

N. Leyla Unat  
Dr. Steven Cohen  
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## Case Study: Porsche

With climate change, the digitization movement, and changes in market demand, the future of the automobile industry lies in uncertainty. Sustainability is no longer an option but a requirement for most car owners.<sup>1</sup> Customer expectations are changing towards reduced fuel consumption and emissions. Because sports cars have powerful engines, they cause significant emissions. Therefore, most sports car manufacturers have begun electrifying their vehicles to reduce emissions. Many automobile manufacturers introduced new car models for their electric vehicle lines. However, these new designs are inconsistent with the brands' traditional models, serving as an alternative instead of a substitute. Without the logo, it is difficult to identify the vehicle's brand. Instead, as a luxury automobile company, Porsche transformed their traditional designs into electric cars: Porsche's electrical model Taycan is an electrical Panamera with almost identical interiors. Currently, Porsche is in the process of producing an electrical Macan, 718 Cayenne, and its most iconic model, 911. This evolution has resulted in Porsche's CEO Oliver Blume taking over Volkswagen Group, of which Porsche is a subsidiary, to lead the electrification evolution in all of Volkswagen's twelve brands: Volkswagen, Seat, Audi, Skoda, Bugatti, Bentley, Lamborghini, Ducati, Scania, MAN, and VW commercial vehicles,<sup>2</sup> besides Porsche.

### 1. Background

Founded in 1931, Porsche is a traditional luxury sports car manufacturer headquartered in Stuttgart, Germany,<sup>3</sup> and has most of its primary operations and factories in Germany to this day, in addition to producing its Cayenne model in Slovakia. On September 29, 2022, Porsche completed its initial public offering (IPO) in Frankfurt, Germany, with a valuation of 75.43 billion euros. As a future-oriented company that operates in the premium and luxury cars sector, with this IPO, Porsche's goal is to implement a long-term economic, social, and environmental strategy while meeting the demands of their high net worth (HNW) and ultra-high net worth (UHNW) global customer base. Oliver Blume, Porsche's CEO, said, "We aim to redefine the concept of modern luxury by combining luxury with sustainability and social commitment."<sup>4</sup> By 2030, Porsche's goal is to develop 80% of its new cars to be battery-electric vehicles (BEVs) and make its supply chain carbon neutral.<sup>4</sup> Becoming a public company will allow Porsche to enter a new era to help it achieve its mutual mission with Volkswagen AG for sustainable growth and value-creation.<sup>5</sup>

As innovators, Porsche's motto is "driving technologies,"<sup>6</sup> which highlights them as pioneers in shaping the future of the automotive industry. Its vision is to "generate innovative solutions and concepts for the future, advance new ideas and shape the mobility of the future."<sup>6</sup> Porsche's overarching growth strategy entails becoming more sustainable while increasing sales and generating a competitive advantage based on measurable results.<sup>6</sup> Porsche's market valuation reached 91 billion euros, almost 100 billion USD, within three months of its IPO, making it the third most valuable car company after Tesla and Toyota (Equal to BYD) and more valuable than

mother company Volkswagen.<sup>7</sup> Porsche also recently became Rimac's biggest shareholder, holding around 20 percent.<sup>8</sup> Rimac is a luxury super sport electric vehicle and technology company.

Porsche is on track with its growth strategy. Its target revenue is to generate at least 38 billion euros and a return on sales (ROS) of more than 17 percent in an optimistic scenario. Despite incurring losses and expenses due to the COVID-19 pandemic, the war in Ukraine, and the semiconductor crisis, they delivered more than 300,000 cars in 2021; the company generated 33.1 billion euros worth of revenue and operating profit increased by 27% to 5.3 billion euros. Porsche's net cash flow increased to almost 3.7 billion euros from 2.2 billion euros in 2020. Their sales in North America, Europe, and China were the highest due to the rising global popularity of sport utility vehicles (SUVs) and battery electric vehicles (BEVs). Their electric line Taycan sold 41,296 units alone in 2021.<sup>9</sup> Due to growing demand and sales, Porsche has doubled its workforce over the last seven years,<sup>10</sup> and in 2021, it reported to have 36,996 employees, of which 34,297 work full-time.<sup>11</sup> With economies of scale, Porsche aims to expand in the USA and emerging markets while reaching a more diverse clientele and explicitly targeting women leaders.<sup>9</sup>

