Task Force on Climate-Related Financial Disclosures **(TCFD)**

Governance:

Disclose the company's governance around climate-related risks and opportunities.

HARMAN integrates sustainability governance mechanisms at the highest levels of organizational leadership and performance. Our President and CEO is responsible for oversight of our overall corporate sustainability performance, and our ESG Committee, which consists of relevant senior executives and technical experts. HARMAN's Sustainability Program Office supports the ESG Committee through deployment of governance and performance mechanisms to ensure greater transparency, communication, collaboration, and accountability.

Strategy:

Disclose the actual and potential impacts of climate-related risks and opportunities on the company's businesses, strategy, and financial planning.

Acute Physical

- 3 facilities exposed to extreme weather
- 1 facility exposed to inland flood risk

Chronic Physical

- 7 facilities exposed to drought

Regulatory Transition

- All facilities exposed to increasing local and national GHG regulations

Market Transition

- 7 facilities in locations with limited climate adaptation capacity

Managing Climate-Related Risks:

Disclose how the company identifies, assesses, and manages climate-related risks.

HARMAN has developed its physical risk screening as a complement to existing processes that identify and manage ongoing climate-related transition risks. Over time, HARMAN will integrate physical risk screening and management of acute physical risks into these pre-existing processes. HARMAN's Enterprise Risk Management (ERM) is another tool that enables the organization to identify, assess and manage climate and environmental related risk as part of our business operations governance. Additionally, HARMAN developed a sustainability vision, including goals, and objectives that are tied to annual performance expectations, with a structured governance model to drive and measure progress.

Metrics And Targets:

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities.

Monitoring and tracking our environmental performance is a critical part of our business strategy. By quantifying the impacts of our operations, we are better equipped to identify improvements. In 2019, HARMAN set an absolute target to reduce Scope 1, 2 (location-based) and 3 emissions by 40% by 2025, using a baseline year of 2019. Additionally, HARMAN has a longer-term goal to achieve carbon neutrality by 2040. In 2020, HARMAN set an absolute target to have zero waste generation by 2025, using a baseline year of 2019.

2021 HARMAN **TCFD Disclosure**

This disclosure has been prepared according to recommendations from the Task Force on Climate-Related Financial Disclosures (TCFD). TCFD is the most widely recognized framework for consistent, decision-useful, and forward-looking information on the material financial impacts of climate-related risks and opportunities. This disclosure is structured around TCFD's four thematic areas that represent core elements of how organizations operate: governance, strategy, risk management, and metrics and targets.

Governance

Disclose the company's governance around climate-related risks and opportunities.

