indicated that the French resort has emissions; water; materials, waste and circular economy; and biodiversity as its four guiding areas to actions and projects. In addition to this report, its last CSR report was published in 2020 and provides readers with initiatives related to the two other ESG areas: Social and Governance. After collecting sustainability initiatives from both reports, numbers show that the resort's focus is balanced between Environmental and Social areas, which sum 30 and 31 initiatives respectively.

Within these initiatives, some were marked as inspirational. As seen in the challenge analysis of this report, Disneyland Paris transforms construction tarps into products, such as bags and wallets, which could easily be adapted to other theme parks. When it comes to accessibility, the parks have added French Sign Language and chansigne, which is a form of artistic expression that consists of expressing the lyrics of a song translated into sign language to the rhythm of the music (Universal Accessibility | NEW EUROPEAN BAUHAUS, n.d.), to some of their shows. Lastly, the resort has some experimentations in place. One of them is My Green Butler, which is a mobile application that allows guests to track and adapt their water and energy consumption during their stay. This not only reduces water and energy consumption, but also increases awareness of guests of the topic

ESG Distribution

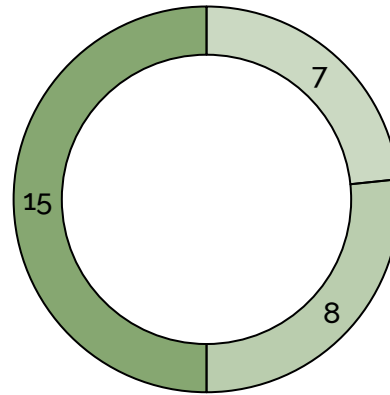


■ Environmental

■ Social

■ Governance

Environmental Initiatives

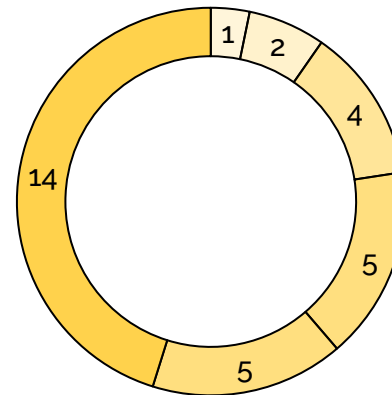


■ Biodiversity

■ CO2 Emissions

■ Materials, Waste and Circular Economy

Social Initiatives



■ Philanthropy

■ Employee Well-Being

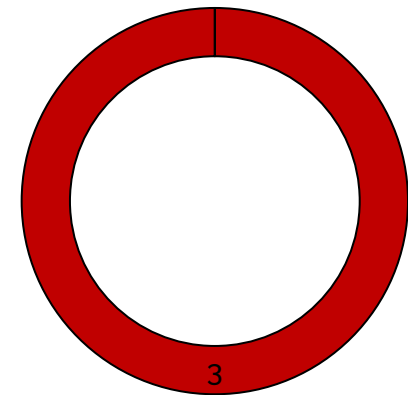
■ Community

■ Employee Development

■ Health and Lifestyle

■ Diversity and Inclusion

Governance Initiatives



■ Ethical and Sustainable Procurement

Efteling

Even though the Dutch theme park has not yet publicly published a sustainability report, it clearly indicates what its environmental goals are via its website: generating 0% of non-recyclable waste as well as becoming climate neutral in 2030, and climate positive in 2032. Its website does not link its sustainability initiatives to any Sustainable Development Goals.

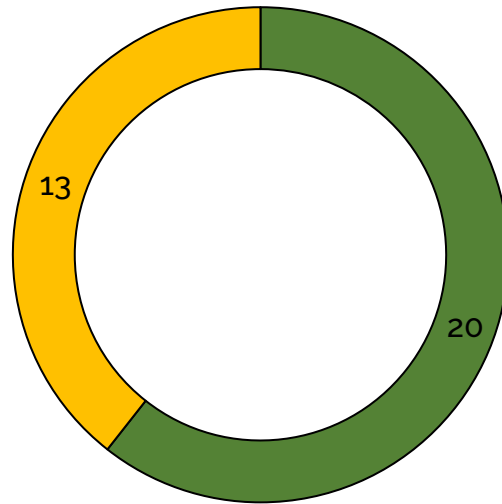
When analysing its website, 33 initiatives were collected: 20 were categorized as Environmental, while the remaining 13 were categorized as Social. Data gathered indicates that the park's focus points are CO2 Emissions, Diversity and Inclusion, and Waste Management.

Within these initiatives, there are inspirational ones that could be applied to other theme parks. The brakes of the Max & Moritz roller coaster capture energy and send it back to the ride's energy grid and the popular Holle Bolle Gijs encourages guests to dispose their waste correctly and in a fun way.

In addition, employees that wear an orange badge are able to communicate in sign language, and the park created videos that explain the wheelchair accessibility of many attractions, helping guests to visualize accessibility instead of only reading texts.



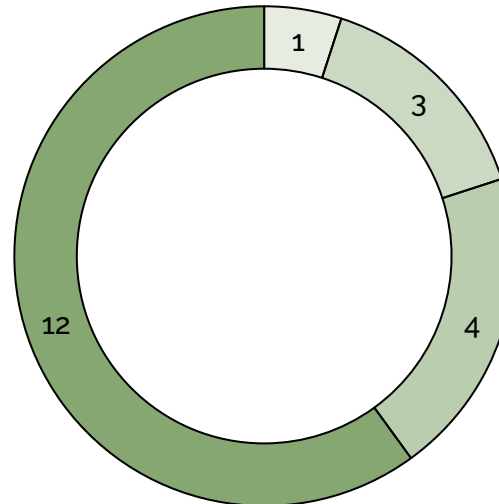
ESG Distribution



■ Environmental

■ Social

Environmental Initiatives



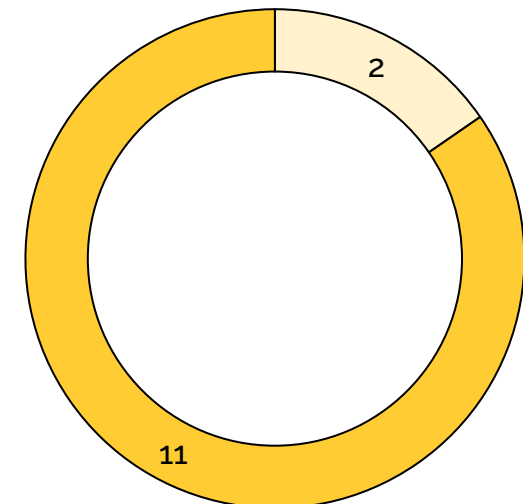
■ Biodiversity

■ Sustainable Development

■ Materials, Waste and Circular Economy

■ CO2 Emissions

Social Initiatives



■ Community

■ Diversity and Inclusion

Europa-Park

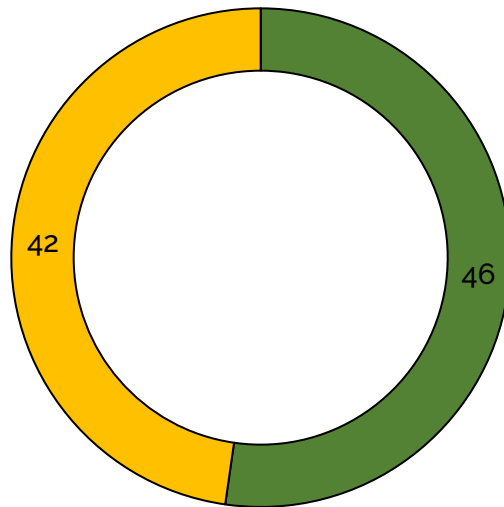
Behind Disneyland Park, Europa-Park is the second most visited park in Europe. Yet it has not yet published an official sustainability report, but information that can be found online could constitute a report if one wanted to. It is interesting to mention that its corporate website provides more information on sustainability when navigating through the German version of it, which seems to be a pattern for many companies that do not have English as its native language. Even so, within this large amount of information, the park does not indicate its future sustainability goals neither connects its initiatives to any of the 17 Sustainable Development Goals.

The analysis of data gathered indicates that, as Disneyland Paris, the park's focus is extremely balanced between Environmental and Social initiatives, which sum 46 and 42 respectively. When looking at the overview, it becomes clear that the German park focuses on CO2 Emission, and Waste and Water Management. In Social areas, the focus goes to the Local Community and its Employees.

Within these initiatives, some were marked as inspirational. When it comes to Waste Management, the park has 30 high tech trash cans which compress the trash thrown in, allowing each trash can to collect more trash than a conventional one. An inner sensor alerts the responsible department when it needs to be emptied, avoiding unnecessary transport. These bins have their own solar cells that provide energy for its functioning. In addition, Europa-Park indicates it already requires ecological compensation when a new project is developed. Lastly, the park provided temporary home for Ukrainian refugees in one of its hotels, a type of initiative that was not seen in other theme parks' reports.

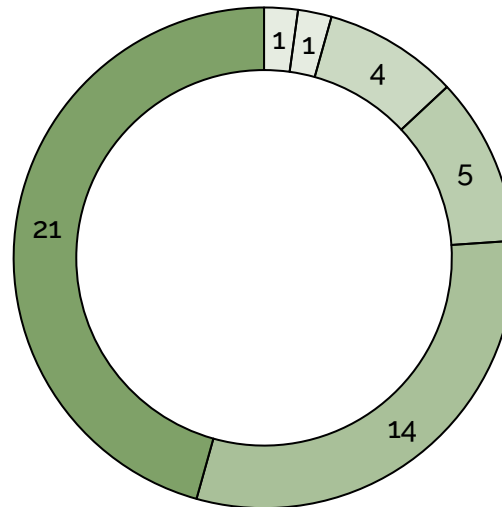


ESG Distribution



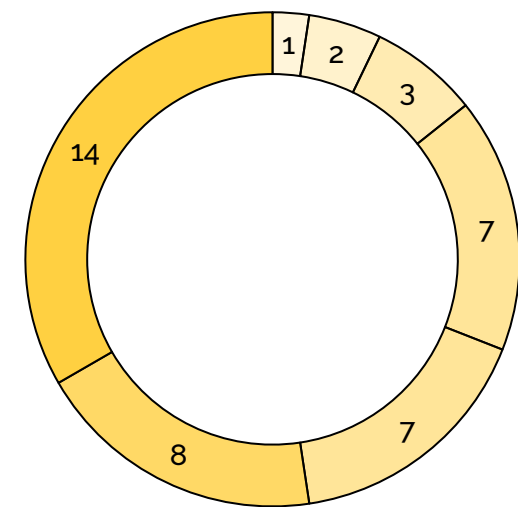
- Environmental
- Social

Environmental Initiatives



- Ethical and Sustainable Procurement
- Healthy and Responsible Catering
- Biodiversity
- Mobility
- CO2 Emissions
- Materials, Waste and Circular Economy

Social Initiatives



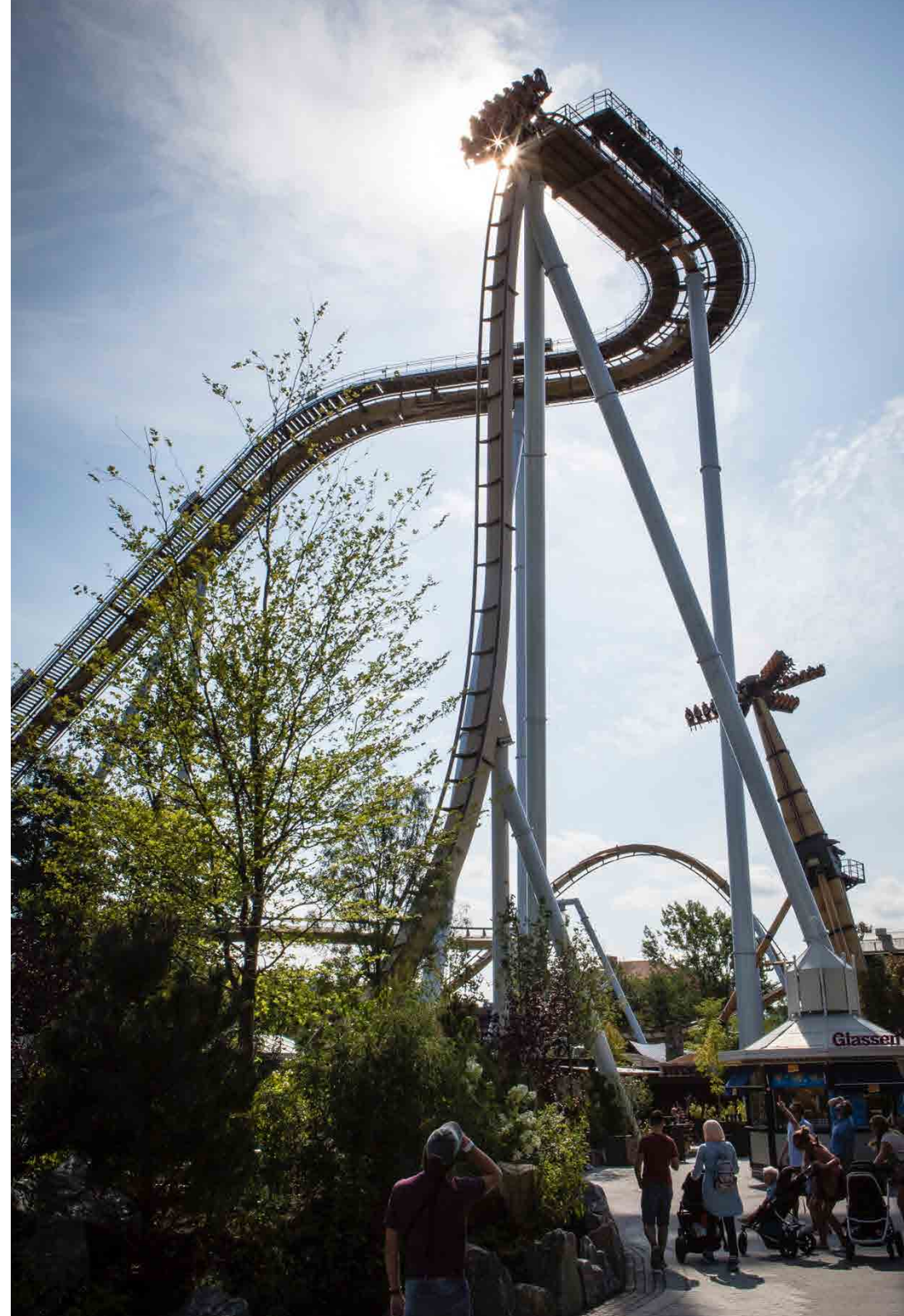
- Health and Lifestyle
- Cultural Heritage
- Employee Development
- Philanthropy
- Employee Well-Being
- Community
- Diversity and Inclusion

Liseberg

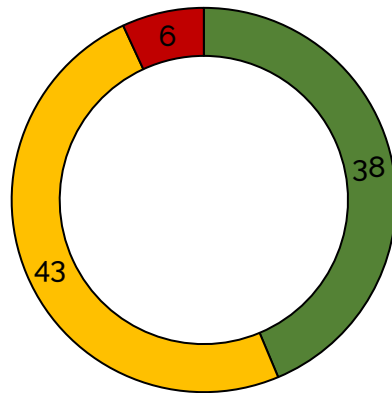
Liseberg's 2023 sustainability report has been the park's 7th on the topic, which goes with the park's aim to lead the sustainable development of the amusement park industry. To get there, the park has as one of its goals to create a sustainable transition for its entire operation, hoping to encourage industry colleagues to do the same, while strengthening its brand as one of the most sustainable in Sweden. In addition, its sustainability report indicates the parks wants to contribute to fulfilling the Paris Agreement and strives towards the 1.5-degree target, which entails reductions in greenhouse gas emissions. The report indicates the park's most positive contributions are linked to the following Sustainable Development Goals: 8, 10, 11, 12 and 13.