### *Strategy 2030*

Porsche developed a future-oriented strategy that takes elements from its traditional strategy and carries its practices into the future to turn current challenges into future opportunities as climate and market risks increase. This new corporate strategy centers Porsche's transformation on sustainability. The *Mission 2030* is to shape the future. Porsche has defined *Goals 2030* under four stakeholders: customers, employees, society, and investors (Appendix: Figure 1). Porsche's ultimate goal is to be carbon neutral by 2030 across the entire supply chain and to be one of the leading automotive companies in the ISS ESG rating. In efforts to achieve carbon neutrality across the supply chain, the Taycan model is the first automobile model they released, which is carbon neutral across its supply chain. They are developing eFuels in their new eFuel pilot plants in Chile for electromobility. This form of green petrol tends to be carbon neutral, calling this commitment to its Beyond Mobility initiative. eFuels are also synthetic fuels produced using carbon dioxide and hydrogen captured from other modes of transportation such as airplanes, ships, or cars. They have also carbon neutralized their sites in Germany: Zuffenhausen, Weissach, and Leipzig. Porsche also required 1,300 of its suppliers to use renewable energy from July 2021.<sup>12</sup> The overall strategy mainly focuses on sustainability, digitalization, and transformation. Porsche aims to become a leader on the way into electrification evolution in the sector. The luxury car manufacturer believes that its *Strategy 2030* will serve as a guide to future success and environmental and social responsibility for Porsche and all its competitors to generate sustainable and value-creating growth while decreasing its carbon footprint.

## **2. Definition of Sustainability at Porsche**

Although sustainability is traditionally related to the climate crisis, it is only one of three pillars of Porsche's definition of sustainability. Porsche combines environmental, economic, and social responsibility under a single roof, calling it sustainability. Porsche believes that sustainability means moving away from traditional business practices that have harmed the environment and integrating economic, societal, and environmental success among each other. Marrying environmental protection and social responsibility with financial success is core to the definition. Porsche gives all three sustainability pillars equal focus and echoes them in every

company dimension, internally and externally.<sup>13</sup> Their definition of sustainability prompts them to assess all social, environmental, and economic activities across their value chains worldwide to meet their expectations of stakeholders: customers, employees, and suppliers. The luxury car manufacturer has three pillars with six areas of focus under the pillars. The focus areas under the environment are decarbonization and circular economy; under social are increasing diversity and becoming a partner in society; and under governance are supply chain responsibility and transparency. Porsche has aligned these focus areas and relative activities to the United Nations' Sustainable Development Goals (SDGs) to unite the environment, society, and economic progress.<sup>12</sup>

#### *Sustainability Definition: Environmental Factors*

To elaborate on Porsche's sustainability definition's environmental factors, Porsche will achieve to be balance sheet carbon neutral by 2030, which means decarbonization and closed-looped recycling is becoming its priorities within environmental sustainability. Porsche is committed to the Paris Climate Agreement. The company believes that it must reduce its carbon emissions through innovation and electromobility. Half of their existing car models are undergoing either entire or partial electrification. This practice is unusual in the industry, as traditional manufacturers tend to create new models for their electric vehicles instead of transforming their existing models. EVs also require much less maintenance throughout their life cycle than cars with combustion engines, reducing their Scope 3 emissions related to a car's life cycle.

Porsche is extending decarbonization across its supply chain and throughout the vehicle's life cycle through its Decarbonisation Programme. The company intends to decarbonize the entire supply chain by 2030. The three principles of the Decarbonisation Programme are reducing carbon dioxide emissions, switching to renewable energy sources, and developing climate protection projects. An example of a climate protection initiative is protecting the biodiversity in its immediate environment. Porsche uses a Biodiversity Index developed by Volkswagen and is at 44 percent. The company aims to achieve 100 percent in all its sites by 2030. Porsche also held workshops with its suppliers to align them with carbon emission reduction targets and use of sustainable materials.<sup>12</sup>

In addition, contributing to a circular economy is an essential environmental factor in Porsche's definition of sustainability. The circular economy encompasses two crucial areas: material and resource use. The company uses water as efficiently as possible and recycles wastewater in production. They harness technologies that limit waste and sustainably dispose of the trash. Porsche is reducing its material footprint by leveraging sustainable and recycled materials. Porsche recycles its HV batteries together with its partners. Porsche set goals to have circularity in material cycles and feed resources back to production at the end of a car's life cycle. The company can conserve more materials by recycling and aligning with the UN's SDG 12, ensuring sustainable production and consumption. Their ultimate target is a zero-impact factory.<sup>12</sup>

