

2022

**Corporate  
Social  
Responsibility  
Report**

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In 2022, we continued to demonstrate our commitment to supporting our local communities and each other.

# Letter from Our Chief Executive Officer

## I am pleased to share our second Corporate Social Responsibility (CSR) Report with you.

This report highlights the meaningful progress we have made in building an industry-leading business that is committed to sustainability, equity and well-being, for the benefit of all of our stakeholders and our planet.

As a technology company with a unique global footprint, Harmonic is committed to addressing our environmental impacts. We also help our Broadband and Video business customers significantly reduce their energy consumption and greenhouse gas (GHG) emissions by providing them with the most innovative, efficient and market-defining products and solutions.

Harmonic collaborates closely with our suppliers and partners to identify and adopt effective sustainability practices to reduce GHG emissions throughout our supply chain. In 2022, we began to strategically source key components from locations in North America and Europe closer to our final assembly sites and customers, to minimize the distance our products travel. Though our overall GHG emissions increased, mainly due to a major increase in sales, we also reduced the carbon intensity of shipping our products (i.e., GHG emissions per metric ton of goods sold) by significantly increasing the use of ocean freight over air freight, as well as minimizing our product packaging wherever possible to reduce weight and waste wherever possible.

With customers spanning more than 50 countries, the diversity and collaborative culture of our global team continues to be foundational to Harmonic’s success and future growth. At the end of 2022, we achieved our initial diversity, equity and inclusion (DEI) goals that were established in early 2021. These are described in more detail on [page 20](#).

We continued to demonstrate our commitment to supporting our local communities and each other in 2022.

When the war in Ukraine directly impacted our operations in Kyiv, we worked closely with our local partner, GlobalLogic, to support our Ukrainian colleagues and their families, including relocations within and outside of the country. Our employees mobilized to provide humanitarian organizations working in and around Ukraine with needed supplies, financial contributions through a corporate matching program and personal volunteering time.

Throughout 2022, we collectively made significant progress in advancing our CSR initiatives while achieving excellent strategic and financial results. Some of our other notable CSR achievements include:

- Improving and expanding our GHG emissions data collection and analyses;
- Reducing our electricity consumption by 27% between 2019 and 2022, resulting in a significant reduction in Scope 2 GHG emissions;
- Sourcing 26% of our electricity from renewable sources;
- Helping our customers improve energy efficiency through our Broadband solutions, with some key customers reporting up to 40% improvement in energy efficiency over legacy systems;
- Growing our Harmonic “Owl Stars” on-demand learning program, which achieved a participation rate of 70% in 2022;
- Launching “Harmonic Cares” to help organize and encourage more employee volunteerism.

At Harmonic, our commitment to corporate social responsibility will always be an intentional and thoughtful choice, driven by our belief in doing what is right while recognizing its positive impact on our business. I look forward to continuing to advance our CSR efforts and to sharing our progress in future updates.



Best regards,  
**Patrick Harshman**  
President and Chief Executive Officer, Harmonic



# SMARTER. FASTER. SIMPLER SOLUTIONS

## About Harmonic

Harmonic (NASDAQ: HLIT), the worldwide leader in virtualized broadband and video streaming solutions, empowers media companies and service providers to deliver premium broadband and video services to consumers globally. By revolutionizing broadband networks and cloud streaming with transformative cloud-native, SaaS and software-based solutions, Harmonic enables operators to meet the unprecedented demand for reliable, high-speed connectivity and scalable video services. Whether powering multi-gigabit broadband services or simplifying video streaming and broadcast delivery, Harmonic is shaping the future of the media and entertainment industry.

Here are three areas where we create value for our customers and the world:

### Revolutionizing broadband networks

Harmonic is driving the market to fast broadband services and greener operations. We develop cloud-native, virtualized broadband solutions to make intelligent connectivity possible and provide a pathway to a 10G future.

### Enabling premium video streaming

We create video streaming solutions that are made for the cloud. Our customers use SaaS or cloud-based solutions to accelerate time to market and monetize their services for live streaming and next-gen TV delivery.

### Transforming broadcast TV

We accompany every broadcast customer to the future of television. Our solutions drive evolution with software-based appliances and cloud-native software for private data centers.



1. As of December 31, 2022.





**OUR GLOBAL TEAM**

Agile Harmonic teams are located all over the world.

- ★ Corporate Headquarters
- 📍 Harmonic Global Office
- 📍 Harmonic R&D Center
- Harmonic Remote Team
- \* Through partner GlobalLogic





## | Our Approach to CSR

At Harmonic, our values shine through our products, employees, operations and customers, and serve as the foundation for our approach to corporate social responsibility (CSR).



### Harmonic Values

Harmonic embraces creativity and innovation by cultivating a diverse team, fostering fresh perspectives and encouraging new ideas. We build strong relationships through integrity and respect, while acting with honesty and transparency. We welcome feedback from stakeholders and measure our progress to continuously improve our governance processes, products, customer service and CSR policies and programs.

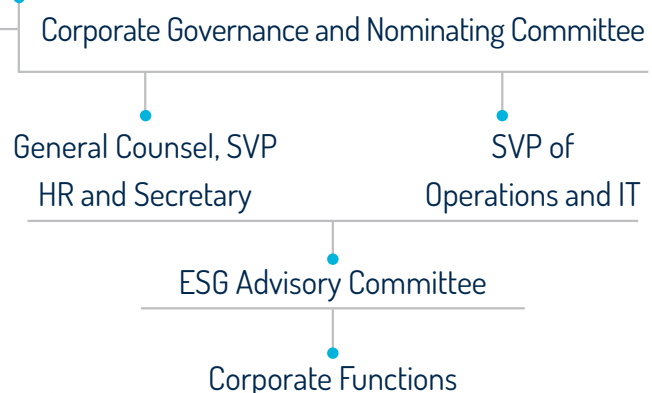
Through our values, we are committed to creating a corporate culture that promotes inclusion, equity and diversity and sustainable operations that benefit the planet

and the people we serve. Our approach to CSR includes a commitment to several priority environmental, social and governance (ESG) topics, including **governance and ethics**, **human capital management**, **supply chain partnerships** and **environmental responsibility**.

We work to embed our ESG commitments into our operating structure. As an example, our three corporate objectives for 2023 include environmental, social impact and cybersecurity.



## BOARD OF DIRECTORS



### Key ESG Policies

- [Code of Business Conduct and Ethics](#)
- [Supplier Code of Conduct](#)
- [Partner Code of Conduct](#)
- [Human Rights and Labor Practices Policy](#)
- [Environmental Responsibility & Sustainability Policy](#)
- [Conflict Minerals Policy](#)
- [Inclusive Recruitment Selection Policy](#)
- [Whistleblower Policy](#)

### ESG Oversight

Our Board of Directors directly oversees our ESG strategy and its execution. The Corporate Governance and Nominating Committee conducts a comprehensive review of Harmonic’s ethics and governance practices and performance, as well as aspects related to diversity, equity and inclusion; human capital management; and environmental performance. The full Board receives regular updates on ESG topics from executive management.

Our ESG Advisory Committee is co-chaired by our General Counsel and Senior Vice President of Human Resources and our Senior Vice President of Operations and IT. At the beginning of 2023, our Senior Vice President of Marketing Communications joined our ESG team to help us better share our impact stories with our stakeholders.

The ESG Advisory Committee is composed of senior managers from across our corporate functions, including human resources, operations, corporate quality, legal and procurement.

This committee is responsible for assessing ESG risks and opportunities, identifying best practices and management initiatives to address any risks and opportunities and disseminating those practices into implementation tasks and guidance throughout the Company. In addition, the committee is responsible for providing updates on ESG performance to our executive management team, Board and external stakeholders through public disclosures. Learn more in the [Governance section](#) of this report.

### Engaging Stakeholders

Our ESG commitments serve our stakeholders, including customers, employees, investors and people in the communities in which we operate. In the spirit of continuous improvement, we solicit feedback from these stakeholders on a regular basis about our ESG commitments, CSR initiatives and supporting disclosures.



# 2022 • ESG Highlights



“Harmonic brings the concept of care into everything we do. While this is something we’ve always done, furthering our formal CSR program has allowed us to create even more positive impact and value for our customers, employees, investors and communities. All of this is made possible by our dedicated global team, who brings our CSR initiatives to life every day. I am proud of what we have achieved this year and excited about the impactful work yet to be done.”

**Timothy Chu**

General Counsel, SVP of Human Resources and Corporate Secretary, Harmonic

## Received a bronze medal

from EcoVadis, improving our score by 7 points



**27%**  
reduction in electricity consumption between 2019 and 2022



**26%**  
of electricity from renewable sources across all our sites



**100%**  
of electronic waste recycled



**9,600+**  
hours of global employee and contractor learning through our Owl Stars program



**100%**  
of global employees and contractors completed Code of Business Conduct and Ethics training

**20%**  
of global employees self-identify as women



**50%**  
Board Director gender diversity

**88%**  
Board Director independence

**pay equity**  
analysis applied globally





## Environmental Responsibility

We are committed to providing our customers with environmentally friendly products and solutions, improving our own environmental performance and being part of the global effort to address the climate crisis.

