

A photograph of a modern Samsung building with a blue glass facade. The word "SAMSUNG" is visible on the building. In the foreground, there is a fountain with several water jets, a paved walkway, and green trees. A blue semi-transparent box is overlaid on the left side of the image, containing the report title and year.

SAMSUNG

**Samsung Austin
Semiconductor
Environmental,
Health & Safety
Report**

2023

Table of Contents

Foreword from the Director	3
Mission and Compliance	4
Environmental, Health & Safety Mission Statement.....	5
Compliance	6
Journey to Zero	9
Zero Harm Habits (ZHH)	11
Level-Up Training.....	12
EHS-Based training	13
Sequential Safety Meetings	14
Contractors and Vendors.....	15
Site Engagement	16
Leading Safety Metric LSM Program	17
Contractor and Vendor Safety Award Winners.....	18
Samsung Cultural Index	20
Zero Harm Habits (ZHH) Events	21
ZHH: Environmental.....	22
ZHH: Loss Prevention.....	25
ZHH: Emergency Response Team	26
ZHH: Safety Expo	27
Employee Health and Wellness.....	28
Mothers' Rooms	29
Health Clinic	30
SamStrong Fitness Centers.....	31

Environmental and Sustainability	33
Long-Term Environmental Goals	34
Sustainability Task Force Team	35
Our Year in Review	36
Carbon Footprint.....	37
Water	38
Landfill Diversion.....	39
Energy	41
Electric Transportation	42

Community Engagement and Awards	43
Legacy Garden	44
Volunteer Time Off	45
Keep Austin Beautiful	46
University of Texas: Chemical Hazards	47
Awards	48

Terms and Definitions	50
About This Report.....	51

The Environmental Health and Safety report is part of Samsung Austin Semiconductor's series of reports for Corporate Responsibility.

Foreword from Director

At Samsung Austin Semiconductor, our commitment to Environmental, Health, Safety, and Sustainability has never been more crucial than the present. As the semiconductor industry responds to rapid technological changes and evolving global influences, empowering our people and inspiring relentless pursuit of innovation and improvement is fundamental to this commitment.

In this annual Environmental, Health, Safety, and Sustainability Report, we proudly present our accomplishments, and strategic initiatives undertaken to foster a more sustainable future. This report serves as a reflection of our dedication to meeting and exceeding the standards of environmental stewardship and workplace safety that our stakeholders, communities, and the planet expect of us.

Central to our strategy is the “Journey to Zero” initiative, designed to inform our operations and guide our workforce toward elevated levels of safety and environmental performance. “Journey to Zero” is our guiding vision; it represents a holistic and comprehensive approach to sustainability practices. Among these are a strong emphasis on safety at work and home, reducing emissions, improving energy efficiency and recycling.

By making substantial investments in innovative technologies, enhancing our resource management practices, and promoting sustainable workplace practices, we aim to set new and inspiring benchmarks in environmental stewardship and safety that can inspire others in the industry to follow suit.

Through the “Journey to Zero” initiative, we work to significantly reduce our carbon footprint by implementing innovative technologies and practices that enhance energy efficiency across all levels of production. We recognize that sustainable practices must be intertwined with our operational processes, and have dedicated resources to ensure that safety and environmental considerations are at the forefront of organizational decision-making.

Evidence of this commitment can be seen in the team’s recognition as the safest fab in the United States according to a 2022 semiconductor industry association benchmark study. Additionally, Samsung Austin Semiconductor is recognized with the UL Zero Waste to Landfill Gold Validation for recycling and reuse of waste and wastewater pretreatment practices, and the achievement of Net Zero Scope 2 emissions.

This report highlights the various initiatives, activities and programs, implemented over the past year to support our journey towards zero waste, emissions, and accidents. Look for measurable outcomes achieved, hurdles encountered and the lessons learned along the way.

We believe that transparency and accountability are key to fostering trust and driving collective action, and invite you to join us on this journey. Together, we will pave the way toward a safer and more sustainable world—not just for us but for generations to come. Thank you for your continued support and partnership as we work tirelessly to fulfill our goal to be the world leader in sustainable semiconductor manufacturing.



David Ellingsworth
Senior Director of
Environmental, Health, Safety
& Sustainability



SAFEST FAB
IN THE UNITED STATES
ACCORDING TO A 2022
SEMICONDUCTOR
INDUSTRY ASSOCIATION
BENCHMARK STUDY.

A blue-tinted photograph of a city skyline, likely San Francisco, featuring a prominent bridge over a river. The image is used as a background for a slide.

Mission and Compliance

Environmental, Health & Safety Mission

At Samsung Austin Semiconductor, Environmental, Health & Safety (EHS) is the first and foremost principle of management. Our mission is to protect our people, community, and environment by instilling a zero harm EHS culture.

We strive to be an industry leader in environmental, health and safety management by addressing challenges proactively and creating innovative solutions for continuous improvement. To do this, we have developed measurable objectives and targets based off of the strategic goals below:

1. Solidify the EHS department by continuing to develop and retain talent
2. Continue to refine our compliance assurance program
3. Ensure applicable, current, and periodic training is provided to all employees
4. Find strategies to mitigate environmental impact
5. Focus efforts on EHS program and initiative improvement
6. Create sustainable solutions for incident prevention
7. Leverage systems technology to drive efficiency and engagement
8. Remain informed on the latest advancements in the EHS fields
9. Implement safety by design for the Taylor site



Compliance (ISO 14001, 45001, 50001)

At Samsung Austin Semiconductor our dedication to Environmental, Health, and Safety is defined by our commitment to continually improve efforts to protect the environment, develop strategic energy management practices, and adopt global best practices. All employees are trained for ISO compliance upon onboarding, and regularly throughout the year. Our robust compliance assurance program engages employees in a variety of activities that ensure our operations comply with local, state, and federal regulations, while providing a safe workplace for our employees and our community.

We maintain certification with the following International Standards:

- **ISO 14001**
Environmental Management Systems
- **ISO 45001**
Occupational Health and Safety Management Systems
- **ISO 50001**
Energy Management Systems

We continue to exceed these standards year after year by completing a rigorous auditing process that includes three types of audits: self-auditing, audits performed by our international headquarters, and external third party audits. This consistent audit schedule ensures that we are proactively making changes to achieve our developing objectives and targets.



ISO 14001 & 45001

The ISO 14001 and 45001 international standards provide a framework for Samsung Austin Semiconductor to develop a system of policies, processes, and procedures that support EHS objectives and targets established to protect the environment and worker health and safety.

The CARES program educates employees on standard requirements, and serves as a guide for prioritizing elements of our management system in daily operations.