#### *Sustainability Definition: Non-Environmental Factors*

Porsche's definition of sustainability has a strong focus on non-environmental factors. The first one is social factors that contribute to the well-being of society. Porsche's primary focus is on people and recognizes that each employee adds value to the company, so it aims to increase

diversity. By 2030, Porsche aims to create a more diverse workforce and more mixed teams that include more women, the LGBTIQ+ community, and people with disabilities from various races, ethnicities, or economic statuses to meet SDG 10, reducing inequality. They recently implemented "Charta der Vielfalt," a commitment to diversity in the organization. They came second in the Women Career Index, with promises to increase women's leadership positions by 2025. Porsche also has a whistle-blower system for violations of equal treatment in the company.<sup>12</sup>

Another social factor is assisting communities, especially disadvantaged people and youth, directly or indirectly related to Porsche across its sites and the sites of its business partners or suppliers. Porsche aims to create a lasting impact on disadvantaged communities worldwide, so it collaborates with them for social cohesion and guaranteeing good labor through programs unique to the organization, such as the Porsche Aftersales Vocational Education (PAVE) program. The PAVE program aims to train and employ young individuals from disadvantaged backgrounds for technical fields, meeting SDG 4, inclusive and equitable education. Once the training is complete, Porsche later appoints them to work full-time at Porsche or Volkswagen. Business partnerships are also within Porsche's Sustainability Definition. They have developed a mutual campaign with the tire manufacturer Michelin called CASCADE (Committed Actions for Smallholders Capacity Development), where they jointly support smallholders in Indonesia that are involved in rubber extraction. This project aims to identify rubber extraction risks in the supply chain and advocate for better labor conditions. Porsche also performs an impact assessment to see how it could continuously improve its engagement efforts, ultimately achieving SDG 17, partnerships for goals.<sup>12</sup>

The final factor in Porsche's sustainability definition is governance. Sustainability is addressed beyond Porsche and extends across the whole supply chain. Porsche has a comprehensive code of conduct that ensures workplace privacy, safety, and equal treatment for employees and performs audits to measure the effectiveness of its compliance systems. For partners, the code of conduct ensures that business partners will abide by the law and address conflicts of interest and corruption. Porsche assesses its suppliers before awarding contracts, using its Sustainability Rating System (S-Rating), which evaluates suppliers' human rights practices and material analyses to identify potential environmental and social risks. By this assessment, Porsche encourages its suppliers to take effective action to ensure the minimum human rights standards. Porsche aims for 90 percent of its purchased materials to meet the most stringent human rights standards by 2030, achieving SDG 8, commitment to human rights. On the other hand, to ensure confidence among stakeholders, the company is committed to transparent communication across all areas. Porsche maintains its reputation among external parties by having relevant organizations rate Porsche as it strives for continuous improvement.<sup>12</sup>

Porsche's CEO, Oliver Blume, says that a sustainable transformation is a holistic one that goes beyond the internal structure and simultaneously covers environmental, social, and governance. In this regard, he oversaw the Porsche Sustainability Festival, where internal and external experts gave presentations on sustainability fields such as Diversity, Society Partnerships, Decarbonization, Circularity, and Supply Chain Responsibility. The purpose of the Festival is to empower employees, inform them about what sustainability means to Porsche, and encourage them to contribute to sustainability goals to ensure company-wide alignment with the

definition of sustainability and leave no element out. Employees are encouraged to become sustainability ambassadors by carrying out the sustainability initiatives relevant to them.<sup>12</sup>

Finally, Porsche has certified management systems that address environmental sustainability. Top management evaluates the sustainability targets annually or bi-annually to determine the necessary action and steps to take to improve sustainability efforts. Porsche published an environmental compliance management system (ECMS), which presents a standardized set of requirements and guidelines for the company's management system based on Volkswagen Group's specifications. The ECMS aims to help determine the environment and energy-related responsibilities and obligations across all departments. The Environment and Energy Management department implements the ECMS. Porsche performs third-party audits to determine the applicability of the environmental and energy legislation across the company.<sup>12</sup> Porsche targets promoting sustainability and transparency in reporting across the entire supply chain.

Overall, Porsche's definition of sustainability consists of environmental and non-environmental factors such as social and governance. Aligned with the UN's SDGs, the luxury car manufacturer has a variety of standardized initiatives, such as efforts to protect biodiversity, use renewable energy, and reduce waste. Porsche has also developed several unique projects based on strategic partnerships to enhance community engagement while prioritizing transparency through every division in the industry.