### Our Approach to Sustainability

Harmonic cares about safeguarding the environment for current and future generations. Like all businesses, we have environmental impacts and must collaborate with our clients, suppliers, employees and other stakeholders to address them. We focus our environmental responsibility efforts around three impact areas most material to our business: **energy, emissions** and **waste**.

Our **Environmental Responsibility & Sustainability Policy** — which applies to our employees, suppliers and partners — outlines our approach and describes our commitments to reducing environmental impacts, engaging employees on sustainability and empowering our customers to save energy through the use of our products. In 2022, we made strides to advance our sustainability efforts by collaborating with our internal and external stakeholders, responding to requests for information and formulating new projects and partnerships.

We completed our Company's first CDP report, broadening the transparency of our environmental program. We also launched a new sustainability training session for our procurement team.

Our CableOS® Broadband Platform, which helps broadband service providers significantly reduce energy consumption, received NAB Show's Excellence in Sustainability Award in April 2023, recognizing Harmonic's meaningful contributions to environmental responsibility.

We are developing our first-ever greenhouse gas (GHG) emissions reduction targets and expect to finalize these later in 2023. Also in 2023, we will continue to build on our employee engagement efforts and launch new sustainability training sessions, as well as an internal environmental newsletter.

Harmonic is committed to complying with all applicable environmental regulations and has published an **Environmental Compliance Statement**.



>> In April 2023 at the NAB Show in Las Vegas, Harmonic received The Sustainability in Product or Service Award for our CableOS® Broadband Platform.





>> Harmonic employees are treated to lunch at our Rennes, France location.

### Improving Energy Efficiency

At Harmonic, we see an opportunity to advance our environmental stewardship and overall business value by improving energy efficiency at our offices and operations.

**27%** reduction in electricity consumption between 2019 and 2022.

In 2022, we built upon existing initiatives in heating and cooling, lighting and on-site data center efficiencies by piloting energy efficiency programs at individual sites with the intention of scaling them up for Company-wide use.

At our Rennes, France location, Harmonic teams developed remote and programmable tools to power down servers during nights and weekends, which allowed for a 27% decrease in the technical rooms' electricity consumption (December 2022 compared to December 2021). Our San Jose, California, Hong Kong and Plainsboro, New Jersey, offices are now equipped with 100% LED lighting, with plans to convert the Farnborough, UK office in the coming

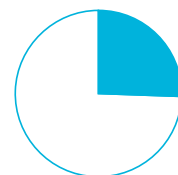
year. In Hong Kong, switching to LED lighting, improving lab temperature management and supporting a hybrid work policy collectively contributed to a 17% reduction in electricity use in only seven months.

Beyond lighting, Harmonic has invested in several energy efficiency technologies across our global operations, including free air cooling and heat pump technologies. In 2022, our Beaverton, Oregon site added a new, energy-efficient air cooling system in its R&D lab. Our Rennes location uses heat pumps to cool the technical rooms and maintain the temperature environment of the building.

We also use public cloud providers such as Amazon Web Services, Microsoft Azure and Google Cloud, which are more energy efficient than onsite data centers, for both customer solutions and various internal use applications.

In total, we consumed 54,165 gigajoules of electricity in 2022, compared to 73,843 gigajoules in 2019.

### ELECTRICITY COMING FROM RENEWABLE SOURCES



**26%** across all of our sites



## Reducing Operational Emissions

As we focus on improving energy efficiency at our offices and facilities, we are also reducing GHG emissions in our operations.

Since we do not own any office buildings or facilities (Scope 1 emissions), our primary operational energy use and emissions come from purchased electricity (Scope 2). We work to reduce these Scope 2 emissions by focusing on heating and cooling, lighting and on-site data center efficiencies, described on [page 10](#). In 2022, our Scope 2 emissions were 4,783 metric tons of carbon dioxide equivalent (tCO<sub>2</sub>e), a 17% reduction compared to 2019.

To reduce our Scope 3 footprint, our largest source of GHG emissions, which come from indirect upstream and downstream activities, we have replaced a significant amount of business travel with video conferencing and continue to offer work-from-home flexibility and hybrid work policies at key locations. When employees commute, we incentivize more efficient transportation modes, such as public transportation, bicycles and electric or electric-hybrid vehicles. In France, we subsidize 50% of the cost of public transportation and provide financial incentives to employees who bike to work. We make it easier for many of our employees to adopt electric vehicles by providing financial incentives for employees that use electric vehicles in Israel, and installing numerous EV chargers for employees at both our San Jose headquarters and Farnborough office.

These efforts have contributed to a 55% reduction in our business travel-related Scope 3 emissions since 2019. While this reduction was in part due to the pandemic, we have continued the trend of reducing work travel as much as possible.

Carbon emissions associated with transporting and shipping our products to customers around the world is another significant contributor to our Scope 3 emissions. In 2022, we shipped significantly more products by lower-emission ocean freight, a shift we discuss more thoroughly in the [Supply Chain section](#) of this report. We are investigating and assessing lower-impact freight options, including using rail and additional sea shipments whenever possible, and are developing strategies to reduce these emissions.

In addition to operational efforts, Harmonic continues to publicly demonstrate our commitment to reducing GHG emissions. In 2022, our Hong Kong location signed the government's Energy Saving Charter, a set of guidelines for reducing energy use and GHG emissions in office settings. In early 2023, Harmonic joined the Collège des Directeurs du Développement Durable (C3D) in France to drive new innovations in our approach to sustainability in Rennes.

## GREENHOUSE GAS EMISSIONS



889 tCO<sub>2</sub>e

**Scope 1:** Direct emissions from controlled vehicles. Harmonic does not own any facilities.



4,783 tCO<sub>2</sub>e  
 ↓ 17% FROM 2019

**Scope 2:** Indirect emissions from purchased electricity, heating and cooling.



393,316 tCO<sub>2</sub>e

**Total Scope 3:** Main indirect emissions from Harmonic's value chain, including use of sold products, purchased goods and services, and freight.



-18%

**Emissions Intensity: Metric tons of GHG emissions per metric tons of goods sold.** Between 2021 and 2022, Harmonic's number of goods sold increased by 72%, and absolute GHG emissions increased by 39%. While measuring emissions intensity provides another helpful way to look at our carbon footprint, Harmonic remains committed to reducing both emissions intensity and absolute emissions.

We provide additional metrics in the Performance Data Table on [page 33](#).



## Helping Customers Cut Energy and Emissions

### Broadband Customers

In our Broadband business, our CableOS® software-based broadband access solutions — which can be deployed based on a centralized, distributed access or hybrid architecture — can significantly reduce the energy consumption, carbon emissions and physical footprint of our customers' facilities, compared to traditional solutions.

When Petrus, one of the top cable operators in Poland, switched to Harmonic's CableOS® Cloud-Native Core Platform and R-PHY nodes, the company **reduced its power consumption** by 40%, its monthly electricity usage by 6,000 kilowatt hours (kWh) and its yearly usage by more than 80,000 kWh.

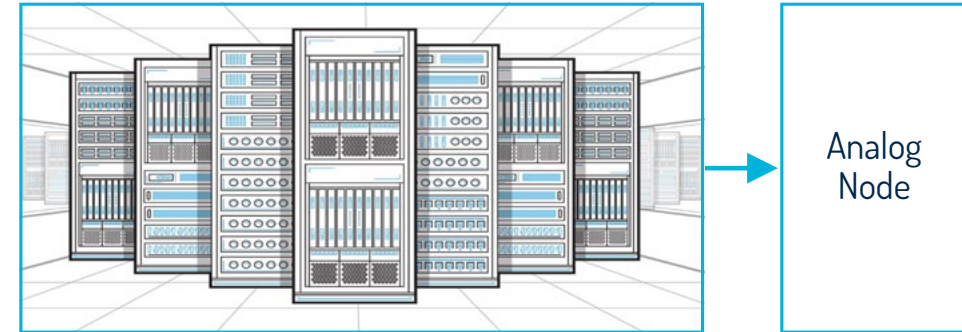
Other customers have highlighted to the industry the energy savings delivered by their deployment of our CableOS® solutions, including key customers reporting 28% or more improvement in energy efficiency over legacy systems, with a path to 40% improvement by updating to the latest version of CableOS® software.

Harmonic has also developed new hardware solutions that **increase the life expectancy of certain existing products**, which keeps legacy deployed cable nodes in the field for as long as possible and cuts back significantly on the manufacture, shipping and installation of new devices. In 2022, we developed an upgrade kit for Cisco's end-of-life GS7000 node. The initiative will enable operators to keep thousands of these legacy devices active with new capabilities, potentially improving services for millions of customers.