In 2023, Samsung Austin Semiconductor was audited and recertified for ISO 14001 and 45001. Not only did we meet certification standards with zero findings, we exceeded requirements with recognition for multiple 'best practices'.

Our robust communication programs, knowledgeable personnel, and evident EHS culture contributed to the overwhelmingly positive response to our EHS ISO Management Systems.

CARES⁺

Continual improvement

Always comply with regulations and internal policies

Reduce pollution and hazards

Execute SAS objectives and targets

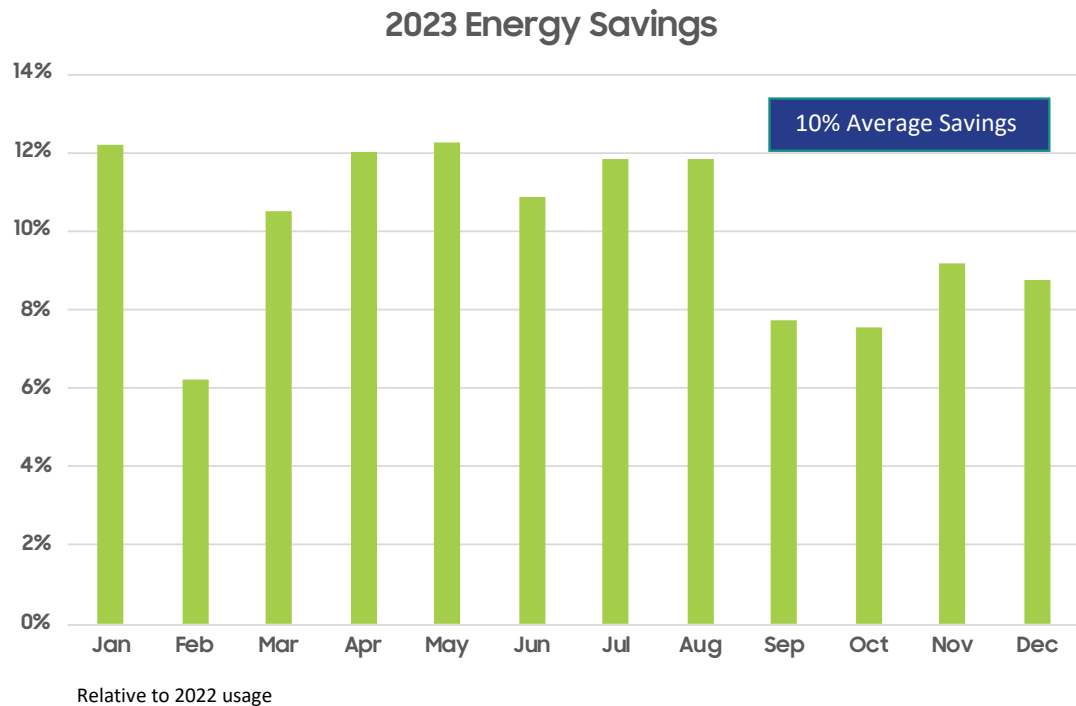
Share information with employees and contractors



ISO 50001

The international standard ISO 50001 provides a framework for integrating energy management practices to optimize utility usage and lower cost, and helps to establish a systematic approach to achieving continual improvement of energy performance. The certification to this standard held by Samsung Austin Semiconductor demonstrates our commitment to protecting natural resources by enhancing energy consumption practices.

The SAVES program is an educational initiative that helps employees understand and execute the strategies that support our energy management system.



SAVES

- S**et objectives, targets, and action plans
- A**chieve quantifiable results and meaningful communications
- V**alue energy efficiency
- E**ducate interested parties and ourselves on global best practices
- S**ustain our Energy Management System while seeking innovative methods and sources

Journey to zero



Journey to zero

The “Journey to Zero” initiative expresses our commitment to achieving zero safety incidents, zero environmental incidents, and zero waste. This vision encompasses our commitment to our employees, our customers, and to our communities. The Journey To Zero program has expanded and improved since its launch in 2019, thriving through the addition of various structural elements including leadership training, compliance software, indicating metrics, sequential safety meetings, and other resources. Turning our commitment into practice is at the heart of Journey to Zero and ensures EHS is treated as a value.

We acknowledge the journey, accept the challenge, and make no compromises in its execution.



Journey to Zero: Zero Harm Habits

As a guide to help us reach our Journey to Zero goal of achieving zero safety incidents, zero environmental impact, and zero waste, the EHS team rolled out the Zero Harm Habits (ZHH). These six habits instill a foundation of behaviors that encourage us to

recognize opportunities to make choices that are safer and that mitigate environmental risks. The EHS team hosted various “ZHH” events through-out the year to facilitate site-wide engagement in actively building these habits.



Level Up Training



Samsung Austin Semiconductor employees are the key drivers of our Journey to Zero, and we expect all individuals beyond the EHS team to act as safety leaders each and every day. We “level up” our commitment to safety by inspiring safety leadership through the Level Up Training program. This training program is design to help employees build their confidence as leaders, and apply safety management practices in their day-to-day activities. In 2023, we improved the Level Up training program to be more engaging, and encourage a broader level of participation. Employees enhance their skills and knowledge base by sharing lessons learned from personal safety experiences, and understand their unique leadership style through a series of collaborative activities and a reflective diagnostic.

In 2023, participation more than doubled from the previous year with 2,431 personnel attending 111 Journey to Zero Courses. In total, 444 hours of instructor-led training were completed. In the upcoming year, we aim to reach 100% participation on site in safety leadership training.



EHS-Based Training

Comprehensive training for each employee is the foundation of our safety culture at Samsung Austin Semiconductor. In 2023, a training coordination team dedicated exclusively to EHS-based training was established. Our EHS training programs have been improved through a blended-learning approach incorporating online training, instructor-led classroom training, and field-based training along with evidence-based learning practices and the development of a new train-the-trainer program.

EHS invested in new training technology in 2023 including e-learning authoring creation software, video screen-capture software, video animation software, and virtual reality (VR) training technology. This allowed us to design and deliver more engaging and interactive learning experiences that increased retention, and resulted in real behavior change in the field.

Additionally, we began profiling safety success stories from real employees in our training materials, providing recognition and positive reinforcement to employees who have performed noteworthy EHS-related activities and motivation to other employees to follow their examples.

In total, we offer more than 100 courses that are assigned to employees based on their individual responsibilities and requirements. By investing in employee development, Samsung Austin Semiconductor continually enhances our ability to prevent harm, protect the environment, and promote well-being.