### **3. Leadership**

On October 1, 2015, Oliver Blume stepped into the role of Chairman of the Executive Board at Porsche AG.<sup>14</sup> As a part of Porsche AG's Board for almost seven years, Blume has effectively integrated sustainability through electromobility in Porsche's operational structure. Blume has improved Porsche's operations by 60 percent and presented its first electric car, Taycan.<sup>15</sup> As a sports car, Porsche performs outstandingly with high-performing batteries, which is why the Taycan model became a considerable success, exceeded initial production capacities to meet the scale of the demand, and sold on par with the 911 model.<sup>16</sup>

With the leadership of Blume, Porsche is slowly undergoing a process of producing a hybrid or electrical version of its existing models, an initiative that other automotive manufacturers do not practice. For Blume, e-mobility is a top priority, and he is overseeing the development of a hybrid version of Porsche's iconic model 911 and the development of modern combustion engines simultaneously. He calls this the double-e path: e-mobility and e-fuels. eFuels use the carbon dioxide and water emitted by transport vehicles such as planes, ships, and automobiles, which makes them a more circular alternative to hydrogen. Blume believes that eFuels are a way to make old cars greener and cost less than \$2 per liter. It is a sustainable option for Porsche's customers with non-electric vehicles.<sup>16</sup> He allocated 15 billion euros to transforming the company to adapt to the industry's climate emergency and electrification evolution. With these initiatives, he maintained consistency in Porsche's brand image while opting for transformation. Under Blume's leadership, Porsche has prioritized communication with customers and other stakeholders. They use various media such as objective facts and figures, success stories, digital text, and detailed reports to engage their customers on their advances and let them into the fascinating world of Porsche. Porsche's transparency is an integral part of its sustainability strategy. Porsche has been able to sustain its reputation because of how open to change and

adaptable they have been. Blume believes their unwavering focus on change and improvement sets Porsche apart from other manufacturers.<sup>15</sup>

Blume has also navigated the company successfully throughout the COVID-19 pandemic and received the Brand Manager of the Year Award at the 2021 German Brand Awards for his successful crisis aversion. Blume believes empowering employees throughout these crises is always the priority when navigating challenging times. He trusts the work environment significantly contributes to success—a solid and passionate team means a strong brand.<sup>15</sup> Blume's success in incorporating sustainability and managing through fluctuations also lies in the fact that Blume views Porsche as a start-up and constantly looks for growth avenues. Thus partnerships are gaining significant momentum to navigate through changes. He is always on the lookout in the start-up scene worldwide to see which business models, tools, or technologies in this changing world would be a good fit for Porsche. They have access to these tools by investing in these start-ups. By developing these strategic collaborations, they grow their ecosystem and bring external skills and brains into the company.<sup>17</sup>

Due to his successes, Blume has become well respected in the industry and was appointed to have a double role as the head of Volkswagen Group with the title Chairman of the Board of Management, replacing Herbert Deiss. Deiss lacked team spirit and had a dictatorship approach in leading the company by making decisions alone and straining the Volkswagen group's relationship with outside parties. He also had a conflict with Volkswagen's Advisory Board and failed to develop 60 percent of the software in-house in automobiles as he targeted. Thus, Volkswagen AG is undergoing a sensitive time.<sup>18</sup> Blume will oversee the group's and its subsidiaries' electrification strategy, including Lamborghini and Bentley, as Porsche has become a pioneer in sustainable transformation and implemented its definition of sustainability across all brands—from decarbonization to supply chain transparency. Blume wants to foster a cooperative environment in the mother company, similar to subsidiary Porsche, developing strategic partnerships and prioritizing "team spirit, fairness, and passion."<sup>19</sup> Overall, as the CEO, Blume directs the company's sustainability function and leads the Strategy 2030 plan to make Porsche a sustainability leader in the sector and adjusts Porsche's initiatives based on Volkswagen AG and its other subsidiaries to execute sustainability measures.

#### **4. Sustainability Organizational Structure and Capacity**

Porsche has a top-down Sustainability Organizational Structure. On the top is the Chairman of the Executive Board, Oliver Blume, with the highest degree of authority regarding sustainability. He is the one who determines the ultimate strategy, targets, and flagship projects. Under Blume's supervision, several bodies support Porsche's sustainability efforts.