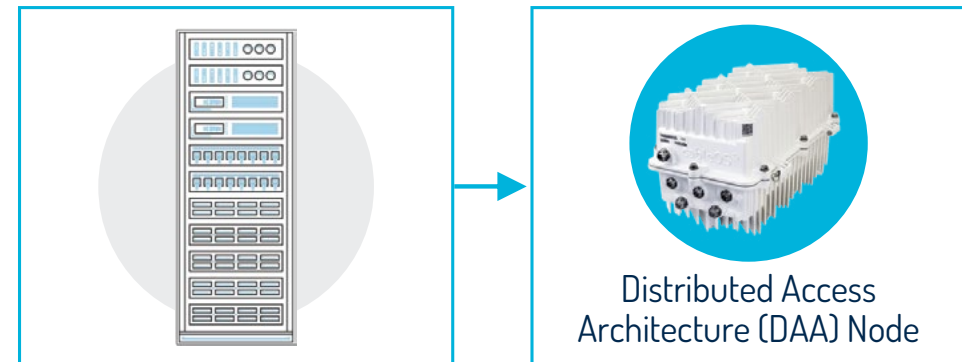
<sup>2</sup> Potential electricity savings calculated, assuming \$0.20/kWh and a 1:1 ratio of HVAC electricity to cool legacy CMTS hardware and associated indoor equipment.



**Legacy hardware-based technologies:** Today, operators largely utilize numerous racks of equipment and rely on analog nodes.



**Harmonic's CableOS® virtualized solution:** We digitalize much of the hardware equipment into software-based applications running on servers, which significantly reduces the number of racks needed and improves signal quality.



Estimated savings with CableOS® and 150K DAA Nodes deployed<sup>2</sup>



15K Racks



39M Watts/year



\$137M/year



### Video Customers

We provide our Video customers with innovative streaming solutions that deliver energy efficiency without sacrificing quality.

Our cloud-based systems enable our customers to scale video operations quickly and with flexibility, using resources only as needed, rather than relying on on-premise equipment with more costly energy demands. Our award-winning VOS®360 software-as-a-service (SaaS), which is available on Azure, AWS and Google Cloud, provides multiple public cloud options to our media and service provider customers.

In addition, Harmonic has developed multiple new AI-based technologies that reduce the emissions and energy needs of our software-based video processing appliances without any reduction in video quality. We now employ tools such as Dynamic Frame Rate Encoding, Elastic Encoding and a Content-Aware Encoding technology called EyeQ, all of which enables significant bitrate reductions and accompanying energy savings. In the future, we expect Dynamic Resolution Encoding technology will bring additional efficiency gains.

In 2023, Harmonic will maintain its focus on video energy savings. We recently joined **Greening of Streaming**, an organization created to address the energy impact of the streaming sector, and plan to introduce a new platform that will significantly reduce CPU electricity usage later in 2023.



### LEVERAGING ARTIFICIAL INTELLIGENCE (AI) TO IMPROVE BITRATE SAVINGS

- Bitrate refers to how many bits can be transferred or processed within a certain amount of time. When streaming, bitrate is an important factor in video quality. We have developed AI tools that enable our customers to improve bitrate savings.
- EyeQ enables up to 50% bitrate savings during video compression without adding any additional CPU load.
- Dynamic Resolution Encoding generates 12-15% bitrate savings.
- Dynamic Frame Rate Encoding enables 20% CPU and 10% bitrate savings.





## Waste

We work to reduce waste across our operations and focus primarily on recycling. Harmonic is committed to recycling or reusing materials whenever practical, particularly paper and consumables at our physical locations and in our packaging.

We ask our suppliers to ship materials in bulk and lean packaging to reduce space, weight, cost and emissions. We also provide reusable and recyclable packaging materials for end customer shipments whenever practical. As of 2022, 97% of Harmonic packaging materials are recyclable. More than 6% of product packaging from our suppliers is made from recycled materials. We continue to work with our vendors to increase the amount of recycled materials in their packaging as well as the materials recyclability. For more information on supply chain sustainability, read [page 29](#).

**100%** of our electronic waste is recycled.

We recycle all our electronic waste (e-waste) and have a Take-Back Program that allows customers to send end-of-life products back to be properly recycled. Many of our large customers recycle their own e-waste.

Our Global Waste Management Process specifies how waste is identified and managed following industry standards. Our products are designed to meet Restriction of Hazardous Substances (RoHS) and Waste Electrical and Electronic Equipment (WEEE) regulations.

## Water

We believe access to water is a basic human right and support the use of sustainable water sources. While water is not a direct primary factor in our operations, we seek to reduce the relatively small amount of water used in our facilities and operations, primarily in office break rooms and restrooms, where possible. In late 2022, the Rennes office launched an initiative to collect rainwater for use in restrooms. The project is still in its early days and should begin to yield results later in 2023.



## Our People

We care about our passionate, innovative and diverse employees. We focus on attracting and retaining top talent and creating a safe, welcoming and inclusive work environment where employees can grow and thrive.

### Human Capital Management

Our human capital management (HCM) strategy focuses on engaging our diverse global team of 1,340 employees and hundreds of contractors. Despite being spread across 35 countries and locations around the world, we pride ourselves on having a team that maintains strong connections to each other and our work. We foster a culture of teamwork and collaboration where each employee feels valued and respected for their unique experience and perspectives. We strive to create an inclusive work environment that drives performance, creativity and innovative outcomes for our business partners, employees and shareholders.

Our General Counsel, and SVP of HR leads our HCM efforts, which include regular updates to the Board of Directors. The Corporate Governance and Nominating Committee of our Board conducts a comprehensive review of aspects related to HCM on a periodic basis.



>> Harmonic team members enjoying reusable water bottles at work.



“We strongly believe that safeguarding and nurturing talent is key to our business success. Regardless of the environmental, public health or political challenges we face, we continue to care for and put our people first. Harmonic cares for and continues to invest in our people – you can see our efforts paying off in our high retention and engagement scores.”

**Rene Scheurkogel**

Vice President, Human Resources International, Harmonic





» Volunteering is a key part of our employee engagement efforts. Above, employees in Hong Kong support local nonprofit Food Angel.

# 73%

## OVERALL SATISFACTION

Our overall satisfaction score from our two 2022 pulse surveys was 73%, with most respondents reporting high engagement and satisfaction in their roles, their management and Company leadership.

### Supporting Our People in Times of Crisis

In 2022, the outbreak of the war in Ukraine and ensuing political unrest impacted our people and operations in Europe. The war put our Ukraine-based personnel directly in harm's way, and the sanctions on Russia disrupted our local operations, resulting in our decision to close our Moscow office. Despite these challenges, Harmonic stepped up to support our people through it all.

Our business continuity planning (BCP) Program mobilized a critical effort to relocate our partners at GlobalLogic within Ukraine as needed, as well as to other countries such as Spain, France and Canada, without any disruption in operations. In addition, following the closure of our Russia office, employees were given an opportunity to relocate with Harmonic's support, and 50% moved to our sites in France, Spain and Israel. We launched a corporate matching campaign that quickly resulted in approximately \$180,000 in donations to organizations working on humanitarian relief in and around Ukraine.

Another effective international mobilization initiative is our ongoing Hong Kong mobility project, which began in 2021, following political unrest and mass demonstrations. A total of 23 of our Hong Kong-based engineers and their families successfully relocated to Vancouver in the program's first year, and eight more followed in 2022.

### Employee Engagement

Our values guide our company culture and work environments. We achieve excellence through our **creativity** and **innovation**; build our relationships on the fundamentals of **integrity** and **respect**; strive to deliver the highest **quality** in every aspect of our business; and value, respect and embrace **diversity**.

We regularly conduct employee pulse surveys to measure employee engagement and satisfaction and use survey feedback to influence our people strategy and policies. Our survey response rates have continued to be strong, with 64% of employees participating in the two 2022 surveys. Our overall satisfaction score from our two 2022 pulse surveys was 73%.

We attribute these high marks to the inclusive, welcoming atmosphere we cultivate no matter where we are in the world. Our offices host team building events, virtual game nights, sports events, fitness boot camps, holiday celebrations, lunch-and-learns, competitions, like the global hackathon, office yoga, volunteering initiatives and more to provide time for employees to connect and have fun.

In addition, our regular communications such as the Harmony newsletter, new hire announcements and quarterly all hands meetings celebrate employee contributions to our success on a global level.

We are proud to report that in 2022, we maintained industry-leading low employee turnover rates of 12% total turnover and 7% voluntary turnover (per Radford, tech industry total turnover average was 23% and voluntary turnover was 18% in 2022).







>> Harmonic hosts numerous career fairs at universities. Above, employees meet with prospective employees in Hong Kong and Alicante, Spain.