By going through the report and collecting its initiatives, it was possible to see that the park balances its focus between Environmental and Social areas, with each category summing 38 and 43 initiatives, respectively. Its main action areas, according to the overview, are CO2 Emissions; Diversity and Inclusion; Waste Management; and Safety.

As a role model, Liseberg is creative and has, therefore, interesting initiatives that could serve as inspiration for others. The park is testing night deliveries of certain goods to understand if the reduced amount of traffic at night reduces emission. When it comes to green transportation, Liseberg indicates that if the park must cover the national artists' transportation costs, a train journey will be offered. Artists' catering is also thought of: the standard option always starts with plant-based meals. Furthermore, besides having a sustainability manager, the park has an accessibility specialist, who coordinates and develops accessibility work.

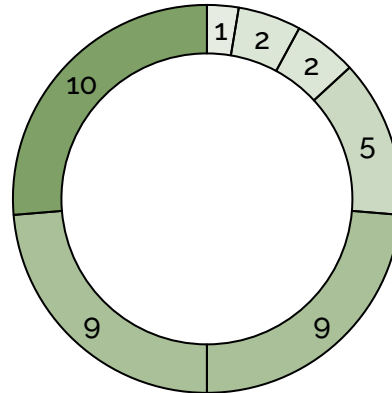


ESG Distribution



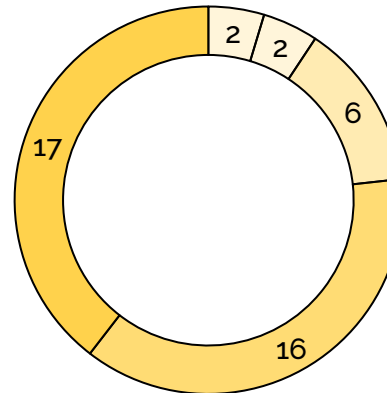
- Environmental
- Social
- Governance

Environmental Initiatives



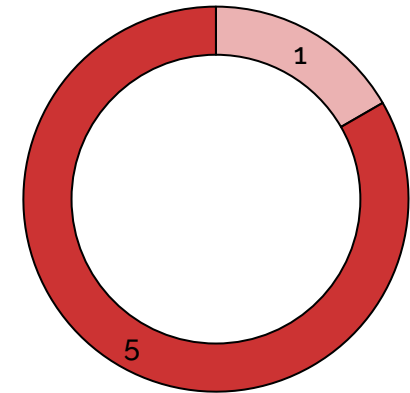
- Ethical and Sustainable Procurement
- Healthy and Responsible Catering
- Mobility
- Biodiversity
- Materials, Waste and Circular Economy
- Sustainable Development
- CO2 Emissions

Social Initiatives



- Employee Well-Being
- Health and Lifestyle
- Employee Development
- Safety
- Diversity and Inclusion

Governance Initiatives



- Business Ethics
- Ethical and Sustainable Procurement

Merlin Entertainments

Merlin Entertainments operates eight of the top 20 most visited theme parks in 2022: Alton Towers, Chessington World of Adventures, Gardaland, Heide Park, LEGOLAND Billund, LEGOLAND Deutschland, LEGOLAND Windsor, and Thorpe Park. Even though the company publishes information regarding sustainability efforts in its Annual Report, it does not have an individual report dedicated to sustainability and neither do its theme parks listed above.

Merlin Entertainments operates under the five non-financial requirements of the Companies Act 2006, which are: employees; health, safety and security; environmental matters; streamlined energy and carbon reporting; and social matters. For each of these areas, Merlin indicates the actions it takes to be more sustainable. The company also shares its Environmental Policy via its website, which includes planning cost-effective water, waste and energy conservation, as well as measuring, monitoring, and making public its annual carbon emissions. Yet no concrete goals can be found in this document neither in its Annual Report, and no links to the Sustainable Developments Goals are indicated.

When analyzing Merlin's theme parks' websites, it becomes clear that their focus is on Social initiatives. Out of the 111 initiatives collected, 99 were grouped within the Social area of ESG.

This shows that, even though environmental initiatives are mentioned throughout Merlin's Annual Report, they can barely be found throughout its parks' official websites. These parks focus on Diversity and Inclusion, providing many and elaborate information on accessibility, including extremely detailed accessibility guides.

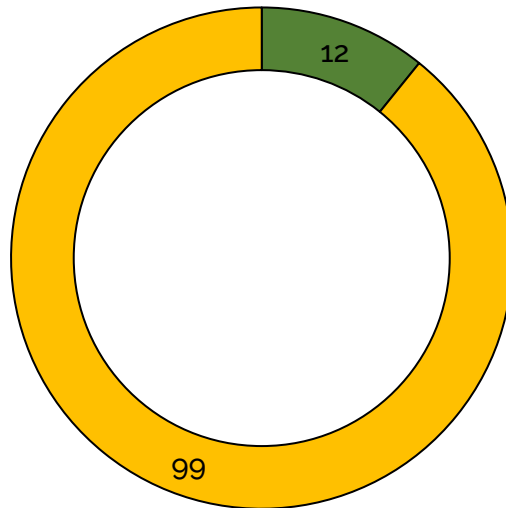
However, this research did not analyse how effective these initiatives are in real life.

It is interesting to mention that a few of Gardaland's Environmental initiatives can be found on Blooloo's website but are nowhere to be found on the park's website. On purpose, this analysis did not include initiatives found via websites not owned by the company to check how transparent or how well theme parks and manufacturers are communicating their sustainability efforts.

Within the 111 initiatives mentioned above, these parks seem to have created inspirational solutions regarding accessibility, such as a partnership with AccessAble to gather all accessibility information of a park in one separate website and in a specific and clear way; offering the Hidden Disabilities Sunflower programme; the Show Consideration wristband; Sensory Guides; Quiet Hours at the LEGO Store; and having an Accessibility Experience Team which provides a personalized Accessibility Plan for disabled visitors.



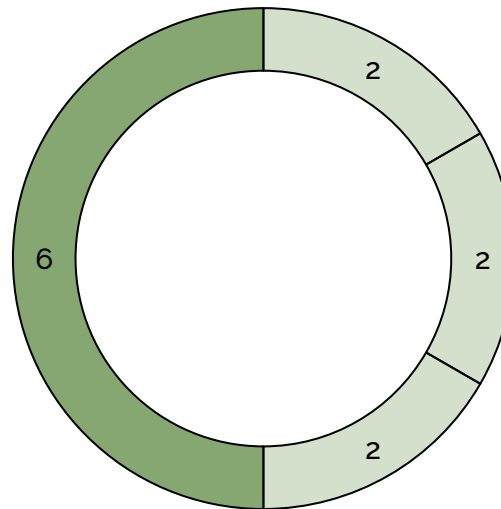
ESG Distribution



■ Environmental

■ Social

Environmental Initiatives



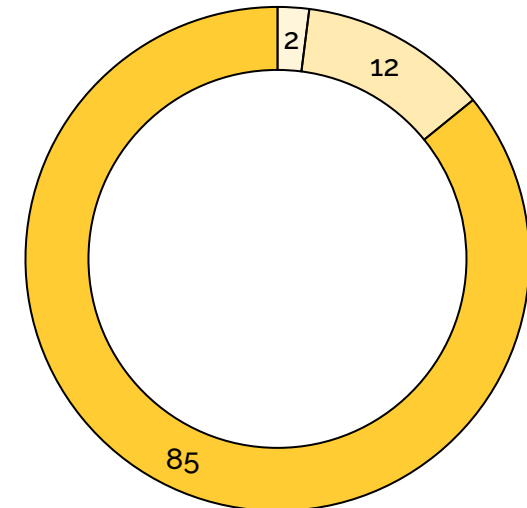
■ CO2 Emissions

■ Mobility

■ Sustainable Development

■ Materials, Waste and Circular Economy

Social Initiatives



■ Philanthropy

■ Community

■ Diversity and Inclusion

Parque Warner Madrid

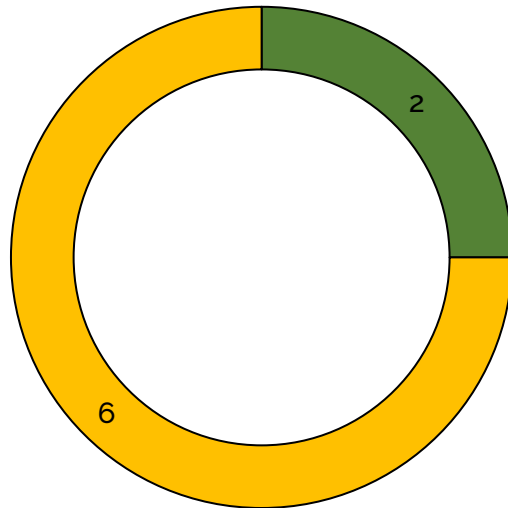
Parque Warner Madrid is owned by Parques Reunidos, which publishes a pretty clear and structured sustainability report. The report indicates the company's goals to every action area and links its initiatives not only to the Sustainable Development Goals, but also to the principles of the United Nations Global Compact.

In addition, the report is divided by its action areas and each respective chapter presents its objectives, why the area matters, the company's management approach to the topic and an evaluation of this approach.

Even though the report is well structured, and much information is provided, the difference between the parent company's report and the information found on its Parque Warner Madrid's website is discrepant. What the website shares is mostly related to accessibility, in addition to certifications the park obtained, such as the S Mark for Sustainable Tourism, which guarantees the implementation, compliance and accreditation of the SDGs (3, 6 and 7) corresponding to the ONU Agenda 2030 in tourism establishments (Parque Warner Madrid Obtains the Tourism Sustainability Certificate | Parque Warner Madrid, n.d.). However, there is no indication on how the park acts to deliver the above.

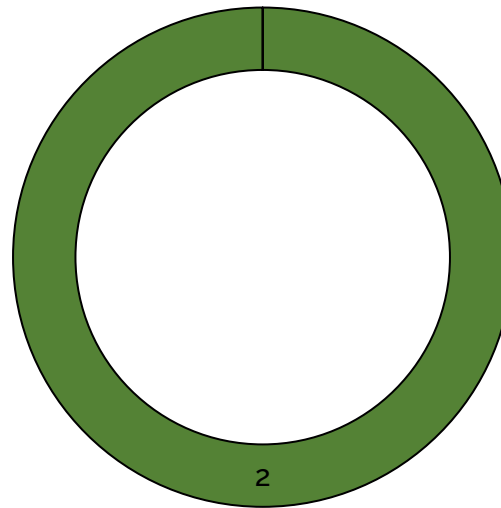


ESG
Distribution



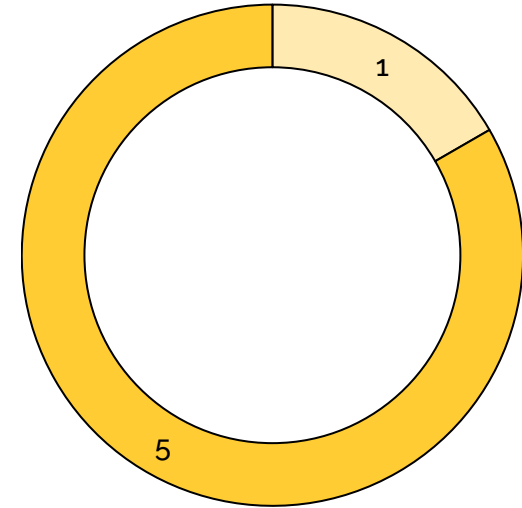
■ Environmental
■ Social

Environmental
Initiatives



■ Audits and Certifications

Social
Initiatives



■ Philanthropy
■ Diversity and Inclusion

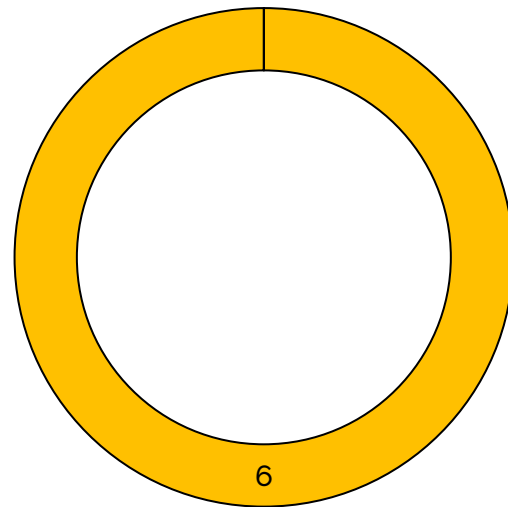
Phantasialand

Phantasialand has not yet published a sustainability report and provides little information on sustainability efforts via its website. Even though it is one of the most visited parks in the EMEA region and one of the most advanced when it comes to roller coasters and themed areas, it seems to be stuck in the past when it comes to sustainability. Environmental efforts, initiatives or goals are nowhere to be found.

When it comes to Social sustainability, information that can be found is strictly related to accessibility. The park has a strict approach when it comes to letting disable guests ride: the guest is required to sign a usage waiver agreement, which is only provided in German, lowering the accessibility.

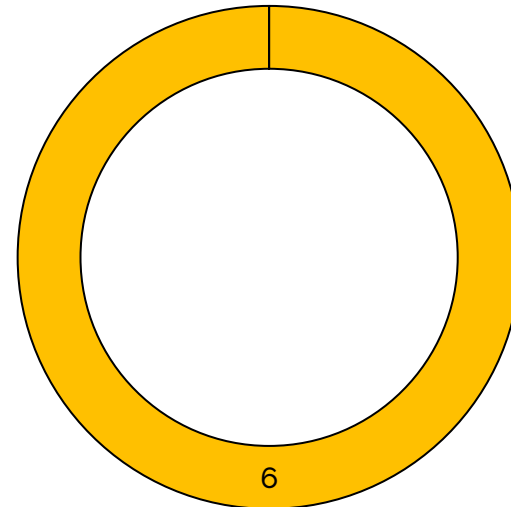


ESG Distribution



■ Social

Social Initiatives



■ Diversity and Inclusion

PortAventura World

PortAventura World publishes its own sustainability report and clearly indicates how it acts on the three ESG areas. Furthermore, it states the park acts according to the United Nations Global Compact and the Sustainable Development Goals, having 3, 4, 6, 7, 8, 12, 13, and 17 as their priority goals. Their objectives are also concrete and measurable, as for example, to increase the number of employees who have received specific ESG training by 75% by 2023.

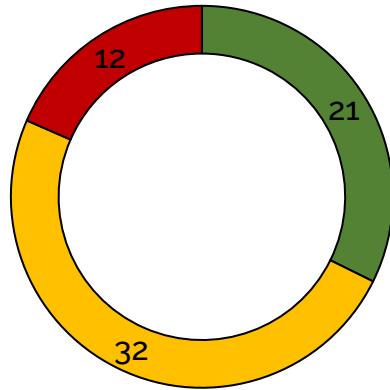
The park is proud to have achieved a major milestone: becoming a B Corporation. This means the park is now part of a community of organizations that represent the most advanced sustainable and regenerative business model in the world, and the title underscores its commitment to the society and the planet.

Data gathered from analysing its report shows there is a clear focus on Employee Well-Being, CO2 Emissions, and Circular Economy. Interestingly, the park is the only one that indicates that a percentage of director and manager bonuses is already linked to achieving ESG goals.

The park uses its creativity and its innovation power to diversify its initiatives. The park is the only one that mentions already purchasing verified carbon credits. It also encourages their employees to come up with ideas for charitable projects and let them contribute to their development by voluntarily donating one euro from their salary. To motivate this, PortAventura contributes with another two euro for each euro given by employees. Lastly, the park's is house to a fully accessible housing complex, the Dreams Village, and welcomes underprivileged families to enjoy the resort for a week completely free of charge.