a) Describe the board's oversight of climate-related risks and opportunities.	HARMAN integrates sustainability governance mechanisms at the highest levels of organizational leadership and performance to ensure action and accountability against our corporate sustainability strategy, goals, and objectives. To ensure executive commitment and oversight, HARMAN's President and CEO is responsible for overall corporate sustainability performance. The President and CEO cascades sustainability targets to the Senior Leadership Committee, comprised of the HARMAN C-Suite, in alignment with organizational goals and objectives. Our CEO has overall responsibility for performance of HARMAN's corporate environmental and climate-related sustainability goals and objectives. In 2020, the CEO signed off on HARMAN's commitment to achieve carbon neutrality by 2040. The CFO is responsible for financial approval of climate-related budgetary needs related to rollout of the carbon neutrality by 2040 initiative, as well as climate-related financial risk assessment and monthly reporting to the organization. Supply Chain, Quality, and Global Operations leaders are responsible for assessment and reporting on climate-related operational risks, as well as the approval of climate-related resources associated with the implementation of the carbon neutrality by 2040. In 2020, our Supply Chain leadership approved our HARMAN's Scope 3 assessment initiative and the investment in a digital platform to assess, monitor, and mitigate supply chain sustainability risks. Additionally, the Senior Leadership Committee supports decision-making and oversight of our environmental strategy, in collaboration with the ESG Committee and Sustainability Program Office. The executives and experts serving on these committees were selected because they represent critical points of intersection between sustainability performance and business operation.
b) Describe management's role in assessing and managing climate-related risks and opportunities.	Our ESG Committee, comprised of relevant senior executives and technical experts, meets on a quarterly basis, and is responsible for approval and oversight of ESG-related operational planning, risk mitigation, budgetary review, financial impact, and performance management. ESG Committee leadership has driven initiatives including our goal to achieve carbon neutrality by 2040, and our efforts to continually improve sustainable product and packaging through enhanced circularity, reduced toxicity, and increased carbon efficiency. In 2021, the ESG Committee approved a Scope 1, 2, and 3 company-wide carbon footprint analysis to identify carbon emission priority areas, which are the basis of our 2025 emissions reduction goals for our 2040 roadmap. HARMAN's ESG Committee, supported by the Sustainability Program Office, reports on performance progress against sustainability goals and targets to the CEO on a quarterly basis. Additionally, this committee tracks and reports on market trends, government regulation and customer/partner expectations and other related ESG matters to the President and CEO and Senior Leadership Committee. Supporting the ESG Committee is HARMAN's Sustainability Program Office, which deploys governance and performance mechanisms, including the establishment of task forces, working groups, and strategic external engagements. These collaborative engagements aim to encourage greater transparency, communication, and accountability across the organization.

Strategy

Disclose the actual and potential impacts of climate-related risks and opportunities on the company's businesses, strategy, and financial planning where such information is material.

a) Describe the climate-related risks and opportunities the company has identified over the short, medium, and long term.

HARMAN defines short-term from 0 to 1 year. On a monthly basis, business leaders with direct accountability for managing our sustainability targets use operational reviews to assess progress vs. targets, analyze information, and take relevant actions. Business division-level time horizons may vary due to the nature of our businesses. For example, automotive infotainment products have a longer time horizon than consumer audio products due to the multi-year development and build lifecycles associated with automotive programs. Consumer audio business units (such as headphones) operate within a shorter time horizon given the shorter development and build lifecycles. HARMAN conducts an annual refresh of its short- and long-term strategic priorities and financial plans, which includes a review of sustainability targets. An example of a short-term goals may include identifying alternative packaging solutions within the current consumer audio product generation to reduce plastic packing materials.

Over the next year, we will work to characterize and more precisely define physical risks for our facilities, as we have uncovered potential exposure to inland flood risk, wildfires, and drought at various facilities.

We define medium-term from 1 to 3 years. Managers and leaders of functions and divisions set and review goals semi-annually and annually. Based on the annual strategy refresh and planning update, goals get reset annually as well. Progress against targets is reviewed during monthly operations meetings, on a quarterly basis, as well as semi-annually to the leadership team on progress to goals. Our consumer audio team's initiative to develop sustainable design guidelines for product packaging is an example of a recent medium-term goal. We are also working to identify operational measures for physical risks management at climate-vulnerable facilities within the medium-term.

Long-term is defined as 3 to 7 years. Every 5 years, our vision and mission are evaluated based on external trends, business priorities, and operational goals. An aspirational long-term target may entail end-to-end carbon footprinting of HARMAN products, with the aim of later integrating less carbon-intensive materials into HARMAN designs, and strengthening collaborative partnerships with sustainably innovative suppliers. Other long-term targets could include capital investments to reduce potential facility impacts from climate-related shocks such as hurricanes or wildfires.