### Talent Development

Harmonic offers a chance for employees to grow their careers at the forefront of innovation, technology and leadership. We invest in tools and systems that help employees develop their skills and gain recognition for their achievements. We use in-house performance management and goal-setting tools to help us evaluate and manage talent. The tools help us to identify top talent and develop high potential employees, while flagging critical resources needed for our business success.

More than **70+%** of employees and contractors are building their skills through Harmonic Owl Stars.

Harmonic Owl Stars is our on-demand learning program, developed in partnership with Udemy and LinkedIn Learning. Through Owl Stars, which is open to all employees including temps and contractors, we offer more than 1,841 online courses from global instructors and industry experts. In 2022, more than 70% of our workforce spent nearly 9,700 hours learning through the video courses. The most popular technology courses included those on Python, Kubernetes, Cybersecurity, Cisco CCNA, IT Networking Fundamentals, Docker, C++, JavaScript, Linux and Microsoft Azure. Popular business topics included CAPM Certified Associate in Project Management, PMI PMBOK and Presentation Skills.

In addition to on-demand learning, we provide in-person, technical and management training and coaching in various locations. We also offer our employees financial support for accredited undergraduate and graduate-level degree programs or professional accreditation related to employees' work fields through our Educational Assistance Program.

In France, as required by law, employees are invited to express their training needs each year and we build training plans that take into account these individual requests, evolving technology and business requirements and management priorities. When possible, we propose training for teams to create common skill sets and team interactions. Training is provided by accredited external subject matter experts and focuses on technology developments in our industry, as well as on managerial and communication skills. Employee feedback is used to continuously improve our training offerings.

To recruit top candidates, we participate in university career fairs in countries where our R&D centers are located to ensure a robust pipeline of engineering talent joins our ranks. Our ongoing employee referral program incentivizes our global workforce to participate in the search for the next generation of talent. [The Diversity, Equity and Inclusion section](#) on contains more information on our internship and mentorship programs.



“The Kubernetes course helped me understand our CableOS® solution in depth with respect to container architecture and orchestration using Kubernetes and the Virtualization Core concept. The Owl Stars platform is a powerful tool to improve both personal and business skills.”

**Marcos Tronoloni**

Broadband Solutions Engineer, Harmonic LATAM



## Employee Health, Safety and Well-Being

Harmonic complies with all applicable health and safety laws and regulations in all countries where we operate. In addition, our internal guidelines and directives take precedence over locally applicable laws and regulations whenever they exceed local requirements. We engage with our employees, contractors, partners and customers to maintain a healthy and safe workplace for our personnel, and 100% of our operational sites have conducted a detailed health and safety risk assessment.

Harmonic has a productive, effective and agile workforce that works across time zones to deliver results. Due to this, we continue to offer a flexible hybrid working model, providing employees with options to work from home. Working arrangements are made between the functional line manager and their team members. Our desired working pattern is to make use of our office facilities, where available, on an average of three days per week. We strive to provide all employees, whether working remotely or in our office facilities, with the tools and equipment required to efficiently conduct their roles.

In addition to a flexible working model, our employees have access to a variety of benefits that encourage healthy habits, both professionally and personally. These include office yoga, fitness boot camps, weekend walks and ergonomic adjustments, such as standing desks and special chairs. All employees have access to tips or workshops regarding balance and well-being throughout the year. Some of our locations have on-site gym facilities, and we offer regular massage sessions at a few offices.



>> Harmonic employees in France participating in a Tempo Run Club race.

Harmonic also supports employee mental health through a series of free webinars, information sharing and an outreach program managed by Human Resources (HR), who manages ad hoc mental health check-ins with employees.

### Fair Working Conditions

The Harmonic [Code of Business Conduct and Ethics](#) establishes expectations for a harassment-free and safe workplace. Harmonic is committed to working conditions and labor practices that inspire trust and respect, empower our people to do their best work and do not infringe in any way on the inherent dignity of our employees and personnel. We prohibit all abuse, harassment and other unprofessional conduct, and any discrimination during employment or hiring on the basis of gender, race, color, national origin, ancestry, citizenship, religion, age, physical or mental disability,

medical condition, genetic information, pregnancy, sexual orientation, gender identity or gender expression, veteran status, marital status or any other legally protected status.

As described in our Whistleblower Policy, we have a clear mechanism for employees to report misconduct or other infractions — our whistleblower hotline. Zero incidents were reported through this hotline in 2022.

Our [Human Rights and Labor Practices Policy](#) commits Harmonic to prevent any forced labor in our operations and clearly states our commitment to fair practices in hiring, termination and providing wages. Our employees in France are represented by labor unions and an employee works council, and all of our employees outside of France have the right to freedom of association.



### DISABILITY CONFIDENT COMMITTED

Harmonic UK is a Disability Confident Committed certified employer. Disability Confident is creating a movement of change by encouraging employers to think differently about disability and take action to improve how they recruit, retain and develop disabled people. At Harmonic, this will mean taking more action to incorporate digital accessibility and reviewing our hiring processes to confirm disabled candidates are given equal opportunities to join our team.





>> Valérie Doré received a 2022 Sales Kick Off award for outstanding sales enablement.

### Benefits

We offer competitive compensation and comprehensive benefits packages in each of our locations around the globe. Harmonic applies a compensation approach guided by market-based pay for specific job levels, referencing market-specific compensation data for technology companies. Other factors taken into consideration when determining compensation are unique knowledge and skills, performance and experience. All employees are entitled to an annual review of salary.

Harmonic strives to create a flexible work environment that helps employees create a healthy balance between their personal and professional lives. Our commitment to a hybrid model allows employees to balance time in the office with working remotely, and our flexible commuting program helps those who drive avoid rush hour. Our France, Spain and UK offices offer employee childcare programs.

We offer private medical insurance to all employees, except in countries where medical care provision is sufficiently covered through statutory contributions via payroll, as well as employee assistance programs (EAPs). We also offer incentive bonuses, equity awards, a worldwide employee stock purchase plan (ESPP) and supplementary pension plans to employees in a number of locations, other than in countries where statutory contributions provide sufficient provision for a comfortable retirement.

In addition, Harmonic regularly recognizes employees through awards, such as the Best Salesperson by Region, the Best Pre-Sales Engineer by Region, the Best Supporting Engineer, the Best Support Function by Region and the annual Sales Kick Off Awards. Additional spot bonus awards recognize employee contributions on an ad hoc basis.

Read more in our [2023 Proxy Statement](#) and [2022 Annual Report](#).

**ACTIV' CHALLENGE**



Activ' Challenge, operated by the organization Agefiph, is an inter-company competition at the French national level with the goal to raise awareness of disabilities in the workplace. Our 2022 contest spanned the entire month of June, and 66 employees (20% of our France office) took part. Learn more about similar community partnerships in the Community Impact section on [page 22](#).

### Diversity, Equity and Inclusion

Building an inclusive workforce is critical to the growth and innovation of our business. We believe that the diverse backgrounds, experiences and perspectives of our employees make Harmonic a more creative, innovative, flexible and successful company. We also know that our ongoing investments in diversity, equity and inclusion (DEI) initiatives enable us to deliver sustained shareholder value.

In early 2021, we established two-year DEI goals,<sup>3</sup> both of which were met by December 31, 2022:

1. Increase the representation of women in non-general and administrative functions by 10%
2. Increase the representation of employees from under-represented groups in the U.S. by 20% in aggregate, from 9.7 to 11.6% of U.S. employees. We exceeded this goal by 7.8%, improving the representation of under-represented U.S. employees from 9.7% in 2020 to 12.4% in 2022.

To accomplish these goals, we received the support from employees at every level of the Company who make our culture of inclusion possible.

More than **95%** of respondents agree that Harmonic is an inclusive company (according to the two pulse surveys done in 2022).

Unconscious Bias training remains mandatory for all employees and has been fully integrated into the onboarding process for new hires. Harmonic's quarterly DEI

newsletter, called "Harmony", showcases achievements on the local and global level, launched in late 2021 and grew its readership significantly in 2022.

In addition to our Company-wide efforts to promote DEI internally, we also sought out new ways to make an impact on our local communities. In 2022, we operated internship programs at our locations in France, Israel, the UK and the U.S. to provide opportunities to students and young professionals from diverse backgrounds. In Spain, we participate in events organized by two local universities, which has helped fill our talent pipeline with diverse candidates. In the UK and APAC, we also partnered with organizations such as RISE, whose mentoring programs are designed to support women working in the broadcast technology sector, Portland Women in Tech and the National Action Council for Minorities in Engineering in North America.

Our Global Inclusive Recruitment and Selection Policy helps ensure that our managers conduct hiring processes in a fair and objective manner. Our office in Alicante also utilizes the Spanish government's grant program for hiring young engineers with diverse backgrounds, including women, people of color, refugees and people with disabilities.