ESG Distribution

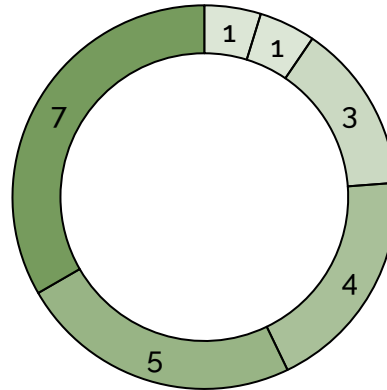


■ Environmental

■ Social

■ Governance

Environmental Initiatives



■ Biodiversity

■ Mobility

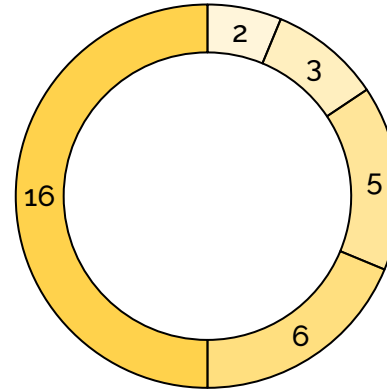
■ Ethical and Sustainable Procurement

■ Materials, Waste and Circular Economy

■ CO2 Emissions

■ Sustainable Development

Social Initiatives



■ Talent Development

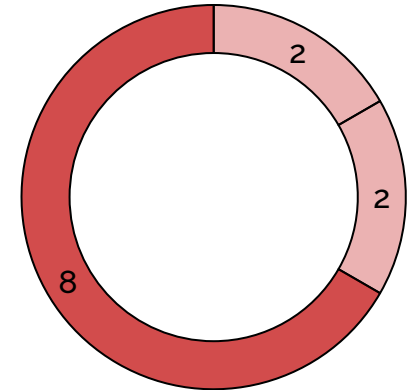
■ Community

■ Philanthropy

■ Diversity and Inclusion

■ Employee Well-Being

Governance Initiatives



■ Business Ethics

■ Data

■ Safety

Puy du Fou

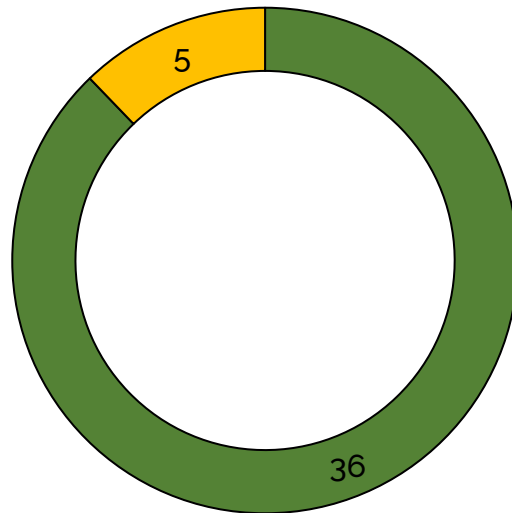
Puy du Fou is the only one of the most visited theme parks that does not have a roller coaster. Nevertheless, the park amazes guests with its outstanding shows and immersive walkthrough attractions. The French park has not yet published a sustainability report but indicates some of their initiatives via its official website. However, no goals, strategies or links to the Sustainable Development Goals can be found.

Analysis of data gathered indicates its focus is on Environmental initiatives, particularly on Animal Welfare, Conservation Programmes and Local Production of goods. For the fight against greenwashing, the park indicates various certifications it holds that guarantee sustainable experiences.

Within its Social initiatives, the park is one of the theme parks which has its own technical and artistic training school, Puy du Fou's Junior Academy, in which the park's future artists and technicians start to develop themselves.



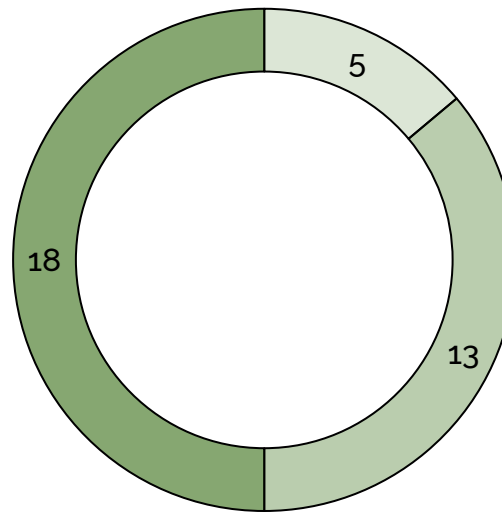
ESG
Distribution



■ Environmental

■ Social

Environmental
Initiatives

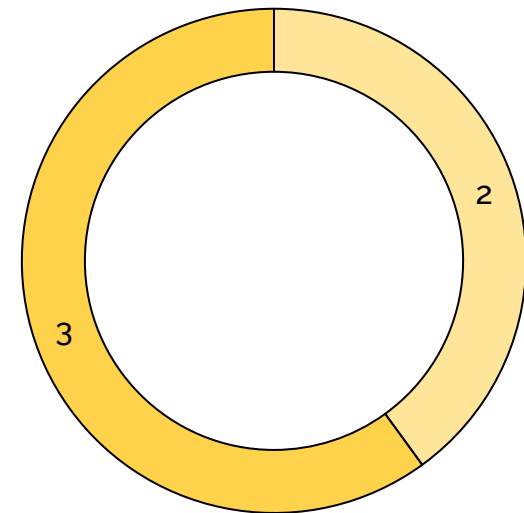


■ Sustainable Development

■ Healthy and Responsible Catering

■ Biodiversity

Social
Initiatives



■ Talent Development

■ Diversity and Inclusion

Tivoli

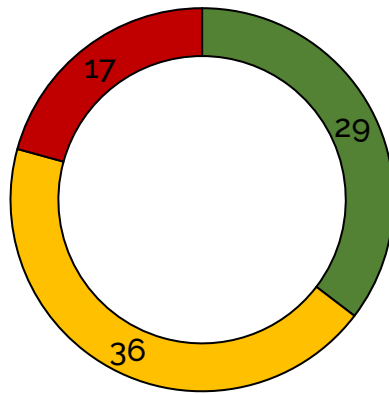
Tivoli's sustainability report needed to be translated from its original language, Danish, to English in order to be analysed. The report clearly indicates what the park's goals are: Tivoli aims at contributing to Denmark's national CO2 target, as well as at net-zero emission from the direct climate footprint in Scope 1 and 2, in accordance with the Paris Agreement. Even though it does not specifically link its initiatives to the 17 Sustainable Development Goals, the report indicates there are four of them which are of utmost importance for the park: 8, 11, 12 and 13, which are "Decent Work and Economic Growth", "Sustainable Cities and Communities", "Responsible Consumption and Production", and "Climate Action".

When analysing the collected initiatives of Tivoli, it is possible to see that its main focus is on the Social area, yet Environmental and Governance initiatives also play an important role in its operation. Since initiatives are well distributed within each of the three ESG areas, it is difficult to identify the main category of initiatives the park focuses on. Initiatives that slightly represent the majority fall under CO2 Emissions, Business Ethics, and Diversity and Inclusion.

Within these initiatives, inspirational ones are launching a programme for sustainable construction, which focuses on using recycled materials or modules, which allow parts to be easily replaced. In addition, the park encourages guests and employees to wear the Sunflower String, which indicates the person wearing it needs more time, understanding, or explanation due to an invisible disability. Tivoli also established a partnership to train young people with cognitive disabilities to become "green service employees".



ESG Distribution

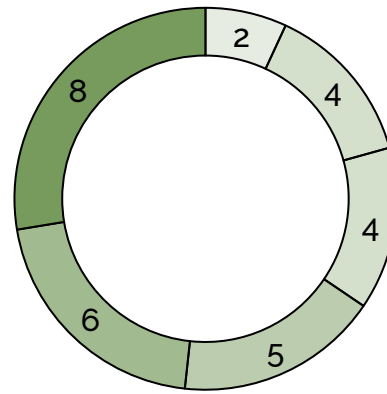


■ Environmental

■ Social

■ Governance

Environmental Initiatives



□ Healthy and Responsible Catering

□ Ethical and Sustainable Procurement

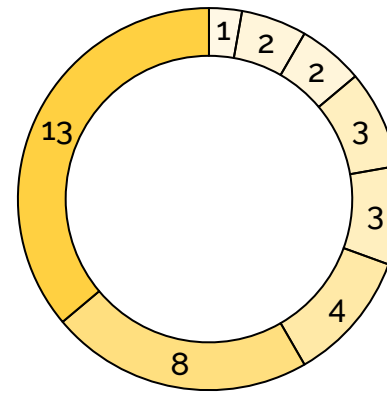
□ Biodiversity

□ Sustainable Development

■ Materials, Waste and Circular Economy

■ CO2 Emissions

Social Initiatives



□ Philanthropy

□ Talent Development

□ Cultural Heritage

□ Employee Development

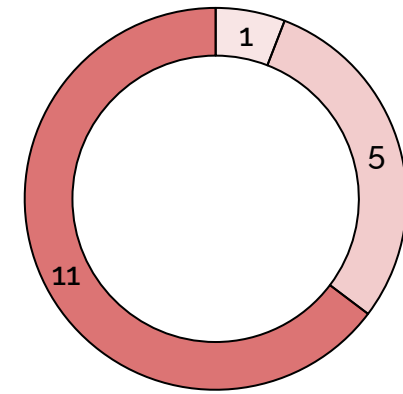
□ Community

□ Employee Well-Being

□ Safety

■ Diversity and Inclusion

Governance Initiatives



□ Ethical and Sustainable Procurement

□ Data

■ Business Ethics

7.4 | Identifying Groups of Theme Parks

The analysis of findings has shown that theme parks can be divided into three different groups based on the number of sustainability initiatives that could be found online. For the division of groups, the terminology that is used was taken from IAAPA's Webinar 'IAAPA's Sustainability Journey Insights into the Materiality Assessment and Next Steps', in which the speaker, Alexander Meyer zum Felde, who is an expert on sustainability and circular economy and works for Boston Consulting Group, explained there are three ESG ambition levels. These are beginners, influencers, and shapers. He explained, for example, the difference between a shaper and an influencer: shapers deliver sustainability reports every year, detailing their commitments, their progress, which means they should have a way bigger data set when compared to influencers.

Even though a definition for these ambition levels was further detailed during this webinar, for the purpose of simplifying the research, theme parks were divided by simply looking at the number of sustainability initiatives that could be found. Considering the highest number of initiatives was close to 90, groups were divided as follows: the ones who have between 0 and 30; between 30 and 60; and between 60 and 90 initiatives.

THEME PARK	NUMBER OF INITIATIVES	ENVIRONMENTAL	SOCIAL	GOVERNANCE
Europa-Park	88	46	42	
Liseberg	87	38	43	6
Tivoli	82	29	36	17
PortAventura World	65	21	32	12
Disneyland Paris	64	30	31	3
Puy du Fou	41	36	5	
Efteling	33	20	13	
Futuroscope	29	19	10	
Chessington World of Adventures	20	3	17	
LEGOLAND Windsor	16		16	
Heide Park	15	7	8	
Alton Towers	13		13	
Gardaland	13		13	
LEGOLAND Billund	12	2	10	
LEGOLAND Deutschland	11		11	
Thorpe Park	11		11	

If taking Meyer zum Felde's definition, Europa-Park would not be considered a shaper due to not having clear goals neither publishing a sustainability report yearly, but that will not be the scenario for the further development of this research. In addition, Futuroscope had 29 initiatives, but was considered to be an influencer instead of a beginner due to the nature of its initiatives being more similar to Efteling's and Puy du Fou's than to the beginners' group. The result is as follows:

BEGINNER		INFLUENCER	SHAPER
Alton Towers	LEGOLAND Windsor	Efteling	Disneyland Paris
Chessington World of Adventures	Parc Astérix	Futuroscope	Europa-Park
Gardaland	Parque Warner	Puy du Fou	Liseberg
Heide Park	Phantasialand		PortAventura World
LEGOLAND Billund	Thorpe Park		Tivoli
LEGOLAND Deutschland			



7.5 | Manufacturers

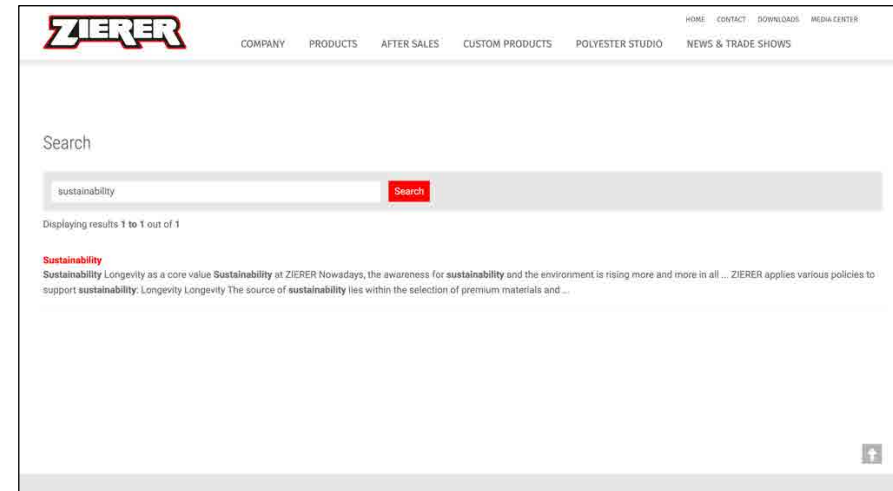
The same level of analysis could not be done for manufacturers and suppliers due to the lack of information manufacturers provide on sustainability via their official websites and Maurer Rides being the only one to have published one yet. Nevertheless, considering the company is the only manufacturer that has yet published a sustainability report, it could be considered the shaper of the manufacturers' side.

7.6 | Manufacturers: Sustainability in Website Pages

Even though when analysing the challenge, it was already possible to conclude that sustainability was not top of mind for manufacturers, it was still interesting to perform the 'sustainability' search exercise on their websites as well.

Manufacturers that have a search button are ZIERER, Gerstlauer, Technical Park, Intamin, and MACK Rides. However, most of them do not provide results when the word 'sustainability' is searched.

ZIERER shows a link to the company's sustainability efforts. It is interesting to mention that this page's English and German versions are different, with the German one having a picture of one of ZIERER's rides. When analyzing theme parks, it was noticed that the website version in its original language provides more information than when translated, as it happens here.



Furthermore, Gerstlauer and Technical Park searches also provide readers with one link, but information on the sustainability of each of them is highly superficial. Intamin and MACK Rides do not show any results.

Maurer Rides, on the other hand, has a page that takes readers to its first sustainability report, even though it does not have a search button.

The remaining manufacturers do not have a search button on their websites. Vekoma does not provide direct sustainability information on its website but indicates brief information on Anti-Bribery and Corruption, which is considered sustainability. Zamperla has recently launched its new website and included a page dedicated to CSR, but the information is minimal. Bolliger & Mabillard and Fabbri Group do not have any sustainability information on their website.

7.7 | Manufacturers' Actions on Sustainability

The analysis of websites shows that this group of the attractions industry tends to focus on technical specifications, such as quality, safety, innovation, certifications, and engineering. An element that can be clearly linked to sustainability is that many manufacturers indicate that their rides are designed with durability in mind.

Using the analysis conducted on theme parks as parameter, it can be said that elements such as quality and safety can be considered sustainability. However, the way in which manufacturers present this information is not yet linked to the topic.

ZIERER's website indicates that four sustainability values guide its operations: longevity, renewable energy, innovations, and certifications. The company does this by selecting premium materials or developing energy recovery systems for brake energy to save energy, for example. Its parent company, STREICHER Group, operates three hydroelectric power plants to produce sustainable and local power.

Intamin does have sustainability initiatives in place; however, they are not directly mentioned on its website. A page dedicated to one of its rides, the Gyro Swing, explains that the attraction has a drive system that recovers up to 40% of the power needed to operate the ride (Intamin, 2024). Other initiatives, such as changing its designs to lighter materials like carbon fiber and aluminum, can only be found in an article published by Bloolooop.

Maurer Rides

Maurer Rides was the first manufacturer to publish a sustainability report, which was developed following the GRI Standards for the period between January 1st, 2021, and December 31st, 2022. The report aimed at understanding priorities and defining goals for the next reporting period.