PHYSICAL AND TRANSITIONAL RISKS

HARMAN conducted a risk assessment of our 12 key manufacturing sites in Brazil, China, Hungary, India, and Mexico to identify potential physical and transitional risks that could impact these facilities. The following risks were identified as having potential to impact these facilities over short-, medium-, and long-term time horizons:

Acute Physical Risks are extreme weather or natural disasters causing short-term business impacts, supply chain disruptions, and recovery or adaptation costs. Heavy precipitation and dangerous storm activity can produce inland flooding in the short to medium term, and were found to have higher potential impact on four sites located in Suzhou, China; Juárez, Mexico; and Tijuana, Mexico. These extreme weather events are expected to increase in severity and frequency according to climate change projections. There is potential risk to HARMAN of property and facilities destruction, workforce health and safety, and operational disruptions in production and service in this region. Additionally, earthquakes could have a greater impact on three HARMAN facilities located in Hungary and Mexico. From a supplier perspective, certain components are only available from a limited supplier pool, and an extreme weather event could result in a production disruption for our manufacturing operations, which would reduce our customers' operational capacity and ultimately may affect demand for our products. Finally, our suppliers in East Asia may be exposed to extreme weather disruptions and earthquakes, which highlights a need for supply chain resiliency in key supply regions.

Strategy (Cont.)

PHYSICAL AND TRANSITIONAL RISKS (CONT.)

Chronic Physical Risks are risks related to prolonged impacts from climate shifts such as heat waves, drought, water stress, wildfires, or other extreme weather events that may impact our operations, supplier operations, and the operations of our customers' manufacturing sites. Seven facilities located in China, Hungary, India, and Mexico have a higher risk of drought, water stress and/or heat; three facilities located in China and India have a higher risk of extreme weather; and four facilities located in Mexico have a higher risk of wildfires. These chronic physical risks could impact our suppliers and direct operations, resulting in decreased revenue from decreased production capacity over the short-term time horizon. Our suppliers in Hong Kong may be exposed to the impacts of stronger coastal storms and sea level rise on coastal communities, making it necessary to ensure the resiliency of supply chains along the coastline in the future.

Regulatory Transition Risks are business-related risks related to new, more stringent, and emerging climate-related regulations, requirements, and/or taxes. Of our 12 manufacturing facilities, 11 have a higher risk of being impacted by increasing regulatory requirements associated with GHG pricing and emissions reporting in the medium term. Additionally, not specific to the 12 manufacturing facilities, the following regulatory risks could impact HARMAN's business:

1) Certain products will require submission of energy-use profiles in accordance with the EU Energy Using Products Directive. We are modifying the design and energy-use profiles of our products to comply with applicable laws and regulations. For example, at a product level, we may also be subject to climate-related regulations associated with EU Ecodesign Directive 2030 energy-efficiency targets. This legislation may require our product teams to further invest in R&D to meet environmental performance obligations. Additionally, the U.S. Department of Energy has promulgated a regulation pertaining to external power supplies and compliance with the energy efficiency standards that were established under the Energy Independence and Security Act of 2007. We will address these requirements as necessary.

2) HARMAN has manufacturing and office locations in India, specifically, Bangalore and Pune. India has introduced new regulations (i.e. green tariffs) that reduce barriers to access renewable energy. The improved access and availability to renewable sources could support additional HARMAN India sites as they aim to rely more on green energy in alignment with our carbon neutral by 2040 ambition. Any risk to or change in this regulation or future regulations that hinder access to renewables could result in increased cost to HARMAN associated with the installation of on-site renewable energy generation such as solar panels.

3) HARMAN has committed to being carbon neutral by 2040 and has made this commitment public with stakeholders and customers. The target was communicated publicly with positive feedback from both internal and external stakeholders. A failure to accomplish this goal could negatively impact HARMAN's reputation and customer relationships. This could also negatively impact revenues and our ability to attract next generation talent.

Strategy (Cont.)

PHYSICAL AND TRANSITIONAL RISKS (CONT.)