Sequential Safety Meetings



The Sequential Safety Meetings act as the framework for planning, measuring, reviewing, and managing our Journey to Zero. Sequential Safety Meetings are conducted to:

- Ensure management of the Journey to Zero at all levels
- Achieve involvement and engagement of all personnel
- Provide a venue for two-way communication of issues and concerns
- Analyze process data and plan future prevention activities
- Increase safety awareness, hazard recognition, and acceptance of personal accountability

Sequential Safety Meetings are required monthly for each team. Discussions are focused on the recognition of employees for demonstrating safety behaviors and participating in safety projects or corrective actions, as well as the review of near misses and lessons learned. These discussions serve as an open forum for safety suggestions, questions, and concerns on which to continually improve.

Contractors and Vendors



The operations at Samsung Austin Semiconductor are supported by numerous contractors and vendors. Our partnerships with these companies are contingent on a thorough third-party review process which evaluates various risk factors. The criteria which we measure our contractors and vendors against include: safety performance; financial reliability; quality assurance; and sustainability.

By using a third party to assess those we choose to partner with, we can weigh a set of interdependent factors that will determine the ethical integrity of our products' manufacturing process.

Once selected, contractors and vendors attend mandatory weekly and monthly safety meetings where performance highlights from the previous month are discussed and attendees are able to promote their thoughts and ideas to improve safety.

Site Engagement



Leading Safety Metric

The Leading Safety Metric (LSM) program is a point-based system that was created to encourage employee engagement in the Samsung Austin Semiconductor safety program, therefore improving our safety culture and reducing risk. The LSM initiative is founded on the belief that employees who actively engage in safety are safer, and less likely to be involved in a safety incident. Employees are incentivized to take preventative actions towards risk reduction, and to take accountability for safety across departments. LSM is a leading metric, because it incentivizes success rather than punishing failure, focusing on proactive measures. Points are awarded for environmental, health, or safety related projects or actions completed by employees. Quarterly LSM awards are presented to the departments and individuals who were the highest point-earners. The top 10 LSM projects receive recognition from company leadership.

As our EHS culture continues to evolve over time, previously eligible actions and projects are filtered out of the LSM program and considered normal job expectations. The program continually expands to include newly developed EHS systems, and more aggressive point goals are established each year. In 2023, employees completed 7692 projects accounting for about 23% of all LSM points awarded. The remainder of LSM points were earned by completing eligible actions, attending safety meetings, participating in EHS training, or attending EHS educational events.



Q3 2023 Winner of the LSM Champions Belt

Contractor and Vendor Safety Award Winners

Every year, Samsung Austin Semiconductor recognizes contractors and vendors that exemplify our safety culture. Contractor and Vendor Safety Awards are given out quarterly and annually to those who exceed the Samsung Austin Semiconductor safety standards that define our excellence as a foundry.



Contractor and Vendor Quarterly Safety Award Winners

Contractors and vendors are evaluated for safety standards based on a series of safety engagement and incident prevention metrics.



Samsung Cultural Index

At Samsung Austin Semiconductor our people are our greatest asset, and their well-being is the key to our success. For this reason, maintaining a healthy organizational culture is essential. We believe that a healthy organizational culture is one that actively and systematically strives to improve performance, which is why we routinely assess and refine organizational elements using the Samsung Culture Index (SCI). This unique diagnostic tool was developed to assess the health of an organization's culture based on team collaboration, company pride, and work engagement.

Each department at Samsung Austin Semiconductor has its own SCI team whose purpose it is to identify areas for improvement. The EHS SCI team performs annual employee surveys as well as periodic small team activities to gauge levels of trust, efficiency, communication, growth, and organizational satisfaction. All employee feedback is kept anonymous. In 2023, EHS implemented a series of small

and large changes as a result of the department-wide SCI efforts, including improved guidance from leadership on employees' individual career development. By collecting actionable suggestions and feedback with measurable results and indicators, EHS leadership is able to make meaningful change within their team to positively affect employees' experience of culture.



Zero Harm Habits Events

The EHS team at Samsung Austin Semiconductor spearheaded the 'Zero Harm Habits' initiative by rolling out a series of site-wide events throughout the year to engage employees in actively building these foundational habits. The 'Zero Harm Habits' events encouraged employees across departments to actively participate with environmental, health and safety related practices, and initiated conversations about how we can change how we behave as a site to mitigate risk and improve culture. Each event held throughout the year focused on different habits, and was hosted by different teams within EHS to provide varied topics of expertise.



Driving Safely



Be Aware



Sort Waste



Plan for Emergencies



Practice Ergonomics



Safety at Home

Zero Harm Habits: Environmental



Safety at Home

The environmental team lead a variety of educational events focused mainly on sorting waste, and using safe practices at home. In the kick-off event, employees were tested on their knowledge of the six “Zero Harm Habits”, and were given the opportunity to have a conversation with members of the EHS team about how to

‘Take Safety Home’, and how to engage with their families at home in safety practices. Participants had the chance to win various prizes with which to apply their environmental, health, and safety practices at home including family friendly gardening kits.

Zero Harm Habits: Environmental



Sort Waste

Focusing on the Zero Harm Habit related to waste sorting, the environmental team hosted a seminar followed by an interactive game to teach employees how to properly sort their waste, and to test what they learned. More than 500 attendees were taught the rules of recycling and composting, and the importance of reducing the amount of waste that is sent to landfills.

Attendees also participated in a Q&A for clarity on items that are specific to site cafeterias, and that are commonly sorted incorrectly. By educating employees about our reduction goals, and providing them with the tools and strategies to successfully sort waste, we are able to reduce our sites landfill impact.

Zero Harm Habits: Environmental



Sort Waste

As part of a month-long celebration of World Environment Day in June, the environmental team hosted a series of trivia-based events structured around the three main waste streams generated by Samsung Austin Semiconductor: air, water, and waste. These series of events make up a comprehensive employee education program focused on global sustainability, and the environmental impact of site operations. The members of the environmental team that

specialize in the management of each of the three waste streams hosted an open dialogue with participants on strategies, reduction goals, personal impact, and about how the habit 'Sort Waste' goes beyond the cafeterias. Participants had the chance to win various environmentally conscious prizes designed to reduce personal impact such as reusable straws, cutlery, and water bottles.

Zero Harm Habits: Loss Prevention



Plan for Emergencies

The Loss Prevention Team held a series of events intended to educate employees on how to plan for emergencies at work and at home. Participants were quizzed on their knowledge of different types of fire extinguishers and how to use them, and learned about the fire alarm systems and gas monitoring systems on-site. Attendees also

learned about the importance of checking fire and gas safety systems at home. Loss Prevention team members engaged in discussion with employees to ensure they understand the steps that need to be taken if an emergency situation occurs, and where to find resources such as fire extinguishers and safety showers on-site.