Our General Counsel and SVP of HR leads Harmonic's corporate DEI efforts. He is supported by our VP, HR International, as well as the cross-functional DEI Task Groups for North America, APAC, France and Israel. This leadership reviews DEI metrics quarterly and delivers an annual report to the Board.

**Read more about our DEI data in our Performance Data Table on [page 33](#).**

3. Using a baseline year of 2020.



### Gender Equity

Harmonic collaborates with community groups to introduce girls to science, technology, engineering and math (STEM), supports several organizations that encourage women to pursue careers in engineering and technology, and focuses on hiring women for technical roles.

In parallel with the annual salary review process, Harmonic applies pay equity analysis globally, using the Syndio pay equity compensation analytics platform, to confirm that pay principles are fair and equitable without any discrimination to any employee or groups of employees. In 2021, we conducted a comprehensive pay equity analysis that did not reveal any pay equity problems or issues requiring remediation. In 2022, we made minor corrections during the annual compensation review process.

In France, where companies like Harmonic are legally obligated to address gender pay inequality, we need to annually measure on a 100-point scale the following five indicators: gender pay gaps within age groups and job categories, rates of salary increases, proportion of salary increases following maternity leave and the number and sex of employees receiving the highest remuneration. In 2022, Harmonic France scored 72 points out of 100. This minor drop from last year’s score is attributed to data showing more women than men were hired in 2022, so the rate of salary increases was relatively lower for women. The women hired in 2022 received pay increases in 2023, which brought the score above 90.



“Harmonic has a balanced working environment and friendly and knowledgeable colleagues from whom I can learn a lot — I enjoy every day of my work.”

**Minh Carrasco**  
Channel Operations Specialist, Harmonic France



“Working at Harmonic has been an incredibly rewarding experience. The company is committed to fostering a diverse and inclusive environment, and shows employees respect and compassion. As a new mom, I was given the support and flexibility I needed to ease back into work. I am also grateful for the freedom to grow and develop my skills. It is an honor to be part of such a progressive and supportive organization.”

**Aishwarya Varadharajan**  
Staff SW Development Engineer, Harmonic U.S.

### DIVERSE REPRESENTATION AT HARMONIC



**20%** of global employees self-identify as women



**10%** of senior leadership positions at Harmonic are held by women



**41%** of U.S. employees self-identified as racially/ethnically diverse



**47%** of U.S. new hires self-identified as racially/ethnically diverse

Additional DEI metrics are provided in the Performance Data Table of this report on [page 33](#).



### CELEBRATING WOMEN'S ACHIEVEMENTS

On International Women’s Day 2022, Harmonic responded to the call to action. Many Harmonic teams and individuals posed to #BreaktheBias. We also celebrated International Women in Engineering Day by recognizing the talent and contributions of Harmonic women engineers throughout the Company and by highlighting our ongoing global drive to bring more women and diverse talent into Harmonic.



# Community Impact

As a global business with a local focus, Harmonic understands the important role we play in our communities.

## Volunteering and Philanthropy

For Harmonic, volunteering in the communities where our employees live and work is critical to our business culture of caring. Our community engagement efforts focus on causes that are important to our employees and initiatives where we can leverage our core competencies. Our giving generally focuses on education — with an emphasis on helping girls, women and under-resourced and underrepresented groups in STEM — as well as refugee support, hunger relief and community health. Below, you will find several stories highlighting some of the ways we give.

### FEEDING THOSE IN NEED IN HONG KONG



In Hong Kong, our employees volunteered for Food Angel, a local charity that repurposes 35 tons of edible surplus food each week from different sectors of the food industry into 15,000 nutritious meals and redistributes them to local

underprivileged communities. In June 2022, employees worked onsite in the Food Angel kitchen to prepare ingredients, cook and package food, resulting in 1,892 hot meals in three hours that were then distributed to local people in need.

### PROVIDING BASIC NEEDS IN INDIA



India has one of the highest child poverty rates in the world. Our Noida team managed a fundraiser to support a local family and their child's education. Our Mumbai team donated basic necessities to a local orphanage, called Andhakshi Aasharm, which provides shelter

for partially blind and disadvantaged orphans.

### RUNNING FOR COMMUNITY HEALTH IN SILICON VALLEY

Harmonic continued its sponsorship of the annual Stars and Strides Run in San Jose, California, in support of the Valley Medical Center Foundation. Harmonic employees and their family members ran (and walked) to raise awareness and resources for the Foundation's important health programs and services, especially for the underserved.



### HELPING KIDS IN HONG KONG LEAD BETTER LIVES



In Hong Kong, Yiu Chung (Max) Max, a senior site reliability engineer at Harmonic, and his wife have been volunteering for years to help youth from underserved backgrounds, as well as those who are visually impaired. For over 10 years, Max has volunteered

with Evangel Children's Home, a charity that promotes the healthy development of youth from underserved backgrounds. He has also volunteered at Ebenezer School and Home for the Visually Impaired, where he accompanies visually impaired youth in outdoor activities.





In December 2022, on International Volunteer Day, we launched “Harmonic Cares,” as our global branding for our community initiatives. Under this umbrella, we help employees share details of their volunteer experiences in our all hands meetings, via corporate email and in our quarterly Harmony newsletter. Our goal is to encourage even more employees to get involved in their local communities.

**SUPPORTING WOMEN IN THE BROADCAST INDUSTRY**

In 2022, Harmonic became involved with RISE Women in Business in the UK and APAC. RISE was formed in 2017 to support and promote women working in the broadcast industry in operations, engineering, sales, marketing and business. Since launching, the organization has grown to become a global network, hosting events at Broadcast Asia, IBC and NAB.

In August 2022, Harmonic co-sponsored the first RISE Up Academy Summer School for youth (ages 12-18) that took place at the Global Academy in Hayes, London. During this event led by industry experts including Harmonic, nearly 500 young people got the chance to undertake a variety of free workshop activities, such as building a TV studio and filming a show, exploring an outside broadcast truck, creating graphics and editing, experimenting with virtual production and more. In 2023, we plan to run workshops and other volunteering activities at the Academy again.

In APAC, we supported an in-person networking event for RISE Mentors and Mentees at Broadcast Asia. RISE’s mentoring programs are designed to raise the profile of women in the tech sector and encourage younger women to pursue careers in the field, while promoting a diverse workforce.



**PLANTING THE SEEDS OF FUTURE DIVERSE TECH TALENT IN ISRAEL**



In 2022, Harmonic employees in Israel continued to build momentum for SEEDS, a volunteer program launched in 2021 that works to advance technical studies and encourage young girls to choose technical professions. With the motto “Planting seeds for the future,” the program engages with under-resourced and diverse youth, exposes them to the high-tech world, and encourages them to pursue tech learning and careers. To make this happen, Harmonic partnered with educational nonprofit Taasiyeda, which connected us to a local high school in Hadera, near our Caesarea office. Together, we developed an annual plan, which includes Harmonic volunteers offering skills workshops, technology panels, office tours and more.

In 2022, the Israel team helped plan a Hackathon for high school students. Employee volunteers worked with students to help them develop new technology initiatives and guide them in presenting their ideas. Participating high school students visited the Caesarea office four times in 2022 to see what a technology company looks like from the inside. Additionally, in the city of Umm al-Fahm, one of our engineers has been volunteering with Arabic youth to introduce them to the technology industry through various projects.



## Providing Aid to Ukraine

When war broke out in Ukraine, our people based in Kyiv were directly impacted, and our employees from around the world stepped in to help.

Harmonic launched a corporate matching program for employee donations to humanitarian organizations working in and around Ukraine, including the International Rescue Committee, CARE, UNICEF, Médecins Sans Frontières and the International Committee of the Red Cross. Within a few weeks, employees from around the world donated almost \$90,000, which was doubled by Harmonic.

In Israel, employees prepared and shared a video expressing support for their colleagues at our business partner GlobalLogic, and also collected and sent donations of food and materials for Ukrainian refugees arriving in Israel. In Spain, employees collected clothing and food supplies for local charities that were providing aid to Ukraine.

In November 2022, a few of our team members spent a weekend on the ground working at Hope Foundation in Przemyśl, Poland, a town close to its border with Ukraine. They helped prepare and expand the shelter to house 102 Ukrainian refugees (it was originally designed to house 30 people). Daily activities included acquiring supplies, tools and lighting to help the shelter expand its power to support a kitchen build out.



### SUPPORTING REFUGEES

In 2022, Harmonic France employees continued to participate in the Kodiko refugee support program. Kodiko is a well-established non-profit organization that provides support to refugees seeking to enter the workforce and integrate into professional life in France. Each program participant is paired with a volunteer mentor for six months. Our participation in this rewarding program has continued in 2023 with additional volunteers.

“In the short time on the ground there, we heard many tragic and moving stories. Hope Shelter is a safe space for Ukrainians fleeing the war. They need help getting to the next step in their journey, and for some it is a moment of stability in a terrible situation,” said **Matt Kirby, Director, Product Management**, at Harmonic. “We are grateful and humbled to have been part of a larger chain of volunteers from countries around the globe, all working together for this common cause.”