Market Transition Risks are risks related to changes in market and brand value due to perceptions of our company being a higher investment risk. These risks have been evaluated across the broader HARMAN organization. The following market transition risks could impact HARMAN's business:

1) HARMAN's climate-related exposure spans across its business divisions. For example, the automotive business has identified significant market risks as the industry shifts to electrification and advanced mobility. The change creates opportunities for more energy efficient products and services but also involves risks associated with lower or delayed product demand from customers and consumers in light of changing requirements, higher prices, and evolving consumer preferences. HARMAN develops technologies to respond to and mitigate risks related to these evolving trends and market demands. For example, HARMAN has released EV Plus+ Solutions; audio and communications solutions tailored specifically for electric vehicles. which require lower power consumption while at the same time delivering a premium audio and communications experience. The revolutionary electric vehicle system design solution ensures powerful audio performance with fewer parts, reduced weight, complexity and power consumption when compared to a traditional system. HARMAN's aspires to be at the forefront in the development of new and innovative solutions that both enhance the customer driving experience and help automakers improve energy efficiency and reduce overall emissions.

2) Climate change may raise the cost of automobile ownership due to increased (carbon) taxes, fuel or energy taxes, and vehicle registration fees. Additionally, greater awareness of the environmental and social impacts of climate change may impact consumer preferences associated with vehicle ownership, and in turn reduce overall demand for personal vehicles.

Technology Transition Risks are risks related to climate-related technological shifts, and may include upgrades to new technology, or the unsuccessful investment in technology. HARMAN teams must innovate to ensure that products meet sustainability-related demands related to market shifts to electric vehicles, and evolving consumer sentiment on climate change issues. HARMAN has a dominant market share in key markets that heavily prioritize brands that focus on climate change and environmental sustainability, like China, the EU and India. A major failed investment or failure to invest in these regions could disrupt market share and impact brand reputation and revenue in the medium-to-long-term.

Legal Transition Risks are risks associated with climate-related litigation claims that could impact the company. HARMAN periodically leverages financial institutions for capital loans to enable a host of investments necessary to maintain and advance business operations and meet global demand. Increasingly, credit and capital agencies like S&P or Moody's assess lending potential based on ESG and climate-related factors. Unfavorable performance or perceived performance in these areas could impact HARMAN's ability to secure capital and impact necessary investments.

Strategy (Cont.)

OPPORTUNITIES

HARMAN has identified the following opportunities that could have an impact on our business:

Products & Services:

1) Professional sound systems like those used in performance venues such as stadiums, theaters, cinemas and night clubs need power to amplify sound to their audiences. With the aim of reducing the environmental footprint of the products, HARMAN developed its GreenEdge designation and offers audio solutions that are reducing energy use and heat dissipation, while continuing to provide best-in-class acoustical experiences. HARMAN products with the GreenEdge designation such as its CROWN DriveCore based products are produced with recycled metals and are lighter in weight, leading to less freight and reduced emissions, more energy efficient, and conform to lead-free RoHS standards. CROWN DriveCore products also feature a powder coat that requires 33% less energy than conventional coatings, and provide consumers with energy saving modes during product use.

2) HARMAN invests in identifying new business opportunities and developing technologies that support electrified and autonomous vehicles. Product decisions take into account consumer preferences, customer requirements, and include environmental impact and climate considerations. For example, HARMAN has released EV Plus+ Solutions that are audio and communications solutions tailored specifically for electric vehicles. These EVPlus+ Solutions, feature high-efficiency speakers made from sustainable materials, which require lower power consumption while at the same time delivering a premium audio and communications experience. The revolutionary electric vehicle system design solution ensures powerful audio performance with fewer parts, reduced weight, complexity and power consumption when compared to a traditional system.

3) Consumer preferences increasingly include factors such as environmental impact and fuel-efficiency in vehicles which may shift the market demand, requiring automotive companies to address these new preferences. This may lead to increased opportunity for integrated information systems inside the car that allow for more efficient operation of the vehicle (e.g., digital cockpit, cloud services, over-the-air software updates). HARMAN provides these products to automotive companies and may find opportunities to increase sales.

b) Describe the impact of climate-related risks and opportunities on the company's businesses, strategy, and financial planning.