Zero Harm Habits: Emergency Response Team



Be
Aware

The Emergency Response Team hosted a collection of on-site trainings, informational sessions, and response equipment demonstrations to encourage employees to 'Be Aware' and 'Plan for emergencies'. Training opportunities included First Aid, CPR, Automated External Defibrillator, and Evacuation procedure, and were completed by 116 Emergency Response Team members. Employees learned where to locate and how to use emergency resource on-site such as fire extinguishers, tornado shelters, First Aid equipment, and emergency shelters. The Emergency Response Team also partnered with the Austin Fire Department to perform various drill scenarios.



Zero Harm Habits: Safety Expo

Over the course of a week, EHS collaborated with various vendors to produce an interactive Safety Exposition made up of unique sessions demonstrating each of the six Zero Harm Habits. Each session featured a demonstration from a vendor alongside a subject expert from the EHS team. Demonstrations included:



Virtual reality experience to practice hazard identification



Distracted driving simulation



Sorting industrial waste



Emergency prevention with Austin Fire Department



Ergonomics & posture simulation



Natural gas safety with Texas Gas Service



Employee Health and Wellness



Ergonomics

Our commitment to promoting a safe and healthy workspace for all employees is based on proactive action. One of the key ways we prevent risk is through the application of ergonomics. We believe that ergonomic design and engineering is essential to reducing the risk of work related injuries and illnesses, and improving employee productivity and well-being. Our Ergonauts team, made up of EHS team members, provides ergonomic trainings, evaluations, and other resources to ensure employees can maximize the efficiency and safety of their work environment.

In 2023, the Ergonauts team revitalized the on-site mothers' rooms for enhanced utilization and comfort. The mothers' rooms are private rooms, accessible by special permission only, which may be used by employees to express breast milk during the work day in a clean and comfortable setting. New climate controlled blankets were added as well as UV sterilizers for new mothers returning to work. Along

with comfortable lounge chairs, ergonomic chairs were added which provide the option for employees to work while using the mothers' rooms.

Our ergonomics program has developed its own design standards based on site personnel anthropometrics to align with national agencies and compliance organizations. Furthermore, we conduct regular audits and reviews to ensure that our facilities and equipment meet these standards, and that our employees are protected from ergonomic hazards.



Health Clinic

We provide access for all of our employees, contractors, and vendors to on-site occupational health clinics which are staffed by licensed medical professionals. Clinic staff are experienced in treating work and non-work related injuries and illnesses, and they provide a range of medical services including injury care, preventative care, and health screenings. Additionally, our clinic administers work-related medical surveillance which is offered to employees in certain job functions to ensure exposure control and preventative strategies are effective. Our Health & Safety teams work closely with the medical professional staff to identify and mitigate potential workplace hazards, ensuring a safe and healthy work environment for all.

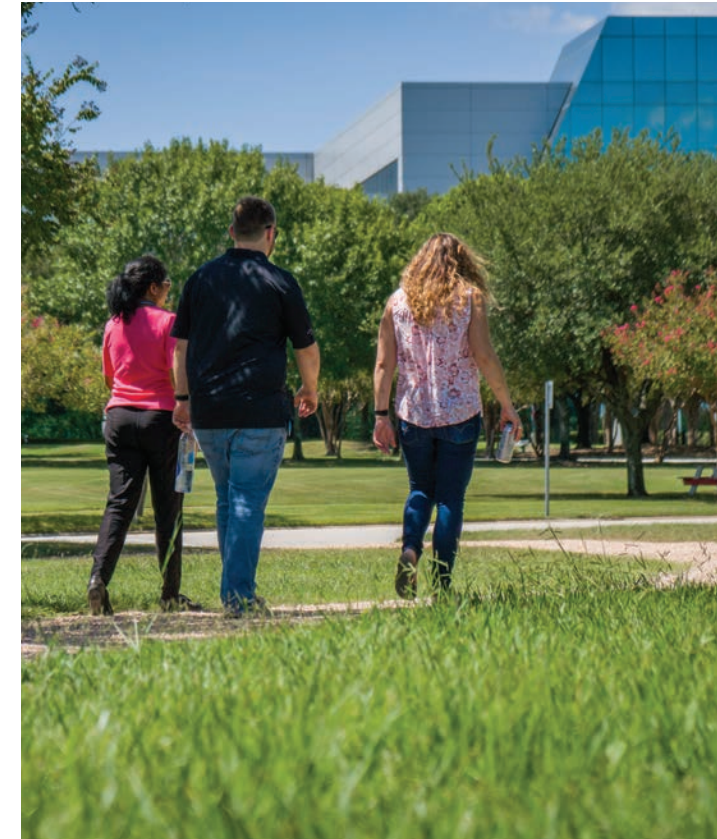
As part of our proactive and preventative health strategy, we provide easy and accessible vaccines on-site to those who request them. In 2023, Health Services administered 1,561 Flu, and 342 COVID vaccines. This type of preventative care is available to all personnel via walk-in visits and sign-up appointments.



1,561
FLU SHOTS
ADMINISTERED
IN 2023

342
COVID VACCINES
ADMINISTERED
IN 2023

Fitness Center



Wellness is an essential part of the culture at Samsung Austin Semiconductor. Employees have 24/7 access to two full on-site fitness centers with a diverse selection of cardio and weight training equipment. Our fitness centers are run by five health and fitness specialists who offer fitness consultations, personal training, and 40 group fitness classes per week including Yoga, Pilates, high intensity training, and Jiu-Jitsu. Employees also have access to one full-sized basketball court, one half-sized basketball court, a tennis court, pickle ball, an outdoor walking trail, and a disc golf course.