The company indicates it has identified ten fundamental principles that guide its commitment to improving the environmental performance of its roller coaster. These principles are energy efficiency, energy recovery, lighter vehicles, material efficiency in rail design, reduced use of concrete, material selection, avoiding air compressors, shorter dispatch intervals, increased coaster lifespan, and reduced material span.

An interesting initiative the company has taken is analysing the headquarters' energy consumption during a specific project to understand the amount of energy required for a project of such size. This action allowed Maurer to understand, from now on, how much energy each project consumes. In addition, the company is working towards identifying steel providers with a lower footprint and dedicating itself to being less reliant on steel. Other initiatives include developing conceptual visualizations to preserve biodiversity in the areas surrounding the roller coasters they build, which is linked to one of its future strategies to incorporate additional services into its offerings.

In light of transparency, Maurer Rides' report indicates not only the company's positive but also its negative impacts, which highlights its desire to be open and accountable for its actions. An example of transparency is comparing Maurer's emissions to those of well-known companies, such as Mercedes-Benz, even if its performance is not as good as theirs.

As theme parks, Maurer has also analysed its suppliers to understand where emissions can be reduced over its supply chain. In addition, looking at the future, they indicate how they will assess their suppliers, which credentials will be looked for, and which elements they will analyse, such as waste management and emissions reduction. Furthermore, they indicate they are committed to reducing air travel to reduce emissions.



When it comes to its roller coasters lifecycles, Maurer Rides indicates that its products can be disassembled and relocated to other parks to extend its lifecycle. This is a strategy a few of the other analysed manufacturers also have. In addition, the company's future plan is to include the ride's environmental considerations with recommendations to minimize effects in every ride's handbook, which are distributed to clients. To prepare for extreme weather conditions, Maurer is studying the introduction of covering for rides to protect both the attraction and guests from these conditions, providing a more comfortable experience for its clients' guests.

Regarding Governance, the company signed the United Nations Global Compact, published its first sustainability report, is developing a sustainability goals training curriculum, and will work during 2024 to pursue B Corp Certification. It has established a sustainability training programme for the whole company, which started in early 2023, and indicates it might be in its future to link sustainability impact metrics into its compensation strategies, as PortAventura World has already done.

Overall, Maurer's report is highly detailed and an incredibly valuable motivator for manufacturers to follow the lead and act.

Lastly, it is important to highlight what was mentioned several times throughout the report: it is crucial to start gathering data so that companies can start creating their database to compare in the following years and also to show clients their sustainability efforts and how sustainability is beneficial in the long term.

FINDINGS Q2

WHAT DO INDUSTRY LEADERS SAY AND THINK
ABOUT SUSTAINABILITY?



8 | Findings Q2

To answer the second sub-question, nine industry experts were interviewed who represented theme parks and manufacturers and suppliers. When planning the research, a list of many possible interviewees was created by thinking of the research's stakeholders: Jeroen Nijpels, JNELC, ZIERER, IAAPA, IAAPA's Manufacturers and Suppliers Committee & Global Sustainability Committee, and European theme parks and manufacturers and suppliers. As the table below shows, the research's stakeholders were well represented within the interviewee group.

INTERVIEWEE	CURRENT POSITION	REPRESENTATIVE OF	DATE
Adrian Fees	Operations Manager at MACK Rides	Manufacturers & Suppliers	03/05/2024
Andreas Andersen	CEO of Lisebeg Chair of IAAPA's Global Sustainability Committee	Theme Parks	26/04/2024
Christof Burgbacher	Head of Corporate Sustainability at Europa-Park	Theme Parks	14/05/2024
Eric J. O'Rourke	Senior Director at FORREC Member of IAAPA's Global Sustainability Committee	Manufacturers & Suppliers	01/05/2024
Håkon Lund	Owner of Lund Gruppen Chair of IAAPA EMEA's Regional Advisory Committee	Theme Parks	26/04/2024
Kees Rijnen	Strategist at Efteling	Theme Parks	29/04/2024
Martin Weichselgartner	Managing Director at ZIERER	Manufacturers & Suppliers	02/05/2024
Maximilian Biller	Sales Manager at ZIERER	Manufacturers & Suppliers	02/05/2024
Veronica Celis Vergara	Chief Sustainability Officer at Maurer Rides	Manufacturers & Suppliers	29/04/2024

8.1 | Interviews' Findings

Since findings from theme park's interviewees and manufacturers' and suppliers' interviewees overlap, a clear indication is given if a paragraph is strictly related to only one group. Findings were divided into 8 main groups: Mindset, Sustainability Reporting, Relationship Between Theme Parks and Guests, Relationship Between Theme Parks and Manufacturers, Challenges and Barriers, Reducing CO2 Emissions, Future Outlook, and Trends and Developments. In general, it was noted that sustainability is a topic all interviewees are intrinsically interested in and that requires humbleness and honesty. Since interviewees mention it should not be a competition, an overall feeling is that there is no need to preach about sustainability, but companies should learn from each other and try to be better collectively.

8.1.1 | Mindset

Sustainability within the attractions and theme parks industry is pointed out to have a low maturity level, receiving an average grade of 4 by interviewees. Kees Rijnen gives a clear example that represent this low grade and that shows the industry mindset is not yet focused on sustainability: even though everyone can feel at Expo's show floors that sustainability is the current biggest challenge, people still do not attend extra events related to the topic, such as IAAPA's Sustainability Day.

Role as Theme Park Leaders in Pushing the Sustainability Agenda Forward

When asked what their role as leaders in pushing the sustainability agenda forward was, Håkon Lund indicated they have the responsibility to create enough momentum to get to tipping points. An example given to illustrate this situation is the fact that solar panels are being installed by many operators, making it industrial sense to produce in larger scale, resulting in a price drop. Everyone needs to pitch in to get to this tipping point.

Andreas Andersen mentions one of his goals as a leader is to integrate sustainability in a much more natural way within Liseberg. Rijnen agrees with this vision and adds that when having a sustainability manager, the whole company tends to assume this one person will take care of the topic alone. All agree sustainability should be embedded in the culture of the organization.

Christof Burgbacher explains each head of department is given a certain number of hours per month to work on sustainability so that he is not dependent on their goodwill to discuss sustainability. This gives the topic more room within the company.

8.1.2 | Sustainability Reporting

The first sub-question has showed manufacturers are behind of theme parks when it comes to sustainability reporting. Veronica Celis Vergara believes this happens because theme parks have a closer connection to guests, and explains that, as consumers, people tend to care more about what a weekend destination does than about what a manufacturer does. Furthermore, interviewees mention that manufacturers have not yet published sustainability reports because they were not required to do so until now. They are convinced that the group will act when it starts to be required and to impact revenue, and when they are not selected due to not having the right documentation.

Maurer Rides was the first manufacturer to publish a sustainability report due to the CEO's, Jörg Beutler, vision and wish to publish a report before it became necessary, and due to the right person being at the right place, at the right time: Veronica Celis Vergara.

Despite some the theme parks publishing a sustainability report, most of the most visited and best ranked European parks have not yet published one. It is Efteling's case, which has internal sustainability reports but not public ones. Rijnen explains most of the park's initiatives are shared via its official website or via public presentations given by the company. The main reason for not having published a sustainability report until now was to not brag about its sustainability initiatives.

Europa-Park also does not publish an official sustainability report, even though there are tons of information regarding sustainability in their corporate website. However, amidst tons of data, Burgbacher say he still misses a relevant element: goals; a clear indication of where the park is now and where it wants to go. The lack of goals for the park was previously indicated in Q1. He adds

that, in 2025, the park will prepare by collecting data for publishing its first sustainability report complying with the CSRD in the following year.

Reporting: Marketing or Transparency?

While some interviewees indicate beliefs that sustainability should not be marketed, others see sustainability reports as a potential marketing tool as well as a way of becoming more transparent - it goes both ways. However, interviewees bring attention to the reliability of these reports and the difficulty in comparing parks and manufacturers when there is still not a standard way for them to report.

Burgbacher explains the topic revolves around each company understanding whether it wants to disclaim what it is doing or not and understands that everything positive said about a company can be considered marketing. Yet he truly believes some guests and the people who live close to Europa-Park are intrinsically interested in knowing what the park is doing and mentions the park could inform them better:

"As a company, you have a certain responsibility. If you do more than what you are actually doing, then you go into greenwashing and, if you want, into marketing. If you just inform your guests about what you are doing, the situation is different. If you then do your own interpretation and consider it to be marketing, be my guest. It is really the way how you see it."

Christof Burgbacher | Head of Corporate Sustainability | Europa-Park

When asked about having a page linked to sustainability on manufacturers websites, Adrian Fees believes this is the future to many of them. Maximilian Biller said ZIERER questioned if information should be added to their website a while ago, and a decision was made to put together a small overview of what their sustainability activities were in case clients asked or wanted to know more about them, as could be seen in Q1. Considering companies will have to comply with the CSRD soon, there is no reason why some information cannot be added to the manufacturers' websites.



8.1.3 | Relationship Between Theme Parks and Guests

Consumer Behavior Changes

Lund explains people are interested in energy, and therefore, there are big pushes when it comes to electric charging stations. Besides this, interviewees indicate they have not seen a lot of changes when it comes to sustainability, but they believe the upcoming generation will have more requests related to the topic as well as to transparency. Andersen pictures the scenario with an example: the Blackfish documentary, released in 2013. The cultural context in which SeaWorld was operating had changed and the company took too long to act on it. Animal welfare, which is part of sustainability, was knocking at its door, and the company did not respond on time:

"If you do not follow this agenda and people start perceiving you as non-sustainable, there might be the risk that people stop visiting your park."

Andreas Andersen | CEO | Liseberg

Lastly, in addition to not seeing a lot of changes, Burgbacher adds that guests do not have high expectations towards Europa-Park when it comes to sustainability, and therefore, it is an area where they have a card to play and exceed expectations.

Competitive Advantage

Similar to findings from the changes in consumer behaviour, sustainability has not become a competitive advantage yet. The scenario might change due to the upcoming regulations and financial directives (EU Taxonomy), which will require companies

to have a structured sustainability plan to get future loans. Even though some might consider sustainability as a possible competitive advantage, Rijnen reminds that the industry should work together towards becoming more sustainable and points out that manufacturers could also benefit and learn much more if they could share their initiatives to some extent.



8.1.4 | Relationship Between Theme Parks and Manufacturers

Brand Reputation and Competitive Advantage

Based on their sustainability efforts, interviewees indicate that their brand reputation has not been affected yet but believe it will be in the future due to how important sustainability is starting to become within the industry.

Celis Vergara mentions that since Maurer Rides is the only manufacturer to have published a sustainability report, the company considers it to be a competitive advantage. She explains that theme parks will soon have to gather data from their suppliers (manufacturers included) due to having to comply with the CSRD. However, most of the companies that can provide the same services as Maurer Rides does, do not have any data yet. Therefore, she sees the report as a clear differentiator but hopes this scenario changes soon – she wishes to see other manufacturers getting onboard.

Sustainability: A Key Factor for Theme Parks to Choose a Manufacturer?

Theme parks' interviewees indicate it is almost impossible to track manufacturers sustainability efforts as some of them already do to other suppliers. For now, interviewees indicate they analyse Safety White Papers and what type of experience the manufacturer is offering for what price. Rijnen sees the demand increasing in Environmental and Social sustainability and feels that manufacturers who are adapting will be the ones to survive in the upcoming years.

Manufacturers agree that demand is increasing and link it to large theme park companies facing pressure from shareholders to become more sustainable. Biller explains that often theme parks

have standardized sheets to compare manufacturers when it comes to prices, capacity, or the elements mentioned above, and it is getting more and more relevant to include elements related how sustainable a ride can be or related to a manufacturer's sustainability efforts. Fees also indicates that sustainability is getting more relevant for MACK Ride's clients, as the interval between him getting a request involving sustainability and another is getting shorter and shorter. For smaller parks though, interviewees argue this issue has not become relevant yet.

On the other hand, Martin Weichselgartner states the industry is not ready for it yet, especially when it comes to money. According to him, clients are not ready to pay much more for green produced steel, for example. He believes theme parks do not get more visitors by claiming their rides get fabricated with green steel or are powered by green energy and questions why should then theme parks buy a more expensive product. In the end, visitors will be the one to pay the price.

Inverting the Point of View: Manufacturers Analysing Theme Parks

Findings from the first sub question revealed that some theme parks have sustainable procurement policies as a strategy to reduce their carbon footprint. Since parks analyse suppliers, it was interest to switch the point of view. Do manufacturers and suppliers analyse theme parks looking for their sustainability initiatives? The brief answer is no, they do not. It does not happen nowadays, and interviewees do not see it happening in the future.

Interviewees indicate elements manufacturers usually analyse are compliance with the Supply Chain Act, which strengthens human rights and environmental protection in global supply chains; price; availability of time and resources; as well as the project scope. Manufacturers state they never rejected a request

for proposal due to the client not taking actions towards a sustainable future. Eric J. O'Rourke, as an advocate for sustainability, sees this as an opportunity to listen to and co-create with the client.

Changes in Requests for Proposal from Theme Parks

Manufacturers indicate not many changes have been seen yet in theme parks' requests for proposal, even though they were expected to come. Fees mentions getting sustainability related requests coming from Saudi Arabia and attributes these to the country importing qualified brains from many parts of the world who bring their sustainability interest or knowledge with them. Other few requests that touched sustainability were mainly related to saving energy and recuperating energy at the brake sections.

Weichselgartner tells the Wave Swinger, one of ZIERER's products, has had frequency drivers installed for more than 15 years already. These frequency drivers use brake energy to supply energy to the ride's power supply and are basic equipment. Despite their availability, he mentions only one client used them over this time. The reason why others did not use them is unknown, but according to him, a guess would be the lack of clearer information.

Despite clients not using the frequency drivers, interviewees believed one of the drivers for changes in requests will be the increase in energy costs. In addition to this, the upcoming regulations and requirements in the European Union will stimulate changes, as previously mentioned.

Different Expectations from Manufacturers towards Theme Parks

Interviewees would like to see a different approach coming from theme parks as they can seem not prepared enough and use sustainability as a buzzword. Usually the representatives that reach out to the ride manufacturers had nothing to do with setting the company's sustainability targets, if there are any, which leads to disconnection between theory and practice, explains Celis Vergara.

Different Expectations from Theme Parks towards Manufacturers

What theme parks would like to see different coming from manufacturers is the following: rides that are inclusive for all, proper regeneration systems for roller coasters, and a start on getting things sorted out or hiring a sustainability manager to do the latter. Again, Andersen stresses that even if manufacturers might not think about sustainability yet, banks will. The financial sector will be the one to make one of the biggest pushes.

Theme parks also recognize they can do more and indicate what is missing from their side: to put the focus on it. Lund mentions IAAPA could create sustainability-related awards, such as a Green Award for most sustainable new ride or attraction. It is a shared feeling that they must tell manufacturers what they need for the upcoming years, that being inclusive rides or regeneration systems, so that manufacturers start providing the solution to their problems



8.1.5 | Challenges and Barriers

Theme Parks

Burgbacher explained his biggest challenge is that it is always him that must add sustainability into projects, and highlights that sustainability needs to be implemented since the beginning. According to him, adding sustainability to an ongoing or almost finished project is extremely difficult. In parallel, time is also a challenge and makes sustainability never be the priority.

In addition, interviewees say another challenge is not being able to properly utilize the data gathered as guests usually behave differently to what they indicate in surveys. Lund, Rijnen and Burgbacher exemplify by saying guests indicate they wish to eat the most sustainable options through surveys but end up eating hamburgers and french fries when visiting the parks. Interviewees point out that future challenges will originate from the upcoming CSRD.

Manufacturers

A big challenge for manufacturers comes with the fact that the industry is global, which means it is composed by diverse groups of professionals that each see sustainability in a different way. In addition, developing markets, for example, sometimes face the issue of having a constant source of electricity or even having running water.