Under the General Secretary and Corporate Development group lies the Sustainability Department, which manages the company's sustainability bodies, oversees the ongoing sustainability projects, and represents Porsche's sustainability management to the Volkswagen group.<sup>12</sup> Another essential body is the Politics and Society department of the Communications, Sustainability, and Politics Division, which is responsible for internal and external communications regarding sustainability, engaging in sustainability networks, stakeholder management, and non-financial reporting.

The body encompasses the Sustainability Council, which has provided input and guided Porsche into a Sustainable future since 2016. The council consists of external specialists from various fields, such as science, business, and politics, advising top management and the Executive Board in their sustainability efforts. The council is an independent entity from Porsche and serves as a consultant or business partner. Porsche has been expanding and strengthening its Sustainability Council from five to six members, which oversees all sustainability initiatives before implementation. The advisory council consists of the Council spokesperson and a professor at Copenhagen Business School, Lucia Reisch, and council members industry experts Ortwin Renn and Klaus Töpfer, economist Sarah Jastram, businesswoman and sustainability professor at the Hamburg School of Business Administration Raffaella Rein, Kenyan diplomat and fellow at Harvard University Adnan Amin. The latest addition to the Board was Nicola Leibinger-Kammüller, the Chairwoman of the Management Board at Trumpf. The council and the Sustainability Department hold regular meetings virtually. Their critical discussion topics include the decarbonization strategy, supply chain sustainability, and human rights in developing the sustainability strategy.<sup>12</sup>

Finally, the Environment and Sustainability Steering Group consolidates the sustainability strategy and presents its primary focus points to the Executive Board once a quarter for the Board to finalize the last decision. The Steering Group consists of the five main department heads. The group is responsible for assigning The Environment and Sustainability Steering Committee tasks like selecting and coordinating sustainability-related initiatives or projects. The Steering Committee consists of representatives from all departments in the organization. The committee's responsibility is to develop a roadmap and direction to achieve sustainability objectives. It also evaluates and refines topics and projects related to sustainability. The committee reports to the Steering Group above it in bimonthly meetings.<sup>12</sup> (Appendix: Figure 2)

## **5. The Future of Sustainability**

Porsche has established a strong foundation and tangible steps toward a sustainable future with Strategy 2030, with concrete goals, an empowered team and CEO, and constant modifications to the strategy. Regardless, we are entering the age of electrification, and to ensure a smooth and sustainable transition in its operations, Porsche needs to prepare for the significant challenges it is yet to face. The industry has shifted from being fuel-intensive to material-intensive with the electrification evolution.<sup>20</sup> Porsche has implemented the Decarbonisation Programme to produce 80 percent of vehicles with an electric motor by 2030 to meet the changing demands.<sup>12</sup> Porsche's electrification strategy is unique in the industry. Instead of developing new car models as its electric vehicle lines, Porsche transforms existing models and creates an electric version of a current model. Porsche successfully protects its brand image through this strategy while pursuing innovation and sustainability.

However, with the semiconductor crisis that took a toll on the auto industry, Porsche needed to limit production because the company supplied wire harnesses from Ukraine. The conflict with Russia damaged their supply chain and imposed limitations on automobile manufacturing.<sup>7</sup> The most crucial component of an electric vehicle is its battery. The main challenge regarding electrification is that the industry expects a shortage of elements such as lithium, cobalt, and

nickel in 2025 and 2026 as more brands start electrifying their cars. Another challenge related to materials is that these materials require mining, which has plenty of ethical, social, and environmental controversies.<sup>20</sup>

Porsche needs to account for and find multiple alternative avenues to supply raw materials and address immediate product shortages and other supply bottlenecks as the industry moves towards electric vehicles. Porsche's strengths lie in its internal teamwork culture and external partnerships. The company will start its operations to develop high-performance lithium batteries with Cellforce Group in Germany in 2024 and partner with BASF, the world's largest chemical producer based in Germany.<sup>12</sup> However, Porsche must form alternative partnerships with suppliers across geographies to overcome this predicted shortage in the coming years. China is the number one supplier of lithium, followed by Australia and South America. Porsche should have alternative suppliers across all regions, and Porsche has initiated conversations with alternative suppliers in preparation for the lithium shortage.<sup>7</sup>

Moreover, Porsche's sustainability strategy entails supplier ethics. Porsche must include limiting the amount of energy and water when extracting lithium in its supplier contracts and code of conduct, along with making audits and assessments. Another avenue could be recycling these supplies. Currently, lithium is more cost-effective to recycle than mine. Porsche has already taken initiatives to reduce material needs through recycling, developing recyclable batteries, and arranging a recycling system. The waste Cellforce Group generates for Porsche's battery production will be recycled at BASF's battery recycling plants to be reintroduced in future production.<sup>22</sup>