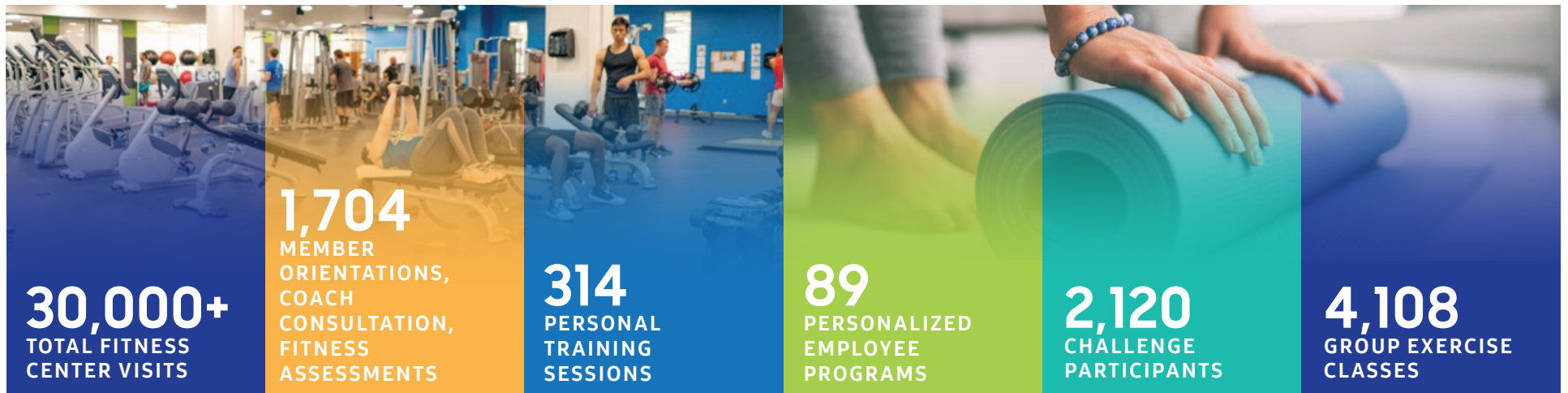


24/7
ACCESS TO TWO
FULL ON-SITE
FITNESS CENTERS

40
GROUP
FITNESS
CLASSES
PER WEEK

Fitness Center

The fitness center team at Samsung Austin Semiconductor prioritizes employees needs by continually improving in response to employee feedback. A fitness center satisfaction survey is sent out twice a year to address employees concerns and suggestions. With feedback from these surveys, the fitness center was able to add more than 20 pieces of equipment to the gyms, and additional Yoga and Pilates classes in 2023. The fitness team also collaborated with our benefits team to offer employees an incentive for completing coach consultations with a fitness specialist.



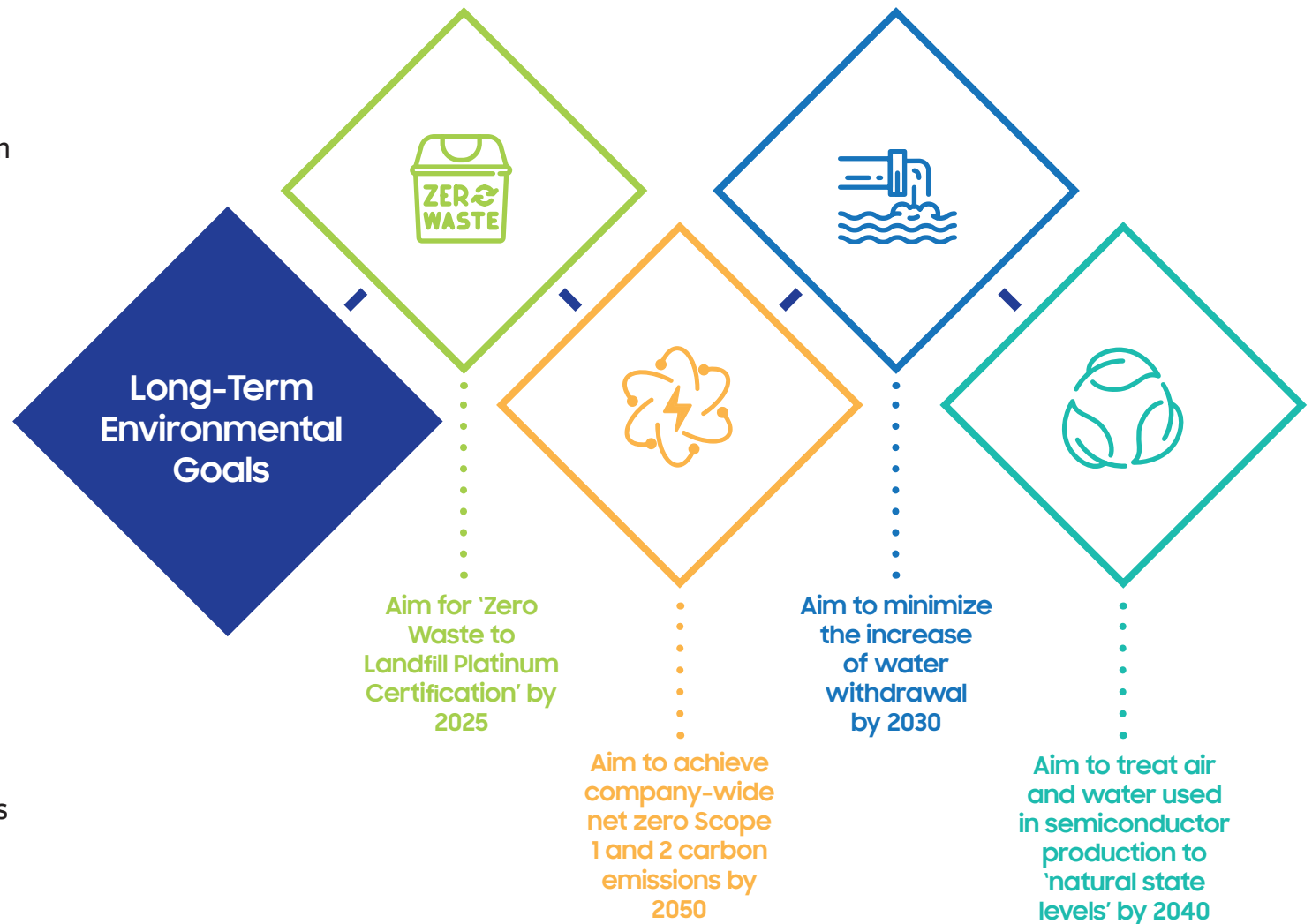


Environmental and Sustainability

Long-Term Environmental Goals

Samsung Austin Semiconductor is committed to making technology that makes technology sustainable. As a leader in technological innovation we have the opportunity to drive positive environmental impact, and a responsibility to the global community to invest in sustainable change and contribute to society in a meaningful way. Samsung Electronics has developed an environmental management strategy to minimize our impact throughout each stage of the process from responsible raw material selection, production development, and production disposal. This strategy is led by four ambitious goals.

In relentless pursuit of a sustainable future, we have committed to enhancing business operations by strategically investing in renewable energy, resource circularity, operational efficiency, and sustainable technology designed to reduce pollution.