Leveraging skills developed in his career, **Christopher Chiu, Systems Integration Manager** at Harmonic said, “we were able to bring an outsider’s perspective by sharing life skills and experiences with the other volunteers, helping them to better plan and manage the infrastructure for the increased number of arriving Ukrainians.”



## Governance and Ethics

Our Code of Business Conduct and Ethics guides our operations as we embrace a high standard of ethics and strong governance practices.

### Corporate Governance

Our [Corporate Governance Guidelines](#) set forth the key functions of the Board, as well as principles regarding Board structure and composition, conflicts of interest, Board operations and meetings, Board interaction with management and third-parties, Board committees, Director compensation and stock ownership. The Board has an Audit Committee, a Compensation Committee and Corporate Governance and Nominating Committee. Our Corporate Governance Guidelines are reviewed at least annually by the Corporate Governance and Nominating Committee, and changes are recommended to our Board for approval as appropriate. For more details on ESG Oversight, please read [page 7](#).

Each of our Board Directors brings knowledge of our industry, unique experience, skills and a reputation for integrity, honesty and adherence to high ethical

standards. We have adopted a [Code of Business Conduct and Ethics](#) that applies to all of our Board members, officers, employees, consultants, contractors and agents.

**88%** Board Director Independence.

As of April 1, 2023, our Board is composed of eight directors, seven of whom are independent. We separate the roles of Chief Executive Officer and Chairman of the Board, and all three of our Board committees are made up of entirely independent Directors. Harmonic reviews each director candidate's time commitments prior to appointment and every director is expected to devote the time and attention needed to fulfill their duties.

While the Corporate Governance and Nominating Committee does not have a formal policy with respect to Board diversity, the committee seeks nominees with a broad diversity of experiences, professions, skills, geographic representation and backgrounds, including racial, ethnic and gender diversity, and considers relevant legal requirements relating to diversity. As of April 1, 2023, four directors self-identify as women.

**50%** Board Directors self-identify as women.



## Executive Compensation

The Compensation Committee annually reviews and approves compensation, including equity compensation, for the CEO and the other Executive Officers of the Company.

## Risk Management

The Board of Directors and its committees oversee Harmonic's risk management practices and policies, and our executive team is responsible for the day-to-day management of Company and business risks. The Board regularly reviews our long-term business strategy, our competitive positioning, potential acquisitions and divestitures, technology and market direction and operational performance, as well as the risks associated with each. The Compensation Committee is responsible for overseeing the management of risks relating to Executive and Board Director compensation, and Harmonic's incentive, equity award and other benefit plans. The Audit Committee oversees management of financial risks as well as cybersecurity risks, and the Corporate Governance and Nominating Committee manages risks associated with the independence of Board Directors and potential conflicts of interest. Our global tax strategy supports our commitment to high standards of corporate governance and transparency. Harmonic operates with a zero-tolerance approach to tax evasion and the facilitation of tax evasion.

Read more about executive compensation, risk management and other governance topics in our [2023 Proxy Statement](#) and [2022 Annual Report](#).





**Ethics**

We are committed to high standards of ethical integrity. Our approach to ethical standards is documented in our publicly available **Code of Business Conduct and Ethics** (CBCE), which applies to all of Harmonic’s employees, officers, Directors, consultants, contractors and agents. We also have a public **Supplier Code of Conduct** and **Business Partner Code of Conduct**, described in more detail in the **Supply Chain Partnerships** section of this report.

The CBCE provides rules of practice on ethical conduct and anti-corruption, conflicts of interest, compliance and communications. The CBCE sets the expectation that all Harmonic personnel and business partners live up to our commitments to Act in Good Faith, Act Ethically and Comply with the Law. In 2022, we had zero reported violations of our CBCE.

Annual CBCE training and acknowledgment is mandatory and new hire onboarding also includes CBCE training and acknowledgment. Additional mandatory employee compliance training includes modules on our insider trading policy, anti-corruption, IT/Cybersecurity and unconscious bias training. Our CBCE, Supplier and Partner Codes, and Whistleblower Policy all provide for procedures for reporting potential violations internally or through an anonymous whistleblower hotline.

Harmonic does not currently make any contributions to political candidates and does not maintain a political action committee.

**100%** of employees and contractors completed Code of Business Conduct and Ethics training.



## Cybersecurity and Data Privacy

Cybersecurity is critical to our business operations and service offerings, and we regularly review and invest in our corporate infrastructure and product security capabilities. The Audit Committee oversees Harmonic's cybersecurity controls and performance through quarterly updates from executive management and reviews of governance processes, security-related programs, performance data, potential or realized security breach information, audit and validation results and controls to help mitigate cybersecurity risks.

At the executive management level, cybersecurity is overseen by Harmonic's Chief Cybersecurity Officer. In addition, Harmonic management works closely with the Audit Committee, with regular updates to our Board of Directors, to evaluate, benchmark and update our cybersecurity efforts to follow best practices and respond to emerging regulatory requirements. Our Security Operation Center monitors network and system threats and vulnerabilities, and a third-party IT and cybersecurity audit and assessment took place in 2022. We follow the NIST Cybersecurity Framework.

Our cybersecurity program includes controls to help protect the confidentiality of data and the integrity of assets, such as security monitoring and alerts to identify internal and external threats, enhanced phishing and malware protections, data and source code access management systems, mandatory employee training and regular communications to increase cybersecurity threat awareness, and incident response processes to respond to any potential security breaches as quickly as possible. At the product level, we use third-party security and vulnerability testing on our software and SaaS products. In 2022, we initiated third-party risk management assessments for IT and cybersecurity providers in our supply chain.

We provide cybersecurity training for both new hires and existing employees, focused on phishing schemes, malware protections, physical device security, malicious links and security awareness. We also provide periodic Company-wide IT security alerts and reminders, and remote employees use a virtual private network. Employees in certain higher-risk functions receive more frequent training and reminders.

As a business-to-business company, Harmonic handles limited amounts of personally identifiable information. Though data privacy protection is not a critical issue for our business, it is included in our Code of Business Conduct and Ethics. Our [Privacy Notice](#) discusses the physical, administrative and technical safeguards that we have implemented to help protect personal information from unauthorized access, use or disclosure. Information is accessed only by authorized staff who are instructed to handle personal information with confidentiality. We utilize firewalls, multiple factor access and standard industry security measures. Employees are required to follow our Acceptable Use Policy, which outlines proper use and handling of devices, information and IT systems. We also contractually require that our suppliers protect such information from unauthorized access, use and disclosure.



## Supply Chain Partnerships

We work with suppliers committed to product excellence, ethical labor practices and environmentally friendly practices.

Harmonic cares about cultivating and maintaining a supply chain that respects people and the planet while allowing us to meet our business needs. We utilize approximately 200 global suppliers to provide the necessary components and materials that go into our products. We also rely on third-party contract manufacturers to assemble and produce our hardware products. Plexus Corp, our primary contract manufacturing partner, buys electronic components, circuit boards, enclosures, power supply units and other materials directly from various suppliers and manages the day-to-day of these supplier relationships. Harmonic evaluates and selects key suppliers used by Plexus for our products.

We also directly purchase non-custom original equipment manufacturer (OEM) products and related accessories primarily from large companies, such as servers from Hewlett Packard Enterprise that we sell to our customers loaded with Harmonic software, or networking switches from other companies that are sold to our customers as part of an overall solution system.



### 2022 SUPPLY CHAIN ACHIEVEMENTS

In 2022, Harmonic made several advances to improve our supply chain sustainability. This includes:

- 1) Relocating server-based product assembly and configuration to reduce air freight and be closer to our customers
- 2) Significantly shifting from air to ocean freight to reduce transportation emissions, while strategically increasing standardized inventory to accommodate for slower travel time
- 3) Reducing the size of packaging to reduce transported volume
- 4) Providing our teams with responsible supply chain training



## Supply Chain Management

Harmonic qualifies new suppliers through our ISO supplier assessment process. This involves conducting a technical risk assessment and qualification, including onsite visits and capability testing. For existing suppliers, we perform onsite and virtual audits periodically, with more frequent audits based on risk assessments or issues or concerns that may arise. These audits include health and safety reviews. Harmonic also conducts quarterly business reviews with key suppliers and employs self-assessment surveys. In addition to our own ISO 9001:2015 certification, our key suppliers are ISO 9001 compliant. Most of our key suppliers, including Plexus and HPE, are large public companies, based in the U.S., that are part of the Responsible Business Alliance (RBA) and have their own comprehensive codes of conduct.

We conduct technical and quality training when onboarding a new supplier, launching new products and in connection with major product changes. In 2022, we began responsible supply chain training for Harmonic's global procurement team. The training focused on supplier selection, qualification and management using Harmonic's and the RBA's environmental, social and governance (ESG) principles. This initial training was completed by the first quarter of 2023.