On the other hand, besides Western Europe, Porsche's largest markets are in the USA and China. China is also the largest EV producer. If China, for example, imposes additional import taxes, Porsche could face financial risks. Additionally, brands like Tesla and Lucid Air could compete with Porsche in terms of performance and location. Currently, they are not direct competitors with Porsche in terms of image and experience, but they could potentially be in the future. With these challenges in mind, Porsche could consider building a factory in America and China or combining factories with existing automakers such as Volkswagen to overcome trade barriers and financial market turbulence. However, a risk would be this practice damaging its reputation concerning Porsche's "Made in Germany" component. To support its brand image, it could further emphasize being a sports car and the experience of driving a Porsche by highlighting motorsports further to maintain its iconic racing spirit.

Porsche is currently underway in emphasizing its motorsport experience by developing Porsche Mission R, an all-electric GT car for customer motorsport. Mission R has a performance level equal to the 911 GT3 Cup. Mission R's body parts consist of renewable and sustainable materials such as renewable fiber, which generates 85% less carbon than carbon fiber to ensure a sustainable motorsport future. Porsche also developed a partnership with ExxonMobil to test eFuels in motorsports. Porsche plans to invest more than one billion euros in decarbonizing its operations and investments in developing eFuels and batteries.<sup>23</sup> Mission R is a call to action to all its immediate sports car competitors in the luxury sector, such as Ferrari, Aston Martin



Lagonda, Lamborghini, and Bentley, as Mission R represents the next generation of EV race cars.

Porsche's sustainability success has led its CEO, Oliver Blume, to take over Volkswagen Group to implement a similar but adjusted sustainability strategy for all of Volkswagen's subsidiaries. A successful sustainability strategy comes from innovating while maintaining brand image and experience, which distinguishes Porsche. It requires constant assessments, adjustments, and innovations based on the brand's mission, vision, and culture. The trick is to preserve an entrepreneurial spirit and view the company as a start-up, no matter how developed. Success and sustainability come from developing community and business partnerships—the more diverse, the better. The focus should be on people, whether they be employees, customers, community partners, business partners, or investors. The company must also seek and conduct internal and external assessments and feedback to satisfy all parties regarding environmental, social, and economic sustainability. Transparency in reporting is the connector of all the people the company deals with, so effective communication among teams, partners, and stakeholders is an enabler for a successful sustainability strategy and will go a long way. A solid, supportive community makes a strong, sustainable brand, even in times of crisis. However, one must empower to be empowered.

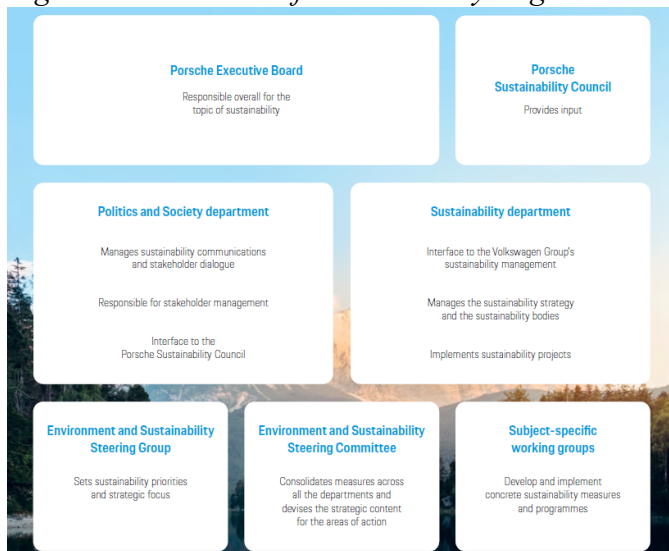
## 6. Appendix

Figure 1: "Goals 2030" <sup>12</sup>



"Annual & Sustainability Report 2021." Page 72. *Porsche Newsroom*, 2021, <https://newsroom.porsche.com/en/company/annual-sustainability-report-2021.html>.

Figure 2: "Overview of Sustainability Organization" <sup>12</sup>



"Annual & Sustainability Report 2021." Page 80. *Porsche Newsroom*, 2021, <https://newsroom.porsche.com/en/company/annual-sustainability-report-2021.html>.

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