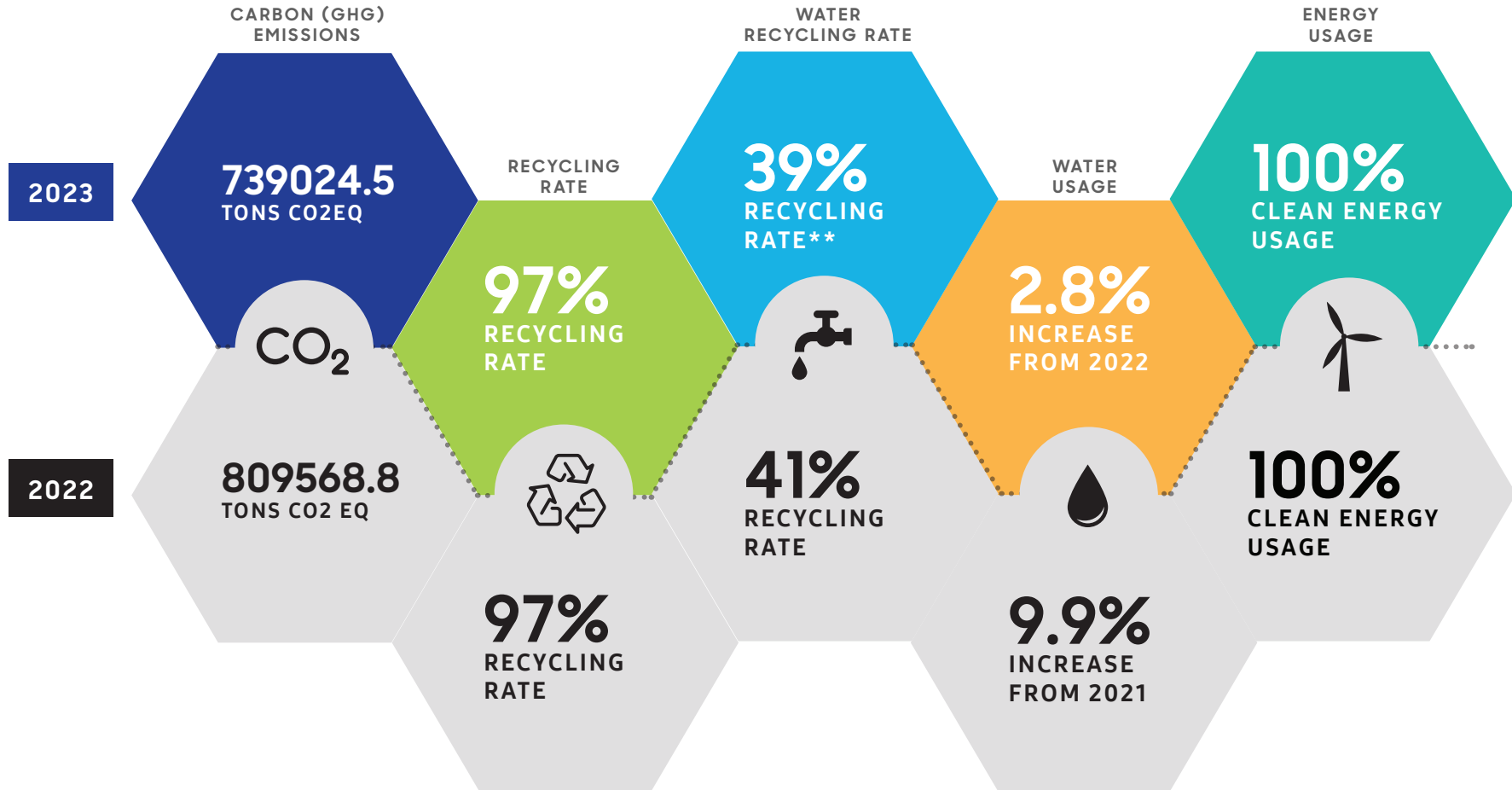
Sustainability Task Force Team

In 2023, the Samsung Austin Semiconductor Sustainability Task Force team was established. This team is comprised of at least one representative from each process team, and serves as a platform for cross-departmental collaboration on sustainability initiatives and projects. The task force team meets on a regular schedule to discuss the progress of new and on-going projects created to reach our reduction goals. This team has created a developing roadmap formulated to achieve our sustainability goals.

The Sustainability Task Force Team is guided by the following goals:

- Drive improvement and deliver Net Positive Impact to the Environment
- Achieve corporate sustainability goals
- Lead sustainable stewardship in each functional area of business
- Educate and empower team members
- Conserve resources throughout the facility
- Establish sustainability as a core value alongside safety and quality

Our Year in Review



*Emissions in this report are calculated based on EPA methodology.

**The change in recycling rate between 2022 and 2023 is a result of standard operational fluctuations.

Carbon Footprint

Samsung Austin Semiconductor conducts an annual Greenhouse Gas Emissions inventory guided by the Greenhouse Gas Protocol Corporate standard.

Scope 1 emissions are mainly related to process gas and liquid natural gas usage during semiconductor manufacturing. In 2023, the Sustainability Task Force Team began developing a long term roadmap to achieve our net zero carbon emissions commitment by 2050. The main focus of this roadmap is on implementing innovative technologies to enhance the efficiency of process gas treatment and to decrease natural gas consumption.

Scope 2 emissions are indirect greenhouse gas emissions associated with our sites energy usage such as the purchase of electricity, steam, heat, and cooling. Samsung purchases Renewable Energy Credits (RECs), and participates in Virtual Power Purchase Agreements (vPPA) alongside other large technology corporations to generate additional RECs in order for our business to be powered 100% by renewable energy. In addition to the purchase of RECs, our long term roadmap includes actions focused on energy efficiency improvements which will ultimately lead to a reduction in electricity, steam and heat consumption, as well as the implementation of on-site solar energy.

2023 Results



A graphic for Scope 1 emissions featuring a blue background with a grid of squares in shades of blue, purple, and green. The text is white and positioned on the left side of the graphic.

Scope 1
739024.5
TONS CO₂EQ



A graphic for Scope 2 emissions featuring a yellow background with a photograph of a power line tower in a field under a sunset sky. The text is white and positioned on the left side of the graphic.

Scope 2
0**
TONS CO₂EQ

**Samsung Austin Semiconductor purchased RECs in order for our business to be powered 100% by renewable energy. We are actively working to reduce our scope 2 emissions that are covered by REC's.