Moving into 2023 and beyond, Harmonic is developing a supplier survey to better understand our vendors, including their sourcing and the ethics guiding their work.

## Responsible Supply Chain Efforts

In addition to the expectations for our suppliers and partners set forth in the [Supplier Code of Conduct](#) and [Business Partner Code of Conduct](#), Harmonic has identified several performance expectations for key suppliers, including conflict mineral identification, health and safety, cybersecurity and environmental performance of products. While making performance changes is challenging due to the supply chain for our hardware products being highly consolidated, we continue to work with our key suppliers around these topics.

We are committed to working with suppliers that provide safe working conditions, treat workers with dignity and respect and follow environmentally friendly practices. We extend our ethical standards to our suppliers and their employees through our Supplier Code of Conduct, and to our reseller, distributor and service provider partners and their employees through our Business Partner Code of Conduct.

Our Supplier Code of Conduct requires our suppliers to adopt and adhere to the social, environmental and ethical industry standards set forth in the [Responsible Business Alliance \(RBA\) Code of Conduct](#) (formerly known as the Electronic Industry Citizenship Code of Conduct). Our Business Partner Code of Conduct emphasizes ethical and legal compliance in all business practices, and strict adherence to ethical labor and employment rules and principles.

## Environmental

Pursuant to our [Environmental Responsibility & Sustainability Policy](#), we evaluate the environmental impact of any equipment or supplies we intend to purchase and favor environmentally friendly and efficient products wherever practicable. Our key suppliers are ISO 14001 compliant, including our main contract manufacturing partner Plexus, which states that all of its electronics manufacturing facilities globally are certified to ISO 14001.

In 2022, we took a deeper look at packaging and worked to reduce plastic without compromising our products. As a result, we reduced the packaging volume by 50% and the weight by 12% for our main products. We also examined packaging reusability and plan to advance packaging circularity in 2023. Reducing packaging both minimizes freight costs and improves the sustainability of our supply chain.

After evaluating our supply chain, we realized that we could improve environmental outcomes by relocating the sourcing of specific parts and components closer to our end customers in order to avoid air shipments, particularly long distances between Asia and the U.S. In 2022, we moved the final configuration of our server products from Asia to the U.S. and EU. With this move, the server sourcing moved from Singapore to Mexico for U.S. customers, and from Singapore to Czech Republic for EU customers. This was part of a larger initiative to shift all air freight of components and products to ocean freight, which resulted in 85 times less GHG emissions per item shipped.<sup>4</sup> Even with these significant reductions in transportation-related emissions on a per item basis, our overall Scope 3 emissions increased due to a large increase in quantity of products sold.

4. Calculation done with ecotransit.org, which is compliant with ISO 14083 and the GLEC framework.



## Human Rights and Labor Practices

In 2020, our Board approved a Human Rights and Labor Practices Policy. The policy commits Harmonic to prevent any forced labor in our operations. We require suppliers and partners, including contract manufacturers, to adhere to the principles set forth in our [Human Rights and Labor Practices Policy](#). Additionally, our Supplier Code of Conduct includes clauses on our expectations for labor practices, working conditions and workplace safety.

While we do not have a formal supplier diversity policy in all regions, we purposefully source from suppliers in different regions around the world. Harmonic is committed to recognizing, promoting, developing and maintaining diverse supplier partnerships. Collaborating with diverse suppliers promotes new ideas, innovations and enhances global community relations and

goodwill. In the U.S., we track the amount spent on “minority-owned” suppliers (as defined by the U.S. Department of Commerce). We nearly doubled the amount of business we conducted with diverse suppliers, from \$1,770,000 in 2021 to \$3,430,000 US in 2022. In France, we have provided employment for people with disabilities in our logistics department for more than 20 years.

## Conflict Minerals

Harmonic has a [Conflict Minerals Policy](#) in place and has filed a [2022 Conflict Minerals Report](#) with the SEC. We rely on source information provided by our suppliers in the Responsible Minerals Initiative survey template. Information regarding conflict minerals is available for at least 50% of the suppliers for our hardware products.





### About this report

This CSR report demonstrates Harmonic’s efforts to improve the transparency of our CSR progress and commitments.

The report primarily covers calendar year 2022 activities, with early 2023 initiatives included as relevant. Performance metrics cover all of our sites and the calendar year ending on December 31, 2022, unless otherwise noted. The report was developed using the recommended disclosures of the Sustainability Accounting Standards Board (SASB) Standards and we have provided a **SASB Index** on [page 35](#).

The activities and performance detailed in this report refer to Harmonic Inc.’s global operations, unless otherwise stated. “Harmonic,” “we,” “us,” “our” and “the Company” refer to Harmonic, Inc. and its affiliates.

We welcome your questions about this report and Harmonic’s CSR efforts via email to [CSR@harmonicinc.com](mailto:CSR@harmonicinc.com).



INTRODUCTION

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# Performance Data Table

Greenhouse Gas Emissions <sup>5,6</sup> (Metric tons of carbon dioxide equivalent (tCO2e))	2022	2021	2020	2019
Total Scope 1 and 2	5,672	5,495	Not Reported	Not Reported
Scope 1 (controlled vehicles only, Harmonic does not own any facilities)	889	642	Not Reported	Not Reported
Scope 2 (purchased electricity, heating and cooling) — location-based	4,783	4,853	5,193	5,775
Total Scope 3 Emissions	393,316	280,699	181,451	234,897
Purchased goods and services <sup>7</sup>	53,378	40,051	28,969	37,486
Capital goods	123	2,431	9,818	892
Transportation and distribution (upstream and downstream)	7,837	7,293	2,807	3,820
Waste <sup>8</sup>	43	37	Not Reported	Not Reported
Business travel	1,963	589	1,059	4,322
Commuting <sup>9,10</sup>	1,628	685	767	203
Use of sold products	327,425	228,970	137,646	187,646
End-of-life treatment of sold products	919	642	385	528
Emissions Intensity <sup>11</sup>	-18%	Not Reported	Not Reported	Not Reported
Energy Consumption <sup>12</sup>	2022	2021	2020	2019
Total energy consumption (gigajoules)	56,220	Not Reported	Not Reported	Not Reported
Total electricity consumption (gigajoules)	54,165	55,880	62,137	73,843
Total gas consumption (gigajoules)	2,055	Not Reported	Not Reported	Not Reported
Electricity from renewable sources (percent) — location-based	25.8%	26.2%	Not Reported	Not Reported
Water	2022	2021	2020	2019
Direct water consumption (cubic meters)	2,092	2,024	Not Reported	Not Reported

Waste <sup>13</sup>	2022	2021	2020	2019
Total operational waste generated (metric tons)	77.9	56.1	Not Reported	Not Reported
Total operational waste generated (not including e-waste) (metric tons)	65.2	45.4	Not Reported	Not Reported
Total electronic waste (e-waste) generated (metric tons)	12.7	10.7	Not Reported	Not Reported
Total operational waste generated (not including e-waste) sent to landfill (metric tons)	13.2	14.4	Not Reported	Not Reported
Total operational waste generated (not including e-waste) recycled (metric tons)	52	31	Not Reported	Not Reported
Waste diversion rate (not including e-waste) (percent)	79.8%	68.3%	Not Reported	Not Reported
Electronic waste recycled (percent)	100%	100%	Not Reported	Not Reported
Governance and Ethics	2022	2021	2020	2019
Incidents reported through whistleblowing procedure (number)	0	0	0	0
Employees who completed Code of Business Conduct training (percent)	100%	100%	100%	100%
Nonconformance in third-party audits (number)	No significant or material issues identified in ISO 9001 audits.	No significant or material issues identified in ISO 9001 audits.	No significant or material issues identified in ISO 9001 audits.	No significant or material issues identified in ISO 9001 audits.
Supply Chain	2022	2021	2020	2019
Suppliers by geographic region (number) <sup>14</sup>	N.A.   EMEA   APAC	N.A.   EMEA   APAC	N.A.   EMEA   APAC	N.A.   EMEA   APAC
	5   2   1	8   6   2	8   6   3	8   6   3
	4 of 8 are Responsible Business Alliance (RBA) members.	7 of 16 are Responsible Business Alliance (RBA) members.	8 of 17 are RBA members.	8 of 17 are RBA members.
In-person supplier audits conducted (number) <sup>15</sup>	0	0	0	10

5. Categories are those from the GHG Protocol. Categories that are not reported were considered non-relevant for Harmonic.  
6. Data provided for all Harmonic sites, unless otherwise stated; Our inaugural 2021 CSR Report presented GHG emissions data only for Harmonic's three main locations.  
7. Environmentally-Extended Input-Output (EEIO) method, except for packaging, goods purchased to be sold and digital usage (real data).  
8. Waste data are provided for Harmonic's three main locations: San Jose, CA; Rennes, France; and Caesarea, Israel. These three locations make up approximately 50% of Harmonic's operations.  
9. Including emissions from remote work.  
10. For 2019 to 2021, emissions data only covers remote work (i.e., commuting is not reported).  
11. Metric tons of GHG emissions per metric tons of goods sold.  
12. Energy consumption data provided for all sites; Our inaugural 2021 CSR Report presented energy consumption data only for Harmonic's three main locations.  
13. See Note 8.  
14. Includes Tier 1 suppliers, which account for approximately 90% of our product-related supplier spending in each of the listed years; Geographic region is based on the headquarters of the supplier.  
15. In-person supplier audits were paused 2020-2022 due to COVID-19 safety protocols. We plan to conduct in-person supply chain audits in 2023, as well as continue to conduct virtual audits.