O'Rourke explains that when developing projects for such regions, FORREC focuses on cultural aspects and recommends employing local labour as well as using local materials. He brings the attention to people tending to focus on the Environmental aspect of sustainability because it is the most concrete one, one that people can see, while there is so much more under the same umbrella.

Celis Vergara, responsible for Maurer Rides' first sustainability report, explains that during the process of developing the report she noticed many people were not used to getting sustainability-related questions and many did not understand why they now must think about sustainability considering they have been successfully operating for many years.

Manufacturers indicate the growing costs of their products is seen as challenging in the short-term, due to other markets not having to adapt to the same regulations and requirements, which could generate an unfair competition when targeting their smaller buyers.



8.1.6 | Reducing CO2 Emissions

Air & Business Travels

As expected, all interviewees prefer meeting their clients or suppliers in person, but recognize the practice is not sustainable anymore and that it is better to meet online in the interest of sustainability. Even so, manufacturers mention clients still require them to fly over for very short meetings; happening even when the manufacturer has policies in place to try to reduce air travel. In addition, these unnecessary travels are also non-sustainable because they make it harder to increase the inclusion of women in leadership positions. Business travels are time-consuming and there is still a massive societal pressure on women to take care of children.

There is hope that when younger generations come into management positions, they can change this scenario. Interviewees believe there will be a decrease in business travel in the upcoming years and more online meetings will be scheduled.

Nevertheless, interviewees state that the online environment can become annoying when more in-depth discussions need to take place or when there are too many people in the meeting and is not yet capable of substituting an in-person experience or to create memories as exceptional as the ones created in real life.

For now, theme parks do not have strict policies in reducing air travel, but there are policies in place which stimulate the use of train at Europa-Park, for example. However, there are no departments to control whether this is working or not. Burgbacher adds that the park does not have data yet into how many kilometres employees travel on behalf of the company and are, therefore, currently looking for the right partner to collect this information, since there already are platforms that book business

trips and instantly calculate CO2 emissions. He also indicates that when establishing carbon neutrality goals, it is crucial that companies make clear to which scope they are referring to.

Business Travel to Expos

While some believe online expos are convenient and could be an option for the future, others are convinced they will not replace the physical trade shows. Again, they argue the virtual is not the same as the real world.

Biller believes for Expos to truly become more sustainable the means of transportation need to become greener, which implies changes within a different industry. Nonetheless, interesting ideas for more sustainable expos are shared: only reusable module stands should be allowed, and augmented or virtual reality could be used to create an idea of a stand instead of having to waste materials.

Referring to IAAPA, Lund pictures its future: it is a matter of understanding priorities and taking a structural approach, as for example, placing the Expo in cities and months that do not require air-conditioning. He adds that the association should create events that bring a greater impact to a specific region, that appeal to people from that specific country, which would reduce air travels.

Green Travel to Theme Parks

Interviewees mention the largest part of CO2 emissions come from guest travels. Guests still prefer the practicality of arriving by car or do not rely on their train operators, such as Deutsche Bahn. Therefore, theme parks try to solve this problem in many ways.

Lund tells that, for one of his company's festivals, a few tickets were available for a discounted price and were linked to reaching

the festival ground by bus. The idea initially came from a problem, which was not having enough parking spaces, but became an interesting solution linked to sustainability. Rijnen mentions Efteling is trying to understand how to make people at least consider green travel. They made an experiment to add a direct bus connection from Breda (a close by city) to the park and it resulted on an average of 3 people per bus. It showed people still prefer to take the train to Tilburg (an even closer city) to sit for shorter time inside a bus.

Besides reducing scope 3 emissions, interviewees point out that encouraging green travel has another benefit: every space that does not need to be transformed into a parking space, due to today's increasing visitor number, can be used by the park for a different purpose.



Manufacturer's Remote Capability

Manufacturers point out the importance of being able to have access to their rides from away due to most issues being software-related nowadays. They explain modems of remote access can be installed which give the after sales team remote access to maintain rides, and some state this should become mandatory to help avoid extensive travel to clients.

8.1.7 | Future Outlook

Manufacturers' Future

Some interviewees are concerned about the increase in price they will see originated by the new sustainability measures, as previously mentioned in the challenges and barriers paragraph, resulting in smaller parks selecting other manufacturers outside the European Union. They see the problem being shifted to other parts of the world. Nevertheless, even though the future might be challenging, they understand sustainability will be an absolute need-to-have for bigger operators such as Disney or Universal.

For others, the future of manufacturers entails developing new ways to use old materials (Deloitte's trend of Alternative Materials), publishing sustainability reports and providing sustainability information, or being able to collect data (Deloitte's trend of Smart Data) to show clients and prove the greenness of their production.

Weichselgartner expresses his desire to do right without marketing it. O'Rourke, based in Canada, explained his goal at FORREC is to advocate for the company to publicly divulge their data, as well as for it to track its own and its projects' carbon emissions.

Roller Coaster Lifecycle: A Manufacturer's Perspective

When asked if roller coaster can become playgrounds for children, art installations, or even streetlamps after being dismantled, response was dubious. While some believe there would be no barriers to these ideas, some never see that happening.

Almost all manufacturers mentioned, jokingly, their product is designed to last the most, avoiding an end as much as possible.

Besides sustainability, they linked this desire to manufacturer long-lasting rides to an emotional element: parks, visitors, or owners can become attached to these attractions. To complement, many mentioned their companies have rehabilitation services to bring new life to old coasters or vehicles, in addition to providing spare parts if needed. This is still, most of the times, how sustainability can be connected to manufacturers in 2024's scenario.



8.1.8 | Trends and Developments

Trends

Theme parks point out that trends to watch out for are: measurement of Scope 3 emissions, implementation of water treatment stations within theme parks due to drinking water becoming a problem, intensification of fun for all and accessible rides, increase in vegan options, and attention to energy. Referring to emissions and energy, Burgbacher mentions that, as soon as, and if companies start getting charged for its CO₂ emissions, it will become a huge subject.

Manufacturers indicated that trends to watch out for are the use of green steel, the replacement of plastic for alternative materials in rides' vehicles and other components, the increase in energy prices, the publication of sustainability reports, and digitalization. A specific digitalization manifestation is the use of digital twins, which simulates everything that could happen to a roller coaster by analysing the project against tons of data.

Emerging Technologies

Interviewees mentioned green hydrogen and carbon sequestering concrete as emerging technologies. It was recommended to keep an eye on an enzyme created by mistake by scientists of the University of Texas that can potentially biodegrade plastic.

Regulations

Interviewees indicated the industry is about to see changes, whether companies like it or not. These changes will come mainly in the form of new laws that will demand more interest in sustainability, such as the Corporate Sustainability Reporting Directive (CSRD) or the GSTC Attraction Criteria.

8.2 | Greenloop Conference's Findings

In addition to interviewing industry leaders to gather their opinions and thoughts on sustainability, one of the research methods chosen was to attend Blooloo's online conference, Greenloop, to listen to other leaders talk in a different format than an interview.

The conference was held on the 30th of April 2024 and was valuable to add a little extra to the research as well as to check whether the research was going on the right track or not, as if it were a validation moment. Since Greenloop was not the primary source from which to gather information, the following paragraphs will be brief but relevant to the report's overall goal. Below, a selection of interesting and useful findings for the continuation of the research:

The conference highlighted the importance of working together in achieving sustainability goals. Yet it was interesting to notice the discrepancy within the same industry. While Merlin Entertainments publicly says it does not include guest travel in its Scope 3 emissions, IAAPA says traveling to expos is what truly generates its emissions. Dare Ilore, Sustainability Director of Merlin Entertainments, explains it is not their intention to preach to their guests, which matches what Rijnen said during his interview.

The conference was also valuable because it proved a few points made by interviewees. Sustainability is a long-term investment, and, therefore, it is important to have data to show its effectiveness to clients and investors. In addition, leadership needs to be involved in the sustainability mindset. If there is only a group of people dedicated to it, nothing will change.

The strategy to have more sustainable procurement policies to reduce CO₂ emissions was constantly mentioned, which also occurred when answering the first sub-question. Moreover, an idea that appealed to scientists was raised: it could be interesting to humanize science and apply storytelling to tell the facts differently and more engagingly.

To conclude, and most importantly, speakers stressed that sustainability does not have to be perfect; it just needs to represent progress.

A grayscale photograph of a man in a field, wearing a jacket and glasses, looking at a wire mesh structure. The structure is covered with numerous small, circular objects, possibly seeds or small containers. In the background, there are several wooden birdhouses mounted on a wooden structure. The man is holding a small object in his hand, possibly a seed or a small container. The overall scene suggests a focus on nature, sustainability, or environmental research.

FINDINGS Q3

WHAT ARE THE INDUSTRY'S TRENDS AND
DEVELOPMENTS IN SUSTAINABILITY?

9 | Findings Q3

The challenge analysis provided mega and macro trends that could influence or shape the industry. However, it did not provide information on the meso trends, the ones that are strictly related to the attractions and theme parks industry. This chapter then, provides information on meso trends. Even though the first sub-question could be used as a source to identify sustainability initiatives patterns, meso trends were gathered from the industry's beloved website, Blooloop, as well as from one of IAAPA's webinars.

9.1 | Blooloop's Trends

In a nutshell, Blooloop (Mitchell, 2023) has identified nine trends to watch for in 2024:

Biodiversity Projects

Developing biodiversity projects, focused on biodiversity loss or on regenerative tourism, for example, as Red Sea Global does and plans to plant no less than 50 million mangrove trees by 2030, which are known for its natural capacity of sequestering CO₂.

Tech for Good

The second trend to watch out for is using technology not only for entertainment, but for good causes. An example of this trend is letting robots gather data about the biodiversity of a particular area or even collect plastic waste and debris from beaches. Another manifestation of this trend is using technology to increase awareness to conservation, for example, with an exhibition of endangered species all made with holograms.

Inspiring Climate Action

Theme parks and attractions can serve as a source of inspiration for visitors to act towards a greener future by creating ways to ignite interest about the topic.

Eco-Tourism Experiences

Blooloop also indicates eco-tourism experiences as something to watch for, as well as nature-inspired experiences, which aim at connecting people with nature. This trend also includes developing educational programmes on nature protection, conservation and rewilding.

Electric Vehicles

The following trend is the switch for electric vehicles, that being for internal transportation of guests or external transportation of employees. In addition, theme parks are facilitating guests to arrive by their own electric vehicles by adding EV-charging points to their parks.



Scope 3 Emissions

The trend is related to measuring the company's Scope 3 emissions, due to the upcoming regulations and requirements within the European Union. To report on these emissions, operators will need to gather data from their suppliers. In addition, the trend entails reducing these emissions as much as possible. PortAventura World's Chief Sustainability Officer, Choni Fernandez, states that the operators' mentality needs to change. In Spain, the park will start ranking its vendors and awarding the ones who work towards reducing emissions.

Renewable Energy

Renewable energy is also on spotlight, with solar panels and geothermal heating systems being highlighted, and the latter being described as the sleeping giant of renewables.

Recycling Initiatives

The eighth trend is a trend that has become popular throughout many industries, and is the reuse and recycle initiatives, including returnable products with refund systems. The returnable products part is closely related to managing and minimizing plastic waste.

Green F&B

The article indicates that Merlin Entertainments introduced eco-friendly straws that are made of natural sugars and can be eaten after use, an initiative that has been implemented at Alton Towers, Chessington World of Adventures and LEGOLAND Windsor. Curiously, and as the first sub-question has showed, none of these parks mention this initiative on their websites. The trend of green F&B also entails offering more plant-based meals, as well as purchasing from sustainable suppliers.



Without going further into detail, it can be noticed that all these industry initiatives can be linked to some macro trends indicated in the challenge analysis. For example: measuring Scope 3 emissions could be linked to carbon tracking and optimisation; recycling initiatives to zero waste; or sustainable dining to sustainable consumption and lifestyle.

In addition, all of these trends could be seen when analysing theme parks initiatives in Q1 and some of them, such as Renewable Energy, Scope 3 Emissions, and Green F&B even come back in interview findings.

9.2 | Katapult's Trends

On January 15th, 2024, IAAPA hosted one of its webinars: "2024 Trends Unveiled: Future of Attractions Industry". Robbie Jones, the Insights Director at Katapult, unveiled the company's trends for the year, them being:

Slow and Selfish

It was indicated that the wellness tourism is to boom in 2025 as there is a massive increase in people wanting to look after themselves, mentally, physically and spiritually. In the context of theme parks, this trend represents a slowdown, a challenge for parks to give guests opportunities to relax and enjoy the experience in their own time.

Be Spontaneous

As last year saw a 75% increase in last-minute searches for flights and visitor attractions, it was noted a desire for flexibility, unexpectedness, and less structure. In the context of theme parks, it represents a challenge to facilitate walk-ups and unexpected moments that are not necessarily listed on the park's website as a benefit of visiting it or not easily revealed online.

Quality Feasting

Nowadays, people mainly use online reviewing tools, such as Google Review to decide whether to eat in a restaurant or not. If the restaurant is rated less than four stars, people start questioning if it is the right decision to eat there. According to Katapult, theme park food is failing to make four to five stars reviews; however, consumers want high quality dishes with local produce, experiences, and the choice to spend more.

Human Touch

Katapult indicated 76% of guests believe a phone will not increase

a theme park experience. Today's world leads people to spend too much time in front of screen during work but also during leisure time. As a consequence, guests are desiring less screen time for all the family and to have face-to-face relationships improved. The challenge for the industry is to understand where technology can be replaced for a better guest experience.

9.3 | Global Developments, Regulations and Requirements

Many developments or targets were found when analysing the target group's sustainability reports. As indicated in the initial phase of this document, it would be impossible to analyse all of them alone. Therefore, a decision was made to only dive a bit deeper into the ones interviewees pointed out as the most relevant for the near future of the industry.

Corporate Sustainability Reporting Directive (CSRD)

As seen in the challenge analysis, the CSRD is a new European Union directive that requires attention. The date companies must start complying with it varies from company to company, but it is phased from 2024 to 2029 (What Is the CSRD? | IBM, n.d.). Adopted by the EU commission to set the bar higher, the CSRD replaces and builds on the Non-Financial Reporting Directive (NFRD).

KPMG, one of the Big Four accounting organizations, developed an overview on the main topics of the CSRD. The organization indicates that the number of companies across the European Union that have to report on sustainability will jump from 11,700 to approximately 49,000 (Frikkee, n.d.). It also indicates main criteria to identify whether a company will have to comply with it or not. Companies which have more than 250 employees, and/or generate more than 40 million euros turnover, and/or own more

than 20 million total assets will have to comply with it.

Main requirements of the CSRD will be to disclose the company's business model, strategy and policies. In addition, indication on future KPIs and targets will have to be given, as well as a double materiality assessment and due diligence, and risk and opportunity management. The approach of disclosing risk and opportunity can already be found in Maurer Rides' sustainability report, for example.

In addition to the above, companies will also have to disclose their actions on Environmental, Social, and Governance (ESG). The CSRD had already appeared in the challenge analysis but was proven to be one of the most, if not the most relevant development that will bring changes to the industry. All interviewees were aware of the changes their companies will have to go through and link upcoming challenges to the implementation of the CSRD.

United Nations Global Compact

While listening to Veronica speak at the Greenloop Conference, she recommended companies to join the UN Global Compact, which is the world's largest corporate sustainability initiative (What Is the UN Global Compact | UN Global Compact, n.d.). It focuses on human rights, labour, environment, and anti-corruption and on the 17 Sustainable Development Goals.

The attractions industry could benefit by joining it because it allows members to engage locally or globally with other members and it gives them guidance on how to take the next step on the sustainability journey, besides training to enhance knowledge on sustainable business practices. It could represent an ideal starting point for companies which are not sure how to act.