Water



Our Ultrapure Water (UPW) team is working to develop the third phase in the three phase water usage reduction project; Brine Recovery Reverse Osmosis (BRRO). This project reduces the demand to our overall UPW system by increasing the amount of water recovered and available for reuse. Phase I of the project resulted in 52.5 million gallons of water recovery and reuse. In 2022, BRRO Phase II was implemented and resulted in another 39.4 million gallons of water recovery and reuse to support facility operations. The UPW team has worked to develop the third and final phase, and projects another 39.4 million gallon reduction with it's implementation in 2025. Along with various other process water reuse projects that have been implemented, we recycled more than 961 million gallons of water in 2023. We recognize water availability as one of the most pressing global challenges, and we have focused our efforts on addressing our impact through a comprehensive long-term roadmap developed by the Sustainability Task Force Team. By working to reduce the amount of water consumed, and increase the amount of water recycled we are moving onward towards our goal of minimizing the increase of water withdrawals by 2030.



961+
MILLION
GALLONS
OF WATER
RECYCLED IN
2023

Landfill Diversion

The Underwriter’s Laboratories (UL) is a fully independent, not-for-profit, major testing organization in the United States that performs public safety testing with regards to waste management. They are involved in establishing national standards in cooperation with manufacturers that generate waste.

The UL 2799 Landfill Waste Diversion Claim Validation is a widely regarded standard established by Underwriter’s Laboratories that is focused on monitoring and measuring material flows. This validation recognizes companies that minimize environmental impact by managing waste in responsible and innovative ways. Samsung Austin Semiconductor has maintained Gold-level validation certified by a landfill diversion rate of more than 95% since 2020. By continually minimizing the amount of waste generated onsite, and working to improve waste management methods, we maintained a 97.4% recycling rate in 2023, meaning that only 2.6% of waste generated was sent to landfill.

Our goal is to reach Platinum-level certification by increasing our landfill diversion rate to 99.9% by 2025.



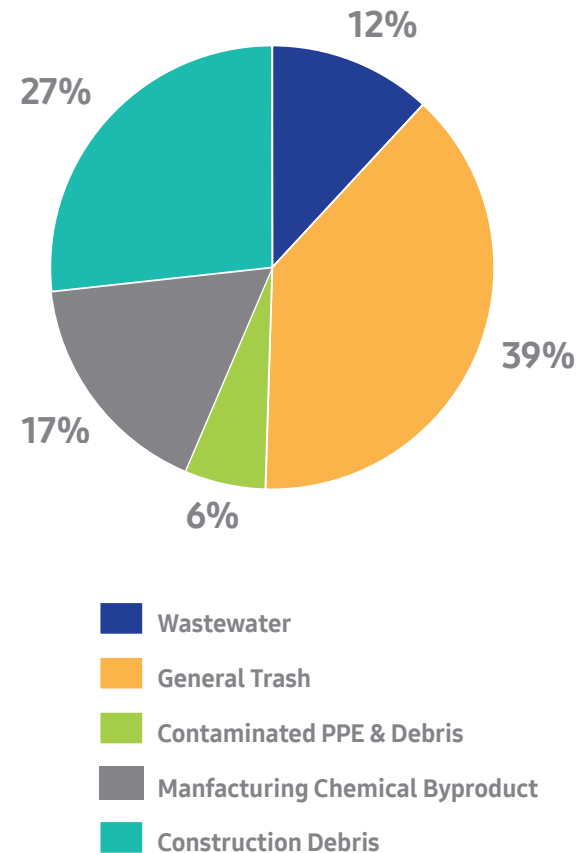
Landfill Diversion

In order to address the remaining 2.6% of waste that is sent to landfill, we are continuing to enhance waste sorting strategies, and develop alternative reuse methods for non-recyclable waste. A large portion of our non-recyclable waste is currently processed as waste-to-energy at a downstream facility that repurposes waste as a fuel-substitute.

In 2023, various waste management projects were created including the implementation of a scrap metal process which reduced landfill shipments, and the identification of an alternative outlet for reuse of our wastewater. We were also able to increase beneficial reuse shipments through strategic logistics improvements.

General trash accounts for the largest percentage of landfill waste at Samsung Austin Semiconductor. This waste stream is mostly sourced from cafes and office areas, and is often mixed with organics and recyclable wastes. In order to improve waste sorting, the EHS team has executed a series of trainings, coaching events, surveys, and other educational resources regarding proper waste sorting techniques. The EHS team is continuing to implement initiatives to instill sustainability as a cultural value, and therefore improve waste sorting habits.

LANDFILL WASTE BREAKDOWN



Energy



For the seventh year in a row, Samsung Austin Semiconductor has committed to the use of 100% Clean Energy through the purchase of Renewable Energy Credits (RECs) and participation in our Virtual Power Purchase Agreement (vPPA).

Our vPPA produced nearly 57.4 million kWh for our site in 2023. This energy is generated from windmill farms in Ozona, Texas, which is then transferred to Samsung Austin Semiconductor through the creation of RECs. The remaining electricity used by our site is made up by the purchase of RECs to help us reach 100% renewable energy usage. 100% of our RECs are Green-e certified, meaning that they have been registered and certified using independent industry standards.

Electric Transportation

Samsung Austin Semiconductor supports clean alternatives to transportation by providing on-site electric vehicle charging stations for employees who choose to reduce their personal carbon footprint by driving electric vehicles. The on-site stations feature six chargers with two ports each. Since the installation of the electric vehicle charging stations in 2016, 382 employees have connected to the chargers.

In 2023 alone, 144 new drivers registered as charging station users, with a total of 211,725 kWh used for electric-powered transport!



144 NEW DRIVERS
REGISTERED AS **CHARGING**
STATION USERS IN 2023

211,725 KWH USED
FOR ELECTRIC-POWERED
TRANSPORT IN 2023



Community Engagement and Awards



Legacy Garden

In observance of Earth Day on April 24, 2023, a group of Samsung Austin Semiconductor volunteers made use of on-site green space by planting a garden filled with Texas native wildflowers in order to promote local biodiversity and native ecological restoration. Various colors of lantanas, scarlet sage, Texas sage, and alba white flowers were planted. The environmental team along with members of the employee gardening club shared knowledge on sustainable gardening practices and discussed the site sustainability goals. By connecting with the local landscape, employees realize sustainability as a value engrained in Samsung Austin Semiconductor culture.

The garden has been named the Legacy Garden, because the intent is to develop another row of wildflower plots every Earth Day so employees can leave their legacy. The EHS team plans to cultivate 15 additional plots to continue the gardening tradition into the year 2038.