# Performance Data Table

Global Workforce	2022		2021		2020		2019	
	Women	Men	Women	Men	Women	Men	Women	Men
Total Workforce (number)	265	1,075	238	1,029	218	951	217	955
Total Workforce (percent)	19.8%	80.2%	19%	81%	19%	81%	18.5%	81.5%
Leadership (number, including VPs, SVPs, CEO)	5	47	5	47	5	42	3	41
Leadership (percent, including VPs, SVPs, CEO)	9.6%	90.4%	9.6%	90.4%	10.6%	89.4%	6.8%	93.2%
Board of Directors (number)	4	4	3	5	3	4	3	4
Board of Directors (percent)	50%	50%	38%	62%	43%	57%	43%	57%
Global new hires that self-identified as women (percent)	25.8%		18.3%		22.3%		20%	
Racial / Ethnic diversity (U.S. Workforce)	2022		2021		2020		2019	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Asian	106	28.5%	105	27.9%	106	29.4%	113	31.1%
Black or African American	13	3.5%	10	2.7%	8	2.2%	9	2.5%
Hispanic or Latino	30	8.1%	28	7.4%	25	6.9%	21	5.8%
Native American or Alaskan Native	1	0.3%	2	0.5%	1	0.3%	1	0.3%
Native Hawaiian or Other Pacific Islander	2	0.5%	2	0.5%	1	0.3%	2	0.6%
White	220	59.1%	230	61.0%	220	60.9%	217	59.8%
U.S. new hires that self-identified as racially/ethnically diverse (percent)	46.5%		37.5%		41.9%		38.2%	
U.S. employees that self-identified as racially/ethnically diverse (percent)	41.2%		39%		N/A		N/A	

Employee Regional Split	2022		2021		2020		2019	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total Global Employees	1340		1267		1169		1172	
North America	430	32.1%	405	32.0%	371	31.7%	370	31.6%
EMEA	706	52.7%	642	50.7%	577	49.4%	582	49.7%
APAC	172	12.8%	198	15.6%	200	17.1%	201	17.2%
Latin America	32	2.4%	22	1.7%	21	1.8%	19	1.6%
Additional Workforce Metrics	2022		2021		2020		2019	
Permanent contracts	1,336		1,261		1,165		1,170	
Fixed Term contracts	4		6		4		2	
Turnover - Total (percent)	12.4%		9.4%		10.7%		11.5%	
Turnover - Voluntary (percent)	7.4%		6.8%		6.8%		8.1%	
Employees covered by collective bargaining agreements (percent)	29%		28%		28%		28%	
Employees who are represented in formal joint management-worker health & safety committees (percent)	23.2%		22.4%		23.3%		24.5%	
Total employee and contractor training hours through Owl Stars (number)	9,674		11,570		Program began in 2021		Program began in 2021	
Accident frequency rate (number)	0		Not Reported		Not Reported		Not Reported	
Accident severity rate (number)	0		Not Reported		Not Reported		Not Reported	



## Sustainability Accounting Standards Board (SASB) Standards Index

The SASB Standards, now part of the International Financial Reporting Standards (IFRS) Foundation, are a set of standards to guide the disclosure of sustainability information by companies to their investors. The following index maps our disclosures to certain SASB indicators in the Hardware industry, with additional indicators from the Software & IT industry included where relevant.

Topic	Accounting Metrics	2022 Report Location/Response	SASB Code
Product Security	Description of approach to identifying and addressing data security risks in products	See Cybersecurity and Data Privacy, <a href="#">page 28</a> .	TC-HW-230a.1
Data Security	Description of approach to identifying and addressing data security risks, including use of third-party cybersecurity standards	See Cybersecurity and Data Privacy, <a href="#">page 28</a> .	TC-SI-230a.1
Managing Systemic Risks from Technology Disruptions	Description of business continuity risks related to disruptions of operations	Business continuity risks are described in our <a href="#">2022 Annual Report</a> .	TC-SI-550a.2
Employee Diversity & Inclusion	Percentage of gender and racial/ethnic group representation for (1) management, (2) technical staff, and (3) all other employees	See Performance Data Table, <a href="#">page 34</a> for U.S. racial and ethnic representation metrics.	TC-HW-330a.1 TC-SI-330a.3
Recruiting & Managing a Global, Diverse & Skilled Workforce	Percentage of employees that are (1) foreign nationals and (2) located offshore	Through our human capital strategy, we purposefully employ a globally distributed team working across many geographic locations. As of December 31, 2022, we employed a total of 1,340 full time employees, with 32% located in the United States and Canada, and 68% located outside of North America in 23 countries in Central and South America, the Middle East and Africa, Europe and the Asia Pacific region. We continue to see below-industry average turnover across our organization.	TC-SI-330a.1
Recruiting & Managing a Global, Diverse & Skilled Workforce	Employee engagement as a percentage	We conduct all-employee pulse surveys every six months, with each survey emphasizing different employee engagement topics. We have tracked employee engagement as a quantitative metric since 2020. Our overall satisfaction score from our two 2022 pulse surveys was 73%.	TC-SI-330a.2
Product Lifecycle Management	Percentage of products by revenue that contain IEC 62474 declarable substances	We do not currently have the data available to calculate this metric.	TC-HW-410a.1
Product Lifecycle Management	Percentage of eligible products, by revenue, meeting the requirements for EPEAT registration or equivalent	Harmonic is not aware of any products that fall within the scope of EPEAT or equivalent registration.	TC-HW-410a.2
Product Lifecycle Management	Percentage of eligible products, by revenue, meeting ENERGY STAR® criteria	Not applicable.	TC-HW-410a.3
Product Lifecycle Management	Weight of end-of-life products, and e-waste recovered, percentage recycled	<p><b>Weight of end of life products:</b> Not applicable.</p> <p><b>E-waste recovered:</b> We have a product take-back program, however most of our large customers typically recycle e-waste themselves.</p> <p><b>Percentage recycled:</b> 100%</p>	TC-HW-410a.4



# Sustainability Accounting Standards Board (SASB) Standards Index

Topic	Accounting Metrics	2022 Report Location/Response	SASB Code
Environmental Footprint of Hardware Infrastructure	1 Total energy consumed (GJ)	1 56,220 GJ	TC-SI-130a.1
	2 percentage grid electricity, and	2 100%	
	3 percentage renewable	3 25.8%	
Environmental Footprint of Hardware Infrastructure	Discussion of the integration of environmental considerations into strategic planning for data center needs	Onsite data centers are optimized to manage cooling and we set temperatures to higher than average to save energy. We also employ techniques at some of our onsite data centers to reduce electricity consumption by powering down servers during periods of minimal utilization. We also outsource data centers to cloud-based systems from Microsoft Azure, Amazon Web Services and Google Cloud that all claim to be carbon neutral.	TC-SI-130a.3
Materials Sourcing	Description of the management of risks associated with the use of critical materials	Harmonic complies with the Conflict Minerals provisions of the U.S. Dodd-Frank Act. We work to eliminate irresponsibly sourced tin, tantalum, tungsten and gold Conflict Minerals from our products.	TC-HW-440a.1



## FORWARD LOOKING STATEMENTS

Certain statements contained in this communication may be deemed forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), including, without limitation, statements regarding our expectations, beliefs, intentions or strategies regarding the future. In some cases, you can identify forward-looking statements by terminology such as, “may,” “will,” “should,” “expects,” “plans,” “anticipates,” “could,” “believes,” “intends,” “estimates,” “predicts,” “potential,” or “continue” or the negative of these terms or other comparable terminology.

These forward-looking statements include, but are not limited to, statements regarding:

- expected demand for and benefits of our products and services; and
- our ESG-related plans and initiatives.

These statements are subject to known and unknown risks, uncertainties and other factors, any of which may cause our actual results to differ materially from those implied by the forward-looking statements. Important factors that may cause actual results to differ from expectations include those discussed in “Risk Factors” in our [2022 Annual Report](#) on Form 10-K. All forward-looking statements included in this communication are based on information available to us on the date thereof, and we assume no obligation to update any such forward-looking statements.





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