GSTC's Attraction Criteria

The Global Sustainable Tourism Council establishes and manages global standards for sustainable travel and tourism, known as the GSTC Criteria (Hocking, 2024). In the beginning of 2024, the organization released the first version of its Attractions Criteria for public consultation and IAAPA, among others, is one of the members of its Development Advisory Group. The final version will be published until the end of 2024, as there are still a few steps to go.

Andreas Andersen was kind enough to send over the first draft with his comments, and the document shows how attractions will be analysed to be considered sustainable. Attractions must be able to demonstrate effective sustainable management; maximize social and economic benefits to the local community and minimize negative impacts; maximize benefits to cultural heritage and minimize negative impacts; and maximize benefits to the environment and minimize negative impact. In the document, each of these four sections are further sub-divided into more specific categories, which indicate what attractions should or should not do. Once published, the Attractions Criteria will become an important tool to compare and analyse attractions.

9.4 | Testing Theme Parks and Manufacturers Against Future Trends

Besides gathering current trends and developments, it was also possible to put findings from Q1 against the future trends indicated by Deloitte to see if the industry's current commitment to sustainability future-proof is or not. Therefore, the strategic decision-making model explained in the methodology comes into place. To briefly recapitulate, this model was based on trends Deloitte indicates to be the ones companies need to pay attention to in the upcoming 10 years.

CORPORATE RESPONSIBILITY	CIRCULARITY	SUSTAINABLE TECH & DATA	DECARBONISATION
Diversity & Inclusion Sustainability as Stakeholder Value ESG as a C-Suite KPI Fight Against Greenwashing Total Transparency Sustainable Incentives Fair & Equal Pay Corporate Activism New Era Income Structures	Sustainable Consumption & Lifestyle Sharing Economy Prosumer Economy Regeneration & Biodiversity Systems Thinking Upcycling Zero Waste	Eco-Friendly Construction Smart Data Alternative Materials Agricultural Innovations Artificial Intelligence Clean Tech	Carbon Tracking & Optimisation Renewable Energy Alternative Powertrains Emission Handling Energy Harvesting

Despite their relevance for the future-proof analysis of the industry, they are not detailed in the body text of this report due to their extensiveness. However, in case detailed explanation is needed by the reader, one can find Deloitte's 'TrendRadar: Future of Sustainability' report online. It contains the exact description of each of the 4 mega and 27 macro trends.

To start futureproofing the industry, the total overview of theme parks' initiatives, created to answer Q1 ("How does the target group's theme parks and manufacturers act on sustainability?"), was placed side by side to Deloitte's 27 macro trends. Then, each of the sustainable initiatives was linked to one, two, or sometimes three relatable macro trends. When finalizing the matching process, an even broader overview was created, which included initiatives and future trends.

9.4.1 | Theme Park Groups' Performance

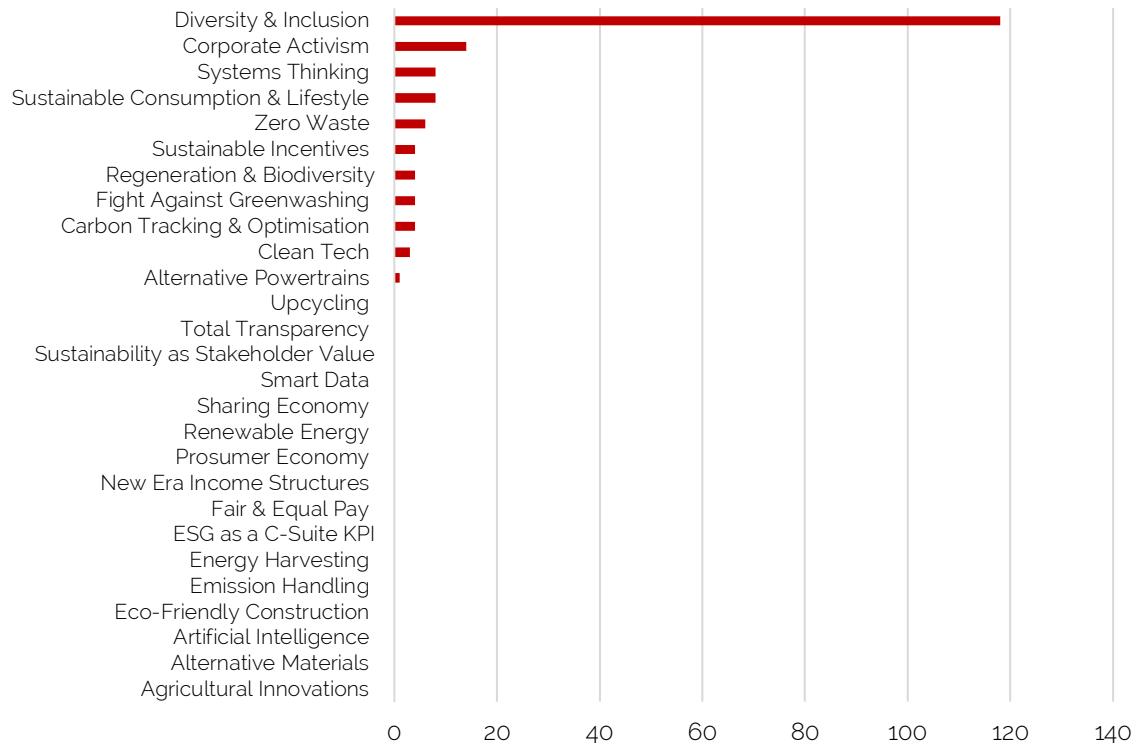
For the following analysis, the division of theme parks obtained in Q1, shown in the table, is used. To understand how theme parks performed, one simple action was taken: collecting the number of times its sustainability initiatives were linked to macro trends. This result was then used to understand where beginners, influencers, and shapers could act.

BEGINNER	INFLUENCER	SHAPER
Alton Towers Chessington World of Adventures Gardaland Heide Park LEGOLAND Billund LEGOLAND Deutschland	LEGOLAND Windsor Parc Astérix Parque Warner Phantasialand Thorpe Park	Efteling Futuroscope Puy du Fou Disneyland Paris Europa-Park Liseberg PortAventura World Tivoli

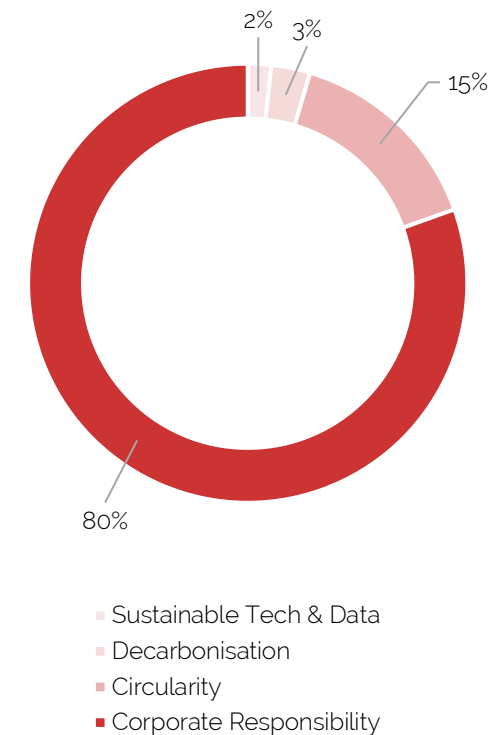
Beginners

Out of 174 times this group's initiatives were linked to macro trends, 118 were to Diversity and Inclusion. The second largest trend is Corporate Activism with 14, followed by Sustainable Consumption and Lifestyle, and Regeneration and Biodiversity each with 8 initiatives. Out of 27 trends and considering the majority of initiatives is linked to Diversity and Inclusion, it can be seen this group barely addresses 11. When zooming out and looking at the mega trends, this group directs 80% of its focus to Corporate Responsibility due to the large number of initiatives linked to Diversity and Inclusion. It becomes clear that, based on the information available via their official websites, these theme parks are not currently prepared for what is to come. Therefore, they have broad field of directions and future trends to choose from and implement initiatives to their parks.

Beginners Initiatives x MACRO Trends



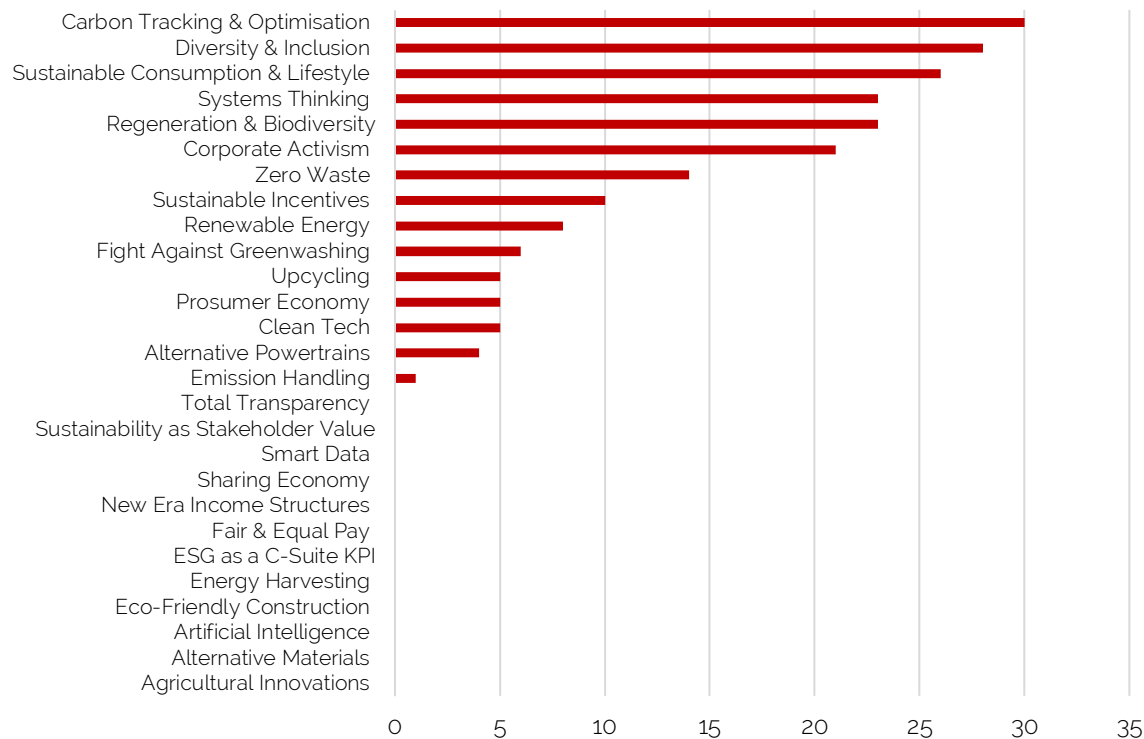
Beginners Initiatives X MEGA Trends



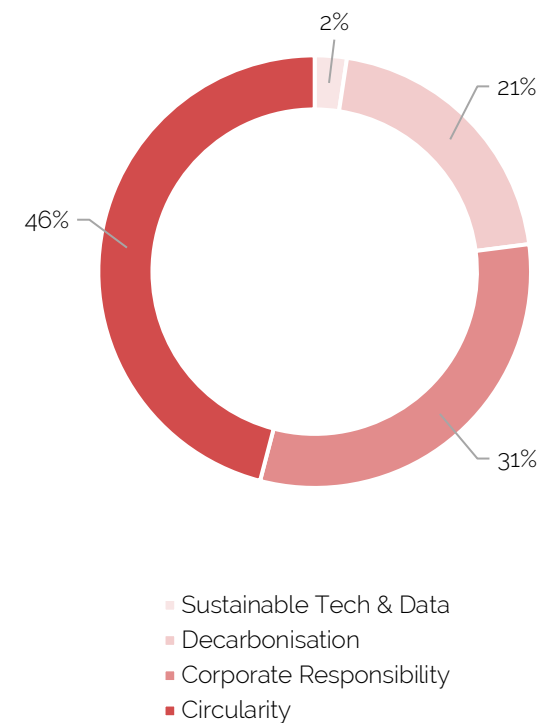
Influencers

This group's initiatives were linked to macro trends 209 times and top trends were linked for a close number of times: Carbon Tracking and Optimisation, Diversity and Inclusion, and Sustainable Consumption and Lifestyle reached 30, 28, and 26 respectively. When compared to beginners, influencers are more balanced regarding the distribution of initiatives per trend, as can be seen in the graph below. Out of 27 trends, influencers address 15 of them. When zooming out and looking at mega trends, Corporate Responsibility does not have as much influence with this group, representing 31% of its focus. Besides the reduction of this mega trend, another big change is in Circularity, which represents almost half of the initiatives with 46%. Considering Decarbonisation and Sustainable Tech & Focus represent 21% and 2%, respectively, implementing initiatives within these two categories could be interesting for the future of this group.

Influencers Initiatives X MACRO Trends



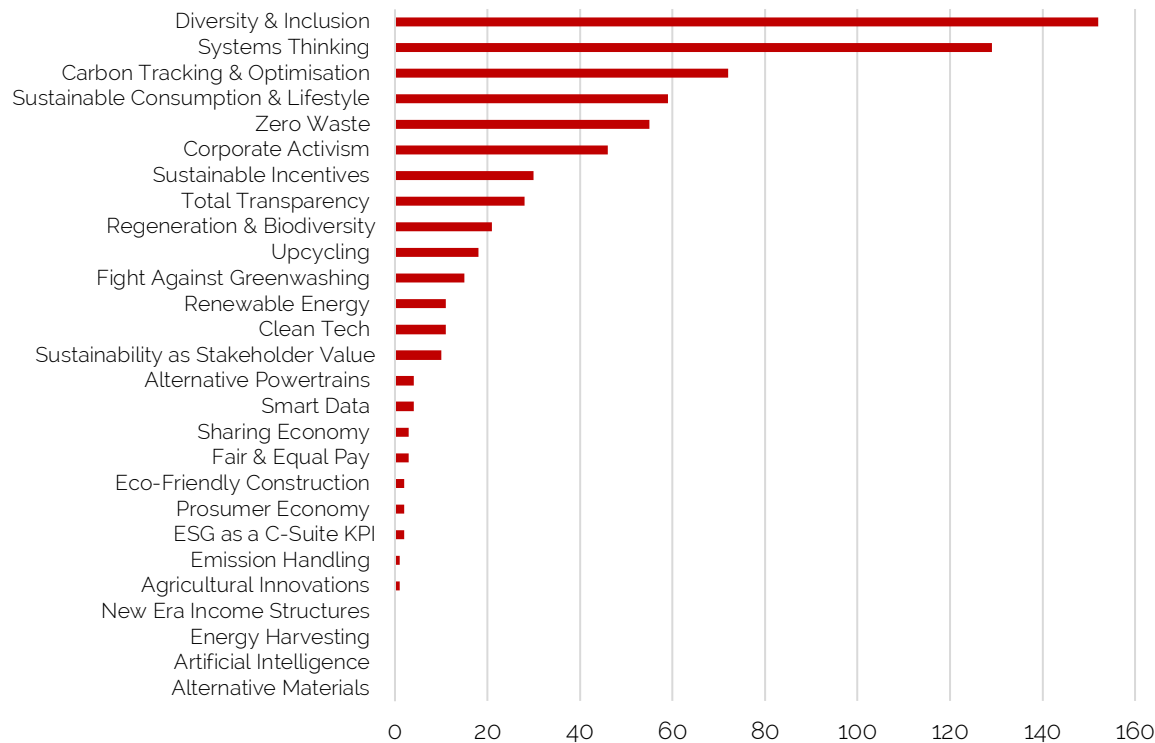
Influencers Initiatives X MEGA Trends



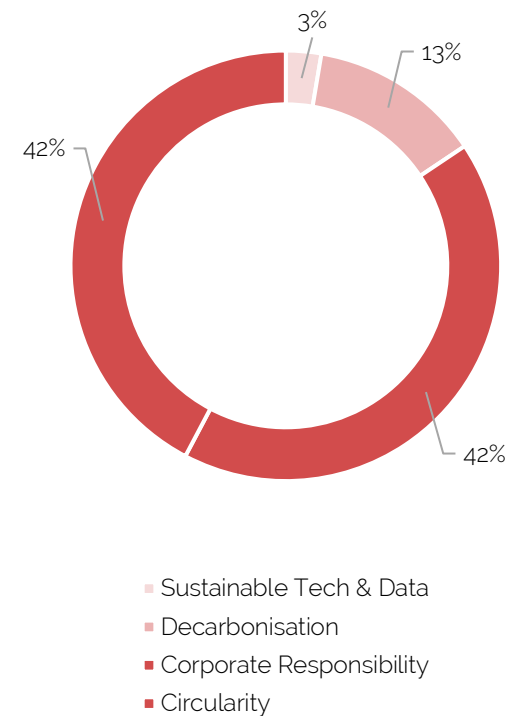
Shapers

This group's initiatives were linked to macro trends 679 times. From the 27 macro trends, only 4 could not be linked to any of the group's initiatives: Alternative Materials, Artificial Intelligence, Energy Harvesting, and New Era Income Structures. Besides having its initiatives linked 152 times to Diversity and Inclusion, another trend that performs well within this group is Systems Thinking, due to these theme parks' ongoing commitment to understand the impact of their operations and to identify opportunities to become more sustainable. These two trends are followed by Carbon Tracking and Optimisation, Sustainable Consumption and Lifestyle and Zero Waste. When zooming out, the mega trends of Corporate Responsibility and Circularity each represent 42% of the group's focus on sustainability. However, and even though 88 initiatives go to Decarbonisation, this amount only represents 13% of the four mega trends