HARMAN addresses climate related risks through a "One HARMAN" strategy: 1) leveraging a holistic mix of product innovation, 2) fostering facility and process efficiencies, and 3) focusing on supply chain stewardship, all of which influence our financial planning. These strategic initiatives span our entire business from automotive innovation to consumer electronics, enabling the organization to continuously evolve and improve how it addresses critical climate issues.

1) From a **product innovation perspective**, there is focus on quality excellence and innovation. HARMAN product lines such as EV Plus+, JBL Flip 5 Eco, and Infinity Lab directly impact environmental sustainability through a mix of high efficiency, low energy use technologies, and sustainable materials and packaging. Our proactive approach to implementing more efficient technologies has positioned us to help our customers further avoid increased carbon footprint and has opened the door for additional opportunities in this space. As customer preferences shift toward more eco-friendly products and solutions, HARMAN has invested in R&D to develop new and innovative technology solutions. We base R&D budget on prior

Strategy (Cont.)

OPPORTUNITIES (CONT.)

year experience and requirements to invest in key areas such as system and technology expertise, platform standardization, design and materials innovation and energy efficiency. In the Automotive industry, for example, the global electric vehicle market is expected to be worth $2.5T by 2027 growing at an average rate of 33.6% year over year. As a key technology partner to global automakers, HARMAN must innovate to address this market trajectory and evolving consumer sentiment.

2) The strategy for **reducing energy and emissions across our global sites**, including offices, data centers, manufacturing locations etc., is a combination of investing and leveraging renewable energies, energy reducing employee behaviors, and high efficiency technologies like digital building management systems and LED lighting etc. HARMAN's global facilities have annual energy and emissions reduction targets. These targets align to and reflect our commitment to achieving carbon neutrality by 2040. The following examples demonstrate HARMAN's commitment to efficient operations:
   - Our recent Scope 1 and 2 analysis identified that just 11 sites worldwide were responsible for 60% of our carbon footprint. As a result, HARMAN invested in renewable energy solutions over a 24-month period to help reduce the site emissions and align to a goal of 40% reduction by 2025.
   - Our regulatory risk analysis revealed that 100% of HARMAN's 100+ global locations fall under some form of country or regional-specific, actual or proposed carbon reduction targets. To that end, our internal milestone is to reduce our Scope 1, 2, and 3 emissions by more than 55% by 2030.

3) Our facilities in Karlsbad and Garching, Germany are certified Energy Management System under ISO 50001 and our Hungarian facilities undergo energy audits. HARMAN recognizes that some of the biggest climate risks and opportunities exist **within our supply chain**. We communicate and cascade our climate performance goals and objectives to suppliers through a robust corporate supply chain sustainability policy and supplier code of conduct. We also set clear expectations for our suppliers in the areas of energy and emissions reduction and employee health and safety. Our supplier engagement efforts also include supplier sustainability self-assessment, launched in 2020, which helps HARMAN to better assess supply chain climate risks for our top 200 suppliers, representing 90% of our supply chain spend. We have started a process to screen key suppliers for physical risks for better understanding of the potential disruptions in our supply chain during periods of climate shocks and stress.

During the financial planning process, business unit and product teams evaluate new product opportunities and innovations which have a direct and indirect impact on future revenues, costs and related capital expenditures. With the increasing focus on sustainability, (i.e., consumer electronics) these decisions factor in considerations for reducing the environmental impact of products and packaging. As we move forward on our journey to reduce our environmental footprint, we continue to evaluate opportunities throughout our extended enterprise.

Strategy (Cont.)

c) Describe the resilience of the company's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

OPPORTUNITIES (CONT.)

HARMAN believes that as an organization, they have taken on a prudent approach to managing climate-related physical and transition risks. HARMAN is conducting global climate risk analysis with two assumptions:

1) Physical risks are largely locked in over the next 15-20 years regardless of policy decisions that will lead to differing climate scenarios. Therefore, HARMAN has used datasets that best allow for a comparison of physical risks across its facilities. This produces the most decision useful information for HARMAN, allowing the company to prioritize short- and medium-term risk mitigation actions at vulnerable locations.
2) Conversely, transition risks are highly exposed to policy decisions that will take place in the near to medium term. HARMAN must prepare for a range of outcomes given the global scope of the organization, operating in jurisdictions with a wide range of possible regulatory regimes around climate.