Volunteer Time Off

As part of the benefits package at Samsung Austin Semiconductor, employees are encouraged to use 16 hours per year to volunteer with the organization of their choice. In 2023, members of the EHS department organized volunteer events for employees to participate in as a collaborative effort. The EHS team volunteered their time with Tree Folks, a local non-profit organization focused on building stronger communities through planting and caring for trees. EHS volunteers contributed by planting trees, watering, mulching, planting seedlings, constructing a green house, and collecting native seeds. These efforts help Tree Folks donate trees in an effort to re-forest the community. Additionally, the EHS team chose to volunteer their time to Central Texas Food Bank, one of Samsung Austin Semiconductor's community partners. EHS Volunteers contributed by sorting, organizing, and packing donated food as well as assisting with facilities operation, helping the food bank to provide the community with immediate access to nutritious food and educational resources.



Keep Austin Beautiful

For the eighth year in a row, Samsung Austin Semiconductor employees volunteered their time with Keep Austin Beautiful, a local non-profit organization focused on keeping the streets of the local community clean. In 2023, Keep Austin Beautiful Day was held on-site and focused on cleaning up the community immediately surrounding Samsung Austin Semiconductor's property. Nearly 50 participants worked together to remove 1,618 tons of trash from local roadways. For more than a decade, Samsung Austin Semiconductor has been the presenting sponsor of Keep Austin Beautiful Day.



University of Texas: Sharing Employee Expertise

A member of the Industrial Hygiene team at Samsung Austin Semiconductor, Tara Baccus, had the opportunity to give a lecture on chemical hazards at the University of Texas in Austin. The lecture was attended by a group of engineering students that were enrolled in a class about semiconductor manufacturing. Students learned what chemicals are used in the semiconductor manufacturing process, and the hazards involved with using these types of chemicals. They also gained a better understanding, and a respect for the chemicals they are likely to come in contact with if they choose to pursue a career in the semiconductor industry.

Tara is a leading member of the Women in Technology at Samsung employee resource group.

“I met the professor of the class at a Global Semiconductor Alliance (GSA) Women In Leadership (WIL) event. It was a great experience. I would love to do it again!”

-Tara Baccus



Awards

In 2023, Samsung Austin Semiconductor received the 'Togethers Award' from our headquarters for the incident rate reduction on-site resulting from our continued Journey To Zero activities.

Samsung Austin Semiconductor was recognized by Samsung Global with the 'Vision Award' for the development of the Zero Harm Habits, low incident rate, safety culture evaluation result, and improved employee participation index in environmental safety activities.

According to annual Semiconductor Industry Association Benchmarking data, Samsung Austin Semiconductor was ranked the safest semiconductor fab in the U.S.



SAMSUNG
AUSTIN SEMICONDUCTOR



RANKED THE SAFEST
SEMICONDUCTOR FAB IN THE U.S.*

*According to a 2022 Semiconductor Industry Association benchmark study.

Awards

Austin Water's Excellence in Pretreatment Award honors distinguished Significant Industrial Users who demonstrate their commitment to environmental stewardship by managing wastewater discharge sustainably, and preventing pollution proactively. The City of Austin is subject to stringent water quality standards due to the designation of the section of the Colorado River that serves the city for its aquatic life, recreational usage, and public water supply. Samsung Austin Semiconductor plays an influential part in meeting these standards as a significant user of the local water source through our consumption and wastewater discharge.

Samsung Austin Semiconductor received Austin Water's Excellence in Pretreatment Award for the 11th year in a row in 2023 by exceeding effluent quality requirements, investing notable time and effort in monitoring and reporting requirements, and maintaining a robust pollution prevention strategy involving active participation throughout the organization.



Terms and Definitions

Automated External Defibrillator – A device that delivers electric shock in order to restore the hearts normal rhythm.

Beneficial Reuse – Using a material as a valuable commodity that would otherwise be classified as waste.

Carbon Footprint – Total GHG emissions caused directly and indirectly by an individual, organization, or product.

Contractors/Vendors – On-site indirect employees that are employed by a company that Samsung has hired to provide goods or services.

CPR – Cardiopulmonary resuscitation; a life-saving action completed by restoring someone’s heartbeat.

Culture – A communities shared values.

Electric Vehicle (EV) – A vehicle powered by electricity rather than diesel or gasoline.

Ergonomics – The study of people’s efficiency in their working environment.

Environmental Health & Safety (EHS) – Department at Samsung Austin Semiconductor responsible for protecting the health, safety, and environment of the employees and the surrounding community. The EHS department is made of individual teams including Environmental, Safety, Industrial Hygiene, and Loss Prevention.

Environmental Protection Agency (EPA) – United States governmental agency established to protect human health and the environment.

Green House Gas – Gases that trap heat in the atmosphere, most notably, carbon dioxide.

Greenhouse Gas Protocol – A standard for companies to measure and manage GHG emissions.

Intergovernmental Panel on Climate Change (IPCC) – Intergovernmental body of the United Nations focused on advancing scientific knowledge about climate change.

Journey to Zero – Initiative created by EHS to achieve zero safety incidents, zero environmental incidents, and zero waste.

Leading Safety Metric (LSM) – Point-based program created to encourage site-wide engagement in EHS initiatives.

Level-Up – Training program created by EHS to train all employees to be safety leaders

Occupational Health – The Physical, mental, and social well-being of workers.

Process Gas – Gasses used in the process of semiconductor manufacturing.

Renewable Energy – Energy derived from natural sources that are replenished at a higher rate than they are consumed.

Renewable Energy Credits (RECs) – When a renewable energy source generates electricity and delivers it to the grid.

Scope 1 – Greenhouse gas emissions generated directly from sources owned or operated by a company.

Scope 2 – Greenhouse gas emissions associated with the purchase of electricity or generation of steam, heat, or cooling.

Sequential Safety Meeting (SSM) – Mandatory meetings that take place once a month and are required for all employees on site.

Sustainability – The ability to support ecological, human, and economic health and vitality over time.

Virtual Power Purchase Agreement (vPPA) – A financial contract between a buyer and a renewable energy project.

Waste-to-Energy – the conversion of non-recyclable waste materials into usable heat, electricity, or fuel.

Zero Harm Habits – Set of six behaviors established to achieve the Journey to Zero including: Drive Safely, Be Aware, Plan for Emergencies, Sort Waste, Ergonomics, and Safety at Home.

Zero Waste to Landfill Certification – a widely regarded standard established by Underwriter’s Laboratories focused on monitoring and measuring material flows.

Prepared by

Makayla Minnes, Sustainability Professional
Design by AR Marketing

Contributions by:

David Ellingsworth, Senior Director of
Environmental, Health, Safety, & Sustainability

Health

Safety

Fitness Center

Environmental

Facilities, Operations, and Maintenance

Electrical

Industrial Waste Water

Ultrapure Water

Communications and Community Affairs

This report is intended to report data and highlight
achievements accomplished in the year 2023 at the
Samsung Austin Semiconductor site.