Shapers Initiatives X MACRO Trends

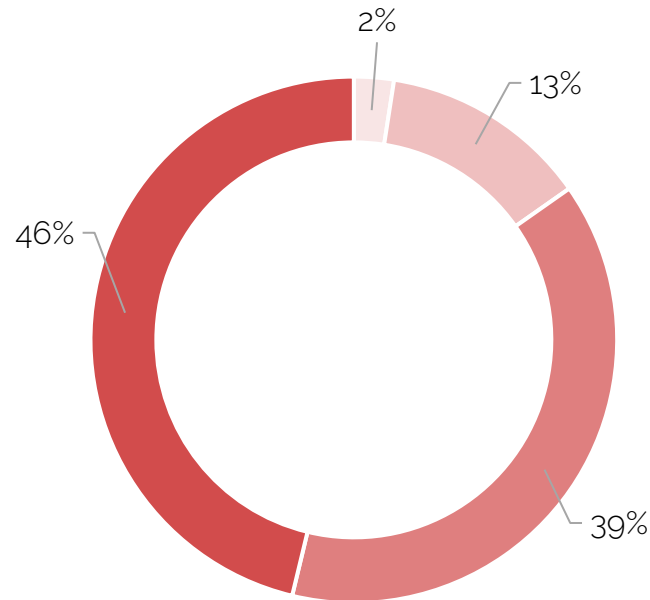


Shapers Initiatives X MEGA Trends



9.4.2 | Theme Parks' Collective Performance

The analysis indicates that out of 1062 times initiatives were linked to the 27 macro trends, a high percentage of the focus of theme parks goes to Corporate Responsibility and to Circularity trends. Decarbonisation comes in third position, followed by yet little to no focus on Sustainable Tech and Data, as seen below:



- Sustainable Tech & Data
- Decarbonisation
- Circularity
- Corporate Responsibility

9.4.3 | Manufacturers and Suppliers Performance

No tables were created for manufacturers due to the lack of information provided on their websites, which made it impossible to conduct the same level of analysis on them. Findings show that, based on what can be found online via their official website, manufacturers are a bit distant to being ready for the future. However, based on the interviews, it is clear that they are all aware of the changes they will have to go through in the upcoming years.

9.4.4 | Trends Performance

After analysing how the three groups of theme parks performed, it was also interesting to combine the groups and analyse the other point of view: how the future macro trends performed overall.

For its 27 future trends, Deloitte also assigned one of the following instructions: act, prepare, or watch. The table on the following page includes the trends, the indication of time each trend will take to be adopted by most companies, the instruction companies should follow, and the impact each trend brings or will bring to industries.

MEGA TREND	MACRO TREND	YEARS TO MAINSTREAM ADOPTION	ACTION	IMPACT ON INDUSTRY	NUMBER OF TIMES INITIATIVES WERE LINKED TO IT
Corporate Responsibility	Diversity & Inclusion	0 to 2	Act	High	298
Corporate Responsibility	Sustainability as Stakeholder Value	2 to 4	Act	Very High	10
Corporate Responsibility	ESG as a C-Suite KPI	2 to 4	Act	Very High	2
Corporate Responsibility	Fight Against Greenwashing	2 to 4	Act	Very High	25
Decarbonisation	Carbon Tracking & Optimisation	2 to 4	Act	Very High	106
Sustainable Tech & Data	Eco-Friendly Construction	2 to 4	Act	Very High	2
Circularity	Sustainable Consumption & Lifestyle	2 to 4	Prepare	Very High	93
Corporate Responsibility	Total Transparency	4 to 6	Prepare	Very High	28
Corporate Responsibility	Sustainable Incentives	4 to 6	Prepare	Very High	44
Decarbonisation	Renewable Energy	4 to 6	Prepare	Very High	19
Decarbonisation	Alternative Powertrains	4 to 6	Prepare	Very High	9
Sustainable Tech & Data	Smart Data	4 to 6	Prepare	Very High	4
Sustainable Tech & Data	Alternative Materials	4 to 6	Prepare	Very High	0
Circularity	Sharing Economy	4 to 6	Prepare	High	3
Corporate Responsibility	Fair & Equal Pay	4 to 6	Prepare	High	3
Corporate Responsibility	Corporate Activism	4 to 6	Prepare	High	81
Decarbonisation	Emission Handling	4 to 6	Prepare	High	2
Sustainable Tech & Data	Agricultural Innovations	4 to 6	Prepare	High	1
Sustainable Tech & Data	Artificial Intelligence	4 to 6	Prepare	High	0
Circularity	Prosumer Economy	4 to 6	Prepare	Rather High	7
Circularity	Regeneration & Biodiversity	6 to 8	Prepare	Very High	48
Circularity	Systems Thinking	6 to 8	Prepare	High	160
Circularity	Upcycling	6 to 8	Prepare	High	23
Circularity	Zero Waste	6 to 8	Prepare	High	75
Sustainable Tech & Data	Clean Tech	6 to 8	Prepare	High	19
Corporate Responsibility	New Era Income Structures	6 to 8	Watch	Rather High	0
Decarbonisation	Energy Harvesting	8 to 10	Watch	Rather High	0

The following findings follow the previous table from top to bottom, according to the crescent number of years for a trend's mainstream adoption. The results of this analysis serve as a base to interpret the results of beginners, influencers, and shapers, and to which direction they should go.

ACT on these Trends!

0 to 2 Years

Diversity and Inclusion is the trend that has already become or will become mainstream in the very near future. If companies have not acted upon it, it is time to do so. Luckily, the analysis of findings links this trend 298 times to the collected initiatives, proving Deloitte's point. Yet, it does not mean the industry has reached perfection within this topic. As mentioned previously in this report, having countless initiatives does not mean theme parks are fully accessible, for example.



2 to 4 Years

More than half of the trends that will become mainstream in two to four years' time fall under the mega trend of Corporate Responsibility. This half is represented by Sustainability as Stakeholder Value, ESG as a C-Suite KPI, and Fight Against Greenwashing. Even though some initiatives were linked to these three trends, they scored 10, 2, and 25 respectively, which is a low score. The reason behind this score is that these trends could also be considered as outcome or backstage trends. For example, the criteria used to link an initiative to Fight Against Greenwashing was to look for theme park's certifications; however, one could interpret that publishing a sustainability report is already the greatest initiative a company could take to fight against greenwashing. One could also consider that publishing a sustainability report is valuable proof that a theme park sees sustainability as a stakeholder value. Yet this explanation could not be represented in numbers, hence why the low result.

The other remaining trends that need action are represented by Carbon Tracking and Optimisation and Eco-Friendly Construction. The first scored high, being linked 106 times to initiatives, while the second was only linked to 2 initiatives. It might be the case that theme parks already take Eco-Friendly Construction into consideration, but do not explicitly mention initiatives related to the topic within their reports or websites.

PREPARE for these Trends!

2 to 4 Years

The trend of Sustainable Consumption and Lifestyle was linked 93 times to the theme parks initiatives. This is a relatively low number considering this trend is expected to become mainstream in two to four years' time.

4 to 6 Years

Out of 27 trends, 13 fall under the division that will become mainstream in four to six years' time. Corporate Activism leads the rank by being linked 81 times to initiatives, and Sustainable Incentives comes in second position with 44 times. Total Transparency and Renewable Energy come right after with 28 and 19 times respectively. All other trends within this section, were linked less than 10 times to initiatives: Alternative Powertrains, Smart Data, Alternative Materials, Sharing Economy, Fair & Equal Pay, Emission Handling, Agricultural Innovations, Artificial Intelligence, and Prosumer Economy.

It is important to point out that initiatives related to Fair & Equal Pay might be in place and included in companies annual or financial reports, and not included in their sustainability reports. Therefore, this result might be biased or incorrect. Since Deloitte classifies this as sustainability, it could mean it is time to switch where this information is published. In addition, some trends such as Smart Data could also be considered as an outcome or backstage trend. Considering some theme parks already collect data and share them via sustainability reports or via their websites, these could be considered Smart Data due to the nature and purpose of the trend, which is to use data to optimize and reduce companies' impact on the environment. However, only a few theme parks had specific examples of technologies used to gather and apply sustainable data.

6 to 8 Years

Theme parks seem to be more prepared for what is to become mainstream in six to eight years' time. System Thinking leads the rank with 160 times being linked to initiatives, which is logical due to the nature of theme parks of interconnected systems. Again, this trend could also be considered an outcome or backstage trend, representing the results of many trends combined. Yet an

effort was made to link most relatable initiatives to it. Zero Waste scores high with 75 times, followed by Regeneration and Biodiversity with 48. Upcycling and Clean Tech score less than 30, and could use some more attention coming from theme parks, especially when there are inspirational initiatives coming from the shapers.

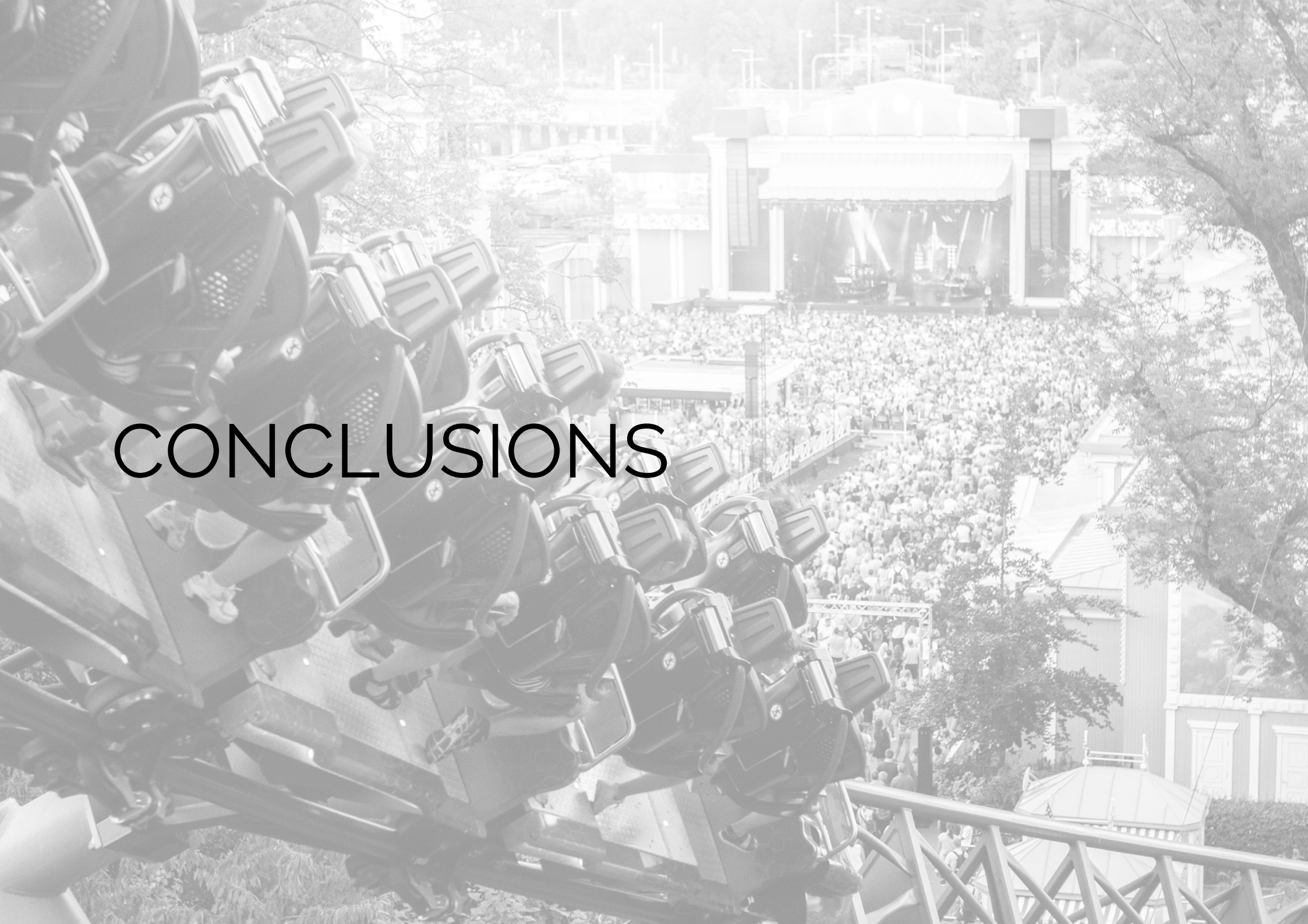


WATCH these Trends!

6 to 10 Years

The last trends were not linked to any initiative, which makes sense due to their mainstreamness only being forecasted for the next six to ten years' time. These trends are New Era Income Structures and Energy Harvesting and could be interesting for theme parks that are already ahead in the game, such as the shapers or some influencers.

CONCLUSIONS

A grayscale photograph taken from an elevated perspective looking down at a roller coaster car. The car is filled with people, their heads and shoulders visible. The car is on a track that curves downwards. In the background, a large, dense crowd of people is gathered in an open area. Behind the crowd, there is a large, light-colored building with a prominent central structure that looks like a stage or a small theater. Trees and other foliage are visible around the building and the crowd. The overall scene suggests a busy day at an amusement park.

10 | Conclusions

In this Justification Report, the main goal was to answer the leading research question: "How future-proof is the current commitment to sustainability of the European attractions and theme parks industry?". To achieve this goal, three sub-questions were formulated that not only aimed at gathering data to answer the leading question, but also at providing structure to the report.

Q1

The first sub-question, "How do the target group's theme parks and manufacturers act on sustainability?", needed an extensive analysis to be answered due to the complexity and size of the industry. Desk research was conducted, in which sustainability reports, official websites, and IAAPA webinars were thoroughly analysed.

Q1 Findings

What was suspected when initially analysing the challenge, became evident after data was collected: theme parks are ahead of manufacturers when it comes to sustainability as well as to reporting on topic. Even so, only a few theme parks of the target group have yet published a sustainability report.

The analysis showed that theme parks operated by parent companies have a discrepancy in information shared. Parent companies' reports indicate initiatives, strategies or goals, but these are nowhere to be found on the websites of theme parks they operate, which could either represent a lack of internal communication or simply a missed opportunity to inform guests about the sustainability efforts in place via the parks' own websites. Another missed opportunity for transparency is providing the same amount of information on versions of the website in different languages (original and English). Furthermore,

companies' websites search results were not as positive as expected and it could be valuable for theme parks and manufacturers to revisit their search functions and give it more attention.