HARMAN uses scenario analysis to guide decisions on emissions reduction activities, and uses a present day comparison of physical risk to gauge physical risk across its portfolio. For transition risk, HARMAN relies on the Network of Central Banks and Supervisors for Greening the Financial System (NGFS) to define scenarios to benchmark emissions reduction activities. The following NGFS scenarios have been selected for this benchmarking:

1) Nationally Determined Contributions (NDCs): includes all pledged national policies to reduce emissions, which are insufficient to limit global warming to 2 degrees Celsius
2) Net Zero 2050: a highly ambitious scenario that limits global warming to 1.5 degrees Celsius. This scenario requires immediate and ambitious global action to begin emissions reduction activities.

HARMAN is committed to the achievement of global emissions reduction objectives, regardless of climate scenario. HARMAN's 2025 milestone and broader 2040 ambitions are based on three key emissions reductions:

- Operational energy reduction for priority factories and offices: audits, CAPEX projects, and best practices (40% reduction by 2025);
- 100% renewable electricity implementation for factories and priority offices.

Our renewable strategy has driven our facility teams to identify opportunities to increase their reliance on renewable energy. In November of 2021, HARMAN installed its first 170 kWh capacity solar system on the rooftop of our manufacturing facility in Pune, India. HARMAN facilities teams continue to investigate further opportunities to shift towards renewable electricity and anticipate substantial progress in coming years.

HARMAN's existing strategy satisfies the NDC scenario but not the Net Zero 2050 scenario, which would require significantly deeper and more costly emissions reductions. HARMAN is exploring the following actions to manage transition risks such as:

- Establishing Science Based Targets for our own emissions (Scope 1 and 2) combined with a robust supplier engagement program to manage emissions.
- Identifying alternative raw materials with lower emissions impact for our products.

Managing Climate Change Risk

Disclose how the company identifies, assesses, and manages climate-related risks.

a) Describe the company's processes for identifying and assessing climate-related risks.

b) Describe the company's processes for managing climate-related risks.

c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the company's overall risk management.

HARMAN has developed its physical risk screening as a complement to existing processes that identify and manage ongoing climate-related transition risks. Over time, HARMAN will integrate physical risk screening and management of acute physical risks into these pre-existing processes. HARMAN's Enterprise Risk Management (ERM) process enables the organization to identify, assess and manage climate and environmental related risk as part of our business operations governance. The purpose of the ERM is to help HARMAN identify pertinent climate and low-carbon transitional related short-, medium- and long-term strategic, operating, financial, regulatory and technology risks, assess impact and develop mitigation and management strategies in a continual process. The ERM working group consists of key financial, operational, strategic, digital and regulatory leadership, and in coordination with the ESG Committee, assemble to integrate climate risk management into our business operations and governance. Climate risks have an opportunity to be evaluated on a quarterly basis including risk identification, assessment and prioritization, action planning and deployment. Risks are assessed by each function and considered for escalation as part of our recurring risk review with the ESG Committee and SLC. Climate risks are identified through internal company assessment and external influence assessment. Any HARMAN employee can identify a risk for consideration. Typical sources of risk include: 1) business reviews, 2) customer meetings, 3) market reports, and 4) modeling or external sources.