It also noticeable that while some companies set specific and measurable targets, such as achieving net zero emissions in Scope 1 and 2 by 2030, others do not make them specific and measurable yet, or even do not indicate goals. An interesting approach for this matter is the one of Parques Reunidos, which links its internal goals to the United Nations Global Compact principles and to the Sustainable Development Goals or the one of PortAventura, which indicates strategic goals represented in numbers and achievements, and links the, to the SDGs. Here lies another opportunity to be increase transparency.

The analysis was able to categorize theme parks in three different ESG ambition levels: beginners, influencers, and shapers. However, the same categorization could not be done for manufacturers due to the lack of data online provided by them. The analysis has shown shapers already have Environmental, Social and Governance initiatives in place, while influencers focus on Environmental and beginners on Social. Together, these three groups sum 622 initiatives, of which 6% fall under Governance, 41% under Environmental, and 53% under Social. These groups focus on Diversity and Inclusion; Materials, Waster and Circular Economy (specially in Waste and Water Management); and CO₂ Emissions. With the new CSRD, analysed in Q3, the percentage of Governance-related initiatives will increase.

The analysis of initiatives showed some theme parks might have solutions to industry problems. Talent Academies are a great way to sustainability and could also help in solving employee shortage. In addition, it also showed there are initiatives which are

so simple, yet theme parks do not do it. For example, Disneyland Paris transforms construction tarps into products, such as bags and wallets. Considering that all theme parks do have construction tarps at some point, this is a missed opportunity by many. Initiatives such as providing temporary home for Ukrainian refugees in a theme park hotel is only taken by Europa-Park, yet many theme parks have hotels.

Overall, it is safe to say the analysis has also showed that delicate topics, such as sustainability and accessibility, require a specialist. The industry could benefit and move forward if those were added to the employees list. Furthermore, the industry could also benefit if reports would also include initiatives that are being tested or experimented at the theme parks, as some parks do.

Manufacturers, in turn, do not provide as much information on sustainability as theme parks. The analysis of their websites indicated they focus on quality, safety, innovation, certifications, and engineering. Nowadays, the main relationship between a manufacturer and sustainability, is manifested through the longevity elements of their rides. Even though this group has information on sustainability efforts, such as quality, safety, and certifications, the way they present them is not linked to sustainability.

Maurer Rides was the first manufacturer to publish a sustainability report and will serve as inspiration and motivation for others to follow its lead. The report, which already included requirements of the upcoming CSRD, provided valuable insights on what the company is currently doing. Interesting insights are indicating positive and negative impacts of the company, in light of transparency, or analysing its supply chain to identify opportunities to reduce emissions, as some theme parks do. Furthermore, Maurer has shown the future of manufacturer might

not be only related to manufacturing tracks but could also mean providing other additional services to the original one, such as ride covering or developing handbooks with environmental considerations.

To conclude, Q1's analysis has shown it is crucial to start gathering data. When doing so, companies will start having a database, to which data can be compared yearly. In addition, this database can be used to show clients how investing in sustainability can be beneficial in the long term.

Q2

The second sub-question, "What do industry leaders say and think about sustainability?", required first to interview industry experts, to later thoroughly examine interviewees' answers to identify common themes that would be relevant for answering it.

Q2 Industry

Results of the interviews show there is a shared feeling that companies should act together towards a greener future. Everyone, including theme parks and manufacturers, benefit when sharing efforts and knowledge. Sustainability is still not a priority for the industry, exemplified by the low attendance of sustainability-related events at Expos or by manufacturers providing frequency drivers for years, but most buyers not using them. This could either be lack of interest or lack of clearer communication.

To this day, it is still hard to compare theme parks and manufacturers as there is no standard way for them to report. Regarding reports, the importance of specific and measurable goals is highlighted: when aiming at reducing emissions, for example, it should be indicated to which Scope the target refers to.

When looking at the future of industry Expos, interviewees indicate a holistic approach should be taken. Placing Expos in countries that are not that warm, and do not require air-conditioning is, sometimes, better than having to rethink the whole Expo structure. In addition, developing Green Awards could be a way to motivate manufacturers to become greener, faster. Furthermore, meeting clients and suppliers in person is still the preference, but there is recognition this is not sustainable anymore. Unnecessary travels are also identified as non-sustainable due to making it harder for the inclusion of women in leadership positions to increase.

Overall, it can be concluded that sustainability is to be embedded in the culture of the organization and is to be implemented since the beginning of any project. Furthermore, considering sustainability data as marketing is valid depending on how the theme parks or manufacturers share the information, but informing guests and clients has proven to be necessary.

Q2 Theme Parks

Large theme parks companies, such as Disney or Universal, are slowly starting to include sustainability in their requests. However, this does not apply to smaller parks yet. It was also identified that leaders are responsible to create tipping points for some initiatives to become mainstream, such as solar panels.

Besides a push for electric charging stations, not a lot of changes have been seen in the relationship between guests and theme parks. Since guests do not have high expectations yet regarding sustainability, parks have a card to play and exceed expectations.

Encouraging green travel can be beneficial not only to reduce emissions, but also the number of parking spaces a theme park needs to build, leaving more room for other developments.

For now, theme parks wish manufacturers to start getting their sustainability sorted out, and to provide them with inclusive rides and proper regeneration systems for roller coasters.

Trends for the theme parks' side are measuring Scope 3 emissions, implementing water treatment stations, heightening the attention to energy, and increasing the number of fully accessible rides and vegan options. These trends match with the results obtained in Q1.

Q2 Manufacturers and Suppliers

Similar to the result obtained in Q1, longevity is also identified as the main connection between manufacturers and sustainability in today's scenario.

Trends for the manufacturers' side are using green steel, replacing plastic for alternative materials, publishing sustainability reports or information regarding sustainability, and digitalization. Emerging technologies to watch for are green hydrogen, carbon sequestering concrete, and an enzyme that can potentially biodegrade plastic.

The future of manufacturers revolves around developing new ways to use old materials, publishing sustainability reports and disclaiming sustainability information, and being able to collect data to show clients and prove the greenness of their production. These three link to Deloitte's trends of Alternative Materials, Total Transparency, and Smart Data, respectively. The latter will be soon considered to be a competitive advantage due to upcoming CSRD, which will also bring the main challenges to the manufacturers near future.

In addition, the increase in energy prices might dictate changes in the upcoming years and the growing cost of rides due to

sustainability demands is seen as challenging. The problem could be shifted to other parts of the world.

Q2 Greenloop Conference

The Greenloop Conference helped reinforcing a few points, such as the importance of working together to achieve sustainability goals, the relevance of having data to show clients and investors its effectiveness, and the necessity of leadership to be involved in the company's sustainability mindset. Interesting ideas, such as humanizing science and applying storytelling techniques to tell facts more engagingly, also popped up during the conference, and could represent a way for theme parks and manufacturers to innovate. Furthermore, it also showed how there is still much discrepancy within the industry, with some companies counting guest travel as Scope 3 emissions, and some not, for example. To conclude, Greenloop was extremely valuable to ground that sustainability is not about perfection, it is about progress.

Q3

The third and last sub-question, "What are the industry's trends and developments in sustainability?", allowed the current and future developments to be put on spotlight and to start drawing future directions for the industry.

Q3 Findings

Blooloops identifies current trends, which are developing biodiversity projects; using technology not only for entertainment, but for good causes; being a source of inspiration for visitors to act towards a greener future by creating ways to ignite interest about the topic; developing educational programmes on nature protection, conservation and rewilding; using renewable energy; measuring the company's Scope 3 emissions and trying to reduce emissions; reusing and recycling initiatives; switching for electric vehicles; and offering sustainable eating experiences, which

mean not having single-use plastic available as well as not offering that many meat dishes. These trends represent the ones every top theme park should be implementing by now.

Katapult, on the other hand, creates challenges based on trends identified by them. They challenge theme parks to give guests opportunities to relax and enjoy the experience in their own time; to facilitate walk-ups and unexpected moments that are not necessarily listed on the park's website as a benefit; to offer consumers high quality dishes with local produce, experiences, and give the choice to spend more; and to understand where technology can be replaced for a better guest experience. These challenges represent opportunities for theme parks to use sustainability as a card in their sleeve to create opportunities to slow down, to offer vegan dishes, or even to connect guests to nature, and exceed their expectations.

In addition to trends, many developments are in place and can be valuable for the industry or will shape the industry in the upcoming years. The United Nations Global Compact could represent an ideal starting point for companies which are not sure how to act. The Corporate Sustainability Reporting Directive (CSRD) will have to be complied with by companies which have more than 250 employees, which means all theme parks analysed in this research. In addition, future KPIs and targets will have to be indicated, proving the relevance of setting specific and measurable goals. The GSTC's Attraction Criteria will become an important tool to compare and analyse attractions, solving the problem indicated by interviewees of not having an industry standard to be able to compare.

When checking how theme parks performed when tested against future trends, the following could be concluded:

Q3 Beginners

When it comes to theme park groups, beginners focus on Corporate Responsibility, specifically in Diversity and Inclusion. It becomes clear that, based on the information available via their official websites, these theme parks are not currently prepared for what is to come in the near future.



Q3 Influencers

Influencers' main focus is on Circularity and Corporate Responsibility, so studying the implementation of initiatives within Decarbonisation and Sustainable Tech & Focus could be interesting for the future of these theme parks. Within the main focus, influencers have most of its initiatives related Carbon Tracking and Optimisation, Diversity and Inclusion, and Sustainable Consumption and Lifestyle.



Q3 Shapers

As influencers, shapers' main focus is on Circularity and Corporate Responsibility. Within these, the main trends are Diversity and Inclusion, Systems Thinking, Carbon Tracking and Optimisation, Sustainable Consumption and Lifestyle, and Zero Waste. This group's initiatives are only not linked to 4 macro trends: Alternative Materials, Artificial Intelligence, Energy Harvesting, and New Era Income Structures. Even though some of these trends will only take 6 to 10 years to become mainstream, shapers could start taking a look into them.



When combining the three groups, trends that appeared the most within the analysis were the following: Diversity and Inclusion, Systems Thinking, Carbon Tracking and Optimisation, Sustainable Consumption and Lifestyle, Corporate Activism, and Zero Waste. When reading these trends one after the other, the industry can be seen in front of one's eyes. Most discussions during IAAPA Expos, webinars, conferences, or articles on trends will somehow fall under one of these categories.

Deloitte's overview of sustainability trends gives theme parks and also manufacturers, even though they were not tested against them, many future directions to choose from.

Leading Question

In conclusion, the answer to the leading questions "How future-proof is the current commitment to sustainability of the European attractions and theme parks industry?" is complex.

It is extremely evident that the research had a clear focus on theme parks, which is a concrete proof of the difference between the amount of information these two sides of the industry share. Findings show that, based on what can be found online via their official website, manufacturers are distant to being ready for the future, besides Maurer. However, based on the interviews, it is clear that they are all aware of the changes they will have to go through in the upcoming years and their future directions, as indicated by interviewees are all linked to three of Deloitte's trends, indicating they are with the right mindset. The upcoming 10 years are certainly going to be interesting ones for manufacturers.

When it comes to theme parks, the answer becomes a bit more complex. Since the only macro trend which will become mainstream in less than two years' time is Diversity and Inclusion,

and this represents the majority of initiatives of all theme parks, it is safe to say the industry is prepared for this period. When looking at Blooloo's trends though, the scenario shifts. Since influencers and shapers are the ones which make these initiatives become trends, and the beginner group of theme parks, in its majority, cannot be linked to any of Blooloo's trends, it would be possible to say that the beginner group is not prepared for 2024 or 2025.

Influencers are relatively prepared for what is to come in 4 to 6 years' time, but should step up and start reporting on sustainability. This will not only make them become more prepared for what is to come, but also make them see Governance initiatives being added to its range of initiatives.

Logically, shapers are the most future-proof group of theme parks and represent the group that could start thinking about how to innovate towards trends that will take more time to become mainstream. In addition, they could represent the group that starts pressuring manufacturers towards more sustainable rides and attractions.

As this research has shown, sustainability is a shared effort and there are inspirational initiatives coming from all sides, and all theme parks could benefit from. Now, the question, which is inspired by what was discussed in IAAPA's 'Sustainability Journey Insights into the Materiality Assessment and Next Steps' webinar, is: how to convert the transparency of what is already out there into progress?



RECOMMENDATIONS

11 | Recommendations

Five recommendations could be drawn based on the research's conclusion and aim at enhancing the industry's current sustainability performance.

Report on Sustainability and Create Specific and Measurable Goals

Theme parks and manufacturers should start reporting on sustainability as soon as possible. The sooner data is collected, the better; not only because it will soon be required but also because the sooner a company starts, the sooner it becomes embedded in its culture. In addition, having data allows companies to compare performance yearly and prove their effectiveness in the long term.

A suggestion is that upcoming reports could have a section indicating fixed sustainability initiatives and another section introducing new initiatives or experimentations for that particular year. This would allow progress to be easily tracked from year to year.

For companies that are still not sure what to do, a recommendation is to either hire a specialist or use the UN Global Compact as a starting point for sustainability strategies. When starting, goals set should be specific and measurable and could align with the UN Global Compact principles and the UN Sustainable Development Goals.

Foster Industry Collaboration

Driving sustainability transformations requires theme parks and manufacturers to work together and to more openly share, to a certain extent, their sustainability initiatives. It is recommended that this be done via webinars, podcasts, or industry events. An

interesting approach would be to always have representatives from both sides present to create more unity between sides. Furthermore, it is suggested that industry associations, such as IAAPA, create a green award to encourage theme parks and manufacturers can act together towards more sustainable attractions. Industry awards already exist for 'Best Ride' and for 'Best Green Initiative', for example, so it is recommended that a new is added to the list: 'Best Green Ride'.

Another recommendation is for the industry to be more considerate with business travels. Theme parks and manufacturers should rethink the necessity of flying for meetings, understanding this would not only reduce the company's CO₂ emissions, but also promote the overall inclusion of women in leadership positions. Unfortunately, there is still societal pressure on them to take care of children, which makes it harder to conciliate with uncountable business trips.

Develop a Best Practices Document

Since research has shown that sustainability is about progress and not perfection, a best practice document should be developed to show the most inspirational initiatives from theme parks and inspire beginners, influencers, and even shapers. Sometimes, some have the solution to others' problems. It is recommended to start small and ramp up later. When manufacturers' initiatives can be benchmarked, this recommendation could also expand to their side. This recommendation will be further developed in the presentation, in which a visualization of best practices flashcards is given.

Improve Website Communication and Transparency on Sustainability

Websites can be enhanced by adding sustainability information that is given in theme parks parent companies' reports, and they

should provide the same amount of information on their website in native languages and English.

In addition, search functions should be improved: if there is a search function, ensure the result is linked to sustainability, if there are any. If there is no search function, one could be added, or an individual page could be developed for sustainability.

Manufacturers can also benefit by linking already existing information, such as safety and certifications, to sustainability in a redesigned website.

Humanize Manufacturing Science

Think out of the box. The sustainability umbrella is incredibly wide and has many directions one can pick from. Manufacturers, for example, could follow Maurer's leading example and start thinking about adding services beyond track manufacturing. Maurer plans to develop a green booklet highlighting its ride's

sustainability practices. Manufacturers could mix this initiative with one of the insights gathered in the research: to humanize science.

Manufacturers could, for example, provide information in a creative way about how their ride was designed by engineers and some fun facts about it mixed with physics. Different signs with bits of information could be distributed through the ride's queue or blended into its theme if allowed by the theme park. Another possibility is to create a storytelling book about the manufacturing process of the ride, following the attraction's theme, and add it to the roller coaster's entrance or exit.

This recommendation could also spark interest from the operators' side. The research revealed that, even though manufacturers have provided frequency drivers for years already, most operators do not use them. A more humanized approach to a ride's booklet could increase interest of operators and serve as a motivator for them to use the ride's sustainable features





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