HARMAN defines climate risk as the effect of environmental uncertainty on business or operational objectives. The risk identifier has the responsibility to bring the risk to a risk owner through an established meeting in the business governance model or another communication method. In the absence of a risk owner, the risk identifier shall communicate the risk to a business unit leader, Sustainability Program Office or ESG Committee member. The risk identifier may provide as much of the below information as possible in any written format: potential impact; assessment of likelihood; and ideas for avoiding the risk or minimizing potential impact or likelihood. Climate risks are classified in 5 major categories. Each category has a lead owner through ERM: 1) strategic risks can have an impact on our strategic objectives arising from internal or external factors (Division Leader), 2) financial risks can cause unexpected variability or volatility in our revenue or returns (CFO), 3) operating risks may affect or compromise execution (Division Leader), 4) regulatory risks are government actions that can have a material impact on market access or adverse impact on our reputation or sustainability (Legal Counsel/ Government Affairs), and 5) digital risks can interrupt our operations, impact our reputation, and affect our associates (CIO). Each risk category contains a climate risk area to be managed. Each risk area is managed through use of the Risk Area Management Tool. The Tool is an application template that provides a structured method to identify, assess, mitigate, monitor and manage identified risks within a risk area. The Risk Communication Template is the standard method to communicate the impact status of a particular risk. High material and persistent risks would entail further review of the business strategy outside of the ongoing strategy and planning process.

Additionally, HARMAN developed a sustainability vision, goals, and objectives that are tied to annual performance expectations, with a structured governance model to drive and measure progress. The leadership team's incentives are tied to compensation. Their bonuses are impacted based on whether or not annual targets are met. All employees are entitled to receive benefits from participating in environmental focused initiatives. Top management of certain manufacturing sites routinely publicly recognize employees who have participated or improved processes impacting environmental sustainability such as air emissions, energy and water consumption, and waste reduction. Some examples of employee recognition include HARMAN's Be Brilliant Rewards program and platform (internal tracking of recognition and monetary or product rewards), LinkedIn and/or social media mentions.

Metrics and Targets

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

a) Disclose the metrics used by the company to assess climate-related risks and opportunities in line with its strategy and risk management process.

b) Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.

c) Describe the targets used by the company to manage climate-related risks and opportunities and performance against targets.

Our business strategies rely on consistent monitoring and accurate tracking of environmental performance metrics. By quantifying the impacts of our operations, we are better equipped to identify opportunities for improvement. At HARMAN, we monitor our energy usage, greenhouse gas emissions, waste production, water. We strive to align with our customers around sustainability goals through our participation and annual CDP reporting and supplier responses in the Drive Sustainability initiative, a collaborative partnership that drives sustainability in the automotive industry supply chain.

In line with TCFD recommendations, we will refresh our physical and transition risk analysis periodically, and revisit whether emerging data on climate scenarios may affect our operations in the future.

HARMAN discloses the following climate-related metrics:

Metric	2019	2020	2021
Greenhouse Gas Emissions (Metric Tonnes CO_2e)			
Scope 1	8,567.65	7,271.47	9,951.84
Scope 2 (Market-based)	74,891.92	61,233.39	59,406.71
Total Scope 1 & 2 (Market-based)	**83,459.57**	**68,504.86**	**69,358.54**
Scope 2 (Location-based)	66,859.89	55,160.04	55,352.32
Total Scope 1 & 2 (Location-based)	**75,427.54**	**62,431.52**	**65,304.16**

In 2021, HARMAN performed a Scope 3 screening based on 2019 financial data and estimated emissions to be 6,162,264 MT CO2e.

In 2019, HARMAN set an absolute target to reduce Scope 1, 2, and 3 emissions by 30% by 2025, using a baseline year of 2019. Additionally, HARMAN has a longer-term goal to achieve carbon neutrality by 2040.

In 2020, HARMAN set an absolute target to have zero waste generation by 2025, using a baseline year of 2019. This target was established as part of a 2019 sustainability initiative for all HARMAN manufacturing sites. The manufacturing plant directors review these targets on a monthly basis in meetings with HARMAN's Senior Manufacturing Operations Leadership.

We remain committed to our goals of reduced electricity consumption and a shift to renewable electricity use at our manufacturing facilities and throughout our supply chain. Moving forward, in alignment with these goals, we aspire to set a science-based target for approval by the Science Based Target initiative by the year 2025.